

# Appendix B5

Northern Beaches Hospital Connectivity  
and Network Enhancement project  
Heritage Management Sub Plan

Roads and Maritime Services – September 2019



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# Contents

1	Introduction .....	5
1.1	Context.....	5
1.2	Background .....	5
1.3	Environmental management document system .....	6
2	Purpose and objectives .....	6
2.1	Purpose.....	6
2.2	Objectives.....	6
2.3	Targets .....	7
3	Environmental requirements.....	8
3.1	Relevant legislation and guidelines .....	8
3.2	Minister’s Conditions of Approval.....	9
3.3	Revised Safeguards and Management Measures .....	13
4	Consultation .....	16
4.1	Consultation during preparation of Concept Proposal and Stage 1 EIS .....	16
4.2	Consultation during preparation of Stage 2 EIS .....	16
4.3	Consultation for preparation of the CEMP.....	17
4.4	Ongoing Aboriginal Consultation during Construction .....	17
4.5	Ongoing Consultation in regards to Non-Aboriginal Heritage .....	17
5	Existing environment.....	18
5.1	Aboriginal cultural heritage .....	18
5.2	Non-Aboriginal heritage .....	18
6	Environmental aspects and impacts .....	22
6.1	Construction activities.....	22
6.2	Aboriginal cultural heritage impacts .....	22
6.3	Non-Aboriginal heritage impacts .....	22
7	Environmental management measures .....	23
7.1	Construction related measures .....	23
8	Compliance management .....	31
8.1	Roles and responsibilities .....	31
8.2	Training .....	31
8.3	Inspections and Monitoring .....	31
8.4	Auditing .....	31
8.5	Reporting.....	31
9	Review and improvement.....	32
9.1	Continuous improvement.....	32
9.2	HMP update and amendment.....	32

## **Appendix A** RMS Procedure – Standard Management Procedure: Unexpected Heritage Items

## Glossary / Abbreviations

AHIMS	Aboriginal Heritage Information Management System
CEMP	Construction Environmental Management Plan
CoA	Condition of Approval
Council	Warringah Council
DP&E	Department of Planning and Environment
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPBC Act	<i>Environmental Protection and Biodiversity Conservation Act 1999</i>
ER	Environmental Representative as appointed under Stage 1 CoA Schedule 3 C1 and Stage 2 CoA D1
EWMS	Environmental Work Method Statements
FYJV	Ferrovial York Joint Venture
HMP	Heritage Management Sub Plan
LEP	Local Environment Plan
MLALC	Metropolitan Local Aboriginal Land Council
NPW Act	<i>National Parks and Wildlife Act 1974</i>
OEH	Office of Environment and Heritage
PACHCI	RMS Procedure for Aboriginal Cultural Heritage Consultation and Investigation (Nov 2011)
PAD	Potential archaeological deposit
PASA	Potential archaeologically sensitive areas
Project, the	Northern Beaches Hospital – Connectivity and Network Enhancements: <ul style="list-style-type: none"> <li>• Stage 1 – Hospital Connectivity Enhancement Works; and</li> <li>• Stage 2 – Network Enhancement Works.</li> </ul>
RAPs	Registered Aboriginal parties
RMS	Roads and Maritime Services
RSMM	Revised Safeguards and Management Measures
Secretary	Secretary of the NSW Department of Planning and Environment (or delegate)
SPIR	Submissions and Preferred Infrastructure Report

# 1 Introduction

## 1.1 Context

This Heritage Management Sub Plan (HMP or Plan) forms part of the Construction Environmental Management Plan (CEMP) for the Northern Beaches Hospital – Connectivity and Network Enhancements Project (the Project). This HMP has been prepared to address the requirements of:

- the Concept Proposal Approval;
- Stage 1 Project Approval;
- the Stage 2 Project Approval;
- the environmental management measures listed in the Northern Beaches Hospital – Road Connectivity and Network Enhancements Stage 1 EIS (SMEC, 2014);
- the revised safeguards and management measures listed in the Northern Beaches Hospital – Connectivity and Network Enhancements Stage 1 Submissions Report/Preferred Project Report (SPIR) (SMEC, 2015);
- the environmental management measures listed in the Northern Beaches Hospital – Road Connectivity and Network Enhancements Stage 2 EIS (SMEC, 2015);
- the revised safeguards and management measures listed in the Northern Beaches Hospital – Road Connectivity and Network Enhancements Project Stage 2 Submissions Report (SMEC, 2015); and
- all applicable legislation.

## 1.2 Background

The Northern Beaches Hospital – Connectivity and Network Enhancements Stage 1 EIS assessed the impacts of construction of the Project on Aboriginal and non-Aboriginal heritage. As part of EIS development, Aboriginal and non-Aboriginal cultural heritage assessments were prepared to address the Director General's Requirements for Stage 1, and the Secretary's Requirements for Stage 2 of the Project issued by the Department of Planning and Environment.

The assessments were included in the Stage 1 EIS as:

- Section 12 and Appendix J (Volume 3): Aboriginal heritage; and
- Section 13 and Appendix K (Volume 3): Non-Aboriginal heritage.

The assessments were included in the Stage 2 EIS as:

- Section 12 and Appendix H (Volume 2): Aboriginal heritage; and
- Section 13 and Appendix I (Volume 2): Non-Aboriginal heritage.

### 1.2.1 Stage 1 Background

Construction of the Project was noted to be in proximity to a number of heritage items and originally anticipated to impact on the Former Methodist Church under the Stage 1 works. Following redesign, this item is no longer proposed to be impacted.

The EIS also identified the potential of indirect impacts from construction from the project, namely vibration. The level of impact and indicative management requirements for each of the non-Aboriginal heritage sites is detailed within this plan. Mitigation measures are detailed in Table 7-1.

Substantial completion of construction for Stage 1 was achieved on 30 October 2018, and the roads in Stage 1 are open to the public and effectively in operation.

There are some defect repair works and some outstanding incomplete works being undertaken, as well as maintenance activities ongoing in accordance with the contract requirements.

### **1.2.2 Stage 2 Background**

The Stage 2 EIS reported that no archaeological sites or areas of potential archaeological deposit exist within the Stage 2 Project area. An Aboriginal heritage assessment based on the findings of the Stage 1 and Concept Proposal EIS determined that no further Aboriginal heritage assessment of the Stage 2 Project was warranted.

The non-Aboriginal heritage assessment undertaken for the Stage 2 EIS found that the Former Holland's Orchard and Commemorative Grove adjacent to Warringah Road, within the Forest High School Grounds is the only listed heritage item within the Stage 2 Project area.

One remaining pear tree of the Former Holland's orchard exists immediately adjacent to Warringah Road within the construction footprint. Utilities installation along Warringah Road is identified as likely to have a direct physical impact on this surviving pear tree. Mitigation and management measures for this item are identified in Table 7-2 of this Plan.

## **1.3 Environmental management document system**

The Project Environmental Management System is described in Section 4.1 of the CEMP. This Plan is part of Ferrovial York Joint Venture's (FYJV) environmental management framework for the Project.

Management measures identified in this Plan will be incorporated into site or activity specific Environmental Work Method Statements (EWMS). EWMSs will be developed for high risk activities and signed off by FYJV environment and management representatives prior to the commencement of the associated works. Construction personnel will be required to undertake works in accordance with the mitigation and management measures identified in the EWMS.

The combination of the CEMP, sub-plans strategies, procedures and EWMS identify the required environmental management actions for implementation by FYJV's personnel and contractors.

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 by FYJV during construction of the Project.

### **2.2 Objectives**

The key objective of this Plan is to ensure that impacts to Aboriginal and non-Aboriginal heritage are minimised and within the scope permitted by the Project Conditions of Approval.

To achieve this objective, FYJV will undertake the following:

- 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 Project corridor. These heritage areas and sites include those that have been identified within the EIS or any unexpected heritage items that are discovered during construction;
- ensure appropriate measures are implemented to address the relevant Stage 1 and Stage 2 CoAs outlined in Table 3-1 and Table 3-2 respectively, and the management measures detailed in the Stage 1 EIS and SPIR, and the Stage 2 EIS and Submissions Report; and
- ensure appropriate measures are implemented to comply with all relevant legislation and other requirements as described in Chapter 3 of this Plan.

## **2.3 Targets**

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

- ensure compliance with relevant legislative requirements and Project Approvals;
- minimise or avoid impacts on known Aboriginal and non-Aboriginal heritage sites;
- follow the RMS Procedure - Standard Management Procedure: Unexpected Heritage Items (March 2015) provided in Appendix A, to ensure the correct procedure and notification requirements are followed if any unexpected heritage objects/places uncovered during construction; and
- ensure training is provided in the form of inductions and will include this Plan to relevant Project personnel on unexpected heritage items procedures before they begin work on site.

## **3 Environmental requirements**

### **3.1 Relevant legislation and guidelines**

#### **3.1.1 Legislation**

Legislation relevant to heritage management for this project includes:

- *Environmental Planning and Assessment Act 1979* (EP&A Act).
- *National Parks and Wildlife Act 1974* (NPW Act).
- *Heritage Act 1977* (Heritage Act).
- *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Commonwealth).
- *Warringah Local Environmental Plan 2011*

Relevant provisions of the above legislation are explained in the register of legal and other requirements included in Appendix A1 of the CEMP.

#### **3.1.2 Guidelines**

The main guidelines, specifications and policy documents relevant to this Plan include:

- *RMS Specification G36 – Environmental Protection (Management System)*;
- *RMS Procedure – Standard Management Procedure: Unexpected Heritage Items (March 2015)*;
- DEC Interim Community Consultation Requirements for Applicants (December 2004);
- *Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation* (DEC, July 2005);
- *RMS Procedure for Aboriginal Cultural Heritage Consultation and Investigation (2011)* (PACHCI)
- *Specification D&C G36 – Environmental Protection (Roads and Maritime, 2013)*.
- *Assessing Significance for Historical Archaeological Sites and Relics* (DP&E, 2009).
- *How to Prepare Archival Recording of Heritage Items* (NSW Heritage Office, 1998).
- *Photographic Recording of Heritage Items Using Film or Digital Capture* (DP&E, 2006).
- *Archaeological Assessments Guideline* (Heritage Council, 1996).

## 3.2 Minister's Conditions of Approval

### 3.2.1 Stage 1 Conditions of Approval

The Stage 1 CoA relevant to this Plan are listed in Table 3-1 below. A cross reference is also included to indicate where the condition is addressed in this Plan or other project / environmental management documents.

**Table 3-1: Stage 1 Conditions of Approval relevant to the HMP**

Stage 1 CoA No.	Stage 1 Condition Requirements	Document Reference
CoA B9	In undertaking the SSI, impacts to heritage within the SSI footprint, shall where feasible and reasonable, be avoided and minimised. Where impacts are unavoidable, works shall be undertaken in accordance with the strategy outlined in the Construction Heritage Management Plan required by condition C28 (e).	Chapter 6 Chapter 7 Table 7-1
CoA B10	The Proponent shall not destroy, modify or otherwise physically affect any heritage items outside the SSI footprint. This includes Aboriginal Heritage sites Trefoil Creek 1 and Trefoil Creek 2, unless otherwise agreed by the Secretary following consultation with the OEH.	Table 7-1, HMP11
CoA B11	Measures to protect heritage sites near or adjacent to the SSI during construction shall be detailed in the Construction Heritage Management Plan required under condition C28.	Table 7-1, HMP4, HMP5, HMP16
CoA C10	The SSI shall be constructed with the aim of achieving the following construction vibration goals: (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; (b) for damage to other buildings and/or structures, the vibration limits set out in the British Standard BS 7385-1:1990 Evaluation and measurement for vibration in buildings – Guide for measurement of vibration and evaluation of their effects on buildings (as referenced in Australian Standard AS 2187.2-2006 Explosives – Storage and use – Use of Explosives); and (c) For human exposure, the acceptable vibration values set out in the Assessing Vibration: A Technical Guideline (Department of Environment and Conservation, 2006).	Construction Noise and Vibration Management Plan – Appendix B3 (CEMP)
CoA C24(h)	Unless approved by the Secretary, the location of Ancillary Facilities, not identified in condition A2, shall comply with the following locational criteria: (h) not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the SSI	Construction Compound and Ancillary Facilities Management Plan – Appendix B8 (CEMP)
CoA C28(e)	A <b>Construction Heritage Management Plan</b> 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 NSW Heritage Council (for non-Aboriginal heritage) and Registered Parties (for Aboriginal heritage), and include, but not necessarily be limited to:	This Plan

Stage 1 CoA No.	Stage 1 Condition Requirements	Document Reference
	(i) in relation to Aboriginal Heritage:	Chapter 7, Table 7-1
	(A) details of further investigation and identification of Aboriginal cultural heritage sites within the SSI boundary;	HMP2
	(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;	HMP2, Appendix A
	(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 re-commence, by a suitably qualified and experienced archaeologist in consultation with Department of Planning and Environment, OEH and Registered Aboriginal Parties, and assessment of the consistency of any 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;	HMP13 Appendix A
	(D) procedures for dealing with human remains, including cessation of works in the vicinity, notification of Department of Planning and Environment, NSW Police Force, OEH and Registered Aboriginal parties and not recommencing any works in the area unless authorised by the OEH and/or the NSW Police Force.	HMP13 Appendix A
	(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	HMP1 Section 8.2
	(E) procedures for ongoing Aboriginal consultation and involvement for the duration of the SSI;	Section 4.4
	(ii) in relation to non-Aboriginal Heritage:	Chapter 5
	(A) identification of heritage Items directly and indirectly affected by the SSI;	Chapter 6
	(B) 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);	Chapter 7, Table 7-1
	(C) details of monitoring and reporting requirements for impacts on heritage items;	Section 8.3, 8.5
	(D) 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	Table 7-1 HMP15, HMP20
	(E) 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	Table 7-1 HMP17 Section 8.2 Training (induction)
	(iii) mechanisms for the monitoring, review and amendment of this plan.	Chapter 8, Chapter 9

### 3.2.2 Stage 2 Conditions of Approval

The Stage 2 CoA relevant to this Plan are listed in Table 3-2 below. A cross reference is also included to indicate where the condition is addressed in this Plan or other project / environmental management documents.

**Table 3-2: Stage 2 Conditions of Approval relevant to the HMP**

Stage 2 CoA No.	Stage 2 Condition Requirements	Document Reference
CoA B7	The Proponent must implement reasonable and feasible measures to avoid and/or minimise impacts to heritage items within the SSI footprint. Where impacts during construction of the SSI are unavoidable, works must be undertaken in accordance with the strategy outlined in the Construction Heritage Management Plan required by condition D28(e).	Chapter 6 Chapter 7 Table 7-2
CoA B8	The Proponent must not destroy, modify or otherwise physically affect any heritage items outside the SSI footprint, unless otherwise agreed by the Secretary following consultation with the OEH.	Table 7-2, HMP27
CoA B9	Measures to protect heritage sites near or adjacent to the SSI during construction must be detailed in the Construction Heritage Management Plan required under condition D28(e).	Table 7-2 HMP24, HMP25, HMP32
CoA D24(h)	Unless approved by the Secretary, the location of Ancillary Facilities, not identified in condition A2, shall comply with the following locational criteria: (h) not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the SSI;	Construction Compound and Ancillary Facilities Management Plan – Appendix B8 (CEMP)
CoA C28(e)	A <b>Construction Heritage Management Plan</b> to ensure construction impacts on Aboriginal and non-Aboriginal heritage will be appropriately avoided, minimised and managed. The Plan must be developed in consultation with the Council and Aboriginal stakeholders (for Aboriginal heritage), and include, but not necessarily be limited to:	This Plan
	(i) in relation to Aboriginal Heritage: (A) 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 re-commence, by a suitably qualified and experienced archaeologist in consultation with Department of Planning and Environment, OEH and Aboriginal stakeholders, and assessment of the consistency of any Aboriginal heritage impacts against the approved impacts of the SSI;	Chapter 7, Table 7-2 HMP29
	(B) procedures for dealing with human remains, including cessation of works in the vicinity, notification of Department of Planning and Environment, NSW Police Force, OEH and Aboriginal stakeholders, and commitment to cease recommencing any works in the area unless authorised by the OEH and/or the NSW Police Force;	Chapter 7, Table 7-2 HMP29
	(C) 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	Table 7-2 HMP21

Stage 2 CoA No.	Stage 2 Condition Requirements	Document Reference
	(D) procedures for ongoing Aboriginal consultation and involvement for the duration of the SSI, in the event that previously unidentified Aboriginal objects are discovered; and	Section 4.4
	(ii) in relation to non-Aboriginal Heritage: (A) listing of heritage Items directly and indirectly affected by the SSI;	Chapter 5 Chapter 6
	(B) details of management measures to be implemented to prevent and minimise impacts on heritage items (including the measures to protect unaffected sites from vibration and other impacts during construction works in the vicinity);	Construction Noise and Vibration Management Plan – Appendix B3 (CEMP)
	(C) details of monitoring and reporting requirements for impacts on heritage items;	Section 8.3, 8.5
	(D) 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 and the Department, and assessment of the consistency of any heritage impacts against the approved impacts of the SSI; and	Table 7-2 HMP36
	(E) 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	Table 7-2 HMP21, HMP31 Section 8.2 Training (induction)
	(iii) mechanisms for the monitoring, review and amendment of this plan.	Chapter 8, Chapter 9

### 3.3 Revised Safeguards and Management Measures

#### 3.3.1 Stage 1 RSMM

The revised safeguards and management measures (RSMM) from the Stage 1 SPIR relevant to this Plan are listed in Table 3-3 below. A cross reference is also included to indicate where the RSMM are addressed in this Plan. Where RSMMs are not specifically addressed in this Plan, justification is provided.

**Table 3-3 Stage 1 Revised Safeguards and Management Measures relevant to this HMP**

Stage 1 RSMM	Impact	Stage 1 Requirements	Document Reference
H1	Refinements to detailed design construction impact area	Prior to construction, a review of the detailed design would be undertaken against the construction impact area shown in Figure 13 Appendix J. If changes to the current construction impact area are considered to cause an impact to identified sites Trefoil Creek 1 and/or Trefoil Creek 2, an updated impact assessment would be undertaken and appropriate management and mitigation measures formulated.	Table 7.1, HMP8
H2	Newly recorded sites within the Stage 1 area: Trefoil Creek 1, Trefoil Creek 2.	Avoidance of impacts on these two sites would be a clear design objective for detailed design. Periodic reviews would be carried out during detailed design to monitor design development and ensure these sites are not impacted	Table 7.1, HMP10
H3		If buried Hawkesbury Sandstone platforms are uncovered during clearing and grubbing works, works would cease to allow for these platforms to be assessed for possible Aboriginal engravings or rock markings.	Table 7.1, HMP12
H4	Unexpected finds	Should any Aboriginal finds be uncovered during construction, their management should be in accordance with the RMS Procedure - Standard Management Procedure: Unexpected Heritage Items (March 2015). All staff should be made aware of their obligations under various Federal and State heritage legislation during their site induction and copies of this Protocol should be on site and available at all times to all staff.	Table 7.1, HMP13 Appendix A
H5	General non-Aboriginal impacts	A Construction Heritage Management Plan would be prepared for the Stage 1 Project. The plan would provide details of management measures and procedures to be undertaken during construction to minimise and manage impacts on non-Aboriginal heritage, including: <ul style="list-style-type: none"> <li>• Management measures to be implemented to prevent and minimise impacts on heritage items;</li> <li>• Procedures for dealing with previously unidentified heritage objects; and</li> <li>• Heritage training and induction processes.</li> </ul>	This Plan Table 7.1, HMP15

Stage 1 RSMM	Impact	Stage 1 Requirements	Document Reference
H6		A heritage induction is to be carried out in advance of the proposed works. All relevant staff, contractors and subcontractors should be made aware of their statutory obligations for heritage under the <i>Heritage Act 1977</i> and <i>National Parks and Wildlife Act 1974</i> .	Table 7.1, HMP17 Section 8.2 Training
H7	Unexpected finds	Should any non-Aboriginal finds be uncovered during construction, their management should be in accordance with the RMS Procedure - Standard Management Procedure: Unexpected Heritage Items (March 2015). All staff should be made aware of their obligations under various Federal and State heritage legislation during their site induction and copies of this Procedure should be on site and available at all times to all staff.	Appendix A Table 7.1, HMP20
H8	Awareness of Aboriginal heritage	Aboriginal cultural awareness training for all relevant staff and contractors would be undertaken prior to commencing work onsite.	Table 7.1, HMP14 Section 8.2 Training
H9	Pear tree, Former Holland's Orchard Trees	Excavations required in proximity to retained trees which may impact the critical root zone are to be undertaken in consultation with a suitably qualified and experienced arborist to ensure roots are not damaged in a way that could detrimentally affect tree health. Prior to works that will impact the pear tree a suitably qualified and experienced arborist would examine the tree to determine if relocation is a viable option. If relocation is not viable, propagation will be undertaken. Warringah Council and the Department of Education and Training will be consulted regarding a receiving site for the relocated or propagated tree. Archival recording of the pear tree will precede relocation or propagation.	Table 7.1, HMP9

### 3.3.2 Stage 2 RSMM

The revised safeguards and management measures (RSMM) from the Stage 2 Submissions Report relevant to this Plan are listed in Table 3-4 below. A cross reference is also included to indicate where the RSMM are addressed in this Plan. Where RSMMs are not specifically addressed in this Plan, justification is provided.

**Table 3-4 Stage 1 Revised Safeguards and Management Measures relevant to this HMP**

Stage 2 RSMM	Impact	Stage 2 Requirements	Document Reference
<b>Aboriginal heritage</b>			
H1	General Aboriginal impacts	A Construction Heritage Management Plan would be prepared for the Stage 2 Project. The plan would provide details of management measures and procedures to be carried out during construction to minimise and manage impacts on Aboriginal heritage.	This Plan Table 7.2, HMP28

Stage 2 RSMM	Impact	Stage 2 Requirements	Document Reference
H2	Unexpected heritage items	Should any Aboriginal finds be uncovered during construction, their management should be in accordance with the RMS Procedure - Standard Management Procedure: Unexpected Heritage Items (March 2015). All staff should be made aware of their obligations under various Federal and State heritage legislation during their site induction and copies of this Procedure should be on site and available at all times to all staff.	Appendix A Table 7.2, HMP29
H3	Awareness of Aboriginal heritage	Aboriginal cultural awareness training for all relevant staff and contractors would be carried out prior to commencing work onsite. All relevant staff, contractors and subcontractors will be made aware of their statutory obligations for heritage under the <i>National Parks and Wildlife Act 1974</i> .	Section 8.2 Training Table 7.2, HMP30
<b>Non-Aboriginal heritage</b>			
H4	General non-Aboriginal impacts	A Construction Heritage Management Plan would be prepared for the Stage 2 Project. The plan would provide details of management measures and procedures to be carried out during construction to minimise and manage impacts on non-Aboriginal heritage. <ul style="list-style-type: none"> <li>• Management measures to be implemented to prevent and minimise impacts on heritage items;</li> <li>• Procedures for dealing with previously unidentified heritage objects; and</li> <li>• Heritage training and induction processes to ensure all relevant staff, contractors and subcontractors will be made aware of their statutory obligations for heritage under the <i>Heritage Act 1977</i>.</li> </ul>	This Plan Table 7.2, HMP31
H5	Management of pear tree	If impacted by the Stage 2 Project, the pear tree would be propagated further and photographically recorded in advance of any construction activities that would impact the tree. Options for a commemorative garden/plantings would be further discussed with Council, Department of Education and Communities and Health Infrastructure during detailed design.	Table 7.2, HMP35
H6	Unexpected heritage items	Should any non-Aboriginal finds be uncovered during construction, their management should be in accordance with the RMS Procedure - Standard Management Procedure: Unexpected Heritage Items (March 2015). All staff should be made aware of their obligations under various Federal and State heritage legislation during their site induction and copies of this Procedure should be on site and available at all times to all staff.	Appendix A Table 7.2, HMP36

## **4 Consultation**

### **4.1 Consultation during preparation of Concept Proposal and Stage 1 EIS**

#### **4.1.1 Aboriginal consultation**

RMS has developed the Procedure for Aboriginal Cultural Heritage Consultation and Investigation (PACHCI) to provide a consistent means of effective consultation with Aboriginal communities regarding activities which may impact on Aboriginal cultural heritage and to provide a consistent assessment process for RMS activities across NSW. In accordance with the PACHCI, the early stages of RMS projects involve consultation with Local Aboriginal Land Councils and registered Native Title Claimants.

The Stage 1 Project and the Concept Proposal (including Stage 2) was conducted in consultation with the Metropolitan Local Aboriginal Land Council (MLALC). No Native Title Claimants are currently registered for the Stage 1 Project area. The MLALC was contacted at the commencement of the EIS process to discuss the proposed road upgrades and invited to participate in the archaeological survey of the Stage 1 Project area. Subsequent to the field survey, MLALC provided a survey and cultural assessment report for RMS in accordance with the PACHCI.

#### **4.1.2 Northern Beaches (Warringah) Council**

Consultation on the Stage 1 Project and the Concept Proposal (including Stage 2) was carried out with Council in July 2014 to discuss the approach to be taken to the management of potentially impacted non-Aboriginal heritage items within the Project area. Council's comment was requested on the impacts and mitigation measures proposed in the EIS. Council requested archaeological testing of the brick works site. The outcomes of this testing are provided in the Stage 2 EIS. The potential to relocate or take cuttings of the pear tree for propagation are also investigated as part of the Stage 2 EIS.

### **4.2 Consultation during preparation of Stage 2 EIS**

#### **4.2.1 Aboriginal consultation**

Aboriginal stakeholder consultation was carried out with the MLALC for the Stage 1 EIS which included the Stage 2 Project as part of the Concept Proposal. No Aboriginal archaeological or cultural sites or areas of potential archaeological deposit were identified by the MLALC within the Stage 2 Project area. It was also confirmed that no Native Title Claimants are currently registered for the Project area.

#### **4.2.2 Northern Beaches (Warringah) Council**

In accordance with agreed actions between RMS and Council during consultation undertaken during the Stage 1 EIS, further investigations were carried out in the Stage 2 EIS on the remaining pear tree (remnant of the Holland's Orchard) and the Hews Brick Pit.

Following further investigation undertaken on design requirements for Stage 2, it was found that the pear tree would be impacted as a result of the planned utility works during Stage 2. Options for a commemorative garden or planting would be further discussed with Council, Department of Education and Communities and Health Infrastructure during detailed design.

Investigation of the former Hews Brick Pit identified that the archaeological potential of the brick pit is considered to be nil to low. It was agreed between RMS and Council that archaeological testing would not be required during Stage 2.

### **4.3 Consultation for preparation of the CEMP**

In accordance with the requirements of Stage 1 CoA C28(e) and Stage 2 CoA D28(e), this Plan has been developed in consultation with Warringah Council and Metropolitan Aboriginal Land Council (MLALC). A copy of this Plan was provided for comment prior to submission to the Secretary for approval.

### **4.4 Ongoing Aboriginal Consultation during Construction**

As detailed in the Stage 1 and Stage 2 EISs, the Project has been designed to ensure that there are no direct impacts to known Aboriginal objects, places or cultural features. Management measures will be in place to ensure identified sites including the Trefoil Creek 1 and Trefoil Creek 2 which are located outside of the Project area, will not be impacted by construction.

In the event that an unexpected Aboriginal object is discovered within the construction footprint during Stage 1 and Stage 2 construction, further consultation with the Aboriginal Stakeholders, DP&E and in accordance with the RMS Procedure - Standard Management Procedure: Unexpected Heritage Items (provided in Appendix A) will be conducted.

During construction, if additional land outside the assessed construction footprint is required for the construction of the Project, an investigation will be carried out by the project archaeologist, in accordance with the PACHCI. This process will determine if further consultation and/or approval is required prior to works being conducted.

### **4.5 Ongoing Consultation in regards to Non-Aboriginal Heritage**

The management of impacts and potential impacts to non-Aboriginal heritage items will require further consultation with:

- Warringah Council in regards to:
  - replanting and propagation options for the remnant pear tree removal from its existing location; and
  - heritage listed items / conservation areas identified in the Local Environmental Plan in any event that they may be impacted.
- relevant land owners where direct or indirect impacts are anticipated; and
- OEH, NSW Heritage Council and DP&E in the event that previously unidentified heritage items are encountered.

## 5 Existing environment

The following sections summarise what is known about Aboriginal and non-Aboriginal heritage within and adjacent to the Project corridor based on information provided in the:

- Stage 1 EIS and SPIR;
- Stage 2 EIS and Submissions Report; and
- Investigations of the Stage 1 and Stage 2 Project areas subsequent to Project Approvals.

### 5.1 Aboriginal cultural heritage

#### 5.1.1 Aboriginal Heritage Sites Identified in the Stage 1 and Stage 2 EISs

As part of the Stage 1 EIS, a review of database searches and background information was conducted to characterise the Aboriginal heritage likely to occur within the project area and surrounds. This was followed by an archaeological field survey carried out in April 2014 and consultation as discussed in Section 4.1.

The underlying Hawkesbury sandstone geology of the area is conducive to the formation of rock shelters and this site type is well represented among previously recorded sites in the region. Shelters containing art, archaeological deposit or a mixture of both are numerous around the study area. Artefacts identified in archaeological deposits in the local area are predominantly quartz, presumably sourced locally from occurrences in the Hawkesbury sandstone.

Results of the Aboriginal Heritage Information Management System (AHIMS) register search carried out for the EIS identified only one site recorded within the vicinity of the project- Blue Stone Cave, a shelter with art. However the archaeological field survey did not locate this site at the registered coordinates. Background research and the field visit confirmed that the registered location of this site is incorrect. The Blue Stone Cave is not believed to be present within the project footprint.

Two previously unrecorded Aboriginal sites were identified during the field survey. Trefoil Creek 1 is a rock shelter with art located about 25 m east of the Wakehurst Parkway, north of Frenchs Forest Road, and Trefoil Creek 2 is a rock shelter with Potential Archaeological Deposit (PAD) located approximately 60 m south east of Trefoil Creek 1.

The Trefoil Creek 1 site was assessed as displaying high archaeological significance. The Trefoil Creek 2 site was assessed as displaying moderate potential. The sites are located on a slope above the Trefoil Creek gully, east of the Wakehurst Parkway, north of Frenchs Forest Road.

No other Aboriginal archaeological sites were identified in the vicinity of the Project.

### 5.2 Non-Aboriginal heritage

The assessment methodology adopted in the Stage 1 EIS to assess non-Aboriginal heritage comprised desktop searches, reviews of previous heritage assessments, review of Warringah Council's records and a site walkover in April 2014. A significance assessment was prepared for all heritage items in the vicinity of the Project.

Searches of the relevant heritage databases identified that, in the vicinity of the Project, there are:

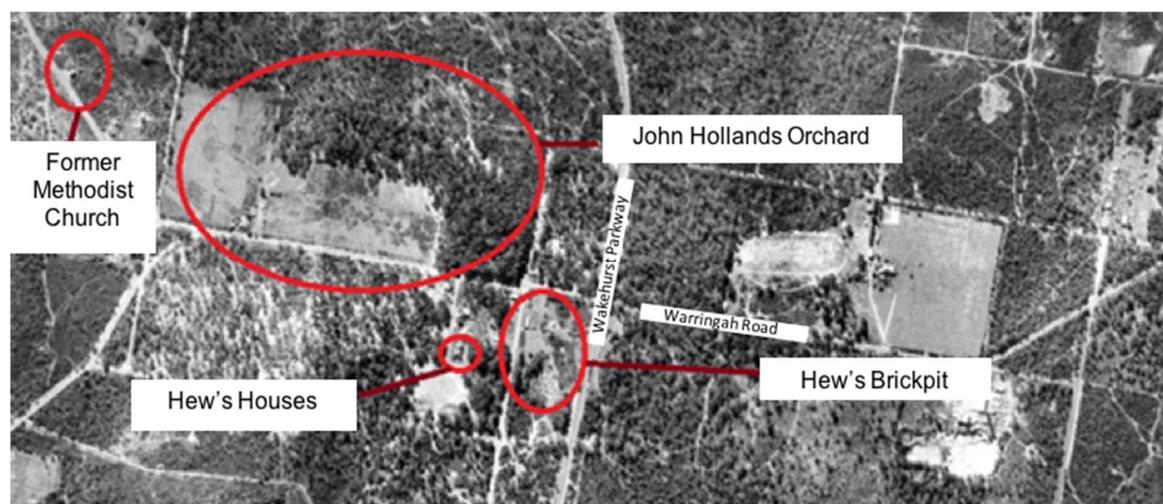
- no World Heritage Sites ('WHS');
- no items on the National Heritage List or Commonwealth Heritage List;

- no items/places included on the State Heritage Register and no items subject to an interim, or authorised interim heritage order;
- no items listed under s170 on the NSW Heritage Inventory;
- two local heritage items identified on the Warringah Local Environment Plan (LEP). Details of the Warringah LEP listings are provided in Table 5-1 and the location of the items shown in Figure 5.1.

Photos of the items are provided in Figure 5-2 and 5-3.

**Table 5-1: Items of heritage significance**

Item number	Item	Address	Significance
I58	Former Methodist Church	21A Forest Way (corner Naree Road) Frenchs Forest	Moderate Local
I62	Former Holland's Orchard Trees	(Adjacent) Warringah Road, Frenchs Forest	High Local



(Imagery courtesy of Land & Property Information)

**Figure 5-1: General location of non-Aboriginal heritage recordings**

The heritage significance of these items was assessed in the EIS based on the NSW state significance heritage criteria in 'Assessing Heritage Significance' (NSW Heritage Office 2001).

**Former Methodist Church**

The significance assessment of the Former Methodist Church building, located at 21A Forest Way, identified that it has heritage significance at a local level, mainly for historical reasons. In the 1950s the church building was altered to accommodate the widening of Forest Way and it is now smaller with a new brick façade (Figure 5-2).

A car park and new Church have been constructed in the vicinity of the old church. These alterations are considered to be moderate, however the fabric and form of the former Church remain largely intact. The item was therefore assessed as being of moderate local significance.



*(Courtesy Warringah Council).*

**Figure 5-2: Contemporary photograph of the Methodist Church (I58)**

### ***Former Holland's Orchard***

The remaining pear tree on Warringah Road and the propagated trees within the grounds of Forest High School are the last physical remains of Holland's large orchard that once occupied this area during the late nineteenth and early twentieth centuries. Agriculture, and particularly fruit-growing, was the impetus for settlement of the area and therefore an important part of the development of Frenchs Forest. Based on its historical significance and rarity, it is assessed in the Statement of Heritage Impacts as being of high local significance.

The Former Holland's Orchard and Commemorative Grove encompasses the single pear tree located on the road verge of Warringah Road (shown in Figure 5-3), and the pear trees located on the grounds of The Forest High School adjacent which were propagated from the remnant pear tree in 2005.

The trees within the Forest High School appear to have been subject to regular pruning. In contrast, the remnant tree appears to have suffered from neglect, has four main trunks, and is generally overcrowded.

An inspection of the remnant pear tree conducted by a qualified arborist was undertaken in March 2016 to determine the current condition of the tree and the possibility of relocation. Findings from the inspection reported that the tree has suffered from brown rot but it is of good health to allow for replacement cuttings to be taken for propagation. However, the tree's structural condition is poor where at some stage the main structural components (lower trunk and main branches) will eventually become more brittle and fail in the natural progression of aging, and not suitable for relocation.

Cuttings of the tree have been undertaken to commence propagation for replanting options.

An archival recording of the pear tree will be undertaken prior to its removal. Options for replanting of cuttings will be discussed with Council, Department of Education and Communities and Health Infrastructure.



**Figure 5-3: Holland’s orchard surviving pear tree and remains of dead pear tree (I62)**

### ***Former Hews’ Brick Pit***

The former Hews’ Brick Pit, located south west of the intersection of Warringah Road and Wakehurst Parkway, is located within the Brick Pit Reserve. This site is considered a potential heritage item, located within the Project area, with the potential to have local heritage significance. This site is not currently listed on a heritage register. The reserve has a playground and picnic tables set amongst mowed lawns, while the brick pit itself appears to comprise the large, deep pit in the bushland behind the playground.

Hews brick pit may have some potential to yield information that relates to the settlement of the area. The former Hew’s Brick Pit is considered to have local historical, associative and representative significance, and is strongly associated with the early development of industry, and by association, early residential development in Frenchs Forest.

Although the brick pit was identified during the visual inspection, no evidence of the infrastructure associated with the brick works or the timber workers housing was found. Descriptions of the works and housing describe timber slab structures, which are likely to have decayed over time. The potential for finding evidence associated with the former built structures of Hews operation is assessed as low. Archaeological evidence of the brick making operation is likely to be of local significance.

## **6 Environmental aspects and impacts**

### **6.1 Construction activities**

Construction activities in Stage 1 and Stage 2 that could result in adverse impacts to heritage items include:

- early works such as utility services relocations;
- initial clearing and/or grubbing of vegetation;
- initial removal of topsoil;
- construction of site compounds and spoil / mulch and / or equipment stockpile areas;
- earthworks during construction; and
- temporary access roads during construction.

### **6.2 Aboriginal cultural heritage impacts**

Based on the current Stage 1 and Stage 2 construction impact areas, no impacts to known Aboriginal heritage items are predicted and no further management measures are necessary for the Project.

Potential exists to uncover unexpected finds during Stage 1 and Stage 2 construction activities. In this event the processes detailed in the RMS Procedure - Standard Management Procedure: Unexpected Heritage Items (provided in Appendix A) will be implemented.

### **6.3 Non-Aboriginal heritage impacts**

#### ***Stage 2 Project area***

The former Holland's Orchard Pear Tree on Warringah Road will be directly impacted by utility relocations approved under the Stage 1 Project Approval. Cuttings of the tree have been undertaken to commence propagation for replanting options. An archival recording of the pear tree will be undertaken prior to its removal. Options for replanting of cuttings will be discussed with Council, Department of Education and Communities and Health Infrastructure.

The heritage assessment identified potential for archaeological areas relating to the Hews Brick Bit. Much of this area has already been substantially developed for residential purposes. The archaeological potential is considered to be low. No further investigations will be taken during Stage 2.

Should any non-Aboriginal finds be uncovered during Stage 2 construction, their management will be in accordance with the RMS Procedure - Standard Management Procedure: Unexpected Heritage Items (provided in Appendix A).

## **7 Environmental management measures**

### **7.1 Construction related measures**

A range of environmental requirements and management measures are identified in the Stage 1 EIS and SPIR and the Stage 2 EIS and Submissions Report, Stage 1 and Stage 2 Conditions of Approvals, RMS documents and from recent experience on similar road projects.

These requirements and environmental management measures that address potential impacts on heritage items during construction are provided in Table 7-1 for Stage 1, and Table 7-2 for Stage 2 respectively.

**Table 7-1: Stage 1 heritage safeguards and mitigation measures**

Stage 1 ID	Stage 1 Measure / Requirement	Reference	When to implement	Responsibility	Where Addressed/Further Detail
<b>GENERAL</b>					
HMP1	Training will be provided to relevant Project personnel, including relevant sub-contractors on the location of known Aboriginal and non-Aboriginal heritage items, areas of archaeological sensitivity and artefacts (including photographs where available) along with key requirements from this plan through the project induction. Toolboxes and targeted training would also be employed where appropriate, to sites where there is a high risk of direct impacts to heritage.	SPiR Good Practice	Pre-construction Construction	Environment Manager	<i>Section 8.2 Training (induction)</i>
HMP2	A suitably qualified and experienced heritage specialist would be engaged to provide guidance on the management of construction heritage impacts where required. Guidance would include compliance on CoA, RSMM and documents under A2 generally.	G36	Where required prior to, and during construction	Environment Manager	<i>Appendix A RMS Procedure – Standard Management Procedure: Unexpected Heritage Items</i>
HMP3	If additional land outside the assessed construction footprint is required for the construction of the Project, an investigation will be carried out by the project archaeologist, in accordance with the Procedure for Aboriginal Cultural Heritage Consultation and Investigation (Roads and Maritime, 2011) (PACHCI) for Aboriginal Heritage, and relevant guidelines for Non Aboriginal Heritage. This process will determine if further consultation and/or approval is required prior to works being conducted.	PACHCI EP&A Act 1979	Pre-construction Construction	Environment Manager	<i>Procedure for Aboriginal Cultural Heritage Consultation and Investigation (Roads and Maritime, 2011)</i>
HMP4	All known heritage items within immediate vicinity of the construction work zones will be identified on Sensitive Area Plans included in the CEMP.	G36	Pre-construction Construction	Environment Manager	<i>Appendix A7 (CEMP) Sensitive Area Plans</i>
HMP5	Exclusion fencing or No Go Zones will be established to protect heritage items within the immediate vicinity of the construction work zones as required, unless the site is required to be directly impacted as part of the approved construction works. Distances would consider safe work distances and likely indirect/direct impacts to the item.	Good Practice	Pre-construction Construction	Environment Officer / Foreman	<i>Appendix A7 (CEMP) Sensitive Area Plans</i>

Stage 1 ID	Stage 1 Measure / Requirement	Reference	When to implement	Responsibility	Where Addressed/Further Detail
HMP6	Vibration monitoring for heritage structures shall be consistent with the measures detailed in the CNVMP.		Construction	Environment Officer / Foremen	<i>NVMP (Appendix B3 CEMP) – Section 9.4.2 and Appendix C Noise and Vibration Monitoring Plan</i>
HMP7	Where vibration goals are likely to be exceeded, works shall be amended to assist in complying with the vibration goals. Such measures may include reducing plant size, changing operational settings (such as turning off the vibratory function of the machine), and using alternative plant, utilising alternate construction methodology and mitigation measures listed within the CNVMP or a combination of these.		Construction	Environment Officer / Foremen	<i>NVMP (Appendix B3 CEMP) - Section 9.4.2 Vibration Monitoring, and management measures NVMM23 to NVMM 26 in Table 8-2, and management measures NVMM 54 to NVMM 57 in Table 8-3 and of the NVMP</i>
<b>REFINEMENTS TO DETAILED DESIGN CONSTRUCTION IMPACT AREA</b>					
HMP8	Prior to construction, a review of the detailed design would be undertaken against the construction impact area shown in Figure 13 Appendix J of the EIS. If changes to the construction impact area are likely to cause an impact to identified sites Trefoil Creek 1 and/or Trefoil Creek 2, an updated impact assessment would be prepared and an approval sought in accordance with CoA B10.	Concept design safeguards and mitigation measures within SPIR CoA B10	Pre-construction	Design Manager	<i>Detailed Design Drawings</i>
<b>PEAR TREE, FORMER HOLLAND'S ORCHARD TREES</b>					
HMP9	Excavations required in proximity to retained trees which may impact the critical root zone are to be undertaken in consultation with a suitably qualified and experienced arborist to ensure roots are not damaged in a way that could detrimentally affect tree health. Prior to works that will impact the pear tree a suitably qualified and experienced arborist would examine the tree to determine if relocation is a viable option. If relocation is not viable, propagation will be undertaken. Warringah Council, the Department of Education and Training and NSW Health/Healthscope will be consulted regarding a receiving site for the relocated or propagated tree. Archival recording of the pear tree will precede relocation or propagation.	Concept design safeguards and mitigation measures within SPIR CoA B9	Construction	Environment Officer / Foremen	<i>Detailed Design Drawings Arborist Report</i>

Stage 1 ID	Stage 1 Measure / Requirement	Reference	When to implement	Responsibility	Where Addressed/Further Detail
<b>NEWLY RECORDED SITES WITHIN THE STAGE 1 AREA: TREFOIL CREEK 1, TREFOIL CREEK 2</b>					
HMP10	Avoidance of impacts on these sites would be a clear design objective for detailed design. Periodic reviews would be carried out during detailed design to monitor design development and ensure these sites are not impacted.	Concept design safeguards and mitigation measures within SPIR	Pre-construction	Design Manager	<i>Detailed Design Drawings</i>
HMP11	The Proponent shall not destroy, modify or otherwise physically affect any heritage items outside the SSI footprint. This includes Aboriginal Heritage Sites Trefoil Creek 1 and Trefoil Creek 2, unless agreed by the Secretary in consultation with OEH	CoA B10	Pre-construction Construction	Environmental Manager	<i>Sensitive Area Plans Appendix A7 (CEMP)</i>
<b>UNEXPECTED FINDS</b>					
HMP12	If buried Hawkesbury Sandstone platforms are uncovered during clearing and grubbing works, works would cease to allow for these platforms to be assessed for possible Aboriginal engravings or rock markings.	Concept design safeguards and mitigation measures within SPIR	Construction	Environmental Manager	<i>Appendix A RMS Procedure – Standard Management Procedure: Unexpected Heritage Items</i>
HMP13	Should any Aboriginal finds be uncovered during construction (including Human remains), their management should be in accordance with the RMS Procedure – Standard Management Procedure: Unexpected Heritage Items. All staff should be made aware of their obligations under various Federal and State heritage legislation during their site induction and copies of this Procedure should be on site and available at all times to all staff.	Concept design safeguards and mitigation measures within SPIR	Construction	All personnel	<i>Appendix A RMS Procedure – Standard Management Procedure: Unexpected Heritage Items</i>
<b>AWARENESS OF ABORIGINAL HERITAGE</b>					
HMP14	Aboriginal cultural awareness training for all relevant staff and contractors would be undertaken prior to commencing work onsite.	Concept design safeguards and mitigation measures within SPIR	Construction	Environmental Manager	<i>Section 8.2 Training Construction Environmental Management Plan Section 5.1 Environmental Induction Heritage training package</i>
<b>GENERAL NON-ABORIGINAL IMPACTS</b>					
HMP15	A Construction Heritage Management Plan would be prepared for the Stage 1 Project. The plan would provide details of management measures and procedures to be undertaken during construction to	Concept design safeguards and mitigation	Pre-construction	Environmental Manager	This Plan <i>Appendix A RMS Procedure – Standard Management</i>

Stage 1 ID	Stage 1 Measure / Requirement	Reference	When to implement	Responsibility	Where Addressed/Further Detail
	<p>minimise and manage impacts on non-Aboriginal heritage, including:</p> <ul style="list-style-type: none"> <li>– Management measures to be implemented to prevent and minimise impacts on heritage items</li> <li>– Procedures for dealing with previously unidentified heritage objects;</li> <li>– Heritage training and induction processes</li> </ul>	<p>measures within SPIR</p> <p>CoA C28(e)</p>			<i>Procedure: Unexpected Heritage Items</i>
HMP16	Measures to protect heritage sites near or adjacent to the SSI during construction shall be detailed in the Construction Heritage Management Plan	CoA B11	Construction	Foreman Environmental Manager	<i>This Plan</i>
HMP17	A heritage induction is to be carried out in advance of the proposed works. All relevant staff, contractors and subcontractors should be made aware of their statutory obligations for heritage under the Heritage Act 1977 and National Parks and Wildlife Act 1974.	Concept design safeguards and mitigation measures within SPIR	Pre-construction	Contractor	<i>Section 8.2 Training (induction) Heritage training package</i>
HMP18	Impacts to the curtilage of the former Methodist Church shall be minimised during construction. Reinstatement activities shall give consideration to the heritage values of the item.	CoA B30	Construction	Design Manager	<i>Urban Design and Landscape Plan</i>
HMP19	Where feasible and reasonable, the Project will be designed and constructed to avoid direct impacts to trees that are associated with the heritage significance of heritage items. Where impacts to the street trees cannot be avoided, further investigations will be conducted prior to the commencement of works impacting the relevant trees, in consultation with the relevant Council.	Good Practice	Construction	Construction Manager	<i>Detailed design drawings</i>
<b>UNEXPECTED FINDS</b>					
HMP20	Should any non-Aboriginal finds be uncovered during construction, their management should be in accordance with the RMS Procedure – Standard Management Procedure: Unexpected Heritage Items. All staff should be made aware of their obligations under various Federal and State heritage legislation during their site induction and copies of this Procedure should be on site and available at all times to all staff.	Concept design safeguards and mitigation measures within SPIR	Pre-construction Construction	Contractor	<i>Appendix A RMS Procedure – Standard Management Procedure: Unexpected Heritage Items</i>

**Table 7-2: Stage 2 heritage safeguards and mitigation measures**

Stage 2 ID	Stage 2 Measure / Requirement	Reference	When to implement	Responsibility	Where Addressed/Further Detail
<b>GENERAL</b>					
HMP21	Training will be provided to relevant Project personnel, including relevant sub-contractors on the location of known Aboriginal and non-Aboriginal heritage items, areas of archaeological sensitivity and artefacts (including photographs where available) along with key requirements from this plan through the project induction. Toolboxes and targeted training would also be employed where appropriate, to sites where there is a high risk of direct impacts to heritage.	Submissions Report Good Practice	Pre-construction Construction	Environment Manager	<i>Section 8.2 Training (induction)</i>
HMP22	A suitably qualified and experienced heritage specialist would be engaged to provide guidance on the management of construction heritage impacts where required. Guidance would include compliance on CoA, RSMM and documents under A1 generally.	G36	Where required prior to, and during construction	Environment Manager	<i>Appendix A RMS Procedure – Standard Management Procedure: Unexpected Heritage Items</i>
HMP23	If additional land outside the assessed construction footprint is required for the construction of the Project, an investigation will be carried out by the project archaeologist, in accordance with the Procedure for Aboriginal Cultural Heritage Consultation and Investigation (Roads and Maritime, 2011) (PACHCI) for Aboriginal Heritage, and relevant guidelines for Non Aboriginal Heritage. This process will determine if further consultation and/or approval is required prior to works being conducted.	PACHCI EP&A Act 1979	Pre-construction Construction	Environment Manager	<i>Procedure for Aboriginal Cultural Heritage Consultation and Investigation (Roads and Maritime, 2011)</i>
HMP24	All known heritage items within immediate vicinity of the construction work zones will be identified on Sensitive Area Plans included in the CEMP.	G36	Pre-construction Construction	Environment Manager	<i>Appendix A7 (CEMP) Sensitive Area Plans</i>
HMP25	Exclusion fencing or No Go Zones will be established to protect heritage items within the immediate vicinity of the construction work zones as required, unless the site is required to be directly impacted as part of the approved construction works. Distances would consider safe work distances and likely indirect/direct impacts to the item.	Good Practice	Pre-construction Construction	Environment Officer / Foremen	<i>Appendix A7 (CEMP) Sensitive Area Plans</i>
HMP26	Where feasible and reasonable, the Project will implement feasible and reasonable measures in design and construction to avoid	CoA B7	Pre-construction Construction	Construction Manager	<i>This Plan</i>

Stage 2 ID	Stage 2 Measure / Requirement	Reference	When to implement	Responsibility	Where Addressed/Further Detail
	and/or minimise impacts to heritage items within the SSI footprint. Where impacts during construction of the SSI are unavoidable, works will be undertaken in accordance with the strategy outlined in the Construction Heritage Management Plan.			Design Manager Environment Manager	<i>Detailed design drawings</i>
HMP27	The Proponent must not destroy, modify or otherwise physically affect any heritage items outside the SSI footprint unless agreed by the Secretary following consultation with the OEH.	CoA B8	Pre-construction Construction	Environment Manager	<i>Sensitive Area Plans Appendix A7 (CEMP)</i>
<b>GENERAL ABORIGINAL HERITAGE REQUIREMENTS</b>					
HMP28	A Construction Heritage Management Plan would be prepared for the Stage 2 Project. The plan would provide details of management measures and procedures to be carried out during construction to minimise and manage impacts on Aboriginal heritage.	CoA D28(e) Submissions Report	Pre-construction	Environment Manager	<i>This Plan</i>
<b>UNEXPECTED ABORIGINAL HERITAGE FINDS</b>					
HMP29	Should any Aboriginal finds be uncovered during construction (including Human remains), their management should be in accordance with the RMS Procedure – Standard Management Procedure: Unexpected Heritage Items. All staff should be made aware of their obligations under various Federal and State heritage legislation during their site induction and copies of this Procedure should be on site and available at all times to all staff.	Submissions Report	Construction	All personnel	<i>Appendix A RMS Procedure – Standard Management Procedure: Unexpected Heritage Items</i>
<b>AWARENESS OF ABORIGINAL HERITAGE</b>					
HMP30	Aboriginal cultural awareness training for all relevant staff and contractors would be undertaken prior to commencing work onsite.	Submissions Report	Construction	Environmental Manager	<i>Construction Environmental Management Plan Section 5.1 Environmental Induction Heritage training package</i>
<b>GENERAL NON-ABORIGINAL IMPACTS</b>					
HMP31	A Construction Heritage Management Plan would be prepared for the Stage 1 Project. The plan would provide details of management measures and procedures to be undertaken during construction to minimise and manage impacts on non-Aboriginal heritage, including:  – Management measures to be implemented to prevent and minimise impacts on heritage items	CoA D28(e) Submissions Report	Pre-construction	Environmental Manager	<i>This HMP</i>

Stage 2 ID	Stage 2 Measure / Requirement	Reference	When to implement	Responsibility	Where Addressed/Further Detail
	<ul style="list-style-type: none"> <li>– Procedures for dealing with previously unidentified heritage objects;</li> <li>– Heritage training and induction processes</li> </ul>				
HMP32	Measures to protect heritage sites near or adjacent to the SSI during construction shall be detailed in the Construction Heritage Management Plan	CoA B9	Construction	Foreman Environmental Manager	<i>This HMP Sensitive Area Plans Appendix A7 (CEMP)</i>
HMP33	A heritage induction is to be carried out in advance of the proposed works. All relevant staff, contractors and subcontractors should be made aware of their statutory obligations for heritage under the Heritage Act 1977 and National Parks and Wildlife Act 1974.	Submissions Report	Pre-construction	Contractor	<i>Section 8.2 – Training (induction) Construction Environmental Management Plan Section 5.1 Environmental Induction Heritage training package</i>
HMP34	Where feasible and reasonable, the Project will be designed and constructed to avoid direct impacts to trees that are associated with the heritage significance of heritage items. Where impacts to the street trees cannot be avoided, further investigations will be conducted prior to the commencement of works impacting the relevant trees, in consultation with the relevant Council.	Good Practice	Construction	Construction Manager	<i>Detailed design drawings</i>
<b>PEAR TREE, FORMER HOLLAND'S ORCHARD TREES</b>					
HMP35	If impacted by the Stage 2 Project, the pear tree would be propagated further and photographically recorded in advance of any construction activities that would impact the tree. Options for a commemorative garden/plantings would be further discussed with Council, Department of Education and Communities and Health Infrastructure during detailed design.	Submissions Report	Construction	Environment Officer / Foremen	<i>Detailed Design Drawings Arborist Report</i>
<b>UNEXPECTED NON-ABORIGINAL HERITAGE FINDS</b>					
HMP36	Should any non-Aboriginal finds be uncovered during construction, their management should be in accordance with the RMS Procedure – Standard Management Procedure: Unexpected Heritage Items. All staff should be made aware of their obligations under various Federal and State heritage legislation during their site induction and copies of this Procedure should be on site and available at all times to all staff.	Submissions Report	Pre-construction Construction	Contractor	<i>Appendix A RMS Procedure – Standard Management Procedure: Unexpected Heritage Items</i>

## **8 Compliance management**

### **8.1 Roles and responsibilities**

The FYJV's Project Team's organisational structure and overall roles and responsibilities are outlined in Section 4.2 of the CEMP. Specific responsibilities for the implementation of environmental controls are detailed in Chapter 7 of this Plan.

### **8.2 Training**

All employees, contractors and utility staff working on site will undergo site induction training relating to heritage management issues. Records of site inductions will be kept at the Project office. The induction training will address elements related to heritage management including:

- existence and requirements of this Plan;
- Heritage Training Package;
- relevant legislation;
- roles and responsibilities for heritage management;
- location of identified heritage sites;
- proposed heritage management and protection measures;
- procedure to follow in the event of an unexpected heritage item find during construction works (*RMS Procedure – Standard Management Procedure: Unexpected Heritage Items* provided in Appendix A); and
- procedure to follow in the event of discovery of human remains during construction works (*RMS Procedure – Standard Management Procedure: Unexpected Heritage Items* provided in Appendix A).

Further details regarding staff induction and training are outlined in Chapter 5 of the CEMP. On-site toolbox training would continue throughout the project where required, where there is a high risk of heritage impacts by the project.

### **8.3 Inspections and Monitoring**

Inspections of sensitive areas and activities with the potential to impact Aboriginal and non-Aboriginal heritage will occur for the duration of the Project. Inspections will be undertaken during weekly environmental officer inspections and may also be undertaken during formal RMS Environment Branch representative or ER inspections. Requirements and responsibilities in regards to inspections are documented in Section 8.1 and 8.2 of the CEMP.

### **8.4 Auditing**

Audits (both internal and external) will be undertaken to assess the effectiveness of environmental controls, compliance with this sub plan, CoA and other relevant approvals, licenses and guidelines. Audit requirements are detailed in Section 8.4 of the CEMP.

### **8.5 Reporting**

Reporting requirements and responsibilities are documented in Section 8.5 of the CEMP. However the specific reporting required by this Plan is:

- If an unexpected heritage item is discovered then reporting in accordance with the RMS Procedure – Standard Management Procedure: Unexpected Heritage Items provided in Appendix A, will be required.
- Reporting in accordance with Roads and Maritime's PACHCI, is required if land outside of the assessed construction footprint is to be utilised for the construction of the Project.

## **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 preventative actions;
- review management measures in the event of unexpected finds or additional management actions resulting from agreed outcomes in ongoing stakeholder consultation detailed in section 4.2.
- document any changes in procedures resulting from process improvement; and
- Make comparisons with objectives and targets.

Any changes required to the HMP resulting from the above continuous improvement process will be undertaken in accordance with the HMP update and amendment requirements in section 9.2.

### **9.2 HMP 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. This will occur as needed. Any revisions to this Plan will be in accordance with the process outlined in Section 1.6 of the CEMP and as required, be provided to relevant stakeholders for review and comment and forwarded to the Secretary of DP&E for approval.

A copy of the updated HMP 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**

## **RMS Procedure – Standard Management Procedure: Unexpected Heritage Items**

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[rms.nsw.gov.au/projects/sydney-north/northern-beaches-hospital/index.html](https://rms.nsw.gov.au/projects/sydney-north/northern-beaches-hospital/index.html)



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