Sydney Metro – Western Sydney Airport

EPBC off-airport Aboriginal Cultural Heritage Management Plan

September 2022

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July 2022

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Glossary and terms and abbreviations

Term	Definition
AAR	Aboriginal Archaeological Report
Aboriginal archaeological potential	Area retains potential for the presence of surface and/or subsurface Aboriginal archaeological deposits. Areas of Aboriginal archaeological sensitivity, when compared to areas of low potential, will be expected to have higher artefact counts, densities and more complex assemblages. Archaeological features such as knapping floors and hearths are also more likely to occur in these areas. The integrity of deposit(s) will be dependent on the nature of localised land disturbance activities and geomorphic phenomena.
Aboriginal cultural heritage	The tangible (objects) and intangible (dreaming stories, song lines and places) cultural practices and traditions associated with past and present day Aboriginal communities
Aboriginal object	Any deposit, object or material evidence (not being a handicraft made for sale), including Aboriginal remains, relating to the Aboriginal habitation of NSW
Aboriginal place	Any place declared to be an Aboriginal place under Section 94 of the *National Parks and Wildlife Act 1974* (NSW)
ACHAR	Aboriginal Cultural Heritage Assessment Report
ACHMP	Aboriginal Cultural Heritage Management Plan
AEPR	Airports (Environment Protection) Regulations 1997
AHD	Australian Height Datum
AHIMS	Aboriginal Heritage Information Management System - a register of New South Wales (NSW) Aboriginal heritage information maintained by Environment and Heritage Group, which is a group within the NSW Department of Planning and Environment
AHIP	Aboriginal Heritage Impact Permit
Artefact scatter	Artefact scatters are surface or subsurface manifestations of past Aboriginal activity at a given location. Flaked stone artefacts dominate archaeological assemblages from this site type. However, materials such as complete and fragmentary groundstone implements, charcoal, animal bone, shell and ochre may also occur. Artefact scatters contain more than one Aboriginal object.
ASIR	Aboriginal Site Impact Recording Form
ASR	Archaeological Salvage Report
ATSI	Aboriginal and Torres Strait Islander
ATSIHP Act	*Aboriginal and Torres Strait Islander Heritage Protection Act 1984*
BNI	Blacktown Native Institution
BP	Before Present is a term used by archaeologists and geologists referring to dates obtained by radiocarbon dating. The “present” in this case is not the present day, which is constantly changing and therefore is unable to be used as a

Term	Definition
	consistent point from which to measure. Instead the year 1950 was chosen to be used as the "present" for this term
CBD	Central Business District
CEMF	Construction Environmental Management Framework
CEMP	Construction Environmental Management Plan
CHL	Commonwealth Heritage List
CMA	Catchment Management Authorities
CMP	Conservation Management Plan
Construction footprint	The total extent of land required for the construction of the project, including ancillary facilities, services and land temporarily required for construction (incorporating construction elements such as compounds, access tracks and worksites)
CSSI	Critical State Significant Infrastructure
DAWE	Department of Agriculture, Water and the Environment
DEOH	Defence Establishment Orchard Hills
DPE	NSW Department of Planning and Environment. Management of Aboriginal Cultural Heritage in NSW is within DPE.
Earthworks	All operations involved in loosening, excavating, placing, shaping and compacting soil or rock
EHG	Environment and Heritage Group, which is a division within the NSW Department of Planning and Environment (DPE).
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EPI	Environmental Planning Instruments
Erosion	A natural process where wind or water detaches a soil particle and provides energy to move the particle
Floodplain	An area of land which is inundated by floods up to and including the probable maximum flood event (i.e., flood prone land)
GPS	Global Positioning System
GSV	Ground Surface Visibility
Heritage item	Any place, building or object listed on a statutory heritage register
HHMP	Historical Heritage Management Plans
HMP	Heritage Management Plan
ILUA	Indigenous Land Use Agreements

Term	Definition
Isolated artefact	A single Aboriginal object in a surface or subsurface context. More often than not, these comprise flaked stone artefacts. However, groundstone implements (i.e., edge-ground hatchet heads axes, grindstones) and hammerstones are also common.
Impact	Influence or effect exerted by the project or other activity on the natural, built and community environment
Knowledge holders	For the purposes of this document, Aboriginal knowledge holders are those Aboriginal people who hold cultural knowledge in accordance with Fact Sheet 1 *What is Aboriginal cultural knowledge? Consultation requirements for proponents Part 6 National Parks and Wildlife Act 1974*. Knowledge holders can include organisations, individuals and Registered Aboriginal Parties and may hold knowledge about a range of issues related to Aboriginal culture, practice and heritage
LALC	Local Aboriginal Land Council
LEP	Local Environmental Plan
LGA	Local Government Area
NHL	National Heritage List
NNTT	National Native Title Tribunal
NPW Act	*National Parks and Wildlife Act 1974*
NTA	*Native Title Act 1993*
OEH	Office of Environment and Heritage
PAD	Potential Archaeological Deposit
Paleochannel	Ancient river systems eroded deeply into the landscape and infilled with saturated alluvial sediments
RAP	Registered Aboriginal Party
RNE	Register of the National Estate
road reserve	A legally defined area of land within which facilities such as roads, footpaths and associated features may be constructed for public travel
SEARs	Secretary's Environmental Assessment Requirements
SEPP SRD	*State Environmental Planning Policy (State and Regional Development) 2011*
SSI	State Significant Infrastructure
Sydney Metro - Western Sydney Airport (the project)	The Sydney Metro - Western Sydney Airport between St Marys and Western Sydney Aerotropolis comprises a new north-south metro railway around 23 kilometres in length, creating passenger rail access to Western Sydney Airport, the Aerotropolis and a connection with the T1 Western Line
Western Sydney Aerotropolis	This includes the land surrounding Western Sydney International (including Bringelly, Luddenham, Kemps Creek, Badgerys Creek and Rossmore) where commercial and residential property development is proposed, supported by key infrastructure. This will include commercial and industrial precincts, and agricultural land, as well as transport corridors

Term	Definition
Western Sydney Airport	The Australian government-owned organisation responsible for delivering and operating Western Sydney International

1. Introduction

1.1 Scope and objectives of ACHMP

The Greater Sydney Region Plan (Greater Sydney Commission, 2018a) sets the vision and strategy for Greater Sydney to become a global metropolis of three unique and connected cities; the Eastern Harbour City, the Central River City and the Western Parkland City. The Western Parkland City incorporates the future Western Sydney International (Nancy-Bird Walton) Airport (hereafter referred to as Western Sydney International) and Western Sydney Aerotropolis (hereafter referred to as the Aerotropolis).

Sydney Metro – Western Sydney Airport (the project) is identified in the Greater Sydney Region Plan as a key element to delivering an integrated transport system for the Western Parkland City. The project will be located within the Penrith and Liverpool Local Government Areas (LGAs) and will involve the construction and operation of a new metro railway line around 23 kilometres in length between the T1 Western Line at St Marys in the north and the Aerotropolis in the south (the area to be called Bradfield). This will include a section of the alignment which passes through and provides access to Western Sydney International.

The project is characterised into components that are located outside Western Sydney International (off-airport) and components that are located within Western Sydney International (on-airport), to align with their different planning approval pathways required under State and Commonwealth legislation.

This ACHMP deals specifically with the management of Aboriginal heritage in the EPBC off-airport component of the construction footprint, comprising exclusively of areas of Commonwealth land that intersect with the construction corridor, being within the bounds of Defence Establishment Orchard Hills (DEOH). It has been compiled with reference to Section 9.2 of the Sydney Metro-Western Sydney Airport Construction Environmental Management Framework (CEMF), which stipulates the minimum content requirements for project-related Heritage Management Plans (HMPs). This standalone ACHMP is for the EPBC off-airport areas and has been specifically produced to address the requirements of the EPBC off-airport approval. Conditions 6 and 7 of the EPBC approval for Sydney Metro Western Sydney Airport – St Marys to Elizabeth Drive, NSW (EPBC 2020/8687) refer to Aboriginal Heritage and state:

> **Condition 6**: To minimise the impacts of the action on heritage values of the DEOH, the approval holder must prepare an ACHMP in consultation with the Registered Aboriginal Parties (RAPs) and Heritage NSW, prior to the commencement of the action. To demonstrate compliance with this condition, the approval holder must keep appropriate records to demonstrate that consultation has taken place, and how comments received during consultation have been taken into account in the ACHMP.
>
> **Condition 7**. The approval holder must not remove or disturb any Aboriginal archaeological heritage artefacts or sites on the DEOH, including unexpected finds, except in accordance with an ACHMP prepared under condition 6.

This ACHMP has also been prepared to address:

- the Mitigation Measures (MMs) and Performance Outcomes (POs) detailed in the *Sydney Metro – Western Sydney Airport Revised Aboriginal Cultural Heritage Assessment Report (ACHAR) April 2021* (M2A, 2021) for the project as they relate to off-airport Commonwealth land (i.e., DEOH)
- the requirements of Section 9.3 of the CEMF
- reflect the outcomes of consultation with RAPs, the Department of Agriculture, Water and the Environment (DAWE) and Heritage NSW.

The primary objectives of this ACHMP are to:

- define procedures for the management of the known and potential Aboriginal heritage values of Commonwealth land in the off-airport component of the construction footprint (consisting of DEOH), including mitigation measures for known sites

- define responsibilities for the implementation of this ACHMP
- outline a risk management procedure for staff and contractors engaging in day-to-day operational activities that may bring them in to contact with Aboriginal cultural heritage
- define communication and decision-making processes relevant to the management of Aboriginal cultural heritage within the off-airport component of the construction footprint, including protocols for ongoing consultation with RAPs
- detail monitoring and reporting requirements for archaeological salvage and ongoing management.

1.2 Background

A Revised Aboriginal Cultural Heritage Assessment Report (ACHAR) for the project was finalised in April 2021. The ACHAR was prepared in accordance with relevant statutory guidelines including Heritage NSW's *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH, 2011), C*ode of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW, 2010b) and *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010a). The ACHAR describes the Aboriginal cultural heritage values of the construction footprint, both tangible and intangible, and includes a series of mitigation measures for project-related impacts to these values. This ACHMP sets out how these mitigation measures are to be implemented for the Commonwealth land off-airport component of the construction footprint, consisting of DEOH land intersecting with the construction footprint. Another separate ACHMP has been prepared for those components of the off-airport construction footprint that fall under NSW State legislation.

Procedures for the management of Aboriginal cultural heritage within the on-airport component of the construction footprint are not covered by this plan. Sydney Metro will be preparing an Aboriginal Cultural Heritage Construction Environmental Management Plan (CEMP) for on-airport works in consultation with Western Sydney Airport, for approval by the Commonwealth. It is expected that this plan will be prepared pre-construction.

1.3 Land to which this ACHMP applies

As indicated in Section 1.1, this ACHMP deals specifically with the management of Aboriginal heritage on Commonwealth land in the off-airport component of the construction footprint, consisting of where the construction footprint intersects with DEOH. Land to which this this ACHMP applies is shown on Figure 1-1.

Known Aboriginal sites identified on Commonwealth land within the off-airport component of the construction footprint (as at July 2021) are discussed in Section 4.0. This ACHMP focuses on project-related impacts to these features. Land with no known Aboriginal heritage constraints (as at July 2021) but subject to the Sydney Metro Unexpected Heritage Finds Procedure is also discussed in Section 4.0.

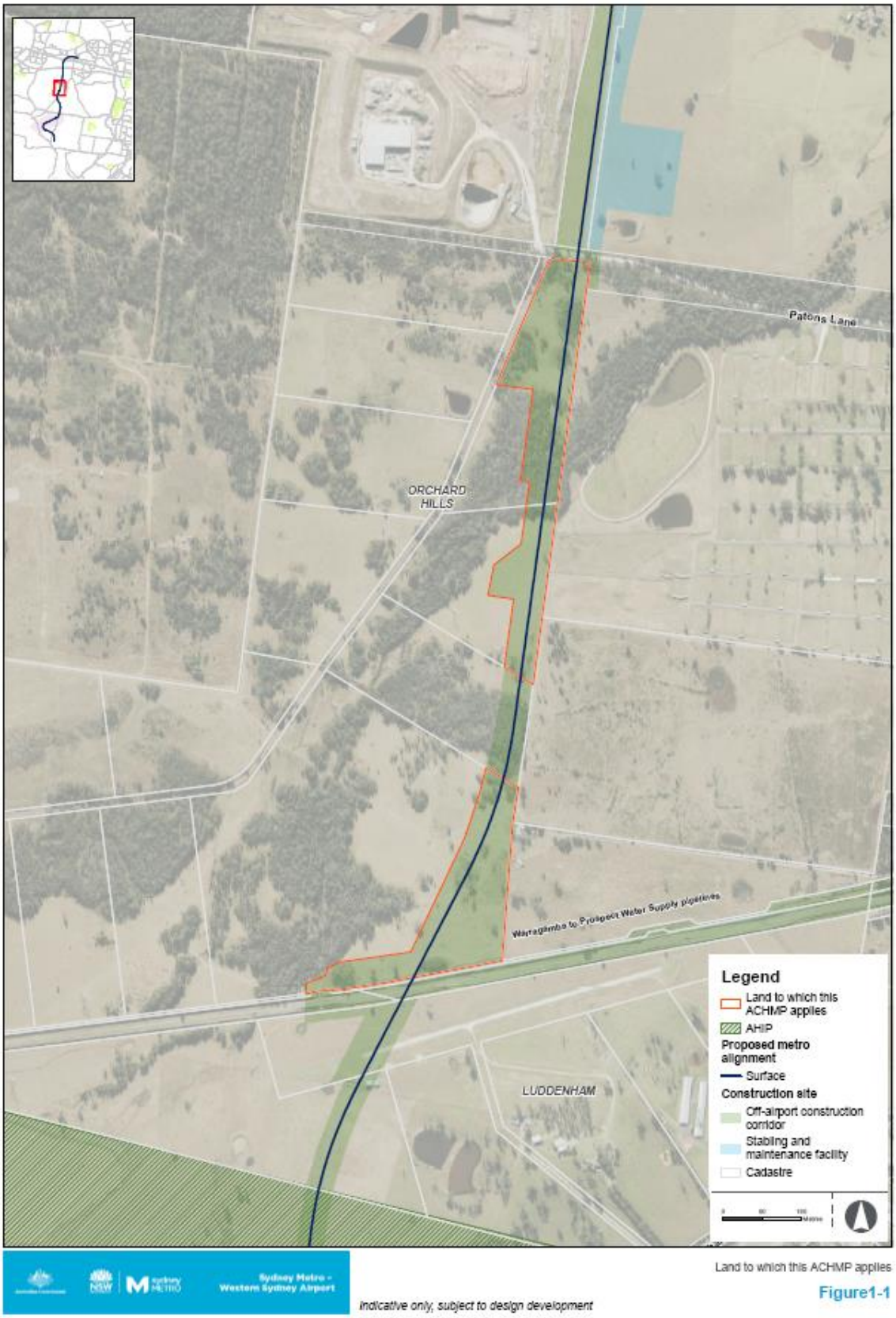

Figure 1-1 Land to which this ACHMP applies

1.4 Compliance matrices

As indicated in Section 1.1, in addition to Conditions 6 and 7 of the EPBC approval, this ACHMP has also been prepared to address the MMs and POs detailed in the Revised ACHAR for the project, as well as the requirements outlined in Section 9.2 of the project CEMF. As the ACHMP will be implemented during the construction phase of the project, the wording of each mitigation measure has been amended to ensure committed language is used.

Compliance matrices for each element are detailed in Table 1-1, Table 1-2 and Table 1-3.

Table 1-1 Compliance matrix for Revised performance outcomes

SEARS desired performance outcome	Project performance outcome	Timing	Relevant section (s) of this ACHMP
The design, construction and operation of the project facilitates, to the greatest extent possible, the long term protection, conservation and management of the heritage significance of Aboriginal objects and places. The design, construction and operation of the project avoids or minimises impacts, to the greatest extent possible, on the heritage significance of Aboriginal objects and places.	The heritage significance of Aboriginal objects and places are protected, conserved and/or managed in order to ensure the project does not diminish the story and cultural understanding associated with the objects and places of Aboriginal people in New South Wales.	Construction	Chapter 4 Chapter 5 Chapter 6
	Impacts on areas of archaeological sensitivity and significance are avoided or minimised, where practical.	Construction	Chapter 5
	The design of the project incorporates Aboriginal heritage interpretation and Aboriginal cultural design principles in consultation with Aboriginal knowledge holders.	Operation	Chapter 6

Table 1-2 Compliance matrix for Revised mitigation measures

Ref	Mitigation measure	Relevant section (s) of this ACHMP
AH1	Aboriginal stakeholder consultation will continue to be carried out in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (NSW Office of Environment and Heritage, 2010). Registered Aboriginal Parties will be provided with opportunities to participate in survey and testing in unverified areas of Aboriginal archaeological sensitivity, archaeological salvage works and unexpected find assessments (if required)	Section 3.1 Section 3.4
AH2	Note: this mitigation measure was included in the exhibited EIS and required areas of unverified Aboriginal archaeological sensitivity to be subject to archaeological survey, if required, and test excavation prior to construction. The unverified areas are outside the bounds of the EPBC area and are not relevant to this ACHMP, so the mitigation measure ID is now shown here as not used	Not used

Ref	Mitigation measure	Relevant section (s) of this ACHMP
AH3	Not used Note: this mitigation measure was included in the exhibited EIS and required test excavation to be undertaken in ground-truthed areas. This has now been completed and the mitigation measure ID is now shown as not used	Not used
AH4	Not used Note: this mitigation measure was included in the exhibited EIS and required the preparation of an Aboriginal Cultural Heritage Management Plan following test excavation. This plan addresses this requirement and the mitigation measure ID is now shown as not used	Not used
AH5	All Aboriginal objects recovered from the construction footprint as a result of test excavation and salvage works will be appropriately secured and under the care of the archaeological consultant while options for their long-term management, as determined through consultation with Registered Aboriginal Parties, are being investigated	Section 5.6
AH6	Aboriginal Heritage Information Management System site cards will be produced for all newly identified sites other than those identified on Commonwealth land. These will be submitted to the Aboriginal Heritage Information Management System Registrar as soon as practicable within one month of being identified. Newly identified sites within the revised boundaries of Defence Establishment Orchard Hills (Commonwealth land) will be reported to the Department of Defence to be managed in accordance with the relevant provisions of the *Defence Establishment Orchard Hills Heritage Management Plan*	Section 1.1 Section 4.3
AH7	Aboriginal Site Impact Recording forms for sites subject to archaeological salvage will be submitted to the Aboriginal Heritage Information Management System register within one month of the completion of salvage works within their bounds	Section 5.7
AH8	Not relevant to this plan Note: this mitigation measure has been excluded from this plan as it applies to the management of suspected human remains and unexpected Aboriginal cultural heritage objects within the on-airport component of the construction footprint. Procedures for the management of such finds within the off-airport component of the construction footprint are addressed within this plan	Not relevant to this plan
AH9	Works within the bounds of existing Aboriginal Heritage Impact Permit areas will be undertaken in accordance with the conditions of those permits and with permission from the relevant Aboriginal Heritage Impact Permit holder. Works undertaken within the revised boundaries on Defence Establishment Orchard Hills (Commonwealth land) will be undertaken in accordance with the *Defence Establishment Orchard Hills Heritage Management Plan*	Not relevant to this plan

Ref	Mitigation measure	Relevant section (s) of this ACHMP
AH10	Impacted Aboriginal Sites will be managed in accordance with the Aboriginal Cultural Heritage Management Plan	Section 4.1.2 Chapter 5
AH11	Measures will be implemented to ensure that Aboriginal sites located outside of the construction footprint, but within 100m of it, will not be affected by construction activities	Section 4.4
AH12	An Archaeological Salvage Report detailing the results of the archaeological salvage program (including the results of any post-excavation analyses) will be completed within two years of the completion of the fieldwork component of the program. The Archaeological Salvage Report will be consistent with the best practice guidelines suggested by the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010b) and the *Aboriginal Cultural Heritage Standards & Guidelines Kit* (NSW NPWS 1997)	Section 5.5
AH13	Measures to manage and protect the identified cultural values will be developed collaboratively through a consultation process with knowledge holders to inform construction planning and design development	Section 3.1.3
OAH1	A heritage interpretation strategy will be prepared for the project in consultation with Aboriginal knowledge holders. Aboriginal heritage interpretation will be developed with reference to the findings of the Aboriginal Cultural Heritage Assessment Report and Aboriginal Archaeological Report, to promote understanding and awareness of cultural heritage values	Chapter 6

Table 1-3 Compliance matrix for CEMF requirements

CEMF reference	Requirement	Relevant section (s) of this ACHMP
Section 9.2 a. i	Evidence of consultation with Registered Aboriginal Parties	Chapter 3
Section 9.2 a.ii	Identify initiatives that will be implemented for the enhancement of heritage values and minimisation of heritage impacts, including procedures and processes that will be used to implement and document heritage management initiatives	This Plan
Section 9.2 a. iii	The heritage mitigation measures as detailed in the planning approval documentation	See Table 1-2 for where EIS mitigation measures are addressed
Section 9.2 a. iv	The responsibilities of key project personnel with respect to the implementation of the plan	Section 1.7
Section 9.2 a v	Procedures for interpretation of heritage values uncovered through salvage or excavation during detailed design	Chapter 3 Chapter 5 Chapter 6
Section 9.2 a vi	Procedures for undertaking salvage or excavation of heritage relics or sites (where relevant), consistent with and any recordings of heritage relics prior to works commencing that would affect them	Chapter 5
Section 9.2 a vii	Details for the short and / or long term management of artefacts or movable heritage	Section 5.6

CEMF reference	Requirement	Relevant section (s) of this ACHMP
Section 9.2 a viii	Details of management measures to be implemented to prevent and minimise impacts on heritage items (including further heritage investigations, archival recordings and/or measures to protect unaffected sites during construction works in the vicinity)	This Plan
Section 9.2 a ix	Procedures for unexpected heritage finds, including procedures for dealing with human remains	Section 4.5 Section 4.6
Section 9.2 a x	Heritage monitoring requirements	Chapter 7
Section 9.2 a xi	Compliance record generation and management	Chapter 7
Section 9.2 b	The Contractor's regular inspections will include checking of Aboriginal heritage mitigation measures	Section 7.1
Section 9.2 c i	Inspections undertaken in relation to heritage management measures	Section 7.1
Section 9.2 c ii	Archival recordings undertaken of any heritage item	Section 4.2.2 Section 5.7
Section 9.2 c iii	Unexpected finds and stop work orders	Section 4.4 Section 4.5
Section 9.2 c iv	Records of any impacts avoided or minimised through design or construction methods	Chapter 8
Section 9.3 a i	Induction courses for site workers will include training in the identification of Aboriginal artefacts and management of Aboriginal heritage values	Section 7.1
Section 9.3 a ii	Any heritage item not affected by the works will be retained and protected throughout construction	Section 4.4
Section 9.3 a iii	During construction undertake professional archaeological investigation, excavation, and reporting of any historical Indigenous heritage sites of state significance which will be affected. Reporting may be completed as construction progresses	Chapter 5
Section 9.3 a iv	Undertake archival recordings of all non-Indigenous heritage items affected by the works prior to commencement of works	Not applicable
Section 9.3 a v	Implement unexpected heritage find procedures for Indigenous and non-Indigenous heritage items	Section 4.3 Section 4.4

1.5 Key project features

Key operational features of the project are shown on Figure 1-3 and will include:

- around 4.3 kilometres of twin rail tunnels (generally located side by side) between St Marys (the northern extent of the project) and Orchard Hills
- a cut-and-cover tunnel around 350 metres long (including tunnel portal), transitioning to an in-cutting rail alignment south of the M4 Western Motorway at Orchard Hills
- around 10 kilometres of rail alignment between Orchard Hills and Western Sydney International, consisting of a combination of viaduct and surface rail alignment
- around two kilometres of surface rail alignment within Western Sydney International
- around 3.3 kilometres of twin rail tunnels (including tunnel portal) within Western Sydney International

- around three kilometres of twin rail tunnels between Western Sydney International and the Aerotropolis Core (the area to be called Bradfield)
- six new metro stations:
  - four off-airport stations:
    - St Marys (providing interchange with the T1 Western Line)
    - Orchard Hills
    - Luddenham Road
    - Aerotropolis Core
  - two on-airport stations:
    - Airport Business Park
    - Airport Terminal
- grade separation of the track alignment at key locations including:
  - where the alignment interfaces with existing infrastructure such as the Great Western Highway, M4 Western Motorway, Lansdowne Road, Patons Lane, the Warragamba to Prospect Water Supply Pipelines, Luddenham Road, the future M12 Motorway, Elizabeth Drive, Derwent Road and Badgerys Creek Road
  - crossings of Blaxland Creek, Cosgroves Creek, Badgerys Creek and other small waterways to provide flood immunity for the project
- modifications to the existing Sydney Trains station and suburban rail network at St Marys (where required) to support interchange and customer transfer between the new metro station and the T1 Western Line
- a stabling and maintenance facility and operational control centre located to the south of Blaxland Creek and east of the proposed metro track
- new pedestrian, cycle, park-and-ride and kiss-and-ride facilities, public transport interchange infrastructure, road infrastructure and landscaping as part of the station precincts.

The project will also include:

- turnback track arrangements (turnbacks) at St Marys and Aerotropolis Core to allow trains to turn back and run in the opposite direction
- additional track stubs to the east of St Marys Station and south of the Aerotropolis Core Station to allow for potential future extension of the line to the north and south respectively without impacting future metro operations
- an integrated tunnel ventilation system including services facilities at Claremont Meadows and at Bringelly
- all operational systems and infrastructure such as crossovers, rail sidings, signalling, communications, overhead wiring, power supply, lighting, fencing, security and access tracks/paths
- retaining walls at required locations along the alignment
- environmental protection measures such as noise barriers (if required), on-site water detention, water quality treatment basins and other drainage works.

1.5.1 Off-airport project components

The off-airport components of the project that are relevant to this ACHMP will include the track alignment and associated operational systems and infrastructure.

1.6 Project construction

The proposed construction activities that will be undertaken for the project include:

- enabling works
- main construction works including:
  - tunnelling and associated works
  - corridor and associated works
  - stations and associated works
  - ancillary facilities and associated works
- rail systems fitout
- finishing works and testing and commissioning.

These activities are described in more detail in the project EIS.

The indicative timeframe for the project is for main construction to commence in 2021 and take about five years to complete, subject to planning approval, with project opening anticipated to align with when Western Sydney International opens for passenger services. An indicative main construction program is provided in Figure 1-2.

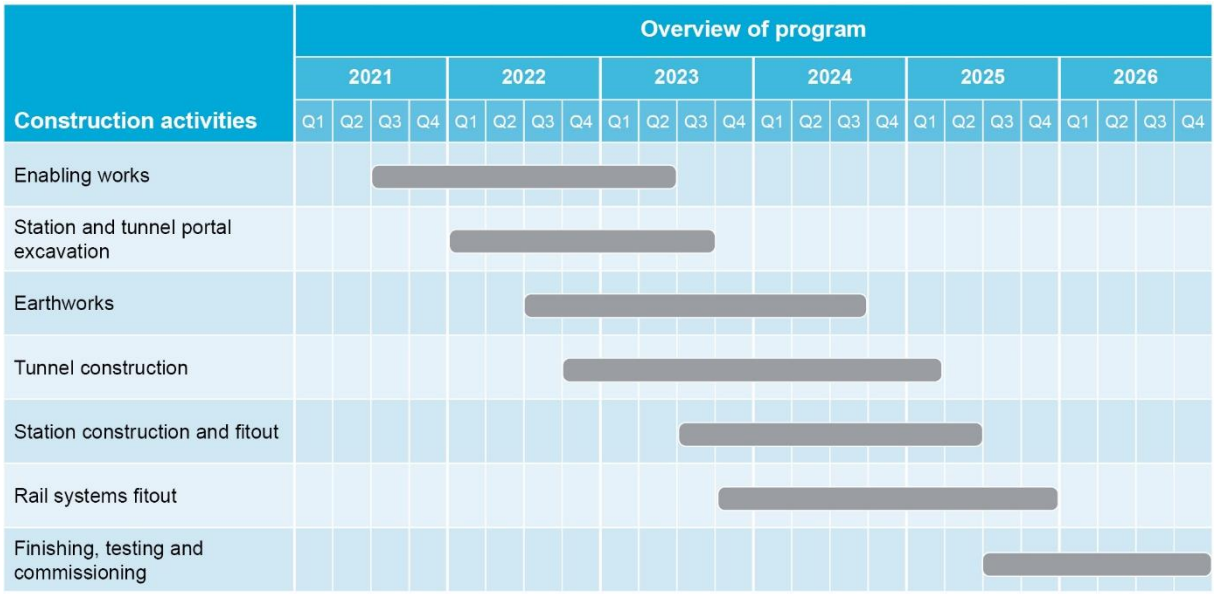

Figure 1-2 Indicative main construction program

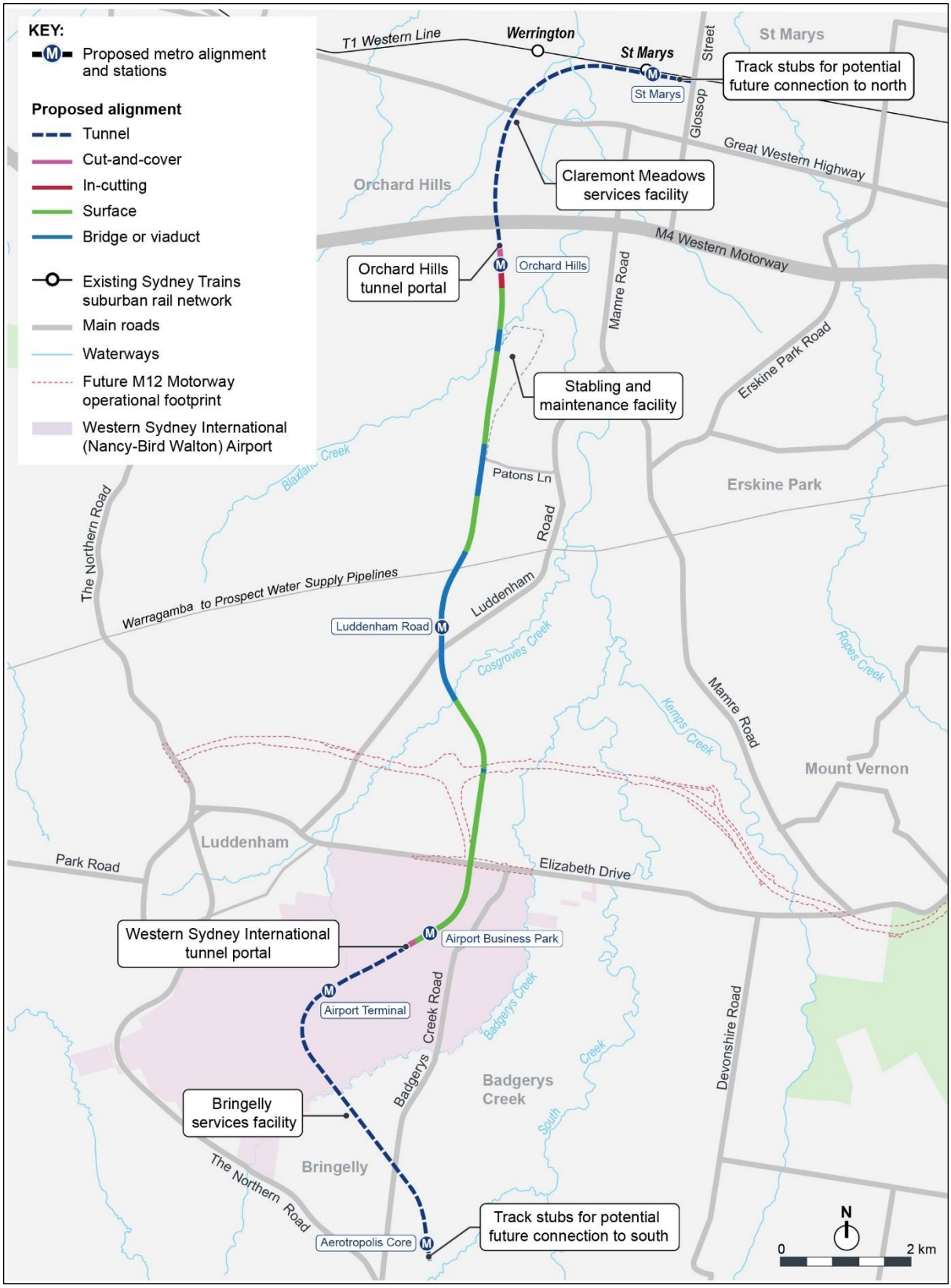

Figure 1-3 Project alignment and key features

1.7 ACHMP roles and responsibilities

Specific responsibilities for the implementation of this ACHMP and its associated management actions are presented in Table 1-4.

Table 1-4 ACHMP roles and responsibilities

Action	Personnel
Implementation of this ACHMP	Principal Contractor's Project Manager and Senior Environmental Officer
Protective Fencing and Signage	Principal Contractor's Senior Environmental Officer and Cultural Heritage Advisor
Salvage Works including: • Surface Collection • Salvage Excavations • Geomorphological Assessment	Principal Contractor's Senior Environmental Officer, Cultural Heritage Advisor and RAPs
Reporting for Archaeological Salvage Program	Principal Contractor's Cultural Heritage Advisor
Care and Control Agreement	Principal Contractor's Senior Environmental Officer, Cultural Heritage Advisor and RAPs
Management of Previously Unrecorded Aboriginal Objects	Principal Contractor's Senior Environmental Officer, Cultural Heritage Advisor and RAPs
Aboriginal Heritage Awareness Training	Principal Contractor's Senior Environmental Officer, Cultural Heritage Advisor and RAPs
ACHMP Review and Update (if required)	Principal Contractor's Project Manager and Senior Environmental Officer

2. Legislative, planning and policy context

This section describes legislation, planning instruments and policy documents considered during the development of this ACHMP.

2.1 Off-airport legislative and policy context

2.1.1 Commonwealth legislation and policy

Environment Protection and Biodiversity Conservation Act 1999

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) took effect on 16 July 2000. Under Part 9 of the EPBC Act, any action that is likely to have a significant impact on a matter of national environmental significance may only progress with approval of the Commonwealth Minister for the Environment. An action is defined as a project, development, undertaking, activity, series of activities, or alteration. An action will also require approval if:

- It is undertaken on Commonwealth land and will have or is likely to have a significant impact
- It is undertaken outside Commonwealth land and will have or is likely to have a significant impact on the environment on Commonwealth land
- It is undertaken by the Commonwealth and will have or is likely to have a significant impact.

The EPBC Act defines 'environment' as incorporating both natural and cultural environments and therefore includes Aboriginal heritage items. Under the EPBC Act, protected heritage items are listed on the National Heritage List (NHL) (items of significance to the nation) or the Commonwealth Heritage List (CHL) (items belonging to the Commonwealth or its agencies). These two lists replaced the Register of the National Estate (RNE). Statutory references to the RNE in the EPBC Act were removed on 19 February 2012. However, the RNE remains an archive of over 13,000 heritage places throughout Australia.

A search of the Australian Heritage Database, which includes places listed on the World Heritage List (WHL), National Heritage List (NHL), Commonwealth Heritage List (CHL), Register of the National Estate (RNE) and List of Overseas Places of Historic Significance to Australia, was undertaken in February 2021, with no relevant listings identified for the land covered by this ACHMP.

The EPBC off-airport Environmental Impact Assessment was put on exhibition from 21 October 2020 for a period of four weeks. The final EPBC off-airport Environmental Impact Assessment was submitted in April 2021.

Aboriginal and Torres Strait Islander Heritage Protection Act 1984

The *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (the ATSIHP Act) provides for the preservation and protection of places, areas and objects of particular significance to Aboriginal Australians. The stated purpose of the ATSIHP Act is the *"preservation and protection from injury or desecration of areas and objects in Australia and in Australian waters, being areas and objects that are of particular significance to Aboriginals in accordance with Aboriginal tradition"* (Part I, Section 4).

Under the Act, '*Aboriginal tradition*' is defined as *"the body of traditions, observances, customs and beliefs of Aboriginals generally or of a particular community or group of Aboriginals, and includes any such traditions, observances, customs or beliefs relating to particular persons, areas, objects or relationships"* (Part I, Section 3). A '*significant Aboriginal area*' is an area of land or water in Australia that is of *"particular significance to Aboriginals in accordance with Aboriginal tradition"* (Part I, Section 3). A '*significant Aboriginal object*', on the other hand, refers to an object (including Aboriginal remains) of like significance.

For the purposes of the ATSIHP Act, an area or object is considered to have been injured or desecrated if:

a. In the case of an area:

    i. it is used or treated in a manner inconsistent with Aboriginal tradition

ii. the use or significance of the area in accordance with Aboriginal tradition is adversely affected

iii. passage through, or over, or entry upon, the area by any person occurs in a manner inconsistent with Aboriginal tradition

b. in the case of an object:

i. it is used or treated in a manner inconsistent with Aboriginal tradition.

The ATSIHP Act can override State and Territory laws in situations where a State or Territory has approved an activity, but the Commonwealth Minister prevents the activity from occurring by making a declaration to protect an area or object. However, the Minister can only make a decision after receiving a legally valid application under the ATSIHP Act and, in the case of long-term protection, after considering a report on the matter. Before making a declaration to protect an area or object in a State or Territory, the Commonwealth Minister must consult the appropriate minister of that State or Territory (Part 2, Section 13).

No declarations relevant to the land covered by this ACHMP have been made under the ATSIHP Act.

Native Title Act 1993

The *Native Title Act 1993* (NTA) provides for the recognition and protection of native title for Aboriginal peoples and Torres Strait Islanders. The NTA recognises native title for land over which native title has not been extinguished and where persons able to establish native title are able to prove continuous use, occupation or other classes of behaviour and actions consistent with a traditional cultural possession of those lands. It also makes provision for Indigenous Land Use Agreements (ILUA) to be formed as well as a framework for notification of Native Title Stakeholders for certain future acts on land where Native Title has not been extinguished.

Searches of the *National Native Title Register*, *Register of Native Title Claims* and *Register of Indigenous Land Use Agreements* were undertaken in February 2021 for the Penrith and Liverpool LGAs. These searches returned no relevant native title claims, determinations or land use agreements.

2.1.2 Project-specific policy

Sydney Metro-Western Sydney Airport Construction Environmental Management Framework (project CEMF)

The project CEMF is a Sydney Metro project framework that has been adapted specifically to set out the environmental, stakeholder and community management requirements for construction of the project. It provides a linking document between the planning approval documentation and the construction environmental management documentation to be developed by the Principal Contractors relevant to their scope of works.

Sydney Metro Principal Contractors for Sydney Metro Western Sydney Airport (SMWSA) will be required to implement and adhere to the requirements of the project CEMF. The project CEMF will form part of the planning approval documentation and will be included as a contract document in all design and construction contracts for the project.

Section 9 of the CEMF provides a framework for the management of project-related interactions with Aboriginal and European heritage values, both in on-airport and off-airport contexts. As indicated in Section 1.1, this ACHMP has been compiled with reference to Section 9.2 of the CEMF, which details the minimum content requirements for project-related HMPs.

Overarching Community Communication Strategy

The Overarching Community Communication Strategy (OCCS) has been prepared to guide Sydney Metro's approach to stakeholder and community liaison including engagement with communities, stakeholders and businesses. The plan is intended to be used as a framework for community engagement across all Sydney Metro projects and contracts. The OCCS considers all work activities and packages for Sydney Metro and its projects for the duration of work, and 12 months following the completion of construction. Sydney Metro is responsible for the development and implementation of

the OCCS to ensure there is a coordinated approach to stakeholder, business and community liaison across the entire program of work for Sydney Metro.

The OCCS outlines Sydney Metro's proposed approach to working with Aboriginal and Torres Strait Islander (ATSI) communities and has been developed to align with the Transport for NSW's Reconciliation Action Plan (TfNSW's RAP). As stipulated in the OCCS, Sydney Metro are committed to working collaboratively and respectfully with ATSI communities to improve accessibility and outreach, and to deliver meaningful outcomes for these communities.

2.2 Defence Establishment Orchard Hills, NSW Heritage Management Plan

This ACHMP has been compiled with reference to and is consistent with the Defence Establishment Orchard Hills, NSW Heritage Management Plan (HMP) (GML Heritage Pty Ltd, 2013). The key recommendations of the DEOH HMP relating to Indigenous heritage are:

- Engage and consult with the local Indigenous community about their involvement in conserving and promoting the heritage values
- Provide a mechanism for the Indigenous community to access key Indigenous sites within DEOH.

Principle 6 of the HMP states: Indigenous people are the primary source of information on the value of their heritage and the active participation of Indigenous people in identification, assessment and management is integral to the effective protection of Indigenous heritage values.

The following recommendations are listed in the HMP with regard to Aboriginal heritage:

- Engage and consult with the local Indigenous community about their involvement in conserving and promoting the heritage values
- Acknowledge Indigenous heritage values both in management and in interpretation of DEOH. Consult with the local Indigenous community where new development is likely to have an impact on Indigenous heritage value
- Provide a mechanism for the Indigenous community to access key Indigenous sites. The Indigenous community values the ability to access their sites and Country. In line with Commonwealth requirements, a mechanism for access should be arranged. The Indigenous community can become positively engaged in managing their heritage sites and values. Visitation by Indigenous people could be used as an opportunity to understand longer term impacts of factors such as land use or erosion, where the community could be asked to monitor certain sites
- Manage [a site] in accordance with the element's heritage value ranking:
    - High: if possible avoid these sites. Archaeological excavation would be required should the site be subject to impact
    - Moderate: if possible avoid these sites. Archaeological excavation may be required should the site be subject to impact
    - Low: if possible avoid these sites. Archaeological excavation may not be required although collection of surface objects may be required.

The DEOH HMP was consulted as part of the previous assessments to confirm no previously recorded sites were mapped within the construction footprint. Survey and test excavation to date have been undertaken as per the HMP and the recommendations it contains have been utilised in the production of management recommendations for this ACHMP.

3. Community and stakeholder engagement

In accordance with AH1, Aboriginal stakeholder consultation will continue to be carried out in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (NSW Office of Environment and Heritage, 2010). The ways in which this will be implemented are discussed below.

3.1 Aboriginal community consultation

3.1.1 Consultation process for the EIS

Aboriginal community consultation for the project EIS was initiated in May 2019 and undertaken in accordance with Heritage NSW's *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010a). A total of 68 Aboriginal parties, listed below, registered their interest in being consulted for the project.

1. [redacted]

Key consultation activities for the Environmental Impact Statement, detailed in the Revised ACHAR for the project, included:

- RAP review of the project's draft assessment methodology
- RAP participation in archaeological field investigations
- in-field discussions regarding cultural heritage values
- phone and email discussions regarding cultural heritage values
- RAP reviews of the Revised ACHAR and *Sydney Metro – Western Sydney Airport Aboriginal Archaeological Report (AAR) April 2021* (M2A, 2021), including proposed mitigation measures.

3.1.2 Consultation process for this ACHMP

This ACHMP has been based on the CSSI ACHMP, a draft of which, along with drafts of the project's Revised ACHAR and AAR, was provided to all RAPs for comment on 17 February 2021. A total of 13 responses were received from RAPs, although one of these was relevant for 42 RAPs operating under Murrin Administrative Services. RAP responses are summarised in Table 3-1, with relevant sections of the ACHMP cited where appropriate. Comments provided relate to all three documents. Full responses are provided in Appendix H of the Revised ACHAR.

Twelve RAP respondents indicated that they supported the draft ACHMP, as well as the Revised ACHAR and AAR. The thirteenth respondent provided comments on the documents but did not directly address this point.

Two RAPs raised concerns over the issue of the draft ACHMP's wording around Welcomes to Country, with one advising that the ACHMP should not mandate that these must be undertaken by LALCs and the other expressing the view that more options should be included. In response, the relevant section of this plan (Section 3.1.3) has been updated to include the statement that Welcomes to Country can be arranged through any of the RAPs listed in Section 3.1.1 of this plan. Further, Section 3.1.3 has been updated to read that the Deerubbin and Gandangara LALCs "may" be contacted for this purpose.

One RAP indicated that the preferred option for Aboriginal objects recovered from the construction footprint will be on-site reburial in a non-impact area. The same RAP also expressed the view that all artefact sites listed in the draft ACHMP as requiring no further management should be collected (i.e., salvaged). However, on this issue, it is noted that that the sites in question (listed in Table 4-1 in Section 4.1.2) comprise *subsurface* sites that have already been collected through test excavation.

Two RAP responses also raised the issue of who legitimate knowledge holders were and who should be consulted with and involved in ongoing fieldwork for the project. Section 3.1.3 of this plan outlines ongoing RAP consultation protocols for the project, including future archaeological investigations.

A further point was raised by one RAP noting that culturally appropriate art and language should be used on any interpretative signage for the project. Chapter 6 of this plan addresses the heritage interpretation strategy that is to be developed for the project. This section has been updated to include a statement to this effect.

Responses also restated what had already been expressed in previous consultation and documented in the existing text of the project's Revised ACHAR, that Aboriginal sites within the construction footprint are of significance to Aboriginal people, as is the larger connected cultural landscape that contains them.

The final EPBC Off-Airport ACHMP was provided to all RAPs listed in Section 3.1.1 on 31 May 2022 by email, except for Colin Gale. A hard copy of the ACHMP was provided to Colin Gale on 1 June 2022 and a hard copy was also provided to Cubbitch Barta on 3 June 2022. The final EPBC Off-Airport ACHMP was provided with a note to clarify that the report refers specifically to the Commonwealth land section of the construction footprint.

On 27 June, an enquiry was received from Gandangara LALC noting they are reviewing the ACHMP and may provide comments, but rather than comments on content of the ACHMP, the query was to clarify the process in relation to how the RAP feedback was presented. The query was addressed to

the satisfaction of the GLALC and no updates to the plan were required. To date, no formal feedback on the final ACHMP has been received from the RAPs.

A number of RAPs also participated in archaeological testing on DEOH land in May 2021, including Darug Custodian Aboriginal Corporation, Tocomwall, Deerubbin Local Aboriginal Land Council (DLALC), Cubbitch Barta Native Title Claimants, Murrabidgee Mullangari and KYWG.

Table 3-1 RAP responses to drafts of Revised ACHAR, AAR and ACHMP and the Final EPBC ACHMP

RAP	Response to Revised ACHAR, AAR and ACHMP	Where considered in this ACHMP
[redacted]	Response received by email on 12 March 2021 noting that [redacted] reviewed the documents and agrees and supports all information stated, including proposed methodology, mitigation measures and Aboriginal cultural heritage values.	Comments noted
[redacted]	Response received on 15 March 2021 from a Murrin representative, acting on behalf of 42 separate RAPs operating under RAPs operating under the Murrin Administrative Services. They provided verbal comment by phone that all three reports were endorsed. They also provided an email on 15 March 2021 noting that the reports and management plans were agreed, approved and endorsed.	Comments noted
[redacted]	Response received by email on 15 March 2021 noting that they agreed with the documents and would like the	Section 3.4 addresses RAP

RAP	Response to Revised ACHAR, AAR and ACHMP	Where considered in this ACHMP
	opportunity to participate in the upcoming survey and test excavations for the unverified areas and/or the salvage works.	participation in further field investigations, including salvage works.
[redacted]	Letter response received on 2 March 2021. [redacted] raised an issue that the ACHMP should not mandate that a Welcome to Country be undertaken by LALCs. Further, the letter stated that culturally appropriate art and language should be used on any interpretative signage for the project. [redacted] also had issues regarding which RAPs he saw as legitimate knowledge holders.	Welcomes to, and Acknowledgements of, Country are addressed in Section 3.1.3. Section 3.1.3 has been updated to include the statement that: "Welcomes to Country can be arranged through any of the RAPs listed in Section 3.1.1 of this plan". Chapter 6 has been updated to include the statement that: "Culturally appropriate art and language should be used on any interpretative signage developed for the project".
[redacted]	Letter response received as email attachment on 15 March 2021. The letter noted that they support the recommendations set out in the reports. In addition to this, the letter restated that the identified sites were part of a connected cultural landscape. The letter also raised concerns that other RAPs consulted for the project do not contribute to, or represent the Aboriginal community of Western Sydney.	Section 4.1.3 addresses the identified Aboriginal cultural heritage values of the construction footprint and environs.
[redacted]	Email response provided on 18 February 2021 which noted that the [redacted] agrees with all of the documents.	Comment noted
[redacted]	Email response received 15 March 2021 noting that the construction footprint area forms part of a highly significant cultural landscape, with waterways therein comprising focal, resource-rich features. Suggestions were made regarding the future interpretation for the project, including the use of native plantings in gardens, showcasing 3D replicas of the artefacts found on site and presenting the Aboriginal history of the area through signage and interpretation boards. The response also noted that the documents were supported, and that it is recommended more investigations of the surrounding areas be done in the way of salvage excavations.	Comments noted. Chapter 6 addresses the heritage interpretation strategy that is to be developed for the project. Section 3.4 addresses RAP participation in further field investigations, including salvage works.

RAP	Response to Revised ACHAR, AAR and ACHMP	Where considered in this ACHMP
[redacted]	Email response received 24 February 2021 which noted that they agreed with the recommendations in the documents.	Comment noted
[redacted]	Email response received 9 March 2021 which noted that they agreed with the recommendations in the documents.	Comment noted
[redacted]	Email response received 16 March 2021 noting that as the study is outside of [redacted] boundaries, they have no comment at this time.	Comment noted
[redacted]	Verbal comments received on 15 March 2021 noting that they are happy with the recommendations provided in the reports and agree with the ACHMP.	Comment noted
[redacted]	Verbal comments received on 9 March 2021 noting that they agree with the recommendations provided in the reports.	Comment noted
[redacted]	Email response received on 22 March 2021, as follows: 1. [redacted] disagree with K[redacted] interpretation of Darug country, as presented in the Revised ACHAR. Kohen extends the boundary extends the Darug Country boundary to Appin in the south. [redacted] note that land south of Bringelly is, in fact, Dharawal Country. 2. The preferred option for the management of Aboriginal objects recovered from the construction footprint is on-site reburial of artefacts in a non-impact area, with the reburial location to be recorded on AHIMS. 3. The cumulative impacts of developments such as the airport, Sydney Metro and the Aerotropolis will leave no Aboriginal heritage in the area and thus no intergenerational equity for future generations. 4. Current Aboriginal heritage legislation in NSW does not allow Aboriginal people to be a part of the planning process up front in order to have better conservation outcomes. 5. With regards to organising a Welcome to Country through Deerubbin LALC, [redacted] do not believe this is possible given that the LALC does not recognise the traditional custodians of the Country. More options are required. 6. Artefact sites that are not to be salvaged should be collected. They noted that it makes no difference whether the scientific significance is high low or medium, all artefacts all culturally significant. [redacted] recommend that all sites listed as having low significance in ACHAR should be collected.	Comments 1 and 4 are noted. Welcomes to, and Acknowledgements of, Country are addressed in Section 3.1.3. Section 3.1.3 has been updated to include the statement that: "Welcomes to Country can be arranged through any of the RAPs listed in Section 3.1.1 of this plan". Section 5.6 addresses the care and control of Aboriginal objects recovered from the construction footprint as a result of test excavation and salvage works. This section has been updated to include on-site reburial as a potential long term management option. Chapter 5 details the archaeological salvage program that will be undertaken for the Project.

RAP	Response to Revised ACHAR, AAR and ACHMP	Where considered in this ACHMP
		Excluding subsurface examples, all open artefact sites of low scientific significance will be salvaged. Where test excavation has already occurred, recovered Aboriginal objects will be managed in accordance with Section 5.6 of this plan. Regarding point 4, a cumulative assessment is presented in the Revised ACHAR. For future development, those developments would consider cumulative impacts with the project.

3.1.3 Ongoing consultation protocols

Principals of RAP engagement

Sydney Metro is committed to improving accessibility and outreach with Aboriginal and Torres Strait Islander communities by working collaboratively and respectfully with our Aboriginal and Torres Strait Islander staff, Aboriginal Peak Bodies, and with the communities in which operations occur.

Sydney Metro recognises the importance of cultural protocols in the engagement of RAPs and the Aboriginal community more broadly. As such, Sydney Metro has adopted the principals outlined in the Australian Heritage Commission's *Ask First* guidelines (Australian Heritage Commission, 2002).These principals require that all parties concerned with identifying, conserving and managing Aboriginal heritage should acknowledge, accept and act on the principles that Aboriginal people:

- are the primary source of information on the value of their heritage and how this is best conserved
- must have an active role in any Aboriginal heritage planning process
- must have input into primary decision-making in relation to Aboriginal heritage so they can continue to fulfil their obligations towards this heritage
- have a right to retain control of their cultural knowledge, including intellectual property and other information relating specifically to their heritage.

Welcome to Country / Acknowledgment of Country

A Welcome to Country is a formal welcome to Aboriginal land given by an Elder or person from the Country the meeting/event is taking place on. It is commonly in the form of a short speech, but also may include a performance.

An Acknowledgement of Country can be given by an Indigenous or non-Indigenous person and is a way of paying respect to the Traditional Owners of the Country the meeting/event is taking place on. An example of an Acknowledgement of Country is provided below:

"Before we begin proceedings, I would like to acknowledge the Traditional Owners of the land on which we meet today, the Gandangara people. I would like to pay my respects to the Elders past, present, emerging and future and pay my respects to all Aboriginal People here today, wherever you may come from."

Welcomes to Country and Acknowledgements of Country are important practices because they continue the longstanding tradition of formally recognising Aboriginal (and Torres Strait Islander) Traditional Ownership and Connection to Country (NTSCORP Limited, 2013).

All internal meetings and events associated with the project should begin with an Acknowledgement of Country. Consideration will always be given to provide Knowledge Holders the opportunity to undertake a Welcome to Country at public events.

For areas north of Elizabeth Drive, the Deerubbin Local Aboriginal Land Council (LALC) may be invited to present a Welcome to Country. For areas south of Elizabeth Drive, the Gandangara (LALC may be invited to present a Welcome to Country.

Details for both organisations are included below.

[redacted]

[redacted]

Welcomes to Country could also be arranged through any of the RAPs listed in Section 3.1.1 of this plan.

Consultation to inform construction planning and design development

In accordance with mitigation measure AH13, if further information on cultural values is received during ongoing construction planning and design development it will be considered by the project team. Should the need for additional measures to manage and/or protect relevant cultural values be identified, these will be determined in collaboration with relevant knowledge holders and implemented by the Principal Contractor.

3.2 Dissemination of project and ACHMP-related information

Sydney Metro uses a range of communication and engagement tools to ensure project information reaches relevant stakeholders, as detailed in Section 6 of the OCCS. During construction, RAPs will be provided with general project updates via Sydney Metro's existing project notification system. Where required, notifications specific to this ACHMP will be provided to RAPs verbally and/or in writing. This includes the requirement to notify RAPs of any substantive revisions to this ACHMP, as detailed in Section 8.5. ACHMP-related notifications will be the responsibility of SMWSA's Senior Environmental Officer.

3.3 Aboriginal community access

Aboriginal community members may wish to access the construction footprint on an ad hoc basis for cultural purposes (e.g., education, ceremony). Sydney Metro is committed to facilitating such access wherever possible. Aboriginal community members wishing to access the construction footprint will be asked to contact the Principal Contractor's Project Manager and/or Senior Environmental Officer in writing or register a verbal request, at least 14 days prior to their preferred date of access. Requests for access will be assessed by Sydney Metro. Where granted, access will be subject to relevant operational and safety considerations. Access to some areas may be restricted during construction.

3.4 RAP participation in further field investigation works

RAPs will be given the opportunity to participate in the following activities:

- archaeological salvage works (i.e., surface collection and salvage excavation) at relevant impacted Aboriginal archaeological sites (refer to Section 5.1)
- unexpected finds assessments, if required.

For verification and salvage works, a maximum of eight RAP field representatives per day is proposed. For unexpected finds assessments, a minimum of one RAP field representative is proposed.

3.5 Meeting requests

Throughout the construction phase of the project, should RAPs make a reasonable request to meet with Sydney Metro to discuss any aspect of this ACHMP or cultural heritage values/sites within the construction footprint, this will be facilitated. For the purposes of this ACHMP, a reasonable request is defined as one provided to Sydney Metro verbally and/or in writing at least 10 working days prior to requested meeting date.

4. Aboriginal heritage values

4.1 Verified Aboriginal heritage values

4.1.1 Process of verification

The process to investigate and verify Aboriginal archaeological sites and cultural values is described in detail in the Revised ACHAR and AAR. A summary of the process is provided below, which is a process consistent with methodology presented to RAPs and detailed in the Revised ACHAR:

1. **Desktop research** – to identify previously recorded sites, existing AHIPs, past disturbance and areas of archaeological potential
2. **Field survey** – to ground truth previously recorded sites, record any new sites identified in surface expressions, verify areas of past disturbance where no further investigation is required and define areas of sensitivity where further investigation through test excavation is warranted
3. **Test excavation** – undertaken in areas of identified archaeological potential to gain an understanding of subsurface deposits and determine if salvage works are warranted
4. **RAP consultation** – undertaken throughout the above three steps, to identify Aboriginal cultural values and if further investigation works (survey, test excavation and salvage) are culturally appropriate at identified sites.

There are no unverified areas covered by scope of this ACHMP.

4.1.2 Aboriginal archaeological sites

A total of 12 Aboriginal archaeological sites, consisting of nine artefact scatters (two surface, seven subsurface) and three isolated artefacts (all subsurface), are recognised within the off-airport component of the construction footprint. Of these, two are located wholly within the DEOH portion of the construction footprint. These sites are summarised in Table 4-1 below, with site locations shown on Figure 4-1. Management measures for each site are also provided in Table 4.1. Further discussion on these management measures is included in Section 4.2 and Chapter 5.

Table 4-1 Aboriginal archaeological sites within the Commonwealth land portion of the off-airport construction footprint

Name	AHIMS	GDAE	GDAN	Site type	AHIMS Feature(s)	Scientific significance	Surface or subsurface site	Management measure(s)	Location relative to construction footprint
SMWSA-AS3	TBA	[redacted]	[redacted]	Artefact scatter	AFT	Moderate	Subsurface	Salvage excavation	Wholly within
SMWSA-AS4	TBA	[redacted]	[redacted]	Artefact scatter	AFT	Low	Subsurface	No further management	Wholly within

4.1.3 Aboriginal cultural heritage values

The construction footprint lies within a broader cultural landscape that holds significant traditional and contemporary cultural values for the Aboriginal people of the region. Within this broader cultural landscape there are a range of specific locations and pathways that are known to the contemporary Aboriginal community. Blaxland Creek, South Creek tributary, Cosgroves Creek, Badgerys Creek, Moore Gully, Thompsons Creek and other unnamed waterways were noted during consultation to be past pathways and resource areas for Aboriginal people of the area.

The cultural significance of the broader cultural landscape in which the construction footprint is located is a result of the intersection of traditional usage, cultural knowledge, historical connection and contemporary cultural understandings. The cultural landscape is linked by Aboriginal sites, which have previously been recorded across the entire study area. The sites act as footprints in the landscape for Aboriginal people, attesting to past uses and linking the ancestors of the past to the present community.

4.2 Aboriginal sites within 100 m of construction footprint

The one Aboriginal site located wholly outside, but within 100 m, of the DEOH portion of the construction footprint (45-5-3773) is listed in Table 4-2. While physical impacts to this site are not anticipated, as a precautionary measure, it is to be actively protected during construction via temporary fencing and/or signage along the construction boundary, as per mitigation measure AH11. Decisions regarding the use and placement of fencing and/or signage will be determined by the Principal Contractor's Cultural Heritage Advisor on the basis of both a visual inspection of the registered AHIMS site location and critical review of relevant existing data sources (e.g., associated site card and assessment reports). All relevant staff and contractors are to be made aware of the nature and location of this site as part of standard site inductions. The site listed in Table 4-2 must be identified on relevant site plans (e.g., Environmental Control Maps).

Table 4-2 Aboriginal archaeological sites located wholly outside, but within 100m, of the DEOH portion of the construction footprint

Site name	AHIMS	Site type[1]	GDAE	GDAN	Closest construction site	AHIMS Feature(s)	Surface or sub-surface site	Manage-ment measure(s)
Luddenham Road 1	45-5-3773	IA	[redacted]	[redacted]	Off-airport construction footprint	AFT	Surface	Temporary protective fencing

[1]Site type: IA = isolated artefact

4.3 Unexpected finds (excluding suspected human skeletal remains)

Unexpected Aboriginal heritage finds are to be managed in accordance with Section 6.24 of Sydney Metro's Unexpected Heritage Finds Procedure [SM-18-00105232]. This procedure, which applies to the areas shown on Figure 4-1, is included in Appendix A.

4.4 Human skeletal remains (including Aboriginal archaeological burials)

In the event that suspected human skeletal material is exposed within the off-airport component of the construction footprint, the steps outlined in Appendix 4 of Sydney Metro's Unexpected Heritage Finds Procedure [SM-18-00105232], attached as Appendix A, should be followed.

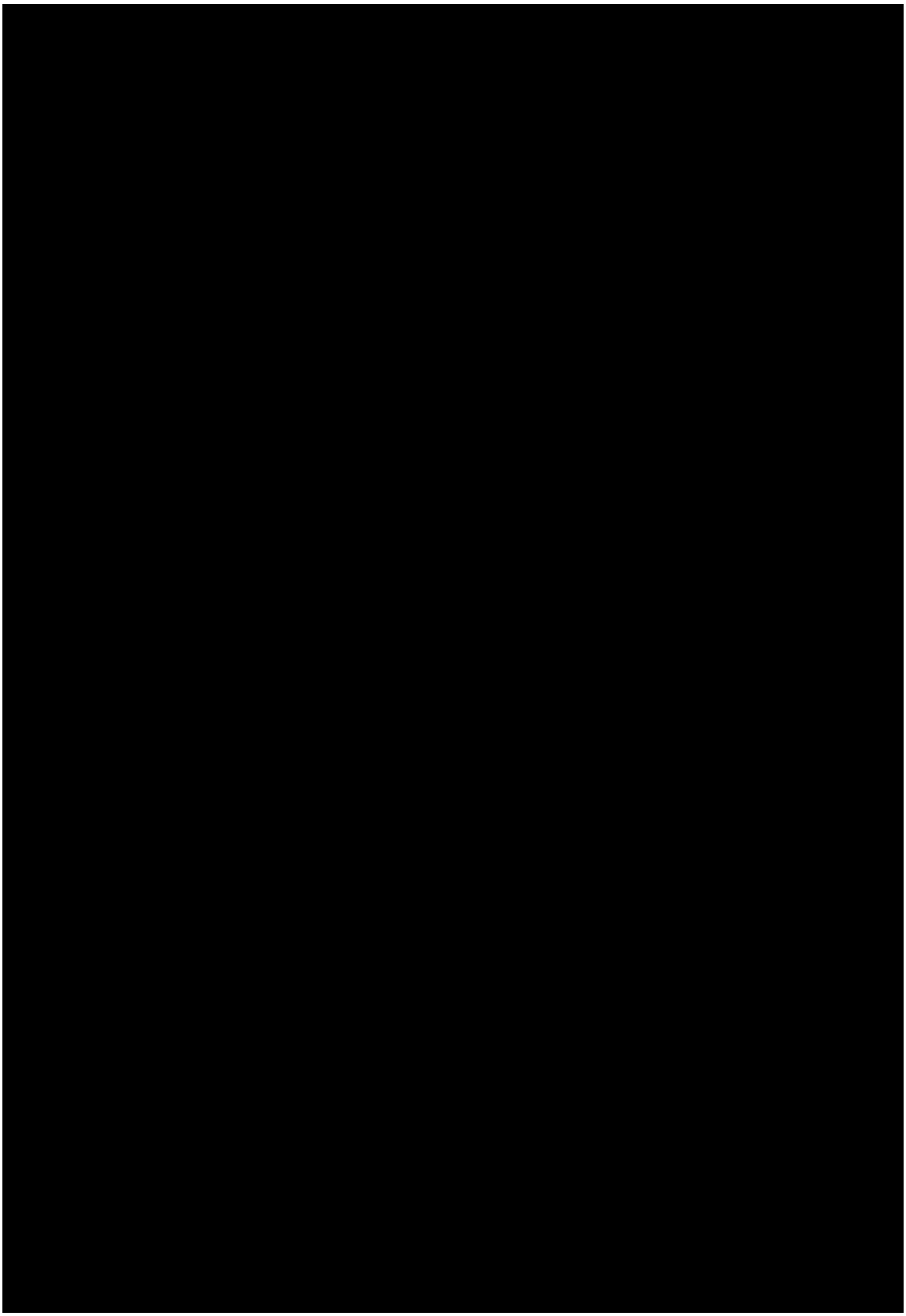

Figure 4-1 Aboriginal heritage values

5. Archaeological salvage program

Impacts to known Aboriginal archaeological sites within the off-airport component of the construction footprint (excluding areas of Commonwealth land) will be mitigated through the archaeological salvage program detailed in this section. Salvage will be undertaken by a combined field team of suitably qualified archaeologists and RAP field representatives, led by the Principal Contractor's Cultural Heritage Advisor.

5.1 Impacts to known Aboriginal sites

As previously described in Section 2.2, this ACHMP and the methodology included herein aligns with the DEOH HMP.

Ground disturbance activities within the DEOH portion of the off-airport component of the construction footprint are expected to impact both of the Aboriginal archaeological sites identified within this area, resulting in a total loss of value for these two sites.

Moderate scientific significance

Impacted subsurface artefact scatter site SMWSA-AS3 has been assessed as being of moderate scientific significance. To mitigate the impact of the project on this site, salvage excavations will be undertaken within its bounds.

Low scientific significance

Impacted subsurface artefact scatter site SMWSA-AS4 has been assessed as being of low scientific significance. As a subsurface site, no further management is required for this site.

A summary of proposed management for impacted sites within the off-airport component of the construction footprint is provided in Table 5-1.

Table 5-1 Management of impacted sites within the DEOH portion of the off-airport component of construction footprint

Site Name	AHIMS Id(s)	Site type	GDAE	GDAN	Construction site	Type of harm	Degree of harm	Consequence of harm	Scientific significance rating	Management measure(s)
SMWSA-AS3	TBA	Artefact scatter (subsurface)	[redacted]	[redacted]	Off-airport construction corridor	Direct	Total	Total loss of value	Moderate	Salvage excavation
SMWSA-AS4	TBA	Artefact scatter (subsurface)	[redacted]	[redacted]	Off-airport construction corridor	Direct	Total	Total loss of value	Low	No further management

5.2 Objectives of salvage program

As detailed in Table 5-1, two subsurface artefact scatter sites (SMWSA-AS3 and SMWSA-AS4) will be directly impacted by the project, with impacts managed through salvage excavation to SMWSA-AS3. No further management is required for subsurface site SMWSA-AS4.

5.2.1 Artefact recording

Any further Aboriginal archaeological artefacts that are identified during salvage will be recorded to the standard required by the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW*.

Stone artefact recording, if required by new finds identified during salvage excavation, will be consistent with the project AAR. Attributes to be recorded for any recovered stone artefacts are listed and defined in Table 5-2.

Table 5-2 Stone artefact attributes

Attribute	Definition	Recorded for
Type	Primary artefact type: flake, flake shatter (*sensu* Andrefsky (2005), core, retouched flake, flaked piece, hammerstone, edge-ground hatchet head, grindstone and muller	All artefacts
Raw material	Lithic raw material on which the artefact was made (e.g., silcrete, silicified tuff, chert, quartz, FGS)	All artefacts
Colour	Generic description of rock colour following Jo McDonald CHM (2001: 39) (e.g., red, pink, yellow-red, yellow, grey)	All artefacts recovered from test pits
Weight	Weight to nearest 0.1 g, measured using an electronic scale	All artefacts
Maximum linear dimension	Maximum linear dimension of artefact in millimetres	All artefacts
Cortex	Presence/absence of cortex	All artefacts
Heating	Presence/absence of evidence for thermal alteration	All artefacts and non-diagnostic lithic items recovered from test pits
Flake type	Flake sub-type: complete flake, proximal flake and split flake	All flakes
Tool type	Formal implement type, as defined by Holdaway and Stern (2004)	All retouched flakes and edge-ground implements
Flake length (mm)	Distance between the point of percussion and the furthest distal point of the flake (i.e., length to the most distal point) (after Holdaway and Stern 2004: 138)	All complete flakes
Flake width (mm)	Longest line that can be drawn at right angles to the length dimension (i.e., maximum width) (after Holdaway and Stern 2004: 139)	All complete flakes
Flake thickness (mm)	Maximum distance from dorsal to ventral face (i.e., maximum thickness) (after Holdaway and Stern 2004: 140)	All complete flakes
Platform surface	Nature of the platform surface on complete and proximal flakes: single scar, multiple scar, flaw/crenated, faceted, cortical and crushed/collapsed	All complete and proximal flakes recovered from test pits

Attribute	Definition	Recorded for
Platform width (mm)	Maximum distance between the two lateral margins of a flake, measured across the platform surface	All complete and proximal flakes recovered from test pits
Platform thickness (mm)	Maximum distance between the ventral and dorsal surfaces of a flake	All complete and proximal flakes recovered from test pits
Dorsal cortex	Amount of cortex on dorsal surface of flake: none, 1-50%, 51-99% and 100%	All complete flakes
Flake termination	Shape of the distal end of complete flakes and distal flake fragments: feather, hinge, step and plunging	All complete and distal flakes recovered from test pits
Core type	Core type: unidirectional, multidirectional, bidirectional, bifacial, bipolar and tranchet	All complete cores
Core blank	Stone package on which the core was made: cobble/pebble, flake, heat shatter fragment and indeterminate	All complete cores
Cortex (core)	Amount of cortex remaining on core at discard: none, 1-50%, 51-99% and 100%	All complete cores
Longest flake scar	Length of longest complete flake scar preserved on core	All complete cores
Number of striking platforms	Number of striking platforms preserved on core at discard	All complete cores
Number of removals	Number of complete and partial flake scars (>15 mm) preserved on core	All complete cores
Core length (mm)	Maximum linear dimension of core	All complete cores
Core width (mm)	Width at mid-point of maximum dimension	All complete cores
Core thickness (mm)	Thickness at mid-point of maximum dimension	All complete cores
Tool state	Complete or broken	All tools
Tool length (mm)	Maximum linear dimension of tool	All complete tools
Tool width (mm)	Width at mid-point of maximum dimension	All complete tools
Tool thickness (mm)	Thickness at mid-point of maximum dimension	All complete tools

5.2.2 Salvage objectives - subsurface site SMWSA-AS3

As previously described in Section 2.2, this ACHMP and the methodology included herein aligns with the DEOH HMP. For subsurface artefact scatter site SMWSA-AS3, the primary objectives of the salvage program are as follows:

- to salvage statistically viable subsurface assemblages of flaked stone artefacts from each site
- to analyse, describe and document the nature of the artefacts recovered from each site
- to characterise the stone artefact technology employed by Aboriginal knappers within these sites
- to contextualise the subsurface lithic assemblage recovered from these sites via a comparative regional analysis of assemblage size and composition
- to establish a chronological framework for Aboriginal occupation of these sites

- to examine variability in the location of features and activity areas across these sites
- to investigate the effects of geomorphic processes on the nature and integrity of the archaeological deposits across these sites.

5.3 Research questions for salvage excavations at SMWSA-AS3

The following research questions will be used to guide the post-excavation analysis components of the salvage excavations undertaken at SMWSA-AS3:

- How long have Aboriginal people used these sites?
- What, if any, evidence exists to suggest that Aboriginal people were occupying these sites prior to the mid-to-late Holocene?
- What lithic raw materials were used for stone artefact production at each site and where did they come from?
- What, if any, evidence of deliberate heat treatment exists at these sites?
- What, if any, evidence of economising behaviour is evident in the lithic assemblages from these sites?
- What knapping techniques/strategies were used to reduce raw material packages and produce tools at these sites?
- What types of implements were produced at these sites and what were they used for?
- Do site-specific assemblages differ in typological/technological terms and/or their spatial characteristics? If so, how and what might these differences signal in behavioural terms?
- What technological and/or typological similarities/differences are apparent between the excavated stone artefact assemblages and those from other local/subregional contexts?
- To what extent can subregional variability in observed lithic distributions and assemblage composition be attributed to the key landscape variables of landform and stream order?
- Are near-surface Quaternary valley-fill sediments within these sites generally consistent with those described for associated soil landscapes? If not, how do they differ?
- Do site-specific soils and soil profiles differ from one another? If so, in what ways and why?
- How old are near-surface Quaternary valley-fill sediments within these sites and to what extent have they been affected by post-European settlement land use practises and/or flood events?

5.4 Salvage methodology

5.4.1 Salvage excavations within SMWSA-AS3

Salvage excavations within SMWSA-AS3 will be undertaken in three phases.

Phase One

Phase 1 will involve the excavation of a series of dispersed 1 m^2 pits across the site, with pits to be placed on transects or systematic grids depending on their respective sizes and shapes. All pits will be hand excavated in 10 centimetre spits to the base of extant A soil horizons.

Phase Two

In Phase 2, open area salvage excavations will be undertaken around selected Phase 1 pits (i.e., those found to contain high to very high artefact densities and/or features such as hearths, ground ovens and heat treatment pits).

Open area excavations within the site will not collectively exceed 100 m^2 in area. In all open area excavations, excavation extent will be driven by observed lithic yields and the presence/absence of archaeological features such as hearths and heat treatment pits. Excavation within any single open area excavation will cease if 25 m^2 of excavation reveals uniformly low (i.e., ≤20 artefacts/m^2) lithic

densities. The following standard excavation methodology is proposed for open area salvage excavations:

- all excavation will be carried out manually using trowels, shovels and mattocks
- excavation will proceed in 1 m² units, each of which will be assigned an alpha-numeric identifier
- al excavation units will be excavated in 10 centimetres spits to the base of extant A soil horizons
- test pit stratigraphy for each excavation unit will be recorded on pro-forma recording sheets using standard sedimentological terms and criteria
- should a feature, such as a possible hearth, ground oven or heat treatment pit be identified, the surface of the feature will initially be cleared by hand to define its extent. Excavation of surrounding units will be undertaken as required to achieve this. The surface of the feature will be planned and photographed to record the upper cut and then half-sectioned to more accurately assess its origin, with excavation proceeding stratigraphically. All definite and suspected archaeological features will be photographed in cross-section. Cross-sections will also be drawn to scale. Upon completion of cross-section excavation and recording, features will be excavated in their entirety. All associated cultural materials will be retained for additional analysis (e.g., radiometric dating, lipid/pollen analysis)
- should suspected human remains be identified (either single bones or a burial), the relevant provisions of Sydney Metro's *Unexpected Heritage Finds Procedure* (Appendix A) will apply. Human skeletal remains can be identified as either an Aboriginal object or non-Aboriginal relic depending on ancestry of the individual (Aboriginal or non-Aboriginal) and burial context (archaeological or non-archaeological). Remains are considered to be archaeological when the time elapsed since death is suspected of being 100 years or more. Depending on ancestry and context, different legislation applies. Where it is suspected that less than 100 years has elapsed since death, the human skeletal remains come under the jurisdiction of the State Coroner and the Coroners Act 2009 (NSW). Such a case will be considered a 'reportable death' and under legal notification obligations set out in section 35(2), a person must report the death to a police officer, a coroner or an assistant coroner as soon as possible. This applies to all human remains less than 100 years old regardless of ancestry (i.e., both Aboriginal and non-Aboriginal remains). Aboriginal archaeological burials are protected under the NPW Act, while historic (non-Aboriginal) archaeological burials are protected under the Heritage Act. If confirmed as such, both types of burial must be reported to Heritage NSW immediately.
- if encountered, charcoal and/or other organic materials deemed suitable for radiocarbon dating will be collected using best practice guidelines (e.g., Burke & Smith, 2004: 154)
- soil samples from all identified soil horizons will be retained for pH testing and other laboratory-based analyses (e.g., Particle Size Analysis (PSA), loss on ignition, magnetic susceptibility)
- soil samples for Optically Stimulated Luminescence (OSL) dating will be collected from selected strata using best practice guidelines (e.g., United States Geological Survey 2015)
- soil samples for pollen analysis, if required, will be collected using best practice guidelines (e.g., English Heritage, 2011)
- all excavated soils will be wet-sieved through 2.5 millimetre gauge sieves
- artefacts recovered from sieving will be retained in plastic zip-lock bags and labelled with appropriate provenance data
- representative and otherwise notable soil profiles will be photographed and drawn to scale as the excavation progresses
- once complete, a photographic record of the all open area excavations will be made and overall site plan produced.

Phase Three

The third and final phase of salvage works at each site will comprise a geomorphological assessment. The assessment will be undertaken by a qualified geomorphologist or geoarchaeologist under the supervision of the Principal Contractor's Cultural Heritage Advisor and will involve the following:

- a desktop review of existing environmental data and historical aerials
- a visual inspection of exposed soil profiles.

The principal aims of the assessment will be to:

- record and describe extant soils and soil profiles using standard sedimentological techniques and terminology
- to provide an interpretation of the geomorphic history of the site
- to provide an interpretation of the implications of observed soil units and historical land use practices for the spatial integrity and chronology of recovered artefactual materials.

Soil sampling for the purposes of radiometric dating and other laboratory-based analyses (e.g., Loss on Ignition, magnetic susceptibility and pollen analysis) will be determined by the project geomorphologist/geoarchaeologist.

If required, the engaged geomorphologist/geoarchaeologist will provide a standalone report detailing the results of their assessment.

5.5 Post-excavation analyses and reporting

All stone artefacts recovered during the salvage program will be subject to detailed technological analysis by a qualified lithic specialist. Artefacts will be analysed to a level comparable to that achieved in previous analyses of excavated lithic assemblages from Sydney's Cumberland Plain so as to facilitate a meaningful comparative analysis of regional assemblage size and composition. Microscopic use-wear and/or residue analysis of a sample of finished tools and other items will also be undertaken for the purposes of determining individual task associations and functions.

Any soil/stone/organic samples selected for radiometric dating will be submitted to appropriate commercial dating facilities for processing. All resulting analytical outputs/reports will be attached to the main archaeological salvage report as standalone appendices.

Any soil samples selected for PSA and/or soil chemistry analysis will be submitted to an appropriate commercial soil testing facility for analysis. All resulting analytical outputs/reports will be attached to the main archaeological salvage report as a standalone appendix.

Any soil samples selected for pollen/lipid analysis will be submitted to an appropriate specialist for analysis. All resulting analytical outputs/reports will be attached to the main archaeological salvage report as a standalone appendix.

As set out in mitigation measure AH12, an Archaeological Salvage Report (ASR) detailing the results of the salvage program (including the results of any post-excavation analyses) will be completed within two years of the completion of the fieldwork component of the program. The ASR will be consistent with the best practice guidelines suggested by the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (NSW Department of Environment Climate Change & Water, 2010b) and the Aboriginal Cultural Heritage Standards and Guidelines Kit (NSW National Parks and Wildlife Service, 1997).

Copies of the final ASR will be provided to all RAPs and Heritage NSW within one month of finalisation.

5.6 Care and control of recovered Aboriginal objects

As per mitigation measure AH5, all Aboriginal objects recovered from the construction footprint as a result of test excavation and salvage works will be appropriately secured and under the care of the Principal Contractor's Cultural Heritage Advisor while options for their long-term management, as determined through consultation with RAPs, are being investigated. This would be a consistent

approach to Care and Control across the entire project (i.e., covering both the Commonwealth land areas within DEOH and the remainder of the off-airport construction footprint).

Two long term management options for recovered objects include:

1. Reburial in a non-impact area (including appropriate ceremonial activities)
2. Placement in a dedicated keeping place under a Care Agreement.

5.7 Aboriginal Site Impact Recording (ASIR) forms

In accordance with mitigation measure AH7, Aboriginal Site Impact Recording (ASIR) forms for all sites subject to archaeological salvage will be submitted to the AHIMS Registrar within one month of the completion of salvage works within their bounds. For the sites located within the bounds of DEOH, changes to the sites will be reported to the Department of Defence to be managed in accordance with the relevant provisions of the DEOH HMP.

5.8 Updates following new discoveries

Addendum reporting should be produced to document new discoveries that are made as a result of the salvage works. This is to include updating mapping delineating any new site areas that are identified, including if existing site areas require expansion following new finds. Updated maps are to be distributed to the Environmental Representative, Principal Contractor and Sydney Metro representatives as soon as is practicable following the completion of works.

Addendum reporting should document as appropriate any cultural heritage values identified by RAPs through consultation during the additional works.

Addendum reporting should also compare the results of new discoveries to the predictions made in Section 3.3 of the AAR. These predictions were based on a review of the existing environment and archaeological data. New discoveries should be tested against the predictions to determine if they fall within the established pattern of known sites, locations and assemblages. The predictions made in the AAR are as follows:

1. The construction footprint contains a range of landforms, varying from alluvial flats and gently inclined slopes, to ridges and flat-topped terraces. The distribution and density of archaeological material associated with past Aboriginal peoples moving through this varied landscape are likely to have been influenced by the suitability of landforms for campsites. Areas considered to have the highest archaeological sensitivity are predominantly undisturbed terraces and flats, especially when elevated and well-drained
2. Prior to European occupation, the permanency of potable water sources is likely to have played an important role influencing the nature and duration of Aboriginal activity in their vicinity. More permanent watercourses (e.g., South Creek, Badgerys Creek and Blaxland Creek) are likely to have attracted more intensive or longer-term occupation activity; while lower order streams may have attracted short term or single activity occupation
3. The availability of raw lithic material (e.g., silcrete boulders observed in South Creek) is also likely to have influenced the nature of activities at the site and may be correlated with higher artefact densities and evidence of tool manufacture
4. Archaeological deposits may have been preserved at depth in alluvial contexts
5. Original native vegetation has been cleared from the construction footprint as a result of European land use practices, including farming and grazing. As old growth trees with the potential for cultural modification have been removed during the past clearance activities, it is unlikely that scarred or carved trees will be present within the construction footprint, with the possible exception of the small sections of riparian corridors
6. The construction footprint has been subject to a range of historic and recent land use impacts including: native vegetation clearance, pastoral activities (e.g., grazing, fencing and dam excavation), the construction of residential and commercial structures, as well as scientific and industrial facilities with their associated subsurface infrastructure services. Key archaeological implications of these activities include the destruction, in areas of grossly modified terrain, of pre-

existing sites and deposit(s); the disturbance of pre-existing sites and deposit(s) through both direct and indirect (e.g., erosion) means, resulting in a loss of archaeological integrity, the removal of culturally modified trees and an increase, in areas affected by erosion, of archaeological site visibility.

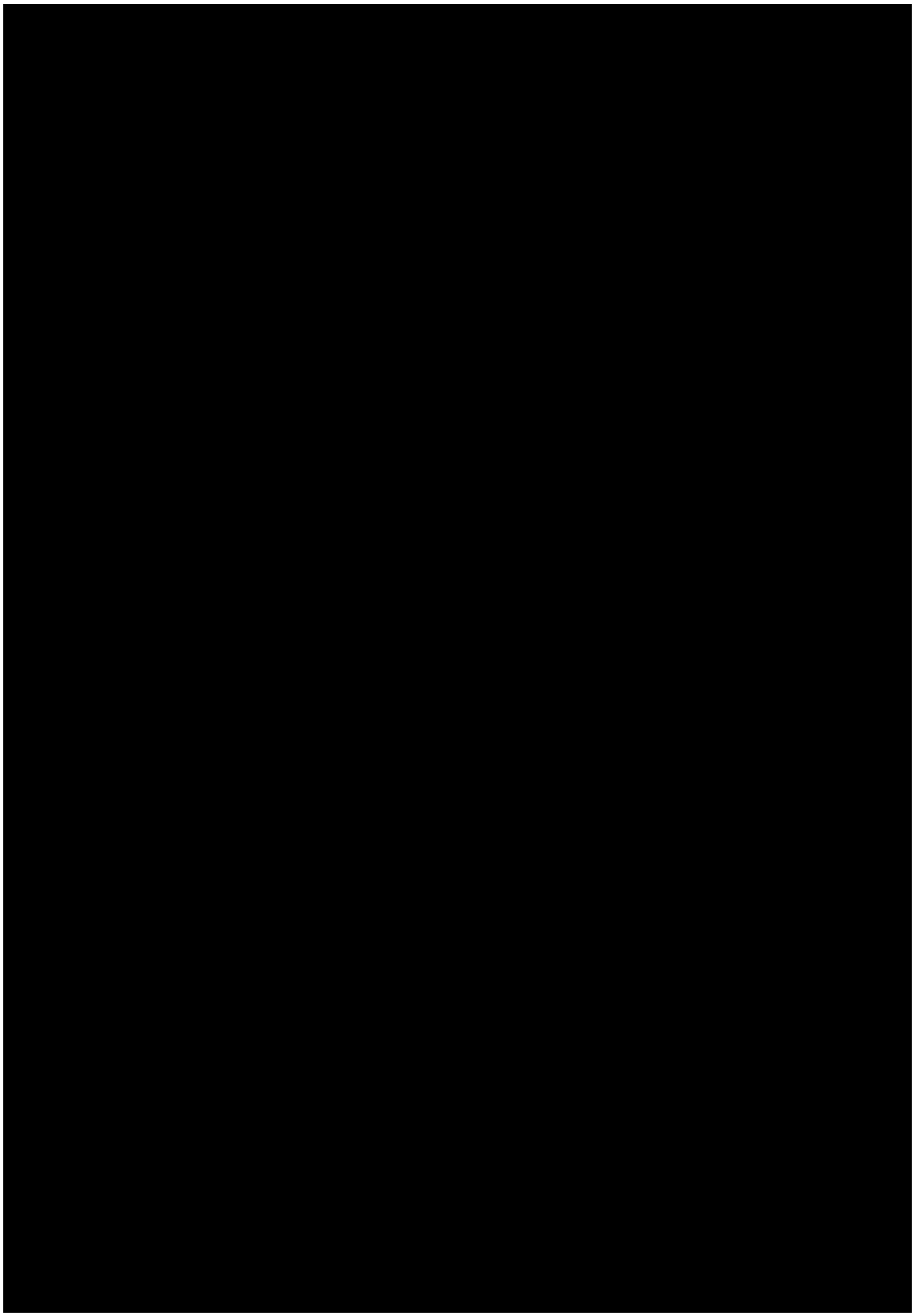

Figure 5-1 Areas requiring survey, test excavation and salvage

6. Heritage interpretation strategy

In accordance with mitigation measure OAH1, Aboriginal cultural heritage will be integrated into the project's broader heritage interpretation strategy. Aboriginal heritage components of the strategy should be developed with reference to the findings of the Revised ACHAR and AAR, to promote understanding and awareness of Aboriginal cultural heritage values.

6.1 Objectives of Sydney Metro Heritage Interpretation Strategy

The aims of the Sydney Metro Heritage Interpretation Strategy are to:

- Create a cohesive interpretive framework for detailed content development at each station at a later date
- Build a narrative along each metro route which can be experienced both through travel and at individual stations
- Avoid potential repetition of stories and information between stations
- Explore and identify potential interpretive media at each station including signage, installations, artwork, landscape and design responses, community events
- Identify the appropriate use of Aboriginal language including an approach to agreeing language use and seeking cultural permissions for its use
- Identify opportunities for contributing to individual station identities through interpretive media.

6.2 Principles for heritage interpretation

The principles to underpin the project's heritage interpretation strategy should mirror those specified in the document *Interpreting Heritage Places and Items Guidelines* (NSW Heritage Office, 2005). These principles or 'ingredients for best practice in interpretation' include:

- respect for the special connections between people, items and places
- understand the item and convey its significance
- use existing records of the item, research additional information, and make these publicly available (subject to security and cultural protocols)
- explore, respect and respond to the identified audience
- make reasoned choices about themes, stories and strategies
- stimulate thought and dialogue, provoke response and enhance understanding
- research the physical, historical, spiritual and contemporary context of the item, including related items, and respect local amenity and culture
- develop interpretation methods and media that sustain the significance of the items, their character and authenticity
- integrate interpretation in conservation planning, and in all stages of the project
- include interpretation in the ongoing management of an item; provide for regular maintenance, evaluation and review
- involve people with relevant skills, knowledge and experience
- collaborate with Aboriginal organisations, individuals, knowledge holders and the local community.

7. Aboriginal heritage awareness

7.1 Aboriginal heritage induction and toolboxes

A project-specific Aboriginal Heritage Induction will be prepared and implemented for the project. The induction will consist of a short presentation to be delivered as part of the standard project induction and utilised throughout the life of the project. A register of all persons having completed the induction will be maintained throughout the life of the project.

The induction is mandatory for all staff and contractors whose roles may reasonably bring them into contact with Aboriginal sites and/or involve consultation with local Aboriginal community members. At a minimum, the induction will outline current protocols and responsibilities with respect to the management of Aboriginal cultural heritage within the off airport component of the construction footprint, provide an overview of the sites identified within this area, diagnostic features of potential Aboriginal site types (e.g., stone artefacts, scarred trees) and procedures for reporting the identification of Aboriginal archaeological sites and suspected skeletal remains.

Aboriginal heritage constraints will also form a component of daily toolbox talks, where needed and/or relevant.

8. Compliance and complaints management

Monitoring, inspection and auditing will be undertaken to measure effectiveness and facilitate continuous improvement of Aboriginal cultural heritage management and mitigation.

General environmental monitoring, inspection and auditing requirements are summarised in Section 3.16 of the CEMF. Section 3.16 of the CEMF states:

a. Issue specific environmental monitoring will be undertaken as required or as additionally required by any approval, permit or licence conditions

b. The results of any monitoring undertaken as a requirement of a license or permit that is required to be published will be published on the Principal Contractor's, or a project specific, website within 14 days of obtaining the results

c. Environmental inspections will include:

    i. Surveillance of environmental mitigation measures by the Site Foreman

    ii. Periodic inspections by the Principal Contractor's Environmental Manager (or delegate) to verify the adequacy of all environmental mitigation measures. This will be documented in a formal inspection record

d. Regular site inspections by Sydney Metro, the ER for off-airport works and the AEO for on-airport works will be undertaken at a frequency to be agreed with the Principal Contractor, based on the risk of activity but as a minimum monthly

e. Principal Contractors must undertake internal environmental audits. The scope will include:

    i. Compliance with any approval, permit or licence conditions

    ii. Compliance with the E&SMS, CEMP, SMP, sub-plans and procedures

    iii. Community consultation and complaint response

    iv. Environmental training records

    v. Environmental monitoring and inspection results

f. Sydney Metro will also undertake periodic audits of the Principal Contractor's E&SMS and compliance with the environmental aspects of contract documentation, including this CEMF. These audits would cover both on- and off-airport works

g. Works be subjected to audits undertaken by the independent environmental auditor. Independent audits will be undertaken in compliance with the conditions as requested in writing by the Minister. For each independent audit, the approval holder must provide the name and qualifications of the independent auditor and the draft audit criteria to the Department, only commence the independent audit once the independent auditor and audit criteria have been approved in writing by the Department and submit an audit report to the Department within the timeframe specified in the approved audit criteria. The approval holder must also publish the audit report on the website within 10 business days of receiving the Department's approval of the audit report and keep the audit report published on the website until 24 months after the completion of the action, or as otherwise agreed by the department in writing.

8.1 Site inspections

Project activities will be regularly reviewed to ensure compliance with this plan. A regular inspection program will be conducted, including:

- Daily inspections undertaken by the Principal Contractor's Site Supervisor which will be logged in their respective site diaries
- Routine weekly inspections will be conducted to monitor heritage management and implementation of this ACHMP at active worksites. Weekly inspections will be documented to maintain compliance and effectiveness of controls

- Items that require action will be documented on the site environmental inspection
- Items that require specific and detailed action will be recorded on the Project's Corrective Action Register, maintained by the Principal Contractor's Environmental Manager.

The findings of site inspections will be recorded on a Site Environmental Inspection Checklist.

Regular site inspections will be completed by the Independent Environmental Representative, Principal Contractor and Sydney Metro representatives. These will be conducted at a frequency to be agreed with by all parties.

8.2 Auditing

Auditing will be undertaken in accordance with Section 3.16 of the CEMF, including Sydney Metro audits, independent audits and audits to be undertaken by contractors.

8.3 Incidents and non-compliances

8.3.1 Incidents

Environmental incidents are classified into three classes that are based upon the consequence descriptors for environmental risks in the Sydney Metro Risk Matrix (refer to Sydney Metro Risk Management Standard). These classifications trigger a variety of management actions and/or legislative requirements depending on the severity of the consequence described where Class 3 represents minor consequences and Class 1 represents major consequences.

This matrix is further sub-divided into consequence ratings ranging from C6 (low impact) to C1 (high impact). An incident transitions between a Class 3 to a Class 2 incident once material harm has been caused, and transitions into a Class 1 incident once it is determined that the Environmental Harm caused in large-scale and cannot be remediated Table 8-1.

Table 8-1 Classification System for Environmental **Incidents**

Class 3			Class 2	Class 1	
C6	**C5**	**C4**	**C3**	**C2**	**C1**
No appreciable changes to environment and/or highly localised event	Change from normal conditions within environmental regulatory limits and environmental effects are within site boundaries	Short-term and/or well-contained environmental effects. Minor remedial actions probably required	Impacts external ecosystem and considerable remediation is required	Long-term environmental impairment in neighbouring or valued ecosystems Extensive remediation required	Irreversible large-scale environmental impact with loss of valued ecosystems

All incidents and complaints (including potential incidents) must be reported so that they can be investigated and prevented from recurring. An Incident Notification Report shall be completed and issued to the Principal Contractor's Project Director for all Potential or Actual Class 1 or Class 2 incidents. The completion Incident Notification Report for Class 3 incidents is at the discretion of the Principal Contractor's Project Director, however, it is expected that the person responsible for completing the Incident Notification Report makes appropriate enquiries to determine the likely causal factors involved and assigns effective corrective actions. Notwithstanding Class 1, Class 2 and Class 3 incidents are to be recorded.

When an environmental incident occurs which causes environmental harm, in all cases both verbal and written communication of the incident must be carried out immediately and within 48 hours respectively. For Class 1 and 2 Incidents the notification process shown in Figure 8-1 must be followed. In addition to Figure 8-1, DAWE and Department of Defence must also be notified. Incident Notification Reports satisfy the requirement for written communication to Sydney Metro and are to be

completed using the Environmental Incident and Non-compliance Notification Report (SM ES-FT-403) or a similar and consistent form approved by Sydney Metro.

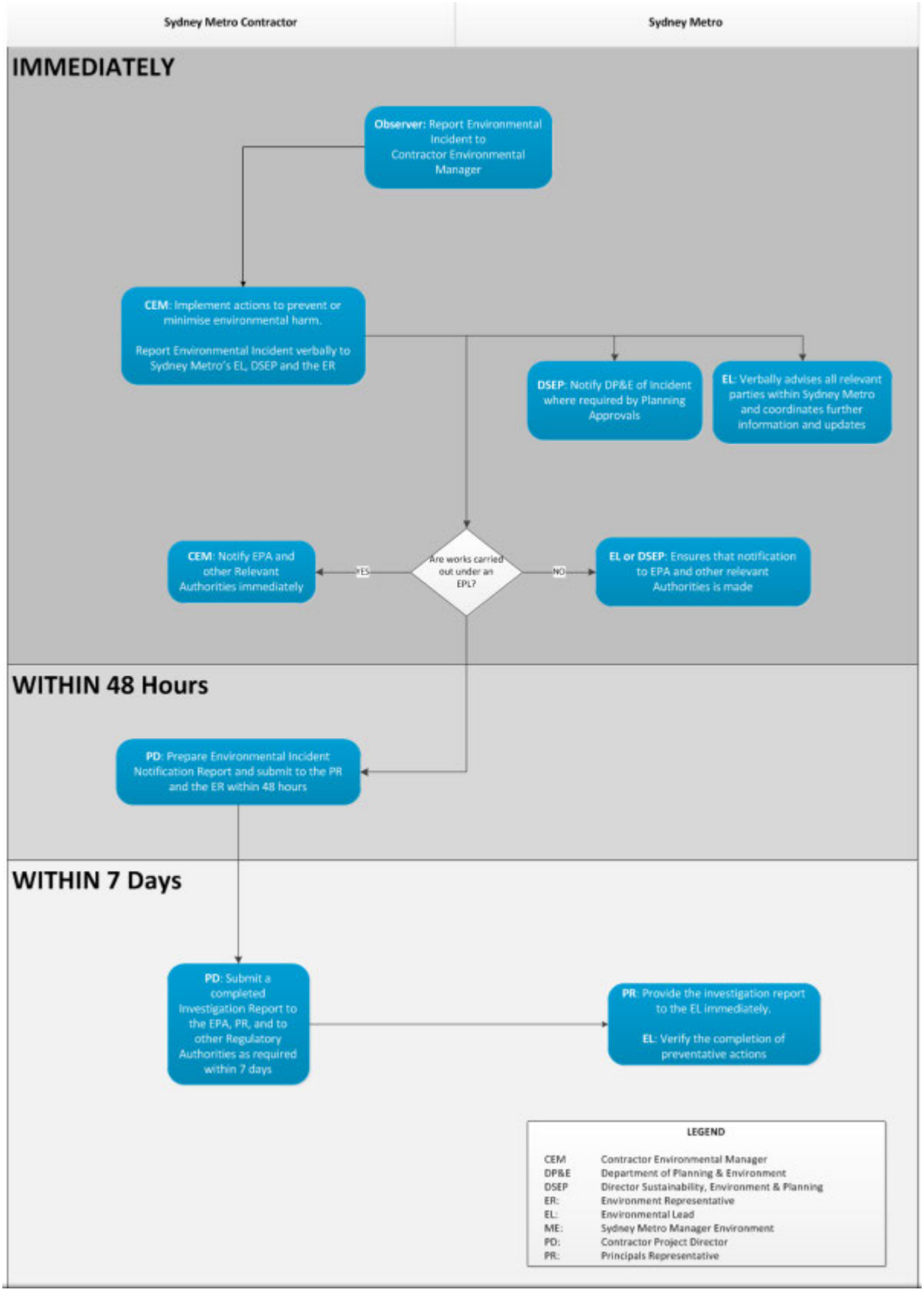

Figure 8-1 Notification process for environmental incidents

8.3.2 Non-compliances

An environmental non-compliance is a breach of an environmental requirement originating from Planning Approvals, Environment Protection Licenses, lease agreements, and other requirements documented in environmental management plans. Whether an event is classified as a Non-compliance or an Incident the process behind managing the event remains the same, with the following exceptions:

- Non-compliances are not notifiable to Regulatory Authorities under the POEO Act
- Non-compliances are reported to have occurred on the day the breach was raised as opposed to the date when the requirement was breached
- Non-compliances are not divided into severity classes
- Non-compliances do not have the potential to trigger crisis or emergency management processes
- There is an informal notification process in the immediate timeframe following a Non-compliance being raised.

When an Environmental Event occurs that causes Environmental Harm and also breaches one or more Environmental Requirements, then an Incident Notification Report will be created which records what requirements were breached.

If a Non-compliance is identified then it must be raised using the Environmental Incident and Non-compliance Report Form within 48 hours by the party responsible for the breach.

8.3.3 Reporting of incidents and non-compliances

All incidents and non-compliances must be reported to Sydney Metro in accordance with Sydney Metro Environmental Incident and Non-compliance Reporting Procedure SM-17-00000096 and the Department of Defence.

All incidents and non-compliances must also be reported to the relevant regulatory authorities, including DAWE, within the timeframes specified in any conditions of approval and legislative requirements.

8.4 Complaints management

Community liaison and complaints handling for the off-airport component of the project will be undertaken in accordance with Section 4.2 of the CEMF and the project's Overarching Community Communication Strategy.

8.5 Periodic review of ACHMP

A review of this ACHMP is to be conducted by a suitably qualified person in the following instances:

- at least every 12 months
- if recommended by an independent audit
- within one month of changes to Project Approval, license conditions or relevant legislation relating to Aboriginal heritage
- within one month of any reportable Aboriginal heritage related incidents within the Project's construction footprint.

The review will provide an opportunity to assess the effectiveness of the ACHMP. The review must consider the following:

- works undertaken since the last review, including any completed survey, test excavation and salvage activities
- the identification and management of any unexpected finds
- any incidents and non-compliances that have occurred

- if all reporting and mapping requirements have been met.

The review should be documented, with a table produced rating the effectiveness of the ACHMP as a management tool against each of the occurrences. If the review finds effectiveness can be improved in any areas, this is to be addressed in a revision of the ACHMP.

Revisions to this ACHMP, if required, must be authorised by the SMWSA Senior Environmental Officer. The Independent Environmental Representative can approve minor changes to the ACHMP, where they are satisfied that the amendment to the ACHMP is necessary. Minor changes will typically include those that:

- are administrative in nature (e.g., staff and agency/authority name changes)
- do not noticeably increase the magnitude of impacts on the environment when considered individually or cumulatively
- are in response to audit findings or periodic reviews, subject to the significance of any audit or review findings
- do not compromise the ability of the Project to meet legislative requirements and are consistent with terms of the approval, and does not include any modifications to the terms of Project approval.

Where the SMWSA Senior Environmental Officer deems it necessary, the amended ACHMP will be forwarded to RAPs for review and comment if required.

Revised versions of the ACHMP will be made available and distributed to RAPs through the processes described in Section 3.2. Changes will also be communicated through toolbox talks to existing onsite personnel and incorporated into environmental induction materials.

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Appendix A

Sydney Metro Unexpected Finds Procedure