



Western Sydney Airport

European and Other Heritage

Construction Environmental Management Plan

December 2018



**Western
Sydney
Airport**

Document Control

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Plan Authorisation

Position	Name	Signature	Date
Environment Manager	S Reynolds		12/12/2018

Glossary and Definitions

Item	Definition
AEPR	<i>Airports (Environment Protection) Regulations 1997</i>
Airports Act (the Act)	<i>Airports Act 1996 (Cth)</i>
Airport Lease	An airport lease for the Airport granted under section 13 of the Act
Airport Plan	Means the Airport Plan for the Airport Site as determined by the Infrastructure Minister under section 96B of the Airports Act in December 2016 as varied from time to time in accordance with the Airports Act.
Airport Site	The site for Sydney West Airport as defined in the Act.
Ancillary developments	An 'ancillary development' as set out in section 96L of the Act
CEMP	Construction Environmental Management Plan
Condition	A condition set out in Part 3 of the Airport Plan in accordance with section 96C of the Act
Construction Impact Zone	The part or parts of the Airport Site or an Associated Site on which Main Construction Works are planned to occur, as detailed in the Construction Plan approved in accordance with Condition 1.
CSEP	Community and Stakeholder Engagement Plan
DoEE	Australian Government Department of the Environment and Energy
DPI	Department of Primary Industries (including Agriculture NSW, Fisheries NSW and NSW Office of Water)
Ecological sustainable development	Using, conserving and enhancing the community's resources so that the ecological processes on which life depends are maintained and the total quality of life now and in the future, can be increased (Council of Australian Governments, 1992).
EEW	The Phase of the Stage 1 Development that involves early earthworks as described in section 6 of the Construction Plan.
Environment Minister	The Minister responsible for the EPBC Act
EPA	NSW Environment Protection Authority
EP&A Act	Environmental Planning and Assessment Act 1979 (NSW)
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Cth)
ESA	Environmentally Sensitive Area
ESCP	Erosion and Sediment Control Plan
EWMS	Environmental Work Method Statement
Identified Gravesite	Grave sites identified in the European and other heritage technical report in volume 4 of the EIS which required human remains relocation.
Infrastructure Department	The Department of the State administered by the Infrastructure Minister (Currently the Commonwealth Department of Infrastructure, Regional Development and Cities)
Infrastructure Minister	The Minister responsible for the Act from time-to-time
ISO 14001	AS/NZS ISO 14001:2015

Item	Definition
Main Construction Works	Substantial physical works on a particular part of the Airport Site (including large scale vegetation clearance, bulk earthworks and the carrying out of other physical works, and the erection of buildings and structures) described in Part 3 of the Airport Plan, other than TransGrid Relocation Works or Preparatory Activities.
Non-conformance	Failure to conform to the requirements of the Airport Plan (including the SEMF)
OEH	Office of Environment and Heritage (NSW)
Preparatory Activities	<p>The following:</p> <ul style="list-style-type: none"> a. day-to-day site and property management activities; b. site investigations, surveys (including dilapidation surveys), monitoring, and related works (e.g. geotechnical or other investigative drilling, excavation, or salvage); c. establishing construction work sites, site offices, plant and equipment, and related site mobilisation activities including access points, access tracks and other minor access works, and safety and security measures such as fencing, but excluding bulk earthworks); d. enabling preparatory activities such as: <ul style="list-style-type: none"> (i) demolition or relocation of existing structures including buildings, services, utilities and roads); (ii) the disinterment of human remains located in grave sites identified in the European and other heritage technical report in volume 4 of the EIS; and (iii) application of environmental impact mitigation measures; and e. any other activities which an Approver determines are Preparatory Activities
Project, the	Western Sydney Airport – Stage 1 development
SES Officer	An SES employee under the Public Service Act 1999 (Cth)
Stage 1 Development	The Developments described in Part 3 of the Airport Plan
Sydney West Airport	The Airport. Note: this is the name used in the Act. The Airport is also commonly known as Western Sydney Airport

Acronyms and abbreviations

Item	Definition
ALC	Airport Lessee Company
ALER	Airfield lighting equipment room
ARFFS	Aviation Rescue and Firefighting Services
ATC	Air traffic control
ATCT	Air traffic control tower
CASA	Civil Aviation Safety Authority
CASR	Civil Aviation Safety Regulations 1998
CO	Carbon monoxide
CEMP	Construction Environmental Management Plan
DIPNR	NSW Department of Infrastructure, Planning and Natural Resources (now Department of Planning and Environment)
ECZ	Environmental Conservation Zone
EIS	Environmental Impact Statement
EPA	NSW Environmental Protection Authority
GSE	Ground support equipment
ha	Hectares
HIAL	High intensity approach lighting
ISO 14001	AS/NZS ISO 14001:2015 – Environmental Management Systems
km	kilometres
LDP	Land Disturbance Permit
m, m ² and m ³	Metres, square metres and cubic metres
ML and ML/d	Megalitres and megalitres per day
OEH	NSW Office of Environment and Heritage
POEO Act	NSW Protection of the Environment Operations Act 1997
RMS	NSW Roads and Maritime Services
SEMF	Site Environmental Management Framework which forms part of the Construction Plan
SES	Senior Executive Service
TSP	Total suspended particulate matter

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1 Introduction

1.1 Background

In April 2014 the Australian Government announced that the Commonwealth-owned land at Badgerys Creek will be the site for a second Sydney Airport. The Badgerys Creek Airport Site was selected following extensive studies completed over a number of decades.

In December 2016, the Minister for Urban Infrastructure determined the Airport Plan which sets the environmental and planning authorisation for the development of Stage 1 of the Western Sydney Airport (WSA Stage 1). Part 3 of the Airport Plan outlines the conditions for the design, construction and operation of the Stage 1 development of the airport that must be complied with, regardless of who is delivering the works. These include strict environmental standards and implementation of mitigation measures identified in the Environmental Impact Statement (EIS).

The EIS was prepared in accordance with the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) and was finalised under the EPBC Act in September 2016, following a public exhibition period during which almost 5,000 submissions were received. The EIS considered potential impacts during construction and operation of the Stage 1 and long-term development of the proposed airport. In determining the Airport Plan the Minister for Urban Infrastructure accepted environmental conditions proposed by the Environment Minister, taking into account the EIS.

In May 2017, the Government announced that it would establish WSA Co, to develop and operate the airport. WSA Co is responsible for constructing and operating Western Sydney Airport in accordance with the Airport Plan.

The Western Sydney Airport is expected to be developed in stages to match demand and include planning for services and amenities that are easily expandable over time, providing scalable capacity for aircraft, passengers, cargo and vehicle movements.

Stage 1 will include major site preparation, removing or relocating infrastructure from the site and earthworks to prepare the Airport Site, establishing the Airport with a single 3,700 metre runway located in the north-western portion of the Airport Site, a terminal and other support facilities to provide an operational anticipated capacity of approximately 10 million regional, domestic and international passengers per year, as well as freight traffic (the Stage 1 Development).

The scope of works for the Stage 1 Development is defined in the Airport Plan and will generally include the investigation, design, construction and commissioning of:

- Bulk earthworks to move and redistribute approximately 24 million cubic metres of material on the Airport Site;
- A single 3.7-kilometre runway;
- Aprons, taxiways and other airside pavements;
- A multi-user terminal;
- Appropriate airport and aviation support facilities;
- Drainage and utilities infrastructure; and
- Car parking, on-site roads and other appropriate landside facilities.

Further details with regards to site activities specific to this European and Other Heritage CEMP is provided in Section 2.

1.2 Document context and scope

This WSA Co European and Other Heritage Construction Environmental Management Plan (European and Other Heritage CEMP) (this Plan) has been prepared to satisfy the requirements of the European and Other Heritage CEMP set out in the Conditions for the Stage 1 Development of the Western Sydney Airport

detailed in Section 3.10.2 of the Airport Plan. Specifically, Section 3.10.2 Condition 12(1) of the Airport Plan requires that a European and Other Heritage CEMP be approved under the Airport Plan prior to the commencement of Main Construction Works.

This European and Other Heritage CEMP provides the management approach and requirements (including environmental mitigation measures, controls, monitoring and reporting) for managing European and Other Heritage matters during construction of the Stage 1 Development. This Plan forms one of nine CEMPs which are collectively covered by the WSA Co Site Environmental Management Framework (SEMF). To ensure the environmental resources, responsibilities and management measures are implemented during the construction activities, the SEMF is contained within the Construction Plan (included as Appendix 2). The implementation of the Construction Plan, including the SEMF, sit adjacent to other Project level management plans including the Community and Stakeholder Engagement Plan and the Sustainability Plan as illustrated in Table 1.

The Construction Plan, including the SEMF, and nine CEMPs provide the environmental management approach and requirements and therefore should not be read in isolation to each other due to interconnecting management outcomes and objectives. Specifically, for the European and Other Heritage CEMP, it is considered that the following management plan linkages can be made:

- Aboriginal Cultural Heritage CEMP – Management of European heritage works will need to take into account the controls provided in this CEMP.
- Biodiversity CEMP – Management of impacts on biodiversity is important in relation to heritage values of the area.
- Soil and Water CEMP – Management of soil on-site will need to take into account the controls provided in this CEMP.
- Visual and Landscape CEMP – European heritage items have the potential to be impacted by changes to visual amenity.
- Community and Stakeholder Engagement Plan – It is anticipated that the surrounding community and stakeholders will be sensitive to heritage impacts.
- Sustainability Plan (once approved) – Management of heritage impacts with regard to quality of life for surrounding communities.

Where relevant, linkages to other CEMPs and management objectives have been included in the risk assessment and the environmental control measures (Section 6.1 and Section 7 respectively).

Table 1 highlights relationships and linkages of this European and Other Heritage CEMP with other CEMPs and management plans, including key cross-referencing to Airport Plan and EIS requirements.

Table 1 European and Other heritage CEMP relationship with other CEMP documentation

CEMP or plan	Airport Plan Condition (3.10.2)	EIS Chapter 28 Table: Management area	EIS Chapter 28 Table: Mitigation measures
Aboriginal Cultural Heritage	11	28-12	28-13
Air Quality	10	28-10	28-11
Biodiversity	7	28-04	28-05
Community and Stakeholder Engagement Plan	15	28-20	28-21
European and Other Heritage (this plan)	12	28-14	28-15
Noise and Vibration	6	28-02	28-03
Soil and Water	8	28-06	28-07
Sustainability	29	28-37	28-38
Traffic and Access	9	28-08	28-09
Visual and Landscape	14	28-18	28-19
Waste and Resources	13	28-16	28-17

Key
Moderate to high relevance to this CEMP
Some relevance to this CEMP

The review and document control process for this Plan are described further in Section 9 of the SEMF.

The context of this Plan in relation to the WSA Co environmental management system is presented in Figure 1.

1.3 Document purpose

The purpose of this Plan is to provide the foundation for the management of European and Other Heritage impacts in accordance with best practice and legal requirements (including environmental mitigation measures, controls, monitoring and reporting) during the construction phase of the Stage 1 development based on the assessment undertaken as part of the EIS.

This Plan details the European and Other Heritage management requirements that must be satisfied in order to demonstrate compliance with Condition 12 of Section 3.10.2 of the Airport Plan for the construction of the Stage 1 development of the Western Sydney Airport.

Legal and other requirements are identified and maintained in a register within the SEMF (refer SEMF Appendix C). Mitigation measures (specific to European and Other Heritage) required to satisfy these requirements are derived from the EIS and through risk assessment processes (refer Section 6.1) and included within this CEMP (Section 7).

Implementation of these measures is ensured through monitoring, training and competence, inspection, audit and reporting actions detailed in Sections 10 and 11, with the responsibilities for implementation identified in Section 9. Continual improvement processes in relation to compliance with regulatory requirements are detailed in Section 14.

In summary, this Plan sets out to achieve the following:

- Provision of details for the management and mitigation measures to be implemented, including timing and responsibilities;
- Ensuring the commitments of the Conditions (as set out in the Airport Plan) and regulatory requirements are met and satisfied by both WSA Co and contractors;
- Provision of process for monitoring implementation, reporting, and auditing of European and Other Heritage related management and compliance related issues;
- Commitment to meeting the requirements of ISO 14001 including the need for continual improvement;
- Provision of a process to be implemented for the management of complaints, for stakeholder engagement, and for the management of emerging environmental issues as they arise; and
- Provision of a system including procedures, plans and documentation for implementation by WSA Co personnel and contractors to enable Project completion in accordance with the environmental requirements.

Effective implementation of this Plan will assist WSA Co and relevant contractors to achieve compliance with necessary environmental regulatory and policy requirements in a systematic manner with an outcome of continual environmental management performance.

1.4 WSA Co environmental management system overview

WSA Co operates in general accordance with AS/NZS ISO 14001 – *Environmental management systems*. A copy of the WSA Co environmental policy is provided in Appendix E of the SEMF.

The Stage 1 development will be undertaken in accordance with the Construction Plan including the SEMF and the associated CEMPs (including this Plan).

The SEMF forms an appendix to the Construction Plan and is the overarching environmental plan for the implementation of the nine CEMPs. It provides a structured and systematic approach to environmental management and provides an expectation and guidance with regards to environmental management for the overall construction of the Stage 1 Development.

The structure of the environmental management system for the Project is shown in Figure 1.

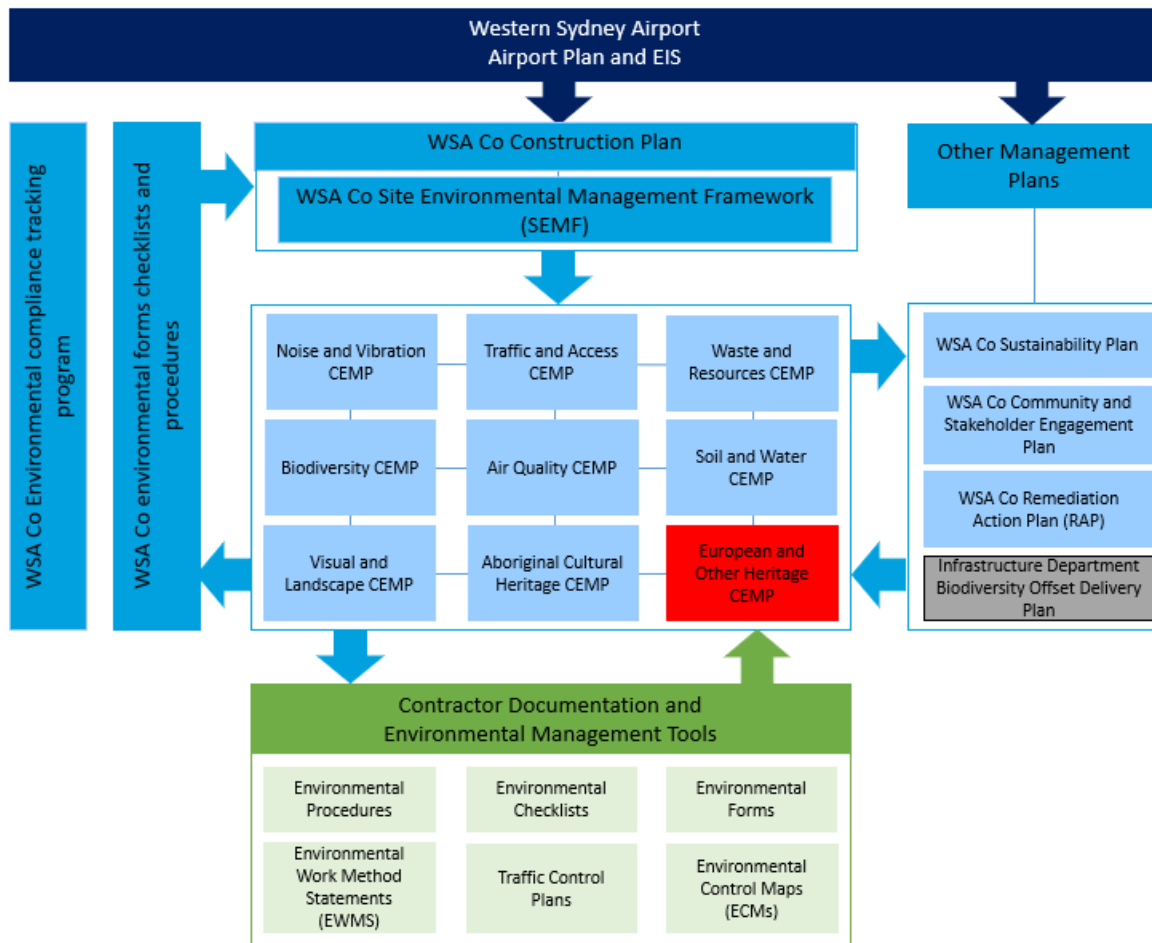


Figure 1 WSA Co Environmental Management System and CEMP context

1.5 Consultation requirements of this plan

Airport Plan Condition 35 outlines the consultation requirements during the preparation of the CEMP documentation and requires consultation with any NSW Government agencies as specified by the NSW Department of Premier and Cabinet as well as the Environment Department and OEH for specific CEMPs. NSW Government agencies specified by Department of Premier and Cabinet for consultation about this European and Other Heritage CEMP, include OEH, Penrith City Council and Liverpool City Council.

Further, Airport Plan Condition 12(3) requires that this European and other Heritage CEMP take into account Table 28-14 of the EIS which states the CEMP should also be prepared in consultation with the NSW Office of Environment and Heritage (OEH) and other relevant Australian and local government bodies.

A summary of the stakeholder and government authority consultation completed to date which has informed the preparation of the European and Other Heritage CEMP is presented in Table 2. Details of consultation is included in Appendix A.

Consultation will continue with agencies, councils and other relevant stakeholders throughout the Project where there is a change to a CEMP. The outcomes of this consultation will be documented in subsequent revisions of the relevant CEMPs, with details of such consultation included in the applicable document.

To satisfy the above requirement this CEMP (Revision 0) has been provided to the relevant stakeholders for feedback on the Visitor Centre and Site Accommodation phase and Material Importation phase. Stakeholders were invited to attend a workshop on 13 November 2018 where an overview of the Visitor

Centre and Site Accommodation phase and Material Importation phase was presented and feedback requested. A summary of the consultation is provided in Table 2 and details included in Appendix A.

Table 2 European and Other Heritage CEMP consultation summary

Government authority / stakeholder	Date	Summary
• Consultation prior to Rev 0 approval		
OEH	July 2018	<p>Consultation with OEH regarding the European and Other Heritage CEMP included the following topics:</p> <ul style="list-style-type: none"> • The archaeological potential of the Airport Site; • The use of suitably experienced historical archaeologists; • The requirement for the CEMP to provide clear advice on how to manage unexpected heritage items, including notification protocols; • The management of historic cemeteries; and <p>European and Other Heritage induction requirements, including protocols to protect any heritage elements.</p>
Penrith City Council	July 2018	No comment regarding the preparation of the European and Other Heritage CEMP.
Liverpool City Council	July 2018	No comment regarding the preparation of the European and Other Heritage CEMP.
Consultation prior to Rev 1 approval		
OEH	Nov 2018	No specific comments were provided regarding the European and Other Heritage CEMP.
Penrith City Council	Nov 2018	No comment regarding the preparation of the European and Other Heritage CEMP.
Liverpool City Council	Nov 2018	No comment regarding the preparation of the European and Other Heritage CEMP.
Stakeholder information workshop	Nov 2018	<p>Workshop held on 13 Nov 2018. Attendees presented with a summary of the proposed works. Topics included:</p> <ul style="list-style-type: none"> - Airport plan condition requirement for consultation - Land-use plan - Site location of works - Visitor Centre and Site Accommodation scope, including images of the concept design - Material importation, including location, distance to closest receiver and site access

Government authority / stakeholder	Date	Summary	
		Invitees: Liverpool City Council Western Area Health Penrith City Council NSW Department of Premier and Cabinet Roads and Maritime Services NSW Health NSW Department of Education NSW Aboriginal Affairs NSW Department of Planning and Environment Transport for NSW	Attendees included: NSW Aboriginal Affairs Liverpool City Council Western Area Health

1.6 Certification and approval

This European and Other Heritage CEMP has been reviewed and approved for issue by the WSA Co Environment Manager prior to submission to Western Sydney Unit, Australian Government Department Infrastructure, Regional Development and Cities (the Infrastructure Department).

1.7 Distribution

All WSA Co personnel and contractors will have access to this European and Other Heritage CEMP via the Project document control management system. Unless otherwise agreed by the Approver, the Approved Plan must be published on WSA Co's website within one month of being approved and be available until the end of the Construction Period. An electronic copy can be found on the Project website - <http://wsaco.com.au/project/index.aspx>

This document is uncontrolled when printed. One controlled hard copy will be maintained by the quality manager at the Project office.

2 Project details and scope of works

2.1 Project general features

The Project will be delivered through a packaging strategy with a wide variety of package sizes, risk profiles and contracting entities detailed in section 2 of the Construction Plan. Each package will have different levels of environmental risk and environmental obligations, depending on the scope of works, location of works and sensitivity of the receiving environment and relevant statutory requirements and obligations.

Stage 1 development of the Project comprises the following key features:

- Site preparation
- Utilities
- Ancillary developments
- Airside precinct
- Ground transport
- Other building activities
- Terminal
- Aviation support facilities

Further details of the overall Project construction activities, programming and methodologies are included in Section 2 of the Construction Plan and Section 2 of the SEMF. Further detail of the specific works associated with this CEMP is included in Section 2.4.

2.2 Project site location and layout

The Western Sydney Airport will be developed on around 1,800 hectares of Commonwealth-owned land at Badgerys Creek in Western Sydney (Airport Site). The Airport Site is approximately 50 kilometres from Sydney's central business district.

The Airport Site is bounded by Elizabeth Drive to the north, Willowdene Avenue to the south, Luddenham and Adams Road to the west and Badgerys Creek to the east. The existing terrain is made up of undulating topography, and substantial earthworks are required to create a level surface to allow construction of the runway, taxiways and support services. The Airport Site location is provided in Figure 2 and the Construction Impact Zone is provided in Figure 3.

An Environmental Conservation Zone (ECZ), referred to as EC1 in Figure 3 is located within the Airport Site, mostly to the south and south east along with a smaller portion to the west. This is a protected land use due to the occurrence of natural habitats and water flows, including Badgerys Creek. The ECZ also provides for an environmental preservation corridor which has a number of specific objectives and permissible uses in this land use zone as identified in the Airport Plan. Any construction work within EC1 must be managed appropriately and is to be carried out only with prior approval from the WSA Co Environmental Manger.



Figure 2 Western Sydney Airport site location

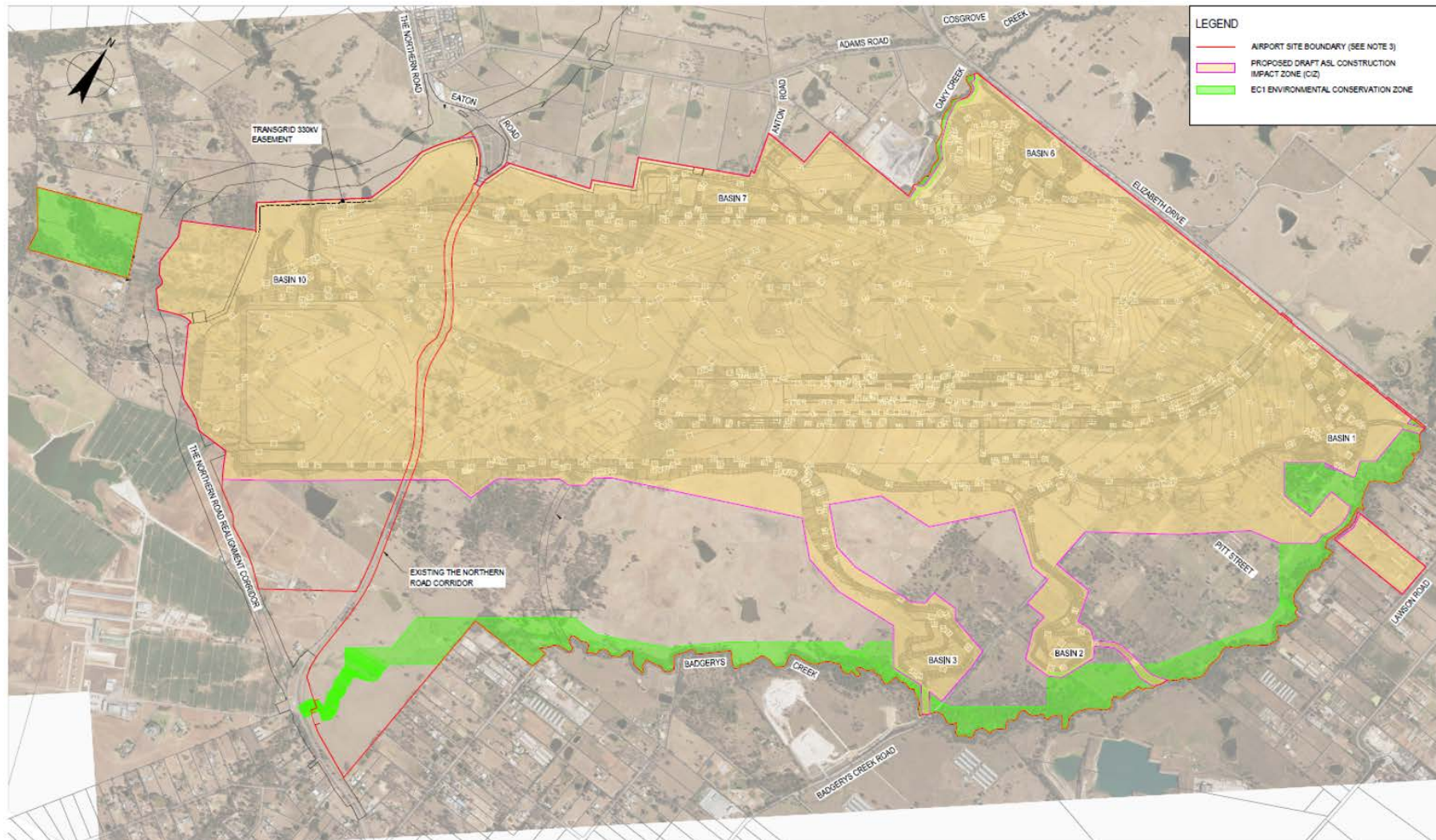


Figure 3 Stage 1 Development construction impact zone

2.3 Project staging and environmental management approach

Section 2 of the Construction Plan provides an overview of the total Project activities to be undertaken. As permitted by Condition 1(5), the Construction Plan identifies that the Stage 1 Development will be undertaken in the following phases:

- Preparatory Activities
- Early Earthworks (EEW)
- Visitor Centre and Site Construction
- Material Importation
- Bulk Earthworks and Drainage (P1-A)
- Bulk Earthworks and Drainage (P1-B)
- Runway Pavement / Airside Civil (P1-C)
- Passenger Terminal Complex (P2)
- Landside Civil and Buildings (P3)

At the time of preparing this European and Other Heritage CEMP, the current work phases, and therefore the phases covered by this European and Other Heritage CEMP are included below in Table 3.

A variation to this CEMP will be submitted before work other than Preparatory Activities is undertaken on any other phases of the Project.

Table 3 Works covered by this European and Other Heritage CEMP

Work package	Reference
Preparatory activities (General)	Refer to section 2.4.1
Early Earthworks	Refer to Section 2.4.2
Visitor Centre and Site Accommodation	Refer to Section 2.4.3
Material importation	Refer to Section 2.4.4

As the Project develops, this table will be updated accordingly with further detail to be provided as required in the subsequent sections. Any preparatory activities will not be undertaken inconsistently with this CEMP.

Section 2 of the SEMF provides a general overview of the total Project activities to be undertaken, with further specific detail targeting the current works (as indicated in Table 5) provided below in Section 2.4.

2.4 Scope of works

2.4.1 Preparatory activities (General)

Preparatory activities will be ongoing across the Airport Site throughout the Stage 1 Development. The works will be managed in accordance with the Overarching Preparatory Activities Plan which is prepared by the relevant Contractor and approved by WSA Co Environment Manager. The activities must be consistent with the Airport Plan definition for Preparatory Activities, refer to SEMF Section 3.9. Refer to Table 4 for details of proposed activities and indicative timing.

If an Approver determines an activity is a Preparatory Activity for paragraph (e) of the definition of 'Preparatory Activities' as per the Airport Plan and requires that a plan be prepared and submitted, WSA Co will prepare the necessary plan for consideration and approval in accordance with Condition 5 (2) of the Airport Plan. Any Preparatory Activities must not be carried out inconsistently with the approved CEMPs.

A summary of the construction staging for the Preparatory Activities is provided below in Table 4.

Table 4 Construction staging – Preparatory activities

Construction staging	Indicative Timing
Preparatory Works	
<ul style="list-style-type: none"> • Spatial Survey • Service Investigations • Pre-condition Surveys • Traffic Counting • Biological Pre-Clearance Surveys • Contamination Pre-Clearance Surveys • Aboriginal and European Cultural Heritage Survey and Salvage Works, including Topsoil Protocol implementation • Site Security including fencing • Removal of redundant infrastructure including farm fences, power poles, footings/slabs and rubbish • Site compound establishment and roundabout construction • Remediation works including establishment of stockpiles • Construction of temporary sediment basins and installation of erosion and sediment controls • Other activities which an Approver determines are Preparatory Activities. 	Aug 2018 – 2026

2.4.2 Early Earthworks package

A breakdown of EEW construction activities are outlined below and are consistent with the activities described in the Airport Plan. The WSA EEW site comprises of 120 ha of the overall site and is bounded by Elizabeth Drive to the north and Badgerys Creek to the east.

The EEW will involve:

- Topsoil Protocol implementation
- Management of contamination in the Early Earthworks area;
- Earthworks in Early Earthworks area;
- Construction of a section of the new realigned Badgerys Creek Road within the Site;
- Construction of a new intersection at Elizabeth Drive.
- Utility relocations.

In accordance with the Construction Plan Section 6, the early earthworks construction activities will be delivered in several stages. Table 5 outlines each stage and indicative timing for the proposed works and illustrated in Figure 4. This CEMP identifies the aspects and impacts for each key activity and required appropriate mitigation measures based on a risk assessment.

Table 5 Construction staging – Early Earthworks

Construction staging	Indicative Timing
Stage 1	
Involves construction of permanent open drainage, swales and diversions into existing creeks and tributaries. This prevents clean water from outside the site, entering the construction site. Activities include:	Sept 2018 – Jan 2019

Construction staging	Indicative Timing
<ul style="list-style-type: none"> Excavate northern end of the bypass channel from the existing Badgerys Creek Road culvert to the existing creek outfall on the north east of the Bio Retention Pond 1; Construct a temporary channel crossing/culvert to suit the temporary side-track; Divert overland flows to the partially constructed bypass channel; Undertake cut to fill operation to develop import stockpile area west of Badgerys Creek road in parallel with stages 1-6; Demolition of existing house; and Implementation of the RAP. 	
Stage 2	
<ul style="list-style-type: none"> Excavate Bio Retention Pond 1 for use as temporary erosion and sediment control. 	Jan 2019
Stage 3	
<p>Commencement of the cut to fill operation with a focus on getting the earthworks underlying Badgerys Creek Road completed. This enables the construction of new utilities routes, bridge construction and storm water drainage underneath Badgerys Creek road. Activities include:</p> <ul style="list-style-type: none"> Earthworks cut and fill to construct Badgerys Creek Road from the south tie-in to the new bridge location as well as fill required for the temporary side-track; Construct a culvert beneath the temporary side-track to manage runoff from the main fill area; Earthworks will include the water bypass channel between Badgerys Creek Road and the new bridge; Drainage and roadworks to permanent and temporary alignments; Construct bridge over stormwater channel; and Endeavour Energy utility removal. 	Oct 2018 – April 2019
Stage 4	
<p>Completion of drainage diversions and connections to the existing creek network will be undertaken after stabilisation of the new water channels and surrounding surface area to maintain water quality standards.</p>	Nov 2018 – Dec 2018
Stage 5	
<p>Completing the final portion of earthworks on the western side of Badgerys Creek Road and taking it across the road into the main fill. It is expected that Badgerys Creek Road re-alignment has reached the finishing works at this stage. Activities include:</p> <ul style="list-style-type: none"> Complete Main earthworks; Complete south west leg of the bypass channel; Complete Badgerys Creek Road north of the bridge; Sydney water utility relocation and removal; and Telstra relocation and removal. 	Nov 2018 – Sept 2019
Stage 6	
<p>Following RMS approval of the Works Authorisation Deed (WAD), works inside the Elizabeth Drive road corridor can commence to construct the new intersection of Elizabeth Drive and Badgerys Creek Road. Activities include:</p> <ul style="list-style-type: none"> Undertake Elizabeth Drive intersection works. Divert traffic onto the full Badgerys Creek Road alignment; Endeavour Energy Elizabeth drive works; and Elizabeth Drive Upgrade works 	April 2019 – Dec 2019

2.4.3 Visitor Centre and Site Accommodation

WSA Co will engage a Contractor to complete the enabling works prior to the construction of the visitor centre and office accommodation (refer to Table 6). The site for the visitor centre is located in the north west section of the site at the intersection of The Northern Road and Eaton Road Luddenham. Refer to Figure 4.

The scope of the activities proposed to be undertaken in accordance with this CEMP are outlined in Table 6 and are consistent with the activities described in the Airport Plan.

Table 6 Construction staging – Visitor Centre and Site Office Accommodation

Construction staging	Indicative Timing
Stage 1	
Site access and preparation works <ul style="list-style-type: none"> • Removal of redundant infrastructure including farm fences, power poles, footings/slabs and rubbish; • Site compound establishment; • Site Security; • Construction of temporary sediment basins and installation of erosion and sediment controls; and • Implementation of the RAP. 	Nov 2018 – Dec 2018
Earthworks to level the site <ul style="list-style-type: none"> • Earthworks – Cut and Fill (carting and disposal off-site); and • Site Grading and Benching. 	Dec 2018 – Jan 2019
External roadworks* (Eaton Road – North and South from VC Entrance) <ul style="list-style-type: none"> • Earthworks – Cut and Fill (carting and disposal off-site); • Road pavement installation; • Permanent open drainage (swales formed as part of cut); • Line marking; • Utilities Diversion – relocation of existing light poles; and Signage – “No Right Turn” signs. 	Dec 2018 – May 2019
Utilities* (Power, Water and Telecommunications) <ul style="list-style-type: none"> • Substation and connection to HV along The Northern Road; • Connection of water to Sydney Water Main; and • Conduit and pits for telecommunications lead-in cable. 	Dec 2018 – May 2019
Stage 2	
Foundation Works and In-Ground Services <ul style="list-style-type: none"> • Slab on ground for the Visitor Centre; and • Screw Piles for the Site Accommodation. 	Jan 2019 – Feb2019
Structure <ul style="list-style-type: none"> • VC structure shall be a combination of Laminated Veneer Lumber (LVL) columns and roof beams and Cross-Laminated Timber (CLT) ceiling panels solution; and • SA - modular timber framed panels lined with plasterboard internally and cladding externally. 	Feb 2019 – Mar 2019

Construction staging	Indicative Timing
Finished and Internal Services <ul style="list-style-type: none"> • Utilities – provision and coordination of connections to external utilities such as potable water, electrical and telecommunications; • Services: <ul style="list-style-type: none"> - Fire-water and wastewater treatment systems; and - Heating, Ventilation, and Air-Conditioning (HVAC) • ITS (Information Technology Services) • Technical exhibition display and exhibition content • Furniture, Fit-out and Equipment for both VC and SA buildings. 	Feb 2019 – May 2019
Testing and Commissioning <ul style="list-style-type: none"> • Comprehensive and systematic testing and commissioning of all utilities (below and above ground), internal services and systems: <ul style="list-style-type: none"> - Dry / Dead Testing - Wet / Live Testing • Integrated Testing & Commissioning 	Mar 2019 to May 2019
Internal road, car parks and Landscaping <ul style="list-style-type: none"> • Landscaping; • Security Swipes / Cameras • Fencing / Gates to perimeter boundary and site interior; • Roadworks and carparking, including line marking, road furniture, and site lighting; 	Jan 2019 – Mar 2019

*Note: may require approval from NSW government agencies and utility providers.

2.4.4 Material importation

Material will be imported to the site from other Sydney infrastructure sites as contemplated by the EIS starting in April 2019, this will ensure that valuable Sydney sandstone will be re-used in pavement construction potentially saving millions of tonnes of quarry won materials while diverting material from landfill sites in the Sydney area. The approximate stockpile location is shown in Figure 2. Initially 1.0 Million tonnes of sandstone material will be imported with the bulk being imported from April 2019 through to December 2020. It is expected that the stockpiled material will be used during pavement construction starting in mid 2022 and completing by December 2023.

To make the most of opportunities to obtain suitable material generated from other major infrastructure projects in Sydney, import will need to occur both during standard hours and also outside standard construction hours. As such, the processes outlined in the Noise and Vibration CEMP and the Traffic and Access CEMP for the ongoing assessment and environmental management of these works will be applied prior to commencement.

Table 7 Construction staging – Material importation

Construction staging	Indicative Timing
Material importation	
<ul style="list-style-type: none"> • Haulage of sub-base and capping material to site 	April 2019 – December 2020

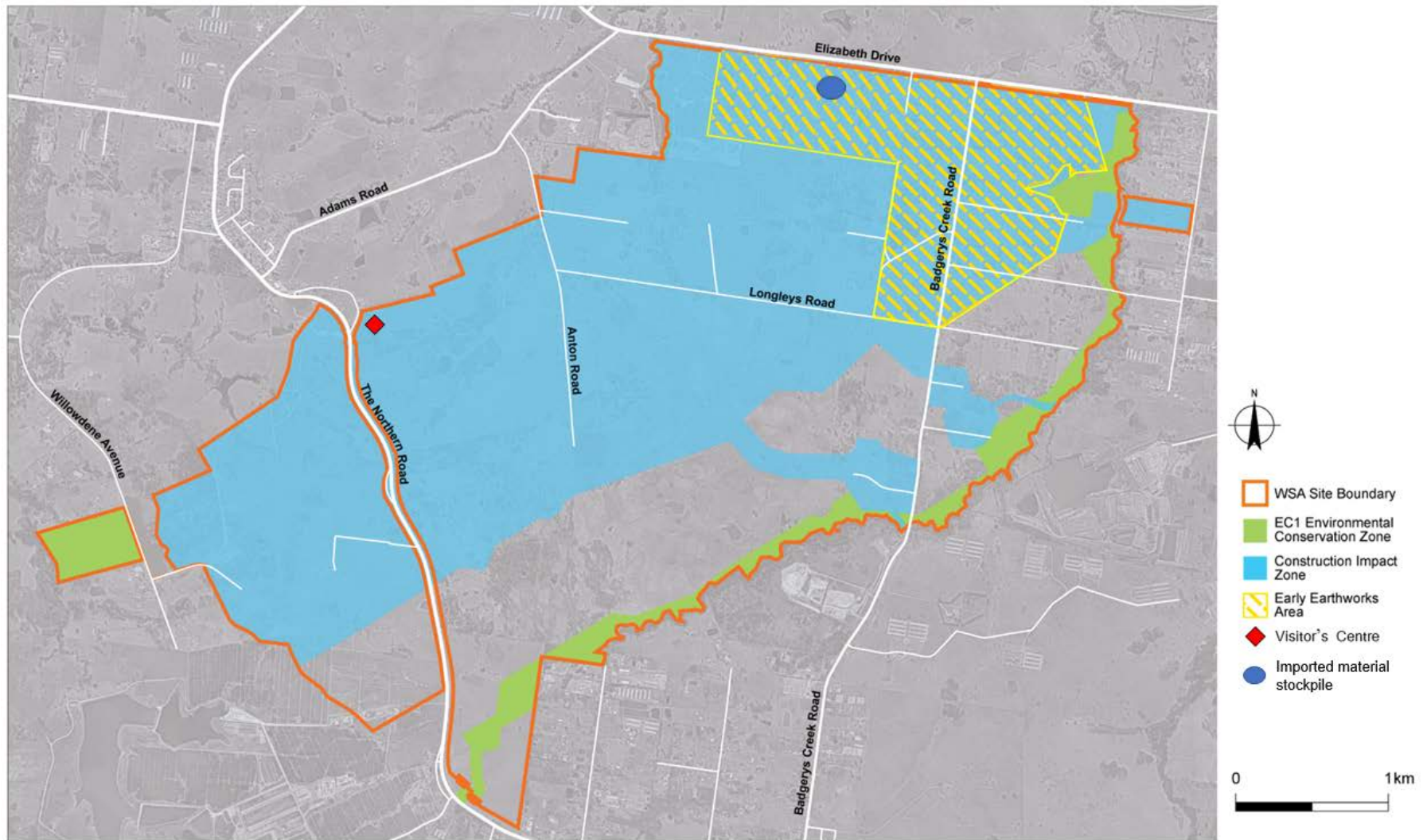


Figure 4 Stage 1 Development location plan

3 Objectives and targets

3.1 Objectives

The key objective of this plan is to ensure European and Other Heritage is managed and protected during construction of the Project.

To achieve this objective, the following will be undertaken:

- Implement agreed management measures for elements of European and Other Heritage;
- Treat all heritage items with respect to their identified values
- Comply with objectives to ensure that environment and heritage items are appropriately considered as outlined in the Land Use Plan and the Airport Plan;
- Ensure appropriate measures are implemented to address the mitigation measures detailed in Table 28-14 and Table 28-15 in Chapter 28 of the EIS; and
- Ensure appropriate measures are implemented to comply with all relevant legislation and other requirements as described in Section 4 of this plan.

3.2 Targets and performance criteria

European and Other Heritage specific targets and performance criteria have been established for the management of European and Other Heritage impacts during the construction phase of the works which have been, in part, derived from the performance criteria identified in the EIS, Table 28-14, as presented in Table 8.

Table 8 European and Other Heritage targets and performance criteria

Objective	Target / Performance criteria	Document Reference
Minimise disturbance and loss to European or Other Cultural Heritage values	Ensure full compliance with statutory requirements (including general duty to preserve heritage under the AEPR). Compliance with objectives to ensure that environment and heritage items are appropriately considered as outlined in the Land Use Plan in the Airport Plan.	Environmental inspection checklist Site Diary Environmental reporting
Enhance public knowledge of the heritage values in the local area	Recognising the European and other heritage values of the site in the detailed design of the airport. Treating heritage items with respect to their identified values.	Community and Stakeholder Engagement Plan
Implement agreed management measures for elements of European and other heritage	Compliance with the approved European and Other Heritage CEMP. Compliance with the general duty to preserve heritage under the AEPR.	This CEMP

The above targets in Table 8 have been set to provide a benchmark performance objective to which WSA Co will endeavour to achieve. Failure to achieve the targets will not be considered a non-conformance, however will prompt internal review of environmental management (as detailed further in environmental control measures in (Table 19) and assessment of potential improvement opportunities.

4 Legal and other requirements

Relevant environmental legislation and other requirements are identified below.

4.1 Relevant legislation and guidelines

As the Western Sydney Airport is to be developed under the Airport Plan determined under the Airports Act, some state laws will not be applicable to the Project (s112 of this Act). Where state law is applicable, this Plan will set out the relevant applicable state legislation and requirements and demonstrate how compliance with those laws including obtaining relevant permits will be achieved. Where state laws are not applicable, there may nonetheless be a requirement to have regard to those laws, for example, through mitigation measures to be incorporated in CEMPs to satisfy conditions under the Airport Plan.

4.1.1 Legislation

Relevant legislation and regulations to this Plan are summarised in Table 9.

Table 9 Principal legislation and relevance

Legislation or regulation	Relevance	CEMP compliance provisions
Commonwealth		
<i>Airports Act 1996</i> (Cth) (Airports Act)	<p>The Airports Act and AEPRs set out the framework for the regulation and management of activities at airports that could have potential to cause environmental harm. This includes offences related to environmental harm, environmental management standards, monitoring and incident response requirements.</p> <p>The Airport Plan prepared under the Airports Act covers a number of environmental matters and, in particular, details specific measures to be carried out for the purposes of preventing, controlling or reducing the environmental impact associated with the airport. Criminal offences are applicable if these measures are not complied with.</p>	<p>This CEMP forms part of the overall WSA Co environmental management system which has as a target, full compliance with the Airport Plan.</p> <p>Relevant mechanisms within this CEMP that will contribute to this include but are not limited to:</p> <ul style="list-style-type: none"> • Section 3.1 – Objectives • Section 4.3 – Airport Plan Conditions • Section 4.3.1 – Environmental Impact Statement Requirements • Section 6 – Risk assessment • Section 7 – Environmental control measures • Section 9 – Environmental roles and responsibilities • Section 10 – Environmental inspection, monitoring and auditing • Section 13 – Environmental non-conformance and improvement opportunities • Section 14 – Review and improvement
Airports (Environment Protection) Regulations 1997 (AEPR)	Imposes various duties including a general duty to preserve existing aesthetic, cultural, historic and social values and a duty to give notice of unexpected finds.	Refer to commentary on Airport Plan above.

Legislation or regulation	Relevance	CEMP compliance provisions
<i>Environment Protection and Biodiversity Conservation Act, 1999</i>	National environment law that provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places, defined in the Act as matters of national environmental significance. Relevant heritage items listed on the National Heritage List include the Greater Blue Mountains Area. There are no relevant places listed on the Commonwealth Heritage list	Section 7 – Environmental control measures Section 10 – Environmental inspection, monitoring and auditing
NSW		
<i>As the Airport is to be developed under the Airport Plan determined under the Airports Act, 1996 (Cth), some state laws will not be applicable to the project or to parts of the Project (see for example S 112 of that Act). Where state laws are not applicable, it is still intended to have regards to relevant laws for example through inclusion of mitigations measures incorporated into this CEMP. These laws are identified below.</i>		
<i>Environmental Planning and Assessment Act, 1979</i>	The objectives of the Environmental Planning and Assessment Act include the encouragement of proper management and conservation of natural and artificial resources and the promotion of the orderly and economic use and development of land in NSW. The Act also provides for the making of environmental planning instruments.	Section 7 – Environmental control measures
<i>Heritage Act, 1997</i>	The Heritage Act makes provisions for the conservation of NSW's non-Aboriginal environmental heritage.	Section 7 – Environmental control measures
<i>Liverpool Local Environmental Plan 2008 (Liverpool LEP)</i>	The Liverpool LEP provides local environmental planning controls and standards for land in the Liverpool LGA in accordance with the relevant standard environmental planning instrument under section 33A of the Environmental Planning and Assessment Act 1997.	Section 7 – Environmental control measures

4.1.2 Guidelines and standards

Guidelines and standards that are relevant to European and Other Heritage management and this plan are summarised in Table 10 .

Table 10 Relevant guidelines and standards

Guidelines and standards
<ul style="list-style-type: none"> Altering Heritage Assets (Heritage Office and DUAP 1996)
<ul style="list-style-type: none"> Archaeological Assessment Guidelines (NSW Heritage Office and NSW Department of Urban Affairs and Planning 1996)
<ul style="list-style-type: none"> Assessing Heritage Significance (NSW Heritage Office 2001)

Guidelines and standards

- Assessing Historical Association: A Guide to State Heritage Register Criterion B (Heritage Office 2000)
- Assessing Historical Association: A Guide to State Heritage Register Criterion A (Heritage Office 2006)
- Assessing Significance for Historical Archaeological Sites and 'Relics' (Heritage Council of NSW, 2009)
- Charter for Places of Cultural Significance ('the Burra Charter') (Australia ICOMOS 2013)
- Guidelines for Photographic Recording of Heritage Items Using Film or Digital Capture (NSW Heritage Office, 2006)
- Guidelines for the preparation of Archaeological Management Plans (Heritage Branch, Department of Planning 2009)
- Historical Archaeology Code of Practice (Heritage Office, Department of Planning 2006)
- How to Prepare Archival Records of Heritage Items (NSW Heritage Office, 1998)
- NSW Heritage Manual (Heritage Office and Department of Urban Affairs and Planning 1996)
- Photographic Recording of Heritage Items Using Film or Digital Capture (Heritage Branch 2006)
- Skeletal Remains; Guidelines for Management of Human Skeletal Remains (Heritage Office 1998)
- Stabilising Stuff: A Guide for Conserving Archaeological Finds in the Field (NSW Heritage Council 2012)

4.2 Approvals and other specifications

Approvals and other specifications relevant to European and Other Heritage management in this plan include:

- Functional Specifications;
- Western Sydney Airport Plan (2016);
- Western Sydney Airport Environmental Impact Statement;
- WSA Co Sustainability Plan;
- WSA Co Community and Stakeholder Engagement Plan; and
- WSA Co Construction Plan, including the SEMF.

4.3 Airport Plan Conditions

Conditions relevant to the management of European and Other Heritage during construction of the Stage 1 Development are provided in Section 3.10.2 of the Airport Plan and summarised in Table 11. Compliance with the Airport Plan conditions is a statutory requirement and as such, failure to comply may constitute a criminal offence liable to criminal prosecution under the relevant legislation.

Table 11 Airport Plan Conditions relevant to European and Other Heritage management

Condition No.	Condition	Timing	Responsibility	Ref in this CEMP
1.4	The Site Occupier must ensure that no CEMP is inconsistent with the approved Construction Plan	Ongoing	WSA Co	This CEMP
1.5	The approved Construction Plan may provide for Main Construction Works to be carried out in phases that commence at different times for	Ongoing	WSA Co	This CEMP

Condition No.	Condition	Timing	Responsibility	Ref in this CEMP
	different parts of the Airport Site or an Associated Site. If it does, the Site Occupier may prepare a CEMP in relation to one or more phases, and the criteria for approval of such a CEMP are taken to exclude any matter irrelevant to the phases for which approval is sought. A variation of the CEMP must be submitted for approval in accordance with condition 41 (Variation of Approved Plans) prior to commencement of any new phase.			
Disinterment of human remains				
3.1	<p>The Site Occupier must not disinter any of the human remains located in grave sites identified in the European and other heritage technical report in volume 4 of the EIS:</p> <ul style="list-style-type: none"> a) until a Cemeteries Relocation Management Plan has been prepared and approved in accordance with this condition; or b) inconsistently with the approved Cemeteries Relocation Management Plan. 	Prior to Main Construction Works	Commonwealth Preparatory Activity	Completed in accordance with the <i>Cemeteries Relocation Management Plan</i> (standalone document)
3.2	<p>The Infrastructure Department must prepare and submit to an Approver for approval a Cemeteries Relocation Management Plan, dealing with:</p> <ul style="list-style-type: none"> a) Preparatory Activities to assist with determining the scope of the process involved in relocating the human remains located in grave sites identified in the European and other heritage technical report in volume 4 of the EIS; b) The disinterment of the remains; and c) The reinterment of the remains at another cemetery or other cemeteries. 	Prior to Main Construction Works	Commonwealth Preparatory Activity	Completed in accordance with the <i>Cemeteries Relocation Management Plan</i> (standalone document)
3.3	<p>In preparing the Cemeteries Relocation Management Plan, the Infrastructure Department must take into account the following principles:</p> <ul style="list-style-type: none"> a) consultation with relatives and stakeholders; 	Prior to Main Construction Works	Commonwealth Preparatory Activity	Completed in accordance with the <i>Cemeteries Relocation Management Plan</i> (standalone document)

Condition No.	Condition	Timing	Responsibility	Ref in this CEMP
	<ul style="list-style-type: none"> b) reasonable public notice prior to the commencement of exhumation activities; c) reasonable endeavours to contact surviving relatives; d) consideration of public health and heritage matters; and e) carrying out activities sensitively with due respect and reverence. 			
5.3	<p>In carrying out a Preparatory Activity, the Site Occupier must:</p> <ul style="list-style-type: none"> a) a) implement any plan approved in accordance with sub condition (1) or (2), except to the extent that the plan is inconsistent with any subsequently approved CEMP or the approved Construction Plan; and b) not act inconsistently with any approved CEMP or the approved Construction Plan. 	Ongoing	WSA Co.	This CEMP
European and Other Heritage management				
12.1	<p>The Site Occupier must not:</p> <ul style="list-style-type: none"> a) commence Main Construction Works until a European and Other Heritage CEMP has been prepared and approved in accordance with this condition; or b) carry out any Preparatory Activities inconsistently with Table 28–15 in Chapter 28 of the EIS; or c) carry out any development described in Part 3 of the Airport Plan inconsistently with the approved European and Other Heritage CEMP. 	Prior to Main Construction Works	WSA Co	This CEMP
12.2	<p>The Site Occupier must:</p> <ul style="list-style-type: none"> a) prepare; and b) submit to an Approver for approval; <p>a European and Other Heritage CEMP in relation to the carrying out</p>	Prior to Main Construction Works	WSA Co	This CEMP

Condition No.	Condition	Timing	Responsibility	Ref in this CEMP
	of the developments described in Part 3 of the Airport Plan.			
12.3	<p>The criteria for approval of the European and Other Heritage CEMP are that an Approver is satisfied that:</p> <p>a) in preparing the European and Other Heritage CEMP, the Site Occupier has taken into account Table 28–14 in Chapter 28 of the EIS; and</p> <p>b) the European and Other Heritage CEMP complies with Table 28–15 in Chapter 28 of the EIS and is otherwise appropriate.</p>	Prior to Main Construction Works	The Approver	This CEMP Section 6, 7, 8, 9 and 10
35	<p>An Approver must not approve a plan referred to in Chapter 28 of the EIS unless he or she is satisfied that the Plan Owner:</p> <p>(a) in preparing the plan, has consulted with any NSW Government agencies specified by the NSW Department of Premier and Cabinet; and</p> <p>(b) has provided: I the Approver; and II each consulted agency, with an explanation of how any responses have been addressed.</p>	Ongoing	The Approver	This CEMP
37 to 42	Sets out the requirements in relation to informing other parties of conditions, keeping records, publishing reports, independent audits, variation to approved plans and publication of approved plans	Ongoing	WSA Co and Approver	This CEMP

4.3.1 Environmental Impact Statement requirements

The requirements of European and Other Heritage management to be considered and addressed during the construction phase of the Stage 1 Development are included in the EIS, specifically Table 28-14. A summary of these requirements and how they have been addressed in this European and Other Heritage CEMP is presented in Table 12.

Table 12 Summary of European and Other Heritage management requirements

EIS Reference	Topic	Summary	European and Other Heritage CEMP Reference
Table 28-14	Performance Criteria	Compliance with the approval European and Other Heritage CEMP	Section 3 – Objectives and targets
		Compliance with the general duty to preserve heritage under the AEPR	Section 3 – Objectives and targets
		Compliance with objectives to ensure that environment and heritage items are appropriately considered as outlined in the Land Use Plan in the Airport Plan	Section 3 – Objectives and targets
		Treating all heritage items with respect to their identified values; and	Section 3 – Objectives and targets
		Recognising the European and other heritage values of the site in the details design of the airport, for example, through onsite archiving and curation of heritage items, and public display materials	Section 3 – Objectives and targets
Table 28-14	Implementation framework	A European and Other Heritage CEMP will be approved prior to Main Construction Works for the proposed airport. The CEMP will collate measures to mitigate and manage potential upon European and Other Heritage, including cross-reference to other environmental management plans where they are relevant.	This WSA Co European and other Heritage CEMP
		The European and Other Heritage CEMP will as a minimum.	Note
		Detail the management and mitigation measures to be implemented, including those outlines in Table 28-15.	Section 7 - Environmental control measures
		Describe the process for managing complaints, stakeholder engagement and emerging environmental management issues as they arise.	Section 12 – Communications and complaints management
		Specify the process for monitoring implementation, reporting and auditing.	Section 10 – Environmental inspection, monitoring and auditing
		Details of the party responsible for implementing the European and Other Heritage CEMP.	Section 9 – Environmental roles and responsibilities
Table 28-14	Monitoring	The overarching approach to management of European cultural heritage values at the airport is to appropriately record and, where practical, salvage a portion of the identified heritage items through mitigation and management measures such as archival recording, staged demolition and/or relocation. All identified European heritage structures and items on the airport site are expected to be removed	Section 10 – Environmental inspection, monitoring and auditing

EIS Reference	Topic	Summary	European and Other Heritage CEMP Reference
		prior to or during construction of the proposed Stage 1 airport development. Accordingly, ongoing monitoring would not form a significant aspect of the European and Other Heritage CEMP.	
Table 28-14	Auditing and reporting	An annual report will be prepared and submitted to the Secretary of the Infrastructure Department in relation to compliance with the European and Other Heritage CEMP for the period until the airport commences operations.	Section 10 – Environmental inspection, monitoring and auditing
		General reporting requirements are set out under the AEPR	Note
Table 28-14	Responsibility	Responsibilities include:	Note
		The European and Other Heritage CEMP will be prepared in consultation with the NSW Office of Environment and Heritage (OEH) and other relevant Australian and local government bodies	Section 1.5 – Consultation requirements of this plan
		The European and Other Heritage CEMP will be submitted for approval to the Infrastructure Minister or an SES Officer in the Department of Infrastructure and Regional Development	Section 1.6 – Certification and approval
		The design and construct (D&C) contractor will be responsible for implementing site specific environmental procedures and work method statements applicable to the proposed works in accordance with the requirements of this European and Other Heritage CEMP	Section 1.3 – Document purpose Section 9.3 – WSA Co contractor roles and responsibilities
		Works in accordance with the requirements of the European and Other Heritage CEMP	Section 9 – Environmental roles and responsibilities

5 Existing environment

The following information is summarised from the European and Other Heritage Assessment in Chapter 20 of the EIS Volume 2A. In addition, Section 5.3 includes a summary of works / assessments completed since the preparation of the EIS including:

- Cemeteries relocation plan; and
- Archival recordings of European heritage items.

It should be noted that for the purpose of the Stage 1 Development works covered by this CEMP (refer to Table 3) the existing environment described herein is considered consistent and acceptable for consideration in the risk assessment process and the identification of suitable environmental mitigation measures and controls. Details of environmental mitigation measures and controls for the management of European and Other Heritage impacts is provided in Section 7.

5.1 European heritage

There were 20 European heritage items located at the airport site and an additional 22 heritage items located within the surrounding area. No known European heritage items are located within the Visitor Centre and Site Accommodation area (Figure 5). These items are shown in Figure 5 overleaf and tabulated in Table 13, with the heritage items located within the footprint of the Stage 1 Development works covered by covered by this CEMP highlighted.

None of the European heritage items identified within the airport site were listed on the World Heritage List, National Heritage List or Commonwealth Heritage List.

No European heritage items of State significance were identified within the airport site.

All identified heritage items within the construction footprint as identified in Figure 5 have been appropriately surveyed, archived and removed / demolished as detailed further in Section 5.3. This includes the relocation of the identified cemeteries. Appropriate requirements for additional awareness and vigilance in the areas of known previous heritage items are included in Section 7.

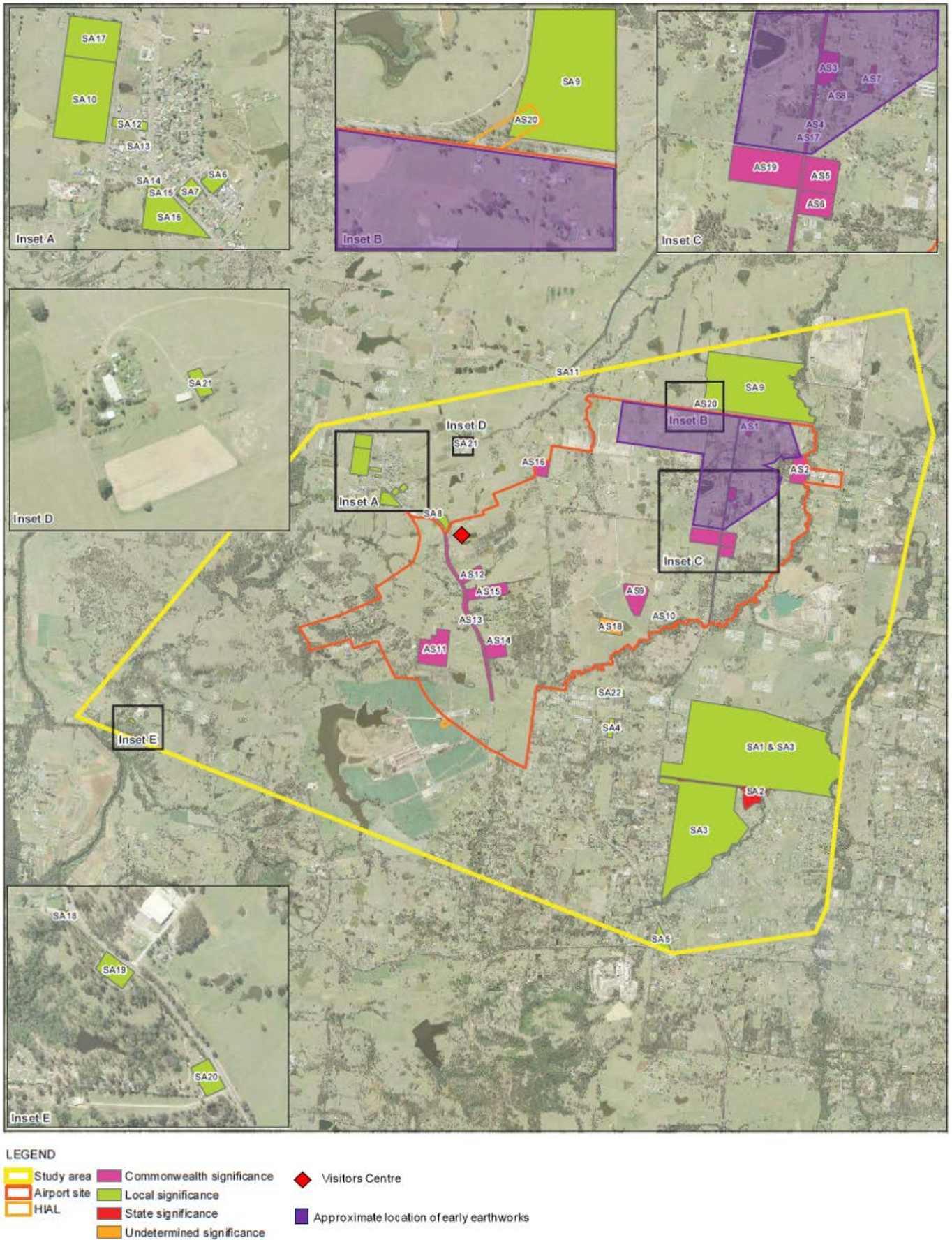


Figure 5 European and Other Heritage location plan

Table 13 European heritage items within the airport site and associated site

Note: highlight denoting within the construction footprint of works covered by this CEMP

Item (EIS Ref)	Location	Description	Significance
Pennell's property (AS1)	2170 Elizabeth Drive, Badgerys Creek	Pennell's property is likely to contain subsurface remains of an early farm homestead	Local
Gardiner Road farm complex (AS2)	5 Gardiner Road, Badgerys Creek	Gardiner Road farm complex comprises an early 20 th century farm cottage and outbuildings	Local
Badgerys Creek Public School (AS3)	Corner of Pitt Street and Badgerys Creek Road, Badgerys Creek	Badgerys Creek Public School is a small rural school containing elements from the early 20 th century. The school has been damaged by vandalism following its closure in 2014.	Local
Badgerys Creek butchery (AS4)	Lot 51A Badgerys Creek Road, Badgerys Creek	Badgerys Creek butchery was one of two retail outlets in Badgerys Creek and had been operating for over a hundred years prior to demolition in the 1990s.	Local
Badgerys Creek post office (AS5)	Lot 52 Badgerys Creek Road, Badgerys Creek	Badgerys Creek post office operated between 1894 and 1989. No surface elements of the post office remain; however, subsurface remains are likely.	Local
Saw pit (AS6)	61 Badgerys Creek Road, Badgerys Creek	Although marked on the 1859 map of Luddenham, there is very little observable evidence of the saw pit due to overgrowth and use of the site as a dam.	Local
Badgerys Creek Uniting Church and cemetery (AS7)	15 Pitt Street, Badgerys Creek	Badgerys Creek Uniting Church was the first formal place of worship at Badgerys Creek, opening in 1898 followed by the cemetery in 1927. The church was removed from the site in the early 1990s. The cemetery has two marked graves and could contain further unmarked graves.	Local (Commonwealth)
St John's Anglican Church and cemetery (AS8)	30 Pitt Street, Badgerys Creek	St John's Anglican Church was built in the early 1900s. The church was removed or demolished after 1992. The cemetery contains at least 27 graves, which the church yard retains a small monument comprising a plaque, small brick base and corrugated iron roof.	Local
Braeburn homestead (AS9)	55 Longleys Road, Badgerys Creek	Braeburn was a farm homestead circa 1910. The homestead and associated shed were demolished in the late 1990s.	Local
Orange Hill homestead (AS10)	5 Jagelman Street, Badgerys Creek	Orange Hill was a farm homestead thought to be a predecessor to Braeburn. Two wells and a number of subsurface sandstone bricks were identified by test excavation at the site.	Local
Vicary's Winery (AS11)	1935 The Northern Road, Luddenham	Vicary's Winery was a farm property in the late 19 th century. The site features a slab homestead circa 1860s and	Local

Item (EIS Ref)	Location	Description	Significance
		woolshed circa 1880s. The site was converted to a dairy and vineyard in the early 20 th century.	
Well (AS12)	1972 The Northern Road, Luddenham	The undated sandstone well sits within a more recently constructed homestead. The presence of such a well is rare in the local area.	Local
The Northern Road alignment within the airport site (AS13)	The Northern Road, Luddenham	The Northern Road is a very early road alignment. The route is recorded in an edition of the <i>Sydney Gazette</i> dated 1821 and a map of Bringelly dated 1834. The alignment of the Northern Road has deviated in some areas of the airport site since that time.	Local
Anschau Vineyard, Steinberg and grave(s) (AS14)	1845-1875 The Northern Road, Luddenham	Anschau Vineyard operated from the late 1800s. No evidence of the vineyard remains; however, blacksmith tools and remains of a homestead has been identified. A possible grave suspected to belong to a member of the Anschau family is also present at the site.	Local
St Francis Xavier Church and cemetery (AS15)	1966 The Northern Road, Luddenham	St Francis Xavier Church was built in 1912 while it is probable that the associated cemetery was established earlier. The contents of the church and graves were relocated to a new site at Greendale in the 1990s.	Local
Jackson Road cottage (AS16)	Lot 2 Jackson Road, Luddenham	Jackson Road hosted a farm cottage and several ancillary structures circa 1890. The cottage and structures remain at the site.	Local
Badgerys Creek Road alignment within the airport site (AS17)	Badgerys Creek Road, Badgerys Creek	Badgerys Creek Road alignment has been noted on maps since the 1850s and has not changed substantially since that time.	Local
Spredenber (AS18)	55 Longleys Road, Badgerys Creek	Spredenber features in a map of Luddenham Estate dated 1859 with a house visible in an aerial photograph dated 1947. The site is overgrown, confounding validation of its heritage.	Unknown
Howe residence (AS19)	Corner Badgerys Creek Road and Longleys Road, Badgerys Creek	The Howe residence is thought to have been occupied from the early 19 th century. Potential homestead remains were identified at the site including wooden posts, bricks, corrugated iron and a potential well site. Refer to the Archival Record of European Heritage Items Report for more information.	Local
Part McGarvie Smith University Farm (AS20)	124 Elizabeth Drive, Badgerys Creek	The McGarvie Smith University Farm is considered to have heritage significance for its historic, associative and technical values. The farm was established as a place to teach animal husbandry to veterinary students at the University of Sydney and has associations with Sir Frederick Tout.	Local

5.2 Greater Blue Mountains World Heritage Area

The Greater Blue Mountains World Heritage Area (GBMWA) constitutes one of the largest and most intact tracts of protected bushland in Australia. The GBMWA is included on both the World Heritage List and the National Heritage List and is therefore a matter of national environmental significance under the EPBC Act.

The GBMWA was inscribed on the United Nations Educational, Scientific and Cultural Organisation (UNESCO) World Heritage List in 2000 for its outstanding universal value, including representative examples of the evolution of Eucalyptus species and diversity of habitats and plant communities. It also has other important values including recreation, tourism, wilderness, scenic, cultural heritage, scientific and aesthetic values.

Potential indirect impacts were assessed and considered noise, air quality and visual amenity from aircraft overflights, lighting and traffic. The assessment found that the impacts from the proposed airport would not have a significant impact on the World Heritage and other values of the GBMWA.

As the GBMWA is located approximately seven kilometres from the airport site at its closest point, no direct impacts are expected on the GBMWA.

5.3 Additional works completed post EIS

The following sections provide details regarding additional works that have been completed on the Airport Site since the completion of the EIS with regards to European and Other Heritage management.

5.3.1 Cemeteries relocation plan

A Cemeteries Relocation Management Plan (CRMP) for the Airport Site was completed in 2017. The CRMP was prepared to address the relevant Airport Plan conditions as provided for in Section 3.7.1 of the Airport Plan, in particular, Condition 3 which required that the CRMP addresses the following:

- Preparatory activities to assist with determining the scope of the process involved in relocating the human remains located in the Identified Gravesites;
- The disinterment of the remains at the Identified Gravesites; and
- The reinterment of these remains at another cemetery or other cemeteries.

The CRMP included the preparatory, disinterment and reinterment activities associated with the relocation of gravesites. A map of the WSA site showing the location of the Identified Gravesites is provided in Figure 6.

Cemeteries relocation has been completed in accordance with the CRMP. Due to the personal nature of the information contained in the CRMP, it was not published.

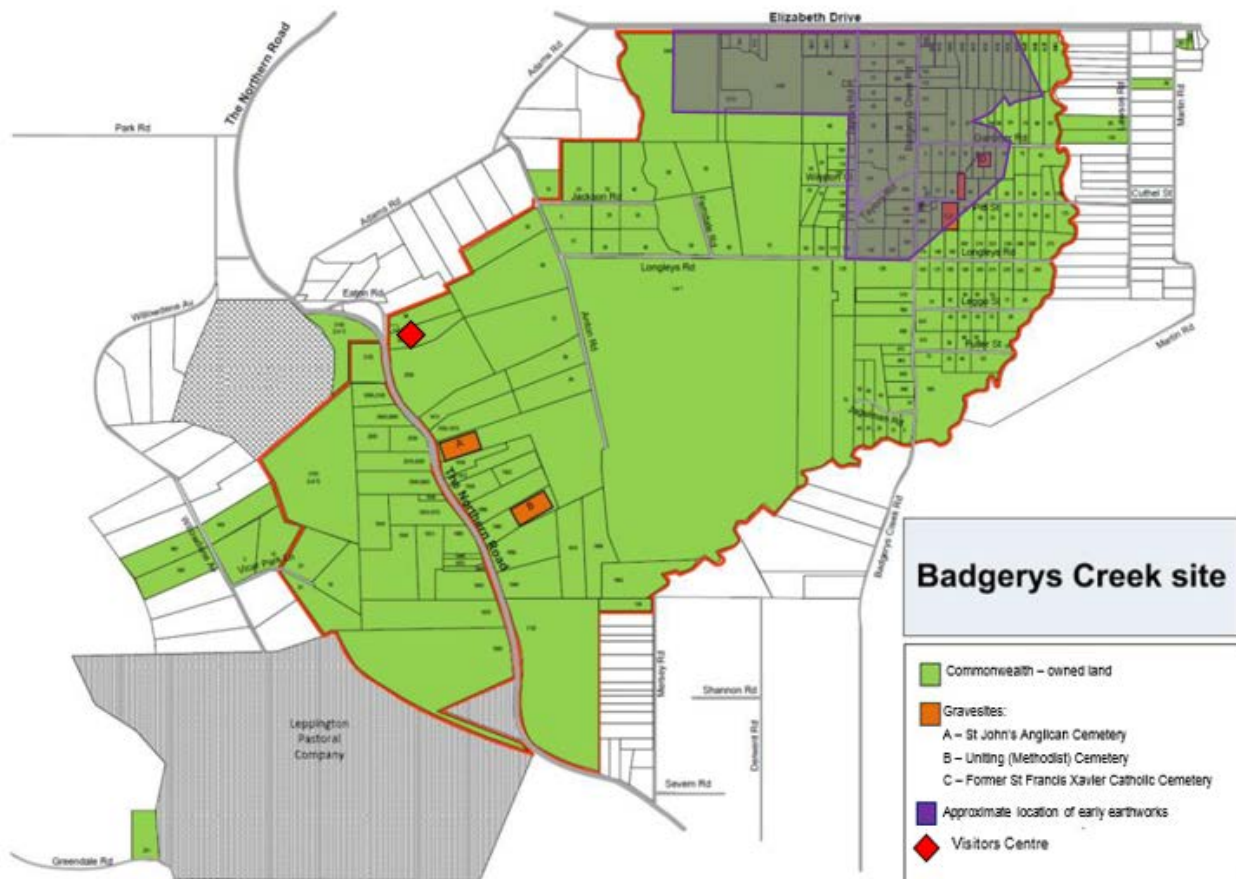


Figure 6 Gravesite location plan

5.3.2 Archival record of European Heritage items report

Background

As part of site preparation activities required to be undertaken before commencement of construction of the Stage 1 Development, the removal of these European heritage items from the airport site was required. This included implementation of mitigation and management measures such as further archaeological investigations, archival recording, creating an inventory of moveable items, cultural planting investigations, identification of structures that could potentially be relocated, relocation of remains located in grave sites (refer to Section above) and the staged demolition of European heritage structures.

An archival record of European heritage items report covers the archival recording of six European heritage sites. These are the Gardiner Road farm complex - Homestead and outbuildings, the Badgerys Creek Public School, the Vicary's Winery and Woolshed, the Jackson Road cottage, the Badgerys Creek Uniting Cemetery and the St John's Anglican Cemetery. One site identified as 'The Well' was found to not have the heritage significance that was first thought it had once the archival recording commenced on the site.

Archival recording

There were several stages to the archival recording of each European heritage item. In 2015, a preliminary survey was undertaken as part of the non-Aboriginal Heritage Assessment to identify items of potential heritage significance. These surveys included extensive photographing of items that were later identified as meeting the threshold of Commonwealth heritage significance.

One of the recommendations of the non-Aboriginal Heritage Assessment was to archive and record each item of built heritage. By the time of archival recording in 2017, many of these properties had substantially

deteriorated. The photographs undertaken in 2015 were therefore useful in demonstrating this deterioration together with the archival photographs taken in 2017.

Additional research was undertaken on each of the identified properties and expanded to include ownership and land-use information. This additional research established through-lines to other items in the area, such as the school and cemeteries.

Following the research and using the 2015 photographs as a baseline, additional pedestrian and photographic surveys were undertaken in 2017.

Archival recording was undertaken at seven European heritage sites. These were:

1. Gardiner Road Farm Complex, 80-90 Gardiner Road, Badgerys Creek. Archival recording was undertaken on the cottage and huts, cow shed, byre and outbuildings. Archival recording was not undertaken on the 1960s house, sleep out and garage, Lysaght silo, water stand on tank or poultry sheds.
2. Badgerys Creek Public School, 10 Pitt Street, Badgerys Creek. Archival recording was undertaken on the library, old cottage and staff room. Archival recording was not undertaken on the classroom block, washroom or hall.
3. Vicary's Winery, 1935 The Northern Road, Luddenham. Archival recording was undertaken on the 1860s slab homestead and time capsule (which was removed prior to demolition), train carriage, woolshed (former dairy) and cow bails.
4. Well, 1972 The Northern Road, Luddenham.
5. Jackson Road Cottage, 10 Jackson Road, Luddenham. Archival recording was undertaken on the 1890 farm cottage building.
6. Badgerys Creek Uniting Cemetery, 15 Pitt Street, Badgerys Creek.
7. St John's Anglican Cemetery, 30 Pitt Street, Badgerys Creek.

The archival recording methodology is based on guidance detailed by the NSW Office of Environment and Heritage in *How to Prepare Archival Records of Heritage Items* (1998) and *Photographic Recording of Heritage Items Using Film or Digital Capture* (2006).

The intent of the archival recording was to ensure that the history and environment of each structure can be retained for future reference and research. Photographic records and measured drawings of existing features contribute to the heritage significance of each item. The record was prepared for the original buildings within the context of their landscape setting, local environment and associations with other buildings and features.

Photographic records

For each European heritage site, the photographs have been arranged according to the following categories:

- Relationship between features and other relevant landscape features; and
- Detail, features and construction.

Photographs were taken of all European heritage items in 2015 as part of an initial survey of the airport site and again in 2017 as part of a detailed photographic survey. The subjects of the photographs varied between each item but were broadly focused on any important heritage elements of the item, identifying characteristics and important fabric. Spatial relationships between significant heritage features were also captured where applicable, the photographic plans for each site can be used to identify these.

Photographs were also taken during the staged demolitions of heritage items except for the relocation works related to the two cemeteries and The Well. The two cemeteries were relocated as part of a separate Cemeteries Relocation Management Plan process. As archival work commenced at The Well at 1972 The Northern Road it became apparent that heritage significance was not present and that an archival record detailing the demolition works was not required.

Inventory of moveable heritage items

Individual items which are part of a heritage item make an important contribution to the heritage significance of the item or may have heritage significance in their own right. These may include tools of the trade and machinery. These are known as “moveable items”.

The NSW Department of Education conducted an inventory of moveable heritage items at the Badgerys Creek Public School in 2014. The school monument was considered an item of significance and was relocated by the NSW Department of Education to the Luddenham Public School. This was removed prior to the preparation of the archival record for the school.

In 2015, RPS Group prepared heritage protocols for two of the European heritage sites, the Badgerys Creek Public School and the Gardiner Farm complex. This report identified consideration to the relocation of two structures should be considered, the Badgerys Creek Public School library and the Badgerys Creek Public School old cottage.

The 2015 heritage protocols report also recommended the dismantling or staged demolition including archival recording for the Badgerys Creek Public School staff room, Gardiner Road farm complex cottage (including huts), Gardiner Road farm complex cow shed, Byre and Outbuildings.

The Badgerys Creek Public School classroom block, washroom and hall and Gardiner Road farm complex 1960s house, sleep-out and garage, Lysaght silo, water tank on stand and poultry sheds could be altered or removed without archival recording being required.

No additional items were identified for the inventory of moveable heritage items as part of the archival recordings.

Staged demolition

To record potential construction techniques, original fabric and other information, staged demolitions were undertaken at the following four European heritage sites:

- Gardiner Road farm complex (detail as per archival recording), Gardiner Road, Badgerys Creek;
- Badgerys Creek Public School, Pitt Street, Badgerys Creek;
- Vicary’s Winery, 1935 The Northern Road, Luddenham; and
- Cottage at 10 Jackson Road, Luddenham.

Using the historical information and previous photographs, the RPS team gave direction to the demolition crew to carefully remove accretions, wall linings, etc. from each structure to gain insight and additional historical information about each item. This includes records of original finishes, earlier configurations, profiles of earlier structures, positions of earlier openings, and construction technologies used.

6 European and Other Heritage aspects and impacts

The potential for European and Other Heritage impacts was considered in chapter 20 of the EIS and has been summarised in Section 5 of this CEMP. The heritage items located within the construction footprint covered by this CEMP are summarised in Table 14.

Since the completion of the environmental impact assessment associated with the EIS, archival recording and demolition of all European and Other Heritage Items within the Airport Site Construction Impact Zone (CIZ), including of the graves and gravestones, has been completed and reports prepared accordingly (refer to Section 5.3).

The remaining aspects and potential impacts are those associated with the unexpected finds of both surface and sub-surface items. A risk assessment has been undertaken for the associated risks, with appropriate mitigation measures and controls included in Section 7.

Table 14 European and Other Heritage sites within the construction footprint

Site name	Ref	Significance	Type of harm	Degree of harm	EIS Recommended mitigation measures
Pennell's property	AS1	Local (Commonwealth)	Direct	Total removal of site	EH03, EH04, EH07, EH12
Gardiner Road farm complex	AS2	Local (Commonwealth)	Direct	Total removal of site	EH03, EH04, EH07, EH12
Badgerys Creek Public School	AS3	Local (Commonwealth)	Direct	Total removal of site	EH03, EH04, EH07, EH12
Badgerys Creek butchery	AS4	Local (Commonwealth)	Direct	Total removal of site	EH03, EH04, EH07, EH12
Badgerys Creek post office	AS5	Local (Commonwealth)	None	No Impact from works covered by this CEMP	EH03, EH04, EH07, EH12
Badgerys Creek Uniting Church and cemetery	AS7	Local (Commonwealth)	Direct	Total removal of site	EH03, EH04, EH07, EH12
St John's Anglican Church and cemetery	AS8	Local	Direct	Total removal of site	EH03, EH04, EH07, EH12
Badgerys Creek Road alignment within the airport site	AS17	Local (Commonwealth)	Direct	Partial removal of road within construction footprint.	EH03, EH04, EH07, EH12

6.1 Risk assessment

A Preliminary Risk Assessment has been undertaken as part of the CEMP. The parts of the overall risk assessment relevant to European and Other Heritage has been extracted and summarised in Table 18.

The identification of construction activities and associated impacts that could eventuate during construction of the Project is central to the selection of appropriate environmental safeguards.

The risk management process involved an assessment of all specific Project activities/aspects in or near environmentally sensitive areas and resulted in the development of a list of environmental risks (effects and impacts) and a corresponding risk mitigation strategy and risk ranking. Each environmental risk was categorised, based on the following:

- The environmental aspect;

- Relative scale of the potential impact;
- Type of potential impact; and
- Likelihood of occurrence.

The identification of risks included a review of the works, and review of the environmental risks identified by the EIS. The mitigations in the risk assessment are in line with the EIS mitigation measures in Section 7, Table 19. The following risk assessment process has been implemented, together with a review of proposed activities and known risks based on past project experience.

6.1.1 Risk Assessment Process

The following tables outline the risk assessment process using three steps to identify the appropriate management measures required.

Table 15 is used to determine the likelihood that the aspect will have an impact on the environment.

Table 16 is used to determine the potential consequence rating of the risk identified.

From these two tables, a risk rating can then be assigned using Figure 7 to determine the potential severity of the risk and the appropriate management response as per Table 17.

Table 15 Likelihood descriptor

	Likelihood	Description
A	Rare / improbable	The event may only occur in exceptional circumstances.
B	Unlikely / remote	The event may occur at some time (about once every five years).
C	Possible	The event is likely to occur at some time (about once every year).
D	Likely	The event will probably occur in most circumstances (at least once every six months).
E	Almost certain	The event is expected to occur in most circumstances (at least once every month).

Table 16 Consequence descriptor

	Consequence (impact)	Description
1	Insignificant/negligible	<ul style="list-style-type: none"> ● Short-term disturbance with minor environmental release or damage that is non-reportable. ● No impact outside site boundary. ● No community complaints or media reports.
2	Minor/low	<ul style="list-style-type: none"> ● Minor violation of regulation or guideline with minimal damage to the environment and small clean-up. ● Immediately contained on site. ● Local government action, minor community complaints. ● Potential or actual breach of legislation.
3	Moderate	<ul style="list-style-type: none"> ● Violation of regulation or guideline with moderate temporary damage to the environment and significant clean-up costs. ● Release of pollution off site. ● Detrimental media reports, community concerns and complaints.
4	Major	<ul style="list-style-type: none"> ● Major environmental damage with potentially permanent.

	Consequence (impact)	Description
		<ul style="list-style-type: none"> Release of pollution off site. Significant loss of environmental resources. Detrimental media reports in the national or state media, organised community concern. High likelihood of fine or court action.
5	Catastrophic	<ul style="list-style-type: none"> Long-term environmental harm. Permanent irreparable damage to the environment. Sustained detrimental state and national media reports. Sustained community outrage. Penalty Infringement Notice/court action.

Figure 7 Risk severity ranking

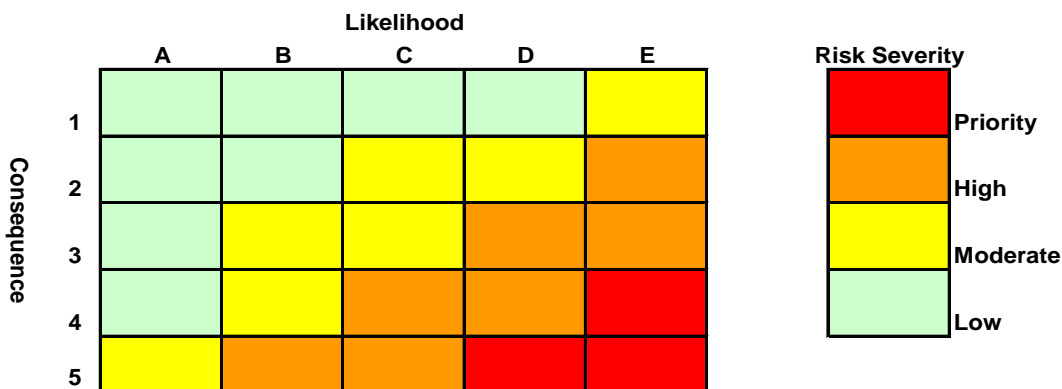


Table 17 Risk severity and management response

Risk severity	Management response
Priority	Immediate and detailed management action required. (e.g. stop or change activity)
High	Priority management action warranted
Moderate	Management action warranted
Low	Management action should be considered, particularly for low-level impacts that nevertheless occur on a continual basis

Table 18 European and Other Heritage risk assessment

Ref	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level ² pre-mitigation	Mitigation measure ¹	Risk level ² post-mitigation	Management tools
01	Site compound establishment	Site construction staff / visitors	Damage to heritage	Damage to known heritage items, loss of history	C2 (Mod)	EH_02 EH_03 EH_12 EH_13	B2 (Low)	<ul style="list-style-type: none"> • European and Other Heritage CEMP, Heritage awareness training • Aboriginal Cultural Heritage CEMP • Biodiversity CEMP • EWMS • Soil and Water CEMP • Complaints Procedure • Induction • Area Erosion and Sedimentation Control Plans (ESCPs) • Environmental Control Map (ECM)
02			Damage to heritage	Inadvertent damage to sub-surface remnants of former heritage sites	C2 (Mod)	EH_10 EH_12 EH_13	B2 (Low)	<ul style="list-style-type: none"> • European and Other Heritage CEMP, Heritage awareness training • Aboriginal Cultural Heritage CEMP • Archival record of European heritage items report • EWMS • Induction

Ref	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level ² pre-mitigation	Mitigation measure ¹	Risk level ² post-mitigation	Management tools
								<ul style="list-style-type: none"> • ECM
03		Topsoil stripping for compound footprint	Damage to heritage	Damage to known heritage items, loss of history	C2 (Mod)	EH_02 EH_03 EH_12 EH_13	B2 (Low)	<ul style="list-style-type: none"> • European and Other Heritage CEMP • Aboriginal Cultural Heritage CEMP • Biodiversity CEMP • EWMS • Soil and Water CEMP • Complaints Procedure • Induction • ESCPs) • ECM • Aboriginal Topsoil Protocol
04	Site compound establishment (continued)	Topsoil stripping for compound footprint (continued)	Damage to heritage	Inadvertent damage to sub-surface remnants of former heritage sites	C2 (Mod)	EH_10 EH_12 EH_13	B2 (Low)	<ul style="list-style-type: none"> • European and Other Heritage CEMP, Heritage awareness training • Aboriginal Cultural Heritage CEMP • Archival record of European heritage items report

Ref	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level ² pre-mitigation	Mitigation measure ¹	Risk level ² post-mitigation	Management tools
05								<ul style="list-style-type: none"> • EWMS • Induction • ECM
			Damage to heritage	Damage/loss to previously unknown heritage items, loss of history	C2 (Mod)	EH_02 EH_03 EH_12 EH_13	B2 (Low)	<ul style="list-style-type: none"> • European and Other Heritage CEMP • Aboriginal Cultural Heritage CEMP • Biodiversity CEMP • EWMS • Soil and Water CEMP • Complaints Procedure • Induction • ESCPs • ECM
06		Potholing / service locating and trenching	Uncovering previously unknown heritage items	Damage/loss to previously unknown heritage items, loss of history	B2 (Low)	EH_02 EH_03 EH_12 EH_13	B2 (Low)	<ul style="list-style-type: none"> • European and Other Heritage CEMP • Aboriginal Cultural Heritage CEMP • Biodiversity CEMP • EWMS • Soil and Water CEMP • Complaints Procedure • Induction • ESCP

Ref	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level ² pre-mitigation	Mitigation measure ¹	Risk level ² post-mitigation	Management tools
								<ul style="list-style-type: none"> • Dial before you dig plans (DBYD) • Service Location Plans • ECM • Aboriginal Topsoil Protocol
07	Site compound establishment (continued)	Potholing / service locating and trenching (continued)	Disturbance of human remains	Disturbance of human remains	C2 (Mod)	EH_10 EH_12 EH_13 EH_14	B2 (Low)	<ul style="list-style-type: none"> • European and Other Heritage CEMP, Heritage awareness training • Aboriginal Cultural Heritage CEMP • Cemetery Relocation Management Plan • EWMS • Induction • ECM
08	Clearing and grubbing	Topsoil stripping throughout alignment	Damage to heritage	Damage to known heritage items, loss of history	C2 (Mod)	EH_02 EH_03 EH_12 EH_13	B2 (Low)	<ul style="list-style-type: none"> • European and Other Heritage CEMP • Aboriginal Cultural Heritage CEMP • Biodiversity CEMP • EWMS • Soil and Water CEMP • Complaints Procedure • Induction

Ref	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level ² pre-mitigation	Mitigation measure ¹	Risk level ² post-mitigation	Management tools
								<ul style="list-style-type: none"> • ESCP • ECM
09			Damage to heritage	Inadvertent damage to sub-surface remnants of former heritage sites	C2 (Mod)	EH_10 EH_12 EH_13	B2 (Low)	<ul style="list-style-type: none"> • European and Other Heritage CEMP, • Heritage awareness training • Aboriginal Cultural Heritage CEMP • Archival record of European heritage items report • EWMS • Induction • ECM
10	Earthworks	Excavation	Vibration damage to nearby heritage items	Damage/loss to previously unknown heritage items, loss of history	C2 (Mod)	EH_02 EH_03 EH_12 EH_13 Vibration monitoring	B2 (Low)	<ul style="list-style-type: none"> • European and Other Heritage CEMP • Aboriginal Cultural Heritage CEMP • Biodiversity CEMP • EWMS • Soil and Water CEMP • Complaints Procedure • Induction • ESCPs • ECM

Ref	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level ² pre-mitigation	Mitigation measure ¹	Risk level ² post-mitigation	Management tools
11			Damage to heritage	Inadvertent damage to sub-surface remnants of former heritage sites	C2 (Mod)	EH_10 EH_12 EH_13	B2 (Low)	<ul style="list-style-type: none"> • European and Other Heritage CEMP, • Heritage awareness training • Aboriginal Cultural Heritage CEMP • Archival record of European heritage items report • EWMS • Induction • ECM
12			Disturbance of human remains	Disturbance of human remains	C2 (Mod)	EH_10 EH_12 EH_13 EH_14	B2 (Low)	<ul style="list-style-type: none"> • European and Other Heritage CEMP, • Heritage awareness training • Aboriginal Cultural Heritage CEMP • Cemetery Relocation Management Plan • EWMS • Induction • ECM

Ref	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level ² pre-mitigation	Mitigation measure ¹	Risk level ² post-mitigation	Management tools
13	Earthworks (continued)	Stockpiling materials	Damage to heritage	Damage to known heritage items, loss of history	B2 (Low)	EH_02 EH_03 EH_12 EH_13	B2 (Low)	<ul style="list-style-type: none"> • European and Other Heritage CEMP • Aboriginal Cultural Heritage CEMP • Biodiversity CEMP • EWMS • Soil and Water CEMP • Complaints Procedure • Induction • ESCP • ECM
14		Blasting	Damage to heritage	Damage to known and unknown heritage items, loss of history	C2 (Mod)	EH_02 EH_03 EH_12 EH_13	B2 (Low)	<ul style="list-style-type: none"> • European and Other Heritage CEMP • Aboriginal Cultural Heritage CEMP • Biodiversity CEMP • EWMS • Soil and Water CEMP • Complaints Procedure • Induction • ESCP • ECM

¹ Refer to Table 19 for mitigation measures and controls

² Derived from risk assessment process detailed in Section 6.1.1

7 Environmental control measures

Mitigation and management measures that will be implemented during construction are detailed in Table 19 and are consistent with those provided in Tables 28-14 and 28-15 in Chapter 28 of the EIS, as per Condition 10 (Section 3.10.2) of the Airport Plan. The relevant control measures will be included in the site-specific Environmental Work Method Statement (EWMS) and Environmental Control Map (ECM) – refer to Section 4.3 of the SEMF for further detail.

Table 19 Environmental control measures

Ref.	Measure / Requirement	Responsibility	When to implement	How to Implement	Reference
European and Other Heritage Management					
EH_01	The following measures are to be implemented in the manner identified in Chapter 6 of the Appendix O of the EIS for the respective European and Other heritage items (i.e. not all measures will apply to each item) under the supervision of a suitably qualified archaeologist:	WSA Co and Contractor	Preparatory activities Pre-construction Construction	Refer to Appendix O of the EIS	EIS Table 28-15
EH_02	All known European and Other Heritage items within the Project disturbance area have been removed prior to construction activities.	WSA Co and Contractor	Preparatory activities Pre-construction Construction	Implementation of the Procedure to protect non-Aboriginal heritage sites within the Project disturbance area – Refer to Section 8.1.	Best Practice
EH_03	Protection of any known European and Other Heritage items located outside of the Project disturbance area, however within close proximity to the construction activities (where appropriate).	WSA Co and Contractor	Preparatory activities Pre-construction Construction	Consider implementation of the Procedure to protect non-Aboriginal heritage sites outside the Project disturbance area – Refer to Section 8.2	Best Practice
EH_04	Further targeted archaeological investigation will be undertaken to record subsurface remains and infer the layout, occupants and activities of certain European heritage places	Infrastructure Department	Prior to commencement of Main Construction works	Further targeted archaeological investigation have been undertaken as part of preparatory activities and pre-construction works.	EIS Table 28-15
EH_05	Archival recording will be undertaken, including photographic records and measured drawings in their local context for future reference, having regard to the guidelines How to Prepare Archival Records of Heritage Items (NSW Heritage Office	Infrastructure Department	Prior to commencement of	Archival recording has been undertaken as part of preparatory activities and pre-construction works. Refer to the Western Sydney Airport – Archival record of	EIS Table 28-15

Ref.	Measure / Requirement	Responsibility	When to implement	How to Implement	Reference
	1998) and Guidelines for Photographic Recording of Heritage Items Using Film or Digital Captures (NSW Heritage Office 2006)		Main Construction works	European heritage items report (refer to Section 5.3.1)	
EH_06	An inventory of moveable items will be prepared to record information such as the location, designer, creator, use and owner of items such as tools of trade or machinery	Infrastructure Department	Completed	An inventory of moveable items has been prepared / completed by the Infrastructure Department. Western Sydney Airport – Archival record of European heritage items report (refer to Section 5.3.2.4)	EIS Table 28-15
EH_07	Cultural plantings will be investigated to identify and collect samples of plant varieties that have local or historic botanical significance, including plant varieties that are characteristic of the area or not otherwise broadly planted. A list of relevant identified plant species would need to be identified and consideration given to future landscaping (refer to the Visual and Landscaping CEMP). Other considerations include weed mitigation and not attracting birdlife.	WSA Co	Prior to commencement of Main Construction Works outside the EEW or Visitor Centre and Site Accommodation area.	Plantings to be assessed by appropriately experienced Arborist.	EIS Table 28-15
EH_08	Options will be explored for potential relocation of identified European heritage structures to preserve intact surface structures	Infrastructure Department	Completed	Badgerys Creek School bell was relocated and bequeathed to local School (Refer to the Archival Record of European Heritage Items Report for more information)	EIS Table 28-15
EH_09	Identified European heritage structures will be demolished in a staged and careful manner that reveals information about their construction, renovation, finishes and so on, which would be recorded	Infrastructure Department	Completed	Identified European heritage structures were demolished in a staged and careful manner.	EIS Table 28-15
EH_10	Protection of any subsurface items / structures not removed during the survey and salvage works for the heritage items, particularly items associated with the following (refer to Section 5): AS1 - Pennell's Property AS2 - Gardiner Road farm complex AS3 - Badgerys Creek Public School	WSA Co and Contractor	Prior to and during construction	The former location of identified heritage items are to be included on an ECM. Prior to works commencing in the vicinity of the former location of heritage items, all workers on site are to be informed of the potential presence of sub-surface items / structures that were not completely removed during the survey and salvage works. In the event of any potential heritage finds, the	Good practice

Ref.	Measure / Requirement	Responsibility	When to implement	How to Implement	Reference
	AS4 - Badgerys Creek butchery AS7 - Badgerys Creek Uniting Church and Cemetery AS8 – St Johns Anglican Church and Cemetery AS17 - Badgerys Creek Road Alignment			unexpected finds protocol is to be implemented.	
Cemeteries relocation					
EH_11	A Cemeteries Relocation Management Plan will be submitted for approval by the Infrastructure Minister or an SES Officer in the Department of Infrastructure and Regional Development prior to the disinterment (removal) and reinterment (relocation) of grave sites from the airport site.	Infrastructure Department	Completed	A Cemeteries Relocation Management Plan has been prepared and cemeteries have been relocated as part of preparatory activities	EIS Table 28-15
Heritage awareness					
EH_012	Heritage awareness training will be provided to all works involved in site preparation and construction of the proposed airport.	WSA Co and Contractor	Preparatory activities Pre-construction Construction	Undertake site heritage inductions	EIS Table 28-15
Unexpected finds					
EH_13	A procedure will be developed and followed in the event that European heritage items are discovered during construction.	WSA Co and Contractor	Pre-construction	A Procedure for Discovery of European Heritage Items during construction has been developed – Refer to Section 8.5	EIS Table 28-15
EH_14	Recognising the possibility of unmarked graves occurring, a procedure will be developed and followed in the event that human remains are discovered at the airport site during construction.	WSA Co and Contractor	Pre-construction	A procedure for discovery of human remains at Airport Site during construction has been developed – Refer to Section 8.5	EIS Table 28-15
Cultural significance of the airport site					
EH_15	An oral history will be prepared as measure to preserve the heritage value of the airport site. This could include descriptions and reminiscences by people closely associated with the site.	WSA Co and Contractor	Construction	A European oral history will be prepared.	EIS Table 28-15

Ref.	Measure / Requirement	Responsibility	When to implement	How to Implement	Reference
EH_16	The European and Other Heritage values of the site will be recognised in the detailed design of the airport, for example, through onsite archiving and curation of heritage items, and public display materials.	WSA Co and Contractor	As an ongoing and integrated consideration during the design development process.	Design development process.	EIS Table 28-15

8 European and Other heritage sites within the Project disturbance area

8.1 Procedure to protect European and Other heritage sites within the Project disturbance area

The boundaries of all known and unexpected finds heritage sites that are located within the construction footprint covered by this CEMP will be:

- Clearly marked with star pickets/or pegs and high visibility flagging tape or non-invasive fencing if there is potential for subsurface archaeological deposits to ensure that no impacts can occur to these sites;
- Included in site heritage inductions;
- Clearly marked on maps, with a description of the site and site coordinates available to all employees, contractors and sub-contractors as needed;
- Where sites cannot be identified or located, advice shall be sought from the Project archaeologist; and
- Heritage sites and fencing should be subject to weekly monitoring inspections by the site environmental officer. The location and condition of heritage sites and fencing should be compared to the locations identified within the CEMP to ensure that adequate management measures are being maintained.

8.2 Procedure to protect European and Other heritage sites outside the Project disturbance area

Where appropriate, the boundaries of heritage sites that are located outside of, but in close proximity to, the Stage 1 Development will be clearly marked with star pickets/pegs and high visibility flagging tape to ensure that no impacts will occur to these sites.

In addition, all employees, contractors and sub-contractors shall:

- Be made aware of the locations of these sites during site induction;
- Seek permission to travel across areas outside of the disturbance areas from the Site Manager
- Be provided within access to maps, with a description of the site and site coordinates available to all employees, contractors and sub-contractors as needed; and
- Where sites cannot be identified or located, advice shall be sought from the Project archaeologist.

8.3 Contingency plan if European and Other heritage items outside the approved disturbance area are damaged

In the event that heritage items outside of the Stage 1 Development are damaged, WSA Co's environmental incident management procedures will be implemented.

In accordance with clause 4-05 of the AEPR (Duty to give notice of cultural, etc discovery), if WSA Co discovers an object, species or ecological community that indicates that the site of the undertaking, or other work, is a site of previously unrecognised significance:

- (a) for local biota or the ecosystems and habitats of native species; or
- (b) of the kind mentioned in paragraph 132(1)(c) or (d) of the Airports Act;

Contractors will give notice to WSA Co and WSA Co will notify the airport environment officer.

If an incident occurs that results in actual or potential impacts on known heritage items and/or archaeological items that are discovered unexpectedly, the WSA Co Environment Manager will be notified immediately who

in turn will notify the Infrastructure Department in accordance with Section 8.5.1 and Section 8.5.2. Incident reporting and documentation should be made in accordance with Section 6 of the WSA Co SEMF and the WSA Co *Environmental non-conformance and improvement opportunity classification and reporting procedure* (see Section 13).

8.4 Photographic and archival recording of all European and other items of heritage significance that would be affected by the works

All heritage items (including any unexpected finds) within the Stage 1 Development will be photographed and recorded in accordance with the guidelines set out in the following documents:

- Historical Archaeology Code of Practice (Department of Planning, Heritage Office, 2006);
- How to prepare archival records of heritage items (NSW Heritage Office, 2009); and
- Heritage Information Series – Photographic Recording of Heritage Items Using Film or Digital Capture (Department of Planning, Heritage Office, 2006).

Any additional archival and photographic recording of heritage items shall be carried out by a qualified archaeologist.

8.5 Unexpected / Chance Finds Requirements

8.5.1 Procedure to follow in the event of the discovery of human remains

If any suspected human remains are discovered within the Project area, all activity will cease. The following process will be undertaken:

- Immediately cease all work at that location and not further move or disturb the remains;
- Notify the WSA Co Environment Manager as soon as practicable who in turn will immediately notify the Infrastructure Department and the Federal Police, providing details of the remains and their location;
- Establish a longer-term appropriate no-go area. This will need to be established in consultation with Federal Police and the Infrastructure Department, and if necessary, a qualified archaeologist;
- Works will not be able to recommence within the location of the find until confirmation from the Federal Police and the Infrastructure Department is obtained. If the remains are confirmed as not being human, then works may recommence. In the event that remains are human then consultation, with the Federal Police, the Infrastructure Department and relevant parties which may include Aboriginal stakeholders to establish a plan of management;
- Works in the vicinity of the find will only be able to commence once the plan of management has been established and approval has been obtained from all relevant parties;
- Should any human remains be identified, unless otherwise agreed by the Approver, this will trigger a review of this European and Other Heritage CEMP in accordance with Section 14.

8.5.2 Procedure to follow in the event of unexpected finds of European and Other Heritage significance

Where an item of potential European or Other Heritage significance is identified, an assessment will need to be made as to the significance of the item. Such items may include Archaeological 'relics' or other non-Aboriginal items (i.e. works, structures, buildings or movable objects). The *Heritage Act 1977* defines a relic as:

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

The following process should be followed with respect to unexpected items:

- Should any suspected European or Other Heritage significance be encountered during the works, works in the vicinity must cease immediately and the WSA Co Environment Manager notified, who in turn will notify the Infrastructure Department and the AEO to identify an appropriate plan of action;
- WSA Co in consultation with the Infrastructure Department will liaise with an appropriately qualified archaeologist for input into the appropriate plan of action and to advise of suitable mitigation / control measures to be implemented;
- It is likely that the archaeologist will investigate and assess the heritage item to determine the nature, extent and significance of the find. This will enable recommendations to be provided on how work can proceed and whether any further work is required. The archaeologist will supply written advice to the WSA Co Environment Manager detailing the following:
 - Determination of whether the find is a relic;
 - Advice on how the project is to proceed and identify the establishment of any no-go areas is necessary;
 - Recommendation on further works that may be required and timeframe for completion of these works; and
 - Appropriate Commonwealth and / or State level government stakeholders may need to be notified. This will include a statement concerning the find, management measures implemented and notification of any further works arising.

Where European and Other Heritage items have already been removed and additional items from known heritage items are considered likely (e.g. additional subsurface foundation from a heritage structure), these areas are to be marked on the Environment Control Map (ECM) and managed in accordance with the Unexpected Finds Procedure if items of potential heritage significance are discovered.

8.5.3 Greater Blue Mountains World Heritage Area

There is seven kilometres between the airport and the closest point of the Greater Blue Mountains World Heritage Area, and therefore it is not expected that construction of the airport would result in any direct or indirect impacts to the Greater Blue Mountains World Heritage Area.

A portion of the Greater Blue Mountains World Heritage Area fronts the Nepean River downstream of its confluence with Duncan's Creek. The Duncan's Creek catchment only covers approximately 11 per cent of the Airport Site and the best-practice water quality control measures proposed for construction of the airport site means there is very low potential to impact water quality in the creek and Nepean River. The remainder of the site discharges to the South Creek catchment which joins the Nepean River downstream of the Greater Blue Mountains World Heritage Area. Refer to the Soil and Water CEMP for more information.

9 Environmental roles and responsibilities

The key environmental management roles and responsibilities for the construction phase of the work are detailed in Section 4.5 of the SEMF.

WSA Co will ensure sufficient resources are allocated on an ongoing basis to ensure effective implementation by both WSA Co and the responsible contractors.

Specific responsibilities for the implementation of this European and Other Heritage CEMP are detailed in the next sections.

9.1 External roles and responsibilities

Environment Minister (or an SES employee in the Environment Department)

- The Approver for the Biodiversity Offset Delivery Plan.
- On 24 August 2018 the Approver approved the Biodiversity Offset Delivery Plan in accordance with Condition 30 of the Airport Plan.
- Required to be included in the consultation process for the Biodiversity CEMP and the Soil and Water CEMP (in accordance with Condition 35 of the Airport Plan).
- The Environment Department receives notification regarding publication of annual reports under condition 39 of the Airport Plan and copies of independent audits under condition 40 of the Airport Plan.

Infrastructure Minister (or an SES employee in the Infrastructure Department)

- The Approver for the Construction Plan, CEMPs, the Community and Stakeholder Engagement Plan and the Sustainability Plan
- Approval for variation of an Approved Plan; and
- Review other matters (excluding Biodiversity Offset Delivery Plan).
- The Infrastructure Department is also responsible for administering and enforcing the Airports Act.

Airport Environment Officer

The responsibilities of the Airport Environment Officer (AEO) include the following:

- Monitoring compliance with the AEPRs;
- Facilitate an understanding of the obligations of the AEPRs;
- Ensure the best possible outcomes are achieved;
- Complete site inspections to review monitoring requirements and completion of works;
- Review and comment on CEMPs, incidents, and remedial activities;
- Issue an environmental protection order in accordance with Part 7 of the AEPR; and
- Issue an infringement notice in response to an offence against the AEPR.

9.2 WSA Co roles and responsibilities

WSA Co Executive General Manager

Environmental responsibilities of the WSA Co Executive General Manager include (but are not limited to):

- Provide resources to ensure compliance with this CEMP is achieved;
- Mandate and ensure that environmental protection remains an integral element of all Project activities; and

- Authorise resourcing with regards to European and Other Heritage management.

WSA Co Environment Manager

The WSA Co Environment Manager is responsible for leading the planning, approvals and environmental function and is responsible for the ongoing requirements associated with the management of European and Other Heritage as follows:

- Coordinate and manage the preparation of the European and Other Heritage CEMP (this Plan) and associated documents / plans / procedures;
- Liaise regularly with the stakeholders and contractors on environmental matters routinely and as required;
- Coordinate ongoing training in environmental awareness for all levels of WSA Co staff as required to implement this European and Other Heritage CEMP;
- Ensure that an appropriate environmental induction and training program is developed such that personnel are aware of their environmental responsibilities under relevant legislation and the contract, including the requirements associated with European and Other Heritage management;
- Ensure compliance of Stage 1 development activities with this European and Other Heritage CEMP;
- Implement, maintain, monitor, report and advise the Executive General Manager on all environmental matters including those associated with European and Other Heritage management;
- Liaise with the Infrastructure Department Environment Manager on environmental issues, including the written notification of non-conformances;
- Monitor the implementation of all environmental management requirements as detailed in this Plan;
- Provide direction and guidance on implementation of this Plan to all levels of the Project, including to the contractors as required;
- Ensure project contractors comply with all relevant statutes, regulations, rules, procedures, standards and policies as detailed in this Plan;
- Ensure the timely review and assessment of environmental monitoring, auditing and inspection outcomes to ensure identification and implementation of continual improvement with regards to environmental management; and
- Overall reporting of the environmental performance of the Project.

WSA Co Site Environment Officer

The environmental responsibilities of the WSA Site Environmental Officer include (but are not limited to):

- Daily interaction and coordination with Project contractor representatives to ensure their environmental management requirements are discharged; and
- Work collaboratively with the WSA Co Environment Manager to ensure desired environmental outcomes are achieved.

9.3 Western Sydney Airport Delivery Partner roles and responsibilities

The Western Sydney Airport Delivery Partner is responsible for the coordination and management of contractors ensuring all necessary planning approvals and environmental management activities and documentation are undertaken in accordance with WSA Co requirements.

In summary, the environmental requirements of the Western Sydney Airport Delivery Partner in relation to European and Other Heritage management are as follows:

- Ensure that this European and Other Heritage CEMP is effectively implemented by the contractor as required;
- Ensure that the required monitoring and reporting, including environmental auditing, is undertaken and reported to WSA Co as required;
- Ensure that all necessary planning approvals, licenses and permits are obtained, as required by this European and Other Heritage CEMP, prior to commencement of applicable works;
- Liaise with the WSA Co Environment Manager on European and Other Heritage related issues, including the written notification of non-conformances;
- Participate in regular workplace inspections to ensure compliance;
- Provide direction and guidance on implementation of the European and Other Heritage CEMP; and
- Liaise between contractors and relevant government stakeholders as required and provide notification / information where environmental incidents / events have occurred.

9.4 WSA Co contractor roles and responsibilities

Contractor responsibilities

The responsibilities of the relevant contractor with regards to the management of impacts associated with European and Other Heritage are:

- Identify resources required for implementation of the European and Other Heritage CEMP;
- Report to the WSA Co Environment Manager as required to inform community and stakeholder notifications and to provide information where environmental incidents / events have occurred;
- Report to WSA Co Environment Manager (or delegate) on environmental performance monthly or at other times as necessary;
- Ensure that all personnel receive appropriate induction training, including details of the environmental obligations associated with European and Other Heritage management;
- Ensure suppliers and subcontractors comply with requirements regarding European and Other Heritage management;
- Undertake weekly inspections, ensuring all works comply with relevant regulatory and Project requirements, including European and Other Heritage management objectives;
- Provide other information as required from time to time, in order to demonstrate to WSA Co that environmental management requirements are being met by the contractor;
- Program toolbox talks and daily pre-start meetings to include any relevant European and Other Heritage management requirements;
- Report any activity that has resulted, or has the potential to result, in an environmental incident immediately to WSA Co Environment Manager;
- Stop activities where there is an actual or immediate risk of harm to the environment and advise WSA Co Environment Manager;
- Ensure steps are taken to rectify and prevent future incidents from occurring;
- Ensure that European and Other heritage management controls are properly maintained and effective; and
- Carefully select suppliers and subcontractors based upon their ability to meet stated requirements.

10 Environmental inspection, monitoring and auditing

Monitoring, inspection and auditing will be undertaken to measure effectiveness and facilitate continuous improvement of European and Other Heritage management.

General environmental monitoring, inspection and auditing requirements are summarised in Table 16 of the SEMF.

A summary of the environmental inspection, monitoring and auditing requirements is provided below, with details of how they apply to European and Other Heritage management where applicable.

10.1 Environmental inspections

Environmental site inspections will be undertaken by the WSA Co Environment Manager (or delegate) on a monthly basis to evaluate the effectiveness of environmental controls implemented by the contractor.

The monthly site inspection is to include a visual check of all European and Other Heritage management control measures, including but not limited to the following:

- Review of current work activities and the applicable ECMs to ensure that the former location of identified heritage sites have been shown and are being considered during the works, given the likely higher chance of 'Unexpected Finds';
- Adherence to the restricted access and any exclusion zones established for the protection of any areas / items of heritage significance; and
- Ensuring that all site works remain within the designated ClZ.

The findings of the WSA Co site environmental inspection will be recorded on a WSA Co *Site Environmental Inspection Checklist* with an accompanying photographic style inspection report.

Refer to Appendix C of the SEMF for further details with regards to completing the Site Environmental Inspection Checklist.

10.1.1 Contractor environmental inspections

Regular site inspections will be undertaken to monitor compliance with this Plan. Inspection results will be recorded, and the inspection log made available to the Infrastructure Department upon request. Any non-conformance or improvement opportunities associated with European and Other Heritage matters will be reported in the monthly report and discussed at the Environmental Coordination meeting.

More frequent site inspections by the person accountable for European and Other Heritage issues will be conducted onsite following the identification of any actual or potential unexpected finds.

10.1.2 Pre-start inspection

Prior to the commencement of works on each shift, an inspection will be carried out by the relevant contractor and will include a check of relevant environmental controls and resources required to ensure effective operation and maintenance. This is to include an inspection of relevant European and Other Heritage management mitigation measures and controls where applicable. Works are not to commence unless inspections are found to be satisfactory.

10.2 European and Other Heritage monitoring

General environmental monitoring requirements are set out in the AEPR and include the following:

- Monitoring must take place under the direction of an appropriately qualified person; and

- The results of the monitoring must be kept in a written record.

Specific European and Other Heritage monitoring requirements, including timing and responsibilities, are included in Table 20. One of the key monitoring requirements is compliance with unexpected finds protocol.

Table 20 European and Other Heritage monitoring requirements

Reference	Requirement	Timing	Responsibility
EH_M_01	Monitoring the effectiveness of European and Other Heritage management measures on site by way of observation of controls.	Pre-construction and during construction	WSA Co

Where a non-conformance or an improvement opportunity is identified, the non-conformance and improvement opportunity process described in Section 13 will be implemented.

10.3 Environmental auditing

Refer to Section 8.2 of the SEMF for environmental auditing requirements, including internal WSA Co audits, independent audits and audits to be undertaken by contractors.

10.4 Environmental reporting

General environmental reporting requirements are detailed in Section 8.3 of the SEMF. In addition, a summary of reporting requirements required under this European and Other Heritage CEMP (including environmental reporting requirements required under the Airport Plan specific to the European and Other Heritage CEMP) is provided in Table 21.

Table 21 European and Other Heritage management reporting

Action	Scope	Timing / Frequency	Responsibility
Annual reporting	Unless otherwise agreed in writing by an Approver, an annual report will be prepared and submitted to the Infrastructure Development in relation to compliance with the European and Other Heritage CEMP (Condition 39). In accordance with Condition 39 (2) WSA Co will publish each of the annual reports on its website within three months of the end of the period in respect of which the report was prepared, with evidence providing proof of the date of publication to the Infrastructure Department with a copy to the Environment Department. The report must remain on the website for a period of at least 12 months. An annual report is also required to be prepared and managed in accordance with section 6.03 of the AEPR.	As required	WSA Co Environment Manager
Compliance reporting	Undertaking monitoring as required by this European and Other Heritage CEMP. Contractor is to provide WSA Co with a monthly summary of all management measures / issues identified for the reporting period with regards to European and Other Heritage	Monthly	Contractor Environment Manager
Complaints reporting	Recording of complaints and stakeholder interactions	As required	WSA Co Environment Manager and WSA Co Community and

Action	Scope	Timing / Frequency	Responsibility
			Stakeholder Engagement Manager
Environmental Site Register (required under the 6.02(3) of the AEPR)	Environmental Site Register to be kept and maintained to include written record of environmental conditions of the Airport and its environmental management generally.	As required	All
General environmental inspection	Inspection of environmental management controls on site and sighting of site documentation as required by the WSA Co CEMP	At least monthly	WSA Co
General environmental inspection	Inspection of environmental management controls and site documentation as required by the WSA Co CEMP	At least weekly	Contractor

10.5 Environmental compliance tracking

In accordance with Condition 38 of the Airport Plan, a Compliance Tracking Program has been developed for the Project and is included in Appendix G of the SEMF. The Compliance Tracking Program will allow WSA Co to track compliance status with the conditions of the Airport Plan (and any other approval requirements) and demonstrate measures taken to implement the Approved Plan.

The Compliance Tracking Program will be used as a tool to inform the annual report (as detailed above in Table 21) and will be made available to the Infrastructure Department upon request as required. Refer to Section 8.3.2 of the SEMF for further details regarding the maintenance and implementation of the Compliance Tracking Program.

11 Competence, training and awareness

To ensure this European and Other Heritage CEMP is effectively implemented, each level of management is responsible for ensuring that all personnel reporting to them are aware of the requirements within. The WSA Co Environment Manager will coordinate the necessary and relevant environmental training in conjunction with other training and development activities.

All competence, training and awareness requirements will be implemented as detailed in the SEMF. A summary of these requirements is provided in the following sections.

11.1 Environmental Project induction

All Project personnel working on the Stage 1 Development (including sub-contractors) are required to attend a compulsory Project induction that includes an environmental component prior to commencement of works on site, which will include:

- Location of identified heritage sites will be mapped on an ECM;
- Management of heritage sites; and
- Unexpected finds protocol.

Short-term visitors to site for purposes such as deliveries will be required to be accompanied by inducted personnel at all times. A visitors' induction will also be undertaken for visitors onsite for short periods as agreed with the WSA Co Safety Manager.

The WSA Co Environment Manager (or delegate) will be responsible for providing the environmental component of the Project inductions, ensuring that the environmental management requirements of this Plan are incorporated.

A WSA Co Induction and Training Register will be maintained at all times including the details of all personnel who have completed the WSA Co Project induction and any other pertinent environmental training and or awareness forums (workshops, presentations etc.).

11.2 Contractor specific site inductions

In addition to the WSA Co Project induction, contractors will develop and implement their own environmental training and induction program relevant to their scope of works. A record of all environment inductions is to be maintained by the contractor and provided weekly to WSA Co.

11.3 Toolbox talks, training and awareness

Toolbox talks or similar will be one method of raising awareness and educating personnel on issues related to aspects of construction including environmental issues. The toolbox talks are used to ensure environmental awareness continues throughout construction.

Toolbox attendance is mandatory and attendees of toolbox talks are required to sign an attendance form and the records maintained as part of the Induction and Training Register.

Environmental issues associated with European and Other Heritage management to be considered for toolbox talks may include (but are not limited to):

- Existence and requirements of this plan;
- Relevant legislation;
- Roles and responsibilities for heritage management;
- Location of identified heritage sites;

- Proposed heritage management and protection measures;
- Procedure to follow in the event of an unexpected heritage item find during construction works; and
- Procedure to follow in the event of discovery of human remains during construction works.

For activities with high environmental risk (as identified through the risk assessment process undertaken as part of the CEMP), targeted environmental awareness training is to be provided.

The WSA Co Environment Manager will establish a schedule of environmental training.

11.4 Daily pre-start meetings

The pre-start meeting is a tool for informing the workforce of the day's activities, safe work practices, environmental protection practices, work area restrictions, activities that may affect the works, coordination issues with other trades, hazards and other information that may be relevant to the day's work.

Specifically, with regards to this WSA Co European and Other Heritage CEMP, the daily pre-start forum can be used as an opportunity to discuss the following:

- Proposed heritage management and protection measures; and
- The need for dedicated European and Other Heritage management measures.

12 Communications and complaints management

All communications and complaints management will be implemented and managed in accordance with Section 7 of the SEMF.

12.1 Complaints management

A Complaints and Enquiries Procedure, consistent with AS 4269: Complaints Handling, has been developed for the work, in accordance with the requirements of Condition No. 15 (Airport Plan, Section 3.10.2).

All community inquiries and complaints related to the construction activities will be referred to the 24-hour community information line (1800 972 972). A postal address ((PO BOX 397 Liverpool NSW 1871) and email address (info@wsaco.com.au) has been provided for receipt of complaints and enquiries. The telephone number, the postal address and the email address will be published in newspapers circulating in the local area prior to the commencement of construction and is provided on the Project website.

The community and stakeholder engagement team will take the lead in responding to complainants. Attempts will be made to resolve all complaints in accordance with the Community and Stakeholder Engagement Plan. Timeframes for initial responses to complaints are outlined below.

- Telephone complaints received during work hours will be provided a response within two hours. Complaints received outside of works hours will be provided a response within two hours of the next working day; and
- Email and postal complaints will be responded to within two (2) business days of receipt

The aim is to resolve the complaint at the first point of contact, by providing a solution or negotiating an agreed course of action. The complainant will be provided updates on the progress of their complaint and a written response will be provided within ten working days if the complaint cannot be resolved by the initial or follow-up verbal response.

The community contacts database will be used as a complaint register. The database will be used to record, track and respond to complaints efficiently. Information on all complaints received, the means by which they were addressed and whether resolution was reached with or without mediation shall be included in the construction compliance reports.

The WSA Co Environment Manager in consultation with the relevant contractor where required, will apply an adaptive approach to ensure that corrective actions are applied in consultation with the appropriate construction staff to allow modifications and improvements in the management of any environmental.

12.2 Community and stakeholder communication

Construction of the Stage 1 Development will involve a number of interactions with local residents, local councils and NSW Government agencies, among others. To ensure a consistent approach with regards to community and stakeholder management, WSA Co has developed a Community and Stakeholder Engagement Plan to address broader stakeholder engagement objectives during construction and to coordinate engagement activities for all environmental management issues during construction. For further detail with regards to community and stakeholder engagement, refer to Section 7.3 of the SEMF.

13 Environmental incidents, non-conformance and improvement opportunities

The management and reporting requirements of environmental non-conformances and improvement opportunities will be in accordance with Section 8.1 of the SEMF. The management and reporting of environmental incidents shall be undertaken by the appropriate person as detailed in Section 6 of the SEMF.

It should be noted that the management and reporting requirements associated with major accidents and emergency situations (for example a major chemical or hydrocarbon spill, fuel storage tank failure, surface fires, sediment basin failure) should be undertaken in accordance with the WSA Co Emergency Preparedness and Response Procedure.

14 Review and improvement

14.1 Continuous improvement

Continuous improvement of this plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement. This process is detailed in Section 9 of the SEMF.

The continuous improvement process will be designed to:

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

14.2 Change management

Further refinements to the Stage 1 Development may result from detailed design refinement or changes identified during the construction phase of the works. Any design changes or changes in scope of works will be communicated to the WSA Co Environmental Manager.

WSA Co would be responsible for assessing any potential inconsistencies with the Airport Plan and formally seeking approval from the Infrastructure Minister for any project modifications as required, prior to commencement of the scope of works in question.

14.3 Variation of approved plans

WSA Co will seek approval for variation of an Approved Plan from the Infrastructure Minister or an SES Officer (SES employee under the *Public Service Act 1999*) in the Infrastructure Department by submitting a version of the plan with the proposed variation clearly marked. All variations to an Approved Plan must be approved in accordance with Condition 41 of the Airport Plan. As each package of work is developed the SEMF and associated CEMPs documents will be reviewed and where applicable updated to ensure the environmental aspects of the work package are managed. Where necessary the document will be updated and submitted for approval in accordance with the Airport Plan prior to the work commencing. A copy of the updated plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure, including update of the publicly available copy of the document on the Project website.

The Infrastructure Minister or an SES Officer in the Infrastructure Department may vary an Approved Plan or request WSA Co prepare and seek approval for a specified variation if the Infrastructure Minister or an SES Officer in the Infrastructure Department believes on reasonable grounds that:

- A Condition has been contravened and the nature of the contravention is relevant to the subject matter of the Approved Plan;
- The variation will address the contravention; and
- WSA Co will comply with any such request within three months.

14.4 Review of approved plans

WSA Co will review each approved plan at least every five years (from the date of approval) as required by the Airport Plan. A review will also be completed annually to ensure that it continues to meet the approval criteria. Details of the review will be included in the annual report (refer to Section 8.3 of the SEMF). If the review identifies areas where the plan does not continue to meet the approval criteria for that plan, a variation to the approved plan will be prepared and submitted for approval.

WSA Co may initiate reviews of Approved Plans at other times in response to improvement opportunities, non-conformances changes to scope of work or construction methodology; or alterations to legal or contractual requirements.

Any changes identified and implemented through the variation and review process identified above will be communicated to Relevant Contractors through re-issue of the revised WSA Co Approved Plan and subsequent training and awareness (refer to Section 5 of the SEMF).

15 **References**

Commonwealth Department of Infrastructure and Regional Development, 2016. *Airport Plan (December 2016)*

Commonwealth Department of Infrastructure and Regional Development, 2016. *Western Sydney Airport Environmental Impact Statement, 2016*

Standards Australia 2001. *Australian and New Zealand environmental management international standard (AS/NZS ISO 14001)*

Appendix A

European and Other Heritage CEMP Consultation

A1 Stakeholder consultation – NSW Office of Environment and Heritage

Table A1 NSW Office of Environment and Heritage CEMP consultation summary

Input	Response / where addressed
Consultation prior to Rev 0 approval	
<p>A response to an invite for comment on the European and Other Heritage CEMP was received from NSW Office of Environment and Heritage (NSW OEH) on 26 July 2018. The relevant comments were addressed and considered in the preparation of the CEMP. Details with regards to how the NSW OEH comments were addressed are provided below.</p> <p>A letter acknowledging receipt of the review comments from NSW OEH and how the comments (if applicable) were addressed was prepared and issued from WSA Co to NSW OEH in September 2018.</p>	
<p><i>Heritage Division note there is archaeological potential at the proposed Western Sydney Airport Site and this isn't reflected in the CEMP under 'European and Other Heritage CEMP'.</i></p>	<p>Noted.</p> <p>The CEMP includes Section 5 – <i>Existing Environment</i>, which summarised both areas of known and potential archaeological potential.</p> <p>Section 7 – <i>Environmental control measures</i>, includes the need to undertake further targeted archaeological investigation which has now been completed and a summary of the findings has been included in Section 5.3 of the CEMP.</p> <p>Section 8.5 of the CEMP includes an unexpected finds procedure for the management of any known or potential items of European or other heritage significance.</p>
<p><i>It would be appropriate to recommend the CEMP also include:</i></p>	<p>Noted</p>
<p><i>Reference to how the project will manage disturbance to the Historical Archaeological Relics which may be disturbed etc by the proposed development activity.</i></p> <p><i>This may include, e.g. input in the CEMP around historical archaeology including provisions to ensure the project will following any approved Historical Archaeological Research Design and Excavation Methodologies prior to any ground disturbance works on site. This would ensure any relics are appropriately managed prior to harm.</i></p> <p><i>These works should be undertaken by appropriately experienced historical archaeologists under the direction of an Excavation Director.</i></p>	<p>Section 7 – <i>Environmental control measures</i>, includes the need to undertake further targeted archaeological investigation which has now been completed and a summary of the findings has been included in Section 5.3 of the CEMP.</p> <p>Section 8.5 of the CEMP includes an unexpected finds procedure for the management of any known or potential items of European or other heritage significance.</p>
<p><i>The CEMP would also outline how the project will ensure these processes are undertaken prior to bulk excavation works commencing.</i></p>	<p>Noted.</p> <p>This CEMP has addressed specifically in: Section 7 – <i>Environmental control measures</i> Section 8 – <i>European and Other heritage management</i></p>
<p><i>The EPA provided advice in 2016 regarding environmental objectives during the exhibition of the Environmental Impact Statement.</i></p> <p><i>As a general recommendation, the CEMP should outline the measures that will be implemented to manage and mitigate all impacts assessed during the Environmental Impact Statement. All proposed mitigation and management measures in the CEMP should implement best practice to a level that is feasible</i></p>	<p>All CEMP documentation includes measures that will be implemented to manage and mitigate identified impacts assessed during the Environmental Impact Statement.</p> <p>Risk assessment approach has been adopted for the implementation of the CEMP documentation, with linked reference to applicable mitigation measures and controls as required under the Airport Plan (and</p>

Input	Response / where addressed
<i>and reasonable and clearly demonstrate how the proponent will meet the designated environmental objectives.</i>	EIS) in addition to known implementation of a 'best-practice' approach.
<i>There should also be confirmation of requirements following the cessation of the archaeological fieldwork such as analysis of the resulting archaeological assemblage and preparation of a final report. This should be undertaken by the Excavation Director and a copy lodged with the Heritage Council of NSW library.</i>	Section 7 – <i>Environmental control measures</i> , includes the need to undertake further targeted archaeological investigation which has now been completed and a summary of the findings has been included in Section 5.3 of the CEMP.
<i>The CEMP should also have clear advice on how to manage unexpected heritage items or archaeological finds of significance (i.e. relics). There may be notification requirements under s.146 of the Heritage Act 1977 that still apply should any significant relics be identified during works. If so, these requirements should be clearly expressed in the CEMP.</i>	Section 8.5 of the CEMP includes an unexpected finds procedure for the management of any known or potential items of European or other heritage significance.
<i>If there are any historic cemeteries which are proposed for removal and movement to a new location to enable the proposed activity, the management of the human remains and any grave fabric should also be outlined in the archaeological documents (identified above) if they are assessed as retaining significance. This may also require advice in the CEMP about how the project will work in tandem with requirements which exist under the Health Act and Regulation in NSW regarding the removal and reburial of human remains.</i>	All cemetery relocations have been undertaken in accordance with the approved <i>Cemeteries Relocation Plan</i> . A summary of the cemetery relocation work undertaken on the site has been included in the CEMP in Section 5.3.1.
<i>The CEMP should include a protocol for ensuring that the necessary approvals have been obtained under the EP&A Act and the Heritage Act 1977, if required, prior to any work being carried out on site.</i>	Covered in Sections 4, 7 and 8 of the CEMP.
<i>The CEMP should identify any significant built or landscape heritage elements that are required to be retained in the overall development and include a protocol to protect them during the construction phase.</i>	Covered in Section 5 of the CEMP, with appropriate mitigation measures and controls included in Section 7.
<i>The CEMP should also include a need for all workers to be briefed as part of their site induction to acknowledge the presence of such heritage elements and the protocol to protect them.</i>	All training and induction requirements are included in Section 11 of the CEMP – <i>Competence, training and awareness</i> .
Consultation prior to Rev 1 approval	
A request to provide comments on the CEMPs (Revision 0) was submitted to the NSW Department of Premier and Cabinet (DPC) on 30th October 2018. The request included an outline of the Visitor Centre and Site Accommodation phase and Material Importation phase. No response to the invitation for comment on the European and Other Heritage CEMP was received from the Office of Environment and Heritage as noted below.	
<i>Comments received for Biodiversity CEMP and Soil and Water CEMP only. No further consultation received for this European and Other Heritage CEMP.</i>	Noted. Ongoing consultation to be undertaken in accordance with Section 1.5 of the European and Other Heritage CEMP and the Community and Stakeholder Engagement Plan.

A2 Stakeholder consultation – Liverpool City Council

Table A2 Liverpool City Council consultation summary

Input	Response / where addressed
Consultation prior to Rev 0 approval	
<p>A response to an invite for comment on the CEMP documentation was received from Liverpool City Council on 27 July 2018 which did not contain any specific comments relating to the preparation of the European and Other Heritage CEMP. This is reflected below.</p> <p>A letter acknowledging receipt of the review comments from Liverpool City Council for the overall CEMP documentation and how the comments (if applicable) were addressed was prepared and issued from WSA Co to Liverpool City Council in September 2018.</p>	
No comments related to European and Other Heritage were provided.	Ongoing consultation to be undertaken in accordance with Section 1.5 of the European and Other Heritage CEMP and the Community and Stakeholder Engagement Plan.
Consultation prior to Rev 1 approval	
<p>A request to provide comments on the CEMPs (Revision 0) was submitted to Liverpool City Council on 30th October 2018. The request included an outline of the Visitor Centre and Site Accommodation phase and Material Importation phase.</p> <p>There were no responses received from Liverpool City Council as noted below.</p>	
No comments related to the European and Other Heritage CEMP were provided.	Ongoing consultation to be undertaken in accordance with Section 1.5 of the European and Other Heritage CEMP and the Community and Stakeholder Engagement Plan.

A3 Stakeholder consultation – Penrith City Council

Table A3 Penrith City Council consultation summary

Input	Response / where addressed
Consultation prior to Rev 0 approval	
<p>A response to an invite for comment on the CEMP documentation was received from Penrith City Council on 24 July 2018 which did not contain any specific comments relating to the preparation of the European and Other Heritage CEMP. This is reflected below.</p> <p>A letter acknowledging receipt of the review comments from Penrith City Council for the overall CEMP documentation and how the comments were addressed (if applicable) was prepared and issued from WSA Co to Penrith City Council in September 2018.</p>	
No comments related to European and Other Heritage were provided.	Ongoing consultation to be undertaken in accordance with Section 1.5 of the European and Other Heritage CEMP and the Community and Stakeholder Engagement Plan.
Consultation prior to Rev 1 approval	
<p>A request to provide comments on the CEMPs (Revision 0) was submitted to Penrith City Council on 30th October 2018. The request included an outline of the Visitor Centre and Site Accommodation phase and Material Importation phase.</p> <p>There were no responses received from Penrith City Council as noted below.</p>	
No comments related to European and Other Heritage were provided.	Ongoing consultation to be undertaken in accordance with Section 1.5 of the European and Other Heritage CEMP and the Community and Stakeholder Engagement Plan.