

# Appendix B6

## Construction Cultural Heritage Management Sub-plan

M12 Motorway



April 2024

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## Document control

File Name	M12PPW-ADAP-ALL-EN-PLN-000039_N_S3
Title	M12 Motorway OCEMP Appendix B6 – Construction Cultural Heritage Management Sub-plan
Document Number	M12PPW-ADAP-ALL-EN-PLN-000007

## Approval and authorisation

Plan reviewed by:	Plan reviewed by:
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Date 28.06.2024	Date 28/6/2024
Signed 	Signed 

## Revision history

Revision	Date	Description
A	25/09/2020	First draft for TfNSW review
B	23/10/2020	Response to TfNSW comments
C	10/11/2020	Response to TfNSW comments
D	19/07/2021	Updated with Final State and Commonwealth CoAs
E	10/08/2021	Response to TfNSW and ER comments
F	02/09/2021	Response to TfNSW and ER comments
G	22/10/2021	Response to comments received during consultation
G.02	15/11/2021	Updated to address TfNSW comments
H	15/12/2022	Additional design change updates
I	13/02/2023	Response to TfNSW comments
J	21/03/2023	Response to ER comments

Revision	Date	Description
K	20/09/2023	Updated to address Devonshire Road CA, EDC CA and revised heritage impact boundaries
L	05/10/2023	Updated to address TfNSW comments
M	15/12/2023	Updated to address comments from TfNSW, ER and JHG
N	09/04/2024	Updated to address comments from TfNSW, ER and JHG



# Contents

<b>Glossary/ Abbreviations .....</b>	<b>vi</b>
<b>1 Introduction .....</b>	<b>1</b>
1.1 Context .....	1
1.2 Background .....	1
1.3 Scope of the Plan .....	4
1.4 Environmental Management System overview .....	4
1.4.1 CCHMP preparation, endorsement and approval .....	5
1.4.2 Interactions with other management plans .....	5
1.5 Consultation.....	5
1.5.1 Consultation for preparation of the CCHMP.....	5
1.5.2 Ongoing consultation during Construction .....	9
<b>2 Purpose and objectives .....</b>	<b>11</b>
2.1 Purpose .....	11
2.2 Objectives.....	11
2.3 Targets .....	11
<b>3 Environmental requirements.....</b>	<b>13</b>
3.1 Relevant legislation and guidelines .....	13
3.1.1 Legislation .....	13
3.1.2 Guidelines and standards .....	13
3.2 Ministers Conditions of Approval.....	15
3.3 Revised Environmental Management Measures .....	17
3.4 TfNSW Specifications .....	19
3.5 Key reference documents .....	19
3.5.1 Additional heritage assessments .....	19
<b>4 Existing Environment .....</b>	<b>24</b>
4.1 Aboriginal cultural heritage .....	24
4.1.1 Aboriginal cultural heritage sites .....	24
4.2 Non-Aboriginal cultural heritage .....	30
4.2.1 Non-Aboriginal heritage items .....	30
<b>5 Environmental aspects and impacts .....</b>	<b>39</b>
5.1 Construction activities .....	39
5.2 Aboriginal heritage impacts.....	39
5.3 Non-Aboriginal heritage impacts .....	44

5.4	Cumulative impacts .....	50
<b>6</b>	<b>Environmental mitigation and management measures .....</b>	<b>51</b>
6.1	Aboriginal heritage .....	51
6.1.1	Active avoidance .....	53
6.1.2	Passive avoidance.....	53
6.1.3	Active protection.....	53
6.1.4	Salvage collection.....	53
6.1.5	Salvage excavation .....	54
6.1.6	Aboriginal Heritage Interpretation Plan .....	54
6.2	Non-Aboriginal heritage .....	54
6.2.1	Archival photographic recording .....	54
6.2.2	Non-Aboriginal Heritage Interpretation Plan.....	55
6.2.3	Archaeological salvage excavations .....	56
6.3	Management Measures .....	56
6.4	Unexpected Heritage Finds and Human Remains Procedure .....	67
6.5	Exclusion zones.....	67
6.5.1	Safe working distances for Potential use zones .....	68
6.6	Heritage listed properties .....	72
<b>7</b>	<b>Compliance management.....</b>	<b>73</b>
7.1	Roles and responsibilities .....	73
7.2	Training .....	73
7.3	TfNSW Specification Hold Points.....	74
7.4	Inspections and monitoring .....	74
7.5	Auditing .....	74
7.6	Reporting and identified records .....	75
<b>8</b>	<b>Review and improvement .....</b>	<b>76</b>
8.1	Continuous improvement.....	76
8.2	CCHMP update and amendment .....	76
<b>Appendix A</b>	<b>Consultation Correspondence .....</b>	<b>78</b>
<b>Appendix B</b>	<b>Secondary CoA and REMMs.....</b>	<b>85</b>
<b>Appendix C</b>	<b>Unexpected Heritage Finds and Human Remains Procedure .....</b>	<b>107</b>

## Figures

Figure 4-1:	Location of Aboriginal heritage sites across the Project .....	29
Figure 4-2:	Location of Non-Aboriginal heritage sites and items.....	38
Figure 6-1:	Exclusion zones for the Project (including heritage) .....	71

Figure D-1: Overview of steps to be undertaken on the discovery of an unexpected heritage item.	113
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## Tables

Table 1-1: Log of engagement with government agencies and stakeholders	6
Table 3-1: Primary CoA	15
Table 3-2: Primary REMMs	17
Table 4-1: Aboriginal cultural heritage sites located in the construction footprint	24
Table 4-2: Aboriginal cultural heritage sites located outside of the construction footprint	26
Table 4-3: Description of heritage items of significance, within and immediately adjacent to the Project (EIS)	31
Table 5-1: Aboriginal heritage site impacts	40
Table 5-2: Summary of potential impacts on Non-Aboriginal heritage items	45
Table 6-1: Management strategies for Aboriginal heritage sites	51
Table 6-2: Management and mitigation measures of relevance to heritage	57
Table 7-1: Heritage TfNSW Hold Points	74
Table 7-2: Reporting requirements relevant to heritage management	75
Table 7-3: Identified Records	76

## Glossary/ Abbreviations

Abbreviations	Expanded text
ACHAR	Aboriginal Cultural Heritage Assessment Report
Aboriginal place	An Aboriginal Place is an area declared by the Minister administering the Act to be of special significance with respect to Aboriginal culture
Aboriginal objects	Aboriginal objects include any deposit, object or material evidence (not being a handicraft made for sale), including Aboriginal remains, relating to the Aboriginal habitation of NSW, before or concurrent with occupation by Non-Aboriginal people, as defined in Section 5 of the NPW Act
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
AR	Amendment Report
ARSR	Amendment Report to the Submissions Report
ASO	Aboriginal Site Officers
CA	Consistency Assessment
CCHMP	Construction Cultural Heritage Management Sub-plan
CEMP	Construction Environmental Management Plan
CFFMP	Construction Flora and Fauna Management Sub-plan
CNVMP	Construction Noise and Vibration Management Sub-plan
Commonwealth CoA	Federal Conditions of Approval under the EPBC Act
Construction	Includes all activities required to construct the CSSI as described in the documents listed in Condition A1, including commissioning trials of equipment and temporary use of any part of the CSSI, but excluding Low Impact Work which is carried out to complete prior to the approval of the CEMP, works approved under a Site Establishment Management Plan, approved under a Consistency Assessment, demolition of acquired residential houses, structures and sheds, and works specified in Appendix B and approved under an environmental management plan(s) in accordance with Condition A24.
CSSI	Critical State Significant Infrastructure
DAWE	Former Commonwealth Department of Agriculture, Water and the Environment
DCCEEW	Commonwealth Department of Climate Change, Energy, Environment and Water

Abbreviations	Expanded text
DEC	Former NSW Department of Environment and Conservation,
DECCW	Former NSW Department of Environment, Climate Change and Water
DITRDC	Commonwealth Department of Infrastructure, Transport, Regional Development and Communications
Division 5.2 Approval	Approval issued by the NSW Minister for Planning and Public Spaces for the M12 Motorway
DPC Heritage	Former NSW Heritage Department of Premier and Cabinet (Heritage),
DPE	Former NSW Department of Planning and Environment
DPHI	NSW Department of Planning, Housing and Infrastructure (formerly NSW DPE which has now been split into NSW DCCEEW and NSW DPHI, with all planning functions falling to DPHI)
DPI	Department of Primary Industries
DPIE	Former NSW Department of Planning, Industry and Environment
DUAP	Former Department of Urban Affairs and Planning,
EAD	Environmental Assessment Documentation
EDC	Elizabeth Drive Connections
EES	Former Environmental, Energy and Science Group (now EHG)
EHG	Environment and Heritage Group
EIS	Environmental Impact Statement
Environmental Assessment Documentation	<p>The set of documents that comprise the Division 5.2 Approval:</p> <ul style="list-style-type: none"> <li>• Roads and Maritime Services (October, 2019) M12 Motorway, Environmental Impact Statement (EIS)</li> <li>• Transport for NSW (October, 2020) M12 Motorway, Submissions Report (the Submissions Report)</li> <li>• Transport for NSW (October, 2020) M12 Motorway, Amendment Report (AR)</li> <li>• Transport for NSW (December, 2020) M12 Motorway, Amendment Report submissions report (ARSR)</li> <li>• Transport for NSW (March, 2021) The M12 Motorway Amendment Report Submissions Report – Amendment (ARSR amendment)</li> <li>• WSP (October, 2021) M12 Motorway – West Package Detailed Design Consistency Assessment</li> <li>• GHD (October, 2021) M12 Motorway – Central Package Detailed Design Consistency Assessment</li> </ul>

Abbreviations	Expanded text
	<ul style="list-style-type: none"> <li>• Arcadis (June, 2022) M12 Motorway – Sydney Water Crossings Consistency Assessment</li> <li>• Arcadis (July, 2022) M12 Motorway – Design Boundary Changes Consistency Assessment</li> <li>• Arcadis (August, 2022) M12 Motorway Minor Consistency Assessment for Proposed Change to the M12 Motorway Project (M12 Central)</li> <li>• Arcadis (September, 2023) M12 Motorway – Devonshire Road Temporary Roundabout Consistency Assessment</li> <li>• WSP (September, 2023) M12 Motorway – Elizabeth Drive Connections Consistency Assessment</li> <li>• TfNSW (September, 2023) M12 Motorway – Minor Consistency Assessment M12 West demolition of structures as 752 Luddenham Road</li> <li>• TfNSW (October, 2023) M12 Motorway – Minor Consistency Assessment M12 East AF9 Power Supply</li> <li>• TfNSW (October, 2023) M12 Motorway – Minor Consistency Assessment M12 East Cecil Road Laydown Area</li> <li>• TfNSW (October, 2023) M12 Motorway – Minor Consistency Assessment M12 East Temporary Construction Signage</li> <li>• Arcadis (December, 2023) M12 Motorway Project (M12 East) Sites 48, 50 and 51</li> <li>• Arcadis (January, 2024) M12 Motorway – Minor Consistency Assessment M12 Central Water Tower Access Road</li> </ul> <p>The documents that comprise the EPBC referral:</p> <ul style="list-style-type: none"> <li>• Submission #3486 – The M12 Motorway Project between the M7 Motorway, Cecil Hills and The Northern Road, Luddenham, NSW</li> <li>• Notification of referral decision and designated proponent - controlled action; date of decision 19 October 2018; ID: 2018-8286.</li> </ul>
Environmental Representative	A suitably qualified and experienced person independent of project design and construction personnel employed for the duration of construction. A key point of contact for the Planning Secretary in relation to environmental performance of the CSSI.
EP&A Act	<i>NSW Environmental Planning and Assessment Act 1979</i>
EPA	NSW Environment Protection Authority
EPBC Act	<i>Commonwealth Environmental Protection and Biodiversity Conservation Act 1999</i>
ER	Environmental Representative



Abbreviations	Expanded text
ESM	Transport for New South Wales Environment and Sustainability Manager
ESR	Construction Contractor Environmental Site Representative
EWMS	Environmental Work Method Statement
Federal Approval	Approval (EPBC 2018/8286) for carrying out the M12 Project under Part 8 of the <i>Environmental Protection and Biodiversity Conservation Act 1999</i> subject to specific CoA as detailed in Annexure A of the approval.
FST	Fleurs Synthesis Telescope
Heritage Act	NSW <i>Heritage Act 1997</i>
Heritage item	A place, building, work, relic, archaeological site, tree, movable object or precinct of heritage significance, that is listed or may be eligible to be listed under one or more of the following registers: the State Heritage Register under the <i>Heritage Act 1977</i> (NSW), a state agency heritage and conservation register under Section 170 of the <i>Heritage Act 1977</i> (NSW), a Local Environmental Plan under the EP&A Act, the World, National or Commonwealth Heritage lists under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth), and/ or an Aboriginal object or Aboriginal place as defined in section 5 of the <i>National Parks and Wildlife Act 1974</i> (NSW)
Heritage Council of Australia	Commonwealth Heritage Council
HIP	Heritage Interpretation Plan
Hold Point	A point beyond which a work process must not proceed without express written authorisation from Roads and Maritime
Infrastructure Approval	Approval (SSI 9364) for carrying out of the M12 Project under Section 5.19 of the Environmental Planning and Assessment Act 1979 subject to specific CoA as detailed in Schedule 2 of the approval.
JAJV	Jacobs Arcadis Joint Venture
ICOMOS	International Council on Monuments and Sites
KCE	Kemps Creek East
LALC	Local Aboriginal Land Council
LLEP	Liverpool Local Environmental Plan
LIWMS	Low Impact Work Method Statement
M7 Motorway (MOD 6 Widening)	Refers to the State Significant Infrastructure project (SSI-663-MOD 6) to construct and operate an additional lane in both directions within the existing median of the M7 Motorway, south of the Kurrajong Road overhead bridge at Prestons to the M7 Motorway bridge at Richmond. This project interacts with the M12 East stage at the M7 interchange.

Abbreviations	Expanded text
M7 Widening	Shorthand term for M7 Motorway (MOD 6 Widening)
M7-M12 Integration Project	<p>The M7-M12 Integration project incorporates the following:</p> <ul style="list-style-type: none"> <li>M7 Motorway (Mod 6 Widening) (SSI 663 Mod 6) – modification (mod) to the M7 Motorway approved on 17 February 2023 under Division 5.2 of the <i>Environmental Planning and Assessment Act 1979</i> (EP&amp;A Act)</li> <li>M12 Motorway (CSSI 9364) – approved on 23 April 2021 under Division 5.2 of the EP&amp;A Act and split into separate stages or packages of work (West, Central (main construction), Central (temporary roundabout) and East). The M12 Motorway is also subject to a federal approval under the <i>Environment Protection and Biodiversity Conversation Act 1999</i>. The M7-M12 Integration project incorporates the M12 East package only.</li> </ul>
MGA	Map Grid of Australia – MGA is a metric rectangular grid system (i.e. east and north)
NASF	National Airports Safeguarding Framework
Non-Aboriginal Work	A Non-Aboriginal building or standing structure. This may include tram tracks, kerbing, historic road pavement, fences, sheds or building foundations
NPW Act	<i>National Parks and Wildlife Act 1974</i>
NSW CoA	NSW Conditions of Approval
NSW DCCEEW	NSW Department of Climate Change, Energy, the Environment and Water (formerly NSW DPE which has now been split into NSW DCCEEW and NSW DPHI)
OCS	Overarching Communication Strategy
OCEMP	Overarching Construction Environmental Management Plan
OEH	NSW Office of Environment and Heritage, now Heritage NSW
PACHCI	Procedure for Aboriginal Cultural Heritage Consultation and Investigation (Roads and Maritime, 2011)
PAD	Potential Archaeological Deposit
PDLP	Place, Design and Landscape Plan
Planning Secretary	Secretary of the NSW Department of Infrastructure, Planning and Environment, or delegate
PLEP	Penrith Local Environmental Plan
POEO Act	<i>NSW Protection of the Environment Operations Act 1997</i>
Primary CoA/REMMs	CoA/REMMs that are specific to the development of this Plan



Abbreviations	Expanded text
RAP	Registered Aboriginal Parties
REMM	Revised Environmental Management Measures
Relic	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
RIAR Group	Regions, Industry, Agriculture and Resources Group (a part of DPE)
Roads and Maritime	Former NSW Roads and Maritime Services, Now Transport for NSW
RTA	Roads and Traffic Authority. Former NSW Roads and Maritime Services. Now Transport for NSW
SEARs	Secretary Environmental Assessment Requirements
Secondary CoA/REMMs	CoA/REMMs that are related to, but not specific to, the development of this Plan
SS	Sustainability Strategy
TfNSW	Transport for New South Wales
Unexpected heritage find	A potential heritage item or place discovered but not identified in the documents listed in the Environmental Assessment Documentation, where assessment is required to determine if the item has heritage significance, or is an Aboriginal object or human remains. Unexpected heritage finds does not include confirmed human remains
Work	Any physical work to build or facilitate the building of the CSSI, including low impact work, environmental management measures and utility works.  However, it does not include activities that inform or enable detailed design of the CSSI and generate noise that is no more than 5 dB(A) above the rating background level at any sensitive receiver.
WSIA	Western Sydney International Airport
WSP	Western Sydney Parklands

# 1 Introduction

## 1.1 Context

This Construction Cultural Heritage Management Sub-plan (CCHMP or Plan) forms part of the Overarching Construction Environmental Management Plan (OCEMP) for the M12 Motorway (the Project).

This CCHMP has been prepared to address the requirements of the Minister's Conditions of Approval (CoA), and the environmental management measures listed in the Project Environmental Assessment Documentation, all applicable legislation and Transport for New South Wales (TfNSW) specifications.

## 1.2 Background

TfNSW is planning to construct and operate the M12 Motorway (the Project) to provide direct access between the Western Sydney International Airport (WSIA) at Badgerys Creek and Sydney's motorway network. The M12 Motorway will run between the M7 Motorway at Cecil Hills and The Northern Road at Luddenham for about 16 kilometres and is expected to be opened to traffic prior to opening of the WSIA.

The Project will be constructed in separate stages under separate construction contracts:

- M12 West – between The Northern Road, Luddenham and about 250 metres east of Badgerys Creek
- M12 Central (main construction) – between about 250 metres east of Badgerys Creek and the Western Sydney Parklands at Duff Road, Cecil Park
- M12 Central – Devonshire Road (Temporary Roundabout) – temporary roundabout installation at Elizabeth Drive and Devonshire Road, Kemps Creek
- M12 East – (as part of the M7/M12 Integration Project)
  - Elizabeth Drive Connections (EDC) – a two-kilometre section from Duff Road to about 300 metres east of the M7 Motorway
  - M7/M12 Interchange – An interchange between the M12 Motorway and M7 Motorway and tie-in works for approximately four kilometres on the M7 Motorway

The Project is subject to an approval under Division 5.2 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) as Critical State Significant Infrastructure (CSSI). The Project is also a controlled action under Section 75 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), requiring a separate approval from the Australian Minister for the Environment.

An Environmental Impact Statement (EIS) was prepared to describe and assess the Project and recommend management measures to address impacts. The EIS was exhibited by the NSW Department of Planning, Industry and Environment (DPIE; now split into two departments, NSW Department of Planning, Housing and Infrastructure (DPHI) and NSW Department of Climate Change, Energy, the Environment and Water (NSW DCCEEW)) for 34 days from 16 October 2019 to 18 November 2019 to give the community and stakeholders the opportunity to provide comment.

In accordance with Section 5.17 of the EP&A Act, the Planning Secretary requested TfNSW to provide a response to submissions. These were addressed within the Submissions Report. Due to design developments since the exhibition of the EIS, an Amendment Report (AR) has been developed to assess the impacts of these amendments. The AR was exhibited by DPIE for 14 days from 21 October 2020 to 4 November 2020. Following exhibition of the AR, an Amendment Report to the Submissions Report (ARSR) was developed in December 2020 to address the identified issues, followed by the ARSR - Amendment in March 2021 which addressed biodiversity matters only.

The following additional assessments have since been undertaken:

- Two Consistency Assessments (CA) for M12 West and Central addressing detailed design changes for the Project construction boundary approved in October 2021
- Sydney Water Consistency Assessment related to construction boundary extensions associated with Sydney Water utility crossings; approved in June 2022
- Design Boundary Change Consistency Assessment related to design boundary changes within the M12 alignment. This required an extension of the construction footprint and operational footprint, property adjustments and the demolition of Building No.1 at McMasters Field Station; approved in July 2022. Threatened Species Surveys were also undertaken along the M12 alignment between September and December 2021 to satisfy the NSW Conditions of Approval (CoA) E4, E5 and E6; the outcomes of which captured within the Design CA.
- Minor Consistency Assessment (M12 Central) required amendments to the construction footprint as a result of utility adjustments and tie in works, property adjustments for flood alleviation and improvements to ancillary facility access due to safety concerns, temporary widening of Elizabeth Drive and signage installation; approved in August 2022.
- Devonshire Road Temporary Roundabout Consistency Assessment required to address the requirements of REMM TT10. This has resulted in an increase to the construction footprint at the Elizabeth Drive and Devonshire Road intersection to allow for the construction of a temporary roundabout; approved in September 2023.
- Elizabeth Drive Connections Consistency Assessment addressed detailed design changes for the Elizabeth Drive Connections. This involved minor construction and operation boundary adjustments, design changes, new sediment basin locations, utility works, property access changes and property adjustments; approved in September 2023.
- M12 West Minor Consistency Assessment for the demolition of structures at 752 Luddenham Road required to address the need for the demolition of structures within Ancillary Facility 11. Whilst this ancillary facility is already located within the construction footprint and was previously assessed in the M12 Motorway Amendment Report, the demolition and disposal of structures in this location required assessment; approved in September 2023.
- M12 East AF9 Power Supply Minor Consistency Assessment required to address a minor temporary amendment to the construction footprint in order to provide permanent site power to the construction ancillary facility 9 (AF9); approved in October 2023.
- M12 East Cecil Road Laydown Area Minor Consistency Assessment required to address temporary amendment to the construction boundary to facilitate the installation of a DN150 Steel Secondary Gas main within Cecil Road; approved in October 2023.

- M12 East Temporary Construction Signage Minor Consistency Assessment required to address temporary traffic signage installed prior to the start of temporary barriers on the M7 Motorway; approved in October 2023.
- M12 East Sites 48, 50 and 51 Boundary Changes Minor Consistency Assessment addressed the required amendments to the construction footprint in three locations as a result of temporary traffic control measures, pavement build up and resurfacing; approved in December 2023.
- M12 Central Water Tower Access Road Minor Consistency Assessment addressed changes to the construction boundary to facilitate the construction of concrete slabs over the Sydney Water main, the construction of a temporary access road to the existing water town and radar tower, and the subsequent reinstatement of this temporary access road to pre-construction conditions; approved in January 2024.

The Project must be carried out generally in accordance with the EIS, Submissions Report, AR, ARSR and the ARSR - Amendment, M12 West and Central CA, Sydney Water CA, Design Boundary Change CA, Minor CA, Devonshire Road Temporary Roundabout CA, Elizabeth Drive Connections CA, M12 West Demolition of Structures as 752 Luddenham Road CA, M12 East AF9 Power Supply CA, M12 East Cecil Road Laydown Area CA, M12 East Temporary Construction Signage CA, M12 East Sites 48, 50 and 51 CA and M12 Central Water Tower Access Road CA in accordance with NSW CoA A1. These documents are collectively referred to as the Environmental Assessment Documentation (EAD). The CSSI must also be carried out in accordance with all procedures, commitments, preventative actions, performance outcomes and mitigation measures set out in the EAD as required by NSW CoA A2.

Approval for the Project under the EP&A Act was granted by the Minister for Planning on 23 April 2021 (SSI 9364). Approval for the Project under the EPBC Act was granted by the Federal Minister for the Environment on 3 June 2021 (EPBC 2018/8286). The Project must be carried out in accordance with the terms of the NSW and Federal Approvals.

As part of EIS development, detailed Aboriginal and Non-Aboriginal heritage cultural heritage assessments were prepared to address the Secretary's Environmental Assessment Requirements (SEARs) issued by NSW DPIE. The Aboriginal cultural heritage assessment was included in the EIS as Appendix I. The Non-Aboriginal heritage assessment was included in the EIS as Appendix J.

Further heritage assessment was undertaken subsequent to exhibition of the EIS as a part of the AR. Appendix E and Appendix F of the AR addressed Aboriginal heritage and Non-Aboriginal heritage respectively. Revised Environmental Management Measures (REMMs) and research and excavation methodologies were provided within the AR and ARSR. Where applicable, the REMMs from the Amendment Report and ARSR have been included in this CCHMP.

Additional heritage assessments were also undertaken as part of the CA documentation listed above. Where, applicable, revised management measures have been incorporated into this CCHMP.

Additionally, the M12 East Stage is being delivered as part of the M7-M12 Integration Project which includes the M7 Motorway Widening Project (MOD 6 Widening (SSI-663-MOD 6)) (referred to herein as M7 Widening) delivered by Western Sydney Orbital Company (WSO Co). Additional assessments were undertaken as a part of the EAD for this project.

Section 2 of the Overarching Construction Environmental Management Plan (OCEMP) provides a detailed Project description.

### 1.3 Scope of the Plan

The OCEMP and Sub-plans are related to the construction phase only. Archaeological and cultural salvage and/or testing will be undertaken in areas identified of heritage value prior to impact of those heritage values. These will be undertaken as low impact work as identified in Section 2.4 of the OCEMP in accordance with the Archaeological Salvage Strategy or Low Impact Work Method Statement (LIWMS). Notwithstanding, where low impact works are undertaken prior to the Construction Contractors CEMP approval they will be governed by the LIWMS outlined in Section 2.4 of the OCEMP. Where low impact work is undertaken during the construction phase following approval of the Construction Contractors CEMP and Sub-plans, they will be governed by the Construction Contractors CEMP and Sub-plans.

The scope of this CCHMP is to describe how the Construction Contractors propose to manage potential Aboriginal and Non-Aboriginal heritage impacts during construction of the Project. The Construction Contractor responsible for each stage of the Project; M12 West, M12 Central (main construction), M12 Central (temporary roundabout), M12 East (Elizabeth Drive connections) and M12 East (M7/M12 interchange) must use this CCHMP as the basis for their stage specific CCHMP.

Early Works, as defined in the EIS Section 5.24.4 and OCEMP Section 2.4 do not fall within the scope of the OCEMP and Sub-plans. Furthermore, operational Aboriginal and Non-Aboriginal heritage impacts and operation measures do not fall within the scope of this CCHMP and therefore are not included within the processes contained within the CCHMP.

### 1.4 Environmental Management System overview

The overarching Environmental Management System (EMS) for the Project is described in Section 3 of the OCEMP. The Construction Contractor delivering the Project will have an EMS consistent with the overarching EMS described in the OCEMP and will develop stage-specific CCHMPs in accordance with the OCEMP, the Environmental Protection Licence (EPL) and their EMS. This overarching CCHMP forms part of the environmental management framework for the Project, as described in Section 3 of the OCEMP.

The Construction Contractor will be required to develop, as part of their stage-specific CCHMPs, detailed procedures and plans to address specific requirements of the CoA and REMMs identified in this overarching CCHMP.

In the preparation of this documentation, the Construction Contractor may reference or be informed by existing documents and strategies that describe Aboriginal heritage salvage methodology, including *Aboriginal Cultural Heritage Assessment Report (ACHAR)* (JAJV, 2019). Where appropriate, the Construction Contractor may provide TfNSW with an alternative equivalent procedure or plan that meets the requirements identified in this CCHMP and the relevant TfNSW specifications.

EWMS will be prepared by the Construction Contractor's Environmental Site Representative (ESR) and reviewed by the TfNSW Environment and Sustainability Manager (ESM) (or delegate) and independent Environmental Representative (ER) prior to the commencement of the construction activities to which they apply. Construction personnel undertaking a task governed by an EWMS will undertake the activity in accordance with the mitigation and management measures identified in the EWMS.



Used together, the OCEMP, strategies, procedures and EWMS form management guides that clearly identify required environmental management actions for reference by TfNSW and its Construction Contractor.

The review and document control processes for this CCHMP are described in Section 1.12.1 and Section 7.6.2 of the OCEMP. TfNSW will review the Construction Contractors documentation to confirm consistency with the requirements of this CCHMP and specifications.

#### **1.4.1 CCHMP preparation, endorsement and approval**

This overarching CCHMP has been prepared to satisfy the NSW CoAs in relation to the management of heritage values during construction of the Project.

The CCHMP was reviewed by the TfNSW Project Director and the TfNSW ESM and endorsed by the ER prior to submission to the Planning Secretary of DPE for approval, which was received on 21<sup>st</sup> December 2021. In accordance with NSW CoA C10, construction of the Project did not commence before approval of the OCEMP, including this CCHMP, by the Planning Secretary.

Refer to Section 1.12 of the OCEMP that details the overall revision process of OCEMP and Sub-plans.

#### **1.4.2 Interactions with other management plans**

This Plan has the following interrelationships with other management plans and documents:

- The Construction Flora and Fauna Management Plan detailing exclusions zone establishment and clearing and flagging protocols
- Heritage sites to be retained within construction worksites will be detailed on the Construction Contractors Sensitive Area Plans as detailed in Appendix A6 of the OCEMP
- The Sustainability Management Framework addresses the requirement to manage heritage items where reasonable and feasible
- Consultation between TfNSW and its Construction Contractor, stakeholders, the community and relevant agencies will be undertaken in accordance with the Overarching Communication Strategy (OCS) prepared by TfNSW to address the requirements of NSW CoA B1 and B2
- Unexpected Heritage Finds and Human Remains Procedure
- Results of non-Aboriginal heritage investigations and archival recordings will be included in the Archival Recording Heritage Report
- Results of the Aboriginal heritage detailed salvage program will be included in the Aboriginal Cultural Heritage Report.

### **1.5 Consultation**

#### **1.5.1 Consultation for preparation of the CCHMP**

The following government agencies and stakeholders have been consulted through development of this CCHMP in accordance with NSW CoA C5(f):

- Heritage Council of NSW
- Heritage NSW

- WaterNSW
- Fairfield City Council (FCC)
- Penrith City Council (PCC)
- Liverpool City Council (LCC)
- Registered Aboriginal Parties (RAPs).

Additionally, the Unexpected Heritage Finds and Human Remains Procedure was provided to Registered Aboriginal Parties (RAPs) for review and comment. It is also noted that although REMM AH01 requires consultation with the Environment and Heritage Group (EHG) Group, consultation is considered to have been completed through Heritage NSW. This is deemed appropriate, as at the time of EIS preparation the Aboriginal Cultural heritage regulator (Office of Environment and Heritage) was located within EHG and the non-Aboriginal heritage team was within the Department of Premier and Cabinet (DPC Heritage). Both departments are now located within Heritage NSW.

In accordance with NSW CoA A5 (b), Table 1-1 provides a log of engagement or attempted engagement with the identified government agencies and stakeholders. Additional consultation was not triggered through the update of this version of the management plan.

Table 1-1: Log of engagement with government agencies and stakeholders

Agency	Date	Person Contacted	Comment	Consultation Status
Heritage NSW	7 September 2021	Heritage NSW Representative	TfNSW emailed CCHMP to Heritage NSW requesting comment.	Open
	22 September 2021	Heritage NSW Representative	TfNSW contacted the Heritage NSW Representative via phone call, who indicated that they have no comments on the CCHMP (See Appendix A).	Closed
Water NSW	7 September 2021	Water NSW Representative	TfNSW emailed CCHMP to Water NSW requesting comment.	Open
	22 September 2021	TfNSW Representative	Response received from Water NSW via email (See Appendix A).	Open
	October 2021	Water NSW Representative	Updated plan and response table emailed to Water NSW to demonstrate how comments have been addressed.	Closed
Fairfield City Council	7 September 2021	FCC Representative	TfNSW emailed CCHMP to FCC requesting comment.	Open

Agency	Date	Person Contacted	Comment	Consultation Status
	9 September 2021	TfNSW Representative	Response received from FCC via email (See Appendix A).	Open
	October 2021	FCC Representative	Updated plan and response table emailed to FCC to demonstrate how comments have been addressed.	Closed
Penrith City Council	7 September 2021	PCC Representative	TfNSW emailed CCHMP to PCC requesting comment.	Open
	7 October 2021	PCC Representative	TfNSW contacted the PCC Representative via phone and email to indicate that consultation is closed as no response has been received.	Closed
Liverpool City Council	7 September 2021	LCC Representative	TfNSW emailed CCHMP to LCC requesting comment.	Open
	29 September 2021	LCC Representative	TfNSW followed up the LCC Representative via email and received no response.	Open
	7 October 2021	LCC Representative	TfNSW contacted the LCC Representative via phone, who indicated that will send through comments in the following week (11/10/2021).	Open
	October 2021	LCC Representative	LCC Representative notified that consultation has closed	Closed
<b>RAPs</b>				
All M12 Registered Aboriginal Parties (RAPs)	9 September 2021	Nominated RAPs	TfNSW emailed the CCHMP and Unexpected Finds Procedure to Barraby Cultural Services requesting comment.	Open
Barraby Cultural Services	9 September 2021	Barraby Cultural Services Representative	TfNSW emailed the CCHMP and Unexpected Finds Procedure to Barraby Cultural Services requesting comment.	Open



Agency	Date	Person Contacted	Comment	Consultation Status
	13 September 2021	TfNSW Representative	Response received from Barraby Cultural Services via email stating that they support the CCHMP and have no comments (See Appendix A).	Closed
Mura Gadi Heritage Indigenous Corporation	9 September 2021	Mura Gadi Heritage Indigenous Corporation Representative	TfNSW emailed the CCHMP and Unexpected Finds Procedure to Mura Gadi Heritage Indigenous Corporation requesting comment.	Open
	15 September 2021	TfNSW Representative	Response received from Mura Gadi Heritage Indigenous Corporation via email stating that they support the CCHMP and have no comments (See Appendix A).	Closed
Kamilaroi-Yankutjatjara Working Group	9 September 2021	Kamilaroi-Yankutjatjara Working Group Representative	TfNSW emailed the CCHMP and Unexpected Finds Procedure to Kamilaroi-Yankutjatjara Working Group requesting comment.	Open
	30 September 2021	TfNSW Representative	Response received Kamilaroi-Yankutjatjara Working Group via email (See Appendix A).	Open
	October 2021	Kamilaroi-Yankutjatjara Working Group Representative	Updated plan and response table emailed to Kamilaroi-Yankutjatjara Working Group to demonstrate how comments have been addressed.	Closed
Yurrandaali Cultural Services	9 September 2021	Yurrandaali Cultural Services Representative	TfNSW emailed the CCHMP and Unexpected Finds Procedure to Yurrandaali Cultural Services requesting comment.	Open
	13 September 2021	TfNSW Representative	Response received from Yurrandaali Cultural Services via email (See Appendix A).	Open

Agency	Date	Person Contacted	Comment	Consultation Status
	October 2021	Yurrandaali Cultural Services Representative	Updated plan and response table emailed to Yurrandaali Cultural Services to demonstrate how comments have been addressed.	Closed
Yulay Cultural Services	9 September 2021	Yulay Cultural Services Representative	TfNSW emailed the CCHMP and Unexpected Finds Procedure to Yulay Cultural Services requesting comment.	Open
	24 September 2021	TfNSW Representative	Response received from Yulay Cultural Services via email stating that they support the CCHMP and have no comments (See Appendix A).	Closed

In accordance with NSW CoA C4, A5 and E31, the consolidated evidence of consultation undertaken for the preparation of this CCHMP will be submitted to the Planning Secretary as part the document submission. The consolidated evidence of consultation includes:

- Documentation of the engagement with the parties identified above that occurred prior to submitting the document to the Planning Secretary for approval
- A log of the points of engagement or attempted engagement with the identified parties and a summary of the issues raised by them
- Documentation of the follow-up with the identified parties where engagement has not occurred to confirm that they do not wish to engage or have not attempted to engage after repeated invitations.
- An outline of the issues raised by the identified parties and how they have been addressed and a cross reference to the section or Sub-plan of the OCEMP where the issue has been addressed
- A description of the outstanding issues raised by the identified parties and the reasons why they have not been addressed.

Refer to Appendix A for evidence of consultation undertaken with stakeholders and government agencies for the preparation of this Plan.

### 1.5.2 Ongoing consultation during Construction

Consultation between TfNSW and its Construction Contractor, and stakeholders, the community and relevant agencies regarding the management of Aboriginal and Non-Aboriginal heritage values within the Project area will be undertaken during the construction of the Project as required. The process for the consultation will be documented in the OCS.

Specific requirements of relevance to the management of heritage values, which have emerged through consultation under the Environmental Assessment Documentation are evident in the CoA and REMMs included in Appendix B.

Relevant outcomes from the ongoing investigation works for Item 4a, Upper Canal Air Shaft 3 will be included in the Stage-Specific CCHMP prepared by the Construction Contractor if required. The stage specific CCHMP will then be provided to relevant stakeholders for information.

In accordance with the amended REMM NAH05 (amended), prior to the commencement of construction, consultation with regards to the Fleurs Radio Telescope site will be undertaken by TfNSW with the CSIRO, Universities, amateur telescopic organisations, local heritage bodies and relevant special interest groups to determine if there is interest in retaining sub-surface cabling or other structures associated with Fleurs Radio Telescope site identified during archival recording, remote sensing or any unexpected additional cables.

## 2 Purpose and objectives

### 2.1 Purpose

The purpose of this CCHMP is to describe how Aboriginal and Non-Aboriginal heritage will be protected and managed during construction of the Project.

### 2.2 Objectives

The key objective of the CCHMP is to ensure that Aboriginal and Non-Aboriginal cultural heritage impacts are managed appropriately throughout the construction of the Project and consider the mitigation and management measures referred to in:

- Environmental Assessment Documentation
- NSW Conditions of Approval granted to the Project on 23 April 2021
- TfNSW Specifications
- All relevant legislation and other requirements described in Section 3.1 of this Plan.

To achieve this objective, the Construction Contractors will:

- Facilitate engagement with the local Aboriginal community in partnership to appropriately manage the Aboriginal cultural heritage values associated with the Project
- Undertake detailed salvage and/or test archaeological investigation of the site as required in accordance with the correct procedures and salvage or excavation methodologies
- 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
- Ensure appropriate measures are implemented to address the requirements of the CoA and the REMMs detailed in this Plan
- Ensure appropriate measures are implemented to comply with all relevant legislation and other requirements as described in Section 3.1 of this CCHMP.

### 2.3 Targets

Targets for the management of Aboriginal and Non-Aboriginal cultural heritage impacts during the Project include:

- Ensure full compliance with the relevant legislative requirements, CoA and environmental management measures
- Avoid or minimise disturbance, possible damage to heritage items or loss of Aboriginal and Non-Aboriginal heritage cultural heritage
- Follow correct procedures and ensure notification of any Aboriginal heritage objects/places uncovered during construction

- Provide appropriate archival photographic recording of Non-Aboriginal heritage items impacted by the Project (if not previously undertaken as Early Works)
- Ensure training is provided in the form of inductions to all Project personnel on heritage items, protection measures and unexpected heritage items procedures before they begin work on site
- Minimise impacts on, and complaints from, the community and stakeholders.

## 3 Environmental requirements

### 3.1 Relevant legislation and guidelines

#### 3.1.1 Legislation

Legislation considered during the development of this Plan 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).

Relevant provisions of the above legislation are identified in the register of legal requirements included Appendix A1 of the OCEMP.

#### 3.1.2 Guidelines and standards

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

- TfNSW Specification G36 – Environmental Protection (Management System)
- *Procedure for Aboriginal Cultural Heritage Consultation and Investigation* (Roads and Maritime Services, 2011)
- *Cultural Heritage Guidelines* (Roads and Maritime, November 2015)
- *Standard Management Procedure: Unexpected Heritage Items* (Roads and Maritime, November 2015)
- *Significant Impact Guidelines 1.2 - Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth agencies* (Department of Sustainability, Environment, Water, Population and Communities, 2013)
- *Commonwealth Heritage Management Principles* (Department of the Environment and Water Resources, 2007)
- *NSW Government Policy on Aboriginal Participation in Construction* (released 1 May 2015, updated 1 August 2016)
- *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (Office of Environment and Heritage (OEH), 2010)
- *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (OEH, 2010)
- *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH, 2011)
- *Altering Heritage Assets* (Heritage Office and DUAP, 1996)
- *Archaeological Assessment Guidelines* (NSW Heritage Office and NSW Department of Urban Affairs and Planning, 1996)

- *Assessing Heritage Significance* (NSW Heritage Office, 2001)
- *Assessing Significance for Historical Archaeological Sites and "Relics"* (NSW Heritage Branch, Department of Planning, 2009)
- *Photographic Recording of Heritage Items Using Film or Digital Capture* (Heritage Branch, 2006)
- *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance* (2013).
- *How to prepare archival records of heritage items* (NSW Heritage Office, 1998).
- PS311 – Environmental Design and Compliance

TfNSW contract specifications are a key source of environmental protection management processes relevant to this CCHMP. The contract specifications set out environmental protection requirements, including Hold Points that must be complied with by the Construction Contractors during construction of the Project. A Hold Point is a point beyond which a work process must not proceed without express written authorisation from TfNSW.



## 3.2 Ministers Conditions of Approval

The primary NSW CoA relevant to the development of this Plan are listed in Table 3-1. Secondary conditions relevant to this Plan have been listed in Appendix B. A cross reference is also included to indicate where the CoA is addressed in this Plan or other Project management documents.

Table 3-1: Primary CoA

CoA No.	Condition Requirements	Applicability			Document Reference
		M12 West	M12 Central	M12 East	
A5	Where the terms of this approval require a document or monitoring program to be prepared or a review to be undertaken and submitted to the Planning Secretary, and the terms of this approval require the document, monitoring program or review to be prepared/undertaken in consultation with identified parties, evidence of the consultation must be submitted to the Planning Secretary with the relevant document, monitoring program or review. The evidence must include:	✓	✓	✓	Section 1.5.1 Appendix A
	(a) Documentation of the engagement with the party identified in the condition of approval that has occurred before submitting the document for approval;	✓	✓	✓	
	(b) A log of the dates of engagement or attempted engagement with the identified party;	✓	✓	✓	
	(c) Documentation of the follow-up with the identified party where engagement has not occurred to confirm that they do not wish to engage or have not attempted to engage after repeated invitations;	✓	✓	✓	
	(d) Outline of the issues raised by the identified party and how they have been addressed; and	✓	✓	✓	
	(e) A description of the outstanding issues raised by the identified party and the reasons why they have not been addressed.	✓	✓	✓	



CoA No.	Condition Requirements	Applicability			Document Reference
		M12 West	M12 Central	M12 East	
C4	<p>The following CEMP Sub-plans must be prepared in consultation with the relevant government and other agencies identified for each CEMP Sub-plan. Details of all information requested by an agency during consultation must be provided to the Planning Secretary as part of any submission of the relevant CEMP Sub-plan, including copies of all correspondence from those agencies as required by Condition A5.</p> <p>(f) Heritage (including Aboriginal and non-Aboriginal) – Heritage Council of NSW, Heritage NSW, WaterNSW and relevant Council(s).</p>	✓	✓	✓	This Plan Section 1.5.1 Appendix A

### 3.3 Revised Environmental Management Measures

The primary REMMs relevant to the development of this Plan are listed in Table 3-2 below. Secondary REMMs relevant to this Plan are listed in Appendix B. A cross reference is also included to indicate where the REMM is addressed in this Plan or other Project management documents.

Table 3-2: Primary REMMs

ID	Measure/requirement	Timing	Applicability			Document Reference
			M12 West	M12 Central	M12 East	
AH01	A Construction Cultural Heritage Management Plan (CCHMP) will be developed for the project in consultation with the project RAPs and EESG. The CCHMP will include:	Prior to construction	✓	✓	✓	This Plan Section 1.5.1 Section 6.1
	<ul style="list-style-type: none"> <li>An unexpected finds procedure for the discovery of Aboriginal ancestral remains, Aboriginal objects or new Aboriginal sites consistent with TfNSW Standard Management Procedure Unexpected Heritage Items (Roads and Maritime, 2015). This procedure will also outline requirements to manage unexpected human remains finds in accordance with NSW statutory requirements, and relevant guidelines and standards prepared by EESG. The Procedure will outline the process for consulting with the RAPs in the event that previously unidentified Aboriginal heritage is discovered.</li> </ul>		✓	✓	✓	Appendix C
	<ul style="list-style-type: none"> <li>Procedures for the management and curation of salvaged Aboriginal objects</li> </ul>		✓	✓	✓	Aboriginal Cultural Salvage Strategy
	<ul style="list-style-type: none"> <li>Detailed locations and installation procedures for fencing and protective coverings</li> </ul>		✓	✓	✓	Section 6.5 Section 6.1.1 Section 6.1.3

ID	Measure/requirement	Timing	Applicability			Document Reference
			M12 West	M12 Central	M12 East	
	<ul style="list-style-type: none"> <li>Details of permissible activities inside protected Aboriginal areas</li> </ul>		✓	✓	✓	Section 6.5
	Procedures for consideration of heritage aspects within site inductions and toolbox talks for construction workers and supervisors.		✓	✓	✓	Section 7.2
NAH01	A Construction Cultural Heritage Management Plan (CCHMP) will be prepared for the project as part of the CEMP in consultation with Heritage NSW. The CCHMP will include as a minimum:	Prior to construction	✓	✓	✓	Section 1.5.1 Appendix A
	<ul style="list-style-type: none"> <li>A list, plan and maps with GIS layers showing the location of identified heritage items both within, and near, the construction footprint</li> </ul>		✓	✓	✓	Section 4.2
	<ul style="list-style-type: none"> <li>A significance assessment and statement of significance for each item</li> </ul>		✓	✓	✓	Section 4.2
	<ul style="list-style-type: none"> <li>Protocols and procedures including inductions and toolbox talks for all contractors and sub-contractors working in the area to be informed of all exclusion zones, the elements and their significance, to prevent accidental damage or encroachment</li> </ul>		✓	✓	✓	Section 7.2
	<ul style="list-style-type: none"> <li>Protocols and procedures to be implemented during construction to avoid or minimise impacts on items of heritage significance including protective fencing</li> </ul>		✓	✓	✓	Table 6-2 Section 6.4
	<ul style="list-style-type: none"> <li>The TfNSW <i>Unexpected Heritage Items Procedure</i> (Roads and Maritime, 2015) which will be followed in the event that unexpected heritage finds are uncovered during construction.</li> </ul>		✓	✓	✓	Appendix C

### 3.4 TfNSW Specifications

The TfNSW specifications set out the minimum requirements for the detailed outcomes in terms of quality or performance expected in the finished product for construction projects and are relevant to various construction activities on work sites to minimise impacts to the environment. The TfNSW Specifications are Project contract documents and are not publicly accessible.

The Construction Contractor will incorporate the appropriate M12 TfNSW specifications into the stage-specific CCHMPs:

- TfNSW G36 – Environmental Protection.

### 3.5 Key reference documents

The key reference documents for Aboriginal and Non-Aboriginal heritage within and adjacent to the Project corridor are:

- Aboriginal heritage specifically:
  - Exhibited EIS Section 7.5 and Appendix I – Technical working paper: Aboriginal Cultural Heritage Assessment Report
  - AR – Appendix E Aboriginal Heritage Supplementary Technical Memorandum
- Non-Aboriginal heritage specifically:
  - Exhibited EIS Section 7.6 and Appendix J – Technical working paper: Non-Aboriginal Heritage Assessment Report
  - AR – Appendix F – Non-Aboriginal Heritage Supplementary Technical Memorandum.

The Project boundary and relevant heritage data is shown on the Sensitive Area Plans included in Appendix A6 of the OCEMP.

#### 3.5.1 Additional heritage assessments

Particular heritage items were not previously captured within the EIS, RtS, AR, ARSR and ARSR – Amendment, following adjustments to the construction footprint with additional heritage assessments and investigations having since been undertaken. The assessments and investigations are ongoing and are likely to be completed during construction. These currently include:

- M12 Motorway - Non-Aboriginal Heritage Consistency Assessment (Artefact, 2021). The additional survey works found:
  - Fabric associated with the former location of Fleurs Synthesis Telescope antenna 'X<sub>3</sub>'
  - Fabric associated with the former location of Fleurs Synthesis Telescope antenna 'X<sub>4</sub>'
  - Concrete pads between antennas 'X<sub>3</sub>' and 'X<sub>4</sub>' likely to have been equipment for control and power
  - Sub-surface cables, power supply, and compressed air hoses
  - Sections of the former vehicle access track to antennas 'X<sub>3</sub>' and 'X<sub>4</sub>'

- Water NSW Upper Canal System – Shaft no. 3 Heritage Investigation – Minor Works Review of Environmental Factors (TfNSW, 2021)
  - To locate Air Shaft 3 within the Upper Canal Alignment.
- Upper Canal System Shaft 3: Stage 1 Works Heritage Impact Assessment (HIA) (Artefact, 2021) including:
  - Utility investigations to identify the location of a Jemena gas pipeline in the vicinity of the Upper Canal and establish an exclusion zone for Stage 2 Works
- Upper Canal System Shaft 3: Stage 2 Works Statement of Heritage Impact (SHI) (Artefact, 2021) including:
  - Investigations of the location of Shaft 3 aimed at confirming whether Shaft 3 is present within the M12 construction footprint
  - Preparation of a findings report that outlines the excavation work procedures and results
- M12 Central Design Consistency Assessment – Boundary Adjustment Review Aboriginal Cultural Heritage Memo (KNC, 2021)
  - Existing management requirements and recommendations for the identified sites should be maintained for the boundary adjustment areas.
- M12 Central Design Consistency Assessment - Non-Aboriginal Heritage (GHD, 2021). Additional assessment found:
  - The impacts to non-Aboriginal heritage associated with the detailed design are generally consistent with the impacts described in the approval documents
  - Boundary changes within the curtilage of Fleurs Radio Telescope (Penrith LEP 2010 I832) would be minor and would not result in any changes in overall impact to the heritage item, however, additional requirements were included in REMM NAH05 to manage the additional items within the Fleurs Radio Telescope site
- M12 West Design Consistency Assessment – EIS Boundary Adjustment Review Aboriginal Cultural Heritage (KNC, 2021). Additional assessment found:
  - The identified changes to Aboriginal heritage impacts from the 80% detailed design can be considered consistent with the approved Project. The Aboriginal heritage REMMS are considered appropriate for the construction footprint amendments.
- M12 West Design Consistency Assessment - Non-Aboriginal Heritage (Artefact, 2021). Additional assessment found:
  - There would be no changes to the degree of impact to the four non-Aboriginal heritage items located within M12 West.
- M12 Upper Canal System Shaft 3: Stage 2 Investigation Results (Artefact, 2022)
  - Archaeological evidence identified included remains of the upper construction cut and backfill associated with Shaft 3. These remains have been assessed as not reaching the threshold of local significance
  - No intact structural remains associated with Shaft 3 or the shaft itself were identified
  - Although the exact location of Shaft 3 itself was not identified, evidence of the upper construction cut and fill confirms the general location of Shaft 3
  - The location of Shaft 3 must be detailed on relevant design engineering drawings and Environmental Control Maps.

- M12 West and Central Consistency Assessment – Sydney Water Utility Crossings Aboriginal Cultural Heritage (KNC, 2022). Additional assessment found:
  - The identified changes to Aboriginal heritage impacts from the Sydney Water utility crossing works are consistent with the approved Project and the REMMs are to be maintained and implemented for the Sydney Water work areas within the extended project construction boundary, including Active Protection (protective fencing), Salvage collection and/or Salvage excavation as required
- M12 West and Central Design Consistency Assessment – Boundary Changes Aboriginal Cultural Heritage (KNC, 2022). Additional assessment found:
  - The identified changes to Aboriginal heritage impacts from the proposed boundary adjustments at Sites 1-11 are consistent with the approved project and the management measures to be implemented as detailed in Table 6-1 and Table 6-2 as required for Aboriginal sites CCE T3 and CCW
  - The identification of additional Aboriginal archaeological site Mamre Road Kemps Creek AFT 1 (AHIMS 45-5-5478) within Site 8a requires management measures to be implemented as detailed in Table 6-1 and Table 6-2.
- M12 West and Central Design Consistency Assessment - Non-Aboriginal Technical Assessment – McMaster's Farm/Field Station Building 1 (Artefact, 2022). Additional assessment found:
  - That the impacts of the proposed design changes at McMaster's Farm/Field Station are consistent with the previously approved impacts
- M12 West and Central Minor CA - Pre-Works Aboriginal Heritage Clearance Memo - Minor adjustments to M12 Central construction boundary (KNC, 2022). Additional assessment found:
  - The identified changes to Aboriginal heritage impacts from the proposed boundary adjustments are considered consistent with the approved project. However, management measures, as detailed in Table 6-1 and Table 6-2, must be implemented
- Devonshire Road Temporary Roundabout Consistency Assessment – Pre-Works Aboriginal Heritage Clearance Memo (KNC, 2023). Additional assessment found:
  - One Aboriginal archaeological site PAD 2001-6 (AHIMS 45-5-3999) was found in proximity to the updated boundary, located approximately 25 metres west of Devonshire Road and that the site would not be affected by works
- Elizabeth Drive Connections Consistency Assessment – Pre-Works Aboriginal Heritage Clearance Memo, (KNC, 2023). Additional assessment found:
  - No further Aboriginal archaeological sites within the amended footprint
  - Aboriginal heritage site DLC2 (AHIMS 45-5-2563) is located approximately 20 metres from the revised construction boundary but No impact to site DLC2 is proposed. The area must be avoided and identified on mapping
- Elizabeth Drive Connections Consistency Assessment (WSP, 2023) – Non-Aboriginal Heritage Assessment found that:
  - There are two known Non-Aboriginal heritage items identified within the vicinity of the proposed changes: Item 4 (Upper Canal System) and Item 8 (Cecil Park School, Post Office and Church site)
  - No further impacts to Item 4 as a result of the proposed change; existing management measures were deemed sufficient



- The proposed change would result in the complete removal of Item 8, previously only to be partially removed. Management measures as detailed Table 6-2 must be implemented.
- M12 Motorway Project Aboriginal Heritage Clearance Memo – Ropes Creek M12 East Boundary (KNC, 2023). Assessment found that:
  - Two Aboriginal archaeological site areas (both forming part of M12 Ropes Creek AFT) were identified within the boundary of the unnamed Aboriginal heritage sensitive area
  - The remainder of the area associated with the unnamed Aboriginal heritage sensitive area was determined not to exhibit Aboriginal archaeological sensitivity
  - The two Aboriginal archaeological site areas are outside of the M12 boundary and will not be impacted by M12 construction or M12 associated works.
- M12 East AF9 Power Supply Minor Consistency Assessment (TfNSW, 2023) found that:
  - The Proposed Change is not anticipated to have any additional Aboriginal and non-Aboriginal heritage impacts and that the management measures for Aboriginal and non-Aboriginal heritage identified within the EAD are considered appropriate
- M7-M12 Integration Project, Cecil Road Gas Main – Aboriginal and non-Aboriginal Heritage Advice (Artefact, 2023), additional assessment as a result of the M12 East Cecil Road Laydown Area Minor CA, found that:
  - There would be no impact any known Aboriginal or non-Aboriginal sites and it is not expected that the work would impact any potential subsurface Aboriginal objects or significant non-Aboriginal archaeological remains. Overall, the proposed work is considered to be consistent with the existing project approvals.
- M12 East Temporary Construction Signage Minor Consistency Assessment (TfNSW, 2023) found that:
  - The Proposed Change is not anticipated to have any additional Aboriginal and non-Aboriginal heritage impacts and that the management measures for Aboriginal and non-Aboriginal heritage identified within the EAD are considered appropriate.
- M12 East Sites 48, 50 and 51 Minor Consistency Assessment (Arcadis, 2023) found that:
  - Sites 50 and 51 are located within the 'broader study area' that was assessed for Aboriginal cultural heritage and in previous assessments and is not anticipated to have any additional impacts to Aboriginal heritage as this area has been previously extensively disturbed
  - Site 48 is located outside the detailed investigation area but within the road verge which has been extensively disturbed, as such no additional impacts to Aboriginal Heritage are anticipated
  - An AHIMS search was undertaken on 11 November 2023 which showed one site not identified in the EAD, being 45-5-5739 Wallgrove Business Hub PAD 02, west of the M7. PAD 02 is located on Greater Sydney Parklands Land and was determined not to be an Aboriginal site after further investigation on 31 October 2023 by Kelleher Nightingale Consulting Pty
  - An Aboriginal artefact (45-5-2773 HC/ED1) was identified within the M12 East Design Boundary Changes Consistency Assessment Report (2023) in the location of Site 48 (within SAS ID 110B and 110C). However, consent to carry out destruction of an Aboriginal Object/Place under the National Parks and Wildlife Act, 1974, Section 90 was provided in 2003 by National Parks and Wildlife. There are no other Aboriginal artefacts identified within the road verge of Site 48 (within SAS ID 110B and 110C)

- No known non-Aboriginal heritage items or places are located within the location of the Proposed Change
- Management measures for Aboriginal and non-Aboriginal Heritage identified in the EAD are considered appropriate.
- M12 Central Water Tower Access Road Minor Consistency Assessment - Pre-Works Aboriginal Heritage Clearance Memo (KNC, 2023) found that:
  - An additional Aboriginal archaeological site was identified approximately 16m south of the boundary adjustment area: Artefact Scatter PAD 2023-846 (AHIM-45-5-4022)
  - The site must be avoided and should be identified within the relevant environmental documentation including the Construction Environmental Management Plan (CEMP). Workers and contractors must be advised in relation to the Aboriginal site location
  - A portion of the site is covered under an existing, active Aboriginal Heritage Impact Permit (AHIP 4776) issued to Sydney Water. This AHIP extends into the M12 Central project area and partially covers the proposed boundary adjustment area
  - There will be no additional impacts on any identified Aboriginal archaeological heritage and that the proposed change is consistent with the findings of the EAD.
- M12 Central Water Tower Access Road Minor Consistency Assessment (Arcadis, 2023) found that:
  - Sydney Water has confirmed that the proposed change works are compliant with AHIP 4776 conditions (email dated 15 December 2023)
  - No additional impacts other than what was previously assessed in the EAD are anticipated to Non-Aboriginal heritage items and that management measures for non-Aboriginal heritage identified in the EAD are considered appropriate.
- Aboriginal Heritage Expert Witness Report – M7-M12 Clearing Incident (Artefact, 2024) found:
  - That the vegetation clearing activities did not take place within the extent of an Aboriginal site. Further, examination of the location of the incident indicates that the works were unlikely to have resulted in harm to any Aboriginal object that may have been present unexpectedly
  - The existing Cultural Heritage Management Plans should be updated to include a revised map and description of the current extent of PAD-OS-7 and it should be marked on all construction plans and sensitive
  - All contractors such be provided with an induction which clearly states that no works are to take place within the extent of the site, under the current project approvals.

The M7 Motorway (MOD 6 Widening) (M7 Widening) EAD identified an additional site (PAD-OS-4) that is south of the M12 East construction boundary. This documentation has also identified inconsistencies with the boundaries of PAD-OS-5 as shown in M12 EAD and this document. The boundaries of PAD-OS-5 as assessed in M7 Widening EAD have been adopted for use in this document as it is considered the most recent and relevant data.

The assessments have been incorporated into this Plan with reference to impacts on additional elements of the heritage items. This Plan will continue to be updated following the outcomes of the assessments and investigations for each heritage item.



## 4 Existing Environment

The following section summarises the heritage values within and adjacent to the Project corridor, based on information contained in the Environmental Assessment Documentation and Heritage assessments as detailed in Section 3.5.1.

### 4.1 Aboriginal cultural heritage

#### 4.1.1 Aboriginal cultural heritage sites

Field surveys and test excavations carried out to inform the Environmental Assessment Documentation determined there is a continuous but variable distribution of Aboriginal objects across the construction footprint and detailed investigation area. While much of the landscape has been subjected to high levels of ground disturbance, resulting from excavation and quarrying activities, and intensive clearing and farming, a total of 23 Aboriginal cultural heritage sites were identified within the construction footprint, as listed in Table 4-1.

Most of the Aboriginal cultural heritage sites consist of broad distributions of Aboriginal stone artefacts associated with major creeks; these watercourses provided water, food sources, and cultural significance for Aboriginal groups. These sites are expected to extend well into comparable landscapes outside of the construction footprint. These locations are shown in Figure 4-1.

The assessment significance criteria used to determine the significance for each Aboriginal cultural heritage site was based Australia International Council on Monuments and Site (ICOMOS) Burra Charter (Australia ICOMOS, 2000) in the Environmental Assessment Documentation. The criterion includes:

- Social value
- Historical value
- Scientific value
- Aesthetic value
- Spiritual value.

These values together, provided an “overall statement of significance” for each Aboriginal cultural heritage site as detailed in Table 4-1.

Table 4-1: Aboriginal cultural heritage sites located in the construction footprint

Site Name	Description	Overall statement of significance
45-5- 3804 (Isolated artefact 4)	Stone artefact site (single artefact)	Low
45-5- 4747 (M12A1)	Surface stone artefact site	Low

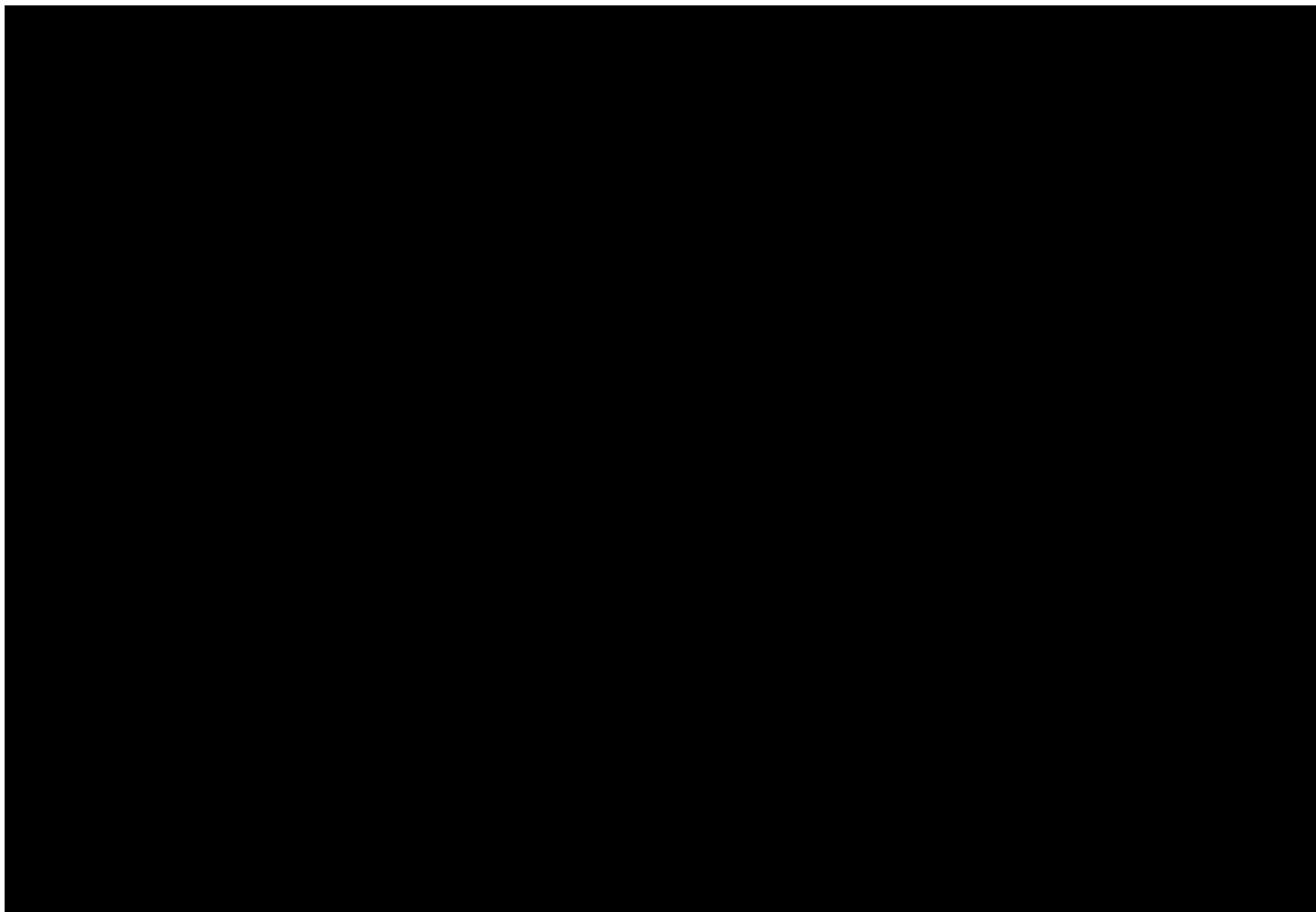
Site Name	Description	Overall statement of significance
45-5- 4 786 (TNR-AFT-14)	Single stone artefact, not be relocated during project fieldwork. Site is located within TNR PAD. No other artefacts were discovered in the PAD; therefore, site remains as a single stone artefact	Low
Cosgroves Creek West (CCW)	PAD on the western side of Cosgroves Creek in the vicinity of trotting tracks with exposed artefacts.	Moderate
Cosgroves Creek East T1 (CCE T1)	PAD on a low dividing ridge east of Cosgroves Creek. Continuous with Cosgroves Creek East T2.	Moderate
Cosgroves Creek East T2 (CCE T2)	PAD on a low rise over a second-order tributary. Continuous with Cosgroves Creek East T1 and T3.	Moderate
Cosgroves Creek East T3 (CCE T3)	PAD on high ground distant from watercourses. Continuous with Cosgroves Creek East T2.	Moderate
Badgerys West B (BWB)	PAD on a prominent hillock and low ridge overlooking South Creek. Incorporates 45-5-4747	Moderate
Badgerys Creek West (BCW)	PAD on floodplain and gentle slopes of Badgerys Creek adjacent to Elizabeth Drive	High
Badgerys Creek East (BCE)	PAD on floodplain of South Creek. Continuous with South Creek West T1.	High
South Creek West T1 (SCW T1)	PAD on floodplain on the western edge of South Creek. Continuous with South Creek West T2 and South Creek East.	High
South Creek West T2 (SCW T2)	PAD on a low rise running north-south and parallel to South Creek. Continuous with Badgerys Creek East and South Creek West T1.	High
South Creek East (SCE)	PAD on floodplain on the eastern side of South Creek. Continuous with South Creek West T1.	High
Kemps North West (KNW)	Gentle slopes on the western side of Kemps Creek.	Moderate
Kemps Creek West (KCW)	Creek flats on the western side of Kemps Creek. Continuous with Kemps Creek East	Moderate
Kemps Creek East (KCE)	Creek flats on the eastern side of Kemps Creek. Continuous with Kemps Creek West.	Low
RR	Excavation area across site on gentle slopes along a first order drainage line.	Low
PCP8	Excavation area across site on ridgeline and hillslopes exposed by a fire trail.	Moderate

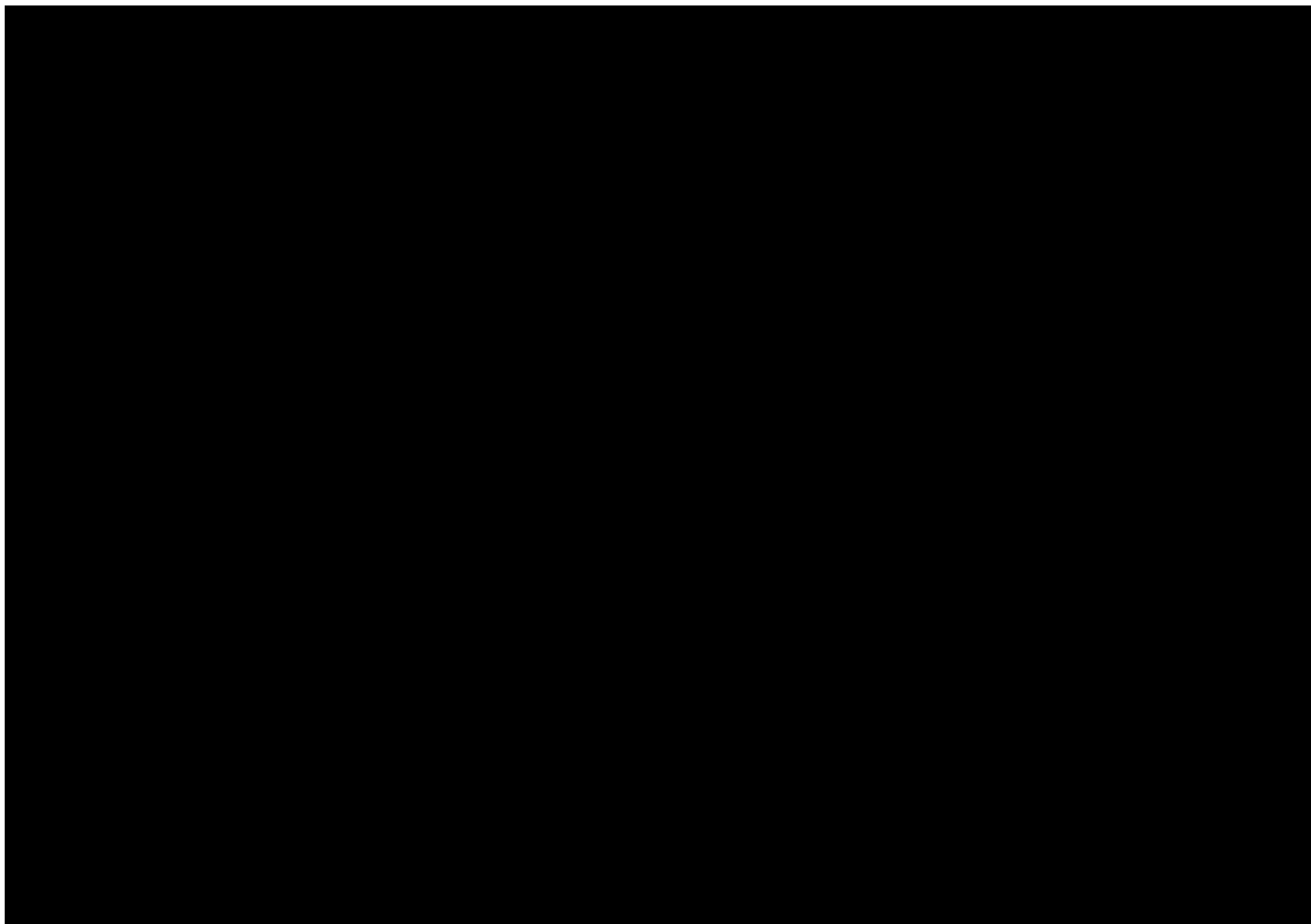
Site Name	Description	Overall statement of significance
Cecil Hills Ridge PAD (CHRP)	Excavation area across site on high hillslope and ridgetop above the M7 Motorway. Incorporates 45-5-4935.	High
CP AS1	Stone artefact site	Not assessed as no ground disturbance permitted at this location
P-CP9	Stone artefact site	Not assessed as no ground disturbance permitted at this location
KC/ED2	Stone artefact site	Not assessed as no ground disturbance permitted at this location
Mamre Road Kemps Creek AFT 1 (45-5-5478)	Aboriginal archaeological site	Not assessed as no ground disturbance permitted at this location

An additional nine Aboriginal cultural heritage sites are located outside of the construction footprint but within the detailed investigation area. These nine sites are listed in Table 4-2. The significance of these sites was not assessed (excluding PAD-OS-7), as they will not be impacted upon by construction.

Table 4-2: Aboriginal cultural heritage sites located outside of the construction footprint

Site Name	Description
PAD-OS-5	Stone artefact site: initially a PAD with artefacts discovered in test excavation
PAD-OS-7	Stone artefact site: initially a PAD with artefacts discovered in test excavation
PAD 2001-6 (AHIMS 45-5-3999)	Aboriginal archaeological site
DLC2 (AHIMS 45-5-2563)	Stone artefact site
M12A5	Stone artefact site
M12 Ropes Creek AFT	Two Aboriginal archaeological site areas
HC/ED1	Aboriginal archaeological site – previously destroyed
PAD-OS-4	Potential Archaeological Deposits
PAD 2023-846 (AHIMS 45-5-4022)	Artefact scatter





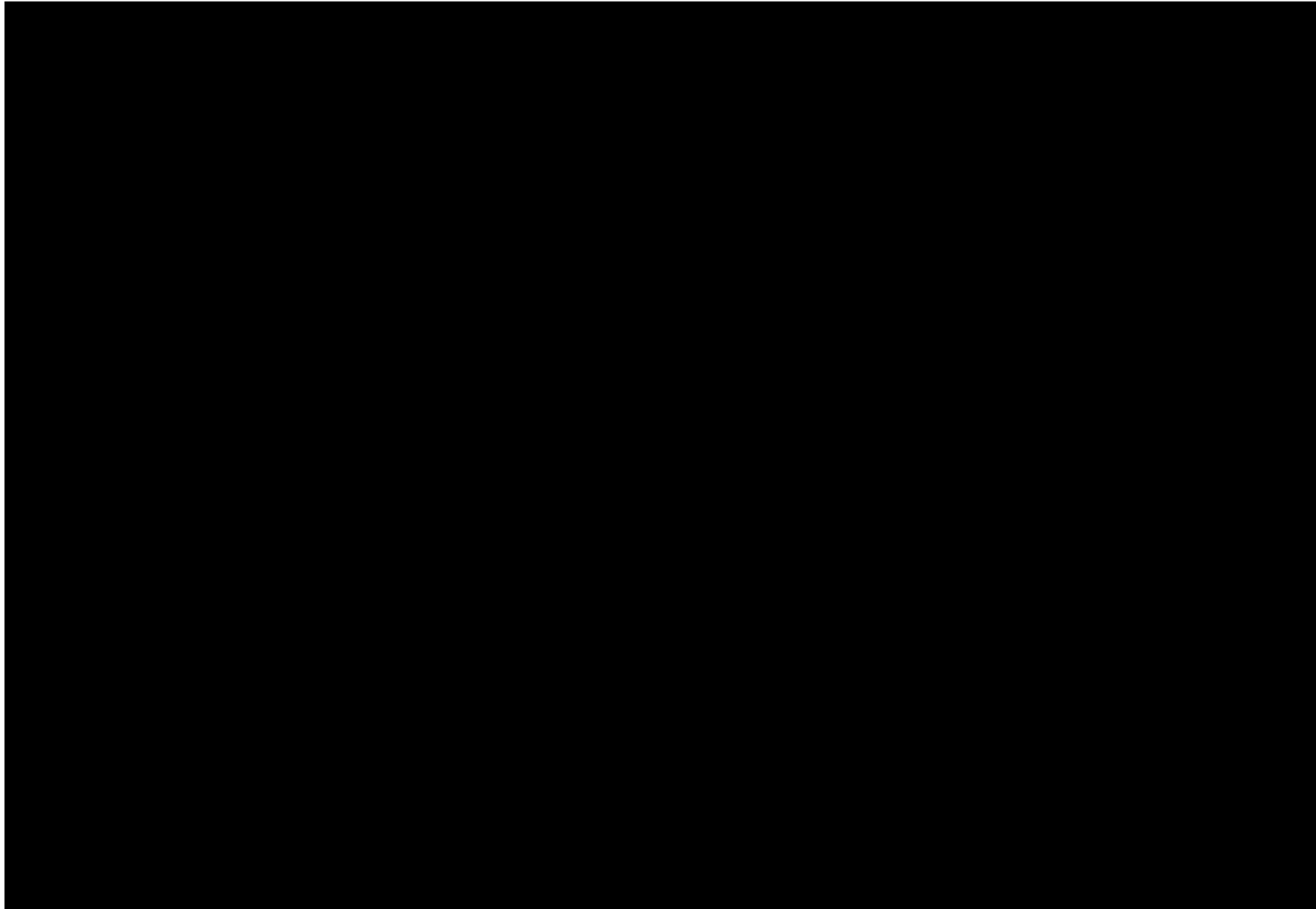


Figure 4-1: Location of Aboriginal heritage sites across the Project



## **4.2 Non-Aboriginal cultural heritage**

### **4.2.1 Non-Aboriginal heritage items**





Twelve registered or potential heritage sites were considered to occur within the Project corridor assessed in the EIS, and one heritage site, Item 12, is located immediately adjacent to the Project corridor.


Following a significance assessment, comparative analysis and test excavations, it was determined that nine items within or adjacent to the Project corridor were assessed as having either local, State or potentially National heritage significance.




Following further heritage assessments, an additional heritage item (Item 4a) was investigated and has been included in Table 4-3 below.

These ten items are listed in Table 4-3 and mapped in Figure 4-2.



Table 4-3: Description of heritage items of significance, within and immediately adjacent to the Project (EIS)



Heritage item name	Description and significance	Photographs	
Registered heritage items			
Item 1: McGarvie Smith Farm  (Penrith Local Environmental Plan (PLEP) 857)	<p>The McGarvie Smith Farm overlaps with the study area on Lot 62 DP 1087838 and Lot 63 DP 1087838. The heritage item is located inside the Project's construction footprint. It was surveyed on 14 November 2017 (Survey Area No. 5).</p> <p>During the field survey, a number of farm buildings, silo, concrete remnants, timber posts, sheds, dams, earth ditches and other features were noted.</p> <p>The farm is assessed as being of State significance.</p>	 Example of the farms onsite (Farm 2, facing southwest)	 Silo and concrete remnants, facing west
Item 2: Fleurs Radio Telescope Site  (PLEP 832)	<p>The Fleurs Radio Telescope intersects with the study area on Lot 21 DP 258414. The South Creek 1 and 2 heritage items are about 80 metres north of the construction footprint. The site was surveyed on the 20 and 21 October 2017 by Wallis Heritage Consulting (Gorman 2018).</p> <p>During the field survey a number of buildings, remains of antennas, antenna footing trenches, concrete plinths, concrete pads, cabling, signal</p>		

Heritage item name	Description and significance	Photographs	
	<p>boxes, fabrics and demolition material were noted.</p> <p>Additional surveys in the South Creek 3 and 5 Antenna Complex and South Creek 4 (Lot 104 DP 1271336 and Lot 102 DP 1271336) revealed additional fabrics for antennas X<sub>3</sub> and X<sub>4</sub>, former access to the antennas, concrete pads and concrete plinths, cables and a high pressure hose and metal shed located within the amended construction footprint. The area around the Fleurs site is mostly grazing and farmhouses and the land is zoned low lying rural/commercial.</p> <p>The site is considered to have State and potentially National significance</p>	<p>South Creek 1 Antenna Complex signal box (Wallis Heritage Consulting, 2018)</p>	<p>South Creek 1 Antenna complex, antenna trench looking east (Wallis Heritage Consulting, 2018)</p>
<p>Item 3: Luddenham Road Alignment (PLEP 843)</p>	<p>Luddenham Road bisects the study area for about 347 metres. It was surveyed on 16 November 2017 (Survey Area No. 12). The heritage item is located inside the construction footprint.</p> <p>Within the study area, Luddenham Road comprises modern asphalt with no remnants of the original road visible. The road is located within the original cadastral location with road reserve either side.</p> <p>Luddenham Road is considered to have local historical significance</p>		





Heritage item name	Description and significance	Photographs	
		Luddenham Road, eastern road reserve, facing south	
Item 4: Upper Canal System (Pheasants Nest Weir to Prospect Reservoir) (SHR 01373)	<p>The Upper Canal System bisects the study area in the southwestern and northeast corner of the Elizabeth Drive and M7 interchange on Lot 1 DP 603946 and Lot 51 DP811015. The heritage item is partly located inside the construction footprint. It was surveyed on 1-2 March 2018 (Survey Area Nos. 36 and 42).</p> <p>While the canal itself is about 32 metres underground (in tunnel), the Tunnel Shaft 4 is located at the surface within the study area. The shaft was observed from The M7 eastern road reserve within the median of the M7 Motorway.</p> <p>The Upper Canal System is assessed as being of State significance.</p>	 <p>View of surface over northeast section of the pipeline, facing northeast</p>	 <p>Tunnel Shaft 4 as viewed from eastern road reserve, facing southwest</p>
Item 4a: Upper Canal System, (Pheasants Nest Weir to Prospect Reservoir), Air Shaft 3 (SHR 01373)	<p>The Upper Canal System is located south-west of the intersection of Wallgrove Road and Elizabeth Drive, Cecil Hill on Lot 21 DP 1109551.</p> <p>Dilapidation survey and 3D laser survey of the canal and ground penetrating radar of the calculated position of Shaft No. 3 has been completed, and further investigations are being undertaken, as detailed in Section 3.5.1 to determine the exact position and establish the</p>		





Heritage item name	Description and significance	Photographs	
	<p>presence/absence of Shaft 3 within the Project footprint.</p> <p>The Upper Canal System is assessed as being of State significance.</p>	Predicted location of shaft 3, facing south-west	
<b>Identified during previous heritage assessments</b>			
Item 6: McMaster Field Station/McMaster Farm	<p>The McMaster Farm also known as McMaster Field Station, is located on Lot 101 DP848215 and was surveyed between 13 and 15 November 2017 (Survey area no. 4). The heritage item is located inside the Project's construction footprint.</p> <p>During the field survey a number of buildings, silos, animal pens and stockyards, dams, ditches, concrete remnants, bricks and earthworks were noted.</p> <p>The field station/ farm is assessed as being of State significance.</p>	 <p>Building 3, facing south</p>	 <p>Silo 1, facing southeast</p>

Heritage item name	Description and significance	Photographs	
Item 7: Fleurs Aerodrome	<p>The Fleurs Aerodrome is located on Lot 2 DP88836 and was surveyed on 27 February 2018 (Survey area no. 21). The heritage item is partially located inside the construction footprint.</p> <p>Currently at the property there are three sections of the former airstrip:</p> <ul style="list-style-type: none"> <li>• A short airstrip of bitumen that appears to be disused</li> <li>• A grassed area south and north of the existing airstrip</li> <li>• Building remains (north of the grassed area – outside the study area).</li> </ul> <p>A modern shed is also located at the southern end of the airstrip and a large metal structure is located at the northern end of the current bitumen airstrip. It is unknown if the metal structure is connected with the original aerodrome.</p> <p>The Fleurs Aerodrome is considered to have local historical significance.</p>	 <p>Existing runway (disused) facing north</p>	 <p>Metal feature at northern end of runway, facing southwest</p>



Heritage item name	Description and significance	Photographs	
<p>Item 8: Cecil Park School, Post Office and School Church</p>	<p>Cecil Park Public School is located on Lot 1 DP724970 and was surveyed on 1 March 2018 (Survey area no. 38) as well as on 1 August 2018. The heritage item is located inside the construction footprint.</p> <p>During the field survey bricks pieces and rubble, large exotic trees, circular depressions, bottles, vehicles tracks, levelled areas, in-situ footings and large rubbish pile were noted.</p> <p>Cecil Park School is considered to have local historical significance.</p>	 <p>Metal object located centre, western side of property</p>	 <p>Rubble mound in southwestern corner of property</p>
<p>Item 10: Exeter Farm Archaeological Site (Artefact Scatter and Trees)</p>	<p>This heritage item is located inside the study area and partially within the construction footprint.</p> <p>During the field survey, a row of trees forming a hedge that may be Osage-orange trees (<i>Maclura pomifera</i>) were observed. The Osage-orange was traditionally used in hedges for stock management and in colonial gardens. No buildings are visible however an angled depression is visible both on the ground and on the 1947 aerial image.</p> <p>East of the trees, an artefact scatter was noted, situated within a large depression in the ground. The artefact scatter comprises bricks, metal,</p>	 <p>Area of site, facing southwest, with row of trees in background.</p>	 <p>19th century ceramic fragment located on ground surface.</p>

Heritage item name	Description and significance	Photographs	
	<p>ceramic and glass across an area about 50 metres wide.</p> <p>Exeter Farm Archaeological Site is considered to have local historical significance.</p>		
Item 12: South, Kemps and Badgerys Creek Confluence Weirs Scenic Landscape	<p>This heritage landscape is not located within the study areas, but is located immediately adjacent.</p> <p>Within the part of the landscape investigated immediately adjacent to the study area (Lot 21 DP258414), no weirs were observed, and the area did not overlap with any of the three creeks. South Creek is located adjacent (west) to the study area. Badgerys Creek is located around 930 metres west of the study area and Kemps Creek is located 1.2 kilometres northeast of the study area.</p> <p>This heritage landscape area also overlaps with the Fleurs Radio Telescope site.</p> <p>Vegetation at this location comprised of grass in an open paddock environment with occasional small trees located in the vicinity of buildings associated with the eastern side of the Fleurs Radio Telescope site.</p> <p>This Scenic Landscape is considered to have local historical significance.</p>	 <p>Part of the scenic landscape adjacent to the study area, facing northwest</p>	 <p>Part of scenic landscape adjacent to the study area, facing southeast</p>



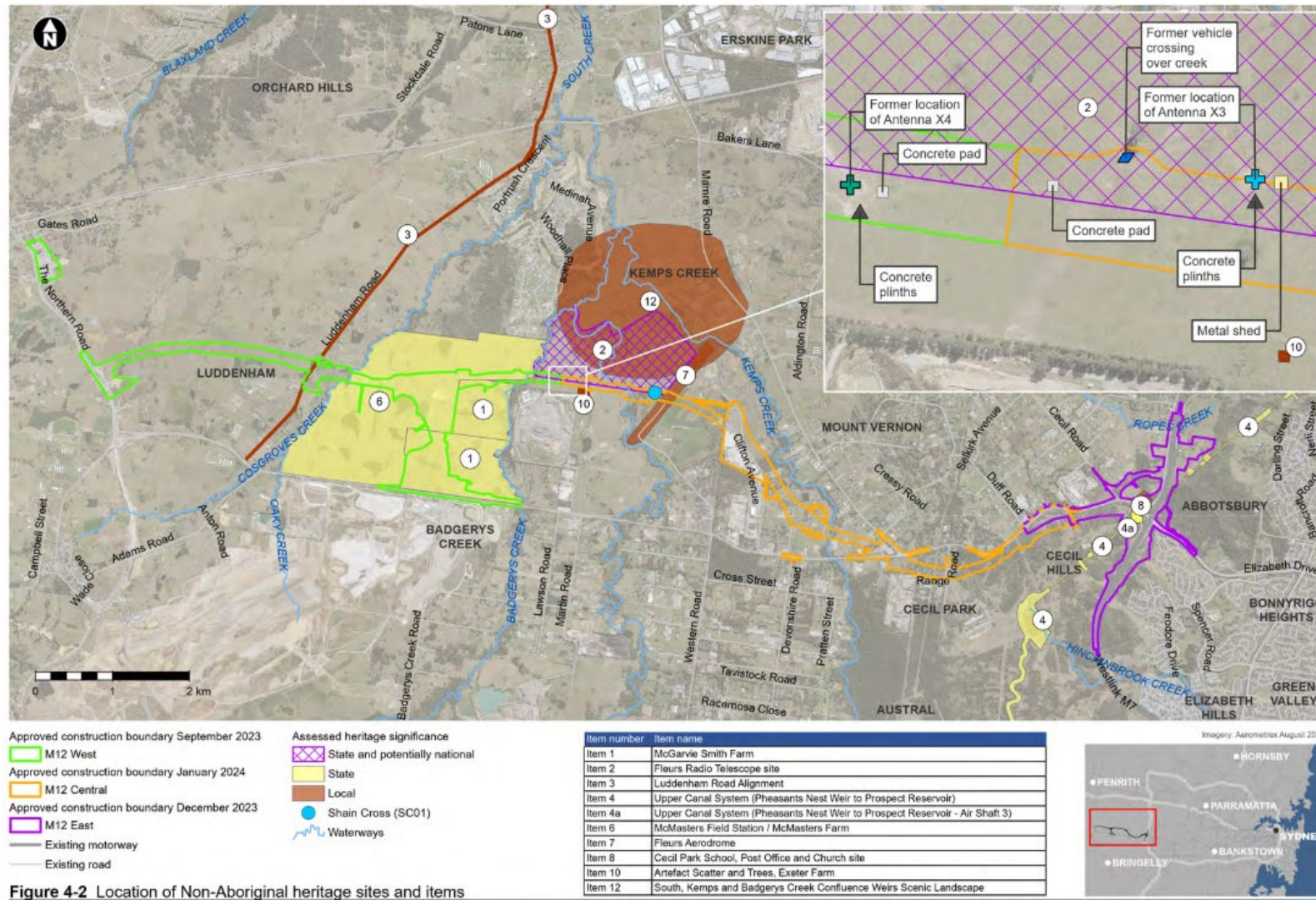


Figure 4-2: Location of Non-Aboriginal heritage sites and items

## 5 Environmental aspects and impacts

### 5.1 Construction activities

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

- Early Works including non-substantial construction activities such as services relocations
- Planned salvage of Aboriginal and Non-Aboriginal heritage items
- Initial clearing and/or grubbing of vegetation
- Initial removal of topsoil
- Construction of ancillary facilities and site compounds and spoil / mulch and / or equipment stockpile areas
- Temporary access roads during construction
- Earthworks and excavations during construction
- Drainage infrastructure upgrades
- Bridge construction
- Demolition of existing structures
- Construction of pavements
- Cumulative impacts.

Refer also to the Aspects and Impacts Register included in Appendix A2 of the OCEMP.

### 5.2 Aboriginal heritage impacts

Twenty-three Aboriginal cultural heritage sites are located within the construction footprint. The impact assessment identified the following sites within the construction footprint:

- Nineteen sites will be subject to direct harm
- Eleven sites will be subjected to partial harm
- Eight sites will be subjected to total harm
- Four sites will have no harm.

A summary of the impacts on each Aboriginal cultural heritage site located within the construction footprint is provided in Table 5-1 below.

An additional nine Aboriginal cultural heritage sites are located outside of the construction footprint but within the detailed investigation area. These sites are also listed in Table 5-1 and it is anticipated there will be no impact upon these sites.

Table 5-1: Aboriginal heritage site impacts

Site Name	AHIMS ID	Registered AHIMS sites	Assessed significance of site	Type of harm	Degree of harm	Consequence of harm
<b>Sites within the construction footprint</b>						
CCW	TBC	-	Moderate	Directly harmed (5 ha)	Partial	Partial loss of value; site estimated to extend to the north and south of the construction footprint for about 1 km
CCE T1	TBC	-	Moderate	Directly harmed (4.5 ha)	Partial	Partial loss of value; site estimated to extend to the north and south of the construction footprint for about 1 km
CCE T2	TBC	-	Moderate	Directly harmed (6.6 ha)	Partial	Partial loss of value; site estimated to extend to the north and south of the construction footprint for about 1 km
CCE T3	TBC	-	Moderate	Directly harmed (20 ha)	Partial	Partial loss of value; very diffuse background scatter estimated to extend to the north and south of the construction footprint for about 1 km
BWB	TBC	-	Moderate	Directly harmed (1.7 ha)	Partial	Partial loss of value; site estimated to extend to the north of the construction footprint several hundred metres
BCW	TBC	-	High	Directly harmed (1.4 ha)	Total	Total loss of value
BCE	TBC	45-5-0528 (Fleurs 2) 45-5-4750 (M12 A3)	High	Directly harmed (5.8 ha)	Partial	Partial loss of value; site estimated to extend to the north of the construction footprint for about 0.8 km

Site Name	AHIMS ID	Registered AHIMS sites	Assessed significance of site	Type of harm	Degree of harm	Consequence of harm
		45-5-4748 (M12 A2)				
SCW T1	TBC	45-5-0496 45-5-4749 45-5-0528 45-5-4750	High	Directly harmed (3.6 ha)	Partial	Partial loss of value; site estimated to extend to the north and south of the construction footprint for several hundred metres
SCW T2	TBC	-	High	Directly harmed (0.9 ha)	Partial	Partial loss of value; site estimated to extend to the north of the construction footprint for 0.2 km
SCE	TBC	45-5-0496 (Fleurs 1) 45-5-4749 (M12 A4)	High	Directly harmed (5.6 ha)	Partial	Partial loss of value; site estimated to extend to the north of the construction footprint for several hundred metres; loss of silcrete source and associated quarrying evidence
KNW	TBC	-	Moderate	Directly harmed (11.4 ha)	Partial	Partial loss of value; site estimated to extend to the east and north of the construction footprint for several hundred metres
KCW	TBC	-	Moderate	Directly harmed (3.6 ha)	Partial	Partial loss of value; site estimated to extend to the east and north of the construction footprint for several hundred metres
KCE	TBC	-	Low	Directly harmed (1.5 ha)	Total	Total loss of value



Site Name	AHIMS ID	Registered AHIMS sites	Assessed significance of site	Type of harm	Degree of harm	Consequence of harm
PCP8	45-5-2308	45-5-2308	Moderate	Directly harmed (0.1 ha)	Total	Total loss of value
CHRP	45-5-4935	45-5-4935	High	Directly harmed (0.4 ha)	Total	Total loss of value
RR	45-5-4937 45-5-4007	45-5-4937 45-5-4007	Low	Directly harmed (0.5 ha)	Total	Total loss of value
M12A1	45-5-4747	45-5-4747	Low	Directly harmed (0.02 ha)	Total	Total loss of value
Isolated artefact 4	45-5-3804	45-5-3804	Low	Directly harmed	Total	Total loss of value
TNR-AFT-14	45-5-4786	45-5-4786	Low	Directly harmed	Total	Total loss of value
CP AS1	45-5-4374	45-5-4374	(not assessed)	No harm	None	No loss as the Aboriginal heritage item is within an exclusion zone
P-CP9	45-5-2307	45-5-2307	(not assessed)	No harm	None	No loss as the Aboriginal heritage item is within an exclusion zone
KC/ED2	N/A	N/A	(not assessed)	No harm	None	No loss as the Aboriginal heritage item is within an exclusion zone
Mamre Road Kemps Creek AFT 1	45-5-5478	45-5-5478	(not assessed)	No harm	None	No loss as the Aboriginal heritage item is within an exclusion zone

Site Name	AHIMS ID	Registered AHIMS sites	Assessed significance of site	Type of harm	Degree of harm	Consequence of harm
<b>Sites within the detailed investigation area (outside the construction footprint)</b>						
PAD-OS-7	45-5-2721	45-5-2721	Low	No harm	None	No loss of value as this site will be protected by an exclusion zone to avoid direct disturbance
PAD-OS-5	45-5-2723	45-5-2723	(not assessed)	No harm	None	No loss of value as this site is about 200 metres from the construction footprint
PAD 2001-6	45-5-3999	45-5-3999	(not assessed)	No harm	None	No loss of value as the site is about 25m from the construction footprint.
DLC 2	45-5-2563	45-5-2563	(not assessed)	No harm	None	No loss of value as this site is about 20 metres from the construction footprint and on private property that won't be impacted.
M12A5	45-5-4767	45-5-4767	(not assessed)	No harm	None	No loss of value as this site is about 200 metres from the construction footprint.
Ropes Creek AFT	N/A	N/A	(not assessed)	No harm	None	No loss of value as the site is not within the construction footprint.
HC/ED1	45-5-2773	45-5-2773	(not assessed)	No harm	None	No loss of value as the site is not within the construction footprint and the site has been destroyed previously.
PAD-OS-4	N/A	N/A	(not assessed)	No harm	None	No loss of value as the site is not within the construction footprint.
PAD 2023-846	45-5-4022	45-5-4022	(not assessed)	No harm	None	No loss of value as the site is about 16m from the construction footprint.

### 5.3 Non-Aboriginal heritage impacts

The EAD found that of the nine heritage items within or adjacent to the Project corridor, five heritage items are subject to physical impacts as a result of the Project. Following the implementation of management measures, the Project will have a major impact on four items and a minor impact on one item, these are:

- Major heritage impact:
  - Item 1: McGarvie Smith Farm
  - Item 6: McMaster Field Station
  - Item 7: Fleurs Aerodrome
  - Item 8: Cecil Park School, Post Office and Church Site
- Minor heritage impact:
  - Item 2: The Fleurs Radio Telescope Site.

The Project was assessed as having a negligible impact on the remaining five heritage items, these are:

- Item 3: Luddenham Road Alignment
- Item 4: Upper Canal System
- Item 4a: Upper Canal System – air shaft 3
- Item 10: Exeter Farm Archaeological Site
- Item 12: South, Kemps and Badgerys Creek Confluence Weirs Scenic Landscape.

Table 5-2 includes a summary of the anticipated impacts to Non-Aboriginal heritage items resulting from the Project.

Table 5-2: Summary of potential impacts on Non-Aboriginal heritage items

Item	Listing	Significance	Proposed activities	Potential impacts	Heritage significance and implications
Item 1: McGarvie Smith Farm	PLEP 857	Listed under Penrith LEP as Local, but assessed as State for the purpose of this EIS	Construction of dual carriageway motorway with two lanes in each direction and access road to the planned Western Sydney International Airport at Badgerys Creek	<p>The Project will bisect the entire site and result in the demolition of five buildings and one silo:</p> <ul style="list-style-type: none"> <li>McGarvie Smith Farm 6</li> <li>McGarvie Smith Farm 7</li> <li>McGarvie Smith Farm 8</li> <li>Shed 1</li> <li>Shed 2.</li> </ul>	<p><b>Major impact</b></p> <p>The proposed works within McGarvie Smith Farm will be of medium-large scale and moderate intensity, with the demolition of the buildings and silo being permanent and irreversible. The M12 Motorway will bisect the farm resulting in ongoing impacts during the operation of the Project. The level of impact on the heritage items overall will be major.</p>
Item 2: The Fleurs Radio Telescope Site	PLEP 832	Listed under Penrith LEP as Local, but assessed as State and potentially National for the purpose of this EIS	Construction of dual carriageway motorway with two lanes in each direction	<p>The Project will demolish several elements of the Fleurs Radio Telescope site including the Shain Cross (SC01) and the visual components of the South Creek 3 and 5 Antenna Complex and South Creek 4 which are located within the construction footprint.</p>	<p><b>Minor impact</b></p> <p>The proposed works within Fleurs Radio Telescope site will be at a localised scale and low intensity, with the demolition of the Shain Cross, the visual components of the South Creek 3 and 5 Antenna Complex and South Creek 4 including concrete plinths, concrete pads, former access to the antennas X<sub>3</sub> and X<sub>4</sub> used for equipment control and power that will be permanent and irreversible. Operational impacts on the site may occur due to the proximity of vibration and traffic fumes on the significant fabric, however the specific impacts at this stage are unknown. The level of</p>

Item	Listing	Significance	Proposed activities	Potential impacts	Heritage significance and implications
					impact on the heritage item overall will be minor.
Item 3: Luddenham Road Alignment	PLEP 843	Listed under Penrith LEP as Local	Construction of dual carriageway motorway with two lands in each direction.	No physical impacts as there is little or no original physical road fabric or associated features within study area to be impacted.	Negligible impact
Item 4: Upper Canal System	SHR 01373, LLEP	Listed under State Heritage Register as State Listed under LLEP as Local	Construction of grade-separated interchanges including associated ramps, with M7 Motorway	<p>The Project will not modify or otherwise cause direct or indirect damage to the Upper Canal System including the Cecil Hills Tunnel and Tunnel Shafts 3 &amp; 4.</p> <p>The Project will consider the Upper Canal Pheasants Nest to Prospect Reservoir Conservation Management Plan (<i>NSW Public Works Governments Architect's Office, 2016</i>) and <i>Guidelines for development adjacent to the Upper Canal and Warragamba Pipelines</i> (WaterNSW, 2020). No sections of pipeline that are located underground will be impacted. The Tunnel Shaft 4, located in the M7 central road median, will not be impacted as this location will not be subject to works.</p> <p>4a Air Shaft 3: The Project will not destroy any sections of tunnel that is located underground. Impact to Air Shaft 3, located in south-west will be avoided through design modification, as required.</p>	Negligible impact

Item	Listing	Significance	Proposed activities	Potential impacts	Heritage significance and implications
Item 6: McMaster Field Station	N/A	Not currently listed but assessed in this report as State for the purpose of this EIS	Construction of grade-separated interchanges including associated ramps, with access road to the planned Western Sydney International Airport at Badgerys Creek	<p>The Project will bisect the landscape of the McMaster Farm overall as the dual carriageway and interchange will be located within the property.</p> <p>Some modified landscape elements will be destroyed by the project. A potential construction laydown area overlaps with the complex of buildings on the property, and may be reused as construction offices and facilities.</p>	<p><b>Major impact</b></p> <p>The proposed works within McMaster Field Station will be of medium-large scale and moderate intensity, with some of the changes being permanent and irreversible including the demolition of Building No. 1. The landscape of the heritage item will be impacted by the construction of the project. Operational impacts will be applicable as the Project bisects the heritage item. The level of impact on the heritage item overall will be major.</p>
Item 7: Fleurs Aerodrome	N/A	Not currently listed but assessed as local for the purpose of this EIS	Construction of dual carriageway motorway with two lanes in each direction	The proposed construction footprint will bisect the previous runway to the north of the existing runway. A remnant metal object is located 13 metres south of the construction footprint and is unlikely to be impacted by the Project.	<p><b>Major impact</b></p> <p>The proposed works within the Fleurs Aerodrome will be of medium-large scale and moderate intensity, with the changes being permanent and irreversible. The landscape of the heritage item will be impacted by the construction of the project.</p> <p>Operational impacts will be applicable as the project bisects the heritage item. The level of impact on the heritage item overall will be major.</p>
Item 8: Cecil Park School,	N/A	Not currently listed but assessed as	Construction of grade-separated interchanges	The Project will physically disturb and destroy the area of archaeological	<b>Major impact</b>



Item	Listing	Significance	Proposed activities	Potential impacts	Heritage significance and implications
Post Office and Church Site		local for the purpose of this EIS	including associated ramps, with M7 Motorway	potential through ground disturbance activities.	<p>The proposed works within the Cecil Park historical complex will be of medium-large scale and moderate-high intensity, with the changes being permanent and irreversible. Construction impacts on Item 8 will cause physical damage to the entire area of archaeological potential within the heritage item, including the removal of Cecil Park school, post office and teacher residence.</p> <p>As the construction will remove most of the archaeological aspects of the heritage item, it will no longer be of significance and will therefore not be subject to further operational impacts. The level of impact on the heritage item overall will be major.</p>
Item 10: Exeter Farm Archaeological Site	N/A	Not currently listed but assessed as local for the purpose of this EIS	Construction of dual carriageway motorway with two lanes in each direction	Currently located 50 metres south of the Construction Footprint and therefore no impact.	Negligible impact
Item 12: South, Kemps and Badgerys Creek Confluence Weirs Scenic Landscape	N/A	Not currently listed but assessed as local for the purpose of this EIS	Construction of dual carriageway motorway with two lanes in each direction	There will be no direct impacts associated with the Project as works will not be carried out within the item's curtilage. There will be no direct impacts associated with the Project as works will not be carried out within the item's curtilage. The potential hydrological	Negligible impact

Item	Listing	Significance	Proposed activities	Potential impacts	Heritage significance and implications
				changes associated with the project are minor and localised.	

## 5.4 Cumulative impacts

Cumulative Aboriginal and non-Aboriginal heritage impacts may arise from the interaction of construction and operation activities of the Project and other approved or proposed projects in the area. When considered in isolation, specific impacts may be considered minor. These minor impacts may be more substantial however, when the impact of multiple projects on the same receivers is considered.

As detailed in the Environmental Assessment Documentation, a multitude of other projects in the area are currently being constructed with the area including:

- M7 Widening
- The Western Sydney International Airport
- Sydney Metro – Western Sydney Airport
- The Northern Road
- Planned road upgrades and land releases such as Western Sydney Aerotropolis.

Cumulative Aboriginal heritage impacts during construction include the disturbance of 40 ha of archaeologically sensitive South Creek alluvium which occurs along waterways. This may cause moderate impact to Aboriginal objects, site complexes and cultural landscapes. It should be noted that this area contains a large cultural value to the Darug people. The Aboriginal Heritage Interpretation Plan will consider cumulative Aboriginal heritage impacts.

Cumulative Non-Aboriginal impacts during construction although transformative, are considered relatively minor as they are addressed and managed through the implementation of a range of environmental mitigation measures.

Interagency communication between government departments, stakeholders and RAPs undertaking Work in the area will be managed by TfNSW with the aim of combining messages when possible and minimising heritage impacts to the local community.

Consultation will be undertaken with neighbouring properties and with personnel who will be undertaking work on other projects within the vicinity of the M12 Motorway construction to ensure they are aware of any exclusion zones or sensitive areas identified for the Project.

## 6 Environmental mitigation and management measures

### 6.1 Aboriginal heritage

Aboriginal heritage sites across the Project will be managed as outlined in Table 6-1, noting that salvage for any heritage sites within the construction has been undertaken across all stages. Refer to the following sections for further detail on each management strategy and refer to Figure 4-1 for areas that have been salvaged.

Table 6-1: Management strategies for Aboriginal heritage sites

Management strategy	Strategy description	M12 West	M12 Central	M12 East
Active avoidance	Carry out investigations during detailed design to maximise the retention of intact cultural deposits, particularly those within the CHRP and sites located under the elevated structures over Badgerys Creek and South Creek.	<ul style="list-style-type: none"> <li>BCW</li> </ul>	<ul style="list-style-type: none"> <li>BCE</li> <li>SCW T1</li> <li>SCW T2</li> <li>SCE</li> </ul>	<ul style="list-style-type: none"> <li>CHRP (Salvaged Aboriginal site within the construction boundary)</li> </ul>
Passive avoidance	No active protection measures required due to a lack of direct impacts or low archaeological significance.	-	<ul style="list-style-type: none"> <li>KCE</li> <li>M12A5</li> <li>PAD 2001-6</li> </ul>	<ul style="list-style-type: none"> <li>PAD-OS-7</li> <li>PAD-OS-5</li> <li>DLC2</li> <li>HC/ED1</li> <li>PAD-OS-4</li> <li>Ropes Creek AFT</li> <li>PAD 2023-846</li> </ul>
Active protection	Protection provided in the form of fencing along the edge of the construction footprint closest to the site with signage notifying construction personnel to avoid ground impacts.	<ul style="list-style-type: none"> <li>CCW</li> <li>CCE T1</li> <li>CCE T2</li> <li>CCE T3</li> <li>BWB</li> <li>BCW</li> </ul>	<ul style="list-style-type: none"> <li>BCE</li> <li>SCW T1</li> <li>SCW T2</li> <li>SCE</li> <li>KNW</li> <li>KCW</li> <li>Mamre Road Kemps Creek AFT 1</li> <li>P-CP9</li> <li>CP AS1</li> <li>KC/ED2</li> </ul>	<ul style="list-style-type: none"> <li>CHRP (Aboriginal heritage sensitive area outside of the construction boundary)</li> </ul>
Active protection	Protection will be provided in the form of an exclusion zone and appropriate barrier / fencing along the portion of AHIMS site 45-5-2721 (PAD-OS-7) that	-	-	<ul style="list-style-type: none"> <li>AHIMS site 45-5-2721 (PAD-OS-7)</li> </ul>

Management strategy	Strategy description	M12 West	M12 Central	M12 East
	extends into the construction footprint, with visible signage notifying construction personnel to avoid ground impacts.			
Salvage collection	Salvage collection is warranted at those Aboriginal cultural heritage sites in the construction footprint where stone artefacts were recorded on the surface. Salvage collection is to record MGA coordinates of each artefact by GPS and relevant artefact attributes consistent with the broader archaeological salvage analysis. Salvage collection will be carried out by a suitably qualified archaeologist.	<ul style="list-style-type: none"> <li>Isolated Artefact 4</li> <li>TNR-AFT-14</li> <li>M12A1</li> </ul>	<ul style="list-style-type: none"> <li>BCE</li> <li>SCW T2</li> <li>KCW</li> <li>PCP8</li> <li>RR</li> </ul>	<ul style="list-style-type: none"> <li>CHRP (Salvaged Aboriginal site within the construction boundary)</li> </ul>
Salvage excavation	Salvage excavation is warranted at those Aboriginal cultural heritage sites that were assessed as having high scientific and high overall significance. Salvage excavation will be carried out by a suitably qualified archaeologist.	<ul style="list-style-type: none"> <li>CCW</li> <li>BWB</li> <li>BCW</li> </ul>	<ul style="list-style-type: none"> <li>SCW T1</li> <li>SCW T2</li> <li>SCE</li> <li>KCW</li> </ul>	<ul style="list-style-type: none"> <li>CHRP (Salvaged Aboriginal site within the construction boundary)</li> </ul>
Archaeological Test excavation	If construction restrictions result in impacts to area of PAD associated with AHIMS site 45-5-2721 (PAD-OS-7), archaeological test excavation is required, to be conducted in accordance with Requirement 16a of the <i>Code of Practice for Investigation of Aboriginal Objects in NSW</i> (DECCW 2010), <i>Stage 2 Aboriginal Cultural Heritage Consultation and Investigation (PACHCI)</i> (Roads and Maritime 2011) and in consultation with RAPs (refer to Section 1.5.1). This will only be a requirement if avoidance cannot be achieved.	-	-	<ul style="list-style-type: none"> <li>AHIMS site 45-5-2721 (PAD-OS-7)</li> </ul>

### 6.1.1 Active avoidance

Active avoidance involves the retention of heritage sites located between elevated structures over Badgerys Creek and South Creek. This will be achieved through detailed design with the objective to maximise the retention of intact, cultural deposits in the zone between bridge pylons.

Active avoidance strategies to be employed in proximity of heritage sites include:

- Fencing exclusion areas (see Section 6.5)
- Minimising construction areas
- Locating and designing haulage and other access roads to minimise disturbance of soils
- Covering cultural deposits with geotextile fabric and clean fill to reduce the potential for inadvertent damage.

Maximising protection is particularly important in the zone within 100 metres of creeks. Sites for active avoidance management are listed in Table 6-1.

### 6.1.2 Passive avoidance

Sites nominated for passive avoidance do not require specific management measure because they are either located a sufficient distance outside of the construction footprint, or in the case of KCE, does not require active protection due to the low archaeological significance of the site.

Sites for passive avoidance are listed in Table 6-1.

### 6.1.3 Active protection

Sites that are partially impacted by the Project require active protection for those parts of each site that are located outside of the construction footprint, where sites are estimated to continue outside of the construction footprint.

Protection measures will include installation of temporary fencing around the portion of the site that is located outside of the construction footprint, with the erection of signage for construction personnel to avoid ground disturbance (see Section 6.5).

Sites requiring active protection through fencing and exclusion areas are listed in Table 6 1. Exclusion zones are detailed in Section 6.5

PAD-OS-7 occurs outside the construction footprint but will be entirely protected by boundary fencing that will act to deter access to the site, acting similarly as an exclusion zone (active protection).

### 6.1.4 Salvage collection

Salvage collection was required at sites in the construction footprint where stone artefacts have been recorded on the surface. Salvage collection of recorded artefacts within the construction footprint was undertaken as low impact work by a suitably qualified archaeologist as detailed in the Aboriginal Cultural Salvage Strategy. As required by REMM AH02, the Aboriginal Cultural Salvage Strategy was prepared in consultation with the Project RAPs and EHG. At a minimum, salvage collection involved the recording of MGA GPS coordinates for each artefact and relevant artefact attributes. The results of the salvage collection are currently being documented in an Aboriginal Cultural Heritage Report which will be issued to the RAPs for information, and Planning Secretary after the completion of the salvage work. The report will be issued no later than 12 months after the final analysis and identification and development of a final repository for finds.



Sites requiring salvage collection are listed in Table 6-1.

### 6.1.5 Salvage excavation

The archaeological salvage program for the Project was completed in July 2022. Salvage excavation was undertaken by a suitably qualified archaeologist (Kelleher Nightingale Consulting (KNC)) and nominated site officers for the relevant RAP, and in accordance with the Aboriginal Cultural Salvage Strategy developed for the Project. All archaeological fieldwork is now complete.

The results of the salvage excavation will be documented in an Aboriginal Cultural Heritage Report which will be issued to the RAPs for information, and Planning Secretary. The report will be issued no later than 12 months after the final analysis, identification and development of a final repository for finds.

If impacts to PAD-OS-7 are unavoidable, salvage excavation of this site will be required.

Sites requiring salvage excavation are listed in Table 6-1.

### 6.1.6 Aboriginal Heritage Interpretation Plan

Two Heritage Interpretation Plans (HIP) for Aboriginal and Non-Aboriginal heritage will be prepared for the Project on behalf of TfNSW to fulfill the requirements of NSW CoA E27. The Non-Aboriginal HIP is detailed in Section 6.2.2.

The Aboriginal HIP will be prepared by Balarinji Indigenous Design and Strategy on behalf of TfNSW. Consultation will be conducted with the following organisations and agencies:

- Aboriginal Cultural Heritage Advisory Committee
- Local Aboriginal Land Council/s
- Fairfield City Council
- Penrith City Council
- Liverpool City Council.

Refer to Section 1.5.2 for more information related to ongoing consultation.

The Aboriginal HIP will include interpretation measures that will improve community awareness of Aboriginal cultural heritage values. This will be an Aboriginal artwork interpretation strategy and plan for Aboriginal cultural heritage sites surrounding the Project. The Aboriginal HIPs will also be provided to WSIA and Sydney Metro Western Sydney Airport to assist in guiding opportunities for integration of heritage values into their Project design.

The design requirements related to the NSW CoA E27 will be implemented in the HIP and the detailed design of the project.

## 6.2 Non-Aboriginal heritage

### 6.2.1 Archival photographic recording

A suitably qualified heritage specialist will be engaged to prepare an archival photographic recording of heritage sites in accordance with the *Heritage Information Series: How to prepare archival records of heritage items* (NSW Heritage Office, 1998) and *Photographic Recording of Heritage Items Using Film or Digital Capture* (Heritage Branch, 2006).

Archival recording will be carried out for heritage items in accordance with the REMM E28 prior to commencement of work that may impact on the items. The recording will include both buildings and landscape features such as dams, and earthworks. The recording will include a detailed map showing the location of the features in an Archival Recordings Heritage Report.

Sites requiring archival photographic recording are:

- Item 1: McGarvie Smith Farm (Penrith LEP 857)
- Item 2: The Fleurs Radio Telescope Site (Penrith LEP 832). In accordance with REMM NAH05 (amended) this recording will also include detailed survey drawings, outcomes of remote sensing survey undertaken by GHD (2021) and details of sample cables collected including their original exact location by description, coordinates and mapping. Additional specific requirements relating to Antennas X3 and X4 and associated infrastructure including cabling, hoses and concrete plinths include sampling (cabling and hosing) and protection (concrete plinths). The Construction Contractor is to refer to the specific requirements as detailed within NAH05 (amended) in Appendix B and management measures detailed in Section 6.3, specifically items CH12-CH17a.
- Item 3: Luddenham Road Alignment<sup>1</sup>
- Item 6: McMaster Field Station
- Item 7: Fleurs Aerodrome in accordance with REMM NAH05 (amended).

Item 4a - Air shaft 3 has been excluded from this list as further assessment did not recommend archival recording for Air Shaft 3 (Artefact, 2021).

### 6.2.2 Non-Aboriginal Heritage Interpretation Plan

A Non-Aboriginal HIP will be prepared for the Project by Extent Heritage on behalf of TfNSW to fulfil the requirements of NSW CoA E27 as they relate to Non-Aboriginal heritage.

The Non-Aboriginal HIP will include consideration of elements to enable the continued interpretation and understanding of heritage values within the M12 corridor. This will be carried out with the following organisations and agencies:

- Heritage NSW
- Department of Defence
- Veterans Groups where the opportunity exists
- Fairfield City Council,
- Penrith City Council
- Liverpool City Council.

The Non-Aboriginal HIP will also be provided to WSIA and Sydney Metro Western Sydney Airport to assist in guiding opportunities for integration of heritage values into their Project design.

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<sup>1</sup> An archival photographic recording of Item 3 will only be undertaken if post and/or rail fencing is identified in the construction footprint

The Non-Aboriginal HIP will include:

- Interpretation measures that will improve community awareness of the history of the Fleurs Radio Telescope and Fleurs Aerodrome as well as determine suitable locations for the presentation of information that are publicly accessible
- Consideration of elements to enable the continued interpretation and understanding of the airstrip at Fleurs Aerodrome as a linear and continuous element. This will be carried out in consultation with Department of Defence and consider opportunities for involvement of veteran's groups
- Interpretation measures that will improve community awareness of the history and use of the McMaster's Farm/Field Station and the original building complex at the site, and specifically identifying Building 1 which is proposed for demolition.

The design requirements related to the NSW CoA E27 will be implemented in the HIP and the detailed design of the project.

### **6.2.3 Archaeological salvage excavations**

Archaeological test excavations have been carried out for the Cecil Park School, Post Office and Church Site (Item 8) in accordance with the research design and methodology outlined in the *M12 Motorway: Former Cecil Park Historical Complex Historical Archaeological Salvage Research Design and Methodology* (Jacobs, 2020). As noted in Section 4 of the ARSR, based on these results Heritage NSW advised that no further archaeological excavation was required at Cecil Park Complex Archaeological Site, where 'relics' were unlikely to be disturbed.

A suitably qualified archaeologist will be present during excavation of the area occupied by the Cecil Park archaeological site to confirm that the significance of artefacts and remains are in line with the findings of the test excavations already completed. Where an unexpected find of a 'relic' (as defined in the *Heritage Act 1977*) is encountered, works would stop and the unexpected finds protocol for the project (Appendix C) would be implemented. Heritage NSW would be notified of the unexpected find of a 'relic', if required.

### **6.2.4 Thematic heritage study**

A thematic heritage study of CSIRO and other agricultural research stations, including both McGarvie Smith Farm and McMaster Field Station, and other relevant agricultural research stations and similar facilities located in NSW, has been prepared by Extent Heritage on behalf of TfNSW. The thematic study includes a review of the role of such properties in veterinary research, association with agricultural, pastoral and animal husbandry groups, use of pioneering methods and practices and contribution to the development of farming in Australia.

## **6.3 Management Measures**

Management actions prescribed by this CCHMP aim to avoid and minimise impacts on Aboriginal and Non-Aboriginal heritage values and are summarised in Table 6-2.

Table 6-2: Management and mitigation measures of relevance to heritage

ID	Management Measure	When to implement	Responsibility for implementation	Applicability			Reference or source	Evidence of implementation
				M12 West	M12 Central	M12 East		
General								
CH01.	At least 10 working days prior to commencing Physical Work on Site in or near an environmentally sensitive area (including heritage sites), prepare an EWMS which includes the details of the environmental protection measures to be implemented at that location. Clearly delineate the environmentally sensitive area and signpost the locations and boundaries.	During construction	Construction Contractor	✓	✓	✓	TfNSW G36	Sensitive Area Plans Site inspection/ photographs
Aboriginal cultural heritage								
CH02.	A detailed Aboriginal Cultural Salvage Strategy must be prepared in consultation with the RAPs and EESG before any archaeological or cultural salvage is undertaken within the CSSI boundary. All salvage collections and excavations will be carried out by a suitability qualified and experienced Archaeologist using methods determined in consultation with the EESG and Project RAPs.	Prior to construction	TfNSW Archaeologist	✓	✓	✓	AH02	Aboriginal Cultural Salvage Strategy

ID	Management Measure	When to implement	Responsibility for implementation	Applicability			Reference or source	Evidence of implementation
				M12 West	M12 Central	M12 East		
CH03.	Following completion of all salvage works associated with heritage items, an Aboriginal Cultural Heritage Report must be prepared in accordance with relevant guidelines and in consultation with Project RAPs and EESG. The Report will document all results of the salvage activities including analysis of artefacts from collections and excavations and management of all artefact finds.	Prior to construction	TfNSW Heritage Consultant	✓	✓	✓	AH02	Aboriginal Cultural Heritage Report
CH04.	Impacts on identified Aboriginal cultural heritage sites will be minimised where feasible in consultation with a suitably qualified and experienced archaeologist. Measures considered will include (but not be limited to) focusing protection measures on the zone within 100 metres of creeks and should consider opportunities to cover the original cultural deposits with temporary protective barriers such as geotextile fabric and a layer of clean fill.	Detailed design, prior to construction and during construction	Construction Contractor Archaeologist	✓	✓	✓	AH03	EWMS Aboriginal Cultural Heritage Report
CH05.	An Unexpected Heritage Finds and Human Remains Procedure (refer to Section 6.3) must be prepared in consultation with Heritage NSW. The Procedure must be submitted to the Planning Secretary, and be implemented for the duration of Work.	Prior to and during construction and operations	Construction Contractor	✓	✓	✓	CoA E31, & E32	Unexpected Heritage Finds and Human Remains Procedure (Appendix C)



ID	Management Measure	When to implement	Responsibility for implementation	Applicability			Reference or source	Evidence of implementation
				M12 West	M12 Central	M12 East		
CH06.	Where previously unidentified Aboriginal objects are discovered, all work must immediately stop in the vicinity of the affected area. Works potentially affecting the previously unidentified objects must not recommence until Heritage NSW has been informed. The Unexpected Heritage Finds and Human Remains Procedure must detail the measures to consider and manage this process as required by Condition E31 and include registration in the Aboriginal Heritage Information Management System (AHIMS).	Prior to and during construction and operations	Construction Contractor TfNSW	✓	✓	✓	CoA E33	Unexpected Heritage Finds and Human Remains Procedure (Appendix C)
CH07.	If human remains are found unexpectedly during the carrying out of Work, NSW Police should be notified immediately and the Unexpected Heritage Finds and Human Remains Procedure shall be implemented.	Prior to and during construction and operations	Construction Contractor	✓	✓	✓	CoA E31, E32, E33	Written correspondence
CH08.	An investigation will be carried out during detailed design to minimise impacts on the CHRP site where feasible. Noting this was completed prior to construction.	Detailed design and prior to construction	TfNSW			✓	AH04	Aboriginal Cultural Heritage Report
CH09.	Salvage collection of surface artefacts will be carried out as detailed in Section 6.1.4 and Aboriginal Cultural Salvage Strategy.	Prior to construction	Construction Contractor Archaeologist	✓	✓	✓	AH06	Aboriginal Cultural Heritage Report

ID	Management Measure	When to implement	Responsibility for implementation	Applicability			Reference or source	Evidence of implementation
				M12 West	M12 Central	M12 East		
CH10.	Salvage excavation will be carried out as detailed in Section 6.1.5 and Aboriginal Cultural Salvage Strategy.	Prior to construction	Construction Contractor Archaeologist	✓	✓	✓	AH07	Aboriginal Cultural Heritage Report
CH11.	Exclusion fencing shall be implemented for heritage sites occurring within and in close proximity to the construction footprint as detailed in Table 6-1, Section 6.1.3 and 6.55	Prior to and during construction	Construction Contractor	✓	✓	✓	AH08 AH10 (amended)	Sensitive Area Plans Site inspection/ photographs
<b>Non-Aboriginal heritage</b>								
CH12.	Archival photographic recordings will be undertaken for Non-Aboriginal heritage sites/items as detailed in Section 6.2.1. Additionally, photographic archival recordings of remaining above-ground elements of the Fleurs Radio-telescope site will be documented and will be included in the archival recording report as per REMM NAH05 (amended).	Prior to construction	TfNSW Archaeologist	✓	✓	✓	NAH04 NAH05 (amended) NAH06 NAH07 NAH08	Report provided by Archaeologist
CH13.	All extant elements of the Fleurs Radio Telescope site (Item 2, Penrith LEP 832) such as telescopes, associated infrastructure and rubbish mounds situated outside the construction footprint will be left intact.	Detailed design and prior to construction	Construction Contractor	✓	✓	-	NAH05 (amended)	Sensitive Area Plans Site inspection/ photographs

ID	Management Measure	When to implement	Responsibility for implementation	Applicability			Reference or source	Evidence of implementation
				M12 West	M12 Central	M12 East		
CH13a	Exclusion zones around the former location of Antenna X3 and the metal shed at South Creek 3 Antenna Complex will be established prior to the commencement of construction	Prior to ground disturbance at the Fleurs Radio Telescope Site	Construction Contractor Heritage Consultant	-	✓	-	NAH05 (amended)	Report prepared by Heritage Specialist
CH14.	Ground penetrating radar, or other remote sensing survey techniques, will be carried out under the supervision of a suitably qualified and experienced archaeologist before any ground disturbance within the heritage curtilage of the Fleurs Radio Telescope Site contained within the construction footprint to identify any sub-surface cables. A report will be prepared by the Heritage Consultant to record the outcomes of the remote sensing survey and recommend management measures for any sub-surface cables or structures found during the survey. The Construction Contractor must review the outcomes of the remote sensing survey and undertake the management measures required within the remote sensing report.  Additionally, if sub-surface components are unexpectedly identified during ground penetrating radar surveys which have not been identified as part of the Non-Aboriginal Heritage Consistency Assessment, additional assessment and management will be required and undertaken by the Construction Contractor.	Prior to ground disturbance at the Fleurs Radio Telescope Site	Construction Contractor Heritage Consultant	✓	-	-	NAH05 (amended)	Report prepared by Heritage Specialist

ID	Management Measure	When to implement	Responsibility for implementation	Applicability			Reference or source	Evidence of implementation
				M12 West	M12 Central	M12 East		
CH15.	Prior to the commencement of construction, TfNSW will consult with relevant interested parties such as CSIRO, Universities, amateur telescopic organisations, local heritage bodies and relevant special interest groups to determine if there is interest in retaining sub-surface cabling or other structures at Fleurs Radio Telescope site in accordance with REMM NAH05 (amended).	Prior to ground disturbance at the Fleurs Radio Telescope Site	TfNSW Environment and Sustainability Manager Construction Contractor	✓	✓	-	NAH05 (amended)	Consultation records
CH16.	The Construction Contractor will be responsible for (with advice from TfNSW Overarching Archival Recording Contractor) the retrieval of samples and the safe storage of samples, of each type of cable / compressed air hose along the cable alignment between antennas X3 and X4 with supervision by a heritage specialist in accordance with requirements listed in NAH05 (amended).	During construction	Construction Contractor Heritage Specialist	✓	✓	-	NAH05 (amended)	Report prepared by Heritage Specialist
	Prior to the commencement of construction, exclusion zones around the concrete plinths located at the South Creek 3 Antenna Complex and South Creek 5 Antenna Complex will be established in accordance with REMM NAH05 (amended).	Prior to construction	Construction Contractor	✓	✓	-	NAH05 (amended)	Section 6.5 Sensitive Area Maps

ID	Management Measure	When to implement	Responsibility for implementation	Applicability			Reference or source	Evidence of implementation
				M12 West	M12 Central	M12 East		
CH17a	<p>Where retaining concrete plinths <i>in-situ</i> during construction is not practicable, the construction contractor will temporarily remove and store them. Survey will be undertaken providing details of their position and orientation relative to each other. Opportunities for re-establishing the concrete plinths on site close to their original location and/or as part of the interpretative display for the Radio Telescope site will be investigated. If re-established, the survey information collected prior to their removal must be used to ensure that the plinths are located in the same orientation and arrangement.</p> <p>Prior to removal of the concrete plinths, the construction contractor is to determine whether any of the plinths are used as state survey marks. If so, compliance with the preservation of survey infrastructure requirements in TfNSW specification G71 is required. It is noted TS7279 is located on one of the plinths at X3.</p>	Prior to construction	Construction Contractor Heritage Consultant	✓	✓	-	NAH05 (amended)	Report provided by Heritage Specialist Survey information
CH17.	A potential use zone will be established around the McMaster Farm group of buildings, including a suitable buffer zone, and no construction activities will take place within this zone. The potential use zone will include safe working distances as outlined in Section 6.5.1.	Prior to construction	Construction Contractor Heritage Consultant	✓	-	-	NAH07	Report provided by Heritage Specialist



ID	Management Measure	When to implement	Responsibility for implementation	Applicability			Reference or source	Evidence of implementation
				M12 West	M12 Central	M12 East		
CH18.	Before occupying or utilising heritage buildings for potential use, a dilapidation survey will be carried out and a heritage architect will be engaged to advise on proposed modifications and management measures to avoid and minimise impact on the buildings	Prior to construction	Construction Contractor Archaeologist	✓	✓	✓	NAH07	Written report
CH19.	Impacts on Non-Aboriginal heritage items will be avoided or minimised where reasonable and feasible. Where impacts are unavoidable, works will be carried out in accordance with the measures for individual Non-Aboriginal heritage items outlined in REMM's NAH04 to NAH11.	Prior to construction and during construction	Construction Contractor	✓	✓	✓	NAH03	Sensitive Area Plans Site inspection/ photographs
CH20.	A suitably qualified archaeologist will be present during the excavation of the area occupied by the Cecil Park Archaeological site to confirm that the significance of artefacts and remains are in line with the findings of the test excavations already completed (Item 8).	Prior to construction	Construction Contractor Archaeologist	-	-	✓	NAH09	Report prepared by Archaeologist
CH21.	The following structures have the potential to be within the safe working distances for sensitive structures (Group 3 from DIN 4150): <ul style="list-style-type: none"> <li>Item 1: McGarvie Smith Farm</li> <li>Item 2: Fleurs Radio Telescope Site</li> <li>Item 4: Upper Canal System</li> <li>Item 6: McMaster Field Station</li> </ul>	Prior to construction and during construction	Construction Contractor Heritage Consultant Noise and Vibration Consultant	✓	✓	✓	NV11	Report prepared by Heritage Specialist

ID	Management Measure	When to implement	Responsibility for implementation	Applicability			Reference or source	Evidence of implementation
				M12 West	M12 Central	M12 East		
	<ul style="list-style-type: none"> <li>Item 7: Fleurs Aerodrome</li> <li>Item 4a: Upper Canal System, air shaft 3</li> </ul> <p>A detailed survey will be completed to determine the potential for vibration impacts and to define appropriate criteria for each heritage item. Vibration monitoring will be carried out when vibration intensive tasks are occurring within the minimum working distances to heritage structures. Where the monitoring identifies exceedances in the relevant criteria, or where impacts are identified, additional mitigation measures will be identified and implemented to appropriately manage impacts.</p>							
CH22.	Post and rail fencing of heritage significance associated with the Luddenham Road alignment within the construction footprint will be avoided. Where avoidance is not practicable, a suitability qualified heritage specialist will be consulted with.	During construction	Construction Contractor Heritage Specialist	✓			NAH11	Report prepared by Heritage Specialist
CH23.	The outcomes of the Upper Canal System Air Shaft 3 (Item 4a) investigation works will be updated in the Stage-Specific CCHMP. The CCHMP will be distributed to all relevant stakeholders for information.	During construction	Construction Contractor	-	-	✓	Consultation correspondence requirement	Report prepared by Heritage Specialist CCHMP
<b>Cumulative Impacts</b>								

ID	Management Measure	When to implement	Responsibility for implementation	Applicability			Reference or source	Evidence of implementation
				M12 West	M12 Central	M12 East		
CH24.	Consultation will be undertaken with neighbouring land owners and with personnel who will be undertaking work on other projects within the vicinity of the M12 Motorway construction footprint to ensure they are aware of any exclusion zones or sensitive areas identified for the Project.	Prior to construction	Construction Contractor	✓	✓	✓	CoA C5(d)	Written report

## 6.4 Unexpected Heritage Finds and Human Remains Procedure

An Unexpected Heritage Finds and Human Remains Procedure (Appendix C) will be implemented for the duration of all Works. This procedure was prepared by a suitably qualified and experienced heritage specialist in accordance with relevant guidelines and standards through consultation with NSW Heritage and the Heritage Council of NSW. The procedure was submitted to the Planning Secretary for information no later than one month before the commencement of construction.

*Note: Human remains that are found unexpectedly during the carrying out of Work may be under the jurisdiction of the NSW State Coroner and must be reported to the NSW Police immediately.*

## 6.5 Exclusion zones

Depending on what the exclusion zone is protecting, it will either be located above ground or below ground. Most exclusion zones will be located above ground to protect heritage at surface level.

The Construction Contractor will install above ground exclusion zones by fencing or other means to demarcate heritage items to be retained (including those located outside of the Project boundary) or protected before salvage. These exclusion zones will restrict access by personnel and vehicles into sensitive areas. Exclusion zones will be mapped out by a qualified surveyor in accordance with the Flagging Protocol in the Construction Flora and Fauna Management Plan (CFFMP) and TfNSW G40 specification. Underground exclusion zones will be delineated by a qualified surveyor using geofabric or other suitable marker layer.

The Construction Contractor will install environmental protection area signage on exclusion zone fencing at regular intervals agreed to by the TfNSW ESM (or delegate). This fencing will be regularly inspected by the Construction Contractor to ensure the fencing has not been damaged, as detailed in Section 7.4. If damaged, the exclusion zone will be rectified immediately. The fencing will only be removed following agreement by the TfNSW ESM (or delegate).

Exclusion zones will be established around key Aboriginal heritage items/areas as detailed in Section 6.1.1 and Section 6.1.3, and for Non-Aboriginal heritage sites including:

- Item 2: Fleurs Radio Telescope site
- Item 4: Upper Canal System Shaft 4
- Item 4a: Upper Canal System Air Shaft 3
- Item 6: McMaster Field Station
- Item 2: Fleurs Aerodrome.

The Construction Contractor will develop Sensitive Area Maps (Appendix A6 of the OCEMP) which will clearly illustrate the location of exclusion zones. Exclusion zones for Aboriginal heritage areas are mapped in Figure 6-1.

Exclusion zones may only be entered in agreement with TfNSW ESM (or delegate) to enhance biodiversity values such as landscape and/or weed management, to undertake vibration monitoring or other pedestrian surveys (e.g. biodiversity survey, etc), or under the advice of a suitably qualified and experienced built heritage expert.

### **6.5.1 Safe working distances for Potential use zones**

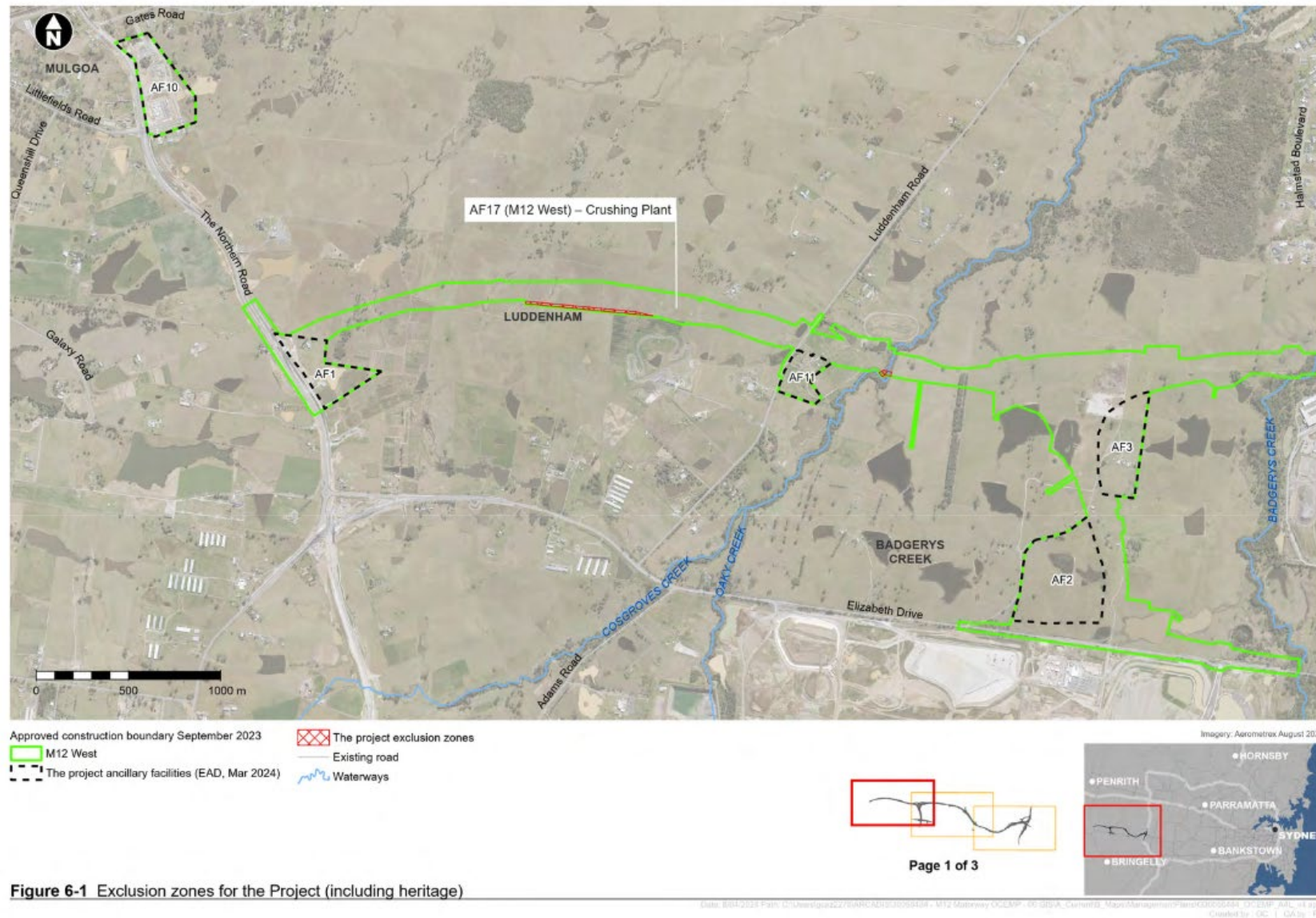
A detailed survey will be completed to determine the potential for vibration impacts on, and to define appropriate criteria, for each heritage item. Sensitive items that require survey were identified in the EIS. These include:

- Item 1: McGarvie Smith Farm
- Item 2: Fleurs Radio Telescope Site
- Item 4: Upper Canal System, including air shaft 4
- Item 4a: Upper Canal System, including air shaft 3
- Item 6: McMaster Field Station
- Item 7: Fleurs Aerodrome.

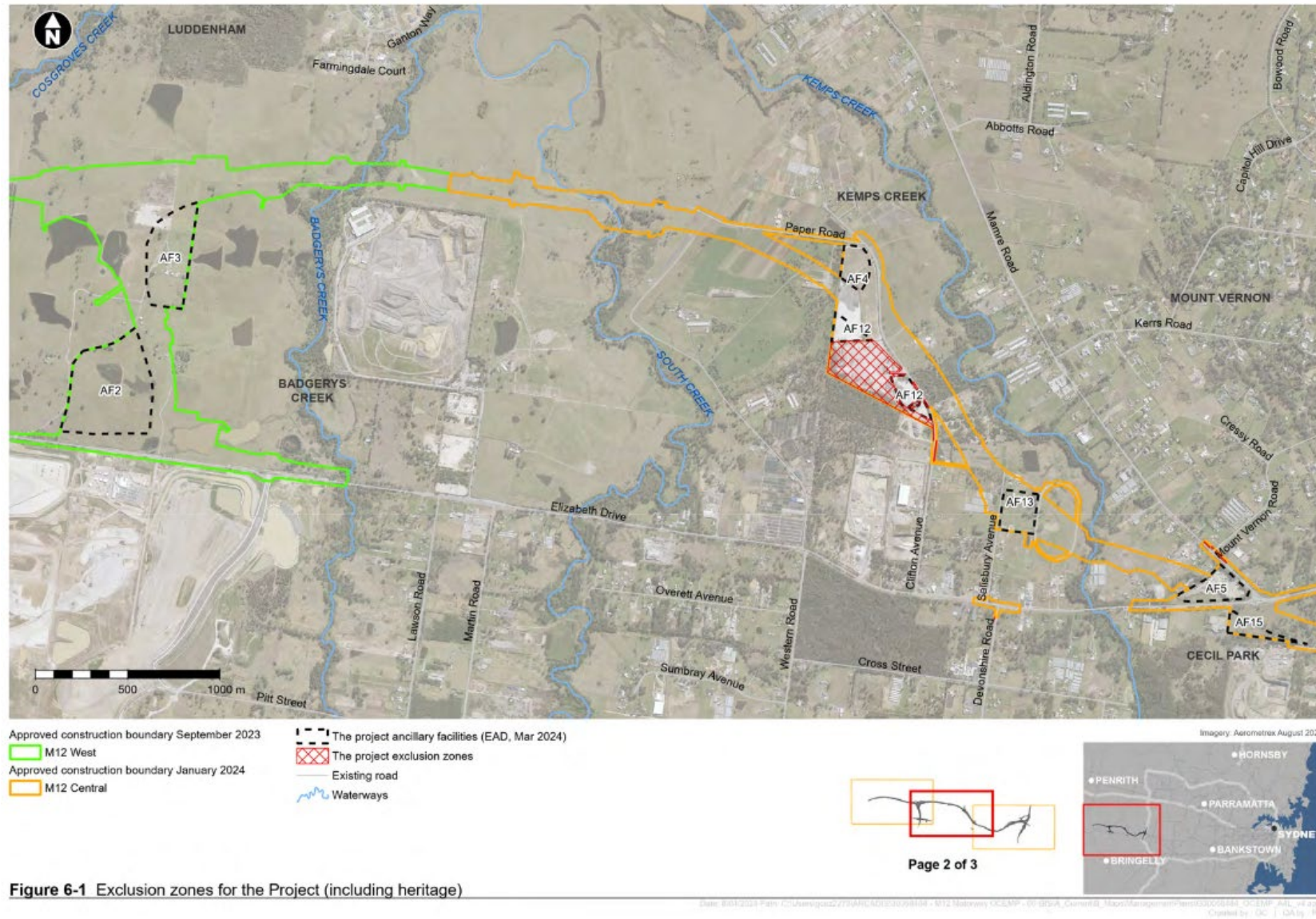
Vibration monitoring will be carried out when vibration intensive tasks are occurring within the minimum working distances to heritage structures.

Where the monitoring identifies exceedances in the relevant criteria, or where impacts are identified, additional mitigation measures will be identified and implemented to appropriately manage impacts. These measures may include delineating additional exclusion areas around structures to restrict high-vibration activities occurring too close to sensitive structures.



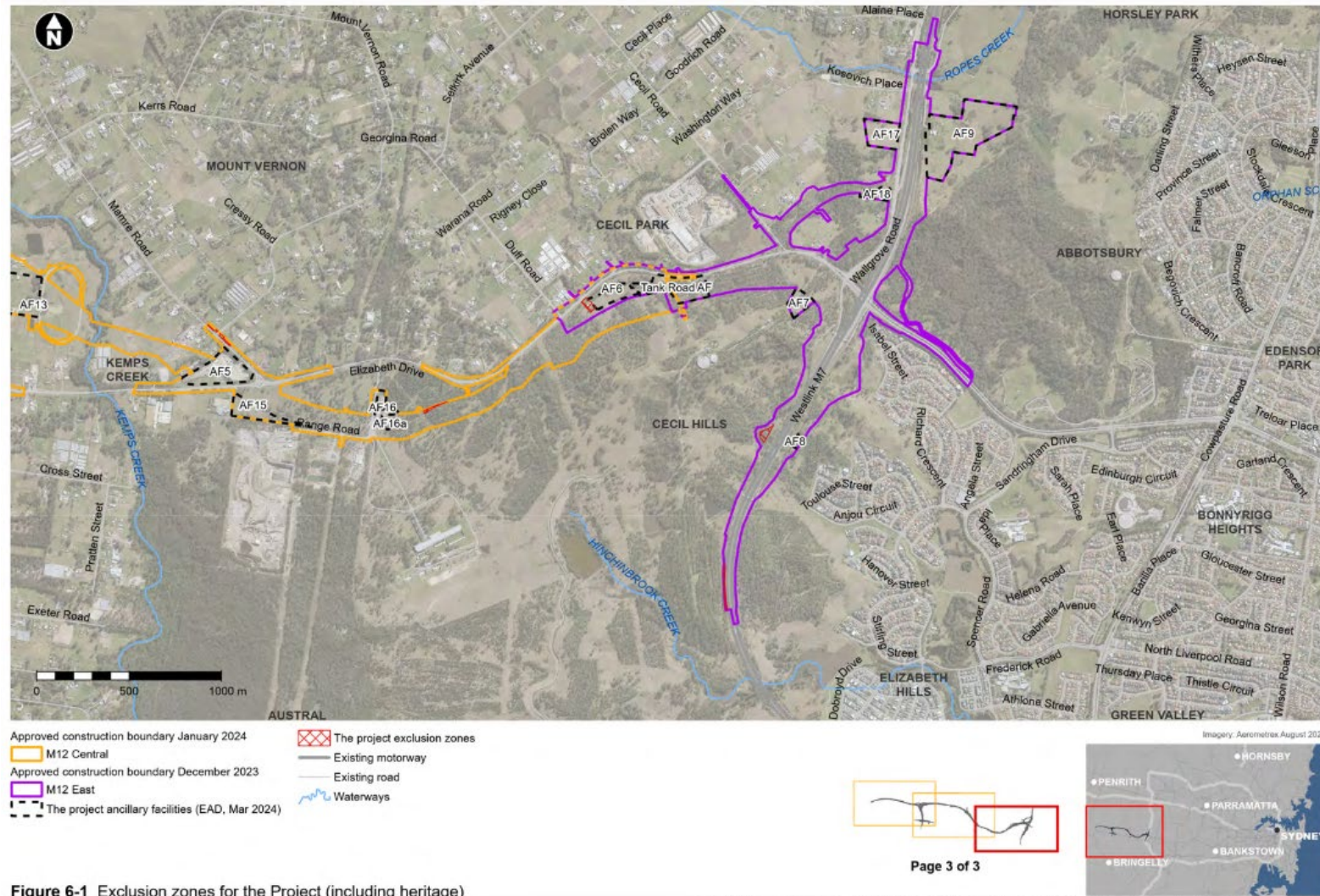


**Figure 6-1** Exclusion zones for the Project (including heritage)



**Figure 6-1** Exclusion zones for the Project (including heritage)





**Figure 6-1** Exclusion zones for the Project (including heritage)

**Figure 6-1:** Exclusion zones for the Project (including heritage)

## 6.6 Heritage listed properties

As required by CoA E44, prior to conducting at-property treatment of any heritage item identified in this Plan, TfNSW will be responsible for engaging a suitably qualified built heritage specialist to ensure such Work that will not have an adverse impact on the heritage significance of that item.

## 7 Compliance management

### 7.1 Roles and responsibilities

The Project organisational structure and overall roles and environmental responsibilities are outlined in Section 5.1 of the OCEMP. Specific responsibilities for the implementation of heritage management are detailed in Section 6 of this Plan.

All salvage collections and excavations will be carried out by a suitably qualified experienced archaeologist appointed for managing Aboriginal and Non-Aboriginal heritage items. A suitably qualified heritage specialist will also be engaged to prepare an archival photographic recording of impacted Non-Aboriginal heritage sites.

Aboriginal Site Officers (ASO) are the RAPs engaged by TfNSW in accordance with the PACHCI to undertake the excavation and salvage work for the Project. TfNSW engage the ASOs based on a selection process based on the following selection criteria:

- Demonstrated local cultural knowledge
- Previous experience
- Availability
- Capability to undertake tasks.

TfNSW's Aboriginal Cultural Heritage Advisors assist project teams liaise with the RAPs and with the engagement of ASOs for excavation and salvage work.

TfNSW's Senior Environmental Specialist (Heritage) can provide specialist advice if required.

### 7.2 Training

To ensure that this Plan is effectively implemented, all site personnel (including sub-Construction Contractors) will undergo site induction training relating to heritage management issues before construction commencing. The induction training will address elements related to heritage items and values, including:

- Existence and requirements of this overarching CCHMP, the Construction Contractors CCHMP and all plans and procedures prepared under the CCHMPs
- Relevant legislation, regulations
- Incident response, management and reporting
- Environmentally sensitive locations and exclusion zones
- Site flagging protocol
- Boundaries for land disturbance
- General heritage management measures
- All requirements of Appendices contained within this CCHMP.

Targeted training in the form of toolbox talks or specific training will also be provided to personnel with a key role in environmental management or those undertaking an activity with a high risk of



environmental impact. Site personnel will undergo refresher training at not less than six monthly intervals.

The ER will review and approve the induction and training program prior to the commencement of construction and monitor implementation.

Daily pre-start meetings conducted by the Construction Contractor Foreman/ Site Supervisor will inform the site workforce of any environmental issues relevant to heritage that may be impacted by, or impact on, the day's activities.

Further details regarding staff induction and training are provided in Section 5.3 of the OCEMP.

### 7.3 TfNSW Specification Hold Points

TfNSW specifications set out environmental protection requirements and include Hold Point processes. A Hold Point is a point beyond which a work process must not proceed without express written authorisation from TfNSW. Key Hold Points relevant to this CCHMP are identified in Table 7-1.

Table 7-1: Heritage TfNSW Hold Points

Hold Point Clause	Description	Document Reference
TfNSW G36 Section 4.13	At least 10 working days prior to commencing Physical Work on Site in or near an environmentally sensitive area, prepare an EWMS which includes the details of the environmental protection measures to be implemented at that location in accordance with G40/E (Flagging Protocol). Clearly delineate the environmentally sensitive area and signpost the locations and boundaries.	6-2 CH01

### 7.4 Inspections and monitoring

The Construction Contractor will conduct regular inspections of sensitive areas, exclusion zones and activities with the potential to impact Aboriginal and Non-Aboriginal heritage for the duration of the Project. TfNSW will also conduct independent inspections to confirm the Construction Contractors' compliance with heritage management requirements.

Requirements and responsibilities in relation to monitoring and inspections are documented in Section 7.1 and Section 7.2 of the OCEMP.

### 7.5 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 7.4 of the OCEMP.

## 7.6 Reporting and identified records

Reporting requirements and responsibilities are documented in Section 7.3 of the OCEMP

Specific reporting requirements associated with heritage salvage are outlined in Table 7-2.

Table 7-2: Reporting requirements relevant to heritage management

Report	When to implement	Timing of submission to Planning Secretary	Responsibility
Aboriginal Cultural Heritage Report (NSW CoA E29)	Following completion of all salvage works, including identification and reporting, associated with Aboriginal heritage sites	The report will be issued no later than 12 months after the final analysis, identification and development of a final repository for finds.	TfNSW Project Director TfNSW ESM (or delegate) Project Archaeologist through consultation with Project RAPs and Heritage NSW
Archival Recording Heritage Report (NSW CoA E29)	Prior to construction	Within 12 months of completing the heritage related work described in the environmental assessment documents.	TfNSW Project Director TfNSW ESM (or delegate) Suitable qualified heritage specialist
Aboriginal Heritage Interpretation Plan (NSW CoA E27)	Prior to the finalisation of the Place, Design and Landscape Plan	Prior to the finalisation of the Place, Design and Landscape Plan	TfNSW Project Director TfNSW ESM (or delegate) Suitable qualified heritage specialist Detailed designers
Non-Aboriginal Heritage Interpretation Plan (NSW CoA E27)	Prior to the finalisation of the Place, Design and Landscape Plan	Prior to the finalisation of the Place, Design and Landscape Plan	TfNSW Project Director TfNSW ESM (or delegate) Suitable qualified heritage specialist Detailed designers

The Construction Contractor will be required to maintain accurate records substantiating all construction activities associated with the Project or relevant to the CoAs, including measures taken to implement this CCHMP. Records will be made available to the DPHI and Commonwealth

Department of Climate Change, Energy, Environment and Water (DCCEEW) upon request, within the timeframe nominated in the request.

In addition, key identified records relevant to this CCHMP as specified by TfNSW G36 are identified in Table 7-3.

Table 7-3: Identified Records

Identified Records Clause	Description	Document Reference
TfNSW G36 Clause 3	Construction Contractors Environmental Management Plan (CEMP), Plans and Sub-plans, procedures and EWMS	Table 6-2

## 8 Review and improvement

### 8.1 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
- Identify environmental risks not already included in the risk register
- 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
- Document any changes in procedures resulting from process improvement
- Make comparisons with objectives and targets.

The Construction Contractor will be responsible for ensuring Project environmental risks are identified and included in the risk register and appropriate mitigation measures implemented throughout the construction of the Project as part of the continuous improvement process. The process for ongoing risk identification and management during construction is outlined in Section 4.1 of the OCEMP.

### 8.2 CCHMP update and amendment

The processes described in Section 7.7 of the OCEMP may result in the need to update or revise this Plan. This will occur as needed.

Any revisions to the CCHMP and other Sub-plans will be in accordance with the process outlined in Section 1.12 and 7.6 of the OCEMP.

A copy of the updated Plan and changes will be distributed to relevant stakeholders for information.



## Appendix A Consultation Correspondence

### A-1 Introduction

As detailed in Section 1 of the CCHMP, in accordance with NSW CoA C4(f), consultation has been undertaken with the following government agencies and stakeholders during the preparation of the CCHMP:

- Heritage NSW
- WaterNSW
- Fairfield City Council
- Penrith City Council
- Liverpool City Council.

Additionally, the CCHMP and Unexpected Heritage Finds and Human Remains Procedure was provided to all M12 Registered Aboriginal Parties (RAPs) for review and comment. The Registered Aboriginal Parties (RAPs) that responded included:

- Barraby Cultural Services
- Mura Gadi Heritage Indigenous Corporation
- Kamilaroi-Yankutjatjara Working Group
- Yurrandaali Cultural Services
- Yulay Cultural Services.

A log of the dates of engagement or attempted engagement with the parties identified above has been included in Section 1.5.1 of the CCHMP in accordance with NSW CoA A5(b). Section 2 details the evidence of engagement with each party and responses.



## A-2 Government Agency and Stakeholder Responses

This section provides consultation documentation undertaken during the consultation period with parties including:

- Engagement with parties identified in NSW CoA C4(f) that occurred prior to the submission of the CCHMP for approval by the Planning Secretary as required by NSW CoA A5(a)
- A copy of the responses provided during consultation with the required parties
- A summary of the issues raised during consultation and how they have been addressed as required by NSW CoA A5(d). A description of the outstanding issues raised during consultation and why they have not been addressed has also been included where required as per NSW CoA A5(e).

### A-2.1 Heritage NSW

Section A-2.1 details the engagement and response from Heritage NSW regarding the CCHMP prior to submission for approval and a summary of how the issues have been addressed.

Table 1: Heritage NSW comments and TfNSW response

Section of comment	Comments	TfNSW Response	Section Amended
N/A	No comment as confirmed by Heritage NSW	No further comment required.	N/A

### A-2.2 Water NSW

This section details the engagement and response from Water NSW regarding the CCHMP prior to submission for approval and a summary of how the issues have been addressed.

Table 2 provides a summary of the issues raised during consultation and how they have been addressed as required by NSW CoA A5(d).

Table 2: Water NSW comments and TfNSW response

Section of comment	Comments	TfNSW Response	Section Amended
Appendix C	It is essential that if any heritage relics are found on WaterNSW land, that WaterNSW is notified. Please update Appendix C to reflect this.	The Unexpected Finds and Humans Remains Procedure (Appendix C) has been amended Step 3 (Preliminary assessment and recording of the find) to notify Water NSW if a heritage relic is found in proximity to Water NSW Upper Canal.	Appendix C

Section of comment	Comments	TfNSW Response	Section Amended
The CCHMP	WaterNSW request to see the updated CCHMP once the investigations around the Upper Canal Air Shaft 3 have taken place. There may be actions out of this investigation work that need to be captured in this document. As such, WaterNSW should be given the opportunity to ensure that these items are captured accordingly.	<p>Should the outcomes of the investigation work of the Upper Canal Air Shaft 3 (Item 4a) require an update to the CCHMP, the Stage Specific CCHMP will be updated provided to Water NSW for information.</p> <p>It is noted that TfNSW will provide Water NSW with the outcomes of these investigations separately to the updated Stage Specific CCHMP.</p>	<p>Section 1.5.2</p> <p>Section 6.6</p> <p>Section 8.2</p>

## A-2.3 Fairfield City Council

This section details the engagement and response from FCC regarding the CCHMP prior to submission for approval and a summary of how the issues have been addressed.

Table 3 provides a summary of the issues raised during consultation and how they have been addressed as required by NSW CoA A5(d).

Table 3: FCC comments and TfNSW response

Section of comment	Comments	TfNSW Response	Section Amended
The CCHMP	All contractors on site working on the project should be subject to a heritage induction prepared and presented by the heritage consultant. Whilst the information in the document is very detailed, it is unlikely that every person on the ground will have access to/ read it. It will be those contractors that make 'unexpected finds'. It is important that every person on the job is aware of the significance of some areas.	<p>As outlined in Section 3.5, several environmental assessments have been undertaken to ensure heritage items are protected throughout construction. This has been detailed in the Environmental Assessment Documentation.</p> <p>Additional heritage assessments and investigations following exhibition of the EIS and Amendment Report exhibitions have also been undertaken to ensure any potential heritage items are captured prior to Work.</p> <p>Appendix C (Unexpected Heritage Finds and Human Remains Procedure) details the requirement to Stop Work should an unexpected find be uncovered.</p> <p>As outlined in Section 7.2 (Training), the Construction Contractor will ensure all site personnel and sub-contractors will undergo a site induction. This induction will cover any potential heritage impacts associated with the Project. All personnel will be made aware of Aboriginal archaeological sites and areas of cultural sensitivity identified in the</p>	<p>Section 7.2</p> <p>Section 7.3</p>

Section of comment	Comments	TfNSW Response	Section Amended
		<p>Sensitive Area Plans (Appendix A6 of the OCEMP).</p> <p>As outlined in Section 7.3 (TfNSW Hold Points), an Environmental Work Method Statement (EWMS) will be prepared and conducted at least 10 working days prior to commencing Physical Work on Site in or near an environmentally sensitive area. Onsite signposting will also delineate the environmentally sensitive area locations and boundaries.</p> <p>Targeted training in the form of toolbox talks or specific training will also be provided to personnel with a key role in environmental management or those undertaking an activity with a high risk of environmental impact. Site personnel will undergo refresher training at not less than six monthly intervals.</p>	

## A-2.4 Penrith City Council

This section details the engagement and response from PCC regarding the CCHMP prior to submission for approval and a summary of how the issues have been addressed.

Table 4: PCC comments and TfNSW response

Section of comment	Comments	TfNSW Response	Section Amended
N/A	No comment provided.	No further comment required.	N/A

## A-2.5 Liverpool City Council

This section details the engagement and response from LCC regarding the CCHMP prior to submission for approval and a summary of how the issues have been addressed.

Table 5 provides a summary of the issues raised during consultation and how they have been addressed as required by NSW CoA A5(d).

Table 5: LCC comments and TfNSW response

Section of comment	Comments	TfNSW Response	Section Amended
N/A	No response	No further comment required.	N/A

## Registered Aboriginal Parties

### A-2.6 Barraby Cultural Services

This section details the engagement and response from Barraby Cultural Services regarding the CCHMP prior to submission for approval and a summary of how the issues have been addressed. Table 6 provides a summary of the issues raised during consultation and how they have been addressed as required by NSW CoA A5(d).

Table 6: Barraby Cultural Services comments and TfNSW response

Section of comment	Comments	TfNSW Response	Section Amended
The CCHMP	Barraby Cultural Services has reviewed and supports the CCHMP and we have no further comments to add.	TfNSW acknowledges the support for the Project. No further action required.	N/A

### A-2.7 Mura Gadi Heritage Indigenous Corporation

This section details the engagement and response from Mura Gadi Heritage Indigenous Corporation regarding the CCHMP prior to submission for approval and a summary of how the issues have been addressed.

Table 7 provides a summary of the issues raised during consultation and how they have been addressed as required by NSW CoA A5(d).

Table 7: Mura Gadi Heritage Indigenous Corporation comments and TfNSW response

Section of comment	Comments	TfNSW Response	Section Amended
The CCHMP	I have read the project information on the overarching constructional management plan, I agree with the recommendations made.	TfNSW acknowledges the support for the Project. No further action required.	N/A

### A-2.8 Kamilaroi-Yankutjatjara Working Group

This section details the engagement and response from Kamilaroi-Yankutjatjara Working Group regarding the CCHMP prior to submission for approval and a summary of how the issues have been addressed.

Table 8 provides a summary of the issues raised during consultation and how they have been addressed as required by NSW CoA A5(d).



Table 8: Kamilaroi-Yankutjatjara Working Group comments and TfNSW response

Section of comment	Comments	TfNSW Response	Section Amended
Section 6.1.6	<p>Has the proponent sought a cultural interpretation for the project to recognise Aboriginal people as the owners of the land? Ways in which this can be archived is through design, art, digital displays, apps, native gardens, and native landscaping. It is important to incorporate interpretation into your project as it educates the wider community and our next generations about the traditional owners of the land. A keeping place should also be sought to keep artefacts on country.</p> <p>We would like to agree with your CCHMP and we support your report, we look forward to working along side you further on this project.</p>	<p>Section 6.1.6 details that an Aboriginal Heritage Interpretation Plan (HIP) will be prepared for the Project on behalf of TfNSW to fulfil the requirements of NSW CoA E27. The Aboriginal HIP will be prepared by Balarinji Indigenous Design and Strategy on behalf of TfNSW.</p> <p>The Aboriginal HIP will include interpretation measures that will improve community awareness of Aboriginal cultural heritage values including implementation of an Aboriginal Artwork Strategy. The HIPs will also be provided to WSIA and Sydney Metro Western Sydney Airport to assist in guiding opportunities for integration of heritage values into their Project design.</p> <p>Additionally, the outcomes of the HIPs will be included in the Place, Design and Landscape Plan (PDLP) which will be publicly exhibited in November 2021 for comment.</p>	N/A

## A-2.9 Yurrandaali Cultural Services

This section details the engagement and response from Yurrandaali Cultural Services regarding the CCHMP prior to submission for approval and a summary of how the issues have been addressed.

Table 9 provides a summary of the issues raised during consultation and how they have been addressed as required by NSW CoA A5(d).

Table 9: Yurrandaali Cultural Services comments and TfNSW response

Section of comment	Comments	TfNSW Response	Section Amended
The CCHMP	We would like an update on when the salvage excavations will be commencing as we would like the opportunity to participate with the excavations and we have already submitted our site officer applications.	As detailed in Section 6.1.5 and Section 6.6, salvage excavation will be undertaken by a suitably qualified archaeologist and nominated site officers from relevant RAPs as determined in consultation with the EESG and Project RAPs. TfNSW will contact the RAPs listed in consultation (Section 1.5.2) to give the party the opportunity to participate in salvage excavations.  The results of the salvage excavation will be documented in an Aboriginal Cultural Heritage Report which will be issued to the RAPs for information.	N/A

## A-2.10 Yulay Cultural Services

This section details the engagement and response from Yulay Cultural Services regarding the CCHMP prior to submission for approval and a summary of how the issues have been addressed.

Table 10 provides a summary of the issues raised during consultation and how they have been addressed as required by NSW CoA A5(d).

Table 10: Yulay Cultural Services comments and TfNSW response

Section of comment	Comments	TfNSW Response	Section Amended
The CCHMP	Yulay Cultural Services has reviewed and supports the CCHMP and we have no further comments.	TfNSW acknowledges the support for the Project. No further action required.	N/A



## Appendix B Secondary CoA and REMMs

### CoA

CoA No.	Condition Requirements	Applicability			Document Reference
		M12 West	M12 Central	M12 East	
A7	References in the terms of this approval to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, Standards or policies in the form they are in as at the date of this approval.	✓	✓	✓	Section 3.1.2
C5	The <b>CEMP Sub-plans</b> must state how:				
	(a) The environmental performance outcomes identified in the documents listed in Condition A1 will be achieved;	✓	✓	✓	Section 8
	(b) The mitigation measures identified in the documents listed in Condition A1 will be implemented;	✓	✓	✓	Section 6
	(c) The relevant terms of this approval will be complied with; and	✓	✓	✓	Section 3.2
	(d) Issues requiring management during construction (including cumulative impacts), as identified through ongoing environmental risk analysis, will be managed through SMART (Specific, Measurable, Achievable, Realistic and Timely) principles. .	✓	✓	✓	Section 6
C9	Any of the CEMP Sub-plans may be submitted to the Planning Secretary for approval along with, or subsequent to, the submission of the CEMP but in any event, no later than one (1) month before the commencement of construction.	✓	✓	✓	Section 1.4.1
C10	Construction must not commence until the CEMP and all CEMP Sub-plans have been approved by the Planning Secretary, unless otherwise agreed by the Planning Secretary. The CEMP and CEMP Sub-plans, as approved by the Planning Secretary, including any minor amendments approved by the ER, must be implemented for the duration of construction. Where construction of the CSSI is	ü	✓	✓	Section 1.4.1

CoA No.	Condition Requirements	Applicability			Document Reference
		M12 West	M12 Central	M12 East	
	staged, construction of a stage must not commence until the CEMP and sub-plans for that stage have been endorsed by the ER and approved by the Planning Secretary.				
E25	Construction and operation of the CSSI should aim to not diminish the potential of the following heritage items for nomination to the State Heritage Register beyond the impacts to significance already identified in the documents listed in Condition A1: McGarvie Smith Farm, McMaster Field Station and Fleurs Radio Telescope Site.	✓	✓	✓	Section 6.2
E26	An experienced and qualified heritage specialist(s) must prepare and/or endorse the:	✓	✓	✓	Section 6.1 Section 6.2
	(a) Heritage Interpretation Plan required by Condition E27				
	(b) Archival photographic digital recording required by Condition E28; and				
	(c) Heritage Report required by Condition E29.				
E27	A Heritage Interpretation Plan must be prepared that identifies and interprets the key heritage values and stories of the heritage items impacted by the CSSI. The Heritage Interpretation Plan must include but not be limited to:	✓	✓	✓	Section 6.1.6 Section 6.2.2 Section 7.6
	(a) Integration of heritage themes and values in the design of the CSSI; design elements (form and fabric) and themes for the CSSI;	✓	✓	✓	
	(b) Design elements (form and fabric) and themes for the CSSI;	✓	✓	✓	
	(c) Consideration of the design concepts for Western Sydney International Airport and Sydney Metro Western Sydney Airport	✓	✓	✓	
	(d) Opportunities for design responses for Aboriginal and non-Aboriginal heritage.	✓	✓	✓	

CoA No.	Condition Requirements	Applicability			Document Reference
		M12 West	M12 Central	M12 East	
	The Heritage Interpretation Plan must be provided to Western Sydney International Airport and Sydney Metro Western Sydney Airport to assist in guiding opportunities for integration of heritage themes and values into their design.	✓	✓	✓	
	The Heritage Interpretation Plan must be prepared in accordance with the <i>Interpreting Heritage Places and Items: Guidelines</i> (NSW Heritage Office, 2005), and in consultation with Heritage NSW, Aboriginal Cultural Heritage Advisory Committee, LALC and relevant council(s).	✓	✓	✓	
	The Plan must be implemented and inform the Place, Design and Landscape Plan required by Condition E69.	✓	✓	✓	
	The Heritage Interpretation Plan must be submitted to the Planning Secretary and Heritage NSW for information prior to finalising the Place, Design and Landscape Plan required by Condition E69. Note: Nothing in this condition prevents the Proponent from preparing separate Heritage Interpretation Plans for Aboriginal and Non-Aboriginal Heritage.	✓	✓	✓	
E28	Archival photographic digital recording must be undertaken as outlined in the documents listed in Condition A1 for all listed heritage items and for all sites assessed to have heritage significance which will be affected by the CSSI. The recordings must be undertaken prior to the commencement of Work which may impact the items. The recordings must include buildings, structures and landscape features and detailed maps showing the location of features. The archival recording must be prepared in accordance with <i>How to Prepare Archival Records of Heritage Items</i> (NSW Heritage Office, 1998) and <i>Photographic Recording of Heritage Items Using Film or Digital Capture</i> (NSW Heritage Office, 2006).	✓	✓	✓	Section 6.2.1
E29	Following completion of all Work described in the documents listed in Condition A1 in relation to heritage items, a Heritage Report including the details of archival recordings, further historical research either undertaken or to be carried out and archaeological excavation (with artefact analysis	ü	✓	✓	Section 6.1.4 Section 6.1.5 Section 6.2.1

CoA No.	Condition Requirements	Applicability			Document Reference
		M12 West	M12 Central	M12 East	
	and identification of a final repository for finds), must be prepared in accordance with any guidelines and standards required by the Heritage Council of NSW and Heritage NSW. <i>Note: Nothing in this condition prevents the Proponent from preparing separate Heritage Reports for Aboriginal and Non-Aboriginal Heritage.</i>				Aboriginal Cultural Heritage Strategy
E30	The Heritage Report must be submitted to the Planning Secretary and Heritage NSW for information within 12 months of completing all Work described in the documents listed in Condition A1 in relation to heritage items. Copies of the Heritage Report must also be provided to relevant local libraries and relevant local historical societies.	✓	✓	✓	Section 6.1.4 Section 6.1.5 Section 6.2.1 Aboriginal Cultural Salvage Strategy
E31	An Unexpected Heritage Finds and Human Remains Procedure must be prepared to manage unexpected heritage finds in accordance with any guidelines and standards prepared by the Heritage Council of NSW or Heritage NSW. The Procedure must be prepared in consultation with heritage NSW and form part of the Heritage CEMP Sub-plan required by Condition C4.	✓	✓	✓	Section 6.3 Appendix C CH05
E32	The Unexpected Heritage Finds and Human Remains Procedure, as submitted to the Planning Secretary, must be implemented for the duration of Work. <i>Note: Human remains that are found unexpectedly during the carrying out of Work may be under the jurisdiction of the NSW State Coroner and must be reported to the NSW Police immediately.</i>	✓	✓	✓	Section 6.3 Appendix C CH06 CH07
E33	Where previously unidentified Aboriginal objects are discovered, all work must immediately stop in the vicinity of the affected area. Works potentially affecting the previously unidentified objects must not recommence until Heritage NSW has been informed. The measures to consider and manage this process must be specified in the Unexpected Heritage Finds and Human Remains Procedure required by Condition E31 and include registration in the Aboriginal Heritage Information Management System (AHIMS).	✓	✓	✓	Section 6.3 Appendix C CH07



CoA No.	Condition Requirements	Applicability			Document Reference
		M12 West	M12 Central	M12 East	
E42	The Proponent must conduct vibration testing during vibration generating activities that have the potential to impact on heritage items to identify minimum working distances to prevent cosmetic damage. In addition, vibration monitoring must be undertaken during construction for relevant remaining Fleurs Radio Telescope structures, the Upper Canal (in consultation with WaterNSW) and McMaster Farm and McGarvie-Smith Farm group of remaining buildings. In the event that the vibration testing and attended monitoring shows that the preferred values for vibration are likely to be exceeded, the Proponent must review the construction methodology and, if necessary, implement additional mitigation measures.	✓	✓	✓	CNVMP
E43	Advice from a heritage specialist must be sought on methods and locations for installing equipment used for vibration, movement and noise monitoring at heritage-listed structures.	✓	✓	✓	CNVMP
E44	Before conducting at-property treatment at any heritage item identified in the documents listed in Condition A1, the advice of a suitably qualified and experienced built heritage specialist must be obtained and implemented to ensure such work does not have an adverse impact on the heritage significance of the item.	✓	✓	✓	Section 6.1 Section 6.2 Section 7.4
E45	All Work undertaken for the delivery of the CSSI, including that undertaken by third parties (such as utility relocations), must be coordinated to ensure respite periods are provided. The Proponent must:	✓	✓	✓	CNVMP
	(a) Reschedule any work to provide respite to impacted noise sensitive land user(s) so that the respite is achieved in accordance with Condition E47; or	✓	✓	✓	
	(b) Where respite outlined in Condition E47 cannot be achieved, consider the provision of alternative respite or mitigation to impacted noise sensitive land user(s); and	✓	✓	✓	
	(c) Provide documentary evidence to the ER in support of any decision made by the Proponent in relation to respite or mitigation.	✓	✓	✓	

CoA No.	Condition Requirements	Applicability			Document Reference
		M12 West	M12 Central	M12 East	
	The consideration of respite must also include all other CSSI, SSI and SSD projects which may cause cumulative and/or consecutive impacts at receivers affected by the delivery of the CSSI.	✓	✓	✓	
E76	The Proponent must offer pre-construction surveys to the owners of surface and sub-surface structures and other relevant assets identified at risk from vibration, including all listed heritage items and buildings/structures of heritage significance as identified in the documents listed in Condition A1. Where the offer is accepted, the survey must be undertaken by a suitably qualified and experienced engineer and/or building surveyor prior to the commencement of vibration- generating works that could impact on the structure/asset. The results of each survey must be documented in a Pre-construction Condition Survey Report and the report must be provided to the owner of the item(s) surveyed no later than one (1) month before the commencement of all other potentially impacting works	✓	✓	✓	CNVMP
E81	The Proponent must have regard to the Upper Canal Pheasants Nest to Prospect Reservoir Conservation Management Plan (NSW Public Works Governments Architect's Office, 2016) and Guidelines for development adjacent to the Upper Canal and Warragamba Pipelines (WaterNSW, 2020) when constructing the CSSI.	✓	✓	✓	Section 4.2 Section 6.2
E82	Construction and operation of the CSSI must not destroy, modify or otherwise cause direct or indirect damage to the Upper Canal System, including the Cecil Hills Tunnel, and Tunnel Shafts 3 and 4.	✓	✓	✓	Section 4.2 Section 6.2



## REMMs

ID	Measure/requirement	Timing	Applicability			Document Reference
			M12 West	M12 Central	M12 East	
Aboriginal Heritage						
Impacts on Aboriginal heritage during construction						
AH03	Impacts on identified Aboriginal sites will be minimised where feasible in consultation with a suitably qualified and experienced archaeologist. Measures considered will include (but not be limited to): <ul style="list-style-type: none"><li>• Designing and locating bridges (including bridge pylons), haulage routes and other access roads to minimise potential disturbance of soils where feasible</li><li>• Focusing protection measures on the zone within 100 metres of creeks including consideration of opportunities to cover the original cultural deposits in temporary protective barriers such as geotextile fabric and a layer of clean fill.</li></ul>	Detailed design, prior to construction and during construction	✓	✓	✓	Table 6-1 CH01 CH04 Section 6.1.1
Impacts on identified cultural deposits						
AH05	Investigations will be carried out during detailed design to determine the feasibility of retaining cultural deposits between the pylons of bridges or elevated structures at the following sites: <ul style="list-style-type: none"><li>• BCW</li><li>• BCE</li><li>• SCW T1</li><li>• SCW T2</li><li>• SCE.</li></ul>	Prior to construction	✓	✓	✓	Section 6.1.4 Aboriginal Cultural Salvage Strategy CH08

ID	Measure/requirement	Timing	Applicability			Document Reference
			M12 West	M12 Central	M12 East	
	This will include covering the original cultural deposits beneath temporary protective barriers where feasible such as geotextile fabric and a layer of clean fill material.					
AH06	Salvage collection of surface artefacts will be carried out at the following sites: <ul style="list-style-type: none"> <li>• BCE</li> <li>• SCW T2</li> <li>• KCW</li> <li>• PCP8</li> <li>• CHRP</li> <li>• RR</li> <li>• M12A1</li> <li>• Isolated artefact 4</li> <li>• TNR-AFT-14.</li> </ul>	Prior to construction	✓	✓	✓	Section 6.1.4 Aboriginal Cultural Heritage Strategy CH09
AH07	Salvage excavation will be carried out at the following sites: <ul style="list-style-type: none"> <li>• CCW</li> <li>• BWB</li> <li>• BCW</li> <li>• SCW T1</li> <li>• SCW T2</li> <li>• SCE</li> <li>• KCW</li> </ul>	Prior to construction	✓	✓	✓	Section 6.1.5 Aboriginal Cultural Heritage Strategy CH10

ID	Measure/requirement	Timing	Applicability			Document Reference
			M12 West	M12 Central	M12 East	
	<ul style="list-style-type: none"> <li>CHRP.</li> </ul> <p>The methodology and extent of excavations required for the above sites will be in accordance with site specific requirements outlined in the ACHAR prepared for the project.</p>					
AH08	Exclusion zones will be set up in the form of an appropriate barrier / fencing along the portion of AHIMS site 45-5-2721 (PAD-OS-7) that extends into the construction footprint, with visible signage notifying construction personnel to avoid ground impacts	Prior to construction and during construction	-	-	✓	Section 6.1.3 Section 6.5 CH11
AH09	Archaeological text excavation will be carried out at PAD-OS-7 in the instance that construction restrictions result in impacts to that site. Test excavations will be conducted in accordance with Requirement 16a of the Code of Practice (DECCW 2010) Stage 2 PACHCI (Roads and Maritime 2011) and in consultation with RAPs.	Prior to construction	-	-	✓	Section 6.1.5 Aboriginal Cultural Salvage Strategy
AH10 (amended)	No ground disturbance (penetration and/or cutting of the surface) is permitted within Mamre Road Kemps Creek AFT 1, KC/ED2 and CP AS1/P-CP9. Protection will be provided with visible signage and temporary fencing where necessary notifying construction personnel to avoid ground impacts within Mamre Road Kemps Creek AFT 1 (AHMIS 45-5-5478), KC/ED2 and CP AS1/P-CP9.	Prior to construction	✓	✓	-	Section 5.2 CH11
<b>Non-Aboriginal heritage</b>						
<b>General</b>						
NAH03	Impacts on Non-Aboriginal heritage items will be avoided or minimised where reasonable and feasible. Where impacts are unavoidable, works will	Detailed design, prior to	✓	✓	✓	CH20

ID	Measure/requirement	Timing	Applicability			Document Reference
			M12 West	M12 Central	M12 East	
	be carried out in accordance with the measures for individual Non-Aboriginal heritage items outlined in measures NAH04 to NAH12.	construction and during construction				
Item 1: McGarvie Smith Farm (PLEP 857)						
NAH04	<ul style="list-style-type: none"> <li>A suitably qualified heritage consultant will be engaged to prepare an archival photographic recording of the site in accordance with the <i>Heritage Information Series How to prepare archival records of heritage items</i> (NSW Heritage Office, 1998). This will include both buildings and landscape features such as dams, and earthworks. The recording will include a detailed map showing the location of the features.</li> </ul>	Detailed design and prior to construction	✓	✓	-	Section 6.2.1 CH12
	<ul style="list-style-type: none"> <li>Options will be investigated to provide funding support to the property's current owner to prepare a thematic heritage study of CSIRO and other agricultural research stations, including both McGarvie Smith Farm and McMaster Field Station, and other relevant agricultural research stations and similar facilities located in NSW. The thematic study will include a review of the role of such properties in veterinary research, association with agricultural, pastoral and animal husbandry groups, use of pioneering methods and practices and contribution to the development of farming in Australia. In the event that landowners do not prepare this study, TfNSW will engage a heritage specialist to do so.</li> </ul>	Detailed design and prior to construction	✓	✓	-	Section 6.2.1

ID	Measure/requirement	Timing	Applicability			Document Reference
			M12 West	M12 Central	M12 East	
Item 2: The Fleurs Radio Telescope Site (PLEP 832)						
NAH05 (amended)	<ul style="list-style-type: none"><li>All extant elements of the radio telescopes and associated infrastructure, including rubbish mounds situated outside the construction footprint will be left intact</li></ul>	Detailed design and prior to construction	✓	✓	-	CH13
	<ul style="list-style-type: none"><li>Ground penetrating radar, or other remote sensing survey techniques, will be carried out under the supervision of a suitably qualified and experienced archaeologist before any ground disturbance within the heritage curtilage of the Fleurs Radio Telescope Site contained within the construction footprint to identify any sub-surface cables:</li></ul>		✓	✓	-	CH14
	<ul style="list-style-type: none"><li><ul style="list-style-type: none"><li>If additional sub-surface Fleurs Synthesis Telescope (FST) components are unexpectedly identified during ground penetrating radar survey which have not been discussed as part of the consistency assessment, then additional assessment and management would be required. This would include, but may not be limited to, archival survey and recording</li></ul></li></ul>		✓	✓	-	
	<ul style="list-style-type: none"><li>Measures will be included in the CCHMP to describe how the heritage values of the site will be conserved and managed during construction</li></ul>		✓	✓	-	Section 6.2
	<ul style="list-style-type: none"><li>TfNSW will engage a suitably qualified heritage consultant to prepare an archival photographic recording of the impacted areas of the property, in accordance with Heritage NSW guidelines (Heritage Council of NSW 2006). The archival recording report will include but not be limited to:</li></ul>		✓	✓	-	Section 6.2.1 CH12
	<ul style="list-style-type: none"><li><ul style="list-style-type: none"><li>Detailed survey drawings and photographic archival recording of remaining above-ground elements of the Fleurs Radio-telescope</li></ul></li></ul>		-	✓	-	



ID	Measure/requirement	Timing	Applicability			Document Reference
			M12 West	M12 Central	M12 East	
	site. This survey will detail the exact location and orientation of remnant fabric within the landscape, including fabric associated with the former location of FST antenna X3 and antenna X4, the concrete pad between antennas X3 and X4, and the former vehicle access track Survey drawings will be included in the archival recording report	Detailed design and prior to construction				Section 6.2.1 CH12 CH14
	<ul style="list-style-type: none"> <li>Outcomes of the remote sensing survey undertaken by GHD in 2021 to provide a comprehensive record of the site (or as comprehensive as possible prior to excavation)</li> </ul>		-	✓	-	
	<ul style="list-style-type: none"> <li>Details of sample cables collected including original exact location by description, co-ordinates, and mapping.</li> </ul>		-	✓	-	
	Prior to construction TfNSW will consult with relevant interested organisations (such as CSIRO, Universities, amateur telescopic organisations, local heritage bodies and other special interest groups) to determine if there is interest in retaining sub-surface cabling (including details on the type and length cabling to be retained) or other structures identified during archival recording, remote sensing or any unexpected additional cables found during construction.	Prior to construction	✓	✓	-	Section 1.5.2 CH15
	The M12 West and M12 Central Contractor will (with advice from TfNSW Overarching Archival Recording Contractor) be responsible for the following:	Prior to construction and during construction	✓	✓	-	Section 6.2.1 CH16
	<ul style="list-style-type: none"> <li>Retrieval of a sample of each type of cable / compressed air hose along the cable alignment between antennas X3 and X4 with supervision by a heritage specialist. This will include retrieval of 1-2m (or a length directed by TfNSW following consultation with stakeholders) of each type of cable / compressed air hose including the</li> </ul>		✓	✓	-	

ID	Measure/requirement	Timing	Applicability			Document Reference
			M12 West	M12 Central	M12 East	
	relevant attachment. The selection of the types and length of cables / hose to be collected will include consideration of the following:					
	<ul style="list-style-type: none"> <li>Physical review of the cables / hose types visible at South Creek 3 Antenna Complex, South Creek 4 Complex, and South Creek 5 Antenna Complex</li> </ul>		✓	✓	-	
	<ul style="list-style-type: none"> <li>Any additional information identified through remote sensing survey of the cable alignment</li> </ul>		✓	✓	-	
	<ul style="list-style-type: none"> <li>Discussion with archival recording or other relevant heritage specialists where required</li> </ul>		✓	✓	-	
	<ul style="list-style-type: none"> <li>Outcomes from the consultation undertaken by TfNSW with interested parties</li> </ul>		✓	✓	-	
	<ul style="list-style-type: none"> <li>Cable samples will be collected, with consideration given to potentially contaminated materials, such as asbestos and PCBs. Appropriate WHS measures will be implemented in accordance with the Contractor's WHS Plan</li> </ul>		✓	✓	-	
	<ul style="list-style-type: none"> <li>Cable samples will be tagged, including exact location by description and relevant coordinates of the cabling prior to its extraction</li> </ul>		✓	✓	-	
	<ul style="list-style-type: none"> <li>Safe storage of cable samples until collection by interested parties. If samples are unclaimed by interested parties within three months, they will be appropriately disposed of at a licensed landfill by the contractor</li> </ul>		✓	✓	-	

ID	Measure/requirement	Timing	Applicability			Document Reference
			M12 West	M12 Central	M12 East	
	<ul style="list-style-type: none"> <li>Where cabling is not impacted by construction works, it can remain in-situ, otherwise the contractor is responsible for appropriate disposal.</li> </ul>		✓	✓	-	
	<p>Concrete plinths:</p> <ul style="list-style-type: none"> <li>Prior to construction, the contractor must establish an exclusion zone around the concrete plinths at South Creek 3 Antenna Complex (Central) and South Creek 5 Antenna Complex (West) to protect against inadvertent impacts during construction.</li> </ul>	Prior to construction	✓	✓	-	Section 6.5 CH17 and CH17a
	<ul style="list-style-type: none"> <li>If leaving the plinths in situ during construction is not practicable, they will be removed and stored temporarily with survey information providing details of their position relative to each other and orientation. The Contractor will then investigate opportunities for re-establishing the concrete plinths on site close to their original location and/or as part of the interpretative display for the Radio Telescope site. If re-established, the survey information collected prior to their removal must be used to ensure that the plinths are located in the same orientation and arrangement.</li> </ul>		✓	✓	-	
	<ul style="list-style-type: none"> <li>Prior to removal of the concrete plinths, the Construction Contractor is to identify whether any of the plinths are used as state survey marks. The contractor must comply with the preservation of survey infrastructure requirements in TfNSW specification G71. It is noted TS7279 is located on one of the plinths at X3.</li> </ul>		✓	✓	-	
	<p>Measures for M12 Central only:</p> <ul style="list-style-type: none"> <li>Prior to construction the contractor must establish an exclusion zone around the former location of antenna X3 at South Creek 3 Antenna Complex to protect against inadvertent impacts during construction.</li> </ul>	Prior to construction	-	✓	-	Section 6.5 CH13a

ID	Measure/requirement	Timing	Applicability			Document Reference
			M12 West	M12 Central	M12 East	
	<ul style="list-style-type: none"> <li>Prior to construction the contractor must establish an exclusion zone around the metal shed at South Creek 3 Antenna Complex to protect against inadvertent impacts during construction.</li> </ul>		-	✓	-	
	<ul style="list-style-type: none"> <li>The heritage interpretation framework for the project (NAH02) will include interpretation measures that will improve community awareness of the history of the Fleurs Radio Telescope as well as determine suitable locations for the presentation of information that are publicly accessible.</li> </ul>	Detailed Design	-	✓	-	Section 6.2.2
Item 3: Luddenham Road Alignment						
NAH11	Where post and rail fencing of heritage significance is identified within the construction footprint, TfNSW will seek to avoid directly impacting such features. Where avoidance is not practicable, Transport for NSW will seek to minimise and mitigate impact in consultation with a suitably qualified heritage specialist.	Detailed design, prior to construction and during construction	✓	✓	-	CH20

ID	Measure/requirement	Timing	Applicability			Document Reference
			M12 West	M12 Central	M12 East	
Item 4: Upper Canal System (Pheasants Nest Weir to Prospect Reservoir (SHR 01373))						
NAH06	Relevant conservation policies outlined in the Upper Canal CMP (NSW Public Works Government Architect's Office, 2016) will be considered during detailed design and incorporated into CCHMP to ensure heritage fabric is not impacted by the project.	Prior to construction	-	-	✓	Section 6.5
	The CCHMP will be consistent with and require implementation of relevant measures outlined in the Guidelines for development adjacent to the Upper Canal and Warragamba Pipelines (WaterNSW 2020) which sets out guidelines for designing, planning or assessing development on land adjacent to the canal at this location. Additional structures identified in the construction footprint will be investigated and measures implemented to avoid or minimise impacts.		-	-	✓	
	Guidelines and associated safe working distances to be adhered to for heritage structures as outlined in Appendix K of the EIS		-	-	✓	
	A safe working distance exclusion zone will be established around the exposed tunnel air shaft in the M7 Motorway median in accordance with the process outlined in noise and vibration management measures NV-9 - NV10.		-	-	✓	
	Transport for NSW will provide an updated report to WaterNSW on project design changes as they relate to the WaterNSW Upper Canal corridor during detailed design.		-	-	✓	



ID	Measure/requirement	Timing	Applicability			Document Reference
			M12 West	M12 Central	M12 East	
Item 6: McMaster Field Station						
NAH07	<ul style="list-style-type: none"><li>A suitably qualified heritage consultant will be engaged to prepare an archival photographic recording of the impacted area, in accordance with DPC (Heritage) guidelines (Heritage Council of NSW 2006) (Heritage Council of NSW 2006). This will include both buildings and landscape features such as dams, and earthworks. The recording will include a detailed map showing the location of the features.</li></ul>	Detailed design, prior to construction and during construction	✓	✓	-	Section 6.2.1
	<ul style="list-style-type: none"><li>Options will be investigated to provide funding support to property's current owner to prepare a thematic heritage study of CSIRO and other agricultural research stations, including both McMaster Field Station and McGarvie Smith Farm, and other relevant agricultural research stations and similar facilities located in NSW. The thematic study will include a review of the role of such properties in veterinary research, association with agricultural, pastoral and animal husbandry groups, use of pioneering methods and practices and contribution to development of farming in NSW and Australia. In the event that landowners do not prepare this study, TfNSW will engage a heritage specialist to do so.</li></ul>	Prior to construction	✓	✓	-	Section 6.2.3
	<ul style="list-style-type: none"><li>A potential use zone will be established around the McMaster Farm group of buildings, including a suitable buffer zone, and no construction activities will take place within this zone. This zone will be incorporated into the construction heritage management plan (CHMP). The potential use zone will include safe working distances to be adhered to for heritage structures as outlined in Appendix K. Before occupying or utilising the buildings, a dilapidation survey will be carried out and a heritage architect will be engaged to advise on proposed modifications</li></ul>		✓	✓	-	Section 6.4.1 CH18 and CH19

ID	Measure/requirement	Timing	Applicability			Document Reference
			M12 West	M12 Central	M12 East	
	and management measures to avoid and minimise impact on the buildings.					
Item 7: Fleurs Aerodrome						
NAH08	A suitably qualified heritage consultant will be engaged to prepare an archival photographic recording of the impacted area before its disturbance and/or removal, in accordance with DPC (Heritage) guidelines (Heritage Council of NSW 2006). The recording will include a detailed map showing the location of the features.	Detailed design, prior to construction	-	✓	-	Section 6.2.1
	An interpretive framework developed for the project will include consideration of elements to enable the continued interpretation and understanding of the airstrip at Fleurs Aerodrome as a linear and continuous element. This will be carried out in consultation with Department of Defence and consider opportunities for involvement of veteran's groups.	Detailed Design	-	✓	-	Section 6.2.2
	Relevant guidelines and associated safe working distances will be adhered to for remaining heritage structures as outlined in the Appendix K of the EIS	Detailed design, prior to construction and during construction	-	✓	-	Section 6.5
Item 8: Cecil Park School, Post Office and Church Site						
NAH09	<ul style="list-style-type: none"> <li>A suitably qualified Archaeologist will be present during the excavation of the area occupied by the Cecil Park Archaeological site to confirm that the significance of artefacts and remains are in line with the</li> </ul>	Prior to construction	✓	✓	✓	CH18 Section 6.2.3 Aboriginal

ID	Measure/requirement	Timing	Applicability			Document Reference
			M12 West	M12 Central	M12 East	
	findings of the test excavations already completed. If remains with the potential to be considered 'relics' (as defined in the Heritage Act 1977) are found, the works will stop, and the unexpected find procedure (RMS, 2015) will be followed.					Cultural Salvage Strategy
Item 12: South, Kemps and Badgerys Creek Confluence Weirs Scenic Landscape						
NAH10	<ul style="list-style-type: none"><li>Management measures identified in the project UDLP (LVIA01) will be implemented during detailed design to minimise impacts on landscape and vistas</li></ul>	Detailed design, prior to construction and during construction	-	✓	-	Addressed in UDLP
	<ul style="list-style-type: none"><li>Flooding management measures (F01 to F08) and surface water quality and hydrology management measures (SWH01 to SWH13) will be implemented to reduce broader impacts on the surrounding scenic landscape</li></ul>		-	✓	-	CSWMP Flood Management Plan
Vibration impacts on heritage structures						
NV11	<p>The following structures have the potential to be within the safe working distances for sensitive structures (Group 3 from DIN 4150):</p> <ul style="list-style-type: none"><li>Item 1: McGarvie Smith Farm</li><li>Item 2: Fleurs Radio Telescope Site</li><li>Item 4: Upper Canal System</li><li>Item 6: McMaster Field Station</li><li>Item 7: Fleurs Aerodrome</li><li>Item 4a: Upper Canal System, including air shaft 3.</li></ul> <p>A detailed survey will be completed to determine the potential for vibration impacts and to define appropriate criteria for each heritage item. Vibration</p>	Prior to construction and during construction	✓	✓	✓	CH22 CH23

ID	Measure/requirement	Timing	Applicability			Document Reference
			M12 West	M12 Central	M12 East	
	monitoring will be carried out when vibration intensive tasks are occurring within the minimum working distances to heritage structures. Where the monitoring identifies exceedances in the relevant criteria, or where impacts are identified, additional mitigation measures will be identified and implemented to appropriately manage impacts.					

## TfNSW Specification G36

Section	Measure/requirement	Timing	Applicability			CCHMP Reference
			M12 West	M12 Central	M12 East	
4.13	The Principal has identified the following environmentally sensitive areas:					
	(c) Aboriginal heritage sites; and	Pre-construction	✓	✓	✓	Section 5.2 Figure 4-1: Location of Aboriginal heritage sites and items
	(d) Non-Aboriginal heritage sites.	Pre-construction	✓	✓	✓	Section 5.3 Figure 4-2: Location of Non-Aboriginal heritage sites and items
	Clearly show all identified environmentally sensitive areas and sensitive places on Sensitive Area Maps, submitted as part of the CEMP. Prepare environmentally Sensitive Area Maps using a high resolution aerial imagery and include all WUC, station markers at minimum of 500 metre intervals, a north point, a scale bar and be prepared at a scale of 1:5000, unless otherwise agreed by the Principal. The Sensitive Area Maps must clearly show vegetation clearing limits (refer to Specification TfNSW G40), exclusion / no-go zones, all locations of known threatened flora and fauna species, and ecological communities, Aboriginal heritage sites, non-Aboriginal heritage sites, weed infestations, and trees which have been marked or otherwise identified through your own Site investigations as well as extracted from details included in the Environment Assessment documents listed in Annexure G36/A3, for preservation. Review and update	Pre-construction Construction	✓	✓	✓	Section 6.5 Appendix A6 of the OCEMP



Section	Measure/requirement	Timing	Applicability			CCHMP Reference
			M12 West	M12 Central	M12 East	
	regularly the Sensitive Area Maps to include environmentally sensitive areas identified during the Work Under the Contract. Make the Sensitive Area Maps available to all personnel working on the Site.					
	Prepare and include in the CEMP an EWMS for working in or near the environmentally sensitive areas. Include in the EWMS environmental protection measures that are effective for minimising the risk of impacting the environmentally sensitive areas. Review these measures regularly to ensure that they are effective.	Pre-construction Construction	✓	✓	✓	Section 1.4 CH04
	At least 10 working days prior to commencing Physical Work on Site in or near an environmentally sensitive area, prepare an EWMS which includes the details of the environmental protection measures to be implemented at that location. Clearly delineate the environmentally sensitive area and signpost the locations and boundaries in accordance with Specification TfNSW G40, Appendix G40/E Flagging Protocol.	Construction	✓	✓	✓	CH01
	As part of the environmental induction (refer Clause 3.5) to your staff and sub-contractors working on the Site, provide an understanding of the risks associated with working in or near environmentally sensitive areas, and training on implementing the relevant environmental protection measures.	Construction	✓	✓	✓	Section 7.2
	Clearly delineate and signpost the locations and boundaries of all environmentally sensitive areas on Site.	Construction	✓	✓	✓	Section 6.4 CH11

## Appendix C Unexpected Heritage Finds and Human Remains Procedure

This Unexpected Heritage Items Procedure was developed for the Project to provide a consistent method for managing unexpected heritage items (both Aboriginal and non-Aboriginal) that are discovered during TfNSW activities. The Procedure includes TfNSW'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).

The discovery of an 'unexpected heritage item' may include:

- Aboriginal objects
- Historic (non-Aboriginal) heritage items
- Human skeletal remains

The following guidelines and policies were referenced during the drafting of the Procedure:

- *Assessing heritage significance* (NSW Heritage Office, 2001)
- *Photographic recording of heritage items using film or digital capture* (NSW Heritage Office, 2006)
- *Skeletal remains: Guidelines for management of human skeletal remains* (NSW Heritage Office, 1988)
- *Due diligence code of practice for the protection of Aboriginal objects in NSW* (OEH, 2010)
- *Aboriginal cultural heritage consultation requirement for proponents* (OEH, 2010)
- *Code of practice for the archaeological investigation of Aboriginal objects in NSW* (OEH, 2010)
- *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH, 2011)

The Procedure was prepared by two suitably qualified and experienced heritage specialists:

Gretta Logue, former Environment Officer (Heritage) with Roads and Maritime Services. Gretta has a B.Sc. Hons (Archaeology), M.Sc. Hons (Forensic Anthropology, PG Diploma (Environment Law) and at the time of preparation of the procedure had 10 years professional heritage experience

Daniel Percival, Environment Officer (Heritage) with Roads and Maritime Services. Daniel has a BA Hons (Archaeology) (First Class) with over 10 years professional heritage experience

The Procedure was prepared in consultation with the Heritage Council of NSW and Heritage NSW as part of the CCHMP for consultation purposes, as required by NSW CoA E31, E32 and E33. During the consultation process, the Heritage Council of NSW and OEH indicated their support for the Procedure as being appropriate to manage the discovery of unexpected heritage items during Construction of the Project (refer Annexure A of this CCHMP). The Procedure includes the

requirement that consultation with Registered Aboriginal Parties will be undertaken in the event that previously unidentified Aboriginal heritage is discovered.

Attachment 1 to this Unexpected Heritage Items Procedure contains additional information that describes the process to be followed in the event that suspected human remains are discovered during construction.

Attachment 2 is the procedure for handling Aboriginal human remains in accordance with NSW-CoA outlines the procedure for handling Aboriginal human remains in accordance with NSW CoA E31, E32 and E33.

## Attachment 1 Unexpected Aboriginal and Non-Aboriginal heritage finds procedure

The following procedure has been prepared to accompany the CCHMP. This section outlines the tasks that will be carried out following the discovery of an unexpected heritage item. Figure D-1 outlines the procedure in summary.

This procedure has been prepared in based on the content and processes outlined in the *Unexpected Heritage Items: Heritage Procedure 02* (RMS, 2015) and has been updated to be specific to construction. The RMS procedure was prepared by suitably qualified professionals in consultation with Heritage NSW.

In accordance with the *Unexpected Heritage Items Procedure* (RMS, 2015), different procedures will be put in place dependent on the items classification. The Unexpected Heritage finds procedure identifies three types of heritage items listed and classified as follows:

1. *Relic: 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*
2. *Aboriginal object: May include a shell midden, stone tools, bones, rock art or a scarred tree*
3. *Work: A building or standing structure. This may include tram tracks, kerbing, historic road pavement, fences, sheds or building foundations.*

### Step 1. Stop work, protect item, and inform Environmental Site Representative

If an unexpected heritage item is encountered during excavation/construction activities:

- Stop all work in the immediate area of the item and notify the Project Manager or Environmental Site Representative (or delegate)
- The Project Manager or site supervisor will be responsible for establishing a 'no-go zone' around the item, using high visibility fencing where practicable
- The item will be inspected, documented and photographed using 'Unexpected Heritage Item Recording Form 418'
- The Project Manager or Environmental Site Representative will engage a suitably qualified heritage specialist to identify whether the item is likely a 'relic', 'Aboriginal object' or 'work'. If the item is determined to be a 'work', and it is possible to continue works without causing further disturbance, works will continue, and the completed Form 418 will be submitted to the relevant TfNSW Staff within 24 hours
- TfNSW Environment and Sustainability Manager will advise Project Manager whether TfNSW has an approval or safeguard in place (apart from this procedure) to impact on the item. If yes, work will recommence in accordance with the approval, permit or appropriate safeguard and no further action will be required
- The Project Manager or Site Supervisor will liaise with Traffic Management Centre where the delay is likely to affect traffic flow

Item will be reported as a 'Reportable Event' in accordance with the TfNSW Environmental Incident Classification and Reporting Procedure.

## **Step 2. Contact and engage an archaeologist and, where required, an Aboriginal site officer**

- A suitably qualified and experienced archaeological consultant will be engaged to assess the find
- Where the item is likely to be an Aboriginal object, an Aboriginal Site Officer (ASO) will also be engaged to assess the find
- The archaeological consultant (and ASO, if relevant) will be provided with the photographs.

## **Step 3. Preliminary assessment and recording of the find**

- Should the archaeologist (and ASO, if relevant) determine from the photographs that no site inspection is required because no archaeological constraint exists, such advice will be provided in writing and confirmed by the Project Manager or Site Supervisor
- Site access will be arranged for the archaeologist (and ASO, if relevant) to inspect the item as soon as practicable
- Subject to the archaeologist assessment (and ASO's assessment, if relevant), work will recommence at a set distance from the item
- Should the archaeologist (and ASO, if relevant) provide advice after the site inspection and preliminary assessment that no archaeological constraint exists, such advice should be provided in writing and confirmed by the Project Manager or Site Supervisor
- Should it be required, additional specialist technical advice will be organised

Should the item be identified as a relic, heritage item or an Aboriginal object the archaeologist will formally record them.

- Heritage NSW could be notified informally by telephone at this stage by the archaeologist or project manager. Any verbal conversations with Heritage NSW will be noted on project file for future reference
- If a relic, heritage item or Aboriginal object has been identified, the archaeologist will notify:
  - Heritage NSW (and formally register the site on the Aboriginal Heritage Information Management System (AHIMS) as required) and
  - Water NSW if a relic found is in proximity to Water NSW Upper Canal.

## **Step 4. Prepare an archaeological or heritage management plan**

- An archaeological or heritage management plan will need to be prepared in the event of an unexpected Aboriginal or non-Aboriginal heritage find
- Registered Aboriginal Parties will be consulted in the event of an unexpected Aboriginal heritage find
- The archaeological consultant will prepare an archaeological or heritage management plan (with input from the ASO and RAPs, where relevant) with consideration to the any heritage sub-plans, any conditions of heritage approvals, Minister's Conditions of Approval, and heritage assessment documentation
- The archaeologist will submit this plan as a letter, brief report or email to the Project Manager or Site Supervisor outlining all relevant archaeological or heritage issues



- The Project Manager or Site Supervisor will review the archaeological or heritage management plan.

#### **Step 5. Notify Regulator (if required)**

- The archaeological or heritage management plan will be reviewed to confirm if Heritage NSW notification is required
- If yes, a notification letter will be prepared
- The draft notification letter, archaeological or heritage plan and the site recording form will then be sent to TfNSW Environment and Sustainability Manager for review and amended where appropriate
- The signed notification letter, archaeological or heritage management plan and site recording form will be submitted to Heritage NSW, DPHI
- A copy of the final signed notification letter, archaeological or heritage management plan and the site recording form will be kept on file by the Project Manager or Site Supervisor and a copy sent to the TfNSW Environment and Sustainability Manager.

#### **Step 6. Implement archaeological or heritage management plan**

- The archaeological or heritage management plan will be modified to take into account any additional advice resulting from notification and discussions with Heritage NSW
- The archaeological or heritage management plan will be implemented. Where impact is expected, this will 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
- Where heritage approval is required, the Environmental Site Representative will be contacted for further advice and support material
- It will then be assessed whether heritage impact is consistent with the project approval
- Where statutory approval is not required and where recording is recommended by the archaeologist, sufficient will be allowed for this to occur.

#### **Step 7. Review CCHMP, OCEMP and CoA**

- The CCHMP will be updated as appropriate with any changes resulting from final heritage management (e.g. retention of heritage item, salvage of item). The updated CCHMP will incorporate additional conditions arising from any heritage approvals, and Aboriginal community consultation if relevant
- Any changes to the CCHMP will be included in site induction material site workers will be updated during toolbox talks
- Where statutory approval is not required and where recording is recommended by the archaeologist, sufficient time will be allowed for this to occur.

## Step 8. Resume work

- The Construction Contractor will seek written clearance to resume project work from TfNSW Environment and Sustainability Manager and the archaeologist (and Heritage NSW)
- Archaeological excavation/heritage reporting and other heritage approval conditions will be completed in the required timeframes. This includes artefact retention repositories, conservation and/or disposal strategies.

All heritage/archaeological assessments, heritage location data and its ownership status will be forwarded to the TfNSW Environment and Sustainability Manager. They will ensure all heritage items in TfNSW ownership and/or control are considered for the Roads and Maritime S170 Heritage and Conservation Register.

On discovering something that could be an unexpected heritage item ('the item'), the following procedure (Figure D-1) must be followed.

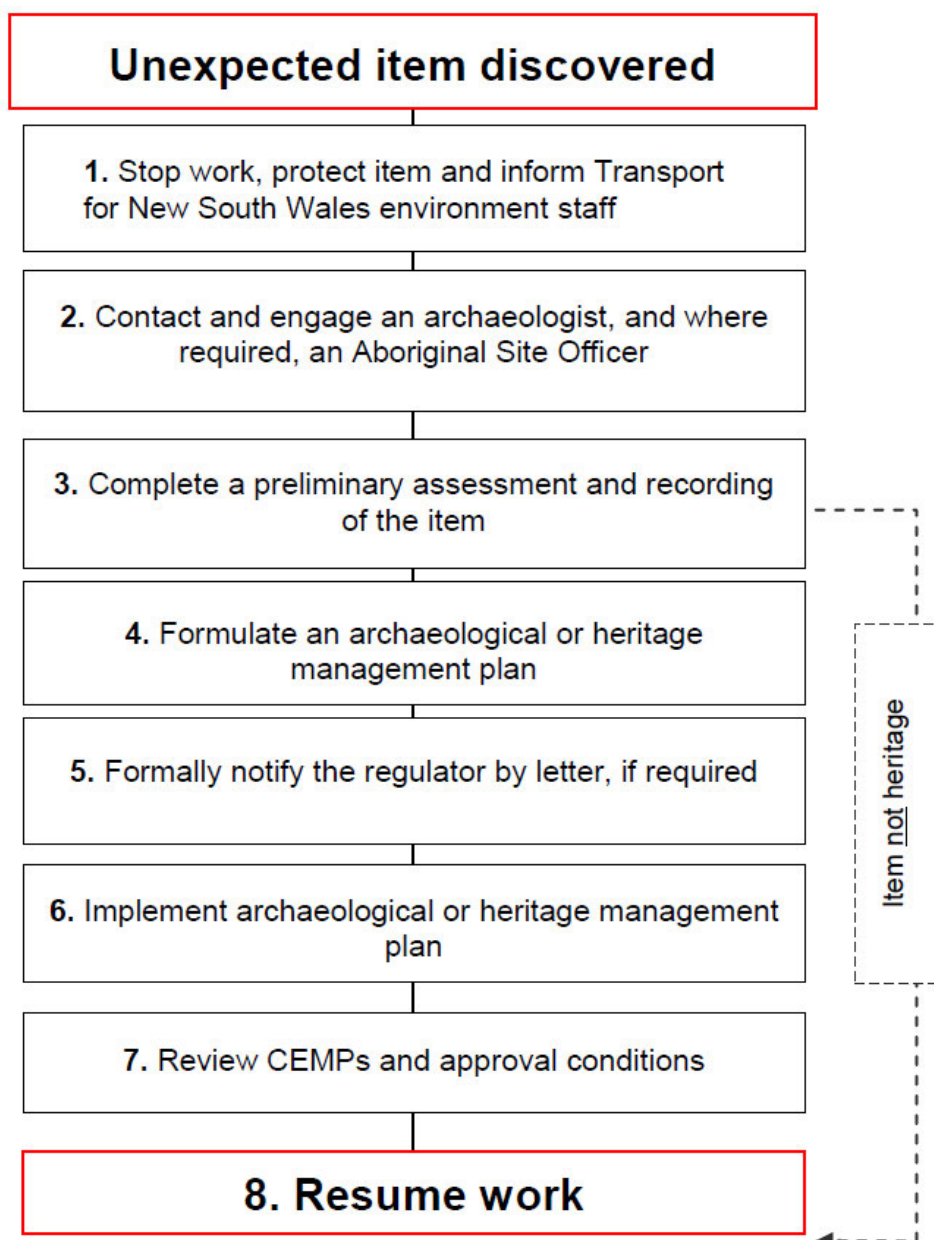


Figure D-1: Overview of steps to be undertaken on the discovery of an unexpected heritage item.

## Attachment 2 Unexpected Human Remains Procedure

This attachment outlines the procedure for handling Aboriginal human remains in accordance with NSW-CoA, the *Skeletal Remains – Guidelines for the Management of Human Skeletal Remains under the Heritage Act 1977* (NSW Heritage Office 1998) and the *Aboriginal Cultural Heritage Standards and Guidelines Kit* (NPWS 1997).

If construction activity reveals possible Aboriginal human skeletal material (remains), the following procedure is to be followed:

1. Identify whether the remains are animal bones, ceramics or material before proceeding with this Procedure.
2. As soon as remains are exposed, immediately halt all work at that location and immediately notify the TfNSW Environment and Sustainability Manager (or delegate) or Construction Contractor Project Manager on site to allow assessment and management.
3. Secure the site.
4. Contact police as the discovery of human remains triggers a process which assumes that they are associated with a crime. The NSW Police will retain carriage of the process until such time as the remains are confirmed to be Aboriginal or historic. If the remains are identified as being non-human, skip to Step 8.
5. Notify DPHI, as the approval authority, when human remains are found.
6. Once the police process is complete and if remains are not associated with a contemporary crime contact DPHI. DPHI will determine the process, in consultation with Heritage NSW and/or the Heritage Office as appropriate.
7. If the remains are identified as Aboriginal, secure the site and notify NSW DCCEEW via the Environment Line and notify all RAPs or Aboriginal stakeholders in writing. NSW DCCEEW will act in consultation with Heritage NSW as appropriate. Notify Heritage NSW in writing according to NSW DCCEEW instructions. Work may not recommence until Heritage NSW have been notified. (Formally register the site on the AHIMS, as required).
8. If the remains are identified as Non-Aboriginal (historical) remains, secure the site and contact the NSW DCCEEW. NSW DCCEEW will act in consultation with the Heritage Division as appropriate. Notify the Heritage Division in writing according to NSW DCCEEW instructions.
9. Once the police process is complete and if the remains are identified as not being human and the appropriate clearances have been given, work can recommence.