Western Sydney Airport

Construction Plan – Stage 1 Development

December 2018

Western Sydney Airport

Document Control

File Name	Document Name	Revision
WSA00-BECHTEL-00000-CN-PLN-000001	Western Sydney Airport Construction Plan	1

Revision History

Revision	Date	Description	Author	Reviewer
0	24/09/2018	Approved	WSA Co	S Grant
0.1	07/11/2018	Draft updated for Visitor Centre and Site Accommodation phase and Material Importation phase	WSA Co	S Grant
0.2	21/11/2018	Draft updated to address comments on Visitor Centre and Site Accommodation phase and Material Importation phase	WSA Co	S Grant
0.3	07/12/2018	For approval	WSA Co	S Grant
1	14/12/2018	Revision update for Visitor Centre and Site Accommodation phase and Material Importation phase	WSA Co	S Grant

Plan Authorisation

Position	Name	Signature	Date
Construction Manager	S Grant		07/12/2018

Glossary and Definitions

Item	Definition
ACM	Asbestos Containing Material
AEPR	Airports (Environment Protection) Regulations 1997
AGL	Aeronautical Ground Lighting
AHD	Australian Height Datum
Airport Lease	An airport lease for the Airport granted under section 13 of the Airports 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 by the Airports Act.
Airports Act	Airports Act 1996 (Cth)
Ancillary Developments	An 'ancillary development' as set out in section 96L of the Airports Act
Approved Plan	Means a plan approved in accordance with the Conditions of Approval
ARFF	Airport Rescue and Fire Fighting
ASL	Airport Site Layout
ASS	Acid Sulphate Soil
ATC	Air Traffic Control
AWS	Automatic Weather Station
BBM	Bituminous Bound Material
BoM	Bureau of Meteorology
CAP	Construction Area Plan
CEMP	Means a Construction Environmental Management Plan (CEMP) required under a condition in Section 3.10.2 of the Airport Plan
Condition	A condition set out in Part 3 of the Airport Plan in accordance with section 96C of the Airports Act
Construction Impact Zone (CIZ)	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.
Construction Period	Means the period from date of commencement of Main Construction Works in any part of the Airport Site until the date of commencement of Airport Operations.
CSEP	The Community and Stakeholder Engagement Plan (CSEP) required under Condition 15 in Section 3.10.2 of the Airport Plan
CSR	Combined Services Route
DICL	Ductile Iron Concrete Lined

Item	Definition
DoEE	Australian Government Department of the Environment and Energy
DPI	Department of Primary Industries (including Agriculture NSW, Fisheries NSW and NSW Office of Water)
EC	Environmental Conservation
ECM	Environmental Control Map
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	Early earthworks
Environment Minister	The Minister responsible for the EPBC Act.
EIS	The Environmental Impact Statement (EIS) prepared in relation to the Airport under the EPBC Act
EP&A Act	Environmental Planning and Assessment Act 1979 (NSW)
EPA	NSW Environment Protection Authority
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Cth)
ERSED	Erosion and Sediment
ESA	Environmentally Sensitive Area
ESCP	Erosion and Sediment Control Plan
EWMS	Environmental Work Method Statement
FDA	Full Depth Asphalt
FOC	Fibre Optic Cable
GBAS	Ground Based Augmentation System
Infrastructure Minister	The Minister responsible for the Airports Act from time to time
ISO 14001	AS/NZS ISO 14001:2015 Environmental management systems
LDP	Land Disturbance Permit
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.
MEP	Mechanical electrical plumbing
Non-conformance	Failure to conform to the requirements of the Airport Plan including approved plans.
OEH	Office of Environment and Heritage (NSW)
PCC	Portland Cement Concrete
PESCP	Progressive Erosion and Sediment Control Plan
PPE	Personal Protective Equipment

Item	Definition
Preparatory Activities	Preparatory Activities, as defined in the Airport Plan, mean the following: 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: 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 any other activities which an Approver determines are Preparatory Activities for this definition
Project, the	Western Sydney Airport – Stage 1 Development
RAP	WSA Co Limited Western Sydney Airport Remediation Action Plan prepared by GHD dated February 2018
RMS	NSW Roads and Maritime Services
SEMF	Site Environmental Management Framework
SES Officer	An SES employee under the Public Service Act 1999 (Cth)
Stage 1 Development	The Airport development described in Part 3 of the Airport Plan
SWMS	Safe Work Method Statement
VMS	Variable Message Boards
WAD	Works Authorisation Deed

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Appendix 1 Construction Plan Compliance with Airport Plan

Appendix 2 Site Environmental Management Framework

1 Introduction

This Construction Plan (CP) has been prepared by WSA Co in support of the Stage 1 Development of the Western Sydney Airport and outlines a range of safety, health, traffic and environmental considerations. The purpose of this CP is to comply with Condition 1 of the Airport Plan, which is the authorising document for the Stage 1 Development determined by the Infrastructure Minister in December 2016 (refer to Appendix A with regards to the compliance of this Construction Plan with the relevant conditions of the Airport Plan). As outlined in section 3.10.2 of the Airport Plan, "*The Site Occupier must not commence Main Construction Works until a Construction Plan for the Airport Site and Associated Sites has been prepared and approved in accordance with this condition*." This document sets out:

- The program and timetable for carrying out the Stage 1 Development;
- Details of the construction methodology to be used for carrying out the stage 1 Development;
- Any proposal to phase commencement of Main Construction Works in different parts of the Airport Site or Associated Sites at different times;
- Details, not inconsistent with the Land Use Plan in Part 2 of the Airport Plan, of the size and location of the parts of the Airport Site or an Associated Site on which Main Construction Works are planned to occur; and
- Seeks to avoid or minimise, to the extent reasonably practicable, impacts on parts of the Airport Site that have important biodiversity values that are outside of the indicative Construction Impact Zone (CIZ).

WSA Co and its contractors are committed to engaging with the local community, Penrith and Liverpool Councils, NSW and Commonwealth Government agencies, and other stakeholders as the Western Sydney Airport is delivered. The Community and Stakeholder Engagement Plan (CSEP) outlines WSA Co's commitment to engaging with the community stakeholders in an open, inclusive, accessible and timely manner throughout the planning and delivery of this project. The Site Environmental Management Framework (SEMF) (refer Appendix 2) is WSA Co's overarching environmental management document to support the implementation of the nine CEMPs and associated sub plans.

The Main Construction Works will be completed in phases and this CP will be updated to reflect tasks associated with the different phases. The detailed construction methodology associated with the Early Earthworks (EEW) phase of the project and the Visitor Centre and Site Accommodation Works is covered in Section 6 of this document. In accordance with condition 41 of the Airport Plan, updates to the CP will be submitted to the appropriate regulatory authority for approval.

1.1 Background

In April 2014 the Australian Government announced that the Commonwealth-owned land at Badgerys Creek would be the site for a second Sydney Airport. The Badgerys Creek airport site was selected following extensive studies completed over a number of decades. The Commonwealth will invest $5.3 billion for the construction of Western Sydney Airport.

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. 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. WSA Co is wholly owned by the Commonwealth. Further details regarding WSA Co, including details in relation to the chairman and board, can be found online at the WSA Co website (www.wsaco.com.au).

An Environmental Impact Statement (EIS) was prepared in accordance with the Commonwealth Environmental Protection and Biodiversity Conservation (EPBC) Act and Airports Act. The EIS considered potential impacts during construction activities and operation of the Stage 1 Development and long-term development of the proposed airport.

1.2 Stage 1 Development

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 3.7-kilometre runway located in the north-western portion of the Airport Site, a terminal and other support facilities to provide for an anticipated operational capacity of approximately 10 million regional, domestic and international passengers per year, as well as freight traffic.

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;
- Visitor Centre and Site Accommodation;
- Drainage and utilities infrastructure; and
- Car parking, on-site roads and other appropriate landside facilities.

Construction of the Stage 1 Development represents a major greenfield development with complex delivery using multiple contractors working across a range of specialist services. The area that will be directly impacted by construction (the CIZ) covers approximately 1,199.1 hectares.

Construction activities for the Stage 1 Development will involve:

- Site preparation activities including the clearing and earthworks elements of the Main Construction Works. The earthworks will include relocation of around 1.9 million cubic metres of topsoil and 22 million cubic metres of subsoil and rock to create a level site for the Stage 1 Development;
- Aviation infrastructure activities such as construction of the runway, taxiways, apron areas, internal road network, the terminal complex, Ground Based Augmentation System (GBAS) facility, freight, cargo and maintenance facilities and a fuel farm; and
- Site commissioning activities at the completion of the aviation infrastructure activities, involving testing and commissioning of all facilities in readiness for the operation of the proposed airport.

Further, a range of existing infrastructure located on the Airport Site is incompatible with the proposed airport and will need to be removed and/or relocated. These assets include a section of The Northern Road, a TransGrid 330 kV transmission line, telecommunication and electricity distribution lines and water mains, as well as existing dams.

1.3 Proposed Activity Location

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. Figure 1-1 shows the location of the Airport Site.

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.

Figure 1-1 Airport Site Location (Commonwealth, 2016)

2 Works Description

2.1 Phasing of Works

Sequencing of the Main Construction Works will allow construction packages to be performed concurrently, resulting in schedule benefits for the project. Major phases of construction activities for the Stage 1 Development are described in detail in the following sections. Table 2-1 provides a list of construction packages, projected construction start dates, and a rough estimate of the earthworks volume for packages with significant earthworks scope. Cut and fill volumes are not provided for Packages P1-C, P2 and P3 as earthworks quantities are minimal.

Table 2-1 Phasing of Works

Construction Package	Area (ha.)	Projected Construction Start	Approximate cut (million cubic metres bulked)	Approximate fill (million cubic metres solid)	Cut/fill balance* (million cubic metres)
Preparatory Activities	-	Aug 2018			
Early Earthworks (EEW)	120	Sept 2018	1.67	1.77	-0.10
Visitor Centre and Site Accommodation	3.2	Nov 2018	-	-	-
Material Importation	12.5	Apr 2019	-	-	-
Bulk Earthworks & Drainage (P1-A)	527	Sept 2019	12.22	11.94	0.28
Bulk Earthworks & Drainage (P1-B)	560.9	Aug 2020	10.03	9.65	0.38
Runway Pavement / Airside Civil (P1-C)		Apr 2021	-	-	-
Passenger Terminal Complex (P2)		May 2022	-	-	-
Landside Civil & Buildings (P3)		Feb 2022	-	-	-
Total	**1,199.1**		**23.92**	**23.36**	**0.56**

* cut/fill balance numbers shown are high-level estimates and will be refined further as design evolves

The earthworks quantities shown in Table 2-1 and used throughout the Construction Plan provide the best estimate available based on current surveys and geotechnical data. This may be subject to change pending conditions encountered during the earthworks. Earthworks design will be developed to achieve a neutral cut-fill balance for in-situ materials. This approach is consistent with the EIS. For more information about management of bulk earthworks, refer to section 5.4.2.

Figure 2-1 below shows the indicative split between some of the Stage 1 Development construction packages described in Table 2-1. This split will be refined over time as the design evolves. The Passenger Terminal Complex (P2) is unlabelled and shown as a shaded area. The Landside Civil & Buildings (P3) package is not shown in the exhibit. Refer to Section 6 for more detailed illustrations of the Visitor Centre and Site Accommodation Works and Early Earthworks construction footprints.

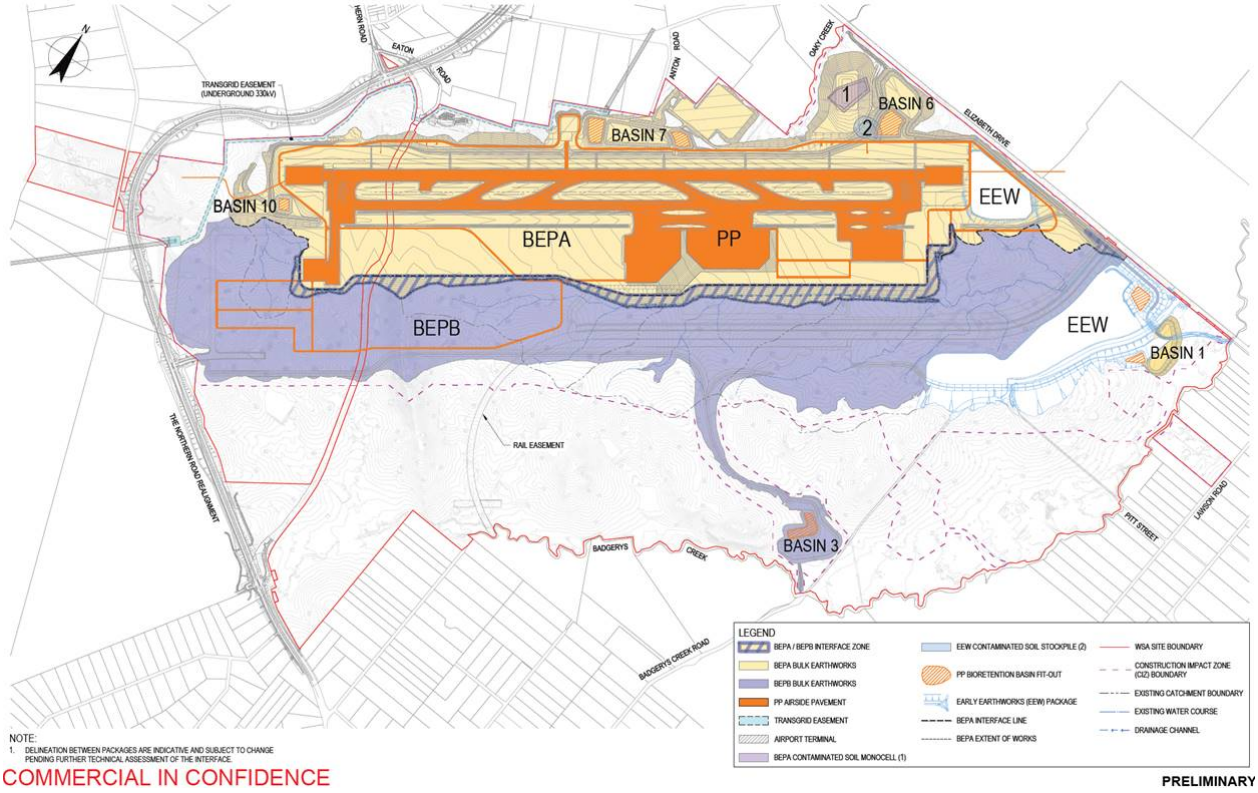

Figure 2-1 Indicative Package Split (GHD, 2018)

2.1.1 TransGrid Relocation Works

The Main Construction Works are defined as "substantial physical works on a particular part of the Airport Site described in Part 3 of the Airport Plan, other than TransGrid Relocation Works or Preparatory Activities." The TransGrid Relocation Works were authorised by the Airport Plan determined on 5 December 2016, following finalisation of the WSA Project EIS (dated September 2016). The Relocation Works are currently underway and involve the conversion of the overhead transmission lines to an underground system along an alternative alignment. Further detail about scope, project status and construction methodology can be found in the TransGrid Relocation Plan available on TransGrid's website.

2.1.2 Preparatory Activities

Preparatory Activities will be ongoing across the Airport Site throughout the Stage 1 Development. These activities include:

- Spatial Surveys;
- 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 access roads and infrastructure;
- Remediation works including establishment of stockpiles;
- Construction of temporary sediment basins and installation of erosion and sediment controls; and

- Other activities which an Approver determines are Preparatory Activities.

2.1.3 Early Earthworks (EEW)

EEW will comprise earthworks of a discreet section at the north of the Airport Site, in order to prepare it for commencement of the Bulk Earthworks and Airside Civil Works in that area. Section 6 provides a detailed Construction Plan to support the EEW construction activities.

2.1.4 Visitor Centre and Site Accommodation

WSA Co will construct a Visitor Centre to engage with the community and provide an identity for the airport early in the planning process. WSA Co will also construct site accommodation on the same site, to provide office facilities for WSA Co staff and consultants for the duration of the airport design and construction period.

Section 6.11 of this Construction Plan provides details on the scope of work and construction activities planned for the Visitor Centre and Site Accommodation Works.

2.1.5 Material importation

As part of the construction of the Stage 1 Development, imported material that satisfies specification for use as sub-base/capping material, as well as the Waste and Resources CEMP requirements, will be brought to the airport site and stockpiled within the early earthworks area. The material is required for placement during the development of the site. Material importation will commence in early 2019, refer to Table 2-2 for staging. To make the most of opportunities to 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 process outlined in Section 10 of the Noise and Vibration CEMP for assessment and management of these works will be applied prior to commencement.

Table 2-2 Construction staging – Material importation

Construction staging	Indicative Timing
Material importation	
• Haulage of sub-base and capping material to site	April 2019 – December 2020

2.1.6 Bulk Earthworks & Drainage (P1-A and P1-B)

The major earthworks and airside civils works have been split into three packages – Package 1A (P1-A), Package 1B (P1-B) and Package 1C (P1-C). This is a result of market feedback and WSA Co's objective of broaden the number of eligible tendering parties, driving better value for money for the project. The package split shown in Figure 2-1 is indicative and will be refined through the procurement process. Works within these packages will include the following:

- Decontamination of Airport Site (other than EEW Site);
- Construction of on-site containment cell to manage asbestos contaminated soils and other contaminated material;
- Bulk Earthworks, including approximately 22 million cubic metres of cut and fill between the two packages; and
- Trunk drainage infrastructure to safely and efficiently manage rainfall runoff from the developed parts of the Airport Site.

2.1.7 Runway Pavement / Airside Civil (P1-C)

The indicative Runway Pavement / Airside Civil Works scope includes the delivery of:

- Runway construction, which must be 3,700 metres in length with Code F capability;

- Construction of a single full-length parallel taxiway, taxiway system and apron taxi lanes designed to facilitate the safe and efficient movement of aircraft;
- Airside roadways, including perimeter roads, airside roads and other roads required for efficient movement of vehicles and the safe inspection and maintenance of all Airport Site infrastructure;
- Security fencing, including civil works provisioning for services such as CCTV, lighting, communications and power; and
- Civil works provisioning for utilities and services required for the operation of the Airport.

2.1.8 Passenger Terminal Complex (P2)

The Passenger Terminal Complex Works scope includes the delivery of a multi-storey international and domestic terminal which is integrated with all ground transport and will be located between the Stage 1 runway and future second runway site. Although the Airport Plan allows for a floor area up to 90,000 square metres, the terminal will have approximately 80,000 square metres of floorspace and must include:

- kiosk, bag drop, security, emigration/immigration (citizen, noncitizen and smart gates), quarantine inspection services, baggage handling facilities, baggage claim (including inbound baggage offload belts), security screening, departure lounges, commercial tenant areas, back of house facilities and car rental facilities;
- capacity for dedicated retail services and currency exchange, including food and beverage services (and the associated infrastructure for storage, back-up facilities, goods delivery access, logistics and security screening); and
- information technology, baggage handling, security and surveillance and all other systems required to effectively support efficient airport processes and operations.

Specialty works included in Package 2 include aircraft stands, ramp areas, aircraft engine start points, apron areas, roads, taxiway and taxi lanes not already included in the scope of the Bulk Earthworks and Airside Civil Works.

2.1.9 Landside Civil & Buildings (P3)

The indicative Landside Civil and Building Works scope includes the delivery of:

- Landside roadways within the Airport Site;
- Car parking facilities;
- Ground transport including drop-off/pick-up facilities, a main access corridor, commercial access road connecting The Northern Road to the maintenance precincts, pedestrian and cyclist access;
- Public transport facilities and access to the terminal, ground transport and commercial precincts;
- Support facilities to enable catering activities, aircraft maintenance and washing; and
- Utilities upgrades.

2.2 Indicative construction schedule

The indicative construction schedule for the Stage 1 Development is summarised Figure 2-2.

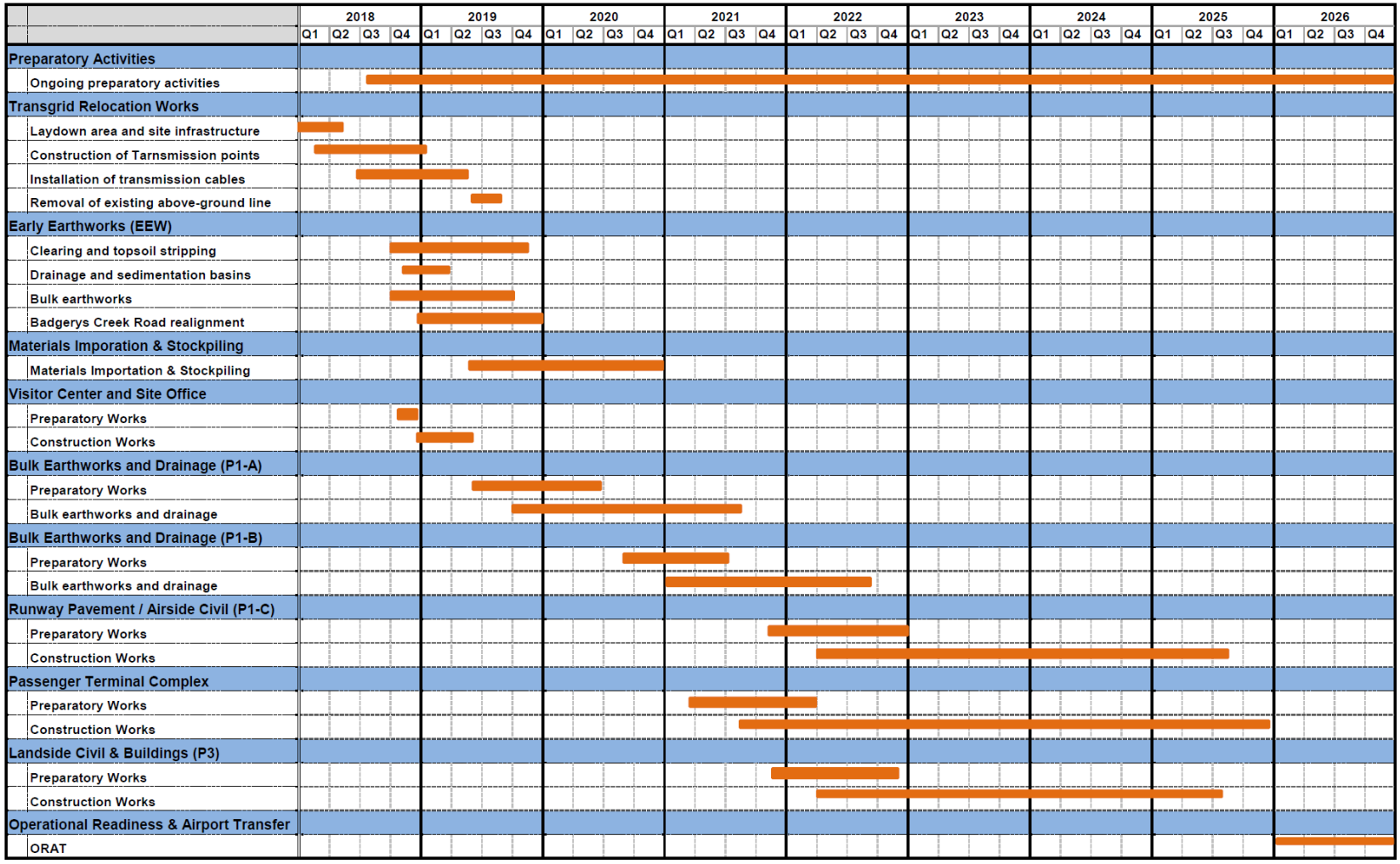

Figure 2-2 Indicative Stage 1 Construction Schedule

2.3 Airport site layout

According to Section 2.4 of the Airport Plan, “Developments on the Airport Site will be permitted only where they meet the planning objectives and permitted uses for each land use zone.” Figure 2-3 shows the Airport Site Layout (ASL), with proposed land uses and construction activities. Detailed construction details for the Visitor Centre and Site Accommodation are included in Section 6.11 of this Construction Plan. All proposed uses and construction activities are consistent with the permissible uses indicated in section 2.4 of the Airport Plan. The rail easement shown in Figure 2 3 is consistent with section 3.6.6 of the Airport Plan which requires consideration for provision of rail to the Airport Site as part of the Stage 1 Development. The rail stations are shown only as reference and will not be constructed as part of the Stage 1 Development without an approved variation to the Airport Plan.

Key design changes from the Indicative Airport Layout, Figure 2 in the Airport Plan, are consistent with the permissible uses indicated in section 2.4 of the Airport Plan and include the following:

- Revision to the configuration of Detention Basin 1, 8 and 9;
- Additional taxiway and revision to the location and design of the engine run-up facility;
- Relocating the water complex to the eastern boundary of the Airport Site;
- Modified ground transport infrastructure including relocation of Badgerys Creek Road and internal access roads within the site;
- Revision to the aviation support facilities including the capacity of cargo and maintenance
- facilities; and
- Airside perimeter, construction impact zone (CIZ) and earthworks.

Table 2-3 below compares the Airport Plan land use zone objectives and permissible uses to proposed facilities and construction activities.

Figure 2-3 Airport Site Layout (ASL)

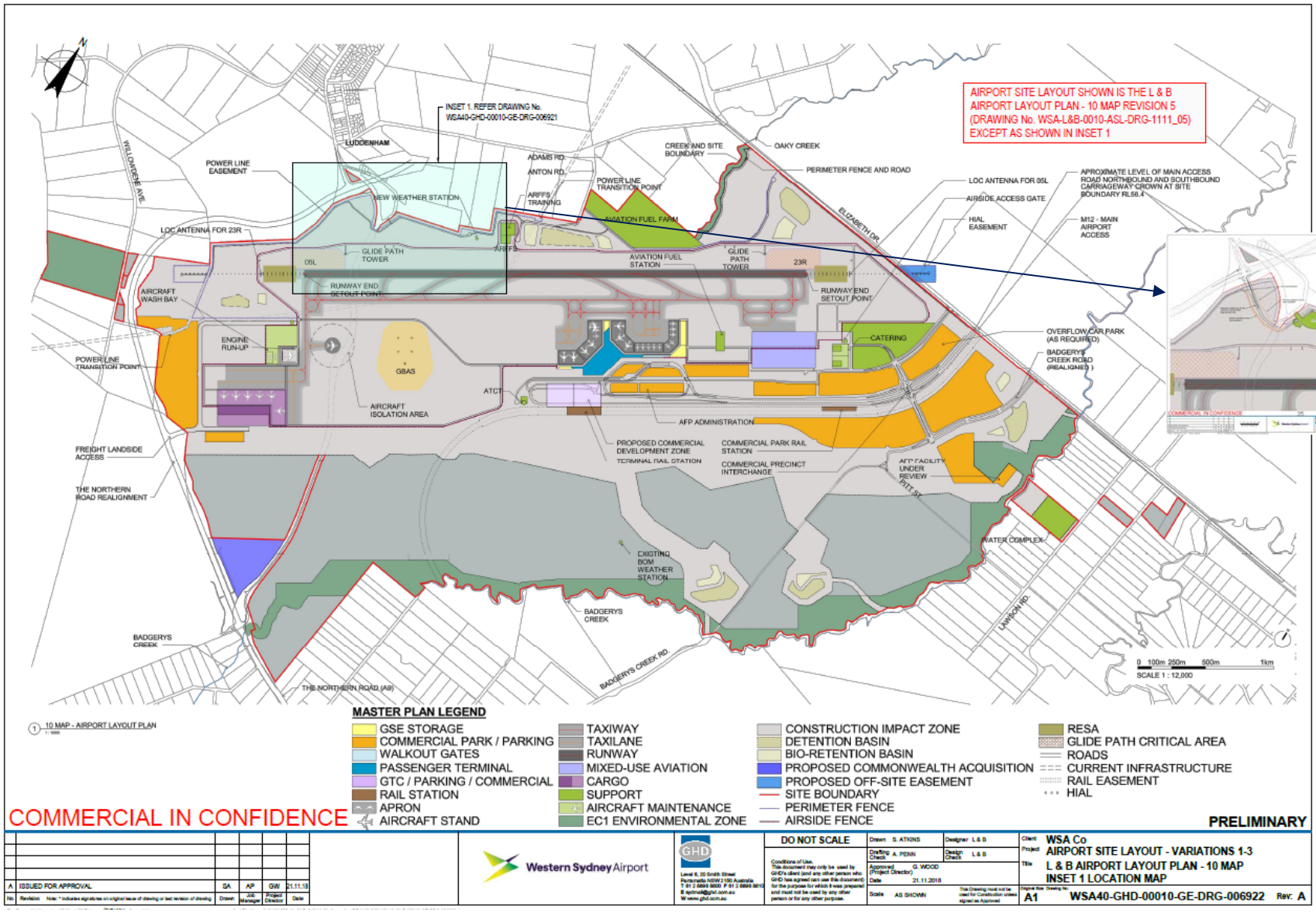

Table 2-3 Airport Site Layout/Land Use Plan Comparison

Land use zone	Objectives	Permissible uses	Proposed facilities, construction activities
AD1: Aviation Activity	▪ provide for safe, secure and efficient airfield operations, including aircraft take-off, landing and taxiing; ▪ provide for aviation activities and aviation support facilities; and ▪ facilitate compatible and ancillary functions within the zone, provided that development does not render the land unfit for aviation activities.	▪ Aviation activity ▪ Detention basin ▪ Earthworks* ▪ Environmental protection works ▪ Extractive industry* ▪ Liquid fuel depot and distribution facility ▪ Navigational aids ▪ Public administration facility ▪ Public utility undertaking ▪ Road ▪ Signage (other than an advertisement) ▪ Telecommunications facility ▪ Temporary structure ▪ Works depot*	▪ Northern runway ▪ Taxiway
AD2: Terminal and Support Services	▪ facilitate development of a contemporary passenger terminal and related facilities for the handling, transfer and processing of passengers that is capable of meeting the standards expected by international, domestic and regional travellers, as well as supporting the needs of the Airport's workforce; ▪ enable future expansion of the Airport's operations, including associated aviation facilities; ▪ encourage airport and aviation-related employment opportunities; ▪ facilitate compatible and ancillary functions within the zone, provided that development does not render the land unfit for aviation activities; and ▪ provide for aviation activities and support facilities.	▪ Amusement centre ▪ Animal boarding ▪ Aviation activity ▪ Aviation support facility ▪ Business premises ▪ Car park and parking spaces ▪ Child care centre ▪ Convenience store ▪ Detention basin ▪ Earthworks* ▪ Environmental protection works ▪ Extractive industry* ▪ Food and drink premises ▪ Freight handling and transport facility ▪ Hotel or motel accommodation ▪ Kiosks ▪ Liquid fuel depot and distribution facility ▪ Markets ▪ Navigational aids ▪ Office premises ▪ Passenger transport facility ▪ Public utility undertaking ▪ Public administration facility ▪ Road ▪ Shop ▪ Signage ▪ Telecommunications facility ▪ Temporary structure ▪ Terminal ▪ Transfer corridor ▪ Vehicle hire premises ▪ Works depot*	▪ Terminal ▪ Apron ▪ Gates ▪ Commercial development ▪ Engine run-up ▪ Airside access gate ▪ Catering ▪ Aircraft maintenance ▪ Air traffic control (ATC) ▪ Railway easement ▪ Railway station (subject to planning approval)
AD3: Aviation Logistics and Support	▪ facilitate the development of freight services and airport logistics (and ancillary office space);	▪ Animal boarding ▪ Aviation activity ▪ Aviation support facility	▪ Taxiway ▪ Cargo facility

Land use zone	Objectives	Permissible uses	Proposed facilities, construction activities
	▪ ensure development is compatible, where practicable, with surrounding land uses in this area; and ▪ facilitate compatible and ancillary functions within the zone, provided that development does not render the land unfit for aviation activities.	▪ Business premises ▪ Car park and parking spaces ▪ Detention basin ▪ Earthworks ▪ Environmental protection works ▪ Extractive industry* ▪ Food and drink premises ▪ Freight handling and transport facility ▪ Light industry ▪ Liquid fuel depot and distribution facility ▪ Navigational aids ▪ Office premises ▪ Passenger transport facility ▪ Public administration facility ▪ Public utility undertaking ▪ Retail - low intensity ▪ Road ▪ Signage ▪ Telecommunications facility ▪ Temporary structure ▪ Transport depot ▪ Works depot*	▪ GBAS satellite navigation facility ▪ Bureau of Meteorology Automatic Weather Station (BOM AWS) ▪ Airport Rescue and Fire Fighting (ARFF) training facility ▪ Fuel farm ▪ Support facilities including Visitor Centre and Site Accommodation
AD4: Aviation Reservation	▪ coordinate the orderly and economic use and development of land until such time as it is required for aviation activities or aviation support facilities; ▪ integrate compatible aviation, business and industrial activities in accessible locations; ▪ encourage appropriate employment opportunities in accessible locations; and ▪ ensure that development will not render the land unfit for aviation activities or aviation support facilities when it is required for these purposes.	▪ Agriculture ▪ Animal boarding ▪ Aviation activity ▪ Aviation support facility ▪ Car park and parking spaces ▪ Detention basin ▪ Earthworks* ▪ Environmental protection works ▪ Extractive industry* ▪ Navigational aids ▪ Passenger transport facility ▪ Public utility undertaking ▪ Public administration facility ▪ Retail - low intensity ▪ Road ▪ Shop ▪ Signage ▪ Telecommunications facility ▪ Temporary structure ▪ Terminal ▪ Waste or resource management facility ▪ Works depot*	▪ Detention basins for Bulk Earthworks ▪ Rail easement ▪ Airport transport access
BD1: Business Development	▪ enable a mix of business, retail and industrial uses in locations that are close to and that support the functioning of the Airport; ▪ integrate suitable and compatible land uses in	▪ Agriculture ▪ Animal boarding ▪ Aviation activity ▪ Aviation educational facility ▪ Aviation support facility	▪ Car park and parking spaces ▪ Commercial park (business development) ▪ Water complex

Land use zone	Objectives	Permissible uses	Proposed facilities, construction activities
	accessible locations so as to maximise public transport patronage and encourage cycling; ▪ encourage employment opportunities and promote businesses along main roads; ▪ enable a limited range of other land uses that will provide facilities and services to meet the day-to-day needs of the local workforce; and ▪ maximise, where possible, the use of existing access and egress points.	▪ Business premises ▪ Car park and parking spaces ▪ Child care centre ▪ Detention basin ▪ Earthworks* ▪ Environmental protection works ▪ Extractive industry* ▪ Freight handling and transport facility ▪ Hotel or motel accommodation ▪ Light Industry ▪ Medical centre ▪ Navigational aids ▪ Office premises ▪ Passenger transport facility ▪ Public administration facility ▪ Public utility undertaking ▪ Recreation facility (indoor) ▪ Retail premises ▪ Road ▪ Service station ▪ Shop ▪ Signage ▪ Telecommunications facility ▪ Temporary structure ▪ Vehicle hire premises ▪ Warehouse and distribution centre ▪ Works depot*	▪ Airport transport access
BD2: Business Development (Reservation)	▪ enable a mix of business, retail and industrial uses in locations that are close to and that support the functioning of the Airport; ▪ integrate suitable and compatible land uses in accessible locations so as to maximise public transport patronage and encourage cycling; ▪ encourage employment opportunities and promote businesses along main roads; ▪ enable a limited range of other land uses that will provide facilities and services to meet the day-to-day needs of local workforce; and	▪ Agriculture ▪ Animal boarding ▪ Aviation activity ▪ Aviation educational facility ▪ Aviation support facility ▪ Business premises ▪ Car park and parking spaces ▪ Child care centre'-' ▪ Detention basin ▪ Earthworks* ▪ Environmental protection works ▪ Extractive industry* ▪ Freight handling and transport facility ▪ Hotel or motel accommodation ▪ Light Industry ▪ Medical centre ▪ Navigational aids ▪ Office premises ▪ Passenger transport facility ▪ Public administration facility	▪ Commercial precinct (business development) ▪ Airport transport access

Land use zone	Objectives	Permissible uses	Proposed facilities, construction activities
	▪ maximise, where possible, the use of existing access and egress points.	▪ Public utility undertaking ▪ Recreation facility (indoor) ▪ Retail premises ▪ Road ▪ Service station ▪ Shop ▪ Signage ▪ Telecommunications facility ▪ Temporary structure ▪ Vehicle hire premises ▪ Warehouse and distribution centre ▪ Works depot*	
EC1: Environmental Conservation	▪ protect the ecological and scenic values of the waterways in this area; ▪ maintain the health and natural flows of the waterway; ▪ enhance, restore and protect the cultural heritage values of the land; ▪ enhance, restore and protect local biota and the ecosystems and habitats of native species; ▪ provide for the effective management of remnant native vegetation, including native vegetation regeneration and revegetation, noxious and environmental weed eradication, and bush fire hazard reduction; ▪ enable the land to be used as passive open space in a manner that is not inconsistent with the protection of its natural and cultural heritage values; and ▪ manage development to minimise impacts that could destroy, degrade, damage or otherwise have an adverse effect on natural and cultural heritage values.	▪ Environmental protection works ▪ Heritage conservation works ▪ Public utility undertaking	▪ Environmental protection works

* permissible to the extent that the use relates to the construction, development or operation of the Airport Site as an airport

2.3.1 Construction Impact Zone

The Construction Impact Zone (CIZ) is defined within the Airport Plan as the "part or parts of the Airport Site or an Associated Site on which Main Construction Works are planned to occur." The approved CIZ is shown in Figure 2-4 and has been optimized to minimise environmental impacts wherever possible and all potential impacts are in accordance with the EIS assessment.

The development of the CIZ involved assessment of the likely construction area required for the Main Construction Works. This is based around the bulk earthworks footprint required to construct a level platform

for development of the airport and extended along flow paths to the detention basins located on the eastern half of the site.

Airport design development and refinement since the publication of the Airport Plan in 2016 has necessitated changes to the CIZ shown on the Airport Site Layout provided as Figure 2-3 within this Construction Plan. The majority of the changes are associated with design development of the detention basins, changes to easements within the Airport site boundary and constructability provisioning.

The area of the CIZ in the EIS was calculated at 1153.6 ha including 359.6 ha of native vegetation. The revised CIZ has a total area of 1199.1 ha, including 7.4 ha for the TransGrid easement on the western boundary of the site. In increasing the size of the CIZ by 45.5 ha, it has been possible to refine the approach and otherwise minimise the level of disturbance to native vegetation to 359.0 ha.

Changes to the CIZ have been assessed and will not result in any additional impacts on biodiversity values and the impact of other changes have been reduced as far as possible.

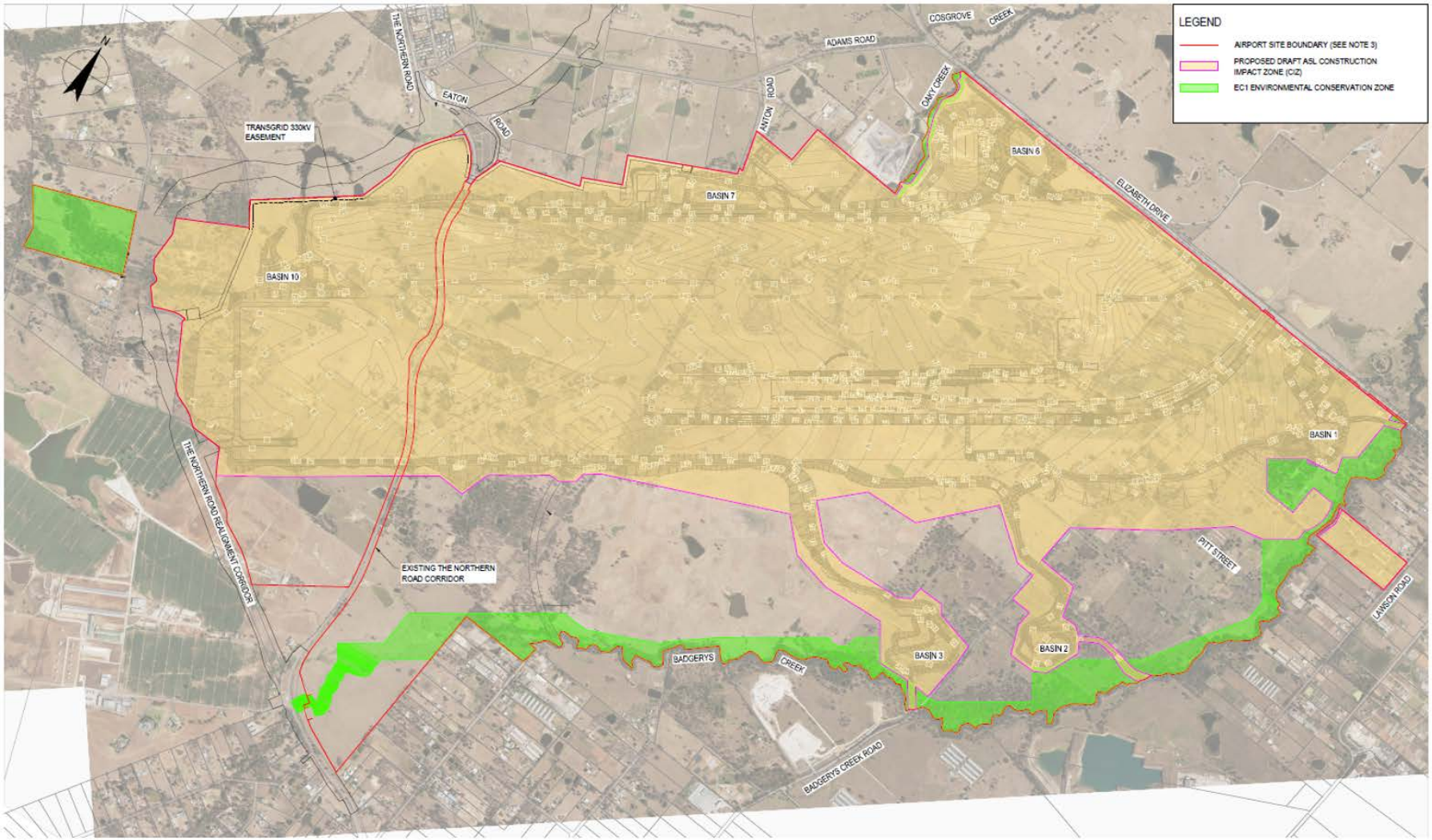

Figure 2-4 Stage 1 Development Construction Impact Zone

3 Site Management

3.1 Management Structure

WSA Co's Delivery Team will manage a series of contractors in the delivery of the Western Sydney Airport. A high-level organisational chart of the management structure between the WSA Co Delivery Partner and the contractors is included below. Detailed roles for team members are described in Section 3.1.1.

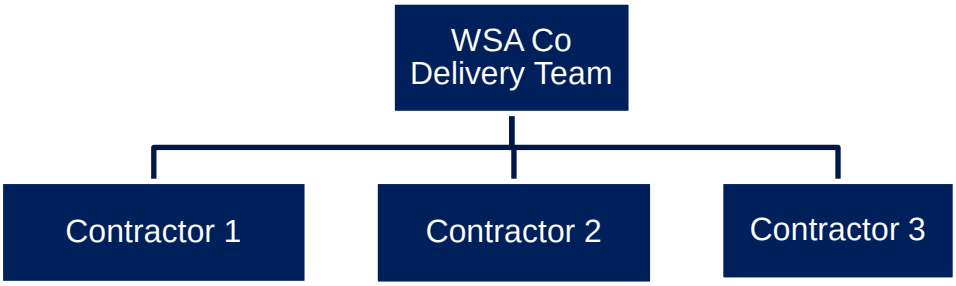

Figure 3-1 Construction Management Structure

3.1.1 Roles and Responsibilities

The roles and responsibilities for team members identified above are defined in Table 3-1 below.

Table 3-1 Personnel Roles and Responsibilities

Organisation	Role	Responsibilities
WSA Co Delivery Team	Construction Manager	▪ Overall delivery of stage 1 of the project consistent with the Airport Plan, Airport Deed and all supporting documentation and regulations. ▪ Management, coordination and control of contractors delivering stage 1 of the project.
	Safety Manager	▪ Safety performance for the Stage 1 Development ▪ Development, management and implementation of an effective work health and safety system. ▪ Monitoring, assurance and compliance of the Stage 1 Development with all relevant legislation ▪ Monitoring and assurance of contractors' performance and ensure compliance with the work health and safety system
	Environment Manager	▪ Development, management and implementation of CEMP's ▪ Environmental monitoring, assurance and compliance for the Stage 1 Development
	Community and Stakeholder Manager	▪ Communication, liaison and consultation with all stakeholders ▪ Development, management and implementation of the community and stakeholder management plan
	Package Managers	▪ Management, coordination and control of individual work packages within Stage 1 Development
	Superintendents	▪ Execution of the works in accordance with the construction plan, CEMP's and sub-plans
Contractor	Project Manager	▪ Execution of the works in accordance with the construction plan, CEMP's and sub-plans
	Safety Managers	▪ Consult, coordinate and cooperate delivery partner and other contractors

Organisation	Role	Responsibilities
		▪ Management and implementation of contractor's safety systems
	Environment Manager	▪ Day to day management and implementation of an effective environmental management system ▪ Consult, coordinate and cooperate delivery partner and other contractors
	Superintendents	▪ Execution of the works in accordance with the construction plan, CEMP's and sub-plans

3.2 Construction hours

The EIS and the NSW Environmental Protection Authority (EPA) Interim Construction Noise Guideline (DECC 2009a) both list standard construction hours as Monday to Friday 7am – 6pm and Saturday from 8am – 1pm. The NSW guidelines state that these hours are recommended and not mandatory, but WSA Co and its contractors will make every effort to adhere to these hours and minimise disturbances to sensitive receptors. The NSW guidelines identify a number of categories of works that might be undertaken outside the recommended hours, including:

- deliveries of oversized plant or structures;
- public infrastructure works that shorten the length of the project and are supported by the affected community; and
- works where a proponent demonstrates and justifies a need to operate outside the recommended standard construction hours.

Other activities that WSA Co may undertake outside these standard construction hours include:

- works to existing services (if shutdowns are required);
- deliveries of oversized loads;
- catch-up works if works are delayed by unforeseen circumstances;
- responsive activities to protect people, property and the environment in the event of an emergency such as a fire or structural failure; and
- other activities undertaken in accordance with relevant noise guidelines, or which have no material noise or other impacts on residences.

During the EEW activities material importation of suitable material is planned to be brought to site and stockpiled. This is planned to commence prior to the Bulk Earthworks and Airside Civils activities. WSA Co plans to allow heavy and light vehicle movements to and from site to occur outside standard work hours, in accordance with the WSA Co Traffic and Access Construction Environmental Management Plan (CEMP), in order to reduce congestion for other users during the day. Where activities will occur outside of standard construction hours an Out of Hours Work Permit will be issued to the Contractor in accordance with the Noise and Vibration CEMP.

During later construction phases like Passenger Terminal Complex (P2) and Landside Civil and Buildings (P3) construction, delivery and stockpiling of construction materials, such as paving materials, are expected to be delivered to the site 24 hours per day. Where construction works will be executed outside of standard construction hours an Out of Hours Work Permit to Operate will be obtained by the Contractor. Refer to the Noise and Vibration Construction Environmental Management Plan (CEMP) which satisfies the requirements of section 3.10.2(6) of the Airport Plan and focuses on how mitigation measures identified in Table 28-2 and Table 28-3 in Chapter 28 of the Environmental Impact Statement (EIS) are addressed.

3.3 Health and Safety Management

WSA Co is focused on cultivating and implementing the Zero Harm philosophy throughout the workforce which will result in eliminating or reducing harm to the environment, workers or others affected by the works, and inspiring exceptional health and safety performance. This objective can be achieved if WSA Co and its partners:

- ensure that safety is a core value;
- aspire to provide their people, contractors, stakeholders and members of the public with the highest level of safety protection;
- demonstrate visible safety leadership and inspire their people, contractors and stakeholders to value exceptional health and safety performance;
- lead an environment of trust and transparency;
- promote safety innovation and recognise exceptional health and safety performance; and
- monitor, review and achieve continual improvement in health and safety performance.

WSA Co requires exceptional health and safety management and expects that all health and safety risks are identified and subsequently eliminated or satisfactorily controlled. WSA Co also expects the development and implementation of safety initiatives to drive continuous improvement of safety performance throughout delivery.

3.3.1 Health and Safety considerations

High risk activities during construction will be managed in accordance with the project Health and Safety Management Plan. Health and Safety must be the primary consideration in all construction activities throughout Stage 1 Development. Construction activities that present considerable health and safety risks include:

- Working in and around mobile plant;
- Working at heights;
- Working near live traffic;
- Working with live services;
- Mobile cranes and lifting operations;
- Electrical work;
- Working with temporary works; and
- Disturbance of asbestos.

3.3.2 Health and Safety risk methodology

Risk workshops have been conducted to identify and assess the risk profile of the project activities. Risk controls and the process of monitoring of these controls have been agreed at the workshops and the cascade of risk controls will be included in contract documents. This cascade allows for the definition of minimum standards above the legislative requirements with the controls based on lessons learned from previous projects.

Contractors will be evaluated and selected against set criteria, including their ability to commit to adopting the defined risk controls, to allow for the implementation of standards aimed at exceptional health and safety performance.

Contractors will be required to conduct scope of work risk analyses prior to commencement of construction activities on site. The risk controls from these analyses form the basis of eliminating or mitigating the risks associated with a particular work scope and define the cascade of control to the lower level risk management processes applied to job and task assessments.

Throughout all stages of the risk management process the hierarchy of controls of elimination, substitution, isolation, engineering, administration and personal protective equipment will be applied. The priority of control application will be through the higher levels of control before the lower levels are considered.

Reviews of risk registers will be completed when construction schedules, activities, legislation or standards change and as a minimum of a bi-annual basis. Lower level job analyses are reviewed on a quarterly basis as a minimum, with task analyses occurring on a daily basis to capture the ongoing changes in the construction work environment.

3.4 Traffic and Access

Construction of the proposed airport will generate additional traffic on the regional and local road network. All construction traffic and access will be managed in accordance with the WSA Co Traffic and Access CEMP and as such, . the impact to the local road networks will be minimised. Key activities that will require management strategies will be, materials deliveries, oversize deliveries, workforce access and egress and coordination with other local infrastructure projects.

Construction traffic will use the nearby road network, with most traffic expected to access the site using Elizabeth Drive, as well as potentially other routes, which will be finalised through consultation with NSW authorities. The nearby M7 has good connectivity to southern NSW via the M31, Sydney City via the M5 and M4 and northern NSW via the M2. Figure 3-2 shows the major access routes that are expected to be used by construction vehicles to access the Airport Site. Refer to the WSA Co Traffic and Access CEMP which satisfies the requirements of section 3.10.2(9) of the Airport Plan and focuses on how mitigation measures identified in Table 28-8 and Table 28-9 in Chapter 28 of the EIS are addressed.

Figure 3-2 Major Access Routes to the Airport Site (Commonwealth, 2016)

3.4.1 Western Sydney Infrastructure Plan

There are a number of currently planned road upgrades in Western Sydney that will improve access to the airport and overall transport availability in the region. These are being undertaken by RMS under the

Western Sydney Infrastructure Plan as shown below in Figure 3-3. The key upgrades in relation to the Airport Site include:

- The Northern Road, Stages 1 – 6; and
- The M12 Motorway.

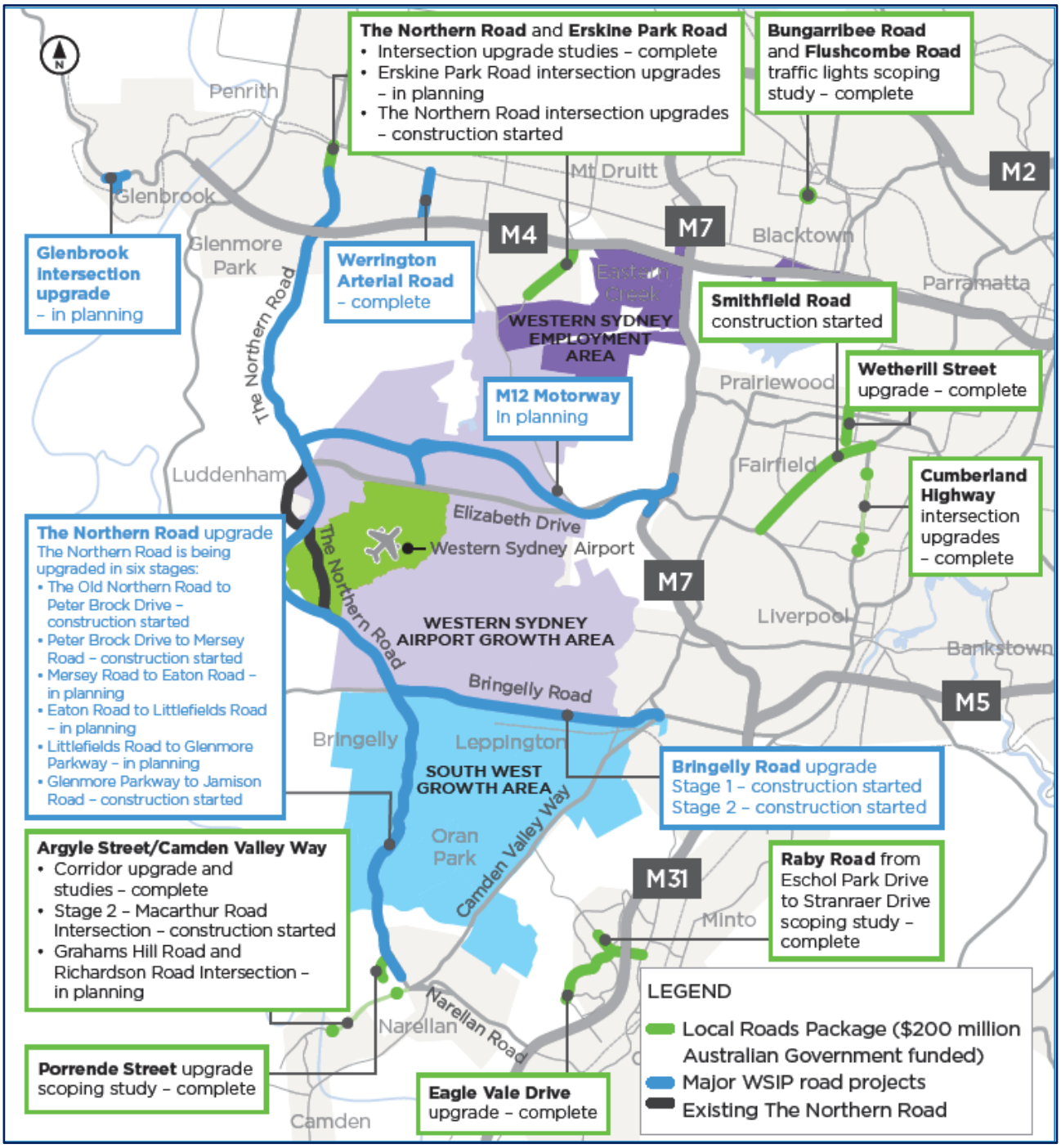

Figure 3-3 Western Sydney Infrastructure Plan Map (Commonwealth, 2018)

3.4.2 Existing road network

The existing road network can be categorised into four main groups:

- Arterial Roads: controlled by Roads and Maritime Services (RMS), they typically exhibit no limit in flow and are designed to carry vehicles long distances between regional centres;
- Sub-Arterial Roads: can be managed either by council or by RMS under a joint agreement. Typically, their operating capacity ranges between 10,000 and 20,000 vehicles per day. Their aim is to carry through-traffic between specific areas in a sub region, or provide connectivity from arterial road routes (regional links);
- Collector Roads: provide connectivity between local sites and the arterial road network, and typically carry between 2,000 and 10,000 vehicles per day; and
- Local Roads: provide direct access to properties and the collector road system and typically carry between 500 and 4,000 vehicles per day.

Badgerys Creek Road is a Collector Road which connects the Northern Road to Elizabeth Drive, it is seven kilometres long and is an undivided road with one lane in each direction. The shoulders on either side of the road are unsealed and the road is signposted at 80km/hr except on approach to each of the intersections with Elizabeth Drive and The Northern Road. Initial inspection of the road traffic suggests that it is primarily used as a connection route for heavy vehicles and light vehicles between other more major roads. Few residences are located along the road with the most residents away from the site and closer to the Northern Road.

Elizabeth Drive is an arterial road which also connects to the Northern Road, further north from Badgerys Creek Road. Elizabeth Drive also has a speed limit of 80km/hr and is an undivided road with one lane in each direction.

The Northern Road is an arterial road which connects Narellan to the Great Western Highway. For the majority of its impacted length, the Northern Road is one lane in each direction and signposted at 80km/hr. Posted speeds differ where roadworks are in progress.

As the majority of the roads leading to the site are arterial roads it suggests that the site is well suited to handle the additional traffic which will be generated by the project. The largest impact will be on Badgerys Creek Road which is a collector road with lower volumes of traffic than Elizabeth Drive and The Northern Road.

3.4.3 Site access

Access to the site will be controlled to protect the general public from exposure to the inherent hazards of a construction site. Security guards stationed at the entry points to the site will provide access control and ensure that all those entering the site are wearing the appropriate personal protective equipment (PPE) for work on a construction site. Figure 3-4 shows the planned site entry points, entry point restrictions and locations of major site features in relation to access points.

The majority of deliveries are expected to come from north of the site. As a result, the expected delivery route would be through the M4 – Western Motorway and then to the site through the Northern Road and Elizabeth Drive. For deliveries coming from south of the site it is expected that they will access Badgerys Creek Rd via The Northern Road.

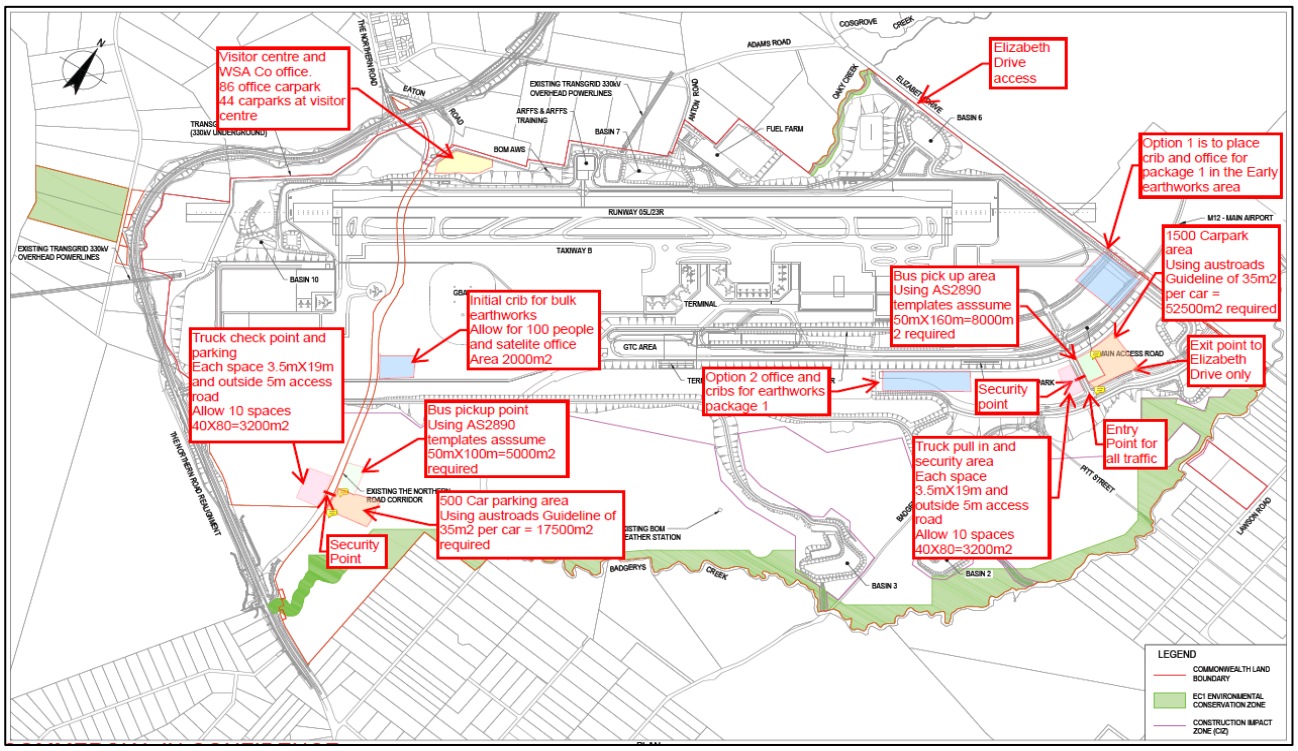

Figure 3-4 Indicative Site Access

3.4.4 Construction Traffic Impacts

During construction, the general public will be subject to multiple impacts inherent to construction of large civil works projects. WSA Co and its contractors will use the CSEP and relevant CEMPs to minimise impacts to stakeholders and the general public. Table 3-2 below lists impact, associated concern and relevant plan or CEMP which addresses mitigation measures consistent with the EIS and Airport Plan recommendations.

Table 3-2 Traffic Impacts

Impact	Concerns	Relevant Plan/CEMP
Construction Traffic	▪ Increase in traffic volume due to work force	▪ Traffic and Access CEMP
Heavy Haulage	▪ Heavy haul equipment to and from the site.	▪ Traffic and Access CEMP ▪ Waste and Resources CEMP
Bulk Earthworks	▪ Access to public roads for decontamination, bulk earthworks, topsoil stripping and associated work by large bulk earth working equipment ▪ Blasting works	▪ Traffic and Access CEMP ▪ Noise and Vibration CEMP ▪ Community and Stakeholder Engagement Plan
Noise	▪ Construction noise	▪ Noise and Vibration CEMP
Dust	▪ Dust generated during construction works.	▪ Air Quality CEMP

Impact	Concerns	Relevant Plan/CEMP
Property Access	▪ Road closures and temporary detours could impact those living in the area.	▪ Community and Stakeholder Engagement Plan
Deliveries	▪ Material deliveries may be outside of standard work hours	▪ Noise and Vibration CEMP ▪ Traffic and Access CEMP ▪ Waste and Material CEMP
Parking	▪ Parking of construction vehicles on roadways while waiting to access the site may inconvenience the general public.	▪ Community and Stakeholder Engagement Plan

3.5 Construction vehicles

Vehicles utilised in the construction of the Stage 1 Development will consist of a combination of light and heavy vehicles and construction machinery. Definitions and expected utilisations of these vehicle types are provided below. Further details of construction vehicles are provided in the Traffic and Access CEMP which satisfies the requirements of section 3.10.2(9) of the Airport Plan.

3.5.1 Light vehicles

Light vehicles are generally defined as cars, utility vehicles and some commercial vehicles with a gross vehicle mass of less than 4.5 tonnes.

Daily light vehicle trips will be carried out primarily by the construction workforce. Most light vehicles will arrive on site prior to 7am outside of the AM peak and begin exiting the site at around 4pm each day until 7pm. The number of light vehicles entering and leaving the Airport Site is estimated to increase steadily from around 30 during the early stages to a peak of around 440 during the Main Construction Works. As nearby arterial roads already have traffic volumes which are well in excess of construction traffic, it is expected that this will have a negligible impact on those roads. It is also expected that typical traffic levels on local roads will not be exceeded (see Section 3.4.2).

3.5.2 Heavy vehicles

Heavy vehicles are defined under the Heavy Vehicle National Law 2013 (NSW) as large vehicles with a gross vehicle mass or aggregate trailer mass of more than 4.5 tonnes. Heavy vehicles including trucks and semi-trailers will be required for the delivery of equipment and construction materials, including pavement materials for the runway, taxiways, aprons, roads and carparks which are expected to be imported from predominantly outside of the Airport Site.

Heavy vehicle movements are estimated to increase from 200 vehicle movements per day during the early stages to around 400 vehicle movements per day during Main Construction Works.

Substantial volumes of gravel will be required for the base and sub-base material, while large volumes of asphalt and concrete materials will be used for surfacing. Concrete will also be a major construction material for structures (buildings). WSA Co envisages that most gravels will be sourced from other major Sydney infrastructure projects, reducing the need for landfill sites to be used from within the Sydney Basin, and lowering the truck kilometres required within the wider road network.

An asphalt batch plant will be established on site which will require raw materials including aggregate, sand, crusher dust, lime filler and bitumen. Aggregate will be imported to the Airport Site from the same quarries supplying the gravel. A concrete batch plant will also be established on site to supply concrete. Raw

materials delivered to the concrete batch plant will consist of cement, fly ash, aggregate, sand and admixture.

General building materials such as structural steel, roofing materials, flooring materials and furniture will likely be supplied from various sources within Greater Sydney.

3.5.3 Construction machinery

A range of construction machinery will be used at the Airport Site, as listed, but not limited to the below:

- Dozers (e.g. D6, D8 and D11);
- Pad foot rollers;
- Scrapers;
- Loaders;
- Excavators (e.g. 30 tonne and 200 tonne);
- Gravel pavers;
- Water carts (20,000 litres);
- Asphalt pavers;
- Graders (e.g. 14 inch and 16 inch);
- Elevated work platforms;
- Compactors;
- Concrete placer spreaders;
- Multi-tyre rollers;
- Concrete slip form pavers;
- Smooth and tandem drum rollers;
- Concrete texture cure machines;
- Dump trucks (e.g. 50 tonne);
- Mobile crane;
- Backhoe; and
- Piling rig.

4 Environmental Management

4.1 WSA Co Site Environmental Management Framework

The SEMF (Appendix 2), describes a systematic approach to manage and control environmental risks associated with the Stage 1 construction works. It identifies environmental requirements applicable to the various construction activities to ensure environmental impacts are minimised and legislative and other obligations are fulfilled.

In addition, nine Construction Environmental Management Plans (CEMPs) and a Community and Stakeholder Engagement Plan (CSEP) have been prepared to support the SEMF. The CEMPs identify requirements and processes applicable to specific environmental impacts or aspects (e.g. air quality, biodiversity and noise) of the proposed construction activities and address Airport Plan conditions and mitigation measures, controls and monitoring requirements defined in the Environmental Impact Statement (EIS). The structure of the SEMF and its interaction with corresponding management plans is shown below. The CEMPs like the CP are living documents and will be updated per Condition 41 of the Airport Plan to address differences in environmental risk between construction activities, packages and phases.

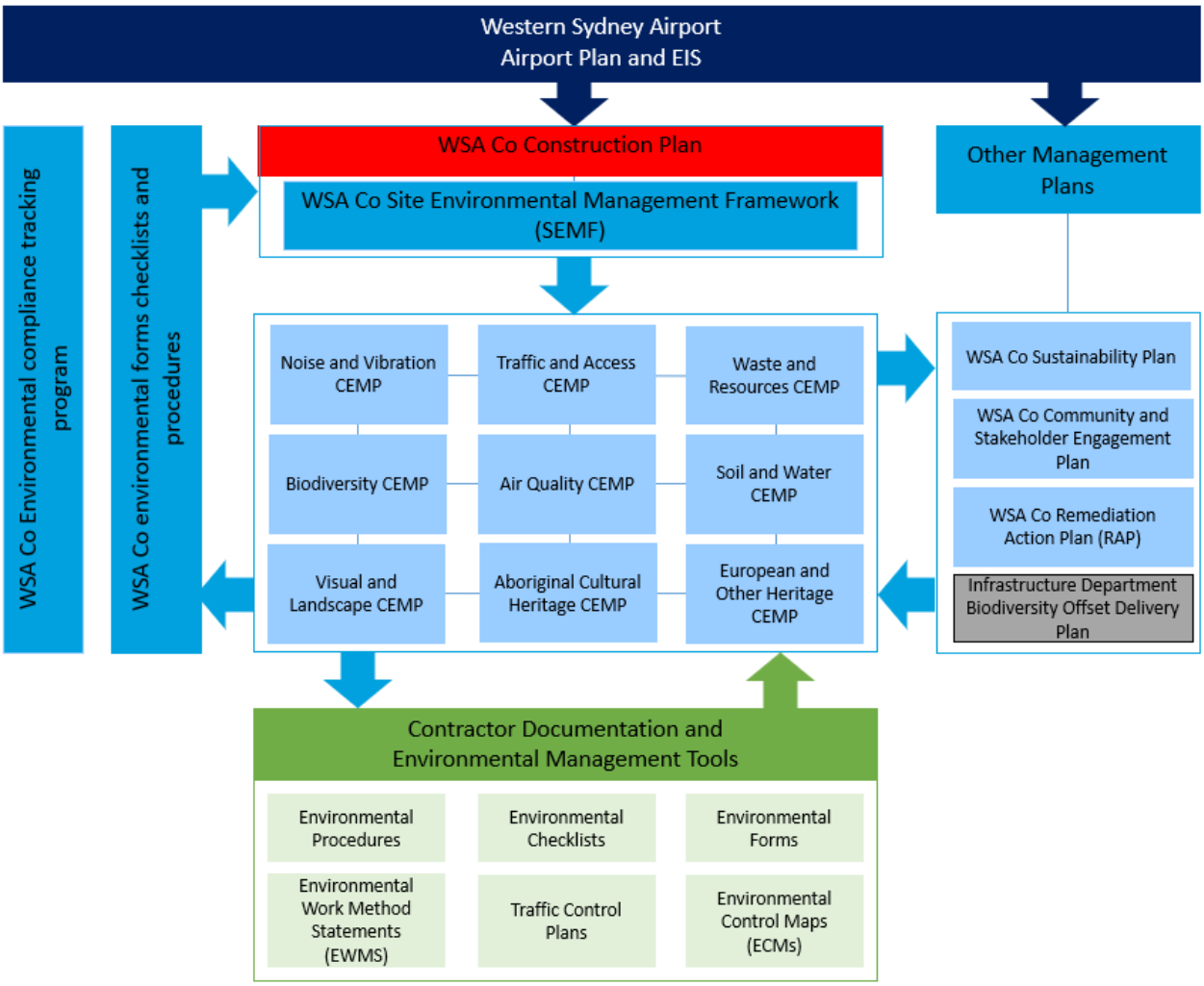

Figure 4-1 Environmental management system structure

4.2 Construction Environmental Management Plans

Nine CEMPs have been developed for the project. These plans will advise the development of Environmental Control Maps (ECMs) and Environmental Work Method Statements (EWMS) to support construction work packages in order to ensure that key mitigation strategies are applied when planning and executing construction. A Permit System will be implemented in order to manage and control works with potential environmental impacts. Environmental Permits to be administered by WSA Co Environment Manager and associated environmental documents are listed in Table 4-1 below:

Table 4-1 Environmental Permits

Permit Name	When Required	Environmental Document
Permit to Pump	▪ Dewatering operations	▪ Soil and Water CEMP
Land Disturbance Permit	▪ Environmental sensitive areas and utilities in proximity to construction activities	▪ SEMF
Out of Hours Work Permit	▪ All works to be carried out outside of approved standard work hours	▪ Noise and Vibration Management Plan
Permit to Enter Protected or No-Go Area	▪ Unavoidable work within protected or environmentally sensitive areas.	▪ SEMF

Additionally, key environmental risks and management strategies will be included in project induction and toolbox talks to ensure all personnel on site are aware of their environmental responsibilities. The CEMPs address requirements of the conditions of the Airport Plan and mitigation measures, controls and monitoring requirements identified in the EIS, including but not limited to:

- consideration of all required statutory and other obligations, including consents, licences, approvals and voluntary agreements;
- management policies, procedures and review processes to assess the implementation of environmental management practices and the environmental performance of the proposed airport against defined objectives and targets;
- requirements and guidelines for management having regard to mitigation measures specified by the EIS and the revised draft Airport Plan;
- requirements in relation to incorporating environmental protection measures and instructions in all relevant standard operating procedures and emergency response procedures;
- specific procedures, including monitoring, as identified in the EIS;
- roles and responsibilities of all personnel and contractors to be employed on site;
- ongoing engagement with the community surrounding the Airport Site, including procedures for complaints handling and communication methods. These matters are detailed in the Community and Stakeholder Engagement Plan;
- a monitoring and auditing programme;
- environmental sub-plans specified in the EIS;
- an incident response procedure; and
- a contingency plan for utility disruptions.

A list of CEMPs for the construction phase of the Stage 1 Development, their document numbers and Airport Plan and EIS reference are provided below in

Table 4-2. Refer to the individual CEMP documents as referenced below for further details with regards to document scope, purpose, mitigation measures and controls and specific roles and responsibilities.

Table 4-2 Construction Environmental Management Plans

Document name	Document number	Airport Plan Condition	EIS Reference
Noise and vibration CEMP	WSA00-BEC-00400-EN-PLN-0002	3.10.2(6)	Table 28-2 & 28-3
Biodiversity CEMP	WSA00-BEC-00400-EN-PLN-0003	3.10.2(7)	Table 28-4 & 28-5
Soil and water CEMP	WSA00-BEC-00400-EN-PLN-0004	3.10.2(8)	Table 28-6 & 28-7
Traffic and access CEMP	WSA00-BEC-00400-EN-PLN-0005	3.10.2(9)	Table 28-8 & 28-9
Air quality CEMP	WSA00-BEC-00400-EN-PLN-0006	3.10.2(10)	Table 28-10 & 28-11
Aboriginal cultural heritage CEMP	WSA00-BEC-00400-EN-PLN-0007	3.10.2(11)	Table 28-12 & 28-13
European and other heritage CEMP	WSA00-BEC-00400-EN-PLN-0008	3.10.2(12)	Table 28-14 & 28-15
Waste and resources CEMP	WSA00-BEC-00400-EN-PLN-0009	3.10.2(13)	Table 28-16 & 28-17
Visual and landscape CEMP	WSA00-BEC-00400-EN-PLN-0010	3.10.2(14)	Table 28-18 & 28-19

4.3 SEMF & CEMP focus areas

The following environmental and heritage focus areas have been identified in relation to the construction phase:

- Site discharges during demolition and excavation works;
- Potential effects of noise and vibration on sensitive receptors;
- Potential surface and ground water contamination;
- Exposure to asbestos and hydrocarbon contaminated soils;
- Potential for water discharge and/or spills from worksites to result in pollution of adjacent waterways;
- Potential for impacts to Badgerys Creek and the associated Environmental Conservation Zone;
- Potential construction traffic impacts on local roads surrounding construction worksites, particularly during peak periods;
- Potential for discovery of previously unidentified contaminated soils;
- Potential for discovery of previously unidentified, endangered flora and fauna;
- Potential impacts on vegetation retained within construction worksites and indirect impacts on surrounding vegetation, threatened flora and fauna species;
- Potential for diminishing air quality through site works and dust generation;
- Potential for fauna to be injured during vegetation clearing works; and
- Potential for discovery of previously unidentified Aboriginal or historic heritage relics.

The SEMF addresses these and other environmental concerns through the CEMPs and other documents. A summary of CEMPs, their related subplans and other related documents is included below:

- Community and Stakeholder Engagement Plan
- Noise and Vibration CEMP
- Traffic and Access CEMP
- Soil and Water CEMP
  - Groundwater Monitoring Plan
  - Surface Water Management Plan

  - Erosion and Sediment Control Plan
- Waste and Resources CEMP
  - Spill Prevention Plan; and
  - Hazardous Material Management.
- Biodiversity CEMP
  - Bush Fire Management Plan
  - Vegetation Management Plan
  - Weed and Disease Management Plan
  - Habitat Management Plan
- Air Quality CEMP
  - Dust Management Plan
- Visual and Landscape CEMP
- Aboriginal Cultural Heritage CEMP
  - Oral History Plan
  - Initial Site Survey and Salvage Plan
  - Topsoil Management Protocol
  - Aboriginal Stakeholder Engagement Plan
- European and Other Heritage CEMP
  - Cemeteries Relocation Management
- Other Supporting Documents
  - Biodiversity Offset Delivery Plan
  - Remediation Action Plan

4.4 Environmental Management Implementation

4.4.1 Training, Awareness and Competence

To ensure that the SEMF is effectively implemented, WSA Co, through its Contractor/s, is responsible for ensuring that all site personnel are aware of the requirements of the CEMPs relevant to their work activities. The WSA Co Environment Manager will coordinate with Contractors to ensure that necessary and relevant environmental training in conjunction with other training and development activities is implemented. The training will include the following:

- Specific training required by each CEMP;
- Information on changes to legal and other requirements;
- Shared information from other works;
- New environmental management initiatives;
- Corrective actions to be implemented; and
- Environmental content for site induction training, toolbox talks and other environmental awareness training.

Training records for all environmental training will be maintained for the life of the project.

4.4.2 Quality, process control and audit

Monitoring, inspection and auditing will be undertaken on a regular basis to measure environmental management program effectiveness and facilitate continuous improvement of environmental controls and implementation of the SEMF, associated CEMPs, and to address approval requirements. If a deficiency is detected, the appropriate corrective action will be taken to resolve the issue. Monitoring requirements specific to particular aspects (i.e. biodiversity, soil and water, air quality etc) are included in the relevant CEMPs. Environmental monitoring, inspection and auditing requirements are summarised in the Table 4-3.

Table 4-3 Environmental monitoring inspection and audit requirements

Action	Scope	Timing	Responsibility
Pre-start inspection	Brief inspection of Contractor works including status of environmental controls prior to starting works.	Daily or prior to each shift	Contractor
Close inspection	Brief inspection of Contractor works including status of environmental controls at completion of works.	Daily or at the completion of each shift	Contractor
Shut-down inspections	Inspection of Contractor works including status of environmental controls prior to shut-down of site for an extended period (i.e. more than 2 days)	Prior to extended site shut down	Contractor
General environmental inspection	Environmental management controls and records for all works.	Frequency determined based on risk of the activity (minimum monthly)	WSA Co, AEO, Contractor
General environmental inspection	Environmental management controls and records for Contractor works.	As per CEMPs (at least weekly)	Contractor
Environmental audit	Audit of environmental systems and on-site performance for all works.	6 monthly (unscheduled audits may be undertaken)	WSA Co
Compliance Audit	Independent audit of compliance with the conditions in the Airport Plan	Annually	WSA Co
Environmental audit	Audit of environmental systems and on-site performance for all works.	As per Contractor environmental management system (at least quarterly)	Contractor
Noise and vibration monitoring	As per Noise and Vibration CEMP	–	WSA Co and Contractor
Traffic and access monitoring	As per Traffic and Access CEMP	–	WSA Co and Contractor
Aboriginal Heritage monitoring	As per Aboriginal Heritage CEMP	–	WSA Co and Contractor
European and other Heritage monitoring	As per European and other Heritage CEMP	–	WSA Co and Contractor

Action	Scope	Timing	Responsibility
Biodiversity monitoring	As per Biodiversity CEMP	–	WSA Co and Contractor
Air quality monitoring	As per Air Quality CEMP	–	WSA Co and Contractor
Soil and water monitoring	As per Soil and Water CEMP	–	WSA Co and Contractor
Waste and resources monitoring	As per Waste and Resources CEMP	–	WSA Co and Contractor
Visual and landscape monitoring	As per Visual and Landscape CEMP	–	WSA Co and Contractor

4.4.3 Specific construction measures

The Airport Plan imposes strict environmental standards and implements mitigation measures identified in the EIS. Refer to CEMPs described previously for detailed Airport Plan Conditions and associated mitigation measures.

5 Construction Activities for the Stage 1 Development

5.1 Establishment of temporary construction facilities

Temporary facilities for construction will generally be constructed within the CIZ as shown in Figure 2-4.

5.2 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 5-1.

Table 5-1 Construction staging – Preparatory Activities

Construction staging	Indicative Timing
Preparatory Works	
• 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

5.3 Vegetation and site clearing

The Airport Site has been largely cleared due to previous rural and urban development but retains patches of vegetation that will require clearing prior to construction. Large scale vegetation clearance for the Stage 1 Development will be restricted to the CIZ. Remnant vegetation in the southern portion of the site will remain largely intact as well as vegetation within the Environment Conservation Zone (ECZ), which occurs across the site but is predominately associated with the riparian vegetation along Badgerys Creek will be retained during the project.

A Biodiversity CEMP has been developed to address the requirements of section 3.10.2(7) of the Airport Plan and provides detailed information on how mitigation measures identified in Table 28-4 and Table 28-5

in Chapter 28 of the EIS are to be implemented during Stage 1 Development. Key biodiversity mitigation and management measures that will be implemented during construction include:

- Pre-clearance surveys for threatened species are to be undertaken by a suitably qualified ecologist prior to clearing works;
- Weed and disease management protocols to minimise spread across the site;
- Salvage and relocation of aquatic vertebrate fauna during dam dewatering;
- Unexpected finds protocol for threatened species; and
- Fencing the ECZ and restricting access.

The Biodiversity CEMP and associated sub-plans outline the key management measures and performance indicators that are to be implemented during Stage 1 Development. Refer to the Biodiversity CEMP and associated sub-plans for more information on how biodiversity will be managed during construction activities.

Construction activities will commence in the North-East of the site under the Early Earthworks contract. These activities will allow for the early development of the new Badgerys Creek road and a future building envelope. The main earthworks area that will commence last quarter 2019 will be divided into two distinct bulk earthworks package with the first package developing the northern side of the site. The second Earthworks package, which will commence in the last quarter of 2020, will develop the southern portion of the CIZ and will complete the permanent drainage that will discharge into Badgerys Creek. Using this process, the wildlife will migrate off the site with minimal intervention from the contractors. Relocation of flora and fauna will be performed in accordance with the Biodiversity CEMP and individual Environmental Control Maps (ECMs) for each work package.

The cleared vegetation will be mulched and stockpiled for reuse around site (where suitable). Hollow bearing trees marked during pre-clearance surveys will be stockpiled for reuse in restoration activities. Any vegetation mulched for reuse in erosion and sedimentation controls should be free from weed species to minimise the spread of weeds across site.

Any cleared ground will be grubbed to remove any roots to a depth of approximately 300 millimetres, with the root material being mulched and stockpiled for reuse at a later date.

Most existing services and fencing will be removed from the CIZ before earthworks. Materials will be salvaged for recycling where possible or disposed off-site. Existing septic systems will be excavated and removed, with the area rehabilitated for construction use. Refer to the Waste and Resources CEMP which satisfies the requirements of section 3.10.2(13) of the Airport Plan and provides detailed information on how mitigation measures identified in Table 28-16 and Table 28-17 in Chapter 28 of the EIS are addressed.

Existing farm dams located on site would be dewatered as needed to support construction activities in accordance with the Biodiversity CEMP. The recovered water will be used primarily for dust suppression during construction consistent with the Air Quality CEMP.

5.4 Removal of existing roads and utilities

A range of existing infrastructure located at the Airport Site are incompatible with the proposed airport and will need to be removed and/or relocated. These assets include The Northern Road, a TransGrid 330 kV transmission line, telecommunication lines, electricity distribution and supply lines and water mains.

The Northern Road will be diverted around the Airport Site by Roads and Maritime Services as part of The Northern Road Upgrade Stage 4 under the Western Sydney Infrastructure Plan. It is anticipated the new diversion will be completed in early to mid-2020 to allow access to cross the old road alignment for the Earthworks contractor.

Arrangements for the internal road network and connections with the local road network outside of the Airport Site including existing roads and new roads to be constructed as part of the Stage 1 Development are shown in Figure 2-3.

Existing internal roads on the Airport Site within the CIZ, such as Taylors road may be used as haul roads during site establishment and early construction execution consistent with recommendations in section 5.8.2 of the EIS.

Existing utilities including roads, electricity, water and telecommunications on the Airport Site will be used where practical to do so; otherwise they will be removed progressively where they are not required for construction or by other customers. Utilities that service customers outside the Airport Site will be relocated to provide continuity of these services. WSA Co is consulting with the various service asset owners for the removal and replacement of assets.

- The removal of electricity assets at the Airport Site, including distribution and supply lines, will be arranged by the network operator;
- TransGrid is the network operator of the existing 330 kV overhead transmission line that crosses the site and is incompatible with airport operations. The TransGrid Relocation Works were authorised by the Airport Plan determined on 5 December 2016, following finalisation of the WSA Project EIS (dated September 2016). The Relocation Works are currently underway and involve the relocation of the overhead transmission lines to an underground system along an alternative alignment. The transmission line relocation works are not in close proximity to the EEW construction work and are adjacent to the Visitor Centre and Site Accommodation site. Section 6 provides detailed information on the works planned as part of the Visitor Centre and Site Accommodation construction activities;
- Removal of potable water infrastructure at the Airport Site would be subject to applications to the relevant water utility provider (Sydney Water). Reconfiguration of the water supply network would be carried out prior to removal of underground piping from the Airport Site, in order to maintain continuity of service to customers outside the Airport Site; and
- The overhead telecommunications cable along The Northern Road will be replaced by an underground line within The Northern Road realignment with works being completed prior to the area being handed to the project. The current underground cable that is located along the Badgerys Creek road alignment will remain in place and operational until the new cable that will be located on the realigned road is operational. Telstra is developing a longer-term plan for these services and once completed will be responsible for undertaking the works.

5.5 Earthworks

As outlined in Section 2.1, Earthworks will be performed under four packages: EEW, Visitor Centre and Site Accommodation Works, and two Bulk Earthworks & Drainage packages covering separate areas of the Airport site (1A and 1B) (refer to Figure 2-1). Section 6 provides detail on the scope, schedule and construction methodology for the EEW.

5.5.1 Topsoil stripping and stockpiling

Topsoil over the bulk earthworks footprint will be stripped by scrapers to a depth of approximately 200 millimetres. The total volume to be stripped is approximately 1.9 million cubic metres.

About 200,000 cubic metres of topsoil will be used to rehabilitate disturbed areas outside the CIZ. This includes rehabilitation of the disturbed areas associated with the demolition and removal of vacant buildings and other structures, which the Department of Infrastructure, Regional Development and Cities previously managed. Day-to-day management of the site is now the responsibility of WSA Co. The remaining topsoil will be stockpiled within the CIZ. The size of the stockpiles will be limited to a height of two metres to prevent deterioration of the material to be used as topsoil and appropriate erosion control devices will be installed around the stockpiles.

Topsoil stripping will be phased in accordance with the phasing of major earthworks packages on site and will only be stripped immediately prior to bulk earthworks commencing over the area. The purpose of this practice is to minimise moisture lose in the soils and reduce the risk of dust generation. Erosion and sedimentation controls will be reviewed to ensure that they meet the requirements under the Soil and Water

CEMP. The controls will be installed before the start of topsoil stripping in each area of work and will be reviewed as part of the daily work area inspections and after any major rain event.

5.5.2 Bulk earthworks

The Airport Site is characterised by rolling landscapes typical of the Bringelly Shale with a prominent ridge in the west of the site, reaching an elevation of about 120 metres Australian Height Datum (AHD), and smaller ridge lines in the vicinity with elevations of about 100 metres AHD. The topography of the Airport Site generally slopes away from the ridges in the west, with elevations between 40 metres and 90 metres AHD, with the lower elevations toward Badgerys Creek.

Major earthworks are required in order to achieve a level surface suitable for construction of the airport runway. The approximate elevation for the airport runway is 93 metres AHD on the northern end and 73 metres AHD on the southern end. The approximate elevation was selected in order to balance the cut and fill across the site and thereby avoid the need for any off-site disposal of surplus material. However, at the completion of bulk earthworks the landform will be left higher. This is in order to prevent degradation of the subgrade, which could be exposed to the elements for up to two years.

Bulk earthworks will involve excavation (or cut) of approximately 22 million cubic metres of earth, and a similar amount of embankment construction (or fill). The majority of the bulk earthworks is expected to be undertaken by load and haul crews (either scrapers or excavator and trucks) and placement crews (compactors, rollers, graders and water carts).

Table 2-1 shows the indicative cut/fill quantities for each earthworks package. There are a number of factors that relate to the earthworks balance on the site. The quantities prepared are based on survey data for the existing surface level that has been translated to the top of the residual layer (underneath the topsoil) via interpolation between available borehole information. Bulking factors were then applied to the materials based on the various strata to provide the final earthworks quantities. Should the topsoil depth or the bulking factors change, the cut/fill quantities will be impacted accordingly. Therefore, based on the information available, the quantities that have been prepared provide the best estimate available for the cut/fill balance, but this may be subject to change pending conditions encountered during the earthworks.

As currently calculated, the earthworks for the Stage 1 Development shows an excess of cut. However, a significant portion of this excess will be used to fill the existing dams on the site that will be made redundant through the works. Since the current survey measure ground level at the dams' water surface level, it is expected that filling these dams will consume most of the excess cut material. Any excess fill that remains beyond the filling of the dams can be used to raise the southern end of the site or the location of the proposed GBAS facility, both of which do not impact on the site grading and drainage restrictions the remainder of the site are subject to. There is also the ability to lose excess cut under the runway to smooth the vertical gradient out. Therefore, it is envisaged that the excess cut can be lost on the site and will provide an ultimate cut/fill balance.

The use of controlled blasting may be required to excavate isolated areas of hard rock throughout the CIZ. Any blasting works will be planned and executed with referencing the Noise and Vibration CEMP to ensure the works follow the requirements contained within section 3.10.2(6) of the Airport Plan which prohibits blasting activity on weekdays between 5pm and 9am and on Saturdays only allow these works to be carried out between 9am and 1pm. All works will be carried out by a licensed Drill and Blast contractor and no explosives will be stored onsite.

WSA Co will work with the Earthworks Contractor to look at alternative methods of extraction for these rock areas. A method that will be reviewed is the use of surface miners that can excavate rock and load material directly into trucks. This method will depend on the hardness of the rock encountered.

5.5.3 Construction Water

Water will be sourced through access to existing water supply pipelines and from stormwater runoff captured in sediment dams or farm dams at the Airport Site or procured from alternate sources. The bulk of water will

be provided from existing dams initially through captured surface runoff. New swales and detention basins will be delivered through the Package 1A contract to allow retention of water for use in Package 1B and Package 1C.

Surface water (farm dams and sediment basins) will be used to capture run off for water before resorting to the use of potable water consistent with recommendations of the Biodiversity CEMP. There are two potable water supply pipes located adjacent to the Airport Site along Elizabeth Drive and The Northern Road. Offtakes will be installed on the pipes to allow for 24-hour access to water. Sydney Water will be approached to provide potential pipe supply to site and other sources of local available water are currently being investigated.

5.6 Installation of drainage

Final stormwater management at the Airport Site will involve a series of grassed swales to convey runoff from the developed areas within the Airport Site, and a series of bio-retention and flood detention basins to manage flow quality and quantity prior to discharge to the receiving waters. The EEW contractor will be installing 2 Bio-retention basins to the north east corner of the site and will build the main drainage swale from the old Badgerys Creek road east to the Bio retention basin. The planned works will also construct the drainage system along the new Badgerys Creek Road alignment with the outfall entering Badgerys Creek at the north east end of the site. During the Package 1A works the contractor will be responsible to ensure that the work area does not hold water against any of the fills which will involve the contractor having to install drainage measures to contain water in the Package 1B area and install retention basins early. The 1B contractor will install retention basins and drainage works to the south of their works area. The contractor will also plan the works in a manner where they do not hold water against the fill installed by the package 1A contractor and do not allow storm water to flow into the package 1A contractor's areas.

It is expected that six detention basins with capacities of between 39,000 and 125,000 kilolitres will be established on the periphery of the Airport Site as part of the Stage 1 Development. Each basin will incorporate a smaller forebay area for the provision of a bio-retention system for the treatment of low flows prior to discharge to the environment. The locations of the basins have been selected to allow discharge points consistent with existing drainage lines and the basins will be sized to manage post-development flows to maintain predevelopment levels. A smaller bio-retention basin with no allowance for flood storage is also anticipated in the north-western corner of the site draining to Duncans Creek. The precise location and dimensions of the basins will be confirmed as part of detailed design of the earthworks and drainage solution.

The basins and their associated drains will be constructed early in the indicative construction schedule to direct runoff for treatment before discharge from the Airport Site. The basin forebay could include provision for flocculant to assist with settling of dispersive sediments, improving water quality before discharge to receiving waters. Depending on final earthworks levels, some amendment to the inlet structures may be required to divert runoff into the ponds at the completion of the earthworks. Installation of pipe and/or box culverts will occur progressively as the earthworks are completed. Environmental controls relevant to this work are described in the Soil and Water CEMP and ongoing erosion sediment control plans.

Due to the requirement for the drainage to fit in with earthworks progression, it may be necessary for the drainage crew to demobilise and remobilise to the Airport Site at various times during the bulk earthworks.

Materials such as precast concrete products (for example, pipes, box culverts and headwalls) as well as bedding sand and any select backfill will be delivered to the Airport Site progressively, as required, consistent with Noise and Vibration CEMP. Where possible, the materials will be delivered directly to their final position. If this is not possible, they will be delivered to the laydown area and then moved at an appropriate time to their final position using onsite cranes and heavy vehicles.

Open drains will be constructed progressively as earthworks are completed. The drain construction will commence at the downstream end of the drain and work upstream to prevent excessive standing water in the drains after rain. Lining or grassing of open drains will be completed as soon as practicable after

excavation. Material from the excavation of drains will be used as general fill in the construction activities. Depending on the size of the open drains, they may be constructed by excavator and truck. If drains are of sufficient size, the earthworks scrapers will excavate as part of the bulk earthworks.

5.7 Rehabilitation

Topsoil that was previously stripped from the site will be spread to areas nominated for landscaping and/or grassing. The topsoil will be transported by scrapers and spread by dozers or graders to the nominated depth. Seeding and/or planting will occur after the spreading of topsoil. Environmental controls relevant to this work are described in the Soil and Water CEMP and ongoing erosion sediment control plans

Topsoiling and seeding will be undertaken as soon as practicable after completion of the bulk earthworks, to assist with erosion and sedimentation control.

5.8 Establishment of main access point

The main construction access point during construction to the Airport Site will be from the new Badgerys Creek Road alignment. An alternate access point and carpark will be installed along The Northern Road. These access points will be surfaced with gravel pavement and a two-coat seal and built to RMS standards. Any access point that needs to be installed on an existing RMS road will be done in consultation with RMS and approvals gained prior to the access works commencing. Other internal site access roads will be gravel pavement maintained by grader and water cart and may be bitumen sealed to reduce the maintenance and dust generation. The Traffic and Access CEMP provides details of measures implemented to minimise disruption of local road networks.

5.9 Construction of paved areas

Construction of paved areas (including the northern runway, taxiways, aprons, internal roads and carparks) will involve the following:

5.9.1 Pavement box out

Areas of pavement would be left high at the completion of the bulk earthworks (to prevent degradation of the subgrade, which could be exposed to the elements for up to two years). When the pavement preparation activities are underway, the earthworks would be completed to subgrade level (that is, the underside of pavement). The earthworks would be undertaken by load and haul crews (either scrapers or excavator and trucks) and placement crews (compactors, rollers, graders and water carts). Water infrastructure used in the site preparation activities would be retained to supply water for these activities. The general earthworks profile for the pavement box out is shown on Figure 5-1.

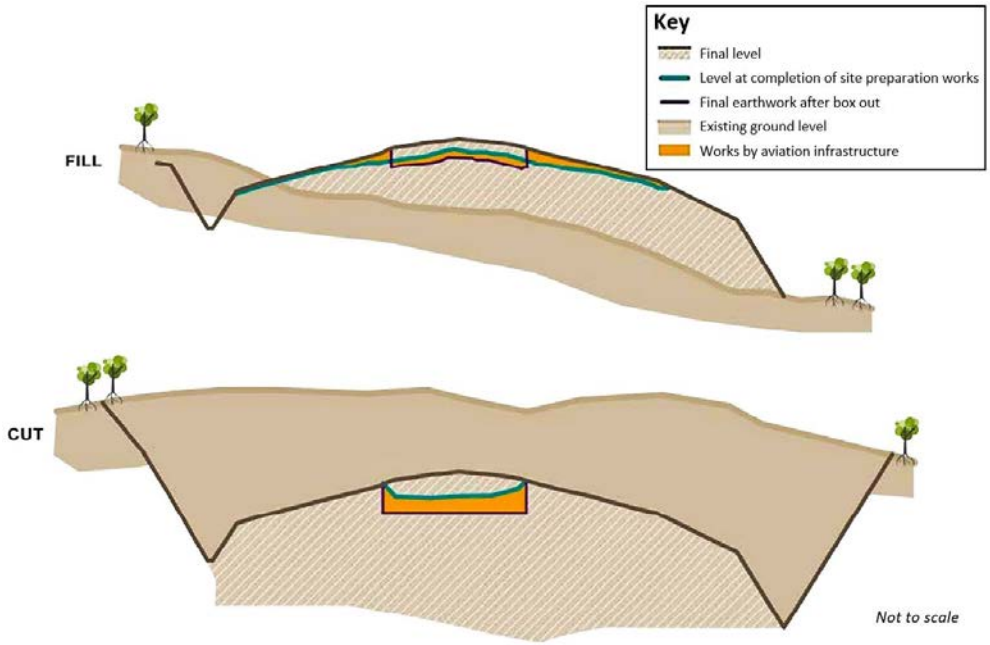

Figure 5-1 Earthworks profile incorporating pavement box out

5.9.2 Subgrade preparation

At the completion of the box out, the subgrade would be tested for conformance. If the subgrade is non-conforming, the material would be removed and replaced with suitable material. If it is conforming, it would be ripped and re-compacted. Machinery used in this operation would comprise a grader, water cart and smooth drum roller. If removal is required, the earthworks scrapers would be utilised. The unsuitable material would be disposed of on site in non-critical earthworks areas.

5.9.3 Import of pavement materials

Large quantities of fill material, required to form a major part of the runway, taxi ways, aprons, roads pavements and for temporary surfaces, will be imported to the airport site as the high-quality materials required are not available within the airport site. Gravels will be sourced from local quarries and from other infrastructure projects within the Sydney basin which have a surplus of suitable material. By utilising these, surplus materials will be diverted away from valuable landfill sites. Engineered aggregates will also be imported to the airport site for the production of concretes and asphalts required to form pavement surfacing products. In order to minimise traffic movements, it is envisaged that batching facilities would be established within the site footprint. The various types of aggregate required for concrete and asphalt production will be stored on site in segregated storage bins for later use.

5.9.4 Gravel placement

Gravel would be placed at all paved areas constructed within the Airport Site. Typically, gravel would be placed by a paver and loader and compacted by a smooth drum roller with moisture content controlled by addition of water by water cart or by pre-conditioning of the gravels by a pug mill. Quality control with be verified by a variety of measures including survey control, nuclear densometer testing, proof rolling and California bearing ratio testing as part of an approved quality control and assurance system.

5.9.5 Asphalt placement

Most taxiways, internal roads and car park pavements that are proposed to be surfaced with asphalt or bituminous bound material (BBM), will be placed by mobile paving machines. The paving machines will be

fed by transfer vehicles (typically tipper trucks), which in turn are supplied by the on-site batching plant. A pneumatic tyre roller and smooth steel drum rollers would follow the paver to compact the BBM.

5.9.6 Concrete placement

The runway, selected taxiways and apron pavements, proposed be constructed as rigid pavement using concrete, will be placed and compacted by a slipform concrete paving machine. The paving machine will be fed by a material transfer vehicle (typically a covered tipper truck), which in turn is supplied by on-site concrete batching plant(s). The compacted concrete will be finished by hand using and sprayed with a curing compound. Joints in the concrete pavement will be formed either by saw cutting the surface after initial setting of the concrete or by crack inducers placed in the pavement lanes, or a combination of both methods. Infill panels and interface concrete pours will be placed by hand using a more traditional approach for concrete placement, finishing and curing.

5.9.7 Installation of lighting

Aeronautical Ground Lighting (AGL) will be installed within the pavement surface for aircraft ground navigation, by coring and installation of seating rings over pre-installed ducts in the lower pavement layers. The AGL units are then fixed to the seating rings and connected to the electrical cable network via the ducts.

5.10 Facilities Construction

Construction of the airport facilities (for example, the terminal complex, air traffic control facility, freight and maintenance facilities, perimeter intrusion detection system, fuel farm, meteorological facility, navigation aids, substation, etc.) would generally involve the following stages:

- foundations and floor slabs, structural framing and intermediate floors (if required);
- roofing;
- exterior wall systems;
- mechanical electrical plumbing (MEP)
- vertical circulation;
- automated systems and security systems (if required);
- internal fit out; and
- commissioning.

Detailed design of the proposed airport facilities would be carried out in accordance with the requirements set out in the Part 3 of the Airport Plan and Western Sydney Airport Key Functional Specifications.

6 Active Construction Activities

The details for the construction activities occurring on site and covered by this Construction Plan are detailed in the following sections. This includes the EEW phase; construction of the Visitor Centre and Site Accommodation and material importation. Figure 6-1 shows the location of where the work is occurring in geographically different portions of the Airport Site.

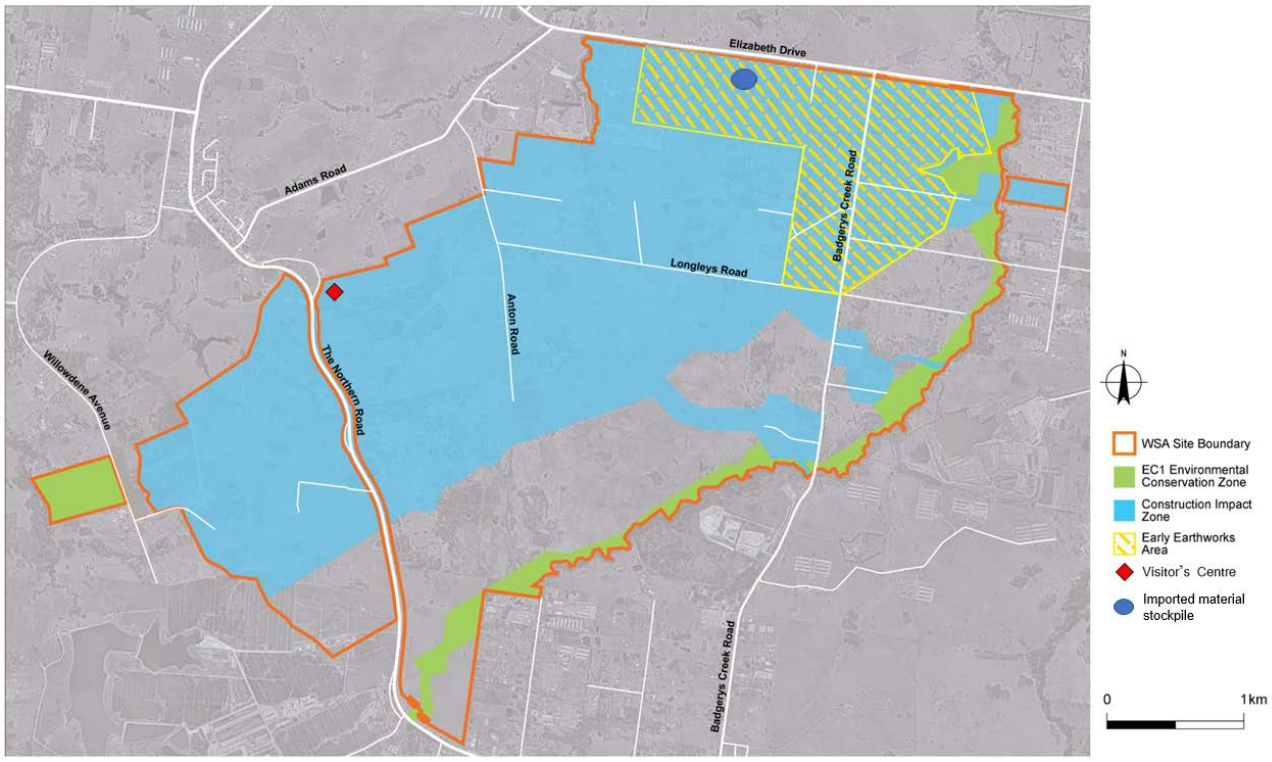

Figure 6-1 Stage 1 Development construction location plan

6.1 Early Earthworks Construction Staging

The EEW construction site is an area of early development and earthworks within the Stage 1 Development which will include the realignment of the Badgerys Creek Road and levelling of the Northeast Business Park. The EEW phase of the project comprises work on 120 hectares of the overall site and will be bound by Elizabeth Drive to the north and Badgerys Creek to the east, and will occur within the hatched area shown in Figure 6-1.

The EEW construction package will be executed in 6 stages. This staging has been developed to ensure that the RMS approval of the works for the intersection of Elizabeth Drive and Badgerys Creek Road and the drainage works within the Environmental Conservation Zone (ECZ) poses minimal disruption to the construction schedule. The proposed stages are provided in Table 6-1 and Figure 6-2 and illustrated in Figure 6-2.

Table 6-1 Early Earthworks Indicative construction schedule

Early Earthworks Construction staging	Indicative Timing
Early Earthworks Preparatory Activities	Aug 2018 – Dec 2019
▪ 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	
Stage 1	Sep 2018 – Jan 2019
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: ▪ 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	Jan 2019
Excavate Bio Retention Pond 1 for use as temporary erosion and sediment control.	
Stage 3	Oct 2018 – April 2019
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: ▪ 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;	

Early Earthworks Construction staging	Indicative Timing
▪ Construct bridge over stormwater channel; and ▪ Endeavour Energy utility removal.	
Stage 4	Nov 2018 – Dec 2018
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.	
Stage 5	Nov 2018 – Sept 2019
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: ▪ 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.	
Stage 6	April 2019 – Dec 2019
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: ▪ Undertake Elizabeth Drive intersection works. ▪ Divert traffic onto the full Badgerys Creek Road alignment; ▪ Endeavour Energy Elizabeth drive works.	

A high level EEW schedule is provided below. Construction of the EEW package is expected to commence in September 2018 and be completed in December 2019. The total period for EEW is expected to be approximately 14 months as illustrated below in Table 6-2.

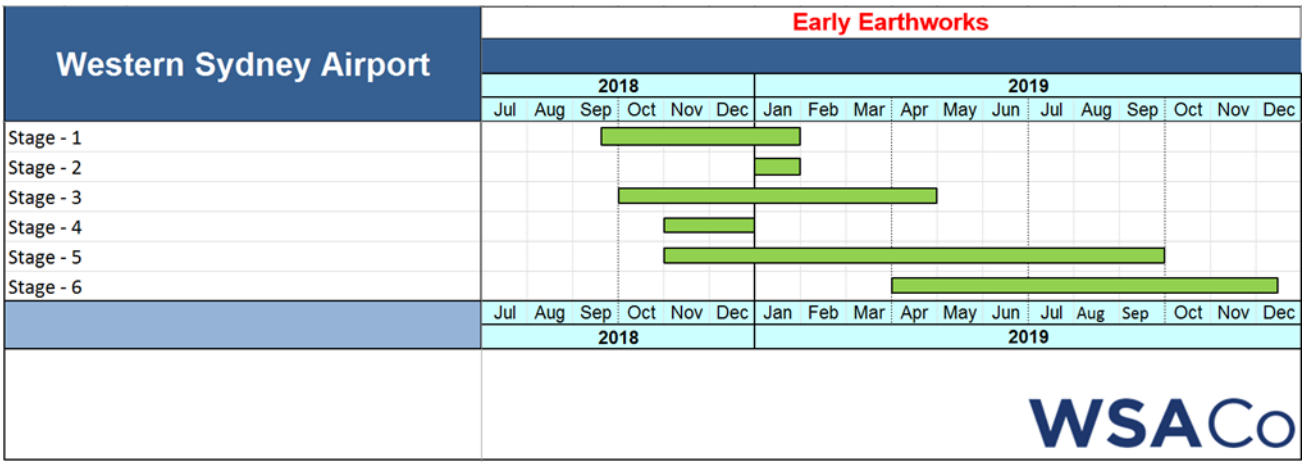

Table 6-2 High-level Early Earthworks schedule

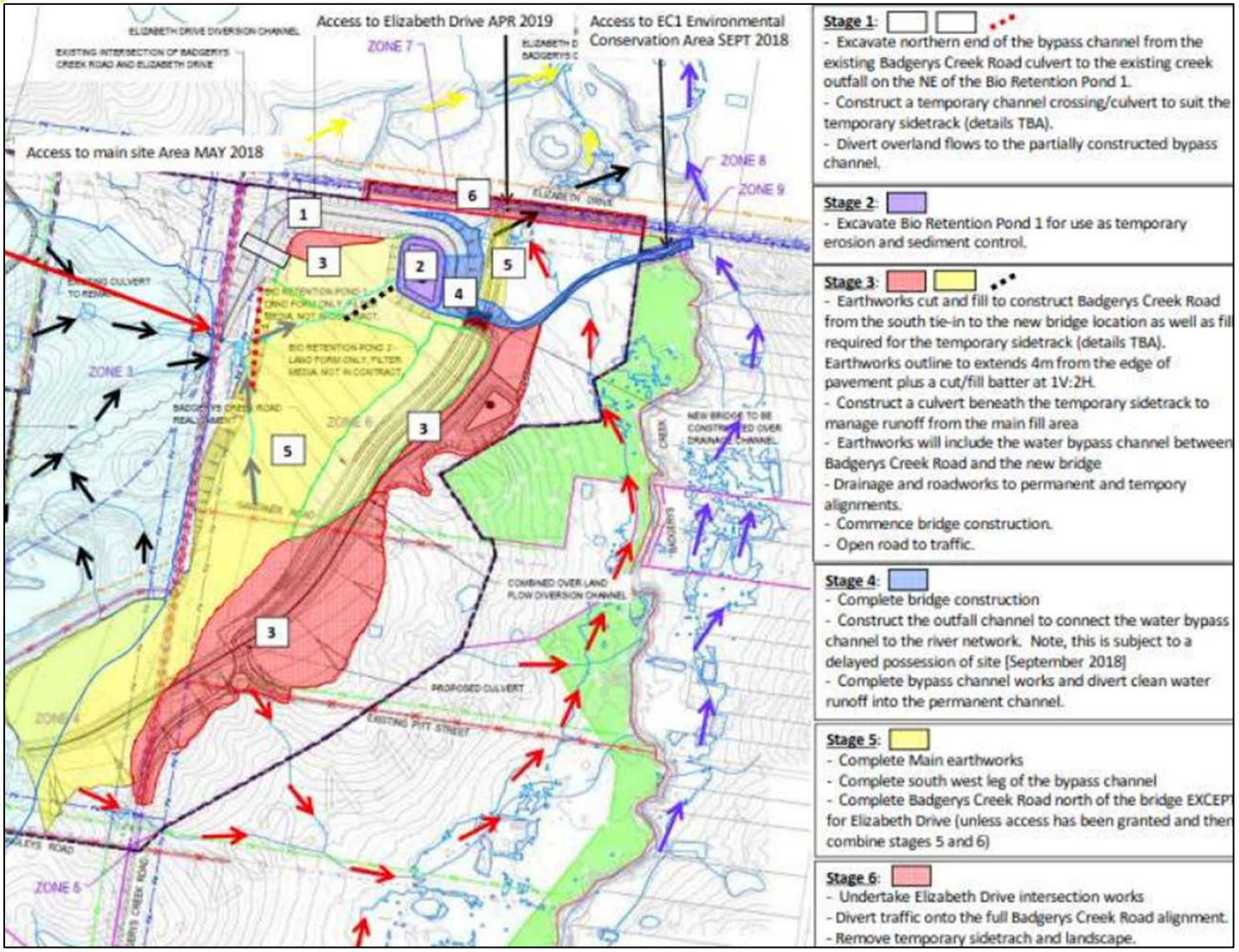

Figure 6-2 Early Earthworks High Level Staging Map

6.2 Site Establishment and Early Works

A two-stage process will be used to establish the main site compound. In the first stage, a small satellite site office and access point will be established near the intersection of Elizabeth Drive with Badgerys Creek Road, in order to allow the contractor to begin work immediately. The satellite office will support early site establishment while the main Visitor Centre and Site Accommodation complex is under construction. Figure 6-3 below shows the extent of the EEW construction footprint and the proposed location for the satellite site offices.

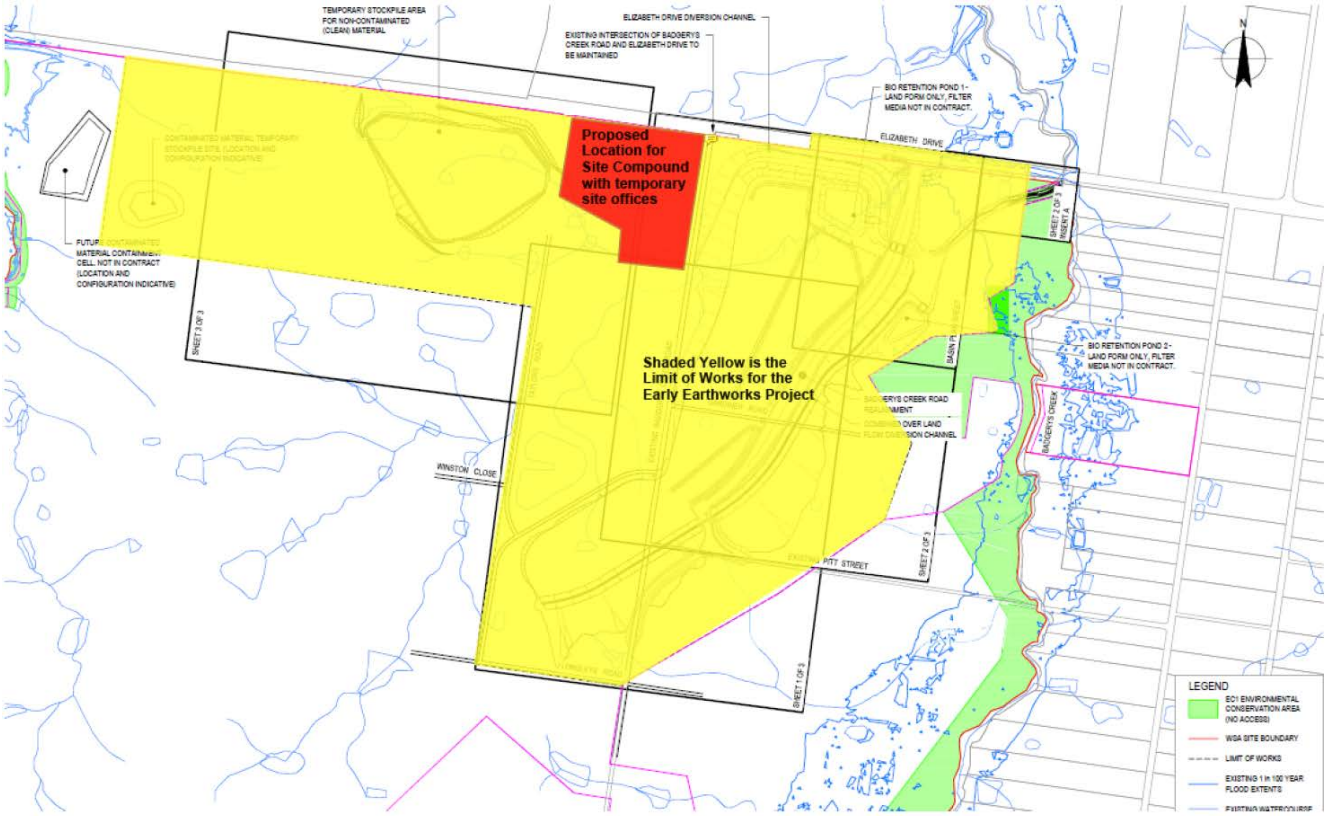

Figure 6-3 EEW Work Area Map

6.2.1 Enabling Works

Enabling works for the EEW construction will include a continuation of preparatory works which were previously described in Section 2.1.2 along with other activities to begin execution of the EEW. Temporary traffic controls will be an essential part of the enabling works and will involve installation of signage along Badgerys Creek Road to separate live traffic from the civil works required for the construction of the new compound access roundabout. Other traffic controls will be placed along Elizabeth Drive in order to construct the new Badgerys Creek Road intersection. Construction signage and Variable Message boards (VMS) will also be installed to warn motorists of construction activities. The Traffic and Access CEMP provides additional details on traffic management during construction execution.

6.2.2 Remediation

Contaminated areas identified during preparation of the EIS and other recent site assessments will need to be decontaminated and verified as remediated prior to commencement of bulk earthworks. Following identification and classification of any Asbestos Containing Material (ACM), the material will be excavated, loaded into dump trucks and hauled to the onsite Asbestos Waste fill stockpile in accordance with the

recommendations of the Remediation Action Plan (RAP). Prior to excavation and transport of the ACM a safe work method statement (SWMS) will be prepared and approved.

6.2.3 Environmental Conservation Zone and Heritage Salvage

In accordance with the initial survey salvage plan and EIS recommendations, prior to commencement of construction, areas of known Aboriginal and European artefacts have been examined and heritage items salvaged. Five sites have been identified within the EEW footprint. The Aboriginal and European and Other Heritage CEMPs provide detail on the Unexpected Finds Procedure to be followed in the event new items of heritage importance are discovered during construction execution.

The Environmental Conservation Zone (ECZ) will be fenced to prevent access to this area during EEW. Areas of known Aboriginal, cultural, European and Other Heritage will be clearly demarcated in the field and access restricted. No-go signage will be clearly installed on fences. A permit to enter no-go areas will be issued by WSA Co to the relevant contractor or employee.

6.2.4 Survey and Utility Potholing

As part of the site establishment works, survey control points will be established. Existing utility information from “Dial Before You Dig” will also be confirmed by potholing using non-destructive digging and manual excavation, as necessary. Where existing underground utilities may be impacted by construction vehicular traffic, temporary protection such as steel plates at surface level may be used to minimise any impact.

6.2.5 Clearing, Grubbing and ERSED Controls

Vegetation requiring removal during EEW is predominantly large scattered mature trees and ground cover. As prescribed by the Biodiversity CEMP, prior to clearing and grubbing activities, a pre-clearance survey will be undertaken by ecologists. The aim of these surveys is to identify any habitat features that may harbour fauna, as well as identify threatened species that can be relocated prior to construction activities. The Biodiversity CEMP provides detailed information on pre-clearance survey requirements.

6.3 EEW Construction Tasks

6.3.1 Earthworks and Demolition

There is approximately 1.7 million cubic metres of earthworks required as part of the scope of works. As shown in Table 2-1, current survey and geotechnical data suggests a fill deficit of 100,000 cubic metres. In the case that cut/fill balance cannot be reached using materials available on site, there is the potential to obtain material from other infrastructure projects from within the Sydney basin. Testing will ensure fill is high quality for use in pavement locations. This approach is consistent with the EIS and has thus been factored into traffic management planning.

Typical geology of the site includes 0-3m sandy silty clays; 3-5m weathered rock; 5-9m of hard rock and 9m and deeper have localised areas of very hard rock including sandstone. The different material requires different extraction and earthmoving techniques resulting in various productivities.

Temporary haulage routes will use the existing redundant internal roads (where practicable), supplemented by additional temporary haul roads. A temporary heavy vehicle crossing across Badgerys Creek Road will be constructed with appropriate erosion and sedimentation plus traffic control measures in place.

Temporary haul roads will be established throughout the site and maintained to provide clear thoroughfares for major haulage plant. Material will be transported in a combination of tractor driven scrapers, articulated dump trucks and road trucks as necessary to the type of material, access constraints and haulage distances.

Topsoil stockpiles will be staged per approved construction plans and design drawings. Water is planned to be sourced from existing dams on site, including the major storage facility on Taylors Road and, where practicable, from the two main sedimentation basins (future bio-retention ponds).

It is anticipated that most of the excavated material will be suitable for re-use in the earth fill embankments except for contaminated material or unsuitable material from ponds. Figure 6-4 shows the location of major site features including the contaminated material stockpiles.

It is anticipated that blasting and minor drilling will be required along a hard rock ridge located along the new Badgerys Creek Road alignment. The works will be controlled in line with the measures outlined in the Noise and Vibration CEMP specifically with regards to limiting of blasting activities on weekdays between the hours of 5pm and 9am and only allowing blasting activities to occur on Saturday between 9am and 1pm. This is consistent with the requirements contained within section 3.10.2(6) of the Airport Plan. Residents will be notified of blasting activities and road closures at least one (1) week before they are scheduled to occur.

No explosives will be stored on site and all works will be carried out by licensed and authorised contractors.

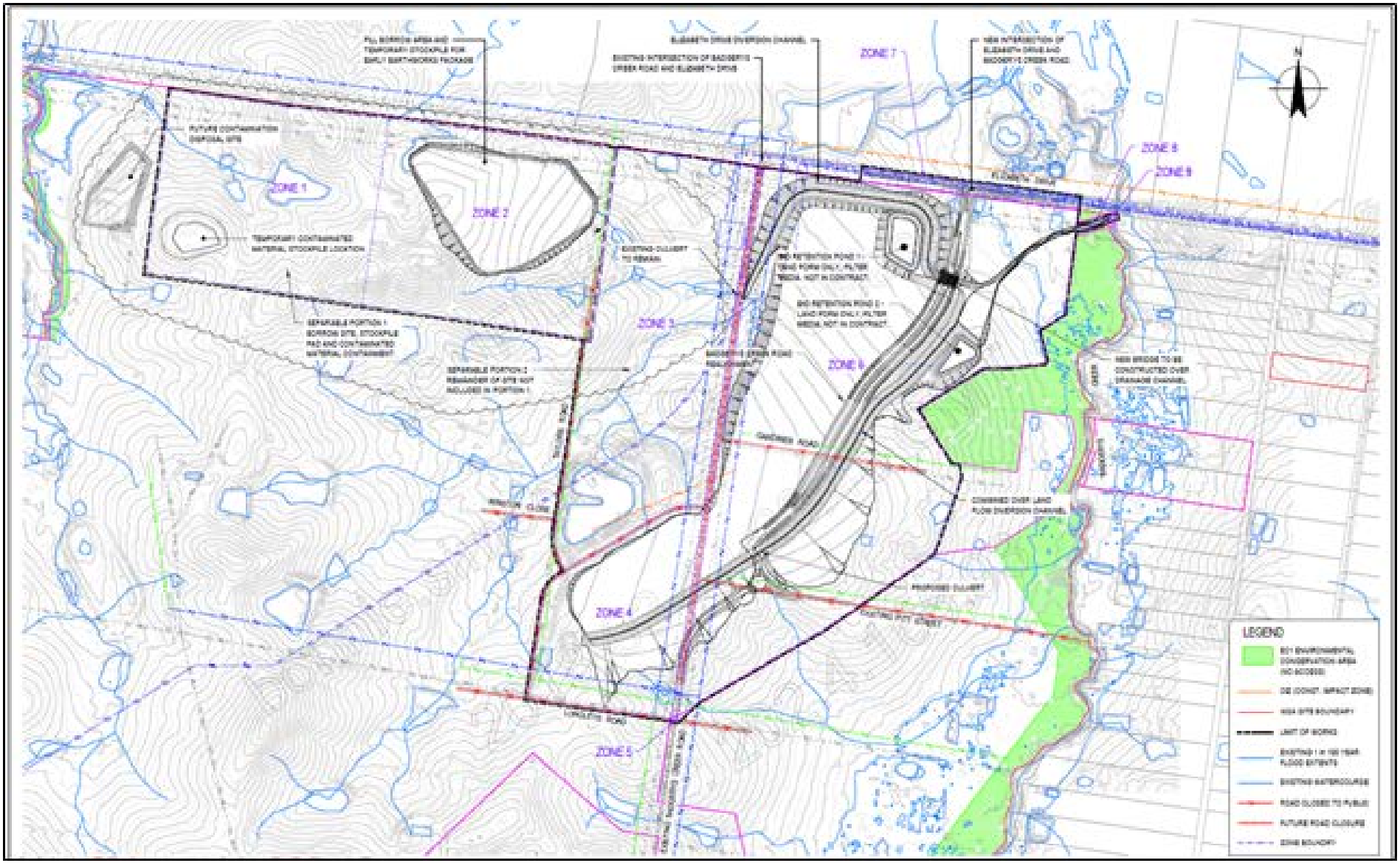

Figure 6-4 EEW Site Plan (GHD, 2018)

6.3.2 Spoil

All unsuitable material (includes materials which are moisture affected) is planned to go to spoil stockpile. The material may be dried out, and where required, treated with other general fill for backfill into the main embankments or may be disposed at a licensed facility if it is not practical to re-condition.

6.4 Materials and Waste Management

Four strategies will be used for managing spoil on the project with a view to minimise the amount of generated spoil material. The four methods include Waste avoidance, re-use onsite, re-use offsite and disposal. The Waste and Resources CEMP provides detailed guidance on procedures to be implemented during construction execution and meets the conditions set out in the Airport Plan.

- Waste Avoidance: Minimise excavation activities – reduce earthworks for drainage and pavements. Onsite classification of natural materials from other waste streams;
- Re-use on site: Where possible, the reuse of excavated materials within the project site will be maximised. This will reduce the need to import material onto the site, reduces the need for finding off-site re-use or disposal locations and the associated materials handling and transport issues, reduces fuel use and minimises the project footprint;
- Re-use off site: Beneficial re-uses such as concrete and asphalt recycling, rehabilitating borrow pits, embankment widening/flattening, re-shaping engineered fill, acoustic and visual mound construction, council developments; and
- Disposal: When all other strategies have been exhausted, off-site disposal is the last and least preferable management option to be considered. At all times, offsite disposal must be to a facility licenced to receive the material in accordance with the EPA's guidelines.

6.5 Roadworks

The EEW project has two primary areas of road construction:

1. The new, realigned Badgerys Creek Road (BCR); and
2. Widening of existing Elizabeth Drive and new intersection with BCR.

Works will only commence on the Elizabeth Drive intersection once all relevant RMS approvals have been obtained.

6.5.1 Badgerys Creek Road Alignment

Badgerys Creek Road will be realigned from the southern end near Longleys Road through to a new intersection with Elizabeth Drive. The road will be moved to the east and works will involve the bulk earthworks cut to fill operation of approximately 900,000 cubic metres to form the new alignment. The pavements for the roads sub-base and base course will be imported from a quarry and the surface of the road finished with asphalt.

The road alignment will include a roundabout installed where it intersects with Pitt Street and a new dual line bridge installed over the main drainage channel from site. New water and telecommunication services will be installed along the road alignment to service future developments.

6.5.2 Elizabeth Drive Widening and Tie-In

Subject to final design and RMS approvals, the new Elizabeth Drive intersection requires the construction of full depth asphalt (FDA) pavement widening to both sides of the existing roadway. No pavement reconstruction works are currently required.

To minimise the disruption to traffic, concrete barriers will be placed on one side of the road to enable traffic on Elizabeth Drive to be maintained while also protecting workers from passing vehicles. The existing road is too narrow to enable barriers on the edge of either side of the existing road whilst complying with the current

minimum requirements in the RMS G10 specification. As a result, two construction stages are currently required.

The widening commences with the westbound lanes on Elizabeth Drive followed by the eastbound in order to prioritise the opening of the new road.

Based on the existing pavement width of 9m (2 x 3.5m lanes plus 1m shoulders), a temporary road configuration with 2 x 3.2m lanes, with 0.5-1m shoulders is proposed, with the work zones protected using 0.6m wide T-Lok Type-F barriers (or similar). Staging of the works will use approved temporary traffic staging plans. Existing traffic flows will be accommodated as far as is practically possible. All relevant approvals will be obtained prior to construction.

6.6 Pavement Works

Pavement designs are typically Full Depth Asphalt (FDA) pavements on selected material with exception of the shared user paths (reinforced concrete) and concrete median islands. Asphalt pavements are planned to be constructed in accordance with appropriate RMS roadway design guidelines using conventional asphalt paving equipment. The types of plant to be used includes but not limited to:

- Material transfer vehicles (Shuttle Buggy);
- Asphalt paving machines;
- Compaction equipment (steel drum rollers and multi-tyred rollers);
- Semi-trailer delivery trucks;
- Spray trucks (for placing spray seals and tack coat);
- Skid steer loaders, with broom and bucket attachments; and
- Profiling/milling machines.

6.7 Road Furniture

6.7.1 Safety Barrier Systems

Regular performance barriers have been detailed on the new bridge structure only. There are currently no other safety barrier systems proposed on Badgerys Creek Road apart from the non-mountable SA kerbs.

Elizabeth Drive will have two new lengths of safety barrier (G4 W-beam) to protect motorists passing over the box culvert creek crossing.

6.7.2 Street Lighting

New street lights are proposed to be installed along both verges of Badgerys Creek Road and Elizabeth Drive.

6.8 Bridgeworks

Two new single span bridges are required to be constructed where the new Badgerys Creek Road passes over the re-aligned drainage channel. There is one bridge for each carriageway. The combined bridges consist of reinforced concrete pre-stressed “Super-T” girders with spill through abutments. As the new bridge passes over an artificial creek, there is minimal interface with existing waterways during construction.

These works are planned to be undertaken following area decontamination and the construction of the new bio-retention ponds. The piling and abutments for the twin bridges have been programmed to commence after the embankments for the new Badgerys Creek Road diversion reach the underside of the abutment headstocks. This is followed by construction of the superstructure.

The bridges are to be constructed conventionally. Major plant includes pile drilling rigs, ready mixed concrete trucks, concrete pumps and mobile cranes. The precast super-T girders are constructed off site and transported to site using steerable articulated trailers along designated routes.

6.9 Drainage Works

New Drainage infrastructure consists of precast concrete pits, pipes and box culverts to transport the surface run-off from the new Badgerys Creek Road carriageway kerbs and gutters into the bio-detention basins. All planned drainage works are consistent with permissible land uses per the Airport Plan.

The development of the airport will require the establishment of flow control structures required to ensure stream stability and to minimise erosion. These earthworks are not bulk earthworks and will involve the shaping of the landscape to create grassed swales with appropriate flow controls to minimise the potential for erosion or scouring in receiving waters.

The subsurface drainage consists of precast concrete pits and pipes running along the kerb lines of Badgerys Creek road. The lines transport surface run-off from the road into the large bio-retention ponds. Further to the longitudinal lines there are some larger transverse cross-drainage lines running perpendicular to the carriageway. The deep lines will be constructed during the bulk earthworks operation and protection measures will be installed to ensure they are not damaged during construction works. The works will be conducted in accordance with RMS R11 specification.

Large, trapezoidal swale drains are detailed on both sides of the new Badgerys Creek Road. Due to their size, they are planned to be constructed during the bulk earthworks operations, with the condition of ensuring they do not allow for untreated (dirty) water to be transported off-site. In order to achieve this, the drains will not be constructed until the permanent or temporary detention sediment basins are installed downstream of the open drains.

Two large bio-retention ponds are proposed in the EEW design. The ponds are planned to be constructed in the early stage of the construction project to prevent any untreated water from escaping offsite. The ponds (as well as other temporary basins) will be used to store and treat as necessary construction water required for the bulk earthworks operations.

Further details on the drainage construction methods and staging will be included in the detailed Construction Area Plans.

6.10 Utilities and Service Works

The utilities work scope comprises works for Sydney Water, Endeavour Energy and Telstra. The utility works are staged in consideration of the requirements of the relevant authority, construction methodology and traffic management.

Some utility works will impact local road traffic such as where existing utilities need to be protected or decommissioned. Where utility relocations are a result of widening of existing carriageways, protection and relocation will occur prior to the widening. In some cases, separate traffic control will be arranged however this is minimised to reduce the impact on the local road network.

The staging of the utility works considers the requirement to maintain services to existing customers located to the south of the site on Badgerys Creek Road. These existing services will only be removed after the new services on the re-aligned Badgerys Creek Road have been commissioned.

Typically, redundant services can be removed at any time (subject to liaison with the relevant authorities). The redundant services along Badgerys Creek Road will not be removed until the new alignment is operational.

Where required, existing utilities will be protected from construction impacts. This may be in the form of delineation or separation using steel plates, concrete encasement or engineered fill. At all times, the service provider will be consulted where protection and coordination is required.

As part of the EEW package, there are three major services which require relocation along the realigned Badgerys Creek Road:

1. Sydney Water;
2. Endeavour Energy; and
3. Telstra.

Telstra will undertake the relocation of its cables as non-contestable works. Approved constructors will be engaged to undertake the contestable works for Endeavour Energy and Sydney Water.

6.10.1 Sydney Water

A new 200mm ductile-iron concrete-lined (DICL) water main will be installed in the combined services route (CSR) along the new Badgerys Creek Road. The new main will connect into the existing 150mm diameter cast-iron concrete-lined (CICL) mains in the southern end of Badgerys Creek road and the existing 200mm diameter CICL main on Elizabeth Drive to the north. Once connected and cut-over, the existing 150mm CICL mains along Badgerys Creek road can be removed. The scope of work for this utility includes:

- Shutoff and removal of redundant mains on local roads e.g. Longleys, Pitt, Taylors and Gardeners roads;
- Install new 200mm ductile-iron concrete-lined main along the new Badgerys Creek Road in the CSR;
- Connect 200mm main into existing 200mm on Elizabeth Drive;
- Connect 200mm main to 2 x 150mm at south of Badgerys Creek Road; and
- Cutover new line. Remove and dispose redundant 2 x 150mm mains from Badgerys Creek Road.

The existing mains on the local roads are redundant and can be removed as part of the project early works. Once removed the main earthworks embankment can be constructed. Following embankment construction, the new 200mm main along Badgerys Creek road will be installed and connected into the Elizabeth Drive and Badgerys Creek Road mains.

The 150mm CICL and DICL mains along Badgerys Creek Road south of the EEW boundary provide water to nearby residences and businesses. During the final cut-over of the new water main, these services will have a short duration outage. Consultation between the Contractor, Sydney Water and the community liaison manager will be required to coordinate the shutdown and plan for a time of least disruption to the affected water users.

A sketch of the interface of the Sydney water mains and the EEW site is shown indicatively in Figure 6-5.

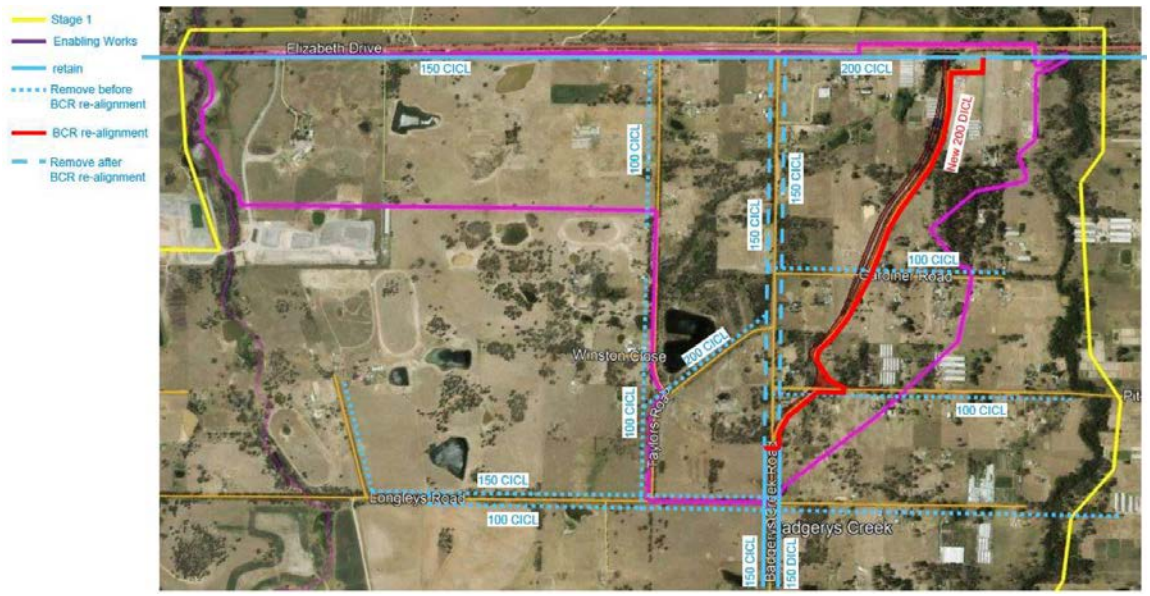

Figure 6-5 Sydney Water Mains work on EEW Site

6.10.2 Endeavour Energy

The scope of work for this utility includes:

- Installation of new Street lighting ducts along the new Badgerys Creek Road alignment;
- Transmission feeder adjustments must be completed before removing feeder 1236 on Badgerys Creek Road to maintain power to residents and businesses; and
- Along Elizabeth Drive, the existing 33kV Overhead lines will be transferred underground. The contractor will install the cable ducts and Endeavour Energy will pull cables and complete the cut-over.

A sketch of the interface of the Endeavour Energy power lines and the EEW site is shown indicatively in Figure 6-6.

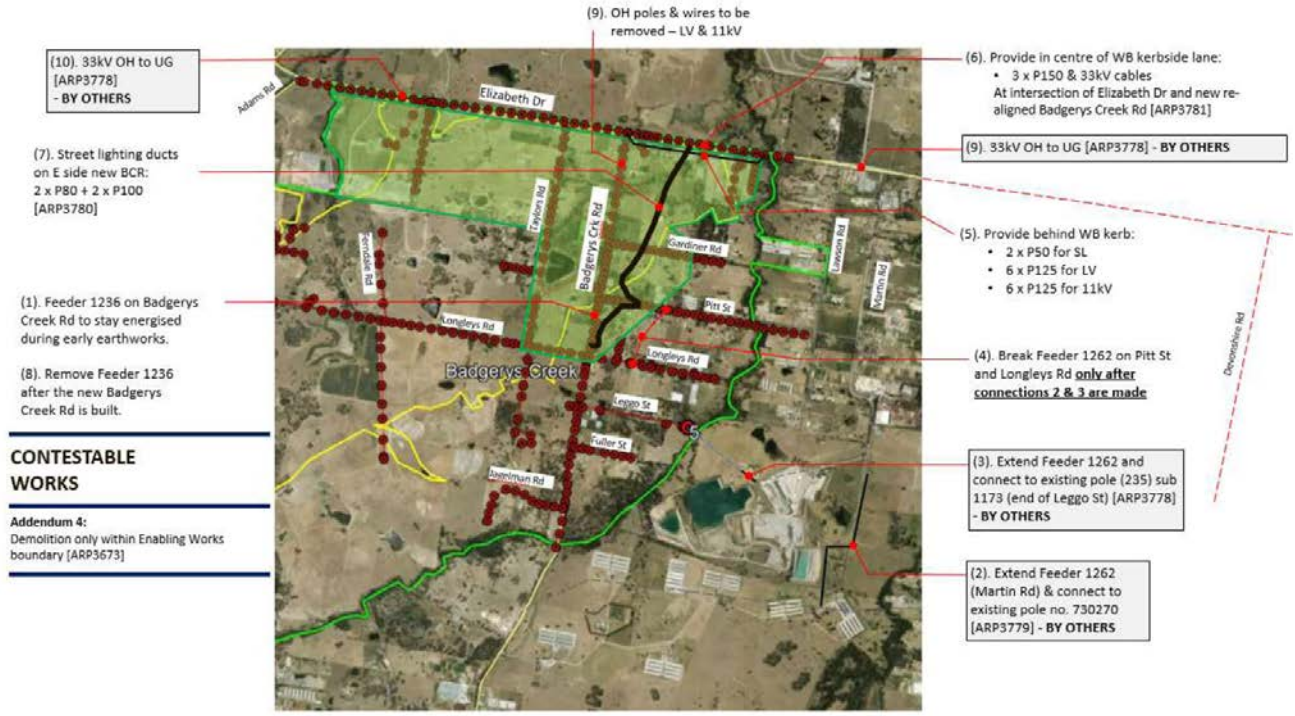

Figure 6-6 Endeavour Energy work on EEW site

6.10.3 Telstra

The scope of work for this utility includes:

- Removal of redundant Telstra lines on local roads e.g. Longleys, Pitt, Taylors and Gardeners roads can commence as soon as possible;
- New Telstra FOC will be installed along the new Badgerys Creek Road alignment;
- New Telstra line will connect to existing on Elizabeth Drive in the North, and existing on Badgerys Creek Road to the south; and
- Following cutover, the redundant FOC along existing Badgerys Creek Road can be removed.

A sketch of the interface of the Telstra Cables and the EEW site is shown indicatively below in Figure 6-7.

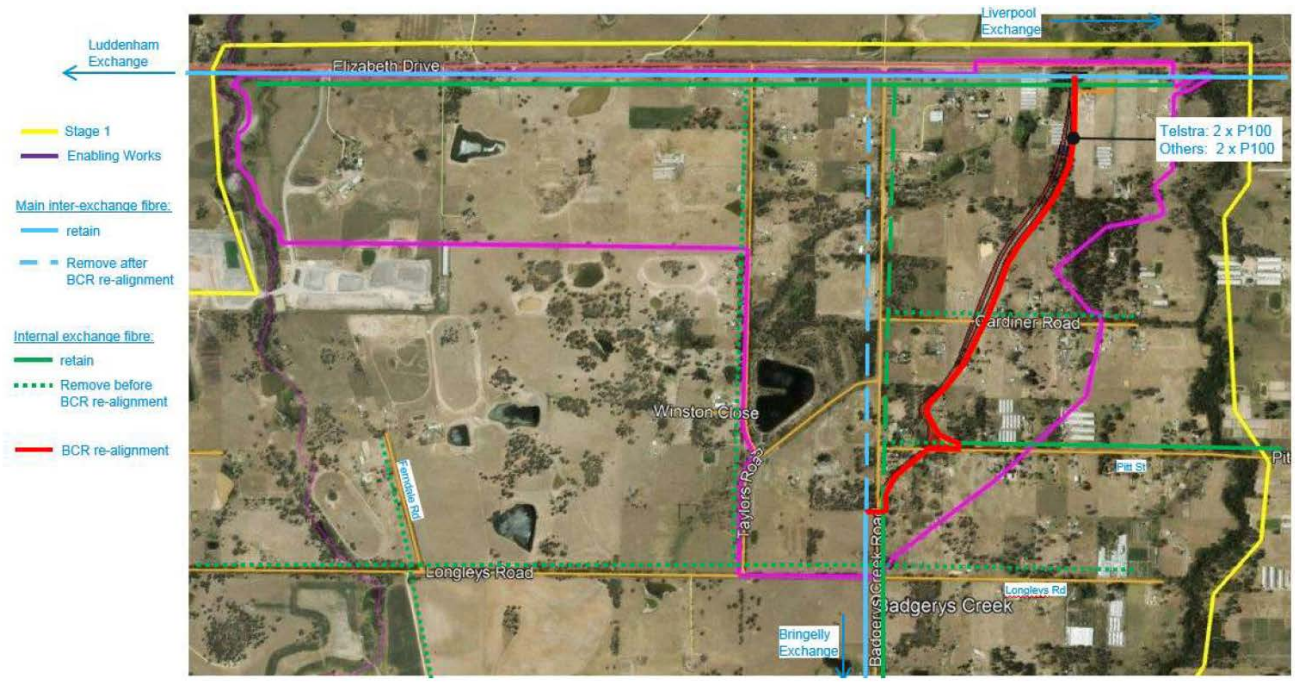

Figure 6-7 Telstra work on EEW site

6.10.4 Other Utilities

It is highly likely that disused, unchartered or unknown underground, redundant services will be uncovered during earthworks operations due to the previous infrastructure that existed inside the construction works area. If uncovered, these services will be confirmed as redundant and removed as part of the works. Other main service providers have not been identified in the EEW area, such as:

- NBN;
- Jemena; and
- Sewerage.

6.11 Visitor Centre and Site Accommodation

The Visitor Centre and Site Accommodation (VC & SA) will be undertaken between November 2018 and June 2019, during the EEW phase of the project. The site will be located in the northwest of the Airport Site near Luddenham and will be accessible from Eaton Road.

The scope of work associated with these facilities include the following:

- Construction access and preliminary activities
- 400m^2 Visitor Centre building
- 1200m^2 Site Accommodation building
- 140 car park spaces
- Landscaping
- Compound perimeter fencing
- Decontamination
- 6000m^3 earthworks (cut to fill)
- Internal access roads
- Improvements to Eaton Road to improve access for operational phase

- Utility connections
- Waste water treatment facilities

The earthworks will involve clear and grub of the site and bulk earthworks to bench and level the site. These works will include approximately 6000 cubic metres of cut to fill. Cut-fill balance design has been selected to minimise the removal of material off site and corresponding heavy vehicle movements. Further details regarding controls are contained within the applicable CEMP.

The preliminary site layout for the Visitor Centre and Site Accommodation are shown below in Figure 6-8.

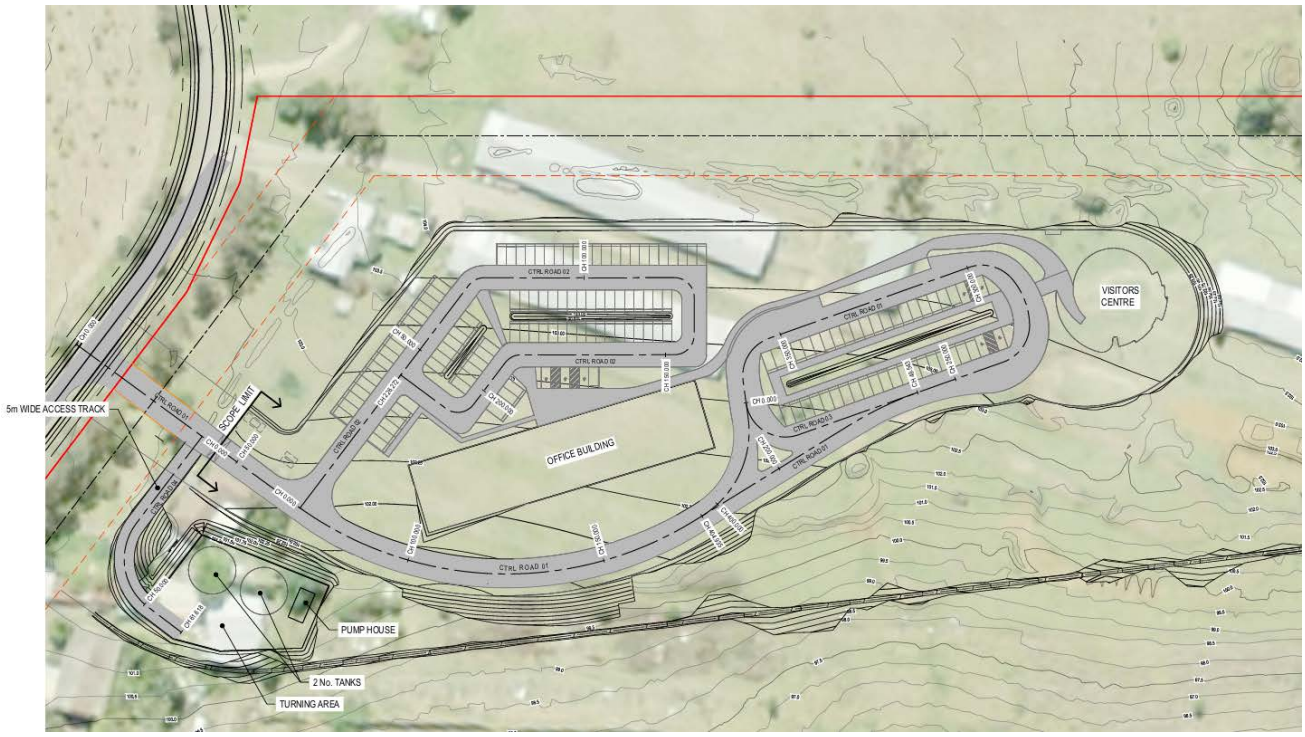

Figure 6-8 Preliminary Visitor Centre and Site Accommodation Site Plan

6.11.1 Construction Staging - Visitor Centre and Site Accommodation

The Visitor Centre and Site Accommodation construction package will be executed in two key overlapping stages.

- Stage 1 delivers site access, utilities and the earthworks required to provide a level building plot
- Stage 2 delivers the inground services within the building plot, car parks, foundations, building structure and fit out

The proposed stages are provided in Table 6-3 below.

Table 6-3 Indicative Construction Schedule

Construction Staging		Indicative Timing
Stage 1	**Site access and preparation works** ▪ 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; ▪ Implementation of the RAP; and	November 2018 to December 2018

Construction Staging		Indicative Timing
	▪ Other activities which an Approver determines are Preparatory Activities.	
	Earthworks to level the site ▪ Earthworks – Cut and Fill (carting and disposal off-site); and ▪ Site Grading and Benching.	December 2018 – January 2019
	External roadworks* (Eaton Road – North and South from VC Entrance) ▪ 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.	December 2018 – May 2019
	Utilities (Power, Water and Telecommunications) ▪ 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.	
Stage 2	**Foundation Works and In-Ground Services** ▪ Slab on ground for the VC; and ▪ Screw Piles for the SA.	January 2019 – February 2019
	Structure ▪ 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.	February 2019 – March 2019
	Finished and Internal Services ▪ Utilities – provision and coordination of connections to external utilities such as potable water, electrical and telecommunications; ▪ Services: o Fire-water and wastewater treatment systems; and o 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.	February 2019 – May 2019
	Testing and Commissioning ▪ Comprehensive and systematic testing and commissioning of all utilities (below and above ground), internal services and systems: o Dry / Dead Testing o Wet / Live Testing o Integrated Testing & Commissioning	March 2019 to May 2019
	Internal road, car parks and Landscaping ▪ Landscaping; ▪ Security Swipes / Cameras ▪ Fencing / Gates to perimeter boundary and site interior;	January 2019 – March 2019

Construction Staging		Indicative Timing
	▪ Roadworks and carparking, including line marking, road furniture, and site lighting;	

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

6.12 Material Importation

6.12.1 General

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 6-1. Initially, 1.0 million tonnes of sandstone will be 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.

Figure 6-9 Stockpile location plan

6.12.2 Stockpile Operation

While the site will receive spoil on a 24 hr a day basis most other activities will follow normal site working hours. The stockpile will cover an area approximately 500m by 250m and be around 5m high, which will provide capacity for the initial 1.0 million tonnes while allowing future expansion should further opportunities be identified. Key operating risks will be mitigated as per Table 6-4.

Plant used to build and manage the stockpile will be of a similar nature to the following:

- CAT D6 Bulldozer
- CAT 816K/*26K Compactor

- CAT 533 Smooth Drum Roller
- Water Cart
- CAT 14M Motor Grader
- CAT 330 Excavator

It is envisaged that stockpile management will take place during normal working hours.

Table 6-4 Key operating risk and management measure

Risk Category	Description	Mitigation
Noise	Excessive Noise being transmitted to sensitive receptors	• Stage stockpile construction so as to create a noise attenuation bund • Stockpile shaping and compaction activities to be carried out during normal working hours only • Reversing manoeuvres to be limited by layout design • Vehicles to be fitted with “white noise” type reversing alarms • Vehicles fitted with GPS monitoring system to ensure only agreed routes are used • Lights sets to be super silenced or battery powered • Noise monitoring to be carried out to ensure effectiveness of controls • Material selected is from a Tunnel Boring Machine, requiring no further treatment or processing on site • Dust created by the placement and compaction processes necessary to produce a well constructed stockpile will be managed in accordance with the Air Quality CEMP and as detailed in the relevant sections below. • Complaints will be addressed in accordance with the CSEP
Light Spill	Excessive light spill from night operations	• Lighting layout to be designed to direct light away from sensitive receptors • Lighting only to be used when deliveries are taking place • Monitoring to be put in place to ensure controls are effective
Water Pollution	Run off from stockpile causes pollution of local watercourse	• Mitigation measures will be put in place in accordance with the Water and Soils CEMP. • Monitoring and Inspection will be carried out in accordance with the Water and Soils CEMP. • Only certified virgin excavated natural inert material (VENIM) which is free from contaminants to be imported • Spills control and reporting procedures to be in place prior to operation of the stockpile commences

Risk Category	Description	Mitigation
		• Erosion and sediment control measures to be compliant with "*Managing Urban Stormwater: Soils and Construction Vol 1, 4th Edition Landcom 2004"*
Traffic	Increased traffic volumes	• Consultation and coordination with key stakeholder such as RMS, LCC, TfNSW, Liverpool and Penrith City Councils. • 24 hour a day operation will reduce traffic peaks • Stockpiling during 2019 and 2020 will reduce peak traffic during 2022 and 2023 which is likely to be the peak construction period in the vicinity of Western Sydney Airport • Overall traffic in the wider Sydney area will be reduced as tunnel spoil would otherwise go to landfill while the requirement for sub-base material would have been satisfied by trucking material from quarries.
Material Contamination	Transfer of material contaminated at source	• Contractual mechanisms in place to ensure that all material is suitably inspected, tested and certified prior to leaving site • GPS trackers used to ensure that no vehicles can be "diverted' en route • Visual inspection of material prior to incorporation into the stockpile • Further testing will be carried out as appropriate to validate the material
Dust	Dust generated during placement	• Mitigation measures will be put in place as per the Air Quality CEMP • Monitoring and inspection will be undertaken in accordance with the Air Quality CEMP • During placement and compaction of material into the stockpile dust will be managed by watercart • Material selected to require no further processing • Haul roads to be polymer sealed to reduce dust and water requirement
Dust	Dust generated from wind interaction with stockpile	• Mitigation measures will be put in place as per the Air Quality CEMP • Monitoring and inspection will be undertaken in accordance with the Air Quality CEMP • Additional study and monitoring will be carried out to ensure risk management measures regarding silica dust are successful.

6.12.3 Traffic Volumes

Sub-base material will be imported to the site on a 24 hour 7 days per week basis as contemplated by the EIS with daily traffic movements as per Section 6.1.3 of the Traffic and Access CEMP . By importing sub-base early and stockpiling on site and therefore spreading the deliveries over a longer period, the envisaged traffic movement peak in year 2022 and 2023 is predicted to be substantially reduced.

Material will be delivered to site using tipper truck and trailer combinations (truck and dog) typically capable of carrying 33t of spoil each. The main delivery route will be via the motorway network to the M7/Elizabeth Drive intersection and to site via Elizabeth Drive. Traffic will be planned, monitored and managed in accordance with the Traffic and Access CEMP.

Appendix 1
Construction Plan Compliance with Airport Plan

The Construction Plan has been prepared in accordance with the requirements of Condition 1 of the Airport Plan, which is the authorising document for the Stage 1 Development determined by the Minister for Urban Infrastructure in December 2016. As outlined in section 3.10.2 of the Airport Plan, "The Site Occupier must not commence Main Construction Works until a Construction Plan for the Airport Site and Associated Sites has been prepared and approved in accordance with this condition." A reference guide is provided below of how each element of the legislation has been addressed within this Construction Plan.

Table A-1 Compliance of the Construction Plan with the Airport Plan

Requirements under Section 3.10.2, Condition 1 of the Airport Plan	Chapter/section response
(3) The criteria for approval of the Construction Plan are that an Approver is satisfied that the Construction Plan:	
sets out:	
(i) the program and timetable for carrying out the Stage 1 Development;	Section 2.2 Section 6.1
(ii) details of the construction methodology to be used for carrying out the Stage 1 Development;	Section 5 Section 6
(iii) any proposal to phase commencement of Main Construction Works in different parts of the Airport Site or Associated Sites at different times; and	Section 2.1
(iv) details, not inconsistent with the Land Use Plan in Part 2 of the Airport Plan, of the size and location of the parts of the Airport Site or an Associated Site on which Main Construction Works are planned to occur; and	Section 2.3
(v) seeks to avoid or minimise, to the extent reasonably practicable, impacts on parts of the Airport Site that have important biodiversity values that are outside of the indicative Construction Impact Zone shown in Figure 2 in Part 2 of the Airport Plan.	Section 2.3.1 Section 5.2
(4) The Site Occupier must ensure that no CEMP is inconsistent with the approved Construction Plan.	Section 4

Appendix 2
Site Environmental Management Framework

Western Sydney Airport

Site Environmental Management Framework

December 2018

Western Sydney Airport

Document Control

File Name	Document Name	Revision
WSA00-BECHTEL-00400-EN-PLN-000001	Western Sydney Airport Site Environmental Management Framework	1

Revision History

Revision	Date	Description	Author	Reviewer
0	24/09/2018	Approved	WSA Co	S Reynolds
0.1	21/11/2018	Draft updated to include additional scope of work	WSA Co	S Reynolds
0.2	21/11/2018	Draft updated to address comments on inclusion of new scope (Visitor centre, Site Accommodation and Material Import/Stockpiling)	WSA Co	S Reynolds
0.3	07/12/2018	For approval	WSA Co	S Reynolds
1	14/12/2018	Revision update to include additional scope including Visitor Centre Site Accommodation and material importation	WSA Co	S Reynolds

Plan Authorisation

Position	Name	Signature	Date
Environment Manager	S Reynolds		07/12/2018

Glossary and Definitions

Item	Definition
AEPR	*Airports (Environment Protection) Regulations 1997*
AEO	Airport Environment Officer
Airport Environment Officer	Means a person appointed under AEPR 2.01
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 by the Airports Act.
Airports Act (the Act)	*Airports Act 1996 (Cth)*
Ancillary Developments	An 'ancillary development' as set out in section 96L of the Act
Approved Plan	Means a plan approved in accordance with the Conditions of Approval
ATCT	Air Traffic Control Tower
ATS Act	*Aviation Transport Security Act 2004 (Cth)*
CEMP	Means a Construction Environmental Management Plan (CEMP) required under a condition in Section 3.10.2 of the Airport Plan
Condition	A condition set out in Part 3 of the Airport Plan in accordance with section 96C of the Airports Act 1996
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	The Community and Stakeholder Engagement Plan (CSEP) required under Condition 15 in Section 3.10.2 of the Airport Plan
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	Early earthworks
EIS	The environmental impact statement (EIS) prepared in relation to the Airport under the EPBC Act
Environment Minister	The minister responsible for the EPBC Act.
Environmental Impact Statement	The environmental impact statement prepared in relation to the Airport under 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
GSE	Ground support equipment

Item	Definition
HIAL	High intensity approach lighting
ICAO	International Civil Aviation Organization
Infrastructure Department	The department responsible for administering the Airports Act, currently the Australian Government Department of Infrastructure, Regional Development and Cities
Infrastructure Minister	The Minister responsible for the Airports Act from time to time
ISO 14001	AS/NZS ISO 14001:2015 Environmental Management System
LDP	Land Disturbance Permit
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 approved plans.
OEH	Office of Environment and Heritage (NSW)
Preparatory Activities	Preparatory Activities mean the following: i. day to day site and property management activities; ii. site investigations, surveys (including dilapidation surveys), monitoring, and related works (e.g. geotechnical or other investigative drilling, excavation, or salvage); iii. 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); iv. enabling preparatory activities such as: 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 v. any other activities which an Approver determines are Preparatory Activities for this definition
Project, the	Western Sydney Airport – Stage 1 Development
RAP	WSA Co Limited Western Sydney Airport Remediation Action Plan prepared by GHD dated February 2018
RESA	Runway end safety area
RMS	NSW Roads and Maritime Services
SEMF	Site Environmental Management Framework
SES Officer	An SES employee under the Public Service Act 1999 (Cth)
Stage 1 Development	The Airport development described in Part 3 of the Airport Plan
Sustainability Plan	Means a Sustainability Plan required under a condition in Section 3.10.5 General Condition 29 of the Airport Plan which must be submitted within six months of the granting of an Airport Lease for approval by the Approver.

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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). 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 EIS prepared in accordance with the Commonwealth Environmental Protection and Biodiversity Conservation (EPBC) Act and Airports Act considered potential impacts during construction activities for the site and operation of the Stage 1 and long-term development of the proposed airport.

This Site Environmental Management Framework (SEMF) is an Appendix to the Construction Plan. The Construction Plan has been prepared to meet the requirements of *Condition 1 of the Airport Plan for the Stage 1 Development* determined in December 2016. The SEMF has been prepared as WSA Co's overarching environmental management document to support the implementation of the CEMPs and other approved plans. The objective of the Western Sydney Airport is to improve access to aviation services and resolve the long-term aviation capacity constraints in the Sydney basin.

1.1.1 The need for an airport

The 2012 *Joint Study on aviation capacity in the Sydney region* identified growing airport capacity constraints in the Sydney basin and found that Sydney (Kingsford Smith) Airport (Sydney Airport) will be unable to meet the increasing demand in the Sydney basin.

Over the next 20 years, it is estimated that demand for passenger aviation services in Sydney will more than double, from 40 to 87 million passengers per annum, and double again by 2060. Sydney (Kingsford Smith) Airport will not be able to meet this demand alone. Any shortfall in airport capacity could have a significant adverse impact on economic growth, productivity and employment in both New South Wales and Australia.

Whilst a number of strategic options have been assessed, detailed studies over a number of decades have consistently found that the most effective way to address increased aviation demand, while mitigating environmental and social impacts, is to develop a new airport in Badgerys Creek.

1.1.2 WSA Co delivery of the Western Sydney Airport

WSA Co is responsible for constructing and operating Western Sydney Airport in accordance with the Airport Plan. This section will specifically focus on WSA Co's approach to constructing Western Sydney Airport and ensuring that operational readiness is achieved by 2026.

1.1.3 Objectives of the Western Sydney Airport

The development of Western Sydney Airport will bring a range of benefits to Western Sydney and the Australian economy. WSA Co's objectives for the Western Sydney Airport are **(WSA Co Objectives)** to:

- **improve access to aviation services in Western Sydney:** by providing a broad range of passenger and air freight services;
- **to resolve the long-term aviation capacity issue in the Sydney basin:** by maximising the aviation capacity of the site, noting the constraints at Sydney (Kingsford Smith) Airport;

- **to maximise the value of a Western Sydney Airport as a national asset:** including consideration of benefits the Airport will bring within and around Western Sydney, NSW and Australia and enhancing Australia's international competitiveness for air travel;
- **to optimise the benefit of Western Sydney Airport on employment and investment in Western Sydney:** by recognising that the Airport will be a major catalyst for growth and development in Western Sydney;
- **to effectively integrate with new and existing initiatives in the Western Sydney area:** by ensuring long-term planning considers the Airport's economic, social and environmental impact in Western Sydney; and
- **to operate on commercially sound principles, having regard to the Australian Government's intention to preserve its options with respect to ownership and governance arrangements:** by applying private sector discipline in the management of WSA Co.

1.1.4 Western Sydney Airport Site

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 illustrated in **Figure 1**.

1.1.5 Western Sydney Airport scope of works

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

- Early earthworks;
- Visitor Centre and Site Office;
- 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;
- Car parking, on-site roads and other appropriate landside facilities.

Further details with regards to construction activity details, programming and methodologies are included in Section 2.2 and also with the WSA Co Construction Plan.

This SEMF forms an appendix to the Construction Plan. The Construction Plan requires approval by the Infrastructure Department and Approver to satisfy the Airport Plan Condition 1. Any variations required to the Construction Plan (including Appendix 2 SEMF) and/or CEMPs, or other approved plans will be consistent across all approved plans. Necessary plan variations will be submitted to Infrastructure Department for Approval in accordance with Condition 41.

Western Sydney Airport will initially deliver capacity for 10 million annual passengers and is planned to be capable of handling both domestic and international services. It will also be designed to accommodate

future staged developments on the Airport Site which will include a second parallel runway, additional infrastructure and additional terminal capacity.

Figure 1 Airport Site location

1.2 Purpose of this document

This SEMF has been prepared as a component of the Construction Plan to provide WSA Co with an overarching environmental management document to support the implementation of the CEMPs and other approved plans during the development of the Western Sydney Airport. The SEMF provides the overarching environmental management framework for the construction phase of the of the Stage 1 Development, detailing WSA Co's requirements, mitigation measures and controls to be satisfied and achieved for each element of the construction works.

This SEMF is consistent with the Construction Environmental Management Framework described in Chapter 28 of the EIS which was prepared to inform the Airport Plan. The SEMF has been prepared in accordance with the *Guideline for the Preparation of Environmental Management Plans* (DIPNR, 2004) and is consistent with AS/NZS ISO 14001.

Implementing this SEMF and the Airport Plan approved plans effectively will ensure that WSA Co and any contractors and or suppliers to the project meet regulatory and policy requirements in a structured and systematic manner whilst demonstrating continual improvement with regards to environmental performance.

In summary, this SEMF has been developed to:

- Outline the strategy and approach to be applied to the project by WSA Co to ensure that contractors and suppliers comply with environmental obligations under their respective contracts
- Ensure that the Conditions, as set out in the Airport Plan, are met and satisfied by both WSA Co and contractors
- Meet the requirements of ISO 14001, including the need for continual improvement
- Provide WSA Co personnel and contractors with systems, procedures and documentation necessary to complete the project in accordance with environmental requirements.

More specifically, this SEMF:

- Supports the Construction Plan which describes the project in detail including activities to be undertaken and relative timing;
- Provides planning tools (EWMS/ECMs etc) to be applied in consideration of the nine CEMPs to avoid or minimise adverse environmental impacts;
- Provides details of applicable policies, approvals, licences, permits, consultation agreements and legislation;
- Describes environmental management roles and responsibilities;
- Sets Project's key environmental performance objectives and targets
- Describes how the management and mitigation controls will be monitored to ensure they are being adequately implemented.

This SEMF as an appendix to the Construction Plan will be made available to all employees and persons involved in construction of Western Sydney Airport, including relevant sub-contractors.

1.3 Consultation

Community and stakeholder consultation for the Project has been undertaken to inform the preparation of the EIS and development of the Airport Plan. Consultation has continued during the preparation of the CEMPs. A summary of the consultation is provided in the following sections.

1.3.1 Consultation completed to date

Community and stakeholder consultation for the project has been delivered in three phases throughout the environmental impact assessment process and development of the Airport Plan as follows:

- Phase 1: the preparation of the draft EIS and draft Airport Plan, from September 2014 to October 2015
- Phase 2: the public exhibition of the draft EIS and draft Airport Plan, from 19 October 2015 to 18 December 2015
- Phase 3: the finalisation of the EIS and preparation of the revised draft Airport Plan, from 19 December 2015 to December 2016.

The primary objective of the EIS and Airport Plan communication and engagement activities were to:

- Proactively and regularly engage with stakeholders to ensure they are appropriately consulted throughout the EIS and approval process
- Inform and advise the community, with a particular focus on the Western Sydney community, of the proposed development activity and the next steps in the process
- Engage with the community to communicate the significant benefits of the proposed airport and address any points of concern

- Encourage participation in the conversation and submission of comments through community consultation opportunities
- Provide accessible and reliable information about the project.

Engagement with key stakeholders was a key component of communication and engagement activities during all three of the consultation phases listed above.

With regards to EIS consultation with Aboriginal groups, consultation was undertaken with reference to *Ask First, A Guide to Respecting Indigenous Heritage Places and Values* (Australian Heritage Commission 2002) and was guided by the requirements set out in the document *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (OEH 2010). This included the following stages:

- **Stage 1 -** Notification of the project proposal and identification and registration of stakeholders.
- **Stage 2 and 3 -** Presentation of information about the project and proposed cultural heritage assessment methodology and the gathering of information about cultural significance.
- **Stage 4 -** Review of Aboriginal cultural heritage assessment.

The EIS consultation and engagement ensured stakeholders were informed and were able to assist their broader communities in accessing information about the project. Targeted stakeholders included numerous Commonwealth, State and Local level government agencies and authorities in addition to selected corporate, commercial and utility organisations.

1.3.2 CEMP consultation

The Airport Plan Condition 35 outlines the consultation requirements during the preparation of the CEMPs and other plans. A summary of the stakeholder and government authority consultation with regards to the preparation and development of CEMPs is presented below in Table 1.

Consultation will continue with agencies, councils and other relevant stakeholders throughout the project, including where there is a proposal for a plan variation and the submission of the variation to an Approver. The outcomes of consultation will be documented in subsequent variations of the relevant CEMPs. Consultation will be managed in accordance with the Community and Stakeholder Engagement Plan.

Table 1 Consultation on Plan

CEMP	Requirement	EIS Reference	Agency consulted
Noise and vibration CEMP	The Noise and Vibration CEMP will be prepared in consultation with the NSW Environment Protection Authority and NSW Health.	Table 28-2	• NSW Environment Protection Authority • NSW Health.
Biodiversity CEMP	The Biodiversity CEMP will be prepared in consultation with the Department of the Environment and Energy and the NSW Office of Environment and Heritage	Table 28-4	• Department of Environment and Energy • NSW Office of Environment and Heritage • NSW Rural Fire Service •
Soil and water CEMP	The Soil and water CEMP will be prepared in consultation with the Department of Environment and Energy, NSW Office of Environment and Heritage, NSW Environment Protection Authority and relevant local councils	Table 28-6	• NSW Environment Protection Authority • NSW Office of Water • Penrith City Council • Liverpool City Council • Department of Environment and Energy • NSW Office of Environment and Heritage
Traffic and access CEMP	The Traffic and access CEMP will be prepared in consultation with the NSW Roads and Maritime Services.	Table 28-8	• NSW Roads and Maritime Services • Transport for NSW • Penrith City Council • Liverpool City Council
Air quality CEMP	The Air quality CEMP will be prepared in consultation with the NSW Environment Protection Authority and NSW Health.	Table 28-10	• NSW Environment Protection Authority • NSW Health.
Aboriginal cultural heritage CEMP	The Aboriginal cultural heritage CEMP will be prepared in consultation with Aboriginal stakeholders, the NSW Office of Environment and Heritage and other relevant Australian and local government bodies.	Table 28-12	• NSW Office of Environment and Heritage • Penrith City Council • Liverpool City Council • Aboriginal Affairs NSW • Aboriginal Stakeholder groups

CEMP	Requirement	EIS Reference	Agency consulted
European and other heritage CEMP	The European and other heritage CEMP will be prepared in consultation with the NSW Office of Environment and Heritage and other relevant Australian and local government bodies.	Table 28-14	• NSW Office of Environment and Heritage • Penrith City Council • Liverpool City Council
Waste and resource CEMP	The Waste and resources CEMP will be prepared in consultation with the NSW Environment Protection Authority and relevant local councils	Table 28-16	• NSW Environment Protection Authority • Penrith City Council • Liverpool City Council • Department of Finance, Services and Innovation Waste Services
Visual and landscape CEMP	The Visual and landscape CEMP will be prepared in consultation with the NSW Department of Planning and Environment and relevant local councils	Table 28-18	• NSW Department of Planning and Environment • Penrith City Council • Liverpool City Council • The Government Architect
Community and Stakeholder Engagement Plan	The Community and Stakeholder Engagement Plan will be prepared in consultation with the NSW Department of Premier and Cabinet	Table 28-20	• NSW Department of Premier and Cabinet

1.4 Certification and approval

This SEMF has been reviewed and approved by the WSA Co Environment Manager prior to submission to Australian Government Department of Infrastructure, Regional Development and Cities (Infrastructure Department).

1.5 Distribution

All WSA Co personnel and contractors will have access to the Contruction Plan and the component SEMF via the project document control management system. An electronic copy of the Contruction Plan and its sub-plans 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.

Registered copies will be distributed to the relevant project positions listed in the distribution table at the front of the Contruction Plan and this SEMF.

2 Project description

2.1 Project staging and environmental management approach

As required by the Airport Plan Condition 1(5), the Construction Plan details the construction staging of the Stage 1 Development as progressing generally from the north-east to the south-west of the Airport Site, allowing for the relocation of the Northern Road and a TransGrid transmission line. The site preparation phase and associated activities will commence following relevant tenders and design work.

At the time of preparing this SEMF the current work packages, and therefore the work packages covered by this document (and associated CEMPs) are included in Table 2.

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

Table 2 Works covered by this SEMF

Work package	Reference
Preparatory Activities	Refer to Section 2.5.1
Early Earthworks (EEW)	Refer to Section 2.5.2
Visitor Centre and Site Accommodation	Refer to Section 2.5.3
Material importation	Refer to Section 2.5.4

As the Project develops, this table will be updated accordingly with further detail to be provided as required in the subsequent sections.

2.2 Stage 1 Development general features

The delivery of the Stage 1 Development will be through a packaging strategy with a wide variety of package sizes, risk profiles and contracting entities. 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 cultural heritage issues and relevant statutory requirements and obligations.

Stage 1 Development of the Project comprises the following key features as described in the Construction Plan (which is consistent with the Airport Plan and EIS Chapter 5):

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

Details of the overall Project construction activities and programming are included in Section 2 of the Construction Plan. Further detail of the specific works associated with this SEMF is included in Section 2.5. 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 small 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 the ECZ must be managed appropriately and is to be carried out only with prior approval from the WSA Co Environmental Manager.

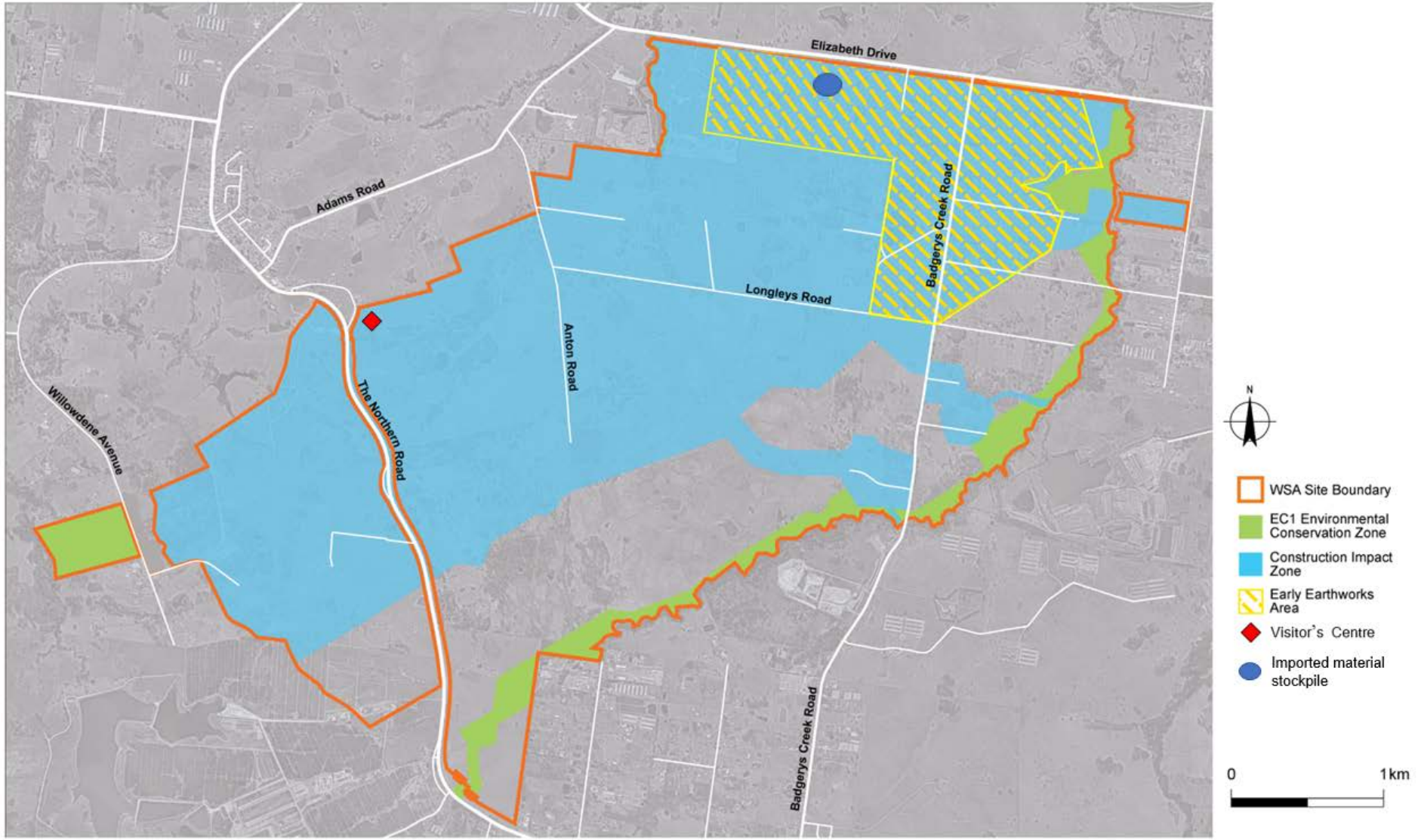

Figure 2 Stage 1 Development construction location plan

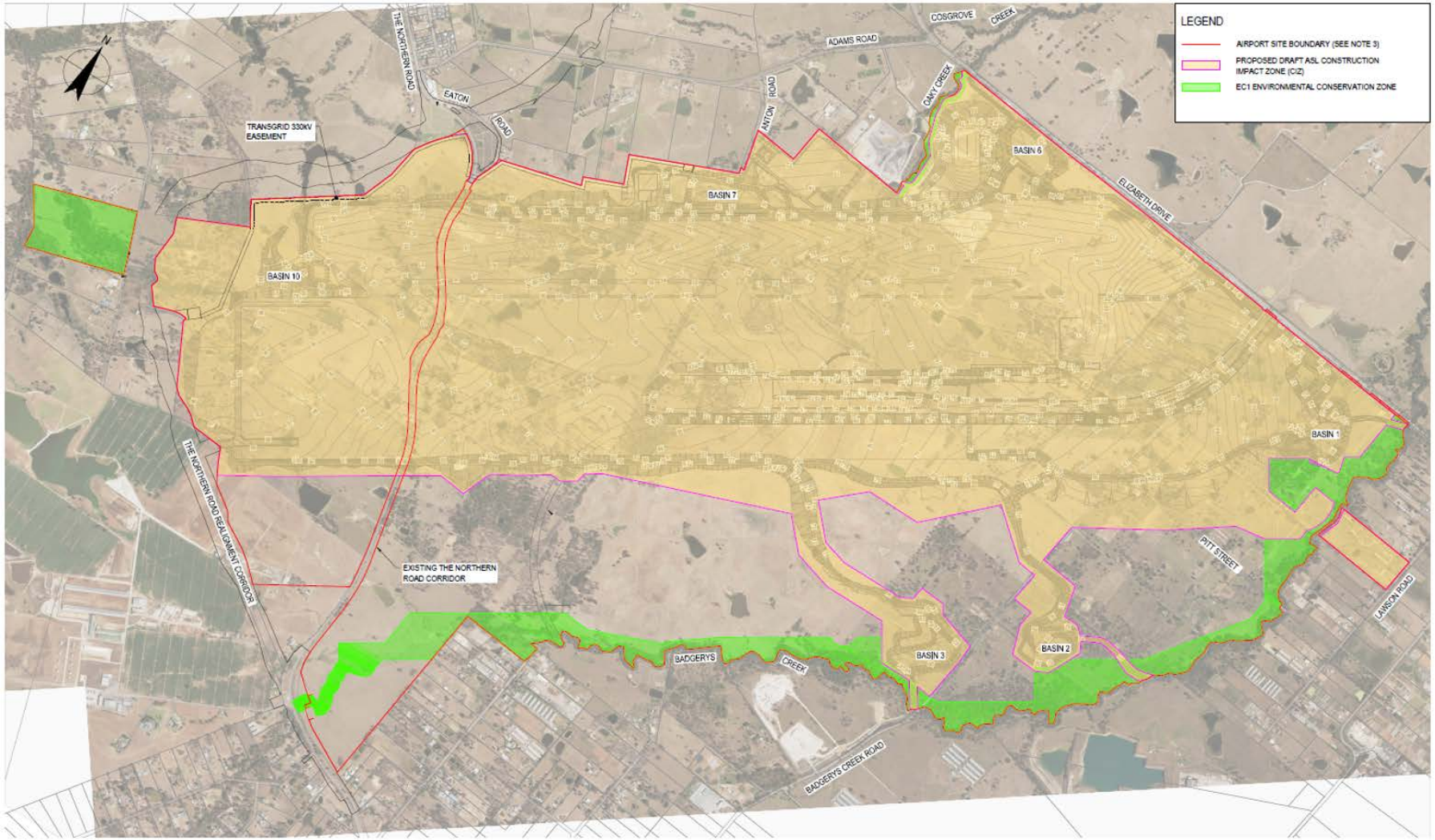

Figure 3 Stage 1 Development Construction Impact Zone

2.3 Site preparation

The first activity for the Stage 1 Development will include site preparation activities. Key site preparation activities will include site clearance, contamination remediation, stormwater detention infrastructure and bulk earthworks.

A breakdown of the key features associated with site preparation is presented in Table 3.

Table 3 Site preparation key features

Key feature	Summary
Pre-existing site issues	All structures on the Airport Site (including structures with heritage value) have been demolished and removed. The human remains located in grave sites on the Airport Site have been disinterred in accordance with the Cemeteries Relocation Management Plan (Commonwealth 2017) Aboriginal cultural heritage survey and salvage plans will be developed in consultation with Aboriginal stakeholders, approved by an Approver and implemented before main construction works commence in each part of the site. The plan for the EEW area has been approved. Development of the Topsoil Management Protocol (Aboriginal Cultural Heritage CEMP)
Site footprint	Approximately 1,199 ha of the Airport Site are required to be cleared
Early earthworks	The EEW will be undertaken within an area of approximately 120 ha (EEW Site) which is within the 1,199ha site and will involve the following key activities: • Remediation of the EEW Site (in accordance with the Western Sydney Airport Remediation Action Plan (RAP) • Bulk earthworks within the EEW Site • Construction of a section of the new realigned Badgerys Creek Road within the EEW Site • Construction of a new intersection at Elizabeth Drive • Utility Relocation • Material importation
Material importation	Sub-base material will be imported to the site from other Sydney infrastructure sites as contemplated by the EIS starting in April 2018, 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 stockpile will cover an area approximately 500m by 250m and be around 5m in height which will provide capacity for the initial 1.0 Million tonnes while allowing future expansion should further opportunities be identified.
Visitor Centre and Site Accommodation	• Site access and preparation works • Earthworks to level the site • External roadworks • Utilities (power, water, sewer, gas etc) • Internal road and car park • Visitor Centre and Office Accommodation construction, including services and finishes • Visitor Centre and Office Accommodation testing and commissioning
Bulk earthworks	Earthworks will be undertaken over an area of approximately 1,199 ha to support and facilitate the establishment of a fully functional airport. Bulk earthworks will only be undertaken in the Construction Impact Zone, with no bulk earthworks occurring within the environmental conservation areas.
Site remediation	Management of contamination and site remediation of the Airport Site.
Surface water management infrastructure	Construction of surface water management infrastructure including: • pit and pipe system for the drainage of the apron areas;

Key feature	Summary
	• an integrated system of open channels combined with a pit and pipe network to collect rainfall run-off from the Airport Site and convey it to bio-retention basins to improve water quality prior to discharge off site; and • detention basins located around the edges of the Airport Site to provide detention and treatment of surface water run-off before discharge into major watercourses.

2.3.1 Airside precinct

The Stage 1 Development will include construction of an airside precinct. A breakdown of the key features of the airside precinct is presented in Table 4.

Table 4 Airside precinct key features

Key feature	Summary
Northern runway	A 3,700 m long northern runway will be designed and constructed, including a full-length parallel taxiway, lighting, marking, signage and other features including those required under any legislation or International Civil Aviation Organization (ICAO) standards.
Apron	Construction of the necessary apron areas to accommodate Stage 1 Capacity. The expectation is that approximately 21 passenger aircraft stands and four freight aircraft stands will be required to provide Stage 1 Capacity.
Air traffic control	Air traffic control is expected to be provided through the construction of an air traffic control tower (ATCT). An ATCT would be a stand-alone installation, located in a segregated and secured facility compound within the Airport boundary.
Aviation rescue fire fighting service	The ARFFS station is expected to include staff accommodation, administration and vehicle garaging facilities, fuel storage and delivery systems, fire fighting foam storage and run-off control facilities, and a vehicle maintenance facility.
Navigation support	Installation of all necessary navigational aids. Equipment requirements will be finalised as part of detailed design. The key equipment expected to be installed at the Airport as part of the Stage 1 Development include: • Navigational instrumentation • Runway lighting • Taxiway lighting • Weather equipment
Meteorology facilities	One or more automatic weather stations will provide relevant data to support aviation operations. The automatic weather station is expected to include a visibility sensor and ceilometer (for determining cloud base height) as well as sensors for rain, wind and temperature.
Security	The Airport will include security features required under the Airport Transport Security Act 2004 (ATS Act) and its Regulations including: • Passenger, staff and goods screening • Closed circuit television • Emergency crash gates • Perimeter security fence and other security fencing • Pass-controlled secure airside access points
Safety	The development will include various elements required to address safety requirements. These include: • Emergency safety response facilities and reserves • Fuel and other toxic spill containment infrastructure • Runway end safety areas (RESA) • Emergency safety assembly area • aircraft isolation area

2.3.2 The terminal

The Stage 1 Development will include construction of a terminal for the Airport and supporting infrastructure for the terminal. A breakdown of the key features of the terminal development is presented in Table 5.

Table 5 Terminal key features

Key feature	Summary
Terminal building	The terminal will be an integrated international/domestic terminal, with up to 90,000 m2 of floor area and at least two public passenger levels for the Airport and supporting infrastructure for the terminal. The terminal will include passenger and baggage facilities, including all of the facilities required for domestic and international passengers. The terminal will include a range of other facilities that are not related to passenger and baggage processing

2.3.3 Aviation support facilities

The Stage 1 Development will include all required aviation support facilities. A breakdown of the key features associated with the aviation support facilities of the development is presented in Table 6.

Table 6 Aviation support facilities key features

Key feature	Summary
Aircraft maintenance facilities	An aircraft maintenance precinct will be constructed and will include access to both airside and landside precincts which may include: • hangars; • provision for support activities; • aircraft engine maintenance testing; • compass calibration; • aircraft wash; • staff car park; and • fuel requirements for ground vehicles
Freight and cargo	A secure freight precinct with access to aprons and taxiways as well as landside access. The freight precinct may also include a cargo terminal complex and provision for support activities, such as: • storage facilities; • freight handling facilities and warehouse; • associated offices for freight and government agencies; • customer reception, including airline passenger pet check-in; • truck docking; • cargo staging and cargo agents; • associated truck and visitor parking; and • airside and landside access roads
Flight catering	Appropriate airside and/or secure landside access for flight catering which may include construction of: • a truck manoeuvring area for one or more loading docks within the complex; • truck and car parking and truck docks; • a fuel (ground vehicles) facility; • flight kitchen; • bonded stores;

Key feature	Summary
	• cool rooms and stores; • wash facilities for aircraft inflight meal equipment; • administrative offices; and • airside and landside access roads and vehicle parking
Ground support equipment and unit load device maintenance facilities	Ground support equipment (GSE) maintenance facilities may be constructed, including: • GSE maintenance workshop structures with gantry crane and service pits; • tool and spare stores; and • waste storage and handling for fuels and oils. • aircraft hangar(s), associated aircraft apron and access taxi-lanes; • associated workshops and stores; • GSE/unit load device storage areas; • associated offices and car parks; • associated operational, staff, visitor and truck parking; and • airside and landside access roads
Agency kennels	Facilities to provide boarding, exercise and training for Commonwealth agency dogs may be constructed. The facilities may include storage of trace materials, such as explosives, and illicit drugs.
Other support facilities	Other support facilities which may include construction of: • car rental facilities; • industrial units; • offices; • government agency facilities; • airfield lighting equipment room; • airport ground maintenance facility; and • amenities for employees.

2.3.4 Utilities development

The Stage 1 Development will include construction of utilities infrastructure on the Airport Site, including the reticulation of power, water, gas and telecommunications utilities from external suppliers consistent with 24-hour operations, which anticipates the longer-term needs of the Airport.

A breakdown of the key features associated with the utilities development is presented in Table 7 below.

Table 7 Utility development key features

Utility feature	Summary
Relocation and removal of existing utilities	Decommissioning and removal of a range of existing utilities. Where off-site services, such as those provided to surrounding residents and businesses, rely on existing onsite infrastructure that is inconsistent with the Airport's development, the affected infrastructure will be relocated by, or in consultation with, the relevant utility provider in accordance with that provider's established processes. In addition, the Stage 1 Development includes the TransGrid Relocation Works, the construction works required to relocate all or part of the TransGrid 330 kV transmission line crossing the Airport Site which is in progress under a separate plan approved under Airport Plan Condition 4.
Water	The Stage 1 Development will include the construction of potable water infrastructure to and on the Airport Site as well as potentially a recycled water treatment plant and provision for the use of non-potable water for appropriate purposes.
Electricity	Construction of electricity infrastructure for the Airport. The supply voltage to the Airport Site is expected to be 132 kV. The electrical connections at the boundary of the Airport Site are expected to be at Elizabeth Drive and The Northern Road. Additional or alternative

Utility feature	Summary
	connection points may be established subject to the establishment of new local substations in the vicinity of the Airport Site.
Gas	Construction of gas infrastructure for the Airport Site, with a distribution main reticulation with an expected pressure rating of 210 kilopascals (kPa) to be designed to run through the Airport Site with connection points to meet the requirements of the gas users. The gas connection will be at the boundary of the Airport Site and is expected to occur via the 200-millimetre diameter steel secondary gas main located along Elizabeth Drive.
Aviation fuel, petrol and diesel	Facilities for the handling of aircraft fuel and lubricants will be constructed. These facilities will include storage of aircraft fuel, such as Jet A1, as well as fuel transfer and aircraft refuelling and defueling facilities. A purpose-built underground piping system will be constructed to distribute fuel to a network of airside hydrants to be located at aircraft stands. Provision for ground-based refuelling trucks will also be constructed allowing fuel trucks to be filled via a designated hydrant filling stand. The stand area may include space for tanker garaging and support activities. In addition to the fuel farm, facilities for holdings of petrol and diesel, including unleaded petrol, may be constructed for use by ground-based vehicles.
Wastewater	Construction of wastewater infrastructure for the Airport Site may be required and may include odour treatment technologies, chemical handling processes and sludge disposal mechanisms – to be determined as part of the detailed design process. If connection to off-site treatment is required, a pipeline may be built across the site.
Waste disposal	Construction of facilities for waste disposal, and may include: • onsite waste collection that will allow for sorting and separate storage for off-site disposal of recyclable, non-recyclable and hazardous materials; • distributed vacuum systems within the terminals and a process plant to separate the waste streams; capable of being scalable as new terminal floor space is brought online; • a waste management transfer depot for collection and dispatch to landfill or other off-site disposal facilities; • facility required for quarantine waste collection and disposal for all international operations; • facilities for recycling; and • facilities on the Airport Site that could convert the waste stream to energy.
Communications	Construction of communications facilities on the Airport Site and necessary connections with off-site communications infrastructure. To ensure continuity of communications, two separate communication connection points to the Airport are expected to be provided by fibre optic cable. Access to the mobile phone network and Wi-Fi coverage will be determined in consultation with telecommunications supplier(s) but is likely to use a combination of onsite and off-site transmitters and include mobile and landline telephone coverage, high-speed optic fibre and Wi-Fi connections.

2.3.5 Ground transport development

Ground transport infrastructure will be constructed for secure airside traffic access and, landside, for public or restricted access purposes.

A breakdown of the key features associated with ground transport development is presented in Table 8.

Table 8 Ground transport key features

Key feature	Summary
Airside roads	Airside roads, including a perimeter road, will be provided to ensure safe and efficient movement of vehicles without disruption to aircraft operations between the terminal area and support facilities.
Landside roads	Road access will provide for private cars, commercial traffic, buses, pedestrians and cyclists. The details of road access will be prepared during detailed design in consultation with NSW and Local Government Authorities.
External roads crossing the site	• Northern Road - Realignment of The Northern Road will be subject to a separate approval process conducted by RMS. Following realignment, sections of The Northern Road will be demolished. • Badgerys Creek Road - Within the Airport Site, sections of Badgerys Creek Road may remain open for public access and use as an alternative secure access to the Airport Site. Works required to modify these roads may therefore be carried out as part of the Stage 1 Development. • Other existing internal roads - Minor roads within the Airport Site may be closed when they are no longer required or may remain in place for interim uses.
Parking	The Airport will include dedicated car parking facilities for up to 12,500 airport customer vehicles and may include multi-storey or covered/uncovered surface-level facilities.
Ground transport facilities	Ground transport facilities will be constructed and provide for connections to the terminal, including: • drop-off, pick-up and loading zones; • emergency service vehicles; • commercial and operational vehicle parking and storage; • buses, taxis and hire cars; • pedestrian and cycle access; and • rental cars.
Rail	The Stage 1 Development will be designed having regard to the provision of rail to the Airport Site.

2.3.6 Ancillary developments

Ancillary developments are developments expected to be located off the Airport Site on land over which the Commonwealth of Australia has rights, such as an easement permitting the developments. A breakdown of the key features associated with ancillary developments is presented in Table 9.

Table 9 Ancillary developments key features

Key feature	Summary
High intensity approach lighting	High intensity approach lighting (HIAL) that is not located on the Airport Site is an ancillary development. The construction of HIAL includes clearance and earthworks to the extent necessary for the HIAL as well as utilities connections and HIAL installation.

2.3.7 Other construction activities

The Stage 1 Development will include all activities to support associated construction. These activities may include the following:

- access roads
- asphalt plant
- concrete batching plant
- blasting

- chemical storage
- contaminated groundwater and soil treatment
- crushing, grinding or separating
- extractive activities
- fencing
- laydown areas
- maintenance facility
- site offices and other construction facilities
- supply of water for construction
- construction of a temporary fuel farm

2.4 Construction logistics

WSA Co has engaged a Delivery Partner to assist with the delivery of the Stage 1 Development. Design, procurement and construction will be undertaken in a number of separate packages of works. Given the scale of the Stage 1 Development, these packages of work may commence at different times as outlined in Section 2.1 and the stages detailed in the Construction Plan.

2.5 Scope of works

2.5.1 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 Section 3.9.

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 10.

Table 10 Construction Staging – Preparatory Activities

Construction staging	Indicative Timing
Preparatory Activities	Aug 2018 – 2026
• 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	

Construction staging	Indicative Timing
• 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.	

2.5.2 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
- Bulk 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 11 outlines each stage and indicative timing for the proposed works. This is illustrated in Figure 4 and Figure 5. The CEMPs identify the aspects and impacts for each key activity and required and appropriate mitigation measures based on a risk assessment.

Table 11 Construction Staging – Early Earthworks

Construction staging	Indicative Timing
Stage 1	Sept 2018 – Jan 2019
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: • 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	Jan 2019
• Excavate Bio Retention Pond 1 for use as temporary erosion and sediment control.	
Stage 3	Oct 2018 – April 2019
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	

Construction staging	Indicative Timing
utilities routes, bridge construction and storm water drainage underneath Badgerys Creek road. Activities include: • 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	
Stage 4	Nov 18 – Dec 18
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.	
Stage 5	Nov 18 – Sept 19
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: • 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.	
Stage 6	April 19 – Dec 19
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: • Undertake Elizabeth Drive intersection works. • Divert traffic onto the full Badgerys Creek Road alignment; • Endeavour Energy Elizabeth drive works; and • Elizabeth Drive Upgrade works	

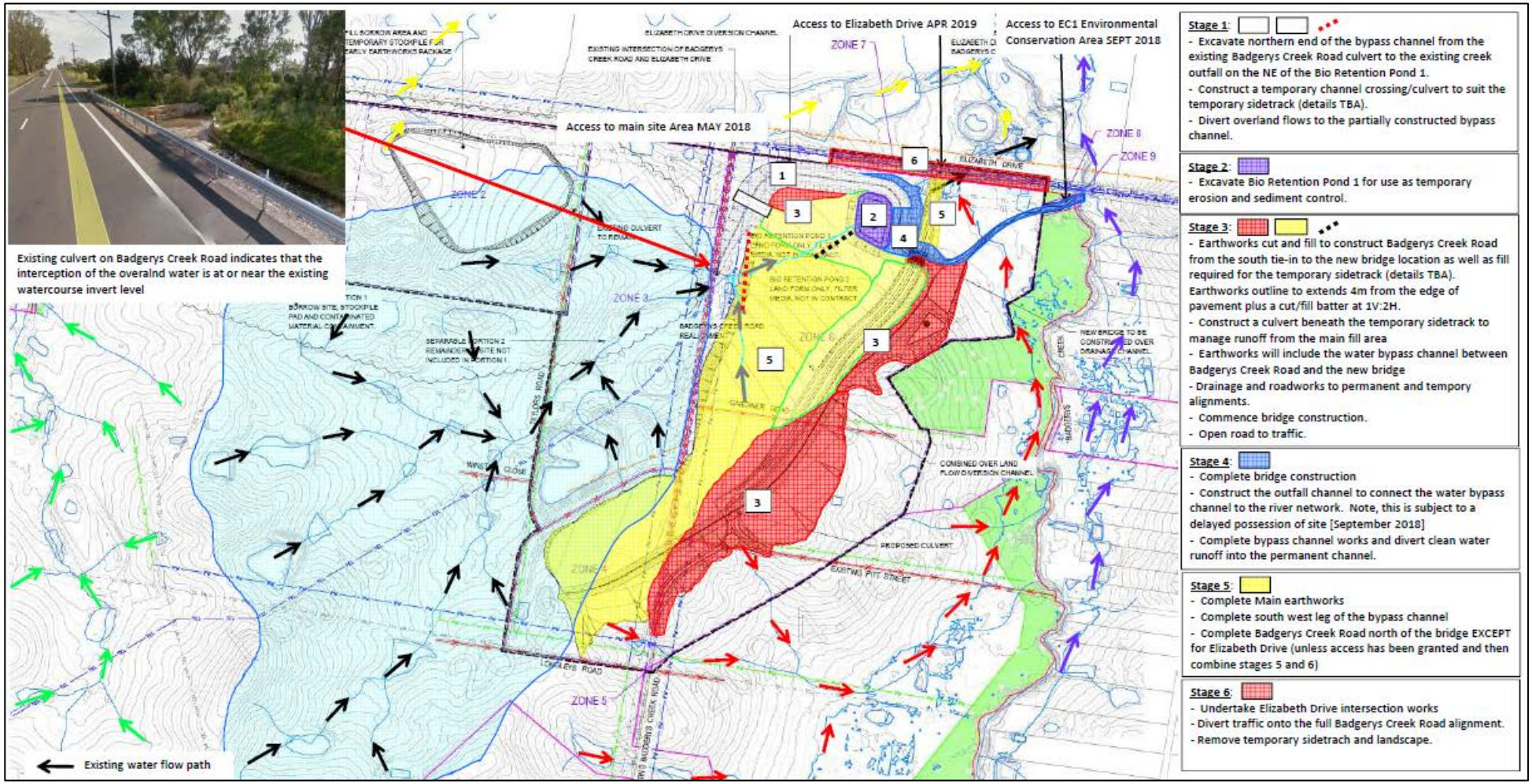

Figure 4 Early Earthworks High Level Staging Plan

A temporary compound will be required to support construction for the EEW . The temporary compound will accommodate the majority of management, client management, engineering, specialist and administrative personnel and is located off Elizabeth Drive as shown in Figure 5. These facilities include:

- Office accommodation;
- Staff amenities;
- Light vehicle parking;
- A plant and equipment maintenance workshop;
- Material and chemical storage.

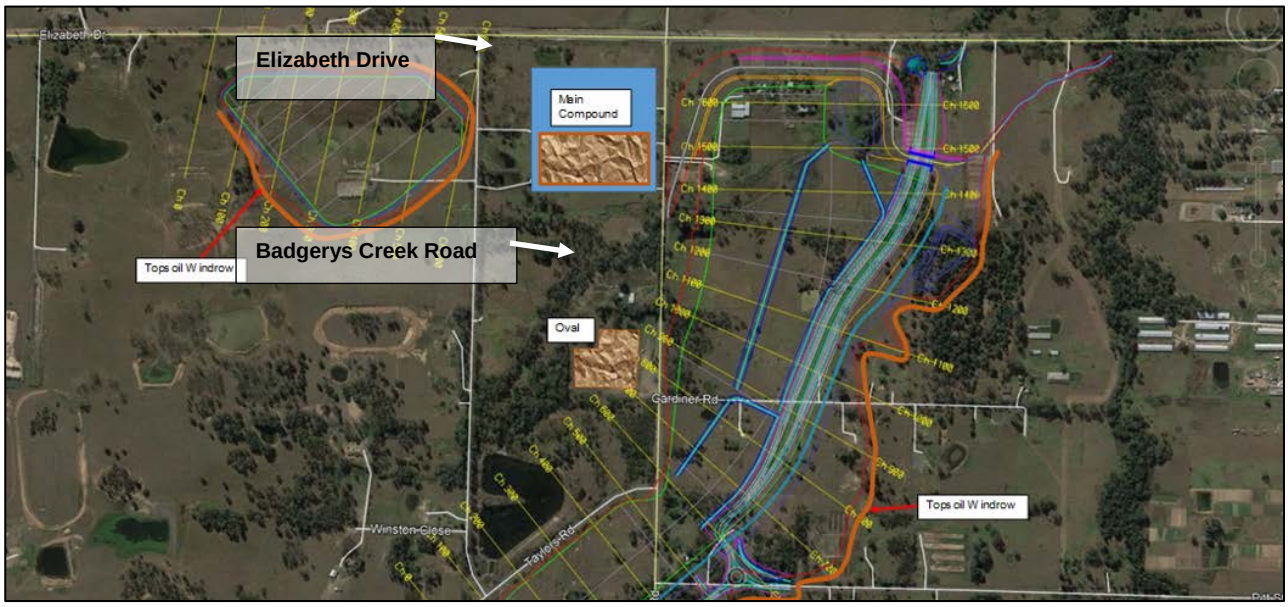

Figure 5 Proposed location for the Main Site Compound for early earthworks

Pre-Construction and Post Construction Land Condition Surveys will be completed for the compound and ancillary facilities and all areas shown on Figure 6.

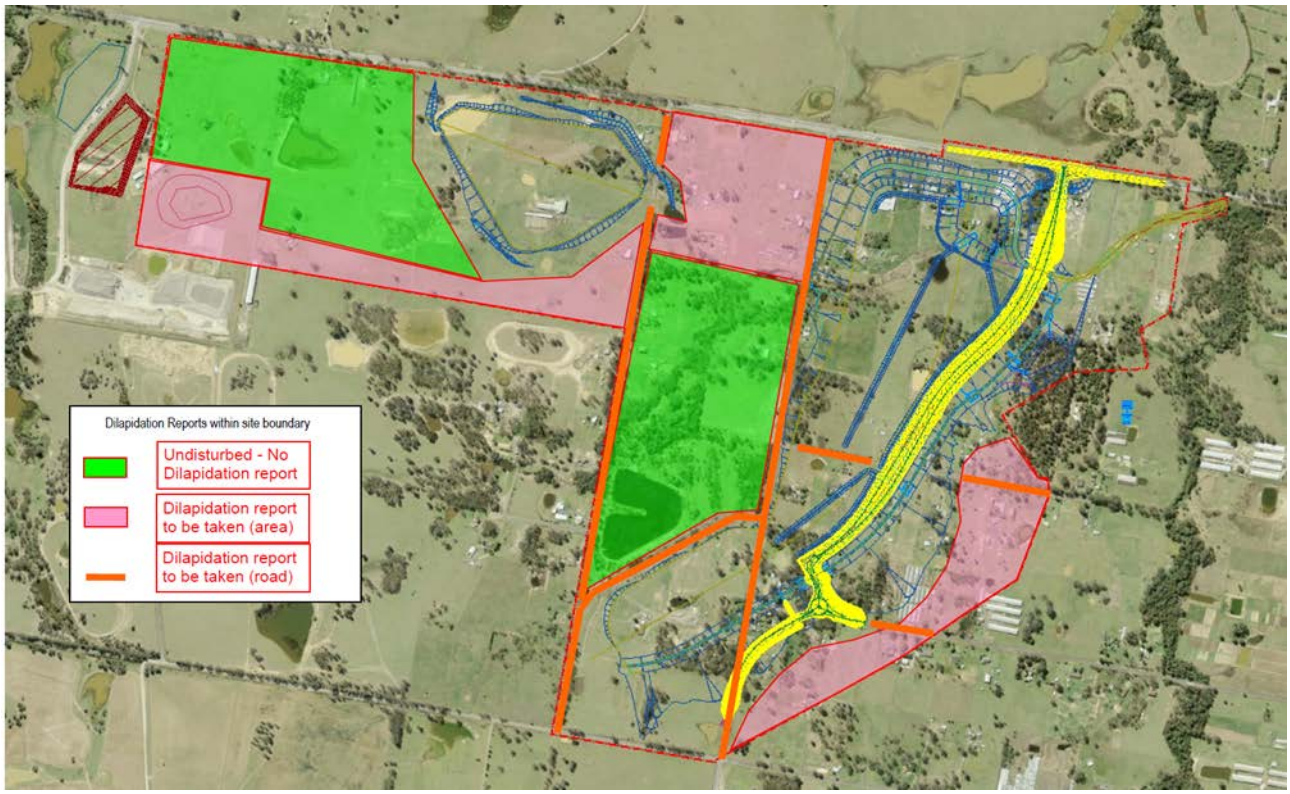

Figure 6 Areas where conditions surveys will be completed for early earthworks

2.5.3 Visitor centre and Site Accommodation construction staging

The site for the Visitor Centre and Site Accommodation is located in the north-west section of the site at the intersection of The Northern Road and Eaton Road Luddenham. Refer to Figure 2.

The scope of the activities proposed to be undertaken in accordance with the SEMF are outlined in Table 12 and are consistent with the activities described in the Airport Plan.

Table 12 Construction Staging – visitor centre and site accommodation

Construction staging	Indicative Timing
Stage 1	
Site access and preparation works • 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.	November 2018 to December 2018
Earthworks to level the site ▪ Earthworks – Cut and Fill (carting and disposal off-site); and ▪ Site Grading and Benching.	December 2018 – January 2019
External roadworks* (Eaton Road – North and South from VC Entrance) ▪ 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.	December 2018 – May 2019

Construction staging	Indicative Timing
Utilities (Power, Water and Telecommunications) ▪ 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.	
Stage 2	
Foundation Works and In-Ground Services ▪ Slab on ground for the VC; and ▪ Screw Piles for the SA.	January 2019 – February 2019
Structure ▪ 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.	February 2019 – March 2019
Finished and Internal Services ▪ Utilities – provision and coordination of connections to external utilities such as potable water, electrical and telecommunications; ▪ Services: o Fire-water and wastewater treatment systems; and o 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.	February 2019 – May 2019
Testing and Commissioning ▪ Comprehensive and systematic testing and commissioning of all utilities (below and above ground), internal services and systems: o Dry / Dead Testing o Wet / Live Testing ▪ Integrated Testing & Commissioning	March 2019 to May 2019
Internal road, car parks and Landscaping ▪ Landscaping; ▪ Security Swipes / Cameras ▪ Fencing / Gates to perimeter boundary and site interior; ▪ Roadworks and carparking, including line marking, road furniture, and site lighting;	January 2019 – March 2019

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

2.5.4 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 an Access CEMP for the ongoing assessment and environmental management of these works will be applied prior to commencement.

Table 13 Construction staging – Material importation

Construction staging – Material importation	Indicative Timing
• Haulage of sub-base and capping material to site	April 2019 – December 2020

2.6 Construction hours

The standard construction hours are 7.00 am and 6.00 pm, Monday to Friday and 8am to 1pm Saturday with no work occurring on Sunday or public holidays unless approved through the out of hours protocol included in the Noise and Vibration CEMP.

During construction, heavy and light vehicle movements to and from site may occur outside these hours.

Other activities that may be undertaken at night, subject to an out of hours approval, include:

- Deliveries of plant, equipment, materials or structures that have been determined by the police or other authorised authorities to require special arrangements for transport along public roads for safety reasons.
- Works that if carried out during standard hours would cause unacceptable risks to construction personnel safety, public safety, road network operational performance and/or essential utility services
- Works for which the relevant road authority (e.g. RMS) refuses to issue a road occupancy licence that would allow those works or activities to be carried out during standard hours.
- Emergency works or activities required to avoid loss of life, damage to property or environmental harm.
- Other activities undertaken in accordance with relevant noise guidelines, or which have no material noise or other impact on receptors.

3 Environmental Management

3.1 Environmental obligations

All personnel have the following general obligations with regards to environmental management:

- Take all feasible and reasonable steps to ensure compliance with the requirements of this SEMF and approved plans and CEMPs;
- Minimise pollution of land, air and water;
- Preserve the natural and cultural heritage environment where required and opportunity exists;
- Be a good neighbour to surrounding land users;
- Use equipment with noise control features where available and ensure that it is properly maintained;
- Minimise the occurrence of offensive noise;
- Minimise impact on the local traffic network and adhere to traffic management measures as required;
- Use the required pollution control equipment and keep it in proper working order;
- Give notice to WSA Co of a known or potential heritage discovery. WSA Co to determine the nature of the find and its management/curation and notify relevant authorities and as needed relevant stakeholders;
- In the instance of an environmental incident, notify WSA Co as soon as reasonably possible; and
- Keep the community informed of work milestones, upcoming activities and duration of relevant aspects of the works.

3.2 Legal and other requirements

The Western Sydney Airport will be located on land owned by the Commonwealth within the state of NSW. Section 96 C(3) of the Airport Act provides for development of the airport in accordance with the Airport Plan and Section 112 of the Airport Act provides that Part 5 of the Airport Act applies to the exclusion of any state law. Relevant environmental legislative and other requirements are summarised in the Legal and Other Requirements Register (Appendix C).

The register will be formally reviewed and updated as required by the WSA Co Environment Manager (or nominated delegate) on 12-monthly intervals as a minimum or following a change in legislation. Any relevant changes made to the legal requirements register will be communicated to the appropriate WSA Co personnel and contractors through toolbox talks or specific training if required (refer to Section 5 for training details).

As the Western Sydney Airport is to be developed in accordance with the Airport Plan determined under the Airports Act 1996 (the Airports Act), some state laws will not be applicable to the project (s112 of the Airports Act). Where state laws are not applicable, there may nonetheless be a requirement to have regard to those laws, for example, through mitigation measures in approved CEMPs to satisfy conditions of the Airport Plan. Specific details with regards to legal and other consideration for individual environmental aspects are considered in further detail in the respective CEMP and other plans.

Section 3.10.2 of the Airport Plan details the construction conditions that must be satisfied prior to commencement of Main Construction Works including the requirement for a Construction Plan, nine CEMPs, the Community and Stakeholder Engagement Plan; and under 3.10.5, a Sustainability Plan.

3.2.1 WSA Co approvals and permits

WSA Co will implement permit systems and processes as tools to assist in the management and control of works that have the potential to impact the environment and heritage if not managed correctly. Such activities applicable to the EEW package and Visitor Centre and Site Office Enabling Works include dewatering activities, impact to land within designated protection areas, land disturbance activities and out of hour works.

Prior to approving these permits, assessment considerations include:

- obligations including but not limited to Conditions as per section 3.10.2 of the Airport Plan, and Roads and Maritime Services specifications for relevant external road related construction activities;
- Work techniques or methodologies and associated project procedures;
- Any need for external approvals – such as EPA, and fisheries approvals / permits.

The following permit requirements will be implemented during the delivery of Stage 1 Development. Note that these permits are targeted at the EEW package and Visitor Centre and Site Office Enabling Works and will be expanded as additional works come on line and the Construction Plan (including this SEMF) and associated CEMPs are updated accordingly:

- Permit to pump – refer to Soil and Water CEMP
- Land Disturbance Permit – Refer Appendix H SEMF
- Out of Hours Works Permit – refer to Noise and Vibration Management Plan
- Permit to Enter Protected or No-Go Area (e.g. heritage, biodiversity, contamination etc) – Refer Appendix I SEMF

3.2.1.1 Permit to pump

The Permit to Pump will be used for all dewatering operations, including sediment basins and any other water to be released from the construction site. This permit shall document measures to avoid pollution, pump location/ size and suction heights, release qualities / limits, locations of approved release points, monitoring of discharge, and Environmental team review and WSA Co approval before release.

3.2.1.2 Land disturbance permit

The Land Disturbance Permit (LDP) will be used to identify environmental sensitive areas and utilities in proximity to construction activities. It shall cover all clearing and earthworks activities as well as works in new areas and shall document environmental control measures and Environmental team review and WSA Co approval prior to commencing work.

3.2.1.3 Out of hour works permit

An Out of hour works permit shall be implemented for all required out of hours works approved in accordance the Noise and Vibration CEMP. This permit shall include measures to reduce impacts, location of equipment to minimise impacts, monitoring of out of hours works and Environmental signoffs on the permit and WSA Co approval.

3.2.1.4 Permit to enter Protected or No-Go Area

Entry into protected areas (e.g. heritage, biodiversity etc) or restricted areas (e.g. contamination) shall be avoided at all times. However should entry be required, a permit to enter Protected or No-Go Area must be prepared by the Contractor Environment Manager and approved by WSA Co. This permit shall include details of proposed works, measures to reduce impacts, any consultation requirements and signoffs on the permit before release.

A log of all permits issued shall be provided by the Contractor(s) in the monthly report to WSA Co.

3.3 Environmental aspects and impacts

During the development of this SEMF, an environment risk assessment was undertaken to determine the severity and likelihood of an activity's impact on the environment and to prioritise their significance. This process has considered potential regulatory and legal risks as well as taking into consideration the concerns of community and other key stakeholders and was based on AS/NZS ISO 31000:2009, the Australian standard for risk assessments.

The outcome of this risk analysis provides the basis of the risk register (Appendix D) which includes a list of activities, related aspects and corresponding risks. Measures to minimise the identified environmental risks are also provided.

3.4 Environmental policy

The environmental policy, which includes cultural heritage, at Appendix E describes WSA Co's commitment to continual improvement in environmental performance and compliance with applicable legal and other requirements. WSA Co's environmental policy is displayed at site offices and communicated to staff and other interested parties via inductions and ongoing awareness programs.

All contractors / suppliers for the project will need to adhere to WSA Co's environmental policy.

3.5 Objectives and targets

As a means of assessing environmental performance during construction, environmental objectives and targets have been established. These objectives and targets have been developed taking into account the Airport Plan condition requirements and the consideration of key issues identified through the environmental assessment and risk assessment process. The objectives and targets are consistent with the Airport Plan requirements and WSA Co's Environmental Policy and will assist in monitoring whether the commitments of the policy are being met.

The aspect specific objectives and targets are incorporated into the Construction Plan, CEMPs and other approved plans.

Performance against the objectives and targets will be documented in the Airport Plan condition compliance reports and at least on an annual basis as part of the management review.

Environmental objectives and targets for the construction of the Stage 1 Development of Western Sydney Airport are provided in Table 14.

Table 14 Environmental objectives and targets

Objective	Target	Measurement Tool
To meet the full range of environmental identified in the environmental management framework and any other environmental conditions in the Airport Plan.	Full compliance.	Audits, construction compliance reporting, management view.
To ensure that all identified environmental impacts and issues are appropriately managed and mitigated during construction of the airport, including though the identification of contingencies should unexpected adverse outcomes occur, or control	No regulatory infringements.	Inspections, monitoring in accordance Section 8 and as detailed in with the CEMPs, audits, compliance reporting.

Objective	Target	Measurement Tool
measures are found to be inadequate.		
To promote continuous improvement in environmental performance.	Address non-conformances and corrective actions within specific timeframes.	Audits, management reviews.
To provide a comprehensive framework for the development and implementation of detailed environmental management measures through CEMPs and other plans.	Efficient delivery of best practice.	Compliance reporting, management review. Community and Stakeholder Engagement Plan
To ensure that controls are properly implemented, regularly monitored and audited to assess their effectiveness.	Develop and maintain a program of ongoing environmental training. Capture lessons learnt from environmental events to minimise repeat issues. Encourage and reward innovation and effort throughout the workforce.	Compliance reporting, management review.

3.6 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.

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; and
- The variation will address the contravention.
- WSA Co will comply with any such request within three months.

3.7 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). 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 refer to Section 6).

3.8 Publication of Approved Plans

Consistent with Airport Plan Condition 42, WSA Co will publish each approved plan on its website (www.wsaco.com.au) within one month of them being approved. The approved plans will be maintained on the website until the end of the construction period.

3.9 Preparatory activities

During the Stage 1 Development activities Preparatory Activities will be required to be conducted that are not specified in the approved Construction Plan, CEMPs and other plans on the basis that these activities have been assessed as not to be inconsistent with the approved plans. Particular mitigation measures that will be applied to Preparatory Activities will be identified in the preparatory activities approval form as appropriate and submitted by the contractor to WSA Co for approval. The definition of Preparatory Activities as provided in Appendix A of the Airport Plan includes the following:

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. Activities associated with 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:

   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 for this definition.

Prior to commencing any Preparatory Activities, details of the activities would be documented on the Preparatory Activities Approval Form (PAAF). This form would include a description of the activities to be undertaken, relative timing and environmental monitoring and control measures. The activities can only be completed if they are determined to be consistent with approved plans.

The PAAF would include:

- Specific mitigation measures and controls that can be applied on-site to avoid or minimise negative environmental impacts.
- Provides specific mechanisms for compliance with applicable policies, approvals, licences, permits, consultation agreements and legislation.
- Describes the environmental and heritage management related roles and responsibilities of personnel.
- Outlines a monitoring regime to check the adequacy of controls as they are implemented and a process to implement corrective actions to ensure continual improvement.

4 Implementation and operation

4.1 WSA Co Environmental Management Framework

This SEMF is a WSA Co framework which sets out WSA Co's environmental management requirements for construction of the Stage 1 Development. It provides a linking document between the requirements of the Airport Plan the nine CEMPs prepared for each environmental aspect. WSA Co Contractors will be required to implement and adhere to the requirements of the Construction Plan, the SEMF and nine CEMPs and other approved plans.

The structure of the environmental management system for the Stage 1 Development is shown in **Figure 7**.

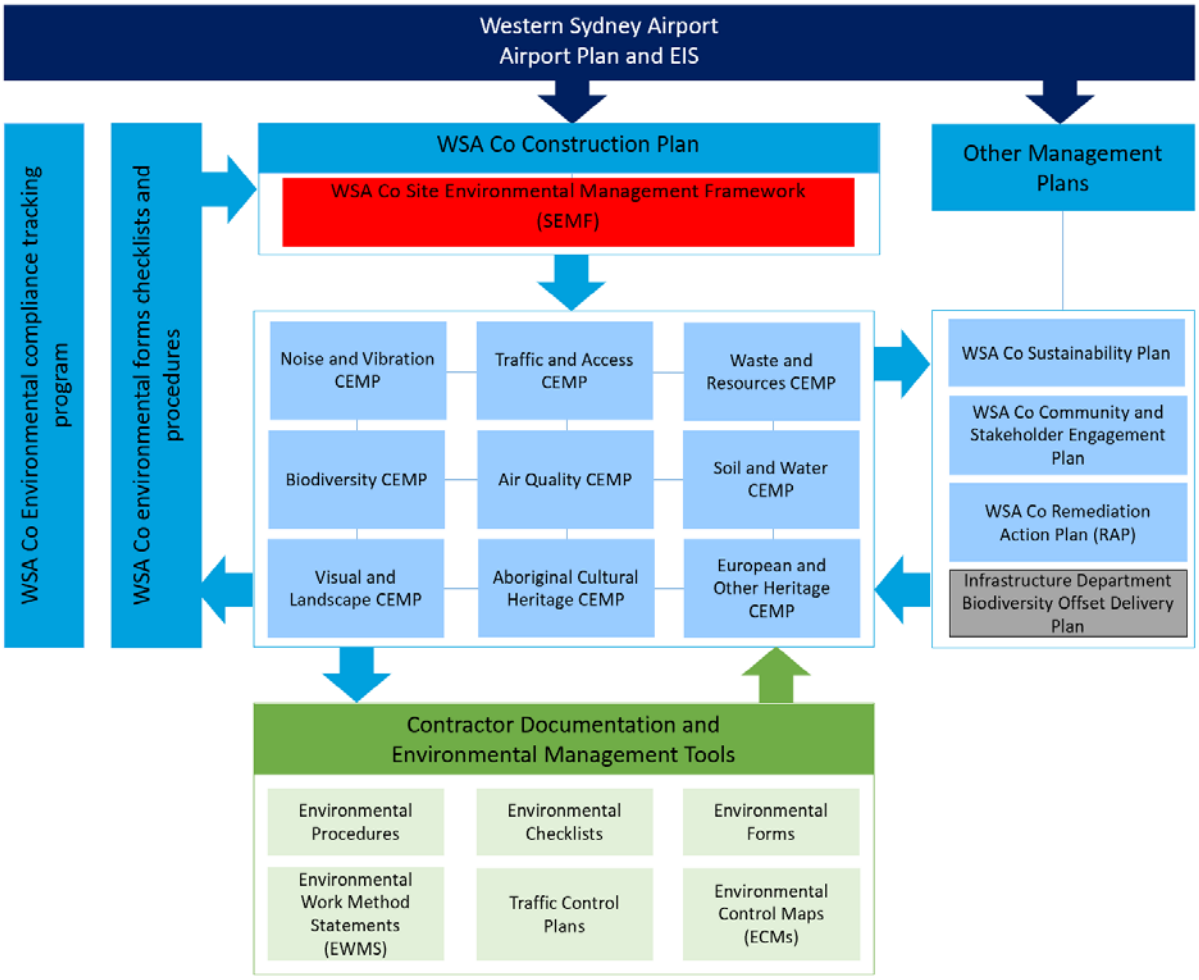

Figure 7 Environmental management system structure

4.2 Construction environmental management plans

Approved CEMPs address Airport Plan Condition requirements specific to the Project activities described in Section 2. They address required management and mitigation measures, controls and monitoring requirements. A list of CEMPs and other plans for the construction phase of the Stage 1 Development, and their document numbers are provided below in Table 15. Refer to the individual CEMP documents as referenced below for further details with regards to document scope, purpose, mitigation measures and controls and specific roles and responsibilities.

Table 15 Construction environmental management plans and other plans

Document name	
Noise and vibration CEMP	WSA00-BECHTEL-00400-EN-PLN-000002
Biodiversity CEMP	WSA00-BECHTEL-00400-EN-PLN-000003
Soil and water CEMP	WSA00-BECHTEL-00400-EN-PLN-000004
Traffic and access CEMP	WSA00-BECHTEL-00400-EN-PLN-000005
Air quality CEMP	WSA00-BECHTEL-00400-EN-PLN-000006
Aboriginal cultural heritage CEMP	WSA00-BECHTEL-00400-EN-PLN-000007
European and other heritage CEMP	WSA00-BECHTEL-00400-EN-PLN-000008
Waste and resources CEMP	WSA00-BECHTEL-00400-EN-PLN-000009
Visual and landscape CEMP	WSA00-BECHTEL-00400-EN-PLN-000010
Construction Plan	WSA00-BECHTEL-00400-EN-PLN-000001
Community and Stakeholder Engagement Plan	WSA00-WSA-00400-PM-PLN-000001
Sustainability Plan	TBA
Biodiversity Offset Delivery Plan	N/A

4.2.1 WSA Co Environmental forms, checklists and registers

WSA Co will develop and implement its own forms, checklists and registers to support the activities identified in Section 8.

These include:

- Preparatory Activities Approval form (Appendix A);
- Environmental inspection checklist (Appendix B);
- Additional forms and procedures may be developed to support this framework.

4.3 Contractor Environmental Management

Contractors engaged to carry out works for WSA Co will prepare and implement environmental management documents to demonstrate compliance with the requirements of the WSA Co SEMF and CEMPs. All Contractor environmental management documentation will be submitted to WSA Co for review and no work is to commence on the subject works until accepted by WSA Co.

For Preparatory Activities (guided by the Preparatory Works approval process) the preparatory works approval in Appendix A is required.

4.3.1 Environmental Control Maps

Environmental control maps (ECMs) identify the location of physical protection measures, work method controls and monitoring requirements to minimise the impact of activities on the environment, cultural heritage and community in and adjoining a specific work area.

ECMs are prepared by the Contractors construction team and should involve the Environmental Coordinator, Foreman and Engineer to ensure a collaborative and inclusive approach to the management of environmental and heritage risks. The mitigation measures included in the applicable CEMPs and other plans should be included on the ECM. The ECMs are to be reviewed and updated as the work area changes. Once approved by WSA Co the ECM should be placed on site sheds for reference by the workforce and relevant details included in toolbox talks and pre-starts.

The content of an ECM should include, as applicable, the following:

- The worksite layout and boundary, including entry/exit points and internal roads
- North point, legend, scale, names of major roads and landmarks
- Key environmental and heritage risk issues and the specific mitigation measures
- Contours/elevation points and/or direction of slope/s
- Key project traffic routes within and adjacent to the worksite and key traffic management measures (traffic controllers, cueing zones, warning signs, etc)
- Location of adjoining land-use and nearest noise sensitive receivers
- Dust control measures
- Location and type of sediment and erosion control measures, including size/capacity of detention basins and wheel wash facilities
- Location of monitoring equipment (e.g. dust, noise, vibration monitors) and frequency of monitoring/inspections
- Location of environmentally sensitive areas (e.g. threatened species, critical habitat, contaminated areas, heritage no go zones, etc)
- Location of site offices
- Vegetation and trees to be protected
- Vegetation and trees to be removed, with any actions required prior to felling
- Location of worker car parking and any parking restrictions
- Location of known heritage
- Location of spill containment and clean-up equipment
- Location of stormwater drainage and watercourses leading to/from the worksite
- Location of worksite waste management facilities
- Restrictions on certain activities (e.g. rock breaking, driven piling, blasting)
- Key stages and timeframes for the works
- Contact details (including after hours) for key staff (including Environment manager and Construction Manager)
- Hours of work applicable to the worksite
- Construction Response Line number
- Document control and approval details

4.3.2 Environmental Work Method Statement

Environmental Work Method Statements (EWMS) detail a specific construction methodology and environmental mitigation and management measures for a high-risk activity or area, e.g. working over water.

EWMS will be prepared prior to the commencement of relevant construction activities and will incorporate relevant mitigation measures and controls, including those from CEMPs and other plans. They also identify key procedures to be used concurrently with the EWMS. EWMS are specifically designed to communicate requirements, actions, processes and controls to construction personnel using plans, diagrams and simply written instructions for managing the high-risk activity.

EWMS for activities likely to be considered high risk include:

- Working platforms in or adjacent to waterways
- Temporary waterway crossings
- Site compound establishment
- Managing Contaminated Material
- Construction of Stockpile Pad
- Vegetation clearing
- Piling
- Works adjacent to a heritage item.
- Dewatering activities
- Blasting

Each EWMS include at least the following elements:

- Description of the work activity, including any plant and equipment to be used;
- Outline of the sequence of tasks for the activity, including interfaces with other construction activities;
- Identification of any environmental and / or socially sensitive areas, sites or places;
- Identification of potential environmental risks / impacts due to the work activity;
- Mitigation measures to reduce the identified environmental risk, including assigned responsibilities to site management personnel; and
- Process for assessing the performance of the implemented mitigation measures.

All construction personnel and sub-contractors undertaking a task governed by an EWMS must participate in training on the EWMS and acknowledge that they have read and understood their obligations by signing an attendance record prior to commencing work.

Regular monitoring, inspections and auditing of compliance with the EWMS will be undertaken to ensure that all controls are being followed and that any non-conformances are recorded, and corrective actions implemented.

EWMS are to be prepared and endorsed by WSA Co prior to the commencement of the activities.

4.3.3 Erosion and sediment control plans

Erosion and Sediment Control Plans (ESCP) are planning documents that clearly show the site layout and the approximate location of erosion and sediment control structures onsite. They are developed progressively and cover all construction stages from initial vegetation clearing through to rehabilitation when erosion and sediment control are no longer required and are removed. ESCP will be developed and implemented across the Project where there is a risk of erosion and sediment loss.

ESCP may be produced in conjunction with EWMS/ECM to provide more detailed site-specific environmental mitigation measures and will be prepared in accordance with the requirements of the Soil and Water CEMP.

ESCP will be developed by Contractor environment staff in consultation with the superintendent, site engineers, foreman and other relevant site personnel, as required. They will be modified to reflect site condition at the time of construction. The WSA Co Environment Manager (or nominated delegate) will approve ESCP.

ESCP will be developed for all applicable work areas prior to commencing activities.

4.4 Contractor environmental procedures

Environmental procedures are tools to document an environmental process. They include procedures, protocols and strategies developed for a specific scope of works. The Contractor will implement its own procedures that will include details of the relevant legislative requirements and guidelines, and the process to be followed for a particular task. The following provides guidance on the types of environmental procedures that should be prepared and must be implemented as a part of the Contractor environmental management system.

- Environmental Incident Classification and Reporting procedure;
- Management of unexpected finds (Included as an Appendix in the relevant CEMP documents – i.e. Aboriginal Cultural Heritage, European and Other Heritage, Biodiversity and Soil and Water CEMPs);
- Sediment basin management procedure (Appendix of the Soil and Water CEMP);
- Fauna handling and rescue (Appendix of the Biodiversity CEMP); and
- Out of hours procedure (Appendix of the Noise and Vibration CEMP).

4.5 Roles and responsibilities

4.5.1 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 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 and approve other matters (excluding Biodiversity Offset Delivery Plan)
- The Infrastructure Department is 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.

4.5.2 WSA Co Structure

WSA Co team members have an obligation to protect the environment through carrying out their work with due diligence. All WSA Co members must:

- Comply with the requirements of the SEMF and associated CEMPs as they apply to the type of work the employee is involved in;
- Report all events or activities that may result in environmental harm; and
- Implement appropriate measures to control environmental risks.

In addition to these, environmental responsibilities specific to key roles are listed below.

More details for each role are included in the WSA Co position descriptions.

4.5.3 WSA Co Roles and Responsibilities

Chief Executive Officer

- Provide resources to ensure compliance with SEMF and CEMPs is achieved;
- Provide the leadership and direction whereby environmental protection is and remains an integral element of all project activities; and
- Provide required resources to ensure the delivery of the SEMF and CEMPs to manage the environment and prevent pollution

Environment Manager

- Establish the Environment Policy;
- Establish environmental objectives and targets;
- Develop and support strategies to meet these objectives and targets;
- Encourage environmental innovation and ensure that environmental initiatives are incorporated in the approach to project management and performance;
- Coordinate ongoing training in environmental awareness for all levels of WSA Co staff;
- Coordinate and manage the preparation of the project's SEMF and associated CEMPs;
- Review environmental legislation and communicate relevant information to the wider team;
- Develop and review internal environmental documents for WSA Co (e.g. reports, newsletters, procedures etc);
- Assist in the development and management of tasks to ensure statutory requirements relating to environmental management and performance are met;
- Ensure compliance of activities with the SEMF and associated CEMPs;
- Obtain and comply with all necessary environmental approvals / licences;
- Implement, maintain, monitor, report and advise the Executive General Manager on all environmental management matters;
- Liaise with the AEO and Infrastructure Department on environmental matters
- Liaise with external stakeholders, e.g. EPA, OEH, local councils
- Complete environmental reporting as required by the SEMF and CEMPs to meet the Airport Plan requirements and submit to the Approver and stakeholders as required.
- Ensure compliance with all environmental approvals and permit requirements;

- Monitor the implementation of all environmental management requirements both legislative and as identified in the SEMF and CEMPs;
- Ensure that environmental records are maintained;
- Ensure that all environmental incidents and events are reported, investigated and corrective action taken to prevent recurrence;
- Ensure that all relevant employees and Contractors receive environmental inductions and ongoing training as appropriate;
- Participate in regular workplace inspections to ensure compliance;
- Assist with environmental hazard and risk identification and elimination;
- Provide direction and guidance on implementation of the SEMF and CEMPs;
- Ensure all Contractors are informed of environmental management requirements; and
- Monitor and take action to ensure environmental management requirements are implemented throughout the life of the project.

Sustainability Manager

The responsibilities of the Sustainability Manager are detailed in the Sustainability Plan.

Community and Stakeholder Manager

The responsibilities of the Community and Stakeholder Manager are detailed in the Community and Stakeholder Engagement Plan.

Wider WSA Co Team

The environmental responsibilities of the wider project team include (but are not limited to) the following:

- Comply with the relevant requirements of the SEMF and CEMPs, or other environmental management guidance as instructed by a member of the project's management;
- Participate in the mandatory project / site induction program;
- Report any environmental incidents to the foreman immediately or as soon as practicable if reasonable steps can be adopted to control the incident;
- Undertake remedial action as required to ensure environmental controls are maintained in good working order; and
- Stop activities where there is an actual or immediate risk of harm to the environment and advise the AEO.

4.6 Contractor roles and responsibilities

Each Contractor is to identify roles with the following responsibilities as a minimum within the Contractor CEMPs.

- Liaise with government stakeholders and provide notification / information where environmental incidents / events have occurred;
- Monitor environmental performance though audits and review of the monthly environmental reports;
- 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;
- Advise all personnel and sub-contractors of their responsibilities under the Contractor EMP and site-specific environmental issues;
- Coordinate the implementation of the Contractor EMP;

- Identify resources required for implementation of the Contractor EMP;
- Program toolbox talks and daily pre-start meetings to include environmental requirements where required;
- Report any activity that has resulted, or has the potential to result, in an environmental incident immediately to WSA Co;
- Coordinate action in emergency situations and allocate required resources;
- Stop activities where there is an actual or immediate risk of harm to the environment and advise WSA Co;
- Undertake weekly inspections, ensuring all works comply with relevant regulatory and project requirements;
- Maintain and update an Environmental Risk Register;
- Ensure that all environmental licences, approvals and permits are obtained and updated as required, and ensure that a legal and other requirements register is maintained;
- Report to WSA Co on environmental performance monthly;
- Ensure the requirement of this SEMF and associated CEMPs are fully implemented;
- Ensure that all personnel receive appropriate induction training, including details of the environmental obligations;
- Plan construction works in a manner that avoids or minimises impact to environment;
- Control field works and implement or maintain effective environmental controls;
- Ensure steps are taken to rectify and prevent future incidents from occurring;
- Oversee site monitoring, and undertake weekly inspections and audits;
- Develop and facilitate induction, toolbox talks and other training programs relating to environmental requirements for all site personnel;
- Maintain a register of all project site inductions and environmental training; and
- Manage an incident / event register and provide documentation on environmental incidents, non-conformance and corrective actions to WSA Co.

5 Competence, training and awareness

5.1 WSA Co training

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

- Specific training required by each CEMP;
- Information on changes to legal and other requirements;
- Shared information from other works;
- New environmental management initiatives; and
- Corrective actions to be implemented.

5.2 Contractor training

WSA Co Environment Manager will review training content to be delivered by Contractors. This content will be developed and rolled out regularly. To ensure that environmental controls are effectively implemented, the Contractor is responsible for ensuring that all personnel reporting to them are aware of the requirements of the relevant CEMPs. Forms of environmental training may include:

- The project site induction, including environmental roles and responsibilities and incident reporting procedures;
- Toolbox talks;
- Pre-start meetings; and
- Environmental awareness training for specific issues.

The Contractor is to maintain a register of all project site inductions and environmental training carried out. Records of attendees at toolboxes are to be kept on file.

5.2.1 Contractor site inductions

All personnel (including sub-contractors) are to attend a site induction prior to commencing any work on site. The site induction includes an environmental component and ensures all personnel are aware of the environmental risks on site, the requirements of the CEMPs and their responsibilities around the implementation of environmental management measures.

The environmental component will include, but not be limited to, an overview of:

- Purpose and objectives of the project works package;
- Conditions of environmental licences, permits and approvals;
- Key environmental issues and responsibilities;
- Working hours;
- Mitigation measures for the control of environmental issues;
- Boundaries for vegetation clearing, location of exclusion zones, and other environmental constraints; and
- Incident management, response and reporting requirements.

A record of all environment inductions is to be maintained by the Contractor and kept on site.

5.2.2 Contractor toolbox talks, training and awareness

Toolbox talks or similar are proposed to be held weekly, or in response to an incident and will be used to raise awareness and educate personnel on issues related to aspects of construction, including environmental issues.

Environmental issues may include (but are not limited to):

- Erosion and sedimentation control;
- Incidents and spill response;
- Managing noise and amenity impacts;
- Threatened species, endangered ecological communities and protection of vegetation;
- Heritage and managing unexpected finds; and
- Improvements to existing procedures based on findings of environmental inspections, monitoring and audits (refer to Chapter 8).

For activities with high environmental risk (as identified through the Contractors risk assessment), targeted environmental awareness training is to be provided. The content of targeted training may include the topics outlined above, or as otherwise required, dependant on the nature of construction activities and the type of impact and environmental risk.

The Contractor is to maintain a register of environmental training. The register is to include a record of the topic, content, dates, names and signatures of personnel trained.

5.2.3 Contractor pre-start meetings

Pre-start meetings will occur at the commencement of each shift. The pre-start meeting is a tool for informing the workforce of the day's activities, including information relating to the work schedule, safety, environment or other information that may be relevant to the day's work.

Environmental issues covered in the pre-start meeting include any aspect of the day's construction activities that may be impacted by, or may impact on, the environment. Risks and measures to manage those risks are to be discussed.

The Contractor is to record pre-start topics, dates delivered and a register of attendees.

5.2.4 Contractor competency

Contractors are to maintain records of personnel competency in relation to key environmental responsibilities. For example, measures to ensure and record personnel understanding of training content (including induction) are to be implemented and records maintained.

Contractors are also to maintain records of relevant environmental qualifications, memberships etc for personnel with key environmental responsibilities.

These records are to be maintained as project records and made available to WSA Co on request.

6 Environmental incident and emergency management

All environmental incidents and emergencies must be reported to WSA Co Environment Manager. The WSA Co Environment Manager will report to the Infrastructure Department and the Airport Environment Officer in accordance with Part 6 of the Airports *(Environment Protection) Regulations 1997 (AEPR)*. The AEPR Part 2 includes definitions of what is air, water and soil pollution and is outlined in Table 16.

Table 16 Definition of pollution (AEPR 2018)

Aspect	Pollution definition
Air *(AEPR Section 2.01)*	air pollution has occurred when a pollutant is present in air in a quantity, way, or condition, or under a circumstance, in which: (a) harm is likely to be caused to the environment; or (b) unreasonable inconvenience is likely to be caused to a person: (i) at a place other than the immediate vicinity of the source of the pollutant; or (ii) if the source is in a place to which members of the public have access—in that place.
Water *(AEPR Section 2.02)*	water pollution has occurred when waters contain a substance or organism: (a) that causes, or is reasonably likely to cause, the physical, chemical or biological condition of the waters to be adversely affected; or (b) that causes, or is reasonably likely to cause, an adverse effect on beneficial use of the waters. (2) For subregulation (1), waters contain a polluting substance if: (a) the substance is dissolved in the waters; or (b) whether or not the substance is capable of uniformly mixing with water—it is: (i) suspended or otherwise dispersed in the waters; or (ii) floating on the surface of the waters; or (iii) deposited on the bed of the waters.
Soil *(AEPR Section 2.03)*	soil pollution has occurred when land, including subterranean groundwater, is contaminated by a substance: (a) that causes, or is reasonably likely to cause, the chemical or biological condition of the soil to be adversely affected; or (b) that causes, or is reasonably likely to cause, an adverse effect on present use of the land concerned, or a proposed use under a final master plan in force for the airport, because it is, or is reasonably likely to be: (i) unsafe or unfit for human habitation or occupation; or (ii) in any other respect, harmful to the health or welfare of human beings; or (iii) significantly offensive to human senses; or (c) that causes, or is reasonably likely to cause, an adverse effect on the land concerned, because: (i) the land supports native flora or fauna; and (ii) the substance degrades the capacity of the land to support the flora or fauna; or (d) that causes, or is reasonably likely to cause, an adverse effect on beneficial use of any subterranean groundwater; or (e) that causes, or is reasonably likely to cause, an adverse effect on beneficial use, of adjacent land in accordance with a final master plan in force for the airport.

6.1 Contractor Environmental Incident Reporting

Each Contractor for each phase of work for the Stage 1 Development will develop and implement an environmental incident and emergency plan/procedure, in accordance with the requirements of the Airport Plan. The procedure will include:

- Categories for environmental emergencies and incidents.
- Notification protocols for each category of environmental emergency or incident, including notification to WSA Co Environment Manager.
- Identification of personnel who have the authority to take immediate action to shut down any activity, or to affect any environmental control measure (including as directed by the AEO).
- A process for undertaking appropriate levels of investigation for all incidents and the identification, implementation and assessment of corrective and preventative actions.
- Depending on the nature of the incident and the likelihood of potential or actual material harm to the environment, the regulatory authorities, e.g. AEO, Infrastructure Department, NSW EPA (for off-site discharge) will be notified by the WSA Co Environment Manager.

The Contractor will make all personnel aware of the plan and their responsibilities.

Following formal notification of the incident to WSA Co Environment Manager, an incident report detailing the cause of the incident and demonstrating corrective and preventative actions will be provided by the relevant Stage 1 Development contractor within 7 days of the incident or as agreed with the WSA Co Environment Manager. A summary of the incident will be provided in the Contractor monthly report.

6.2 WSA Co Environmental Incident Reporting

The WSA Co Environment Manger will monitor pollution levels in accordance with the requirements outlined in each CEMP. If monitoring discloses pollution, or excessive noise, occurring, WSA Co will provide within 14 days a written report to the AEO which includes the following (AEPR 6.04):

a) The nature of the pollution, or excessive noise; and

b) The location of the affected environment; and

c) The date, and time, when the pollution, or excessive noise, occurred, or is likely to have occurred; and

d) Details of remedial action WSA Co or other person has taken, or is taking, to prevent or minimise the pollution, or noise, and its recurrence.

The WSA Co Environment Manager will include a summary of incidents in the WSA Co monthly report. This will include a review of environmental incidents to determine trends. Where trends are identified, the WSA Co Environment Manager will discuss preventative strategies with the Contractor to reduce the frequency of reoccurring incidents.

In addition to monthly reporting, details of all pollution incidents that have occurred during the reporting period for the Stage 1 Development will be included in the annual compliance report.

7 Communication and consultation

7.1 Internal communication

Clear lines of communication throughout all levels and functions (e.g. management, staff and sub-contracted service providers) are key to minimising environmental impacts and achieving continual improvements in environmental performance.

The WSA Co environmental team (including the WSA Co Environment Manager and Environment Officers) will meet regularly with project contractors to discuss any issues with environmental management on site, the findings and outcomes of environmental inspections and audits, any amendments to environmental management plans that might be required or any new / changes to construction activities and general overall environmental performance.

WSA Co environmental personnel will also have the opportunity to participate in contractor toolbox talks which will be undertaken on at least a weekly basis on site. This forum will provide an opportunity for the WSA Co environment team members to communicate on environmental performance, to advise on any upcoming sensitive environmental matters for future work areas and to receive feedback from on-site personnel.

Contractor's environmental personnel will coordinate and participate in toolbox talks on at least weekly basis. Contractor toolbox sessions will be used to communicate internal environmental matters and any matters advised by WSA Co.

Further internal communications regarding environmental issues and aspects will be through awareness training as described in Section 5.

7.2 External and government authority communication

The WSA Co Environment Manager will be the main point of contact for both internal and external personnel and stakeholders regarding specific environmental issues. The WSA Co Environment Manager has the responsibility to report on the ongoing environmental performance of the work to WSU and the AEO and also to report any reportable incidents / events (as per Section 6) to the relevant government stakeholders (including the NSW EPA on off-site pollution matters). The WSA Co Environment Manager will report regularly to Infrastructure Department and the AEO on progress and any key environmental matters.

For further detail with regards to the consultation requirements with external stakeholders and government authorities, refer to the WSA Community and Stakeholder Engagement Plan.

7.3 Stakeholder and community communication

7.3.1 Communications and Stakeholder Engagement Plan

Construction of the Stage 1 Development will involve a number of interactions with local residents, local councils and NSW Government agencies, among others. Whilst this SEMF outlines some of the key consultation requirements for particular issues (such as emergency and incident response, Aboriginal heritage etc.), a Community and Stakeholder Engagement Plan (CSEP) has also been prepared to address broader stakeholder engagement objectives during construction, to coordinate engagement activities for all environmental management issues during construction.

The CSEP has been developed to guide and assist engagement activities for all environmental management issues during the construction phase, keeping the community and stakeholders informed of construction activities, and providing a process for the management of complaints about construction activities. The CSEP has been prepared in accordance with the requirements of Construction Condition No. 15 (Airport

Plan, Section 3.10.2). The plan identifies opportunities for providing information and consulting with the community and stakeholders during the construction phase of the work.

7.3.2 Complaints and enquires

All complaints and enquiries will be managed in accordance with the WSA Co Community and Stakeholder Engagement Plan which has been prepared in accordance with the requirements of the Airport Plan Condition No. 15 (Airport Plan, Section 3.10.2).

In summary, 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 2170) 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.

The community contacts database will be used as a complaints 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 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 issues resulting in community complaints.

8 Environmental inspections, monitoring and auditing

Monitoring, inspection and auditing will be undertaken to measure effectiveness and facilitate continuous improvement of environmental controls and implementation of this SEMF, associated CEMPs, and to address approval requirements. Monitoring requirements specific to particular aspects (i.e. biodiversity, soil and water, air quality etc) are included in the relevant CEMPs. Environmental monitoring, inspection and auditing requirements are summarised in Table 17.

Table 17 Environmental monitoring, inspection and audit requirements

Action	Scope	Timing	Responsibility
Pre-start inspection	Brief inspection of Contractor works including status of environmental controls prior to starting works.	Daily or prior to each shift	Contractor
Close inspection	Brief inspection of Contractor works including status of environmental controls at completion of works.	Daily or at the completion of each shift	Contractor
Shut-down inspections	Inspection of Contractor works including status of environmental controls prior to shut-down of site for an extended period (i.e. more than 2 days)	Prior to extended site shut down	Contractor
General environmental inspection	Environmental management controls and records for all works.	Frequency determined based on risk of the activity (minimum monthly)	WSA Co, AEO, Contractor
General environmental inspection	Environmental management controls and records for Contractor works.	As per CEMPs (at least weekly)	Contractor
Environmental audit	Audit of environmental systems and on-site performance for all works.	6 monthly (unscheduled audits may be undertaken)	WSA Co
Compliance Audit	Independent audit of compliance with the conditions in the Airport Plan	Annually	WSA Co
Environmental audit	Audit of environmental systems and on-site performance for all works.	As per Contractor environmental management system (at least quarterly)	Contractor
Noise and vibration monitoring	As per Noise and Vibration CEMP	–	WSA Co and Contractor
Traffic and access monitoring	As per Traffic and Access CEMP	–	WSA Co and Contractor
Aboriginal Heritage monitoring	As per Aboriginal Heritage CEMP	–	WSA Co and Contractor

Action	Scope	Timing	Responsibility
European and other Heritage monitoring	As per European and other Heritage CEMP	–	WSA Co and Contractor
Biodiversity monitoring	As per Biodiversity CEMP	–	WSA Co and Contractor
Air quality monitoring	As per Air Quality CEMP	–	WSA Co and Contractor
Soil and water monitoring	As per Soil and Water CEMP	–	WSA Co and Contractor
Waste and resources monitoring	As per Waste and Resources CEMP	–	WSA Co and Contractor
Visual and landscape monitoring	As per Visual and Landscape CEMP	–	WSA Co and Contractor

8.1 Non-conformance, corrective and preventative actions

A non-conformance is an action or omission that does not conform with the requirements of this SEMF and supporting environmental documentation, or any legal or other requirement. Any member of the project team can identify a non-conformance and report it to the WSA Co Environment Manager.

An opportunity for improvement may be identified through the review and monitoring processes that will be implemented during construction. Review, monitoring or auditing may identify a variety of improvements that must, or should, be made to ensure continual improvement. For example, an internal audit of the incident register may identify an opportunity for improvement in areas such as documentation or resourcing (number and experience of environmental or other personnel). Any member of the project team can identify an opportunity for improvement.

Each Contractor must implement a system for identifying and managing non-conformity, corrective and preventative actions.

8.1.1 Identifying non-conformance

Non-conformances may be identified in one of the following ways:

- Environmental incident or event investigation;
- Through inspection, monitoring and / or reporting;
- Audit and / or review; and
- Project team communication / feedback.

8.1.2 Reporting non-conformance

The WSA Co Environment Manager will investigate and report non-conformances. Timeframes will be set to ensure any damage incurred is rectified and any chance of recurrence is eliminated as soon as practicable. The following details must be included:

- Details of the person reporting the non-conformance;
- Description of the non-conformance including time, date and location;
- Summary of the non-conformance including personnel involved, cause and environmental impact;
- Summary of actions taken to remediate the situation and mitigate further environmental impact;
- Further action required, a timeframe for completion and responsibility to correct or prevent future non-conformances.

- Details of all non-conformances to be discussed at WSA Co/Contractor co-ordination meetings and reported in the monthly progress report.

8.1.3 Recording non-conformance

Following investigation and reporting, a summary of the non-conformance must be recorded in a non-conformance register to be maintained by the Contractor. Improvement opportunities will also be recorded in the non-conformance register, for example to capture any system improvements recommended as the result of an incident investigation.

8.1.4 Review of the non-conformance register

The register will be reviewed regularly to ensure actions are closed out in a timely manner or as required.

8.2 Auditing

The following sections outline the WSA Co environmental auditing provisions. Each Contractor must include its own auditing program within their Contractor environmental management system.

8.2.1 Internal audits

Internal auditing will be undertaken generally on a six-monthly basis throughout the Stage 1 Development. The purpose of auditing is to verify compliance with:

- This SEMF and associated CEMPs and Contractor environmental documentation;
- Approval requirements; and
- Any relevant legal and other requirements (e.g. licenses, permits, regulations).

8.2.2 Independent audits

In accordance with Airport Plan Condition 40, an independent audit of compliance with the conditions set out in the Section 3.10.2 will be conducted by WSA Co covering the 12-month period commencing with the grant of the Airport Lease (17 May 2018). As required by Condition 40(3) the independent auditor will be approved by the Infrastructure Minister or a SES Officer in the Infrastructure Department (the Approver) prior to the commencement of each audit. Audit criteria will be agreed with the Approver and the audit report will address the criteria to the satisfaction of the Approver. The audit report will be provided to the Approver and the Environment Department within six months of the end of the period in respect of which the audit was conducted.

Additional independent audits may be enacted by WSA Co at any time in accordance with ISO 19011:2003 – *Guidelines for Quality and / or Environmental Management Systems Auditing*.

8.3 Reporting

8.3.1 Monthly environment report

Each Contractor is to prepare a monthly environment report to track progress on environmental performance. The monthly report will include relevant details including, but not limited to:

- Environmental inspections;
- Environmental monitoring;
- Environmental incidents;
- Environmental non-conformances;

- Environmental audits;
- Planned and completed construction notifications to the community;
- Complaints and enquiries; and
- Training.

This report will be provided to WSA Co. A template for monthly reporting is located in Appendix F. Reporting requirements specific to certain environmental aspects are included in the CEMPs.

8.3.2 Compliance tracking

A Compliance Tracking Program has been developed for the project and is included in Appendix K. The Compliance Tracking Program tracks the status of compliance with relevant Conditions of Approval and the Airport Plan requirements. This program will be maintained by the WSA Co Environment Manager and details of compliance provided in the annual report as detailed in Section 8.3.3

8.3.3 Environmental compliance reporting

WSA Co Environment Manager will prepare a report addressing compliance with the conditions set out in the Airport Plan Section 3.10.2 and the AEPR requirements set out in 6.03. The report will document compliance with the Airport Plan and the results of the monitoring of pollution levels. The compliance report will include implementation of the CEMPs in respect of:

- The 12-month period commencing with the commencement of Main Construction Works;
- Each subsequent 12-month period until the end of the Construction Period;
- Any not included in the above between the commencement of Main Construction Works and the end of the Construction period
- A summary of incidents including corrective and preventative actions implemented

If required and to align various reports WSA Co may request the Secretary determine an alternative reporting period for AEPR 6.03. WSA Co will publish the compliance report on its website within three months of the end of the reporting period. Each report will remain on the website for at least 12 months. Reporting will continue until the end of the construction period.

8.3.4 Management Review

Quarterly Environmental Review

An environmental management review will be held quarterly for the purpose of:

- Identifying of areas of opportunity for improved environmental performance;
- Analysing the causes of non-conformities and deficiencies, including those identified in environment inspections and audits;
- Verifying the effectiveness of corrective and preventative actions; and
- Highlighting any changes in procedures resulting from process improvement.

This review will be facilitated by the WSA Co Environment Manager and attended by Contractor environmental representatives.

Executive Environmental Review

The WSA Co executive will review the following on an annual basis and implement improvement action accordingly:

- Effectiveness of environmental management documentation implementation;

- Management effectiveness;
- Potential improvements to the environmental management documentation;
- Adequacy of resources;
- Findings of audits;
- Environmental objectives and targets;
- Environmental performance;
- Compliance with legal and other requirements;
- Critical non-conformance or repeated non-conformances;
- Organisation changes; and
- Effectiveness of training and inductions.

9 Documentation

9.1 Environmental records

As per the Airport Plan Condition 38, environment records that demonstrate compliance with the conditions must be maintained. This will be managed by the WSA Co Environment Manager. The records will include the measures taken to implement the approved plans. These records will include:

- All monitoring, inspection and compliance reports and records;
- A register of compliance with Airport Plan Conditions and Approved Plans;
- Reports on environmental incidents, environmental non-conformances, complaints and close out actions;
- Copies of environmental control plan register, site induction register, environmental training register, incident register and non-conformance register;
- Monthly environmental reporting;
- Induction and training records; and
- Correspondence with government agencies and other stakeholders.

All environmental management documents are subject to ongoing review and continual improvement. This includes changes to legislative or licensing requirements. The above records will be made available to the Infrastructure Department on request. Environmental records and Approved Plans will be stored electronically on the WSA Co document storage system (e.g. sharepoint).

Each Contractor is expected to maintain these same records relevant to their works as a minimum and make them available to WSA Co or the Infrastructure Department for review / audit on request.

9.2 SEMF and CEMP Revision

A document review process in accordance with the project's Quality Plan ensures that environmental documentation, including the CEMPs, are updated as appropriate to remain consistent with this SEMF. This includes the management reviews described in Section 8.3.4.

Should the document review process identify any issues or items that are either redundant or in need of updating, it is the responsibility of the WSA Co Environment Manager to prepare the revised documents.

The revised document will then be issued to the WSA Co Chief Executive Officer for endorsement of the changes. All changes to Approved Plans will require approval from the Infrastructure Minister or an SES Officer in the Infrastructure Department (refer to Section 3.6).

Appendix A

Preparatory Activities Approval Form

Preparatory Activities Approval Form

Part 1 Application	
Contractor:	
Works title:	
Application date:	
Preparatory Activities Category: *(highlight appropriate category)*	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: 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 e) Any other activities which an Approver determines are Preparatory Activities for this definition.

Part 2 Preparatory Activities Description	
Description of proposed activities: (Including work methodologies, site locations, and site description)	
Attachment of Scope of Work documents:	See Appendix 1 for plan of proposed work
Planned commencement Date:	
Proposed working hours (Standard hours: Monday to Friday 7am-6pm, Saturday 8am-1pm)	

Part 3: Environmental Risk Assessment and Management

Prepare and Environmental Risk Assessment for the proposed Preparatory Activities and attach as Appendix 1.

If an Environmental Risk Assessment for the proposed Preparatory Activities is/are already contained in existing documentation, attach the relevant section (s) as Appendix 1

Documentation: *List any existing documents (including those referenced above) that the proposed Preparatory Activities will be undertaken in accordance with and attach (e.g. plans, procedures, etc.)*	• 01.05.01.02 Environmental Impact Statement (2016) • 01.05.01.01 Western Sydney Airport Plan (December 2016)

#	Compliance Checks	Required				Completed prior to starting works	
		Yes	**No**	**NA**	**Comments**	**Engineer Sign Off**	**Foreman Sign Off**
Environmental							
1.	Is works within the Approved Site?						
2.	If works are required outside the site; have the relevant Authority or residents been notified?						
3.	Is works within 50m of a aboriginal heritage or European heritage area?						
4.	Is works within 50m of known threatened species location						
5.	If yes to 3 or 4; have the sensitive areas been clearly defined?						
6.	Will the Community Manager been informed of these works?						
7.	Is clearing or trimming of vegetation required?						
8.	If yes to 7; how much clearing?						
9.	Will the works have an impact on water quality?						
10.	If yes to 9: Has an ESCP been developed?						
11.	Is an Out of Hours Permit Required?						
Safety							
12.	Is this a High Risk activity?						

13.	If yes to above; will SWMS be developed?						
Permits							
14.	Which permits are required?						
15.	Permit to Enter a Confined Space						
16.	Permit to Isolate an Energy Source						
17.	Permit to Excavate or Penetrate						
18.	Permit to Perform Hot Work						
19.	Permit to Test						
20.	Permit to Use a Workbox						
21.	Permit to Dewater						
22.	Permit to Enter a No-Go Zone						
23.	Permit to Clear Land and Vegetation						

Part 4: Local Sensitivities	
Identify the presence of local sensitive environmental areas and community receptors	

Part 5: Workforce Notification	
How will the environmental risks and associated mitigation measures of the proposed Preparatory Activities be communicated to the contractor's workforce.	

Part 6: Contact Details	
Nominate contractors project manager and environmental contacts:	
Name:	
Position:	
Phone:	
Name:	

Position:	
Phone:	

Part 7: Signature	
The signature acknowledges that the proposed Preparatory Activities will be undertaken in accordance with this application, have minimal environmental impact and are not defined as ‘Major Construction Works’	
Name:	
Signature:	
Date:	

Appendix 2 - Work Method and Risk Assessment

#	Sequence of Work Activities (How will work be done?)	Potential Hazards (What harm can occur?)	Risk	Safeguards/controls (How can the risk be minimised?)	Residual Risk	Responsibility (Who will direct works to ensure compliance?)
				•		
				•		
				•		
				•		
				•		
				•		

Appendix B

Environmental Inspection Checklist

Environmental Site Inspection

Site	Western Sydney Airport	**Location**	
Date		**Time**	
Recorder/s		**Type of inspection**	
Contractor		**Construction phase**	

Legend
A - Acceptable
NI - Needs improvement
NA - Not assessed
NR – Not relevant

Overview

Category	Inspection item	Status (A/ NI/ NA/ NR)	Corrective action required?	Actions required	Responsible person	Comments	Photograph
General	Have all project personnel, including sub-contractors received appropriate inductions, toolboxes and targeted awareness training?						
Noise and vibration	Have all works being confined within the standard work hours? (Standard hours are 7 am- 6 pm, Monday to Friday and 8 am- 1 pm Saturday)						
	Are all vehicles switched off when not in use for an extended period (e.g. 30 minutes)?						
	Are all vehicles fitted with properly maintained noise suppression devices?						
	Have noisy plant been positioned away from sensitive receivers (where possible)?						
	Are respite periods being implemented for noisy activities (such a grinding, hammering) (two one-hour respite periods are to be implemented starting at 11:30 am and 2 pm)						

Category	Inspection item	Status (A/ NI/ NA/ NR)	Corrective action required?	Actions required	Responsible person	Comments	Photograph
	Has the worksite received any noise related complaints in the last 48 hours?						
Air quality	Are pesticides being applied during high or unfavourable wind conditions?						
	Is any material being burnt onsite?						
	Is adequate dust suppression being used?						
	Is vegetation clearing being staged to minimise the area of exposed surface?						
	Are all vehicle loads covered to minimise dust?						
	Have all exposed surfaced with no scheduled work for two weeks been treated to minimise dust suppression?						
	Has the worksite received any dust related complaints within the past 48 hours?						
	Is there any visible emissions from plant or machinery?						
Traffic and access	Are all public roads free from mud tracked from the worksite?						
Biodiversity	Is the Waste Management Hierarchy of avoid, reduce, recycle and dispose being implemented?						
	Are waste areas clearly demarcated?						
	Are waste streams appropriately labelled and segregated?						
	Are suitably stocked spill response kits available for use?						
	Is the Waste Management Register being maintained?						
	Are all oils and other hazardous liquids labelled and stored in a sealed container within a bunded area?						
	Do all hazardous substances have an Safety Data Sheet (SDS)?						
	Are the limits of the disturbance clearly marked in the field?						
	Are clearing extents being minimised where possible?						

Category	Inspection item	Status (A/ NI/ NA/ NR)	Corrective action required?	Actions required	Responsible person	Comments	Photograph
	Have environmentally sensitive areas, including the Environment Conservation Zone (ECZ) been clearly demarcated in the field?						
	Have hollow bearing logs been stockpiled appropriately for reuse?						
	Are there any known threatened species records within the work area?						
	Are there any weed infestations within the work area?						
	Are measures being taken to minimise bushfire risk?						
Visual and landscape	Are lighting impacts being managed?						
Aboriginal Cultural Heritage	Are there any know Aboriginal cultural heritage items located within the work area?						
	Is any top soil containing relatively high Aboriginal artefact density within the worksite?						
	If so, is the topsoil being stockpiles appropriately according to the Aboriginal Cultural Heritage CEMP?						
	Are the contractors aware of the unexpected finds procedure and notification protocols?						
European and other heritage	Are there any know European and other heritage items located within the work area?						
	Are the contractors aware of the unexpected finds procedure and notification protocols?						
Soil and water	Have appropriate drainage and sediment controls been installed prior to new areas being cleared or disturbed?						
	Is sediment being contained within the site boundary?						
	Is water run-off being appropriated diverted around disturbed areas?						
	Are exposed slopes equipped with erosion protection measures (e.g. erosion logs, tracking, silt						

Category	Inspection item	Status (A/ NI/ NA/ NR)	Corrective action required?	Actions required	Responsible person	Comments	Photograph
	fence, geotextile, temp stabilisation)?						
	Have completed work areas been graded and stabilised within required time frames or as needed to reduce further erosion and sedimentation?						
	Are drainage lines free of soil scour and excessive sediment deposition?						
	Are there adequate onsite materials and equipment for ESC maintenance and repair?						
	Are stockpiles in approved locations and maintained to ensure no sediment runoff or dust generation?						
	Are any liquids storage adjacent to a watercourse, creating the potential to pollute waters?						
	Is water being tested and treated before being discharged with a permit?						
	Is concrete being washed out in designated washout area?						

Additional photographs

Appendix C

Legal and other requirements register

Name	Activity / aspect	Requirement	Applicability
Commonwealth legal requirements			
Environment Protection and Biodiversity Conservation Act, 1999	Stage 1 Development	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 requirements identified within the EIS are to be implemented.
Environment Protection and Biodiversity Conservation Act, 1999 *Part 13 Permit* *Issued under sections 201, 216 and 258 of the EPBC Act*	Prior to commencement of construction	The Part 13 Permit specifies the maximum quantity of threatened species that can be cleared, injured, taken, killed, etc, and contains strict limits on clearing and impacts on species that will require stringent monitoring and reporting to ensure compliance.	The Part 13 Permit has been issued to WSA Co to undertake the permitted activities. Obligation on the WSA Co Contractor to monitor works for compliance with Part 13 Permit and report compliance to WSA Co. Limits and thresholds may require variation as the works progress across Stage 1. *Current permit valid to 31 December 2027*
Airports Act, 1996	Stage 1 Development	The Airport Plan provides the authorisation for the Stage 1 Development. The Airports Act and AEPR 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.	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. The AEPR details the requirements for activities that may generate pollution, duties to avoid pollution and preserve habitat and heritage and the requirement for improving environmental management practices. Criminal offences are applicable where the legislation is not complied with.

Name	Activity / aspect	Requirement	Applicability
Airports Act, 1996 s99	Stage 1 Development	Airport Lessee Company must not carry out a building activity unless it is in accordance with an approval granted under the regulations or s99(1)(e): • Exempt by regulations; and • Consistent with Part 2 of Airport Plan; and • Consistent with designated SWA instrument, if an element of a major airport development; and • Consistent with Part 3 of the Airport Plan. Airports Building Control Regulation, cl 2.24(1)(f): the following activities are exempt for s 99(1) and (3) of the Airports Act: • Minor works, being a works that the airport building controller determines, in writing, should be exempt from the subdivision because: i. Interference with the airport site is minor; and ii. No danger arises of injury to a person using the airport.	Generally all works require a building approval issued by the ABC. Some minor works that are not inconsistent with the approved CEMPs and Construction Plan may be exempt.
The Airports (Environment Protection) Regulations, 1997 (AEPR)	All activities on the airport site.	The Airports Act and the Airports (Environment Protection) Regulations 1997 set out the framework for the regulation and management of activities at airports that have potential to cause environmental harm once the airport lease has been granted. Part 6 of the Airports Act specifies offences relating to environmental harm, environmental management standards, monitoring and incident response requirements.	Management process for minimising environmental impacts, monitoring and incident response processes.
NSW legislation			
Environmental Planning and Assessment Act, 1979	Applicability will be determined on a case by case basis, e.g. for offsite	The objectives of the Environmental Planning and Assessment Act include the	To be determined on a case -by-case basis depending on scope of work

Name	Activity / aspect	Requirement	Applicability
	works that are not 'ancillary developments'.	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.	
State Environmental Planning Policy 19 – Urban Bushland (SEPP 19)	Applicability will be determined on a case by case basis, e.g. for offsite works that are not 'ancillary developments'.	The purpose of SEPP 19 is to protect and preserve bushland within urban areas due to its inherent aesthetic, community and natural heritage values.	To be determined on a case -by-case basis depending on scope of work
State Environmental Planning Policy 55 – Remediation of Land (SEPP 55)	Applicability will be determined on a case by case basis, e.g. for offsite works that are not 'ancillary developments'.	SEPP 55 provides for a state-wide planning approach to the remediation of contaminated land and aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment.	To be determined on a case -by-case basis depending on scope of work
Protection of the Environment Operations Act, 1997	Applicability will be determined on a case by case basis, e.g. for offsite works that are not 'ancillary developments'.	The objectives of the Protection of the Environmental Operations Act are to protect, restore and enhance the quality of the environment, in recognition of the need to maintain ecological sustainable development.	To be determined on a case -by-case basis depending on scope of work
Biodiversity Conservation Act 2016	Applicability will be determined on a case by case basis, e.g. for offsite works that are not 'ancillary developments'.	The purpose of this Act is to maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development	To be determined on a case -by-case basis depending on scope of work
Fisheries Management Act, 1994	Applicability will be determined on a case by case basis, e.g. for offsite works that are not 'ancillary developments'.	The Fisheries Management Act aims to conserve, develop and share the fishery resources of NSW for the benefit of present and future generations, including conserving fish stocks and fish habitat and promoting ecologically sustainable development.	To be determined on a case -by-case basis depending on scope of work

Name	Activity / aspect	Requirement	Applicability
National Parks and Wildlife Act, 1997	Applicability will be determined on a case by case basis, e.g. for offsite works that are not 'ancillary developments'.	The National Parks and Wildlife Act provides for the protection of Aboriginal objects (sites, objectives and cultural material) and Aboriginal places	To be determined on a case -by-case basis depending on scope of work
Heritage Act, 1997	Applicability will be determined on a case by case basis, e.g. for offsite works that are not 'ancillary developments'.	The Heritage Act makes provisions for the conservation of NSW's 'European & other' environmental heritage.	To be determined on a case -by-case basis depending on scope of work
Water Management Act, 2000	Applicability will be determined on a case by case basis, e.g. for offsite works that are not 'ancillary developments'.	The Water Management Act is intended to ensure that NSW water resources are conserved and properly managed for sustainable use benefitting both present and future generations.	To be determined on a case -by-case basis depending on scope of work
Contaminated Land Management Act, 1997	Applicability will be determined on a case by case basis, e.g. for offsite works that are not 'ancillary developments'.	The main objective of the Contaminated Land Management Act is to establish a process for notifying, investigating and remediating land which is, or may be, contaminated to a prescribed extent.	To be determined on a case -by-case basis depending on scope of work
Roads Act, 1993	Applicability will be determined on a case by case basis, e.g. for offsite works that are not 'ancillary developments'.	The Roads Act governs the opening, operation and management and closure of public roads in NSW.	To be determined on a case -by-case basis depending on scope of work
Waste Avoidance and Recovery Act, 2001	Applicability will be determined on a case by case basis, e.g. for offsite works that are not 'ancillary developments'.	The Waste Avoidance and Recovery Act promotes waste avoidance and resource recovery.	To be determined on a case -by-case basis depending on scope of work
Protection of the Environment (Waste) Regulation, 2014	Applicability will be determined on a case by case basis, e.g. for offsite	The main provisions of this regulation relate to the payment of a waste levy by licensed waste receivers, the requirements to track the	To be determined on a case -by-case basis depending on scope of work

Name	Activity / aspect	Requirement	Applicability
	works that are not 'ancillary developments'.	transportation and disposal of certain types of waste, and specific requirements to track the transportation and management of asbestos waste.	
Noxious Weeds Act, 1993	Applicability will be determined on a case by case basis, e.g. for offsite works that are not 'ancillary developments'.	The Noxious Weeds Act provides for the identification, classification and control of noxious weeds.	To be determined on a case -by-case basis depending on scope of work
Other requirements – refer to CEMPs for other requirements specific to the subject aspect.			

Appendix D

Environmental Aspects, Impact and Risk Procedure

Introduction

The environmental risk assessment has been performed in accordance with the principles of AS/NZS 4360:2004. This risk assessment was used to confirm the key issues and identify the scope of environmental impact mitigation and management measures required for construction.

The risk assessment focused on the following issues, as identified in the EIS:

- Noise;
- Air quality and greenhouse gases;
- Traffic, transport and access;
- Biodiversity;
- Topography, geology and soils;
- Surface water and groundwater;
- Aboriginal heritage;
- European heritage;
- Landscape and visual amenity;
- Resource and waste; and
- Legislative approvals.

For each issue, associated risks (impacts) have been identified. The relative level of risk was assessed and ranked using the risk analysis matrix presented below. Each environmental risk is categorised based on:

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

Risk assessment consequence definitions

Consequence level	Definition
Extreme	• Would result in a major prosecution under relevant environmental legislation. • Would cause long-term and irreversible impacts.
Major	• Would result in a fine or equivalent under relevant environmental legislation. • Would cause medium-long-term, potentially irreversible impacts.
Moderate	• Would result in a medium-term, reversible impact.
Minor	• Would result in short-term, reversible impact.
Insignificant	• Would not result in any perceptible impacts.

Risk assessment likelihood definitions

Likelihood level	Definition
Almost certain	• The impact is expected to occur in most circumstances.
Likely	• The impact will probably occur in most circumstances.
Possible	• The impact will probably occur at some time.
Unlikely	• The impact could occur at some time.
Rare	• The impact may only occur in exceptional circumstances.

Risk matrix

Likelihood	Consequences				
	Insignificant	Minor	Moderate	Major	Extreme
Almost certain	• Significant	• Significant	• High	• High	• High
Likely	• Moderate	• Significant	• Significant	• High	• High
Possible	• Low	• Moderate	• Significant	• Significant	• High
Unlikely	• Low	• Low	• Moderate	• Moderate	• Significant
Rare	• Low	• Low	• Low	• Moderate	• Moderate

The risk rankings identified are documented in the following risk assessment register and were used to develop the impact mitigation and management strategies for the SEMF and CEMPs.

Appendix E

Environment Policy

Environmental Policy

WSA is committed to fulfilling its vision of protecting the environment in a sustainable manner by meeting the needs of the present without compromising those of the future. In doing so, WSA will seek to maximise opportunities to make a positive impact on the environment through innovation and the adoption of best practice environmental management practices.

WSA will achieve this vision through its commitments as follows:

- The WSA vision and values are at the core of everything we do.
- Recognise the importance of the natural environmental, cultural heritage and social values of the Airport Site and seek to enhance these values during our activities.
- Show visible leadership of environmental protection and sustainability.
- Facilitate the contribution of the community and other stakeholders to the management of environmental, cultural heritage and social values of the Airport Site.
- Comply with the full range of environmental conditions required by the Airport Plan and any other relevant environmental legislation.
- Provide resources to manage environmental impacts and issues during construction.
- Continually review, refine and improve our environmental management practices and establish meaningful objectives and targets to measure success.
- Environmental controls are properly implemented, regularly monitored and audited to assess their effectiveness.
- Engage with our supply chain to identify opportunities to reduce the environmental footprint of our activities.
- Develop and implement an environmental management system that meets the requirements of ISO14001:2015.
- Listen, learn and seek out the best ideas to continually improve our environmental performance.

Appropriate training will be provided to enable our activities to be conducted in an environmentally sensitive manner with the allocation of sufficient management resources to enable effective implementation of this policy.

WSA commits to implementing a systematic approach to environmental management that continually enhances our environmental performance. Everyone within WSA is committed to, and will work towards, this vision.

Chief Executive Officer
WSA
Date:

Appendix F

Environment Monthly Report (template)

Scope

This monthly report is to be provided to WSA Co monthly to track progress on environmental performance. The report is to include relevant details including but not limited to:

- Environmental inspections;
- Environmental monitoring;
- Environmental incidents;
- Environmental non-conformances;
- Environmental audits;
- Environmental reporting against licences, approvals, permits etc;
- Planned and completed notifications to the community regarding construction activities;
- Complaints and enquiries; and
- Training.

Reporting period

Period starting	Period ending

Scope of construction activities undertaken

Provide details on construction activities undertaken during the reporting period.

Area	Key activities (provide summary)

Environmental inspections

Provide details on environmental inspections undertaken during the reporting period.

Inspection type (e.g. weekly)	Date	Key issues	Inspection type (e.g. weekly)

Environmental monitoring

Provide details on environmental monitoring undertaken during the reporting period.

Monitoring type and location (noise, vibration, water quality etc.)	Date	Outcome (identify any exceedances of criteria and provide explanation)	Action taken (identify any actions taken or further action required)

Discussion of environmental monitoring results

Environmental incidents

Provide details on environmental incidents that occurred during the reporting period.

Incident type and location (category of incident, location and extent)	Date	Response (identify extent of environmental impacts, response, reporting)	Investigation (identify requirements for / results of investigation and further action required)

Environmental non-conformances

Identify non-conformances that occurred during the reporting period and review the non-conformance register to identify outstanding actions. Environmental incidents above are excluded from this section.

Audit type (internal or external, provide details)	Date	Undertaken by	Description	No. of non-conformances (details above)

Environmental reporting against licences, approvals, permits

Provide details on any other reporting undertaken during the reporting period e.g. relating to the Project Approval, any other statutory licences or permits

Licence, approval or permit details	Date	Reported to	Description

Completed construction notifications

Provide details of completed construction notifications undertaken during the reporting period

Notification type	Date completed	Distributed/sent to	Description
E.g. Letter regarding blasting		Sent to sensitive receivers (list addresses)	Letter regarding blasting activities that occurred on [date].

Planned construction notifications

Provide details of planned construction notifications for the upcoming reporting period.

Notification type	Date to be sent by	To be distributed / sent to	Description
E.g. Letter regarding blasting		Sent to sensitive receivers	Letter regarding planned blasting activities to occur on [date].

Community complaints / enquiries

This section should provide a summary record of environmental complaints received during the reporting period and outline the response and status (open / closed).

All communication with other stakeholders / community should be recorded and provided to WSA Co who will record in the consultation database.

Complaint made by (list contact details)	Date of complaint	Issue raised (provide summary)	Actions taken (provide summary)	Date closed out

Training

Training type (induction, toolbox talk, other)	Date	Topics covered (provide summary)	No of personnel trained

Appendix G

Compliance Tracking Program

Compliance Tracking Program

To be reviewed and updated on a 6 monthly basis. Compliance with Airport Plan conditions to be reported annually in the Annual Compliance Report

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
GO1	CoA 1 (4)	The Site Occupier must ensure that no CEMP is inconsistent with the approved Construction Plan. *Note: Once the Construction Plan is approved, the details it sets out of the size and location of the part or parts of the Airport Site or an Associated Site on which Main Construction Works are planned to occur will be the Construction Impact Zone: see the definition of 'Construction Impact Zone'.*	SEMF and CEMPs	Prior to Main Construction Works	
GO2	CoA 1 (5)	The approved Construction Plan may provide for Main Construction Works to be carried out in phases that commence at different times for 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.	SEMF and CEMPs	Prior to Main Construction Works	
GO3	CoA 5 (2)	If an Approver determines that an activity is a Preparatory Activity for paragraph (e) of the definition of 'Preparatory Activities', the Approver may require the Site Occupier to prepare and submit for approval a plan in relation to the carrying out of that Preparatory Activity.	SEMF	Prior to Preparatory Activities	
GO4	CoA 5 (3)	In carrying out a Preparatory Activity, the Site Occupier must: (a) implement any plan approved in accordance with subcondition (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.	SEMF and CEMPs	Prior to Preparatory Activities	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		Note: Preparatory Activities can generally commence before all CEMPs are approved. If a CEMP has been approved, however, Preparatory Activities must not be carried out inconsistently with the approved CEMP. Some conditions require a specific plan for the preparatory activity to be approved prior to the activity occurring (for example a plan required under subcondition (1) or the Cemeteries Relocation Management Plan required under condition 3).			
GO5	CoA 38	Each Site Occupier and each Plan Owner must maintain accurate records which demonstrate its compliance with the conditions, including measures taken to implement the Approved Plans, and must make the records available upon request to the Infrastructure Department.	SEMF and CEMPs	Prior to Main Construction Works	
GO6	CoA 39 (1)	Unless otherwise agreed in writing by an Approver, the Site Occupier must prepare a report addressing its compliance with each condition set out in section 3.10.2 and Condition 29 (Sustainability), including implementation of any Approved Plan, in respect of: (a) the 12-month period commencing with the commencement of Main Construction Works; and (b) each subsequent 12-month period until the end of the Construction Period; and (c) any period between the commencement of Main Construction Works and the end of the Construction Period that is not covered by paragraph (a) or (b).	SEMF	Every 12 months during Construction	
GO7	CoA 40 (1)	The ALC must ensure that an independent audit of its compliance with the conditions set out in section 3.10.2 is conducted in respect of the 12-month period commencing with the grant of an Airport Lease.	SEMF	Construction	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
GO8	CoA 40 (3)	The ALC must submit the report of each audit conducted under subcondition (1) or (2) to an Approver (with a copy to the Environment Department) within six months of the end of the period in respect of which the audit was conducted. For each audit, the independent auditor must be approved by an Approver prior to the commencement of the audit. Audit criteria must be agreed by an Approver and the report of the audit report must address the criteria to the satisfaction of an Approver.	SEMF	Construction	
GO9	CoA 41 (1)	The Plan Owner may seek approval for a variation of an Approved Plan by submitting to an Approver a version of the plan with the proposed variation clearly marked in it (varied plan).	SEMF	Construction	
GO10	CoA 41 (2)	The criteria for approval of the varied plan are the same as those in the Approval Condition, but only to the extent that they are relevant to the proposed variation.	SEMF	Construction	
GO11	CoA 41 (3)	If an Approver approves a varied plan prepared under subcondition (1) or paragraph (5)(b), or the Infrastructure Minister varies an Approved Plan under paragraph (5)(a), then, from the date when it is approved or varied (as the case may be), the plan as varied is taken to be the Approved Plan for the purposes of the conditions.	SEMF	Construction	
GO12	CoA 41 (4)	The ALC must review each Approved Plan for which it is the Plan Owner every five years to ensure that the Approved Plan continues to meet the approval criteria for that plan. The ALC must provide a report on the review (which may be included in an annual report required under condition 39). If the plan does not continue to meet the approval criteria, within three months of the provision of the report, the ALC must prepare and submit for approval	SEMF	Construction	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		under subcondition (1) a variation to the Approved Plan to ensure it continues to meet the approval criteria.			
GO13	CoA 41 (5)	The Infrastructure Minister may: (a) vary an Approved Plan; or (b) request in writing that the Plan Owner prepare and seek approval for a specified variation of an Approved Plan in accordance with subcondition (1), if the Infrastructure Minister believes on reasonable grounds that: (i) a condition has been contravened and the nature of the contravention is relevant to the subject matter of the Approved Plan; and (ii) the variation or the request for a specified variation (as the case may be) will address the contravention.	SEMF	Construction	
GO14	CoA 41 (6)	The Plan Owner must comply with a request made by the Infrastructure Minister in accordance with subcondition (5) within three months of the date of the request.	SEMF	Construction	
GO15	CoA 42 (1)	Unless otherwise agreed in writing by an Approver, the Plan Owner must publish all Approved Plans on its website.	SEMF	Construction	
GO16	CoA 42 (2)	Each Approved Plan must be published on the Plan Owner's website within one month of being approved and remain so published: (a) for CEMPs – until the end of the Construction Period; (b) for the Biodiversity Offset Delivery Plan – until all biodiversity offsets and other compensatory measures required by the plan have been secured or implemented; and	SEMF	Construction	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		(c) for all other plans – until there is a Master plan for the Airport.			
		Other related plan requirements			
OP1	CoA 1	*Construction Plan* The Site Occupier must not commence Main Construction works until a Construciton Plan for the Airprot Site and Associated Sites has been prepared and approved…… *The Construction Plan forms one of a suite of management plans that will be implemented during the construction phase. Preparation and implementation of these plans is ultimately the responsibility of the WSA Co EGM.* *WSA Co's document control and review processes will ensure that no inconsistency between these plans arises. Cross-referencing in each plan is provided. Duplication of information across plans has been minimised to avoide circumstances where amendments to one plan necessitate the same change having to be made across all plans.*	SEMF and CEMP	Prior to Main Construction Works	
OP2	CoA 15	*Community and stakeholder engagement (construction)* The Site Occupier must not commence Main Construction Works until a Community and Stakeholder Engagement Plan has been prepared and approved…… *The Community ans Stakeholder Engagement Plan forms one of a suite of management plans that will be implemented during the construction phase. Preparation and implementation of these plans is ultimately the responsibility of the WSA Co EGM.* *WSA Co's document control and review processes will ensure that no inconsistency between these plans arises. Cross-referencing in each plan is*	SEMF and CEMP	Prior to Main Construction Works	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		provided. Duplication of information across plans has been minimised to avoide circumstances where amendments to one plan necessitate the same change having to be made across all plans.			
OP3	CoA 15	*Sustainabilty* Within six months of the grant of an Airport Lease, a Sustainability Plan in relation to the design, carrying out and operation of the development must be prepared and submitted for approval. *The Sustainability Plan forms one of a suite of management plans that will be implemented during the construction phase. Preparation and implementation of these plans is ultimately the responsibility of the WSA Co EGM.* *WSA Co's document control and review processes will ensure that no inconsistency between these plans arises. Cross-referencing in each plan is provided. Duplication of information across plans has been minimised to avoide circumstances where amendments to one plan necessitate the same change having to be made across all plans.*	SEMF and CEMP	Within six months of the grant of the Aiport Lease.	
		Waste and resources			
WR1	CoA 13 (1)	The Site Occupier must not: (a) commence Main Construction Works until a Waste and Resources CEMP has been prepared and approved in accordance with this condition; or (b) carry out any development described in Part 3 of the Airport Plan inconsistently with the approved Waste and Resources CEMP.	Waste and Resources CEMP	Prior to Main Construction Works	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
WR2	CoA 13 (2)	The Site Occupier must: (a) prepare; and (b) submit to an Approver for approval; a Waste and Resources CEMP in relation to the carrying out of the developments described in Part 3 of the Airport Plan.	Waste and Resources CEMP	Prior to Main Construction Works	
WR3	CoA 13 (3)	The criteria for approval of the Waste and Resources CEMP are that an Approver is satisfied that: (a) in preparing the Waste and Resources CEMP, the Site Occupier has taken into account Table 28–16 in Chapter 28 of the EIS; and (b) the Waste and Resources CEMP complies with Table 28–17 in Chapter 28 of the EIS, and is otherwise appropriate.	Waste and Resources CEMP	Prior to Main Construction Works	
WR4	CoA 34	A person carrying out or operating an aspect of the Stage 1 Development must not act inconsistently with: (a) National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended); (b) Australian and New Zealand Guidelines for Fresh and Marine Water Quality (under the National Water Quality Management Strategy) including the draft default guideline values for perfluorooctanoic acid (PFOS) and perfluorooctane sulfonic acid (PFOA) in freshwater as applied by the state government; and (c) relevant Commonwealth environmental management guidance on PFOS and PFOA.	Waste and Resources CEMP and RAP	Prior to Main Construction Works	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
WR5	EIS Table 28-16	Implementation framework, monitoring, auditing and reporting and responsibilities.	Waste and Resources CEMP	To be implemented during works.	
WR6	EIS Table 28-17	An illegal dumping prevention strategy will be developed as part of the Waste and Resources CEMP. The strategy will outlined measures to be undertaken to minimise the risk of illegal dumping on the airport site and will be developed in consultation with the NSW Environment Protection Authority and relevant local councils.	Waste and Resources CEMP	Construction	
WR7	WSA Co req	An emergency spill response procedure will be prepared to minimise the impact of any accidental spills, and include details on the requirements for managing spills, disposing of any contaminated waste, and reporting of any such incidents.	Soil and Water Management CEMP	Construction	
WR8	EIS Ch 25.7	A Contractor Waste and Resource Management Plan will be prepared to identify the hierarchy for sourcing and the use of resources. The plan will adopt the Resource Management Hierarchy principles of the Waste Avoidance and Resource Recovery Act 2001, Roads and Maritime Services waste management procedures and Environmental Management System. The plan will include, but not be limited to: • Identification of the waste stream that will be generated during construction; • A waste register detailing types of waste collected, amounts, date, time, transportation method and details of disposal; and • A resource management strategy detailing beneficial reuse options for surplus and / or unsuitable material. Consideration of procurement strategies to minimise unnecessary consumption of materials and waste generation.	Waste and Resources CEMP	Construction	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
WR9	WSA Co req	The Contractor will implement a procurement strategy that will demonstrate value for money and that it has considered opportunities to procure goods and services: • From local suppliers; • That are energy efficient or have low embodied energy; • That minimise the generation of waste; and • That make use of recycled materials.	Waste and Resources CEMP	Construction	
WR10	EIS Table 28-17	The following measures will be implemented to avoid and reduce waste: • Efficient utilisation of resources to reduce consumption; • Optimisation of detailed designs to avoid unnecessary resource consumption; • Implementation of high efficiency water systems to reduce water consumption; • Procurement policies that preference recyclable, minimal and/or returnable packaging; and • Procurement of materials in bulk, where practicable, to minimise packaging waste.	Waste and Resources CEMP	Construction	
WR11	EIS Table 28-17	The following measures will be implemented to reuse and recycle waste; • Reuse of green waste and topsoil for site landscaping; • Reuse of waste streams including metals, oils and solvents; • Recycling of waste streams including brickwork, metals, plasterboard, plastics and timber;	Waste and Resources CEMP	Construction	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		• Contract terms with suppliers that specify recyclable content and returnable packaging; and • Co-operation in stewardship programmes for compatible waste streams including pallets.			
WR12	EIS Table 28-17	Measures to recover and treat waste will include recovery (prior to reuse) of compatible waste including metals, oils, solvents, brickwork, metals, plasterboard, plastics and timber.	Waste and Resources CEMP	Construction	
WR13	EIS Table 28-17	Hazardous wastes or asbestos identified during construction will be managed consistently with the Protection of the Environment Operations (Waste) Regulation 2014 (NSW).	Waste and Resources CEMP	Construction	
WR14	EIS Table 28-17	A central waste area (or areas) will be established during construction, at which waste (including recyclables) would be stored. Some materials would be stored in stockpiles while others would be stored in bins. Stockpiles and bins would be appropriately labelled, managed and monitored. Residual waste that cannot be avoided, reduced, reused, recycled, recovered or treated will be collected by a licensed contractor for disposal at a licensed facility.	Waste and Resources CEMP	Construction	
		Visual and landscape			
VL1	CoA 14 (1)	The Site Occupier must not: (a) commence Main Construction Works until a Visual and Landscape CEMP has been prepared and approved in accordance with this condition; or	Visual and Landscape CEMP	Prior to Main Construction Works	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		(b) carry out any development described in Part 3 of the Airport Plan inconsistently with the approved Visual and Landscape CEMP.			
VL2	CoA 14 (2)	The Site Occupier must: (a) prepare; and (b) submit to an Approver for approval; a Visual and Landscape CEMP in relation to the carrying out of the developments described in Part 3 of the Airport Plan.	Visual and Landscape CEMP	Prior to Main Construction Works	
VL3	CoA 14 (3)	The criteria for approval of the Visual and Landscape CEMP are that an Approver is satisfied that: (a) in preparing the Visual and Landscape CEMP, the Site Occupier has taken into account Table 28–18 in Chapter 28 of the EIS; and (b) the Visual and Landscape CEMP complies with Table 28–19 in Chapter 28 of the EIS, and is otherwise appropriate.	Visual and Landscape CEMP	To be approved prior to Main Construction Works	
VL4	EIS Table 28-18	Implementation framework, monitoring, auditing and reporting and responsibilities.	Visual and Landscape CEMP	To be implemented during works.	
VL5	EIS Table 28-19	To facilitate the appropriate integration of the proposed airport into the surrounding region, and to assist in minimising impacts to community identity and landscape character, the following measures will be implemented throughout the detailed design process: • Site and context analysis to inform the early stages of detailed design; and	Detailed design	Detailed design	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		• Consultation with NSW Department of Planning and Environment and relevant local councils, on the detailed design of Stage 1 development.			
VL6	EIS Table 28-19	Airport lighting impacts will be mitigated though the use of low angle, cut off LED fixtures in the design of airport infrastructure, where practicable.	Detailed design	Detailed design	
VL7	EIS Table 28-19	Subject to safety and security requirements, perimeter fencing design would have regard to the following considerations: • Avoiding long, straight continuous runs; • Avoiding finish and colour that is reflective or brightly coloured; • Providing a two metre (minimum) setback from the property boundary to allow for perimeter plantings; and • Providing a buffer from riparian corridors along the boundary of the airport site.	Visual and Landscape CEMP	To be implemented during works.	
VL8	EIS Table 28-19	Impacts on the visual character of the landscape during construction will be mitigated through the implementation of the following measures: • Large grade cut and fill transitions will be avoided where practicable, particularly near the airport site boundary; • Construction plant, machinery and vehicle parking areas will be located as far as practicable from sensitive receptors; • Any night lighting required for construction works will be located as far as practicable from sensitive receptors with appropriate screening as required; and • If there is a considerable period of time between the completion of bulk earthworks and construction of aviation infrastructure, earthworks areas will be rehabilitated where it is practical to do so.	Visual and Landscape CEMP	To be implemented during works.	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
VL9	EIS Table 28-19	Visual amenity impacts will be mitigated through the use of the following visual screening measures: • Retaining existing vegetation on the edges of the construction impact zone, where practicable to provide visual screening; and • Retaining existing vegetation outside of the construction impact zone to provide visual screening. Opportunities for native vegetation screening will be investigated, particularly in relation to the identified moderate-high impact viewpoints. The appropriateness and use of vegetation for visual screening will take into consideration bushfire risks, airport safety and security, potential impacts on aviation operations, and opportunities for the reestablishment of endemic native species and ecological communities.	Visual and Landscape CEMP	To be implemented during works.	
		Traffic and access			
TA1	CoA 9 (1)	The Site Occupier must not: (a) commence Main Construction Works until a Traffic and Access CEMP has been prepared and approved in accordance with this condition; or (b) carry out any development described in Part 3 of the Airport Plan inconsistently with the approved Traffic and Access CEMP.	Traffic and Access CEMP	Prior to Main Construction Works	
TA2	CoA 9 (2)	The Site Occupier must: (a) prepare; and (b) submit to an Approver for approval; a Traffic and Access CEMP in relation to the carrying out of the developments described in Part 3 of the Airport Plan.	Traffic and Access CEMP	Prior to Main Construction Works	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
TA3	CoA 9 (3)	The criteria for approval of the Traffic and Access CEMP are that an Approver is satisfied that: (a) in preparing the Traffic and Access CEMP, the site Occupier has taken into account Table 28–8 in Chapter 28 of the EIS; and (b) the Traffic and Access CEMP complies with Table 28–9 in Chapter 28 of the EIS, and is otherwise appropriate.	Traffic and Access CEMP	Prior to Main Construction Works	
TA4	EIS Table 28-8	Implementation framework, monitoring, auditing and reporting and responsibilities.	Traffic and Access CEMP	To be implemented during works.	
TA5	EIS Table 28-9	As part of the community and stakeholder engagement plan a community awareness programme will be implemented prior to Main Construction Works commencing would continue throughout the entire construction period. The programme will aim to make road users (including local residents) aware of construction traffic and safety issues, such as diversions, temporary road closures, traffic signalling and speed limits.	Traffic and Access CEMP	Pre-construction	
TA6	EIS Table 28-9	To mitigate and management potential traffic impacts the Traffic and Access CEMP will include the following elements: • Management for the temporary and permanent closures of roads within the airport site; • Ongoing consultation with NSW RMS and local councils as appropriate and emergency services; • Induction for drivers working on the project to cover safety measures particularly for night works; • Review of speed environments along transport corridors;	Traffic and Access CEMP	During Prepatory Activities and Main Construction Works	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		• Restriction of construction related traffic within the AM and PM peak periods where required; • Management of the transportation of construction materials to optimise vehicle loads in order to minimise vehicle movements; • Traffic control measures to manage and regulate traffic movements during construction; • Identification of potential disruption to road users; • Identification of any road closures and/or road upgrades that may be required; • Construction vehicle routes, including the use of arterial roads, haulage routes, access to the airport site and procedures for oversize and heavy vehicles; • Parking facilities for construction workers; and • Measures to support and encourage sustainable travel for construction workers to and from the airport site, including public transport, shuttle buses, cycling, walking, and car-sharing (as also outlined in the Air Quality CEMP); • Road safety audit requirements; and Any localised improvements / adjustments to existing traffic management arrangements.			
		Soil and water			
SW1	CoA 8 (1)	The Site Occupier must not: (a) commence Main Construction Works until a Soil and Water CEMP has been prepared and approved in accordance with this condition; or	Soil and Water CEMP	Prior to Main Construction Works	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		(b) carry out any development described in Part 3 of the Airport Plan inconsistently with the approved Soil and Water CEMP.			
SW2	CoA 8 (2)	The Site Occupier must: (a) prepare; and (b) submit to an Approver for approval; a Soil and Water CEMP in relation to the carrying out of the developments described in Part 3 of the Airport Plan.	Soil and Water CEMP	Prior to Main Construction Works	
SW3	CoA 8 (3)	The criteria for approval of the Soil and Water CEMP are that an Approver is satisfied that: (a) in preparing the Soil and Water CEMP, the Site Occupier has taken into account Table 28–6 in Chapter 28 of the EIS; and (b) the Soil and Water CEMP complies with Table 28–7 in Chapter 28 of the EIS, and is otherwise appropriate.	Soil and Water CEMP	Prior to Main Construction Works	
SW4	CoA 8 (4)	The groundwater monitoring to be undertaken for the Soil and Water CEMP must include groundwater monitoring points adjacent to woodlands in areas outside the Construction Impact Zone (but within the Airport Site). *Note: This measure is intended to implement a groundwater monitoring network in relation to likely groundwater dependent vegetation.*	Soil and Water CEMP	Prior to Main Construction Works	
SW5	CoA 8 (5)	The Soil and Water CEMP must include the following trigger-action-response measures in relation to groundwater levels in areas outside the Construction Impact Zone (but within the Airport Site):	Soil and Water CEMP	Prior to Main Construction Works	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		(a) target criteria, set with reference to relevant standards and site-specific parameters; (b) trigger values and corresponding corrective actions to prevent recurring or long-term exceedance of the target criteria described in (a); and (c) corrective actions to compensate for any recurring or long-term exceedance of the target criteria described in (a). *Note: Exceedance in this context should be understood to mean either elevated or depressed groundwater levels, with reference to an acceptable bandwidth.*			
SW6	CoA 8 (6)	The Soil and Water CEMP must include soil, groundwater and surface water PFAS contamination monitoring requirements, testing and disposal procedures appropriate to the risk posed by any contamination, and consistent with relevant Commonwealth environmental management guidance on PFOS and PFOA as prepared by the Environment Department.	Soil and Water CEMP	Prior to Main Construction Works	
SW7	CoA 34	A person carrying out or operating an aspect of the Stage 1 Development must not act inconsistently with: (a) National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended); (b) Australian and New Zealand Guidelines for Fresh and Marine Water Quality (under the National Water Quality Management Strategy) including the draft default guideline values for perfluorooctanoic acid (PFOS) and perfluorooctane sulfonic acid (PFOA) in freshwater as applied by the state government; and	Soil and Water CEMP	Construction	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		(c) relevant Commonwealth environmental management guidance on PFOS and PFOA.			
SW8	EIS Table 28-6	Implementation framework, monitoring, auditing and reporting and responsibilities.	Soil and Water CEMP	To be implemented during works.	
SW9	EIS Table 28-7	As part of the detailed design process for the Stage 1 development, a surface water management system will be developed. Development of a surface water management system for the airport site may involve a progressive process of design and implementation covering both the construction and operational phases. This may include the implementation of temporary system elements specifically for the construction phase.	Soil and Water CEMP	Prior to Main Construction Works	
SW10	EIS Table 28-7	Local standards for water quality may be developed under the AEPR, with due consideration to the Australia and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC and ARMCANZ 2000) and the results of baseline water quality monitoring taking place for a minimum of 24 months prior to the commencement of Main Construction Works.	Soil and Water CEMP	Prior to Main Construction Works	
SW11	EIS Table 28-7	ESCPs will be prepared by a Certified Professional in Erosion and Sediment Control for all works involving soil disturbance unless the WSA Co Authorised Environmental Officer agrees that soil and water risks do not warrant this. ESCPs will be prepared in accordance with the 'NSW OEH Blue Book – Managing urban stormwater: soils and construction'.	Soil and Water CEMP	Prior to Main Construction Works	
SW12	EIS Table 28-7	An emergency spill response procedure will be prepared to minimise the impact of any accidental spills, and include details on the requirements for	Soil and Water CEMP	Prior to Main Construction Works	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		managing spills, disposing of any contaminated waste, and reporting of any such incidents.			
SW13	CoA 8(6)	The risk posed by PFAS contamination will be identified and if necessary, the Contractor environmental management plan is to include soil, groundwater and surface water PFAS contamination monitoring requirements, testing and disposal procedures consistent with relevant Commonwealth environmental management guidance on PFOS and PFOA as prepared by the Environment Department.	Soil and Water CEMP and RAP	Prior to Main Construction Works	
SW14	EIS Table 28-7 & WSA Co req	A groundwater management plan is to be developed and implemented identifying: • Details of work that intercepts groundwater or requires groundwater extraction; • An assessment aquifer impacts resulting from groundwater interception or extraction; • Extraction methodology and management measures for discharge; and • Groundwater monitoring and inspection programs.	Soil and Water CEMP	Prior to Main Construction Works	
SW15	EIS Table 28-7	Impacts associated with erosion and sediment will be mitigated through: • Implementation of ESCPs; • Installing a site drainage system prior to commencement of bulk earthworks; • Minimising the surface area disturbed at any one time by, where practical, staging construction works and stabilising soils with vegetation or appropriate cover materials;	Soil and Water CEMP	During Main Construction Works	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		• Establishing erosion and sediment controls in accordance with the 'NSW OEH Blue Book – Managing urban stormwater: soils and construction'; • Providing intermediate sediment retention basins within the construction impact zone to provide additional treatment prior to completion of the airport's site drainage system. Specific erosion control measures will be developed for the management of highly erodible soils such as those anticipated in the Luddenham and South Creek soil landscapes; • Mulching cleared vegetation for use in erosion control at construction sites; • Covering and stabilising soil stockpiles with vegetation or mulch; • Stockpiling topsoil at a maximum height of two metres, where practicable; and • Distributing and seeing topsoil over landscaped areas at the completion of bulk earthworks.			
SW16	WSA Co req	Construction programming will allow for progressive rehabilitation of disturbed areas will be undertaken to minimise soils exposure and the potential for dust generation, erosion and sedimentation, and visual impacts.	Soil and Water CEMP	Prior to Preparatory Activities	
SW17	EIS Table 28-7	To minimise the risk of leaks or spills the following mitigation measures will be put in place: • Maintenance areas, fuel farms and other areas where fuels or chemicals are stored or handled will be bunded to contain any accidental spills or leaks; • Fuel and other chemicals will be stored and handled in accordance with relevant Australian standards such as:	Soil and Water CEMP	During Main Construction Works	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		• AS 1940-2004 The storage and handling of flammable and combustible liquids; • AS/NSZ 4452:1997 The storage and handling of toxic substances; • AS/NZS 5026:2012 The storage and handling of Class 4 dangerous goods; and • AS/NZS 1547:2012 On-site domestic wastewater management. A protocol will be developed and implemented to respond to and remedy leaks or spills.			
SW18	EIS Table 28-7	To mitigate the impacts associated with groundwater inflows the following measures will be implemented: • Groundwater inflows will be reused or released with appropriate treatment; • Where groundwater is released to surface waters, treatment will be undertaken to bring water pollution below the accepted limits set out in the AEPR or any local standards; and • Corrective measures will be developed and implemented to supplement groundwater supplies in the unlikely event of impacts to dependent vegetation or watercourses.	Soil and Water CEMP	During Main Construction Works	
SW19	EIS Table 28-7	A remedial action plan and unexpected finds protocol would be established to facilitate the quarantining, isolation and remediation of contamination identified throughout the construction programme. Any asbestos identified on site will be managed in accordance with applicable regulatory requirements.	Soil and Water CEMP and RAP	Prior to Main Construction Works	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		Noise and vibration			
NV1	CoA 6 (1)	The Site Occupier must not: (a) commence Main Construction Works until a Noise and Vibration CEMP has been prepared and approved in accordance with this condition; or (b) carry out any development described in Part 3 of the Airport Plan inconsistently with the approved Noise and Vibration CEMP.	Noise and Vibration CEMP	Prior to Main Construction Works	
NV2	CoA 6 (2)	The Site Occupier must: (a) prepare; and (b) submit to an Approver for approval; a Noise and Vibration CEMP in relation to the carrying out of the developments described in Part 3 of the Airport Plan.	Noise and Vibration CEMP	Prior to Main Construction Works	
NV3	CoA 6 (3)	The criteria for approval of the Noise and Vibration CEMP are that an Approver is satisfied that: (a) in preparing the Noise and Vibration CEMP, the Site Occupier has taken into account Table 28–2 in Chapter 28 of the EIS; and (b) the Noise and Vibration CEMP complies with Table 28–3 in Chapter 28 of the EIS, and is otherwise appropriate.	Noise and Vibration CEMP	Prior to Main Construction Works	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
NV4	CoA 6 (4)	The Noise and Vibration CEMP must: (a) provide for respite periods for Sensitive Receptors from noise and vibration associated with construction activities; and (b) not permit blasting activity during the hours of 5 pm to 9 am on weekdays, on weekends (other than 9 am to 1 pm Saturdays) and on public holidays.	Noise and Vibration CEMP	Prior to Main Construction Works	
NV5	EIS Table 28-2	Implementation framework, monitoring, auditing and reporting and responsibilities.	Noise and Vibration CEMP	To be implemented during works.	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
NV6	EIS Table 28-3	The Noise and Vibration CEMP will: • Ensure, where feasible, that noise emissions comply with the construction noise guidelines in Schedule 4 of the AEPR; • Identify construction activities which are predicted to exceed any noise management levels set for the proposed airport and develop proposed actions, such as notification of affected receptors; • Ensure that vibration and air blast from rock blasting and other construction activities comply with relevant vibration damage guideline values in German Standard DIN 4150-3 and vibration and air blast criteria in ANZECC 1990, to protect the amenity of local residents and avoid building damage; • Determine noise and vibration monitoring, reporting and response procedures; • Describe construction timetabling to minimise noise impacts, including time and duration restrictions, respite periods and frequency; • Describe procedures for notifying residents of construction activities likely to affect their amenity though noise and vibration; and • Define contingency procedures to be implemented in the event of non-compliance and/or noise complaints.	Noise and Vibration CEMP	During Main Construction Works	
		European and other heritage			
EH1	CoA 3(1)	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: (a) until a Cemeteries Relocation Management Plan has been prepared and approved in accordance with this condition; or	European and Other Heritage CEMP	Prior to Main Construction Works	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		(b) inconsistently with the approved Cemeteries Relocation Management Plan.			
EH2	CoA 3(2)	The Infrastructure Department must prepare and submit to an Approver for approval a Cemeteries Relocation Management Plan, dealing with: (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.	European and Other Heritage CEMP	Prior to Main Construction Works	
EH3	CoA 3(3)	In preparing the Cemeteries Relocation Management Plan, the Infrastructure Department must take into account the following principles: (a) consultation with relatives and stakeholders; (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.	European and Other Heritage CEMP	Prior to Main Construction Works	
EH4	CoA 12 (1)	The Site Occupier must not: (a) commence Main Construction Works until a European and Other Heritage CEMP has been prepared and approved in accordance with this condition; or	European and Other Heritage CEMP	Prior to Main Construction Works	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		(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.			
EH5	CoA 12 (2)	The Site Occupier must: (a) prepare; and (b) submit to an Approver for approval; a European and Other Heritage CEMP in relation to the carrying out of the developments described in Part 3 of the Airport Plan.	European and Other Heritage CEMP	Prior to Main Construction Works	
EH6	CoA 12 (3)	The criteria for approval of the European and Other Heritage CEMP are that an Approver is satisfied that: (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 (b) the European and Other Heritage CEMP complies with Table 28–15 in Chapter 28 of the EIS, and is otherwise appropriate.	European and Other Heritage CEMP	Prior to Main Construction Works	
EH7	EIS Table 28-14	Implementation framework, monitoring, auditing and reporting and responsibilities.	European and Other Heritage CEMP	To be implemented during works.	
EH8	EIS Table 28-15	The following measures will 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:	European and Other Heritage CEMP	Prior to Main Construction Works	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		• Further targeted archaeological investigation will be undertaken to record subsurface remains and infer the layout, occupants and activities of certain European heritage places; • 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 1998) and Guidelines for Photographic Recording of Heritage Items Using Film or Digital Captures (NSW Heritage Office 2006); • 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; • 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; • Options will be explored for potential relocation of identified European heritage structures to preserve intact surface structures; and • 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.			
EH9	EIS Table 28-15	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.	European and Other Heritage CEMP	Prior to Main Construction Works	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
EH10	EIS Table 28-15	Heritage awareness training will be provided to all workers involved in site preparation and construction of the proposed airport.	European and Other Heritage CEMP	Prior to Main Construction Works	
EH11	WSA Co req	Sensitive areas must be delineated on environmental constraints plans and EWMSs and fenced to ensure they are not subject to disturbance during construction.	European and Other Heritage CEMP	Prior to Main Construction Works	
EH12	EIS Table 28-15	A procedure will be developed and followed in the event that European heritage items are discovered during construction.	European and Other Heritage CEMP	Prior to Main Construction Works	
EH13	EIS Table 28-15	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.	European and Other Heritage CEMP	Prior to Main Construction Works	
EH14	EIS Table 28-15	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.	European and Other Heritage CEMP	Prior to Main Construction Works	
EH15	EIS Table 28-15	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.	European and Other Heritage CEMP	During detailed design	
		Biodiversity			
B1	CoA 7 (1)	The Site Occupier must not: (a) commence Main Construction Works until a Biodiversity CEMP has been prepared and approved in accordance with this condition; or	Biodiversity CEMP	Prior to Main Construction Works	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		(b) carry out any development described in Part 3 of the Airport Plan inconsistently with the approved Biodiversity CEMP.			
B2	CoA 7 (2)	The Site Occupier must: prepare; and submit to an Approver for approval; a Biodiversity CEMP in relation to the carrying out of the developments described in Part 3 of the Airport Plan.	Biodiversity CEMP	Prior to Main Construction Works	
B3	CoA 7 (3)	The criteria for approval of the Biodiversity CEMP are that an Approver is satisfied that: (a) in preparing the Biodiversity CEMP, the site Occupier has taken into account Table 28–4 in Chapter 28 of the EIS; and (b) the Biodiversity CEMP complies with Table 28–5 in Chapter 28 of the EIS, and is otherwise appropriate.	Biodiversity CEMP	Prior to Main Construction Works	
B4	CoA 7 (4)	The Biodiversity CEMP must be based on and informed by a Biodiversity Assessment Report that: (a) includes the results of an updated ecological survey that has applied the field survey methodology of the FBA for areas outside the Construction Impact Zone (but within the Airport Site); (b) has had regard to the key diagnostic characteristics and condition thresholds specified in the Commonwealth Listing Advice on Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest (Threatened Species Scientific Committee 2008), particularly regarding patch size and contiguous native vegetation; and	Biodiversity CEMP	Prior to Main Construction Works	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		(c) has been independently verified by a person accredited in accordance with section 142B(1)(c) of the Threatened Species Conservation Act 1995 (NSW), appointed following consultation with OEH.			
B5	CoA 7 (5)	The Biodiversity CEMP must contain measures to protect and manage the areas in the environmental conservation zone shown in the Land Use Plan (EC1) along the Badgerys Creek riparian corridor including to: (a) replace exotic grasslands with suitable native vegetation; (b) rehabilitate existing remnant and native vegetation; and (c) provide ongoing protection of the biodiversity and environmental values.	Biodiversity CEMP	Prior to Main Construction Works	
B6	EIS Table 28-4	Implementation framework, monitoring, auditing and reporting and responsibilities.	Biodiversity CEMP	To be implemented during works.	
B7	EIS Table 28-5	The Biodiversity CEMP will contain the following plans: (a) Specific management plans to manage impacts on each threatened flora and fauna species; (b) A habitat clearing and fauna removal plan; (c) A weed management plan; (d) A protocol for the decommissioning or repurposing of dams; (e) A threatened flora salvage and translocation plan; (f) Threatened species management plans; and (g) A disease management protocol.	Biodiversity CEMP	Prior to Preparatory Activities	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		Air quality			
AQ1	CoA 10 (1)	The Site Occupier must not: (a) commence Main Construction Works until an Air Quality CEMP has been prepared and approved in accordance with this condition; or (b) carry out any development described in Part 3 of the Airport Plan inconsistently with the approved Air Quality CEMP.	Air Quality CEMP	To be approved prior to Main Construction Works	
AQ2	CoA 10 (2)	The Site Occupier must: (a) prepare; and (b) submit to an Approver for approval; an Air Quality CEMP in relation to the carrying out of the developments described in Part 3 of the Airport Plan.	Air Quality CEMP	To be approved prior to Main Construction Works	
AQ3	CoA 10 (3)	The criteria for approval of the Air Quality CEMP are that an Approver is satisfied that: (a) in preparing the Air Quality CEMP, the Site Occupier has taken into account Table 28–10 in Chapter 28 of the EIS; and (b) the Air Quality CEMP complies with Table 28–11 in Chapter 28 of the EIS, and is otherwise appropriate.	Air Quality CEMP	To be approved prior to Main Construction Works	
AQ4	EIS Table 28-10	Implementation framework, monitoring, auditing and reporting and responsibilities.	Air Quality CEMP	To be implemented during works.	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
AQ5	EIS Table 28-11	As part of the Air Quality CEMP, a dust management plan will be developed to mitigate the impacts of the dust during construction.	Air Quality CEMP	To be approved prior to Main Construction Works	
AQ6	EIS Table 28-11	Measures to address impacts from bulk earthworks will include: • Minimise exposed areas as far as practical; • Re-vegetate earthworks and exposed areas or soil stockpiles to stabilise surfaces as soon as practicable; and • Use of hessian, mulches or tackifiers to cover exposed areas as soon as possible after completion of earthworks where it is not possible to re-vegetate or cover with topsoil.	Air Quality CEMP	To be implemented during works.	
AQ7	EIS Table 28-11	Measures to mitigate dust impacts associated with other Main Construction Works include: • Avoiding scrabbling (roughening of concrete surfaces) where practicable; • Storing sand and other aggregates in bunded areas and not allowing them to dry out unless required for particular processes. If they're required for particular purposes, appropriate additional control measures would need to be in place; • Delivering bulk cement and other fine powder materials in enclosed tankers and storing them in silos with suitable emission control systems to prevent escape of material and overfilling during delivery; and • Sealing and appropriately storing bags of any fine powder materials to prevent dust generation.	Air Quality CEMP	To be implemented during works.	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
AQ8	EIS Table 28-11	Mitigating the impacts associated with track out dust will involve: • Using water-assisted dust sweeper(s) on the access and local roads to remove, as necessary, any material tracked out of the site. This may require the sweeper to be continuously in use; • Avoiding dry sweeping of large areas; • Sealing high use haul roads and regularly inspecting and making necessary repairs to the surface as soon as reasonably practicable; • Recording all inspections of haul routes and any subsequent action in a site log book; • Regularly cleaning and damping down hard surfaced haul routes with fixed or mobile sprinkler systems or mobile water bowers; • Implementing a wheel washing system (with rumble grids to dislodge accumulated dust and mud) prior to leaving the site; • Providing an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits; and • Locating site access points as far as practicable from sensitive receptors.	Air Quality CEMP	To be implemented during works.	
AQ9	EIS Table 28-11	A vehicle and equipment emissions plan will be developed and implemented as part of the Air Quality CEMP to mitigate the impacts associated with vehicle and equipment emissions.	Air Quality CEMP	To be approved prior to Main Construction Works	
		Aboriginal cultural heritage			
AC1	CoA 5 (1)	If the Site Occupier proposes to commence the Aboriginal survey and salvage programmes described in Table 28–13 in Chapter 28 of the EIS before there is an approved Aboriginal Cultural Heritage CEMP, the Site Occupier must prepare a plan addressing those programmes and submit it	Aboriginal Cultural Heritage CEMP	Prior to Main Construction Works	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
		for approval by an Approver before commencing the survey and salvage programmes.			
AC2	CoA 11 (1)	The Site Occupier must not: (a) commence Main Construction Works, until an Aboriginal Cultural Heritage CEMP has been prepared and approved in accordance with this condition; (b) carry out any Preparatory Activities inconsistently with Table 28–13 in Chapter 28 of the EIS; or (c) carry out any development described in Part 3 of the Airport Plan inconsistently with the approved Aboriginal Cultural Heritage CEMP.	Aboriginal Cultural Heritage CEMP	Prior to Main Construction Works	
AC3	CoA 11 (2)	The Site Occupier must: (a) prepare; and (b) submit to an Approver for approval; an Aboriginal Cultural Heritage CEMP in relation to the carrying out of the developments described in Part 3 of the Airport Plan.	Aboriginal Cultural Heritage CEMP	Prior to Main Construction Works	
AC4	CoA 11 (3)	The criteria for approval of the Aboriginal Cultural Heritage CEMP are that an Approver is satisfied that: (a) in preparing the Aboriginal Cultural Heritage CEMP, the Site Occupier has taken into account Table 28–12 in Chapter 28 of the EIS; and (b) the Aboriginal Cultural Heritage CEMP complies with Table 28–13 in Chapter 28 of the EIS, and is otherwise appropriate.	Aboriginal Cultural Heritage CEMP	Prior to Main Construction Works	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
AC5	CoA 11 (4)	The Infrastructure Department must consult with relevant Aboriginal stakeholders and relevant government agencies with the aim of establishing, with the support and collaborative action of governments and other stakeholders, an Aboriginal cultural heritage 'keeping place' that would provide secure, above ground storage of artefacts and enable future access for cultural purposes, interpretation, education or research.	Aboriginal Cultural Heritage CEMP	Prior to Main Construction Works	
AC6	EIS Table 28-12	Implementation framework, monitoring, auditing and reporting and responsibilities.	Aboriginal Heritage	To be implemented during works.	
AC7	EIS Table 28-13	The Aboriginal Cultural Heritage CEMP will contain an Aboriginal stakeholder consultation and engagement plan that specifies the nature and frequency of consultation throughout the design and construction phase for the proposed airport. The Aboriginal stakeholder consultation and engagement plan will be developed in conjunction with the broader Community and Stakeholder Engagement CEMP.	Aboriginal Heritage CEMP	Prior to Main Construction Works	
AC8	EIS Table 28-13	Protocols will be developed and implemented for the unanticipated discovery of Aboriginal objects, and for the discovery of any suspected human remains for all Main Construction Works involving ground disturbance.	Aboriginal Heritage CEMP	Prior to Preparatory Activities	
AC9	EIS Table 28-13	A protocol will be developed for the management of topsoil assessed as likely to contain a relatively high density of Aboriginal artefact, and which would otherwise be impacted by construction activities.	Aboriginal Heritage CEMP	Prior to Preparatory Activities	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
AC10	EIS Table 28-13	The possible scarred tree (B40) and the grinding groove site (B120) will be conserved in situ within an Environmental Conservation Zone as the airport site. A low barrier fence, which does not obstruct pedestrian traffic, will be erected around specific heritage sites as necessary to demarcate the area as a no-go zone for vehicles. The barrier will be situated so that it does not intrude upon the immediate visual and landscape quality of the heritage sites and their surrounds.	Aboriginal Heritage CEMP	Prior to Preparatory Activities	
AC11	EIS Table 28-13	The Environmental Conservation Zone will be managed for the protection and conservation of known and predicted Aboriginal heritage sites and values consistent with the objectives of that zone to enhance, restore and protect the cultural values of the land.	Aboriginal Heritage CEMP	Prior to Preparatory Activities	
AC12	EIS Table 28-13	A targeted and selective archaeological surface survey will be conducted within those areas of the construction impact zone not previously subject to surface survey (and excluding highly disturbed areas) before commencement of Main Construction Works.	Aboriginal Heritage CEMP	Prior to Preparatory Activities	
AC13	EIS Table 28-13	A comprehensive archaeological inspection of surface sandstone outcrops across the construction impact zone will be conducted before activities related to Main Construction Works. This action has the aim of appropriately recording and salvaging stone surfaces with evidence of Aboriginal markings.	Aboriginal Heritage CEMP	Prior to Preparatory Activities	
AC14	EIS Table 28-13	Archival recording of the possible scarred tree (B40) and grinding groove site (B120) will occur before the start of any ground disturbance works within the area of these Aboriginal heritage sites or before Main Construction Works commence, whichever occurs first.	Aboriginal Heritage CEMP	Prior to Preparatory Activities	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
AC15	EIS Table 28-13	An oral history will be recorded with the aim of preserving memories and stories from Aboriginal people relating to the airport site and its district. It is intended that this record would serve as an archive and a resource for future interpretation of the Aboriginal heritage values of the site.	Aboriginal Heritage CEMP	Prior to Preparatory Activities	
AC16	EIS Table 28-13	A selective archaeological salvage programme will be conducted of surface artefacts recovered across known Aboriginal artefact occurrences in the construction impact zone, with the aim of avoiding damage from activities related to the Main Construction Works.	Aboriginal Heritage CEMP	Prior to Preparatory Activities	
AC17	EIS Table 28-13	A selective archaeological salvage programme will be conducted in the construction impact zone.	Aboriginal Heritage CEMP	Prior to Preparatory Activities	
AC18	WSA Co req	Sensitive areas must be delineated on environmental constraints plans and EWMSs and to ensure they are not subject to disturbance during construction.	Aboriginal Heritage CEMP	Prior to Preparatory Activities	
AC19	EIS Table 28-13	Training in the identification of Aboriginal artefacts and management of Aboriginal heritage values will be included in compulsory induction courses for site workers.	Aboriginal Heritage CEMP	Prior to Preparatory Activities	
AC20	EIS Table 28-13	One or more areas of open ground will be reserved within the Environmental Conservation Zone, as required, and managed for the primary purpose of repatriation of salvaged Aboriginal cultural material through reburial. The area(s) will be selected and managed in consultation with Aboriginal stakeholders.	Aboriginal Heritage CEMP	Prior to construction and ongoing during construction	

Ref.	Source	Requirement General operational control requirements	Document reference	Timing	Status (to be review on a 6 monthly basis
AC21	EIS Table 28-13	Following the completion of archaeological description and analysis, Aboriginal cultural material salvaged from the airport site will, in the first instance, be stored at an appropriate place to be determined in consultation with Aboriginal stakeholders and relevant government agencies.	Aboriginal Heritage CEMP	Prior to Preparatory Activities	

Note:

1. If a condition specifies a time by which something must be done, an Approver may vary that time, if requested to do so by a person to whom the condition applies.
2. Unless otherwise agreed by an Approver, a Plan Owner should submit a plan, or a variation to a plan, for approval at least three months before it wishes to have the plan or variation approved.

Appendix H

Land Disturbance Permit

Land Disturbance Permit

SECTION 1 – REQUEST DETAILS			
Permit #		Date issued	
Site / Location		Chainage: EB / WB / Median	
Area Supervisor		Position	
Purpose of Ground Disturbance			
Total disturbance area (ha)		Date disturbance to commence	
Estimated Topsoil Depth (mm)		Date disturbance to be completed	
Estimated Topsoil volume (m^3)		Machinery to be used	
Map showing extent of LDP attached	☐ Yes ☐ No	Comments:	
Limit of Clearing Confirm proposed land disturbance within approved limit of clearing?	☐ Yes ☐ No	☐ Detailed Design and Temporary Works ☐ Other (specify):	
GPS Coordinates of planned area to be disturbed	E: N:		
GIS Updated	☐ Yes	LDP Register Updated	☐ Yes

SECTION 2 – PERMIT CONDITIONS			
Condition		**Area Supervisor Review**	
		Initial	**Comments**
1.	No clearing to be undertaken until Land Disturbance Permit received, signed and completed and all permit conditions understood and in place		
2.	Disturbance area surveyed and delineated. Vegetation to be retained (or other exclusion areas) clearly delineated with parra-webbing and NO-GO signage. Site boundaries marked and clearly visible.		
3.	ESCP implemented and reviewed on site by the Environmental Coordinator. Supervisor to advise to Environmental Coordinator when controls are ready for Witness Point		
4.	Pre-clearing inspection completed by Ecologist. Ecologist required to supervise Phase I / Phase II clearing and/or relocating fauna. (delete / amend as required)		
5.	Appropriate Cultural Heritage permit/s are in place where applicable		
6.	Ground engaging equipment confirmed as weed free (use Tool: Equipment Clean down Checklist).		
7.	Operators working in the area have been shown the clearing limits by Area Supervisor. Personnel undertaking works are appropriately trained and aware of environmental risks and briefed on EWMS.		

SECTION 2 – PERMIT CONDITIONS			
Condition		**Area Supervisor Review**	
		Initial	**Comments**
8.	Large, woody vegetation to be stockpiled separately in approved location or used for Erosion Sediment control or fauna habitat.		
9.	Disturbance area inspected for fauna and habitat trees and relocated, where applicable		
10.	Topsoil to be removed to a ____ mm depth Subsoil to be removed to a ____mm depth		
11.	Topsoil to be stockpiled in approved areas. Subsoil to be stockpiled separately in approved areas		
12.	Topsoil and subsoil stockpiles are to be less than 2m high		
13.	Topsoil stockpiles to be signposted and mapped.		
14.	Area to be surveyed post disturbance to ensure no unauthorised disturbance. Supervisor to invite Environmental Coordinator for inspection.		
15.	Post disturbance inspection checklist to be completed at completion of clearing		
16.	Waste classification certificates obtained and supplied to the waste receiving facility		

SECTION 3 – SIGN OFF					
Site Environmental Manager/ Representative OR Project Manager Sign Off					
Name		Signature		Date	
WSA Sign Off					
Name		Signature		Date	
Area Supervisor Sign Off					
Name		Signature		Date	
Equipment Operators Involved in Clearing - **have been advised of Land Disturbance Permit conditions and understand requirements/clearing boundary**					
Name		Signature		Date	
Name		Signature		Date	
Name		Signature		Date	
Name		Signature		Date	
Name		Signature		Date	
Name		Signature		Date	
Name		Signature		Date	

Name		Signature		Date	

Appendix I

Permit to enter no go area/protected area

Permit to Enter Protected or 'No-Go' Area

Project: Western Sydney Airport

Note: *Permit to Enter Protected or 'No-Go' Areas* to be submitted to Environmental Manager two days prior to entry. Entry must not occur to any part of the area until this permit has been approved.

Permit No:

Start Date: **Expected Completion Date:**

PROTECTED AREA LOCATION (S) – ATTACH DRAWINGS / SKETCHES IF NECESSARY

Ch. From	Ch. To	Carriageway	Location	Comments

PART A: NOTIFICATION (To be completed by Site or Project Engineer or Site Environmental Officer)

Description of Works:	
Justification as to why entry is required:	
Protected Area: ECZ ☐ Contaminated / Hazardous Land ☐ Habitat Trees ☐ Other Environmentally Sensitive Area ☐	 Cultural / Heritage Sites ☐ Riparian Areas outside footprint ☐ Threatened Species ☐ Other, specify…….. ☐
Map included with approximate location marked?	Yes ☐ No ☐
Specify plant/equipment to be used, number of workers and whether any vegetation or ground disturbance is proposed:	

PART B: INVESTIGATION (To be completed by Site Environmental Officer / Manager)

Items	YES	NO	Comments
Is entry into the protected area absolutely necessary to complete construction works? Consider other methods that reduce the need to enter the protected areas.			
Will the works impact on the protected area in any way?			
Is a pre-entry assessment required to determine the condition of the habitat? Are photos required to compare with post-entry condition?			
Have relevant authorities/stakeholders been consulted?			
Are external approvals required prior to entry			
Is a justification report required?			
Is an EWMS/ECM required?			

Items	YES	NO	Comments
Other?			
Are special conditions or instructions for entry required?			

Process Permit Entry Request Further	**No** ☐	**Entry not Permitted**
	Yes ☐	**Continue to Process Form**

PART C: PERMIT INDUCTION (Carried out by Site Environmental Officer / Manager)

Inductee	Signature	Date	Position	Employer

PART D: SPECIAL CONDITIONS OR INSTRUCTIONS FOR ENTRY (Completed by Site Environmental Officer / Manager)

PART E: APPROVAL TO ENTER PROTECTED OR 'NO-GO' AREAS

Approval has been given to enter protected or 'no-go' areas for the purposes identified in Part A by those inducted in Part C and with reference to any conditions identified in Part D.

Name (Environmental Manager)	Signature	Approval Date	Expiry Date