



Western Sydney Airport

Waste and Resources

Construction Environmental Management Plan

December 2018



**Western
Sydney
Airport**

Document Control

File Name	Document Name	Revision
WSA00-BECHTEL-00400-EN-PLN-000009	WSA Co Waste and Resources CEMP	1

Revision History

Revision	Date	Description	Author	Reviewer
0	24/09/2018	Early Earthworks scope and visitor centre preparation	WSA Co	S Reynolds
0.1	09/11/2018	Draft updated with the Visitor Centre and Site Accommodation phase and Material Importation phase	WSA Co	S Reynolds
0.2	23/11/2018	Draft updated to address comments on inclusion of new scope (Visitor centre, Site Accommodation and Material Importation)	WSA Co	S Reynolds
0.3	07/12/2018	Draft updated to address comments on inclusion of new scope (Visitor centre, Site Accommodation and Material Importation)	WSA Co	S Reynolds
0.4	12/12/2018	For Approval	WSA Co	S Reynolds
1	14/12/2018	Revision update to include the Visitor Centre and Site Accommodation and Material Importation	WSA Co	S Reynolds

Plan Authorisation

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

Glossary and Definitions

Item	Definition
the Act	<i>Airports Act 1996 (Cth)</i> (Airports Act)
Airport	The airport located at the Airport Site. Note: the Airport is referred to in the Act as Sydney West Airport and also commonly known as Western Sydney Airport
Airport Lease	An airport lease for the Airport granted under section 13 of the Act
Airport Lessee Company	The company that is granted a lease over the Airport Site
Airport Plan	Means the airport plan for the Airport Site as determined by the Infrastructure Minister under section 96B of the Airports Act in December 2016 as varied from time to time in accordance with the Airports Act.
Airport Site	The site for Sydney West Airport as defined in the Act
Apron	The part of an airport used for: <ul style="list-style-type: none"> a. the purposes of enabling passengers to embark/disembark an aircraft; b. loading cargo onto, or unloading cargo from, aircraft; and/or c. refuelling, parking or carrying out maintenance on aircraft
Associated Site	An 'associated site for Sydney West Airport' as set out in section 96L of the Act
Condition	A condition set out in Part 3 of the Airport Plan in accordance with section 96C of the Act
Construction Impact Zone	The part or parts of the Airport Site or an Associated Site on which Main Construction Works are planned to occur, as detailed in the Construction Plan approved in accordance with Condition 1.
EEW	The Phase of the Stage 1 Development that involves Early Earthworks as described in section 6 of the Construction Plan.
Environment Minister	The Minister responsible for the EPBC Act
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i>
EWMS	Environmental Work Method Statement
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 Act from time to time
Main Construction Works	Substantial physical works on a particular part of the Airport Site including large scale vegetation clearance, bulk earthworks and the carrying out of other physical works, and the erection of buildings and structures) described in Part 3 of the Airport Plan, other than TransGrid Relocation Works or Preparatory Activities
Non-conformance	Failure to conform to the requirements of the Airport Plan (including the SEMF)
Preparatory Activities	The following: <ul style="list-style-type: none"> a. day-to-day site and property management activities; b. site investigations, surveys (including dilapidation surveys), monitoring, and related works (e.g. geotechnical or other investigative drilling, excavation, or salvage); c. establishing construction work sites, site offices, plant and equipment, and related site mobilisation activities (including access points, access tracks and other minor access works, and safety and security measures such as fencing, but excluding bulk earthworks); d. enabling preparatory activities such as:

Item	Definition
	<ul style="list-style-type: none"> i) demolition or relocation of existing structures including buildings, services, utilities and roads); ii) the disinterment of human remains located in grave sites identified in the European and other heritage technical report in volume 4 of the EIS; and iii) application of environmental impact mitigation measures; and e. any other activities which an Approver determines are Preparatory Activities
the Project	Western Sydney Airport – Stage 1 development
RAP	WSA Co Limited Western Sydney Airport Remediation Action Plan prepared by GHD dated February 2018
Stage 1 Development	The Developments described in Part 3 of the Airport Plan
Sydney West Airport	The Airport. Note: this is the name used in the Act. The Airport is also commonly known as Western Sydney Airport
Western Sydney Airport (WSA)	The Airport. Note: Under the Act the Airport is referred to as Sydney West Airport

Acronyms and abbreviations

Item	Definition
AEPR	Airports (Environment Protection) Regulations 1997
ALC	Airport Lessee Company
ALER	Airfield lighting equipment room
ARFFS	Aviation Rescue and Firefighting Services
ATC	Air traffic control
ATCT	Air traffic control tower
CASA	Civil Aviation Safety Authority
CASR	Civil Aviation Safety Regulations 1998
CEMP	Construction Environmental Management Plan
DIPNR	NSW Department of Infrastructure, Planning and Natural Resources (now Department of Planning and Environment)
ECZ	Environmental Conservation Zone
EIS	Environmental Impact Statement
ENM	Excavated Natural Material
EPA	NSW Environmental Protection Authority
GSE	Ground support equipment
ha	Hectares
ISO 14001	AS/NZS ISO 14001:2015 – Environmental Management Systems
km	kilometres
m, m ² and m ³	Metres, square metres and cubic metres
ML and ML/d	Megalitres and megalitres per day
OEH	NSW Office of Environment and Heritage

Item	Definition
POEO Act	<i>NSW Protection of the Environment Operations Act 1997</i>
RMS	NSW Roads and Maritime Services
SEMF	Site Environmental Management Framework
SES	Senior Executive Service
SES Officer	An SES employee under the <i>Public Service Act 1999</i> (Cth)
VENM	Virgin excavated natural material
WARR Act	<i>Waste Avoidance and Resource Recovery Act 2001</i>

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1 Introduction

1.1 Background

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

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

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

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

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

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

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

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

Further details with regards to site activities specific to this Waste and Resources CEMP is provided in Section 2.

1.2 Document context and scope

This Waste and Resources Construction Environmental Management Plan (Waste and Resources CEMP) (this plan) has been prepared to satisfy the requirements of the Waste and Resources CEMP set out in the Conditions for the Stage 1 Development of the Western Sydney Airport detailed in Section 3.10.2 of the Airport Plan. Specifically, Section 3.10.2 Condition 13(1) of the Airport Plan requires that a Waste and Resources CEMP be approved under the Airport Plan prior to the commencement of Main Construction Works.

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

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

- Community and Stakeholder Engagement Plan – It is anticipated that the surrounding community and stakeholders will be sensitive to waste generation, resource management and associated impacts, including the impacts of traffic generation / management and odours.
- Soil and Water CEMP – Soil and water quality have the potential to be impacted in the event that waste and resource management is ineffective, specifically with regard to waste tracking, contamination management and the potential associated water quality impacts from site run-off.
- Visual and landscape CEMP – The management of waste (and to a lesser extent resources) is considered to be a direct link to the management of visual and landscape features with regards to the general visual amenity and associated impacts if not managed correctly. Furthermore, it is noted that one of the proposed mitigation measures to be implemented as part of the Illegal Dumping Prevention Strategy (Appendix E) is the use of lighting as a deterrent. Any use of lighting should be undertaken in a manner so as not to impact the visual amenity of potentially sensitive receptors and should be managed in accordance with the Visual and Landscape CEMP.
- Biodiversity CEMP – The removal / stripping of topsoils and vegetation will require specific management and disposal of identified noxious weed species. This Waste and Resources CEMP provides mitigation measures and controls with regards to the management and disposal of green waste, with a cross-reference provided to the Biodiversity CEMP for the specific management of noxious weed species.
- Sustainability Plan (once approved) – Maximising the beneficial reuse of potential waste products and minimisation of waste disposal off-site and resource usage are key drivers for both the sustainability and the waste and resource management objectives and targets.

Where relevant, linkages to other CEMPs and management objectives have been included in the risk assessment and the environmental control measures, Section 5.9 and Section 6 respectively.

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

Table 1 Waste and Resources CEMP relationship with other CEMP documentation

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

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

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

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

1.3 Document purpose

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

This Plan details the waste and resource management requirements that must be satisfied in order to demonstrate compliance with the Conditions as set out in Condition 13 of Section 3.10.2 of the Airport Plan for the construction of the Stage 1 Development of the Western Sydney Airport.

Legal and other requirements are identified and maintained in a register within the SEMF (refer SEMF Appendix C). Mitigation measures (specific to waste and resources) required to satisfy these requirements are derived from the EIS and through risk assessment processes (refer Section 5.9) and included within this CEMP (refer Section 6).

Implementation of these measures is ensured through monitoring, training, competence, inspection, audit and reporting actions detailed in Sections 8 and 9, with the responsibilities for implementation identified in Section 7. Continual improvement processes in relation to compliance with regulatory requirements are detailed in Section 12.

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

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

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

1.4 WSA Co environmental management system overview

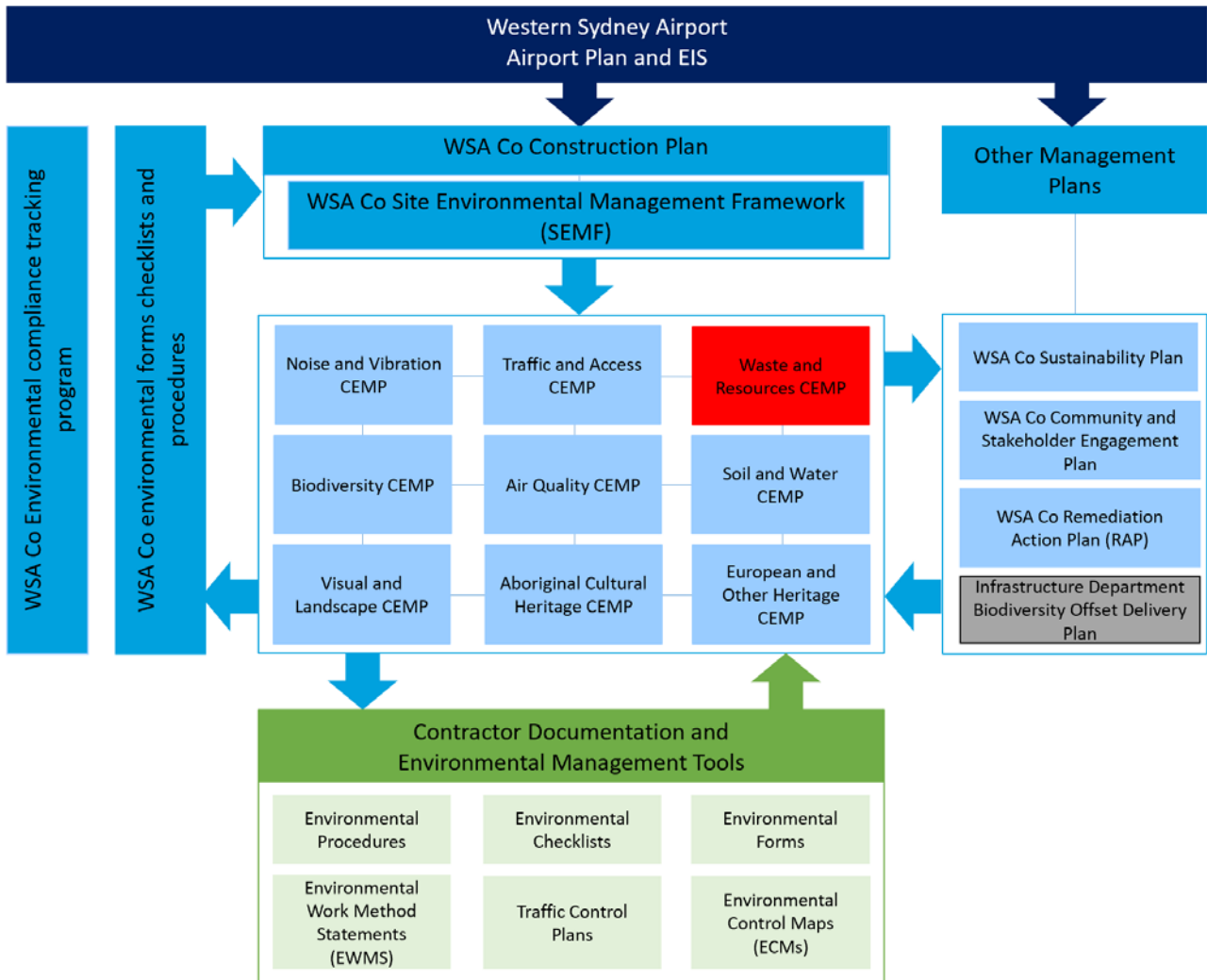
WSA Co operates in general accordance with AS/NZS ISO 14001 – *Environmental management systems*. A copy of the WSA Co environmental policy is provided in Appendix E of the SEMF.

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

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

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

Figure 1 WSA Co Environmental Management System and CEMP context



1.5 Consultation requirements of this plan

Airport Plan Condition 35 outlines the consultation requirements during the preparation of this CEMP and requires consultation with NSW Government agencies as specified by the NSW Department of Premier and Cabinet. NSW Government agencies specified by Department of Premier and Cabinet for consultation about this Waste and Resources CEMP, include the NSW Environment Protection Authority (EPA), the NSW Department of Finance, Services and Innovation Waste Services (DFSI Waste Services), Liverpool City Council and Penrith City Council. Further, Airport Plan Condition 13 (3) requires that this CEMP take into account Table 28-16 of the EIS which states the CEMP should also be prepared in consultation with the NSW EPA and relevant local councils.

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

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

To satisfy the above requirement this CEMP (Revision 0) has been provided to the relevant stakeholders for feedback. Details of the Visitor Centre and Site Accommodation phase and Material Importation phase was

described in the correspondence to provide context to the stakeholders on the level of impact that would result from the change. In addition, stakeholders were invited to attend a workshop on 13 November 2018 where an overview of the Visitor Centre and Site Accommodation phase and Material Importation phase was presented and feedback requested. A summary of the consultation is provided in Table 2 and details included in Appendix A.

Table 2 Waste and Resources CEMP consultation summary

Government authority / stakeholder	Date	Summary
Consultation prior to Rev 0 approval		
NSW EPA	July 2018	<p>The EPA notes the consultation requirements relating to the preparation of a CEMP, however does not approve or endorse these documents. The EPA's role is to set environmental objectives for environmental management, rather than being directly involved in the development of strategies and management plans to achieve those objectives. The EPA provided advice in 2016 regarding environmental objectives during the exhibition of the Environmental Impact Statement.</p> <p>As a general recommendation, the CEMP should outline the measures that will be implemented to manage and mitigate all impacts assessed during the Environmental Impact Statement. All proposed mitigation and management measures in the CEMP should implement best practice to a level that is feasible and reasonable and clearly demonstrate how the proponent will meet the designated environmental objectives.</p>
NSW EPA	September 2018	<p>The EPA provided comment on the WSA Co. Illegal Dumping Prevention Strategy, stating that the strategy should consider:</p> <ul style="list-style-type: none"> • An assessment of the likely risks of illegal dumping associated with WSA Co. land; • A list of site specific risks and locations; • A schedule of feasible mitigation measures that will be implemented to address these risks; and • Identification of what each of these mitigation measures is likely to achieve. <p>The EPA noted that disposal of waste is a key issue and that the EPA's Waste Compliance Section would be please to meet with WSA Co to discuss waste mitigation measures.</p>
DFSI Waste Assets Management Corporation (WAMC)	July 2018	<p>Note that the DFSI Waste Assets Management Corporation (WAMC) has no regulatory function.</p> <p>WAMC considers that the draft Waste and Resources CEMP identified the relevant legislation and guidelines and has appropriate targets.</p> <p>Recommendation for the Waste and Resources CEMP to include a measurement tool for increasing employee and sub-contractor awareness of obligations for waste management and recycling. Included in Section 3.1.</p> <p>Include a mechanism to monitor for legislative changes as they arise during the development of the Project. This has been addressed in Section 12.</p>

Government authority / stakeholder	Date	Summary
Penrith City Council	July 2018	A response to an invite for comment on the CEMP documentation was received from Penrith City Council on 24 July 2018 which included a single comment regarding water quantity usage during construction, which is considered pertinent to the preparation of this Waste and Resources CEMP.
Liverpool City Council	July 2018	Email acknowledgement received from Liverpool City Council regarding the request to provide comment on CEMP documentation. No specific comments were provided regarding the Waste and Resources CEMP.
Consultation prior to Rev 1 approval		
NSW EPA	Nov 2018	The NSW Government provided a detailed submission on the Western Sydney Airport (WSA) EIS that included advice on the environmental aspects of the proposal. The EPA also provided a response to a request from WSA for comments on monitoring locations in the CEMPs and on the illegal dumping strategy, dated 13 September 2018. This information should be considered for the VSA.
Penrith City Council	Nov 2018	No comments regarding provided regarding preparation of Rev 1 of the Waste and Resources CEMP
Liverpool City Council	Nov 2018	No comments regarding provided regarding preparation of Rev 1 of the Waste and Resources CEMP
		Workshop held on 13 Nov 2018. Attendees presented with a summary of the proposed works. Topics included: <ul style="list-style-type: none"> • Airport plan condition requirement for consultation • Land-use plan • Site location of works • Visitor Centre and Site Accommodation scope, including images of the concept design • Material importation, including location, distance to closest receiver and site access
Stakeholder information workshop	13 November 2018	<p>Invitees:</p> <p>Liverpool City Council Western Area Health Penrith City Council NSW Department of Premier and Cabinet Roads and Maritime Services NSW Health NSW Department of Education NSW Aboriginal Affairs NSW Department of Planning and Environment Transport for NSW</p> <p>Attendees:</p> <p>NSW Aboriginal Affairs Liverpool City Council Western Area Health</p>

1.6 Certification and approval

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

1.7 Distribution

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

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

2 Project details and scope of works

2.1 Project general features

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

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

Further details of the overall Project construction activities, programming and methodologies are included in the Construction Plan.

2.2 Project site location and layout

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

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

An Environmental Conservation Zone (ECZ), referred to as EC1 in Figure 3 is located within the Airport Site, mostly to the south and south east along with a 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 Western Sydney Airport site location

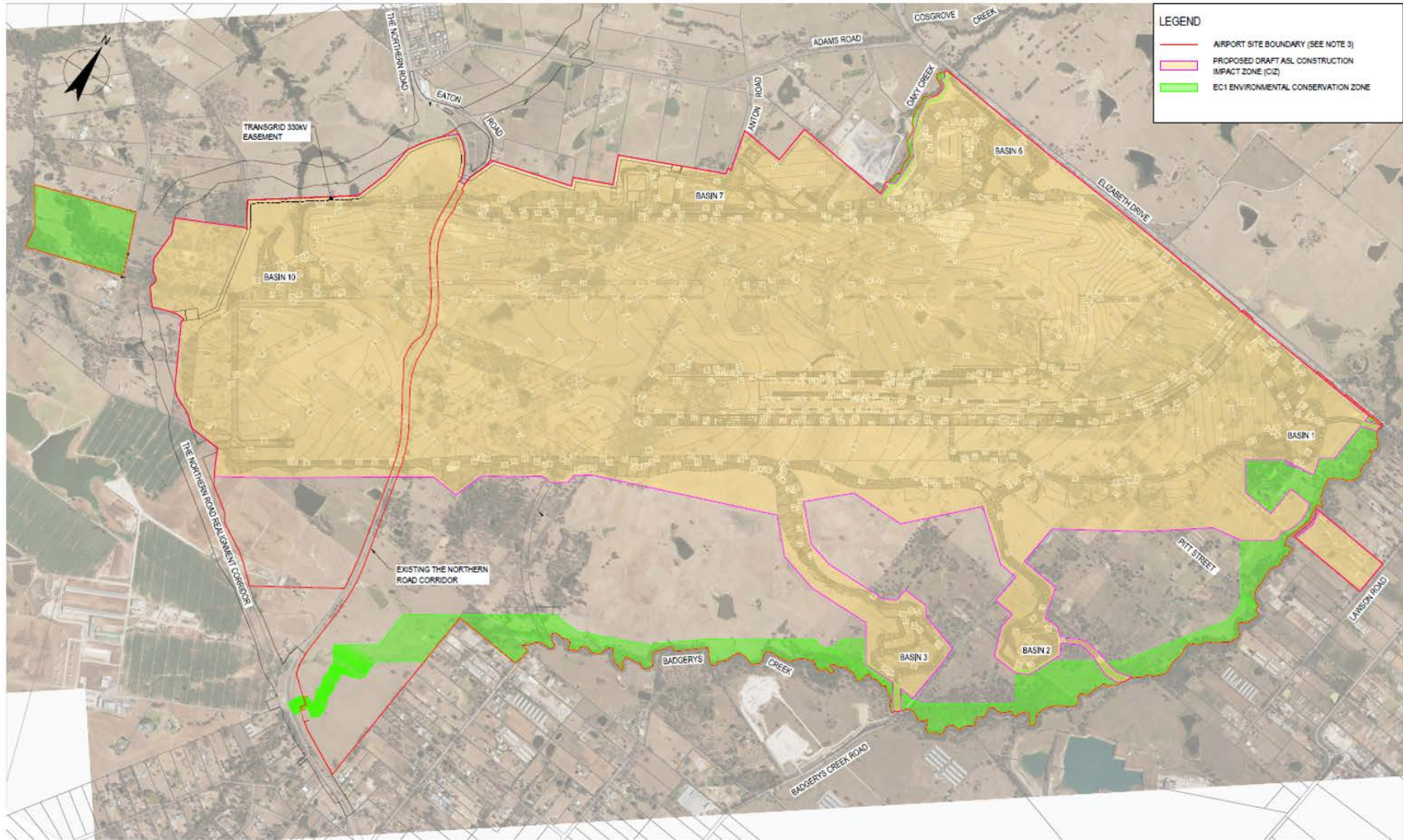


Figure 3 Stage 1 development construction impact zone

2.3 Project staging and environmental management approach

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

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

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

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

Table 3 Works covered by this Waste and Resources CEMP

Works covered	Reference
Preparatory activities	Refer to Sections 2.4.1
Early Earthworks	Refer to Section 2.4.2
Visitor Centre and Site Accommodation	Refer to section 2.4.3
Material importation	Refer to Section 2.4.4

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

Section 2 of the SEMF provides a general overview of the total Project activities to be undertaken, with further specific detail targeting the current works (as indicated in Table 3) provided below in Section 2.4.

2.4 Scope of works

2.4.1 Preparatory Activities (General)

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

If an Approver determines an activity is a Preparatory Activity for paragraph (e) of the definition of 'Preparatory Activities' as per the Airport Plan and requires that a plan be prepared and submitted, WSA Co

will prepare the necessary plan for consideration and approval in accordance with Condition 5 (2) of the Airport Plan. Any Preparatory Activities must not be carried out inconsistently with the approved CEMPs.

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

Table 4 Construction staging – Preparatory Activities

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

2.4.2 Early Earthworks package

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

The EEW will involve:

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

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

Table 5 Construction staging – Early Earthworks

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

Construction staging	Indicative Timing
<ul style="list-style-type: none"> Elizabeth Drive Upgrade works 	

2.4.3 Visitor Centre and Site Accommodation

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

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

Table 6 Construction staging – Visitor Centre and Site Accommodation

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

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

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

2.4.4 Material importation

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

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

Table 7 Construction staging – Material importation

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

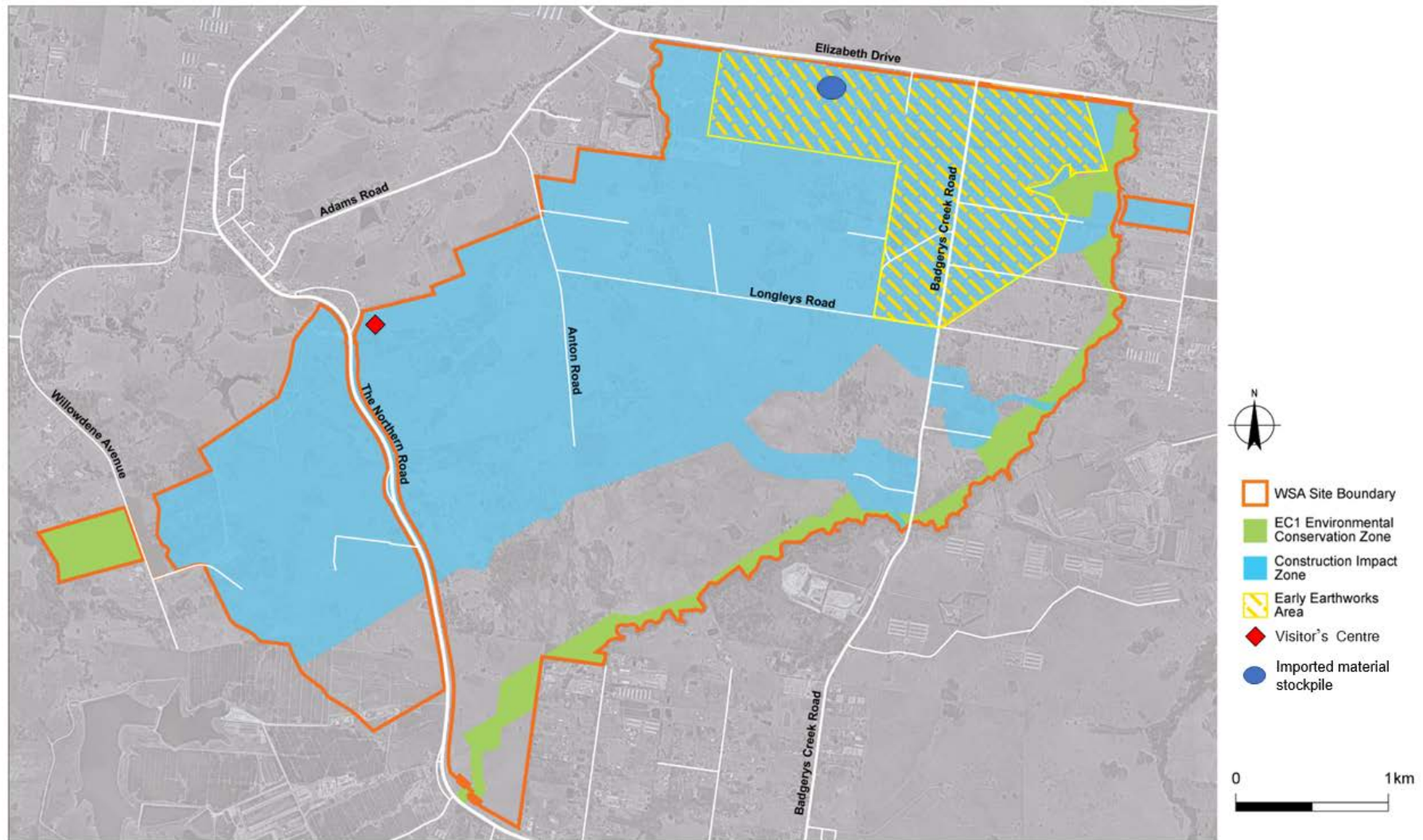


Figure 4 Stage 1 Development construction location plan

3 Objectives and targets

3.1 Objectives

The key objective of this Waste and Resources CEMP is to ensure that impacts from waste and resources are managed by maximising waste avoidance, and active reduction, reuse and recycling within the scope permitted by the planning approval.

To achieve this objective, the following will be undertaken:

- Ensure appropriate measures are implemented to address the mitigation measures detailed in Table 28-16 and Table 28-17 in Chapter 28 the EIS;
- Minimise waste production and ensure that all waste material generated on site is handled in a responsible manner, and in accordance with legislative requirements;
- Maximise efficient use of resources including minimising resource use and maximising recovery and recycling;
- Prevent pollution associated with the management and disposal of waste material;
- Minimise the risk of illegal dumping on the Airport Site;
- Increase employee and subcontractor awareness of their obligations with regard to waste management and recycling opportunities;
- Ensure the implementation of appropriate environmental controls and procedures; and
- Ensure appropriate measures are implemented to comply with all relevant legislation and other requirements as described in Section 4 of this plan.

3.2 Performance criteria

Performance criteria have been established for the management of waste and resources during the construction phase of the works, as presented in Table 5, which have been, in part, derived from the performance criteria identified in the EIS, Table 28-16:

- Compliance with this approved Waste and Resources CEMP;
- Compliance with the approved Sustainability Plan;
- Waste management practices do not place unnecessary burden on local and regional waste services;
- Effective application of the waste management hierarchy (refer to Section 5.6) across construction activities;
- Dispose of waste materials in accordance with relevant legislative requirements (NSW EPA *Waste Classification Guidelines*, 2014); and
- Achieve the waste re-use / recycling targets in Table 8.

Table 8 Construction waste stream targets

Construction activity	Waste type	Waste classification	Disposal method	Reuse / recycle target
Earthworks	Surplus spoil	VENM / ENM	Re-use on site	100%
			Off-site re-use	
	Contaminated soil	Special hazardous	Onsite remediation	0%
			Offsite disposal to licensed waste facility	
Clearing and grubbing	Vegetation	Greenwaste / General solid waste (putrescible)	Use on site in erosion and sediment control and landscaping	100%
			Offsite use of merchant timber	
			Offsite disposal in accordance with the EPA Raw Mulch Exemption / Order 2016	
Demolition	Concrete and brick	General solid waste (non-putrescible)	Crushed and re-used on site where practical (for road stabilisation etc.)	95%
			Disposal to concrete recycler	
	Steel	General solid waste (non-putrescible)	Disposal to steel / metal recycler	
Building construction material	Surplus construction materials (steel, PVC, Wood etc.)	General solid waste (non-putrescible)	Disposal to recycling facility	95%
Dewatering	Waste water	Liquid waste	Use on site for dust mitigation and soil conditioning	50%
			Discharge off site in accordance with Project approvals	100%
Maintenance	Liquid waste, used oils, lubes etc.	Liquid waste	Disposal off-site to a licensed recycling facility	80%
Administration	Office Waste	General solid waste (non-putrescible)	Recycle paper and cardboard	70%
			Co-mingled recycling	70%

The above performance criteria in Table 8 have been set to provide a benchmark performance objective to which WSA Co will endeavour to achieve. Failure to achieve the targets will not be considered a non-conformance, however, will prompt internal review of environmental management and with the respective waste management facilities (as detailed further in environmental control measure WR_24 in Table 21) and assessment of potential improvement opportunities.

4 Legal and other requirements

Relevant environmental legislation and other requirements are identified below.

4.1 Relevant legislation and guidelines

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

4.1.1 Legislation

Legislation and regulations and their relevance to waste and resource management and this plan are summarised in Table 9. NSW legislative requirements will be applicable to any waste leaving the Airport Site.

Table 9 Principal legislation and relevance

Legislation or regulation	Relevance	CEMP compliance provisions
Commonwealth		
<i>Airports Act 1996</i> (Airports Act)	<p>The Airports Act and AEPRs set out the framework for the regulation and management of activities at airports that could have potential to cause environmental harm. This includes offences related to environmental harm, environmental management standards, monitoring and incident response requirements.</p> <p>The Airport Plan prepared under the Airports Act covers a number of environmental matters and, in particular, details specific measures to be carried out for the purposes of preventing, controlling or reducing the environmental impact associated with the airport. Criminal offences are applicable if these measures are not complied with.</p>	<p>This CEMP forms part of the overall WSA Co environmental management system which has as a target, full compliance with the Airport Plan.</p> <p>Relevant mechanisms within this CEMP that will contribute to this include but are not limited to:</p> <ul style="list-style-type: none"> Section 3.1 – Objectives Section 4.3 – Airport Plan Conditions Section 4.4 – Environmental Impact Statement Requirements Section 5.9 – Risk Assessment Section 6 – Environmental Control Measures Section 7 – Roles and Responsibilities Section 8 – Environmental Inspection, Monitoring and Auditing Section 11 – Environmental incidents, non-conformance and improvement opportunities Section 12 – Review and improvement
Airports (Environment Protection) Regulations 1997 (AEPR)	<p>Imposes a general duty to prevent or minimise environmental pollution once an airport lease is granted. Promotes improved environmental management practices at airports. Includes provisions setting out pollution definitions in addition to monitoring and reporting requirements specific to waste.</p>	<p>Refer to commentary on Airport Plan above.</p>

Legislation or regulation	Relevance	CEMP compliance provisions
<i>Hazardous Waste (Regulation of Imports and Exports) Act 1989</i>	Implements Australian Government obligations under the Basel Convention and prohibits the export and import of hazardous waste without a permit. A permit may be obtained to export hazardous waste where it can be shown that the waste would be managed in an environmentally sound manner in the country of import.	Refer to Section 5 with regards to the management of waste materials going off site and also the requirements for materials being imported onto site.
<i>National Greenhouse and Energy Reporting Act 2007</i>	An airport lessee company is required to register and report its operational greenhouse gas emissions attributable to the activities over which it has operational control. This is because it is expected that its emissions will exceed relevant thresholds. This may also apply to the construction contractor and other contractors or users of the airport (e.g. airlines).	The requirements of this Act were taken into account in the development of the WSA Co Sustainability Plan.
<i>Work Health and Safety Act 2011</i> (Commonwealth and NSW)	Imposes specific requirements in relation to hazardous materials including asbestos that would be applicable to WSA Co and contractors	Refer to Section 5.8 regarding the management of asbestos waste.
NSW		
<i>Biosecurity Act 2015 (Biosecurity Act)</i>	The Biosecurity Act outlines biosecurity risks and impacts including impacts associated with weeds. The Act introduces the concept of Priority Weeds that should be prevented, managed, controlled or eradicated within particular regions.	Refer to mitigation measures and controls detailed in Section 6 with regards to management of weeds associated with waste management.
<i>Contaminated Land Management Act 1997</i>	Provides for the investigation and remediation of contaminated land considered to pose a significant risk to human health or the environment.	The requirements of this Act were taken into account in the development of the Remediation Action Plan.
<i>Environmental Planning and Assessment Act 1979 (EP&A Act)</i>	Objects of the Act include the encouragement of proper management and conservation of natural and artificial resources and the promotion of the orderly and economic use and development of land in NSW. The EP&A Act also provides for the making of environmental planning instruments including State Environmental Planning Policies (SEPPs) and Local Environmental Plans (LEPs), which include land use controls, such as development standards applicable to the land within the area covered by each instrument.	This Project has been authorised under the Airports Act; however, a range of matters arising from the EP&A Act have been considered - Refer to Section 6 for environmental mitigation measures and controls.
<i>Environmentally Hazardous Chemicals Act 1985</i>	Provides for control of the effect on the environment of chemicals and chemical wastes.	Refer to Section 6 for environmental mitigation measures and controls.

Legislation or regulation	Relevance	CEMP compliance provisions
<i>Protection of the Environment Operations Act 1997 (POEO Act) and the Protection of the Environment Operations (General) Regulations 2009 (POEO (General) Regulations)</i>	The POEO Act provides a range of controls with regard to waste management requirements including the means of processing, handling, moving, storage and disposal of materials. The POEO Act also provides classification of offences as Tier 1, 2 or 3 which have particular relevance to pollution and waste offences, with prescribed penalty notice amounts provided in the POEO (General) Regulations.	Refer to Section 6 for environmental mitigation measures and controls.
Protection of the Environment Operations (Waste) Regulations 2014	Sets out obligations that would apply to waste managers, consigners, transporters and receivers dealing with waste coming from the Airport Site. The main provisions of the Regulation relate to the payment of a waste levy by licensed waste receivers, the requirements to track the transportation and disposal of certain types of waste, and specific requirements regarding the transportation and management of asbestos waste.	Refer to Section 6 for environmental mitigation measures and controls.
<i>Waste Avoidance and Resource Recovery Act 2001 (WARR Act)</i>	The overarching waste management legislation in NSW. The objectives of the Act include encouraging the most efficient use of resources, reducing environmental harm and ensuring resource management decisions are made against a hierarchy that gives preference to waste avoidance and resource recovery. The main provisions of the Act relate to the preparation of waste strategies and extended producer responsibility schemes. The current statutory waste strategy is the NSW Waste Avoidance and Resource Recovery Strategy 2014–21 (EPA 2014a). The waste strategy is explained in Section 5.	Refer to Section 5.3 for waste and resource management.

4.1.2 Guidelines and standards

Guidelines and standards that are relevant to waste and resource management and this plan are summarised in Table 10 below.

Table 10 Relevant guidelines and standards

Guidelines and standards
<i>National Waste Policy – Less waste, more resources</i>
<i>Australian Code for the Transport of Dangerous Goods by Road and Rail</i>
NSW Waste Avoidance and Resource Recovery Strategy 2014-21
<i>NSW Waste Classification Guidelines</i>
<i>National Environmental Protection (Assessment of Site Contamination) Measure 2013</i>
<i>NSW Government Resource Efficiency Policy (Office of Environment and Heritage, 2014)</i>

Guidelines and standards

Greenhouse Gas Protocol – A Corporate Accounting and Reporting Standard, Revised Edition (World Resources Institute / World Business Council for Sustainable Development, 2004)

National Environment Protection Measures (NEPMs)

National Greenhouse and Energy Reporting (Measurement) Determination 2008 (Department of Environment, 2014a)

National Greenhouse and Energy Reporting System Measurement: Technical Guidelines for the Estimation of Greenhouse Gas Emissions by Facilities in Australia (Department of the Environment, 2014b);

National Greenhouse Accounts Factors (Department of the Environment, 2014c)

Waste Classification Guidelines (Environment Protection Authority, 2014)

Liverpool Local Environmental Plan 2008

Penrith Local Environmental Plan 2010

ISO 14001 – Environmental Management Systems

Draft Protocol for managing asbestos during resource recovery of construction and demolition waste (EPA 2014)

Draft Protection of the Environment Operations Legislation Amendment (Waste) Regulation 2017

Waste Management and Recycling in Commercial and Industrial Facilities – Better Practice Guidelines (EPA 2012)

National Guidelines on Water Recycling (EPHC 2006)

Use of effluent by irrigation (DEC 2004)

4.2 Approvals and other specifications

- Functional Specifications;
- EPBC Act Part 13 Permit E2017-0138 (included as Attachment A of the Biodiversity CEMP);
- Western Sydney Airport Plan (2016);
- Western Sydney Airport Environmental Impact Statement;
- WSA Co Sustainability Plan;
- WSA Co Community and Stakeholder Engagement Plan; and
- WSA Co Construction Plan.

4.3 Airport Plan Conditions

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

Table 11 Conditions of Approval relevant to waste and resource management

Condition No.	Condition	Timing	Responsibility	Document reference
1.4	The Site Occupier must ensure that no CEMP is inconsistent with the approved Construction Plan	Ongoing	WSA Co	This document (Waste and Resources CEMP)

Condition No.	Condition	Timing	Responsibility	Document reference
				Construction Plan
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.	Ongoing	WSA Co	This document (Waste and Resources CEMP) Construction Plan
5.3	In carrying out a Preparatory Activity, the Site Occupier must: <ul style="list-style-type: none"> a) implement any plan approved in accordance with sub condition (1) or (2), except to the extent that the plan is inconsistent with any subsequently approved CEMP or the approved Construction Plan; and b) not act inconsistently with any approved CEMP or the approved Construction Plan. 	Ongoing	WSA Co	The SEMF and Section 2.4 of this document (Waste and Resources CEMP)
13.1	The Site Occupier must not: <ul style="list-style-type: none"> Commence Main Construction Works until a Waste and Resources CEMP has been prepared and approved in accordance with this condition; or Carry out any development described in Part 3 of the Airport Plan inconsistently with the approved Waste and Resources CEMP. 	Prior to Main Construction Works	WSA Co	This document (Waste and Resources CEMP)
13.2	The Site Occupier must: <ul style="list-style-type: none"> Prepare, and 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. 	Prior to Main Construction Works	WSA Co	This document (Waste and Resources CEMP)
13.3	The criteria for approval of the Waste and Resources CEMP are that an Approver is satisfied that: <ul style="list-style-type: none"> In preparing the Waste and Resources CEMP, the Site Occupier has taken into account Table 28-16 in Chapter 28 of the EIS; and 	Prior to Main Construction Works	Approver	This document (Waste and Resources CEMP)

Condition No.	Condition	Timing	Responsibility	Document reference
	The Waste and Resources CEMP complies with Table 28-17 in Chapter 28 of the EIS and is otherwise appropriate.			
Issue – Illegal Dumping in Table 25-8 in Section 25-7 of the EIS	An illegal dumping prevention strategy will be developed as part of the Waste and Resources CEMP. The strategy will outline 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.	Prior to Main Construction Works	WSA Co	Appendix E of this document (Waste and Resources CEMP)
35	An Approver must not approve a plan referred to in Chapter 28 of the EIS unless he or she is satisfied that the Plan Owner: <ul style="list-style-type: none"> (a) in preparing the plan, has consulted with any NSW Government agencies specified by the NSW Department of Premier and Cabinet; and ... (b) has provided: <ul style="list-style-type: none"> I the Approver; and II each consulted agency, with an explanation of how any responses have been addressed.	Ongoing	Approver	This document (Waste and Resources CEMP)
37 to 42	Set out requirements in relation to informing other parties of conditions, keeping records, publishing reports, independent audits, variation to approved plans and publication of approved plans	Ongoing	WSA Co and Approver	This document (Waste and Resources CEMP)

4.4 Environmental Impact Statement requirements

The requirements of waste and resource management to be considered and addressed during the construction phase of the Stage 1 development are included in the EIS, specifically Table 28-16. A summary of these requirements and how they have been addressed in this Waste and Resources CEMP is presented in Table 12

Table 12 Summary of EIS Waste and Resource Management Requirements

EIS Reference	Topic	Summary	Waste and Resources CEMP Reference
Table 28-16	Performance criteria	<p>The performance criteria for waste management are:</p> <ul style="list-style-type: none"> • Compliance with the approved Waste and Resources CEMP • Compliance with the approved Sustainability Plan • Waste management practices do not place burden on local and regional waste services • Effective application of the waste management hierarchy across construction activities 	<p>Section 3 – Waste and resources targets and performance criteria</p> <p>Section 5.5 - Waste management.</p>
Table 28-16	Implementation framework	<p>The Waste and Resources CEMP will be approved prior to commencement of Main Construction Works for the proposed airport. The Waste and Resources CEMP will collate measures to mitigate and control waste management activities including cross-references to other environmental management plans where they are relevant. The Waste and Resources CEMP will as a minimum:</p>	This Waste and Resources CEMP
		<p>Detail the management and mitigation measures to be implemented, including those outlined in Table 28-17 (of the EIS)</p>	Section 6– Waste and resource management environmental control measures
		<p>Describe the process for managing complaints, stakeholder engagement, and emerging environmental management issues as they arise</p>	Section 10 - Communication and complaints management
		<p>Specify the process for monitoring implementation, reporting, and auditing</p>	Section 8 - Environmental inspection, monitoring and auditing
Table 28-16	Monitoring	<p>Identify the party responsible for implementing of the Waste and Resources CEMP</p>	Section 7 – Environmental roles and responsibilities
		<p>Monitoring requirements include that:</p>	Note
		<p>Monitoring must take place under direction of an appropriately qualified person;</p>	Section 8 - Environmental inspection, monitoring and auditing
		<p>The results for the monitoring must be kept in a written record</p>	Section 8 - Environmental inspection, monitoring and auditing
		<p>Waste material generated on the Airport Site and resources used are tracked and classified to meet the requirements of the sustainability targets outlined in the Sustainability Plan</p>	Section 8 - Environmental inspection, monitoring and auditing

EIS Reference	Topic	Summary	Waste and Resources CEMP Reference
		Regular site inspections are carried out to monitor compliance with the Waste and Resources CEMP, record inspection results, and make an inspection log available to the Infrastructure Department when asked	Section 8 - Environmental inspection, monitoring and auditing
Table 28-16	Auditing and reporting	General reporting requirements are set out under AEPR	Note
		In addition, an annual report will be prepared and submitted to the Secretary of the Department of Infrastructure and Regional Development in relation to compliance with the Waste and Resources CEMP for the period until the airport commences operations. Auditing and reporting requirements will also be included as part of the WSA Co Sustainability Plan as outlined in Table 28-17 (of the EIS)	Section 8.4 - Environmental reporting
		The community and stakeholder engagement plan provides for the development of a complaints log and includes specific measures for how complaints will be managed	Section 10 - Communications and complaints management
Table 28-16	Responsibility	Responsibilities include:	Note
		The Waste and Resources CEMP will be prepared in consultation with the NSW Environment Protection Authority and relevant local councils	Section 1.5 - Consultation requirements
		The Waste and Resources CEMP will be submitted for approval to the Infrastructure Minister or an SES Officer in the Department of Infrastructure and Regional Development	Section 1.6– Certification and approval
		The design and construct (D&C) contractor will be responsible for implementing site specific environmental procedures and work method statements applicable to the proposed works in accordance with the requirements of the Waste and Resources CEMP	Section 1.3 – Purpose Section 7.3 – WSA Co contractor roles and responsibilities

5 Waste and resources aspects and impacts

5.1 Construction waste streams and resource consumption

Construction at the Airport Site will generate a range of waste from surplus or offcut construction materials, site clearing, earthworks and the demolition of existing infrastructure.

Various waste streams that would be generated during the construction of the Project include:

- Timber and green waste;
- Paper and office waste;
- Demolition waste;
- Excavation waste (surplus soil);
- Construction waste;
- Waste from maintenance activities;
- Sewerage and general waste from construction compounds;
- Drilling mud; and
- Greenhouse gases.

Natural resources and construction material will be used during construction of the Project. All quantities and sources will be confirmed during detailed design and construction methodology development for each phase of the Project. Construction activities will also use resources such as potable water, electricity, gas and fuel. Table 13 provides a summary of the resources that will be required.

Table 13 Indicative Stage 1 development quantity of resource requirements

Activity	Material	Quantity (total)	Potential sources		
Earthworks	Construction water	650 ML	Existing surface water, farm dams and sediment basins (refer to the WSA Co Soil and Water CEMP)		
			Potable water supply pipes and temporary storage dams		
Asphalt	Aggregate	12,252 tonnes	Gunlake Marulan Quarry		
			Holcim Lynwood Quarry		
			Boral Peppertree Quarry		
			Sand	5,664 tonnes	Calga Quarry Kurnell Quarry
			Lime filler	402 tonnes	Various
Concrete	Cement	3,091 tonnes	Various		
			Crusher dust	4,159 tonnes	Various
			Bitumen	1,128 tonnes	Camellia
			Sand	4,636 tonnes	Calga Quarry Kurnell Quarry
	Aggregate	9,273 tonnes	Gunlake Marulan Quarry		

Activity	Material	Quantity (total)	Potential sources
			Holcim Lynwood Quarry Boral Peppertree Quarry
	Fly Ash	309 tonnes	Various
	Admixture	155 tonnes	Various
	Fuel/diesel	TBC	Banksmeadow Silverwater
Construction and use of site accommodation	Diesel	TBC	Various
	Water	TBC	Various
	Electricity	TBC	Various
Construction of Visitor Centre accommodation	Diesel	TBC	Various
	Water	TBC	Various

However, the Project is predicted to be mainly a cut to fill with a large majority of the material being reused on site. As outlined in the Construction Plan spoil will be reused to backfill into the main embankments. This includes unsuitable material that may be stockpiled, dried out and blended with other general fill. Where this is not practical it may be disposed of at an appropriately licensed facility. This is in line with the strategies of waste avoidance, re-use on site, re-use off site and disposal being utilised for managing spoil.

5.2 Impacts

Poor management of waste has the potential to result in the following impacts:

- Excessive waste being directed to landfill;
- Various types of waste being generated and stored on site, with the potential for misclassification or mishandling; and
- Contaminated waste being incorrectly disposed of.

The overall impact of construction waste is considered to be manageable and acceptable. Waste will be managed in accordance with statutory requirements and procedures identified in this plan.

5.3 Waste and resource management

The Project's waste management requirements are summarised in Appendix B – Waste Management Procedure.

5.4 Classification of waste streams

Where waste cannot be avoided, reused or recycled it will be classified and appropriately disposed of. As waste leaves the Airport Site it will be classified using the procedure outlined in Appendix B and in accordance with the EPA Waste Classification Guidelines Part 1: Classifying Waste (2014). Further details of the classification summary provided in Table 14.

Table 14 Waste classification process - summary

Classification Step	Description
Step 1: Is it 'special waste'?	<p>Establish if the waste should be classified as special waste. Special wastes are:</p> <ul style="list-style-type: none"> • Clinical and related • Asbestos • Waste tyres <p>Note: Asbestos and clinical wastes must be managed in accordance with the requirements of Clauses 42 and 43 of the Protection of the Environment Operations (Waste) Regulation 2005.</p>
Step 2: If not special, is it 'liquid waste'?	<p>If it is established that the waste is not special waste it must be decided whether it is 'liquid waste'.</p> <p>Liquid waste means any waste that: has an angle of repose of less than 5° above horizontal becomes free-flowing at or below 60° Celsius or when it is transported is generally not capable of being picked up by a spade or shovel.</p> <p>Liquid wastes are sub-classified into:</p> <ul style="list-style-type: none"> • Sewer and stormwater effluent • Trackable liquid waste according to Protection of the Environment Operations (Waste) Regulation 2005 Schedule 1 Waste to which waste tracking requirements apply • Non-trackable liquid waste.
Step 3: If not liquid, has the waste already been pre-classified by the NSW EPA?	<p>The EPA has pre-classified several commonly generated wastes in the categories of hazardous, general solid waste (putrescibles) and general solid waste (non-putrescibles). If a waste is listed as 'pre-classified', no further assessment is required.</p>
Step 4: If not pre-classified, is the waste hazardous?	<p>If the waste is not special waste (other than asbestos waste), liquid waste or pre-classified, establish if it has certain hazardous characteristics and can therefore be classified as hazardous waste.</p> <p>Hazardous waste includes items such as explosives, flammable solids, substances liable to spontaneous combustion, oxidizing agents, toxic substances and corrosive substances.</p>
Step 5: If the waste does not have hazardous characteristics, undertake chemical assessment to determine classification.	<p>If the waste does not possess hazardous characteristics, it needs to be chemically assessed to determine whether it is hazardous, restricted solid or general solid waste (putrescible and non-putrescible). If the waste is not chemically assessed, it must be treated as hazardous.</p> <p>Waste is assessed by comparing Specific Contaminant Concentrations (SCC) of each chemical contaminant, and where required the leachable concentration using the Toxicity Characteristics Leaching Procedure (TCLP), against Contaminant Thresholds (CT).</p>
Step 6: Is the general solid waste putrescible or non-putrescible?	<p>If the waste is chemically assessed as general solid waste, a further assessment is available to determine whether the waste is putrescible or non-putrescible. The assessment determines whether the waste is capable of significant biological transformation. If this assessment is not undertaken, the waste must be managed as general solid waste (putrescible).</p>

The construction aspects and types of wastes, which may be generated during construction are outlined with classifications in Table 14.

5.5 Waste management

Wastes that have the potential to be generated during Stage 1 Development of the Project as outlined in Table 15 below.

Table 15 Stage 1 Development classification of potential waste streams

Aspect	Waste Types	Waste Classification	Likely Quantity (tonnes)	Final location and transport operator
Demolition/ Site Clearing	Vegetation (logs, mulched timber, weeds)	Timber and green waste	65,500	To be determined and recorded within Waste Register
	Demolition materials	General solid waste	3,000	To be determined and recorded within Waste Register
Bulk Earthworks	Excess material from excavations	General solid waste	To be reused onsite, where possible	Minimal excess is anticipated
	Piling	Likely to be General solid waste, (Potential for reuse onsite)	3,500	To be determined and recorded within Waste Register
	Unknown (Potentially Contaminated Soils)	If material is taken off site classification will be carried out, based on soil tests carried out pre-construction and in accordance with the EPA <i>Waste Classification Guidelines: Parts 1 and 2</i> (EPA 2014)	TBC	To be determined and recorded within Waste Register
Road works	Rubble, rock, sand, asphalt, road base, concrete	General Solid Waste (not putrescible)	2,000	To be determined and recorded within Waste Register, majority to be recycled
General	Sewerage and site compound waste	Effluent (sewerage) and general solid waste (not putrescible)	40T/day	To be determined and recorded within Waste Register
Asbestos waste	Asbestos contaminated material	Special Waste (Asbestos Waste)	To be determined	To be determined and encapsulated onsite

5.5.1 Reuse and recycling

Waste separation and segregation will be promoted on-site to facilitate reuse and recycling as a priority of the waste management program as follows:

- Waste segregation onsite – Waste materials, including spoil and demolition waste, will be separated onsite into dedicated bins/areas for either reuse onsite or collection by a waste contractor and transport to offsite facilities; and
- Waste separation offsite – Wastes to be deposited into one bin where space is not available for placement of multiple bins, and the waste is to be sorted offsite by a waste contractor.

Measures to avoid and reduce waste during construction will include:

- Efficient utilisation of resources to reduce consumptions;
- 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 necessary materials in bulk to minimise packaging waste.

Measures to reuse and recycle waste during construction will include:

- 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;
- Contract terms with suppliers that specify recyclable content and returnable packaging; and
- Co-operation in stewardship programs for compatible waste streams including pallets.

Measures to recover and treat waste will include recovery (prior to reuse) of compatible waste streams including metals, oils, solvents, brickwork, plasterboard, plastics and timber. Hazardous wastes or asbestos identified during construction would be managed consistently with the NSW Protection of the Environment Operations (Waste) Regulation 2014.

Residual waste that cannot be avoided, reduced, reused, recycled, recovered or treated will be collected by a licensed contractor for disposal at an appropriately licensed facility.

5.5.2 Waste handling and storage

Where waste is required to be handled and stored onsite prior to onsite reuse or offsite recycling/disposal, the following measures apply:

- Spoil, topsoil and mulch are to be stockpiled onsite in allocated areas, where appropriate, and mitigation measures for dust control and surface water management will be implemented as per the Air Quality CEMP, the Soil and Water CEMP and this plan;
- Liquid wastes are to be stored in appropriate containers in bunded areas until transported offsite. Bunded areas will have the capacity to hold 110 per cent of the liquid waste volume for bulk storage or 120 per cent of the volume of the largest container for smaller packaged storage;
- Hazardous waste will be managed by appropriately qualified and licensed contractors, in accordance with the requirements of the *Environmentally Hazardous Chemicals Act 1985* and the EPA waste disposal guidelines;
- All other recyclable or non-recyclable wastes are to be stored in appropriate covered receptacles (e.g. bins or skips) in appropriate locations onsite and sub-contractors commissioned to regularly remove/empty the bins to approved disposal or recycling facilities; and
- Where suitable material is received by WSA Co for beneficial reuse on the Project, the supplier must provide information on the material that concentrations of potential contaminants are below relevant NEPM criteria or an applicable EPA waste exemption criteria is met, and a notice under Section 143 of the POEO Act to transport the waste received.

Monitoring of the above waste handling and storage strategies will be undertaken primarily through the implementation of environmental inspections to be undertaken by both the Contractor and WSA Co as detailed further in Section 8.

5.5.3 Waste disposal

Waste management areas will be established during construction, at which waste (including recyclables) will be stored. Some materials will be stored in stockpiles while others will be stored in bins. Stockpiles and bins will be appropriately labelled, managed and monitored.

The waste storage areas will also allow for the separation of waste streams based on their management requirements, and will therefore include:

- Wheeled bins;
- Front lift bins;

- Bulk material storage bays;
- Hazardous waste storage areas;
- Bunded bulk storage for fuels and oils;
- Balers for cardboard or plastics; and
- Battery storage containers.

Waste management facilities situated in the Western Sydney region will be utilised for reuse, recycling, recovery and treatment of waste generated at the airport. The details of facilities in the area are listed in Appendix D.

Wastes that are unable to be reused or recycled will be disposed of offsite to an EPA approved waste management facility following classification in accordance with the POEO Act and the WARR Act.

Recyclable materials that have been separated at source (cardboard, glass and other containers, food organics) could be collected by waste contractors and taken to facilities specifically designed to either consolidate them for transportation to reprocessing facilities, or to sort them for transportation to such facilities. Non-recyclable wastes could be taken to transfer stations, or direct to landfills or to alternate waste processing facilities for disposal or treatment respectively.

5.5.4 Energy conservation

WSA Co is dedicated to implementing energy conservation best practice and the reduction of greenhouse gases by adopting energy efficient work practices including:

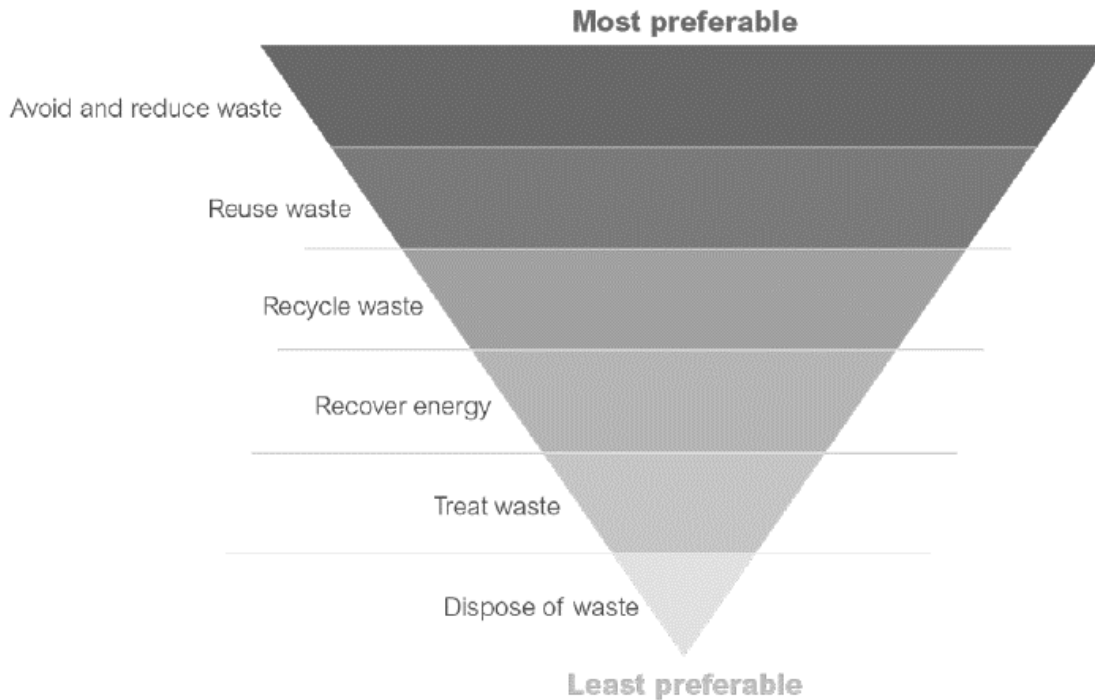
- Developing and implementing procedures to minimise energy use;
- Conducting awareness programs for all site personnel regarding energy conservation methods. Specifically;
 - Energy efficient design of site buildings;
 - Design of construction work sites to minimise unnecessary vehicle movement;
 - Assess energy (fuel/electricity) efficiency when selecting equipment
 - Regular servicing of site plant and equipment; and
 - Use of locally sourced material where available and of suitable quality.
- Detailed requirements related to energy conservation will be included in the WSA Co Sustainability Plan.

5.6 Waste management hierarchy

Waste management on the Project will be aligned with the NSW Waste Avoidance and Resource Recovery Strategy 2014-21 (EPA, 2014a) under the NSW WARR Act. The Strategy sets objectives to avoid waste generation, increase recycling, divert waste from landfill, manage problem waste, reduce litter and reduce illegal dumping. The Strategy also elaborates on a waste management hierarchy which supports the objectives of the WARR Act (refer to Figure 5).

Under the waste management hierarchy, it is preferable to avoid or reduce waste by procuring only necessary materials, and consuming materials with limited production or packaging requirements. Reusable or recyclable materials should be considered where waste cannot be avoided. If waste cannot be reused or recycled, efforts should be made to recover energy to maximise its beneficial use propriety to its eventual disposal. Waste with harmful characteristics should be treated prior to disposal to minimise its potential to affect human health and the environment.

Figure 5 Waste management hierarchy



Source: NSW Waste Avoidance and Resource Recovery Strategy 2014–21 (NSW EPA 2014a)

5.7 Waste exemptions

Clause 92 of the Protection of the Environment Operations (Waste) Regulation 2014 enables the NSW EPA to grant exemptions to the licensing and payment of levies for the land application or use of waste.

- Resource recovery orders include conditions that generators and processors of waste must meet to supply the waste for land application, use as fuel or in connection with a process of thermal treatment. They may include specifications, record keeping, reporting and other requirements.
- Resource recovery exemptions contain the conditions which consumers must meet to apply waste to land, or use waste as fuel or in connection with a process of thermal treatment outside of certain requirements of the waste regulatory framework. They may include specifications, requirements on how to re-use or apply the waste, record keeping, reporting and other requirements.

The general orders/exemptions are applicable for a range of commonly recovered, high volume and well characterised waste materials that allow their use as fill or fertiliser at unlicensed, off-site facilities.

The NSW EPA has issued general exemptions for a range of commonly recovered, high volume and well characterised waste materials that allow their use as fill or fertiliser at unlicensed, off-site facilities. These are general gazette exemptions that do not require approval. A specific exemption may be granted where an application is made to the NSW EPA.

Where waste materials are to be removed from site, a review of the applicable NSW EPA waste exemptions will be undertaken to determine if the material classifies as specific exemption and if a suitable receiving site can be identified.

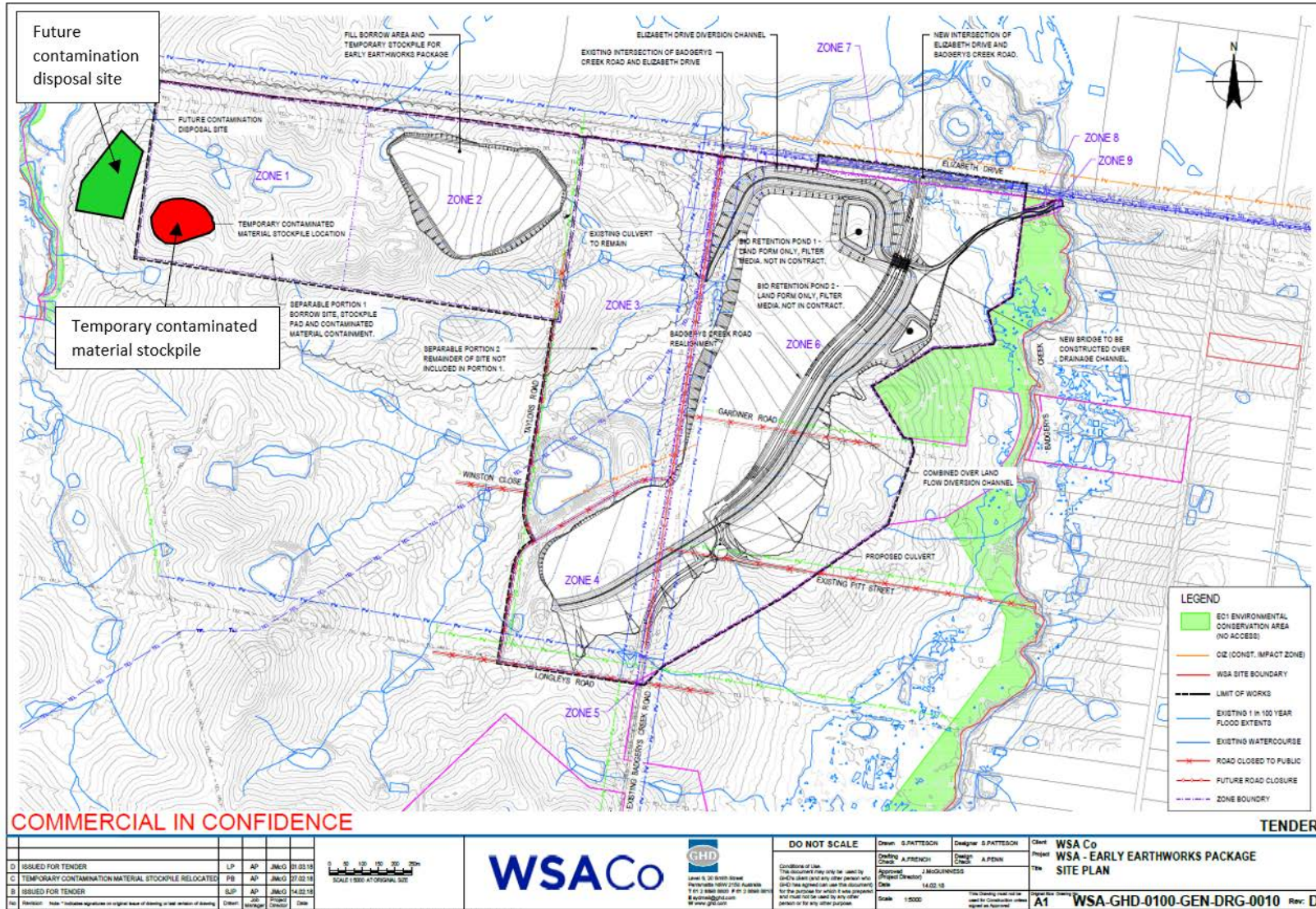
5.8 Contamination

Several locations have been identified as consisting of potentially contaminated material. A permanent Asbestos Contaminated Material (ACM) stockpile will be established in Separable Portion 1. If ACM is encountered it will be identified onsite by an Occupational Hygienist and transported to the permanent ACM

stockpile. The location of the temporary contaminated material stockpile and the future contamination disposal site, in relation to the works covered by this CEMP (refer to Table 3) is provided overleaf in Figure 6.

The Remediation Action Plan (RAP) provides an assessment to accurately link known areas of contaminants to each earthworks stage. Relevant plans from the RAP showing the location of potential asbestos impact areas have been extracted and provided in this CEMP as Appendix G.

Figure 6 Temporary and permanent contamination disposal locations



5.9 Risk assessment

A preliminary Risk Assessment has been undertaken as part of the CEMP. The parts of the overall risk assessment relevant to waste and resources management have been extracted and summarised in Table 20

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

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

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

The identification of risks included a review of the works, and review of the environmental risks identified by the EIS. The mitigations in the risk assessment are in line with the EIS mitigation measures in Chapter 7, Table 14.

The following risk assessment process has been implemented, together with a review of proposed activities and known risks based on past project experience.

5.10 Risk Assessment Process

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

Table 16 is used to determine the likelihood that the aspect will have an impact on the environment.

Table 17 is used to determine the potential consequence rating of the risk identified.

From these two tables, a risk rating can then be assigned using Table 18 to determine the potential severity of the risk and the appropriate management response as per Table 19.

Table 16 Likelihood descriptor

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

Table 17 Consequence descriptor

	Consequence (impact)	Description
1	Insignificant/negligible	<ul style="list-style-type: none"> Short-term disturbance with minor environmental release or damage that is non-reportable. No impact outside site boundary. No community complaints or media reports.
2	Minor/low	<ul style="list-style-type: none"> Minor violation of regulation or guideline with minimal damage to the environment and small clean-up. Immediately contained on site. Local government action, minor community complaints. Potential or actual breach of legislation.
3	Moderate	<ul style="list-style-type: none"> Violation of regulation or guideline with moderate temporary damage to the environment and significant clean-up costs. Release of pollution off site. Detrimental media reports, community concerns and complaints.
4	Major	<ul style="list-style-type: none"> Major environmental damage with potentially permanent. Release of pollution off site. Significant loss of environmental resources. Detrimental media reports in the national or state media, organised community concern. High likelihood of fine or court action.
5	Catastrophic	<ul style="list-style-type: none"> Long-term environmental harm. Permanent irreparable damage to the environment. Sustained detrimental state and national media reports. Sustained community outrage. Penalty Infringement Notice/court action.

Table 18 Risk severity ranking

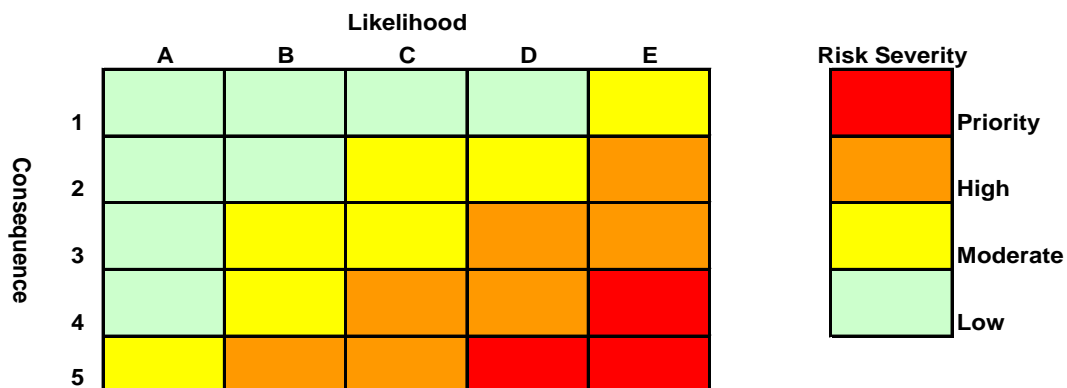


Table 19 Risk severity and management response

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

Table 20 Risk and management levels

Ref	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level ² pre-mitigation	Mitigation measure ¹	Risk level ² post-mitigation	Management tools
01	Site establishment	Delivery compound establishment materials	Waste generation	Excess waste to landfill	C2 (Mod)	WR01 WR04	B2 (Low)	Waste and Resources CEMP Soil and Water CEMP Biodiversity CEMP EWMS Remediation Action Plan (RAP) Induction Environmental Control Map (ECM) Complaints Procedure
02		Delivery of bulk quarry materials and site buildings	Energy use	Excess energy use from non-local suppliers	C2 (Mod)	WR02 WR03 WR04 WR26	B2 (Low)	Waste and Resources CEMP Soil and Water CEMP Biodiversity CEMP EWMS RAP Induction ECM Complaints Procedure
03		Vegetation clearing	Waste generation	Excess waste to landfill	C2 (Mod)	WR01 WR03 WR06	B3 (Low)	Waste and Resources CEMP Soil and Water CEMP Biodiversity CEMP EWMS RAP Induction

Ref	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level ² pre-mitigation	Mitigation measure ¹	Risk level ² post-mitigation	Management tools
								ECM Complaints Procedure
04	Site establishment (continued)	Vegetation clearing	Weed management	Spread of weeds	C2 (Mod)	WR07	B3 (Low)	Waste and Resources CEMP Soil and Water CEMP Biodiversity CEMP EWMS Remediation Action Plan (RAP) Induction ECM Complaints Procedure
05		Compound waste sorting	Waste generation	Recyclable materials going to landfill	C2 (Mod)	WR01 WR05 WR14 WR15 WR17 WR25	B2 (Low)	Waste and Resources CEMP EWMS Soil and Water CEMP RAP Induction ECM Complaints Procedure
06	Earthworks	Contamination works	Contamination	Improper disposal of contaminated waste	C4 (High)	WR01 WR05 WR11 WR13 WR21 WR22	C2 (Mod)	Waste and Resources CEMP Soil and Water CEMP Biodiversity CEMP EWMS RAP Induction ECM

Ref	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level ² pre-mitigation	Mitigation measure ¹	Risk level ² post-mitigation	Management tools
								Waste tracking register Material Movement Plan Complaints procedure
07	Earthworks (continued)	Materials storage	Contamination	Improper storage of hazardous materials	C2 (Mod)	WR01 WR05 WR14 WR15 WR17 WRE20 WRE21 WR22	B2 (Low)	Waste and Resources CEMP Soil and Water CEMP Biodiversity CEMP EWMS RAP Induction ECM Waste tracking register Material Movement Plan Complaints procedure
08		Exporting contaminated waste	Waste generation	Improper disposal of contaminated waste by subcontractor	C4 (High)	WR01 WR05 WR11 WR23	C2 (Mod)	Waste and Resources CEMP Soil and Water CEMP EWMS RAP Induction ECM Waste tracking register Material Movement Plan Complaints procedure

Ref	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level ² pre-mitigation	Mitigation measure ¹	Risk level ² post-mitigation	Management tools
09		Plant and machinery use	Energy use	Inefficient use of plant and equipment	B2 (Low)	WR10 WR26	B2 (Low)	Waste and Resources CEMP EWMS Induction Complaints Procedure
10	Earthworks (continued)	Sediment control maintenance	Waste generation	Missing opportunities for material reuse	C2 (Mod)	WR01 WR05 WR09	B2 (Low)	Waste and Resources CEMP Soil and Water CEMP Biodiversity CEMP EWMS RAP Induction ECM Complaints Procedure
11	Infrastructure works	Road construction	Waste generation	Recyclable materials going to landfill	C2 (Mod)	WR01 WR03 WR05 WR08 WR15 WR25	B2 (Low)	Waste and Resources CEMP EWMS Soil and Water CEMP RAP Induction ECM Waste tracking register Material Movement Plan Complaints procedure
12	Infrastructure works (continued)	Culvert and bridge construction	Waste generation	Recyclable materials going to landfill	C2 (Mod)	WR01 WR03 WR05	B2 (Low)	Waste and Resources CEMP Soil and Water CEMP Biodiversity CEMP

Ref	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level ² pre-mitigation	Mitigation measure ¹	Risk level ² post-mitigation	Management tools
						WR08 WR25		EWMS RAP Induction ECM Waste tracking register Material Movement Plan Complaints procedure
13	All works	General education	Site requirements	Failure to follow site protocols	C2 (Mod)	WR01 WR02 WR04 WR10	B2 (Low)	Waste and Resources CEMP Soil and Water CEMP Biodiversity CEMP EWMS RAP Induction ECM Complaints Procedure
14	All works (continued)	General education	Incidents (spills, site contamination)	Failure to report issues and incidents	C2 (Mod)	WR01 WR02 WR04 WR10 WR12	B2 (Low)	Waste and Resources CEMP Soil and Water CEMP EWMS RAP Induction ECM Complaints Procedure

Ref	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level ² pre-mitigation	Mitigation measure ¹	Risk level ² post-mitigation	Management tools
15	Environmental records management	All works	Waste tracking	Failure to track waste leading to improper waste management and record keeping	C3 (High)	WR03 WR05 WR11 WR13 WR18 WRE19	C2 (Mod)	Waste and Resources CEMP Soil and Water CEMP EWMS RAP Induction ECM Waste tracking register Material Movement Plan Complaints procedure
16	General	General	Illegal dumping	Materials (including potential contaminated materials) being illegally dumped onto site.	C3 (High)	WR10 WR24	C2 (Mod)	Waste and Resources CEMP Soil and Water CEMP Biodiversity CEMP EWMS RAP Induction ECM Waste tracking register Material Movement Plan Complaints procedure Visual and Landscape CEMP
17	Building construction	Concrete slab/footing	Concrete washout	Soil and water contamination	C3 (High)	WR11 WR17	C1 (low)	Waste and Resources CEMP Soil and Water CEMP ECM

Ref	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level ² pre-mitigation	Mitigation measure ¹	Risk level ² post-mitigation	Management tools
				Inappropriate disposal of concrete				
18	Building Construction	Installation of structure	Waste generation	Recyclable materials going to landfill	C3 (high)	WR02 WR04 WR14 WR15	C1 (low)	Waste and Resources CEMP Soil and Water CEMP ECM RAP Induction ECM Waste tracking register Material Movement Plan
19	Building construction	Installation of structure	Material selection	Depletion of non-renewable resources	C3 (high)	WR02 WR04 WR14 WR15	C1 (low)	Waste and Resources CEMP Soil and Water CEMP ECM
20	Material importation	Stockpiling select material for future use as structural material	Contamination	Material contaminated and material not suitable		WR16		Waste and Resources CEMP Soil and Water CEMP Air Quality CEMP ECM Material tracking

1 - Refer to Table 21 for mitigation measures and controls

2 - Derived from risk assessment process detailed in Section 5.9

6 Environmental control measures

Mitigation and management measures that will be implemented during construction are detailed below in Table 21 and are consistent with those provided in Tables 28-16 and 28-17 in Chapter 28 of the EIS, as per Condition 13 (Section 3.10.2) of the Airport Plan. The relevant control measures will be included in the site-specific Environmental Work Method Statement (EWMS) and Environmental Control Map (ECM) – refer to Sections 4.3.1 and 4.3.2 of the SEMF for further detail.

Table 21 Waste and resources management and mitigation measures

ID	Measure/Requirement	When to Implement	How to implement	Responsibility	Reference
GENERAL					
WR_01	The NSW Government's Waste Management Hierarchy of "avoid-reduce-reuse- recycle-dispose" will be followed as the framework of waste management throughout the Project.	Pre-construction Construction	Implement waste sorting system early on in the Project and monitor effectiveness/ensure waste avoidance methodologies used by construction team	WA Co Construction Manager / WSA Co Environmental Manager	EIS Section 28.5.3.11
WR_02	A procurement strategy will be implemented that will demonstrate value for money and that it has considered opportunities to procure goods and services: <ul style="list-style-type: none"> From local suppliers. That are energy efficient or have low embodied energy. That minimise the generation of waste. That make use of recycled materials. 	Construction	The procurement strategy developed for the Project aims to buy locally to reduce delivery distances, reduce overall waste such as packaging and use recycled materials where possible.	WSA Co Construction Manager	Good practice
WR_03	Waste management measures from this Waste and Resources CEMP will be included in relevant EWMS to be developed prior to the commencement of specific activities. This would include: <ul style="list-style-type: none"> Reuse of excavated road materials would be maximised as far as possible where they are 	Pre-construction / Construction	Address management measures into EWMS for construction activities including bulk excavation, material export and stockpiling activities. Continual site staff education including toolbox talks and inductions.	WSA Co Environmental Manager	Good practice

ID	Measure/Requirement	When to Implement	How to implement	Responsibility	Reference
	<p>cost, quality and performance competitive to reduce use of materials (with embedded energy).</p> <ul style="list-style-type: none"> Assess opportunities to use local materials to reduce transport emissions 				
WR_04	<p>The following measures will be implemented to avoid and reduce waste:</p> <ul style="list-style-type: none"> 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. 	Design/ Construction	<p>Continual site staff education including toolbox talks and inductions. Installation and operation of energy efficient facilities where applicable Recycled site water will be used as the primary source of dust control and construction activities such as compaction. Materials are bought in bulk to limit packaging waste. Review stages of design and identify opportunities to minimise resource consumption</p>	WSA Co Environmental Manager / WSA Co Construction manager / WSA Co Design Manager	EIS Table 28-17
WR_05	<p>All waste will be classified and disposed of in accordance with the Waste Classification Guidelines Parts 1 and 2 (EPA, 2014) Excavated material that is not suitable for on-site reuse or recycling will be transported to a site that may legally accept that material for reuse or disposal. Soils leaving the site will be waste classified so that correct resource recovery and or off-site disposal occur.</p>	Pre- construction / Construction	All waste will be classified and receivers EPL documented to ensure waste streams are appropriately managed and tracked.	WSA Co Environmental Manager	Good practice
WR_06	<p>Cleared vegetation will be reused or recycled to the greatest extent practicable for example:</p> <ul style="list-style-type: none"> Mulching of vegetation for use in landscaping; 	Construction	<p>Mulch will be utilised onsite for environmental controls and ground stabilisation. Vegetation spreading will be inline with the Biodiversity CEMP and best practice.</p>	WSA Co Environmental Manager	Good practice Biodiversity CEMP

ID	Measure/Requirement	When to Implement	How to implement	Responsibility	Reference
	<ul style="list-style-type: none"> Spreading of vegetation for fauna habitat in suitable areas where agreements are made for this (e.g. mulch, small timber, hollow logs); Donation of other timber to community or environmental groups. 		Larger diameter timbers will be offered to community and environmental groups in the area.		
WR_07	Weeds will be managed, handled and disposed of in accordance to the Weed Management Plan (refer to the Biodiversity CEMP). If disposal is appropriate, the weed material will be transferred to a licensed waste facility.	Construction	Implementation of Weed Management Plan (included in the WSA Co Biodiversity CEMP).	WSA Co Environment Manager / WSA Co Construction Manager	EIS Table 28-4 (Biodiversity CEMP) Good practice Biodiversity CEMP
WR_08	Concrete, asphalt, bricks/masonry and steel products are to be reused on site where possible. Alternatively they will be sent off-site for recycling.	Construction	All site won materials, and site generated materials will be reused where practical. All materials leaving site are recycled where possible. Waste reports are received monthly from the waste exporter to track recycled content.	WSA Co Environment Manager / WSA Co Construction Manager	Good practice
WR_09	Sediment recovered from erosion and sediment control devices will be reused on site as general fill material or it will be incorporated within landscaping materials where possible.	Construction	Sediment will be mixed in with general fill and reused. Sediment will not be taken to landfill.	WSA Co Environment Manager / WSA Co Construction Manager	Good Practice
WR_10	All staff and subcontractors will undergo a site induction and ongoing toolbox talks that will detail waste minimisation and reuse management measures, including the requirements of the waste management hierarchy. Waste minimisation training will include energy consumption awareness that promotes energy conservation	Construction	All staff, workers and visitors are required to undertake the WSA Co Project induction before attending site. The induction will cover all areas of the Project CEMPs, including waste avoidance and energy minimisation.	WSA Co Environment Manager / WSA Co Construction Manager	Good Practice

ID	Measure/Requirement	When to Implement	How to implement	Responsibility	Reference
	methods including minimising energy use by switching off equipment when not in use.				
WR_11	Contaminated land management must be undertaken in accordance with the WSA Co Soil and Water CEMP and the Remediation Action Plan.	Pre-construction Construction	Soil and Water CEMP is to be implemented as required. The RAP will be implemented under the guidance and supervision of the WSA Co Environment Manager	WSA Co Environment Manager / WSA Co Construction Manager	Good Practice
WR_12	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. Any waste generated as a result of a spill and associated clean-up which requires off-site disposal, will be done so in accordance with the NSW EPA Waste Classification Guidelines (2014).	Pre-construction Construction	Emergency spill response will be undertaken as per the Soil and Water CEMP, and reported upon occurrence.	WSA Co Environment Manager / WSA Co Construction Manager	Good Practice
WASTE / REUSE MATERIALS HANDLING					
WR_13	Hazardous wastes or asbestos identified during construction will be managed consistently with the Protection of the Environment Operations (Waste) Regulation 2014 (NSW).	Construction	To be implemented as per WR13 under supervision of the construction and environmental management teams.	WSA Co Environment Manager / WSA Co Construction Manager	EIS Table 28-17
WR_14	Measures to reuse and recycle waste will be implemented including: <ul style="list-style-type: none"> • Reuse of green waste and topsoil for landscaping; • Reuse of waste streams including metals, oils and solvents; 	Construction	Waste streams will be recycled and reported on monthly showing percentage of recycled materials, and percentage taken to landfill.	WSA Co Environment Manager / WSA Co Construction Manager	EIS Table 28-17

ID	Measure/Requirement	When to Implement	How to implement	Responsibility	Reference
	<ul style="list-style-type: none"> Recycling of waste streams including brickwork, metals, plasterboard, plastics and timber; Contract terms with suppliers to specify recyclable content and returnable packaging; and Co-operation in stewardship programmes for compatible waste streams including pallets. 				
WR_15	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.	Construction	Metals, bricks, concrete, plasterboard, plastics and timber will be recycled and reported on as per WR14. Oils and solvents will be managed as per hazardous waste protocols.	WSA Co Environment Manager / WSA Co Construction Manager	EIS Table 28-17
WR_16	Imported material to be validated prior to delivery to site. Appropriate material classification demonstrating the material is suitable to be supplied. Process for tracking the material from supplier to site to be implemented.	Construction	Material tracking process to be followed. Documentation required (e.g. EPA exemption/order to be provided for material that is not ENM/VENM.)	WSA Co Environment Manager / WSA Co Construction Manager	Good practice AEPR
WASTE DISPOSAL					
WR_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.	Construction	To be undertaken as per WR17 by setting up a waste sorting area early on in the Project.	WSA Co Environment Manager / WSA Co Construction Manager	EIS Table 28-17

ID	Measure/Requirement	When to Implement	How to implement	Responsibility	Reference
WR_18	A Waste Management Register of all waste collected for disposal and/or recycling will be maintained on a monthly basis until final completion.	Construction	To be undertaken as per WR17.	WSA Co Environmental Manager	Good Practice
WR_19	Waste will be managed and disposed of in accordance with the PoEO Act and the NSW Waste Classification Guidelines (EPA, 2014). Wastes that are unable to be reused or recycled will be disposed of offsite at a licensed waste management facility, following classification.	Construction	To be undertaken as per WR18.	WSA Co Environment Manager / WSA Co Construction Manager	Good Practice
WR_20	Oils and other hazardous liquids will be labelled and stored in a sealed container within a bunded area. Material collected from within bunded areas will be disposed off-site at a waste facility approved by the EPA.	Construction	A bunded hazardous material storage container will be used on the Project and inspected weekly.	WSA Co Environment Manager / WSA Co Construction Manager	Good Practice
WR_21	The relevant licenses of waste facilities utilised for the disposal of Project waste will be obtained (on a regular basis if necessary) to ensure they are legally able to accept that waste.	Construction	All waste facilities will be vetted to ensure the waste they are receiving from the Project is permissible.	WSA Co Environment Manager / WSA Co Construction Manager	Good Practice
WR_22	The disposal of chemical, fuel and lubricant containers, solid and liquid wastes must be in accordance with the requirements of the local Council or the EPA.	Construction	Hazardous materials and containers will be stored onsite until disposed of by a licensed contractor.	WSA Co Environment Manager / WSA Co Construction Manager	Good Practice
WR_23	All trucks transporting wastes off site will be appropriately licensed to carry the materials to appropriately licensed waste facilities.	Construction	To be undertaken as per WR22.	WSA Co Environment Manager / WSA Co	Good Practice

ID	Measure/Requirement	When to Implement	How to implement	Responsibility	Reference
				Construction Manager	
WR_24	An illegal dumping prevention strategy will be implemented – Refer to Appendix F. The strategy will outline measures to be undertaken to minimise the risk of illegal dumping on the Airport Site.	Pre-construction	An illegal dumping prevention strategy has been prepared, see Appendix F of this plan.	WSA Co Environment Manager / WSA Co Construction Manager	EIS Table 28-17
WR_25	In the event that WSA Co are unable to achieve the targets set out in Section 3.2 with regards to reuse and recycling and therefore off-site waste disposal is required, consultation is to be undertaken with the relevant waste management providers to ensure they are capable of handling any significant waste streams and also to confirm that our waste management practices do not place unnecessary burden on local and regional waste services.	Construction	Monthly reporting as per requirement WR_14 is to be monitored. In the event that recycling targets are not being met, and additional landfill disposal is required, consult with the relevant waste management facilities.	WSA Co Environment Manager / Contractor	Good Practice
ENERGY CONSERVATION					
WR_26	The Sustainability Plan will help to ensure that construction resources are used efficiently, and waste is minimised.	Construction	The Sustainability Plan will be prepared to address WR25.	WSA Co Environment Manager / WSA Co Construction Manager	EIS Table 28-17
WR_27	Energy efficient work practices will be implemented, including the consideration of: Energy efficient design of site buildings; <ul style="list-style-type: none"> Design of construction work sites to minimise unnecessary vehicle movement; Assess energy (fuel/electricity) efficiency when selecting equipment 	Construction	The WSA Co Project induction, prestarts and toolboxes will discuss limiting idling plant, carpooling to and from the compound and other energy saving practices. All plant and equipment will be serviced as required, to be informed by the daily pre-start checks Local providers / sources of material will be considered in the procurement process, with likely cost savings due to reduced delivery / transportation.	WSA Co Environment Manager / WSA Co Construction Manager	Good Practice

ID	Measure/Requirement	When to Implement	How to implement	Responsibility	Reference
	<ul style="list-style-type: none"> Regular servicing of site plant and equipment; Training of personnel in energy efficient best practices; and Use of locally sourced material where available and of suitable quality. 				

7 Environmental roles and responsibilities

The key environmental management roles and responsibilities for the construction phase of the work are detailed in Section 4.5 of the SEMF. WSA Co will ensure sufficient resources are allocated on an ongoing basis to ensure effective implementation by both WSA Co and the responsible contractors.

Specific responsibilities for the implementation of this Waste and Resources CEMP are detailed below.

7.1 External roles and responsibilities

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

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

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

- The Approver for the Construction Plan, CEMPs, the Community and Stakeholder Engagement Plan and the Sustainability Plan;
- Approval for variation of an Approved Plan; and
- Review 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 remediation 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.

7.2 WSA Co roles and responsibilities

WSA Co Executive General Manager

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

- Provide resources to ensure compliance with this CEMP is achieved;
- Mandate and ensure that environmental protection remains an integral element of all Project activities; and
- Authorise resourcing with regards to the management of waste and resources.

WSA Co Environment Manager

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

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

WSA Co Site Environment Officer

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

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

Western Sydney Airport Delivery Partner roles and responsibilities

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

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

- Ensure that this Waste and Resources CEMP is effectively implemented by the contractor as required;
- Ensure that the required waste and resources monitoring and reporting, including environmental auditing, is undertaken and reported to WSA Co as required;
- Ensure that all necessary planning approvals, licenses and permits are obtained, as required by this Waste and Resources CEMP, prior to commencement of applicable works;

- Liaise with the WSA Co Environment Manager on waste and resource related issues, including the written notification of non-conformances;
- Participate in regular workplace inspections to ensure compliance;
- Provide direction and guidance on implementation of this Waste and Resources CEMP;
- Liaise between contractors and relevant government authorities as required and provide notification / information where environmental incidents / events have occurred; and
- Ensure WSA Co Executive and EGM Corporate Affairs are notified of any environmental incidents / events in accordance with the incident management escalation processes identified in the relevant contracts.

7.3 WSA Co contractor roles and responsibilities

Contractor responsibilities

The responsibilities of the relevant contractor with regards to the management of waste and resources are:

- Identify resources required for implementation of the Waste and Resources CEMP;
- Report to the WSA Co Environment Manager as required to inform community and stakeholder notifications and to provide information where environmental incidents / events have occurred;
- Report to WSA Co Environment Manager (or delegate) on environmental performance monthly or at other times as necessary;
- Ensure that all personnel receive appropriate induction training, including details of the environmental obligations associated with the management of waste and resources;
- Responsible for implementing site specific environmental procedures and work method statements applicable to the proposed works in accordance with Section 6 of this CEMP and also in accordance with Section 4.4 of the SEMF;
- Ensure suppliers and subcontractors comply with requirements regarding the management of waste and resources;
- Undertake weekly inspections, ensuring all works comply with relevant regulatory and Project requirements, including waste and resource management objectives;
- Provide other information as required from time to time, in order to demonstrate to WSA Co that environmental management requirements are being met by the contractor;
- Program toolbox talks and daily pre-start meetings to include any relevant waste and resource management requirements;
- Report any activity that has resulted, or has the potential to result, in an environmental incident immediately to WSA Co Environment Manager;
- Stop activities where there is an actual or immediate risk of harm to the environment and advise WSA Co Environment Manager;
- Ensure steps are taken to rectify and prevent future incidents from occurring;
- Ensure that waste and resource management controls are properly maintained and effective; and
- Carefully select suppliers and subcontractors based upon their ability to meet stated requirements.

8 Environmental inspection, monitoring and auditing

Monitoring, inspection and auditing will be undertaken to measure effectiveness and facilitate continuous improvement of waste and resource management. General environmental monitoring, inspection and auditing requirements are summarised in Table 16 of the SEMF.

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

8.1 Environmental inspections

WSA Co environmental inspections

Environmental site inspections will be undertaken by the WSA Co Environment Manager (or delegate) on a monthly basis to evaluate the effectiveness of environmental controls implemented by the contractor. Inspection results will be recorded, and the inspection log made available to the Infrastructure Department upon request.

The monthly site inspection is to include a visual check of general construction activities and any management measures associated with waste and resources, including but not limited to the following:

- Observation of waste segregation and separation to ensure the waste management hierarchy is being effectively implemented;
- Ensuring that opportunities for material / waste reuse on site are being investigated and implemented where practical;
- Observation of general housekeeping standards, including the presence (if any) of waste on the ground;
- Ensuring that waste receptacles are being managed appropriately, and that they are being emptied regularly as required to ensure no overspill of waste; and
- Observation of machinery and plant usage, ensuring that where appropriate engines are switched off to avoid unnecessary resource consumption.

The findings of the WSA Co site environmental inspection will be recorded on a WSA Co Site Environmental Inspection Checklist with an accompanying photographic style inspection report. Refer to the SEMF for further details with regards to completing the Site Environmental Inspection Checklist.

Contractor environmental inspections

Weekly site inspections will be undertaken to monitor compliance with this plan. Inspection results will be recorded, and the inspection log made available to the Infrastructure Department upon request. Any non-conformance or improvement opportunity associated with the management of waste and resources will be reported in the monthly report and discussed at the Environmental Coordination meeting.

More frequent site inspections by the person accountable for waste and resource management will be conducted onsite when activities with a high potential to generate a high volume or sensitive waste type, or utilise a high volume / quantity of resources will be carried out. The Contractor's procedures will need to identify the responsible person in the EWMS or similar (refer to Section 4.4 of the SEMF).

Pre-start inspection

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

8.2 Waste and resource monitoring

General environmental monitoring requirements are set out in the AEPR (and also within Table 28-16 of the EIS) which include the following:

- Monitoring must take place under the direction of an appropriately qualified person; and
- The results of the monitoring must be kept in a written record.

Specific waste and resource monitoring requirements, including timing and responsibilities, are included in Table 22 below.

Table 22 Waste and resource monitoring requirements

Reference	Requirement	Timing	Responsibility
WR_M_01	All waste material generated on the Airport Site and resources used are to be tracked and classified to meet the requirements of the sustainability targets outlined in the Sustainability Plan when approved. Waste tracking is to include volumes / quantities disposed, reused and recycled. An example waste tracking register is included in Appendix E.	During construction	WSA Co Environment Manager
Table 28-16 of the EIS	Monitoring requirements include that: <ul style="list-style-type: none"> ● Monitoring must take place under the direction of an appropriately qualified person; ● The results of the monitoring must be kept in a written record; ● Waste material generated on the airport site and resources used are tracked and classified to meet the requirements of the sustainability targets outlined in the Sustainability Plan; and ● Regular site inspections are carried out to monitor compliance with the Waste and Resources CEMP, record inspection results, and make an inspection log available to the Department of Infrastructure and Regional Development when asked. 	Ongoing	WSA Co Environment Manager

8.3 Environmental auditing

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

8.4 Environmental reporting

General environmental reporting requirements are detailed in Section 8.3 the SEMF. In addition, a summary of reporting requirements required under this Waste and Resources CEMP (including environmental reporting requirements under the Airport Plan specific to this Waste and Resources CEMP) is provided below in Table 23.

Table 23 Waste and resources reporting

Action	Scope	Timing / Frequency	Responsibility
Annual reporting	<p>Unless otherwise agreed in writing by an Approver, an annual report will be prepared in relation to compliance with this Waste and Resources CEMP (Condition 39).</p> <p>In accordance with Condition 39 (2) WSA Co will publish each of the annual reports on its website within three months of the end of the period in respect of which the report was prepared, with evidence providing proof of the date of publication to the Infrastructure Department with a copy to the Environment Department. The report must remain on the website for a period of at least 12 months.</p>	Annually	WSA Co Environment Manager
Monthly Compliance reporting	Undertaking monitoring as required by this Waste and Resources CEMP. Contractor is to provide WSA Co with a monthly summary of all waste and resource monitoring undertaken and advise of compliance with criteria	Monthly	Contractor Environment Manager
Complaints reporting	Recording of complaints and stakeholder interactions	As required	WSA Co Community and Stakeholder Engagement Manager and WSA CO Environment Manager

8.5 Environmental compliance tracking

In accordance with Condition 38 of the Airport Plan, a Compliance Tracking Program has been developed for the Project and is included in Appendix G of the SEMF. The Compliance Tracking Program will assist WSA Co to track compliance status with the conditions of the Airport Plan (and any other approval requirements) and will allow WSA Co to demonstrate measures taken to implement the Approved Plan. The Compliance Tracking Program will be used as a tool to inform the annual report (as detailed above in Table 20) and will be made available to the Infrastructure Department upon request as required. Refer to Section 8.3 of the SEMF for further details regarding the maintenance and implementation of the Compliance Tracking Program.

9 Competence, training and awareness

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

All competence, training and awareness requirements will be implemented as detailed in Section 5 of the SEMF. A summary of these requirements is provided in the sections below.

9.1 Environmental Project induction

All Project personnel working on the Stage 1 development (including sub-contractors) are required to attend a compulsory Project induction that includes an environmental component prior to commencement of works on site, which will include but not limited to:

- Waste and resources management;
- Avoiding idling plant;
- Carpooling to and from the compound; and
- Energy saving practices.

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

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

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

9.2 Contractor specific site inductions

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

9.3 Toolbox talks, training and awareness

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

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

Environmental issues associated with the management of waste and resources to be considered for toolbox talks may include (but are not limited to):

- The implementation of the Pollution Incident Response Procedure (refer to Section 6 of the SEMF) in relation to the management of waste and resources, particularly the management of waste following the clean up of potentially contaminated material;
- The requirement to segregate waste;
- Opportunities for recycling of particular waste streams and also the opportunity to use recycled materials where opportunity exists; and

- Opportunities to minimise waste generation and resource usage (including water and electricity) where opportunity exists.

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

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

9.4 Daily pre-start meetings

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

Specifically, with regards to this Waste and Resources CEMP, the daily pre-start forum can be used as an opportunity to discuss the following:

- Review of the days' work and opportunities for waste recycling;
- Frequent reminder to switch plant and machinery off when not being used to reduce resource usage;
- Reiterate the need to sort and segregate waste and recyclables (this includes the segregation of soils between clean and contaminated) to reduce landfilling requirements; and
- Discussion regarding any recent site observations / learnings with regards to waste and resource management.

10 Communications and complaints management

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

10.1 Complaints management

A Complaints and Enquiries Procedure, consistent with AS 4269: *Complaints Handling*, has been developed for the work, in accordance with the requirements of Condition No. 15 (Airport Plan, Section 3.10.2). Refer to Section 7.3 of the SEMF for further details regards the Complaints and Enquiries Procedure.

All community inquiries and complaints related to the construction activities will be referred to the 24-hour community information line (1800 972 972). A postal address ((PO BOX 397 Liverpool NSW 1871) and email address (info@wsaco.com.au) have 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 (CES) team will take the lead in responding to complainants. Attempts will be made to resolve all complaints in accordance with the Community and Stakeholder Engagement Plan. Timeframes for initial responses to complaints are outlined below.

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

The aim is to resolve the complaint at the first point of contact, by providing a solution or negotiating an agreed course of action. The complainant will be provided updates on the progress of their complaint and a written response will be provided within 10 working days if the complaint cannot be resolved by the initial or follow up verbal response.

The community contacts database will be used as a 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.

10.2 Community and stakeholder communication

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

11 Environmental incidents, non-conformance and improvement opportunities

The management and reporting requirements of environmental non-conformances and improvement opportunities will be in accordance with Section 8 of the SEMF. The management and reporting of environmental incidents shall be undertaken by the appropriate person as detailed in Section 6 of the SEMF.

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

12 Review and improvement

12.1 Continuous improvement

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

The continuous improvement process is designed to:

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

12.2 Change management

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

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

12.3 Variation of approved plans

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

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

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

12.4 Review of approved plans

WSA Co will review each approved plan at least every five years (from the date of approval) as required by the Airport Plan. A review will also be completed annually to ensure that it continues to meet the approval

criteria. Details of the review will be included in the annual report (refer to Section 8.3 of the SEMF). If the review identifies areas where the plan does not continue to meet the approval criteria for that plan, a variation to the approved plan will be prepared and submitted for approval.

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

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

13 References

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

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

NSW Environment Protection Authority, 2014. *Waste Classification Guidelines.*

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

Appendix A

WSA Co Waste and Resources CEMP consultation

A1 Stakeholder consultation – NSW Environment Protection Authority

Table A1 NSW Environment Protection Authority CEMP consultation summary

Input	Response / where addressed
Consultation prior to Rev 0 approval	
<p>A response to an invite for comment on the Waste and Resources CEMP was received from NSW Environment Protection Authority (NSW EPA) on 26 July 2018 and 13 September 2018. The relevant comments were addressed and considered in the preparation of the CEMP. Details with regards to how the NSW EPA comments were addressed are provided in Table A1 below.</p>	
<p>A letter acknowledging receipt of the review comments from NSW EPA and how the comments were addressed was prepared and issued from WSA Co to NSW EPA in September 2018.</p>	
<p><i>The EPA notes the consultation requirements relating to the preparation of a CEMP, however does not approve or endorse these documents. The EPA's role is to set environmental objectives for environmental management, rather than being directly involved in the development of strategies and management plans to achieve those objectives.</i></p>	<p>Noted</p>
<p><i>The EPA provided advice in 2016 regarding environmental objectives during the exhibition of the Environmental Impact Statement.</i></p> <p><i>As a general recommendation, the CEMP should outline the measures that will be implemented to manage and mitigate all impacts assessed during the Environmental Impact Statement. All proposed mitigation and management measures in the CEMP should implement best practice to a level that is feasible and reasonable and clearly demonstrate how the proponent will meet the designated environmental objectives.</i></p>	<p>All CEMP documentation includes measures that will be implemented to manage and mitigate identified impacts assessed during the Environmental Impact Statement.</p> <p>Risk assessment approach has been adopted for the implementation of the CEMP documentation, with linked reference to applicable mitigation measures and controls as required under the Airport Plan (and EIS) in addition to known implementation of a 'best-practice' approach.</p>
Illegal Dumping - 13 September 2018	
<p><i>The EPA provided comment on the WSA Co. Illegal Dumping Prevention Strategy, stating that the strategy should consider:</i></p>	
<ul style="list-style-type: none"> • <i>An assessment of the likely risks of illegal dumping associated with WSA Co. land;</i> • <i>A list of site specific risks and locations;</i> • <i>A schedule of feasible mitigation measures that will be implemented to address these risks; and</i> • <i>Identification of what each of these mitigation measures is likely to achieve.</i> 	<p>Noted. WSA Co. will review the Illegal Dumping Prevention Strategy periodically and will adapt the management and mitigation measures implemented as required. WSA Co. will arrange a meeting with EPA's Waste Compliance Section to discuss options.</p>
<p><i>The EPA noted that disposal of waste is a key issue and that the EPA's Waste Compliance Section would be please to meet with WSA Co to discuss waste mitigation measures.</i></p>	
Consultation prior to Rev 1 approval	
<p>A request to provide comments on the CEMPs (Revision 0) was submitted to the NSW Department of Premier and Cabinet (DPC) on 30th October 2018. The request included an outline of the Visitor Centre and Site Accommodation phase and Material Importation phase. A response to the invitation for comment on the Waste and Resources CEMP was received from NSW EPA and is summarised below. The relevant comments were addressed and considered in the preparation of this revision CEMP.</p>	
<p>A letter acknowledging receipt of the review comments from NSW EPA and how the comments were addressed was prepared and issued from WSA Co to NSW EPA in December 2018.</p>	

Input	Response / where addressed
<p>The NSW Government provided a detailed submission on the Western Sydney Airport (WSA) EIS that included advice on the environmental aspects of the proposal. The EPA also provided a response to a request from WSA for comments on monitoring locations in the CEMPs and on the illegal dumping strategy, dated 13 September 2018. This information should be considered for the VSA.</p>	<p>Noted</p>

A2 Stakeholder consultation – NSW Department of Finance, Services and Innovation Waste Services

Table A2 NSW DFSI Waste Services CEMP consultation summary

Input	Response / where addressed
<p>Consultation prior to Rev 0 approval</p>	
<p>A response to an invite for comment on the Waste and Resources CEMP was received from NSW Department of Finance, Services and Innovation – Waste Assets Management Corporation (WAMC) on 26 July 2018. The relevant comments were addressed and considered in the preparation of the CEMP. Details with regards to how the NSW DFSI Waste Services comments were addressed are provided below. A letter acknowledging receipt of the review comments from NSW DFSI Waste Services and how the comments were addressed was prepared and issued from WSA Co to NSW DFSI Waste Services in September 2018.</p>	
<p><i>Note that the DFSI Waste Assets Management Corporation (WAMC) has no regulatory function.</i></p>	<p>Noted.</p>
<p><i>WAMC considers that the draft Waste and Resources CEMP identified the relevant legislation and guidelines and has appropriate targets.</i></p>	<p>Noted</p>
<p><i>Recommendation for the Waste and Resources CEMP to include a measurement tool for increasing employee and sub-contractor awareness of obligations for waste management and recycling.</i></p>	<p>Whilst WSA Co have not included a specific target / measurement tool regarding the increased awareness of employee and sub-contractor waste management obligations, we have included specific waste re-use, recycling and other targets (included in Section 3 of the CEMP) which will be used to assess WSA Co waste management performance. Any target shortfalls or identified improvement opportunities, consideration will be given to changes in management / controls that can achieve a better outcome, including the additional training and awareness of employees and sub-contractors.</p>
<p><i>Include a mechanism to monitor for legislative changes as they arise during the development of the Project.</i></p>	<p>This is covered in the Site Environmental Management Framework (SEMF) – specifically Section 3.2 – <i>Legal and other requirements</i>.</p>
<p>Consultation prior to Rev 1 approval</p>	
<p>A request to provide comments on the CEMPs (Revision 0) was submitted to the NSW Department of Premier and Cabinet (DPC) on 30th October 2018. The request included an outline of the Visitor Centre and Site Accommodation phase and Material Importation phase. No response to the invitation for comment on the Waste and Resources CEMP was received from NSW Department of Finance, Services and Innovation – Waste Assets Management Corporation (WAMC).</p>	
<p>No comments provided.</p>	<p>Ongoing consultation to be undertaken in accordance with Section 1.5 of this CEMP.</p>

A3 Stakeholder consultation – Liverpool City Council

A response to an invite for comment on the Waste and Resources CEMP documentation was received from Liverpool City Council on 27 July 2018 which did not contain any specific comments relating to the preparation of the Waste and Resources CEMP. This is reflected in Table A3 below.

A letter acknowledging receipt of the review comments from Liverpool City Council for the overall CEMP documentation and how the comments were addressed was prepared and issued from WSA Co to Liverpool City Council in September 2018.

Table A3 Liverpool City Council consultation summary

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

A4 Stakeholder consultation – Penrith City Council

A response to an invite for comment on the Waste and Resources CEMP documentation was received from Penrith City Council on 24 July 2018 which included a single comment regarding water quantity usage during construction, which is considered pertinent to the preparation of this Waste and Resources CEMP. This is reflected in Table A4 below.

A letter acknowledging receipt of the review comments from Penrith City Council for the overall CEMP documentation and how the comments were addressed was prepared and issued from WSA Co to Penrith City Council in September 2018.

Table A4 Penrith City Council consultation summary

Input	Response / where addressed
<i>Consultation prior to Rev 0 approval</i>	
A response to an invite for comment on the Waste and Resources CEMP documentation was received from Penrith City Council on 24 July 2018 which included a single comment regarding water quantity usage during construction, which is considered pertinent to the preparation of this Waste and Resources CEMP. This is reflected in Table A4 below.	

A letter acknowledging receipt of the review comments from Penrith City Council for the overall CEMP documentation and how the comments were addressed was prepared and issued from WSA Co to Penrith City Council in September 2018.

The management plans should also address water quantity during construction, in addition to water quality management.

The approximate volumes of water to be used during the construction phase of the Stage 1 Development are included in Section 5 of the CEMP, along with emphasis and implementation of appropriate measures regarding the waste management hierarchy.

In addition, Section 3 includes targets and objects inclusive of a water re-use target, and Section 5 includes additional measures Ongoing consultation to be undertaken in accordance with Section 1.5 of this CEMP.

Consultation prior to Rev 1 approval

A request to provide comments on the CEMPs (Revision 0) was submitted to Penrith City Council on 30th October 2018. The request included an outline of the Visitor Centre and Site Accommodation phase and Material Importation phase. No response to the invitation for comment on the Waste and Resources CEMP was received from Penrith City Council

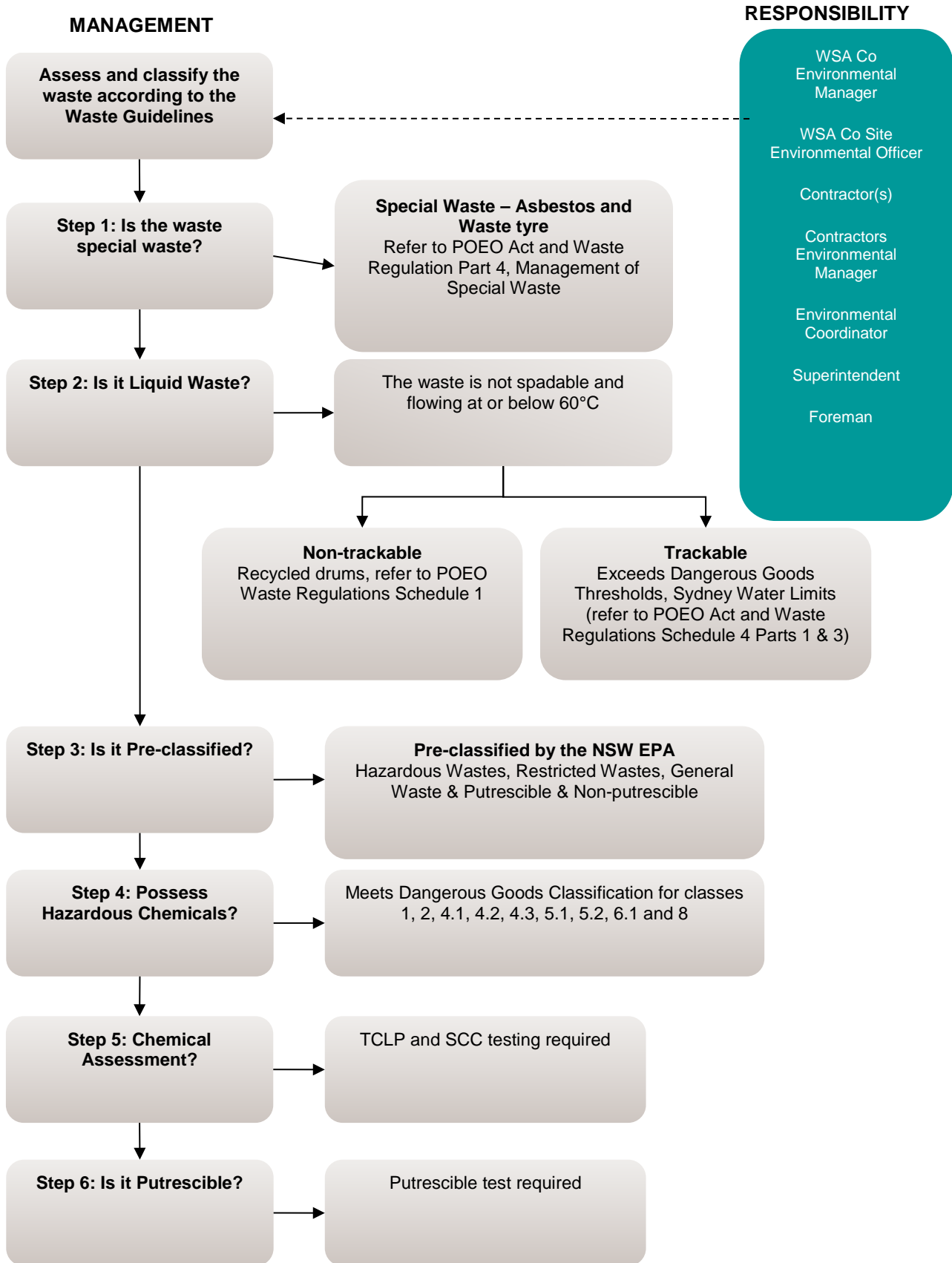
No comments related to waste and resources were provided.

Ongoing consultation to be undertaken in accordance with Section 1.5 of this CEMP.

Appendix B

Waste management procedure

Waste Management Procedure



Waste Management Procedure

Objective

To correctly classify waste that is produced during the construction phase of the Western Sydney Airport Stage 1 Development for reuse, recycling or disposal to an appropriately licensed facility. This is to encourage the most efficient use of resources and ensure potential impacts from waste are minimised during construction.

Monitoring

- Monitoring of all waste and associated volumes will be carried out for the duration of the works covered by this CEMP (refer to Table 3).
- Waste management will be undertaken in accordance with the Waste Management Hierarchy from the *Waste Avoidance and Resource Recovery Act 2001* which describes the most desirable action to least desirable action. This being to REDUCE, REUSE, RECYCLE and DISPOSE as the last measure.
- Waste segregation will occur at the worksites and segregation will be undertaken off site by the licenced waste contractor.

Recording

- The Environmental Coordinator is to undertake environmental inspections of the work areas and maintain records, including material movement permits.
- Waste data including type, location, receiving facility and transport contractor will be captured and entered into the waste register.

Table B1 Waste classification

Waste Types	Waste Classification
Vegetation (logs, mulched timber, weeds)	General Solid Waste (not putrescible) / Exempt Waste
Demolition materials	General solid waste
Excess material from excavations	General solid waste
Piling	Likely to be General solid waste, (Potential for reuse onsite)
Unknown (Potentially Contaminated Soils)	If material is taken off site classification will be carried out, based on soil tests carried out pre-construction and in accordance with the EPA <i>Waste Classification Guidelines: Parts 1 and 2</i> (EPA 2014)
Rubble, rock, sand, asphalt, road base, concrete	General Solid Waste (not putrescible)
Sewerage and site compound waste	Effluent (sewerage) and general solid waste (not putrescible)
Asbestos contaminated material	Special Waste (Asbestos Waste)

Appendix C

Waste contact list

Table C1 Waste Contact List

Company Name	Address	Environmental Protection Licence (EPL) Licence No.	Type of licensed activity	Further Details
Brandown Pty Ltd	Brandown Landfill Lot 9 Elizabeth Dr, Kemps Creek	5186	Land-based extractive activity Waste disposal by application to land	Landfill disposal of non-putrescible wastes. Hazardous, putrescible and other waste not accepted.
Suez Environment	Elizabeth Drive Landfill Facility 1725 Elizabeth Dr, Kemps Creek	4068	Generation of electrical power from gas Waste storage - other types of waste Waste disposal by application to land	Landfill disposal of non-putrescible wastes. Some hazardous waste but no putrescible waste accepted.
Transpacific Cleanaway	Erskine Park Landfill Quarry Rd, Erskine Park	20986	Waste transfer station	General chemicals storage Non-thermal treatment of general waste Waste storage - other types of waste.
Suez Environment	Lucas Heights Resource Recovery Park New Illawarra Road, Lucas Heights	5065	Non-thermal treatment of liquid waste Waste storage - waste tyres Waste storage - other types of waste Waste disposal by application to land	Landfill disposal of putrescible wastes including some hazardous waste.
Suez Environment	Eastern Creek Resource Recovery Park Wallgrove Road, Eastern Creek	12517	Non-thermal treatment of general waste Composting	Landfill disposal of putrescible wastes including some hazardous waste.

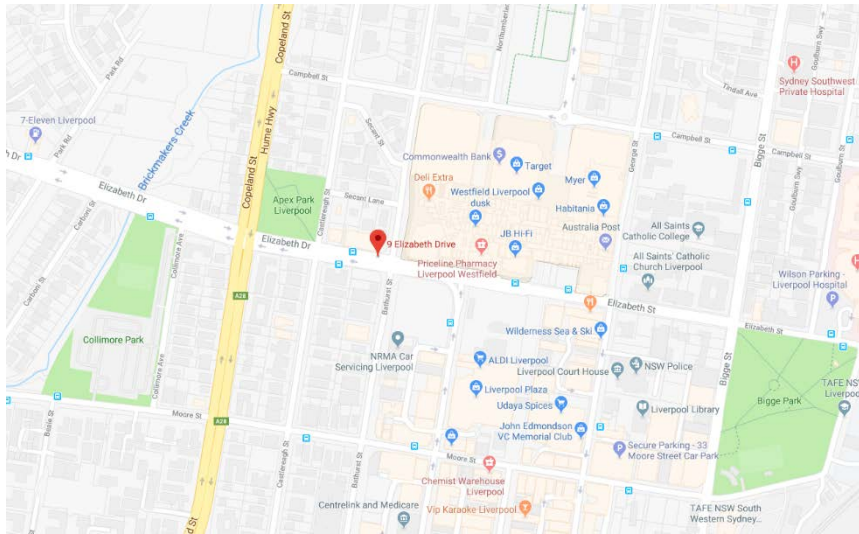
Company Name	Address	Environmental Protection Licence (EPL) Licence No.	Type of licensed activity	Further Details
Veolia Environmental Services (Australia) Pty Ltd	Clyde Transfer Terminal 322 Parramatta Road, Clyde	11763	Non-thermal treatment of general waste Waste storage - other types of waste	Transfer station for disposal of putrescible wastes. No other waste accepted.
Suez Environment	Wetherill Park Resource Recovery Facility 20 Davis Rd, Wetherill Park	4548	Non-thermal treatment of hazardous and other waste Waste storage - other types of waste Waste storage - hazardous, restricted solid, liquid, clinical and related waste and asbestos waste	Transfer station for disposal of putrescible wastes including some hazardous waste.
Suez Environment	Seven Hills Waste & Recycling Centre 29 Powers Rd, Seven Hills	4571	Recovery of general waste Waste storage - other types of waste Non-thermal treatment of general waste Waste storage - hazardous, restricted solid, liquid, clinical and related waste and asbestos waste Waste storage - waste tyres	Transfer station for disposal of putrescible wastes including some hazardous waste.
Suez Recycling and Recovery	Wallgrove road, Eastern Creek, NSW, 2766	12517	Non-thermal treatment of general waste	Materials recovery facility for recyclables. No other waste accepted.

Company Name	Address	Environmental Protection Licence (EPL) Licence No.	Type of licensed activity	Further Details
Australian Native Landscapes	ANL Badgerys Creek 210 Martin Rd, Badgerys Creek	4625	Non-thermal treatment of general waste Waste storage - other types of waste Composting	Garden organics processing facility. No other waste accepted.
Suez Environment	Suez Advanced Waste Treatment Facility 1725 Elizabeth Drive, Kemps Creek	12889	Recovery of general waste Waste storage - other types of waste Composting	Mixed waste processing facility. Accepts mixed waste containing organics and separated food and organic waste.

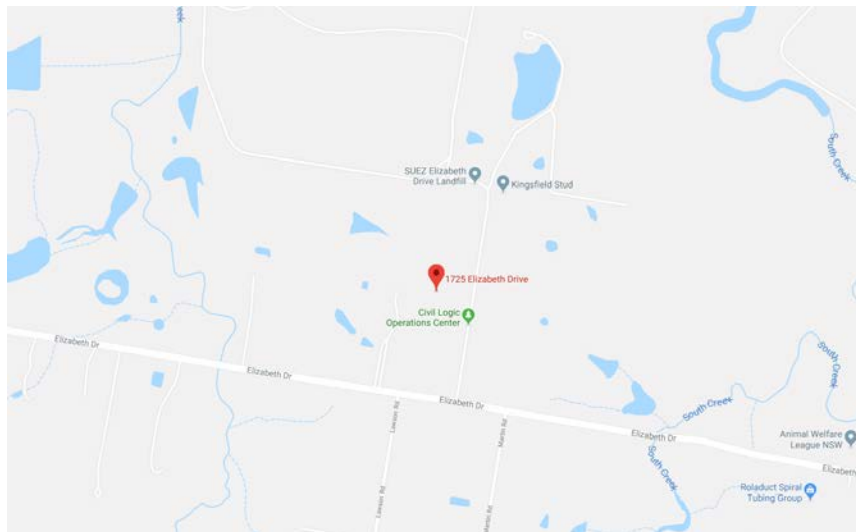
Appendix D

Location of potential waste facilities

Brandown Pty Ltd – Lot 9 Elizabeth Dr, Kemps Creek



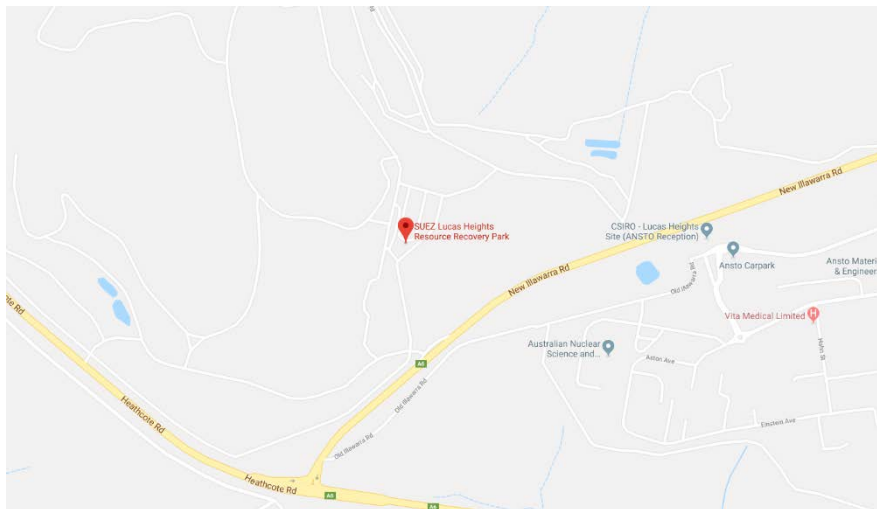
Suez Environment – 1725 Elizabeth Dr, Kemps Creek



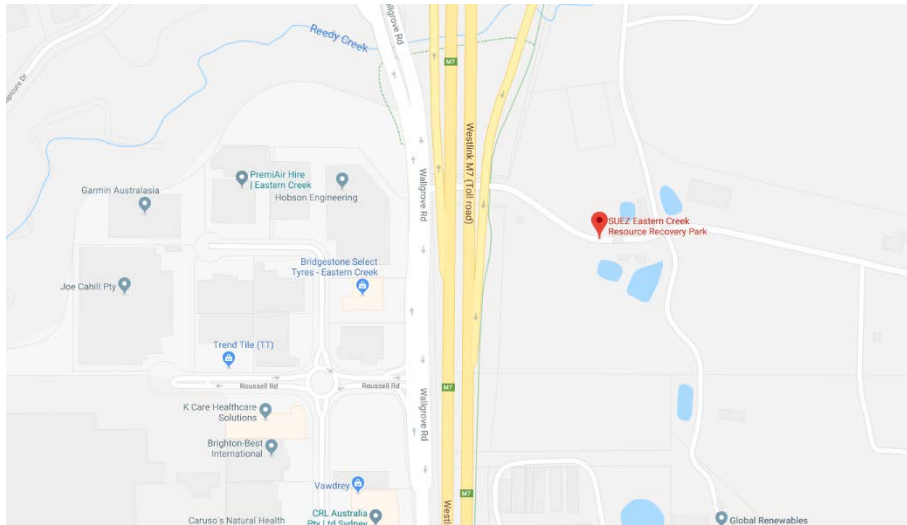
Transpacific Cleanaway – Quarry Rd, Erskine Park



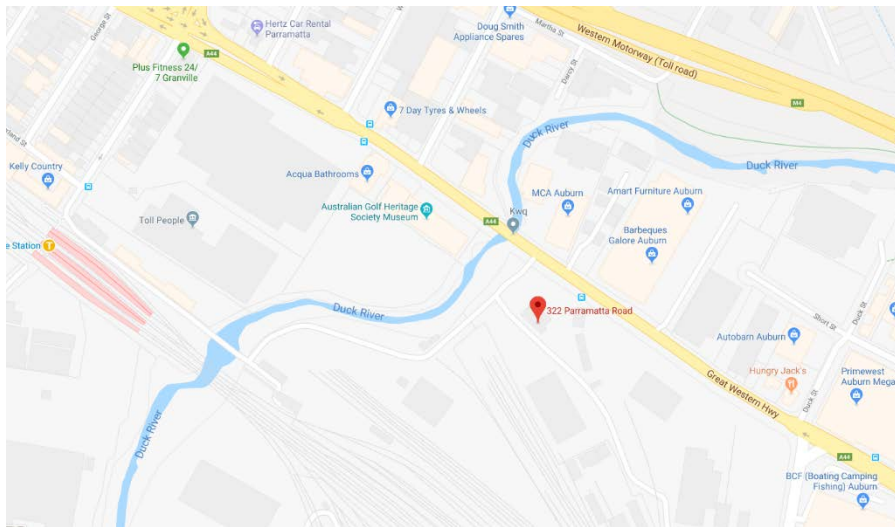
Suez Environment – New Illawarra Rd, Lucas Heights



Suez Environment - Wallgrove Road, Eastern Creek



Veolia Environmental Services (Australia) Pty Ltd - 322 Parramatta Road, Clyde



Suez Environment - 20 Davis Rd, Wetherill Park



Suez Environment - 29 Powers Road, Seven Hills



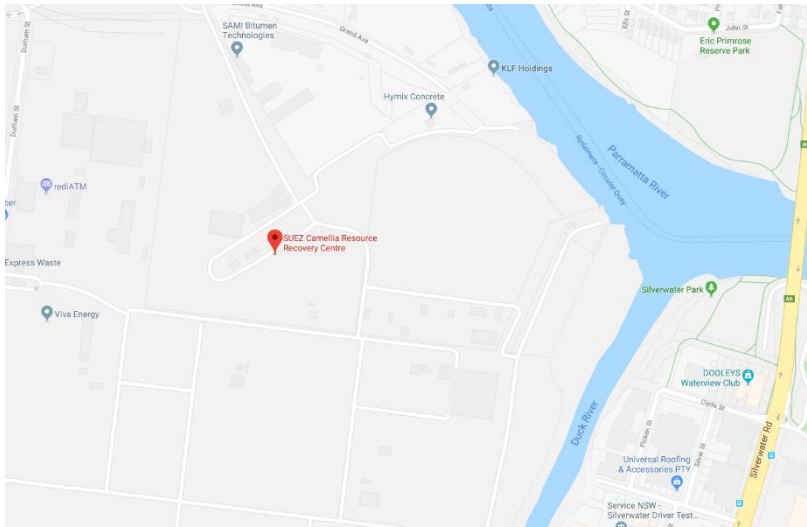
Visy Recycling - 9 Bessemer St, Blacktown



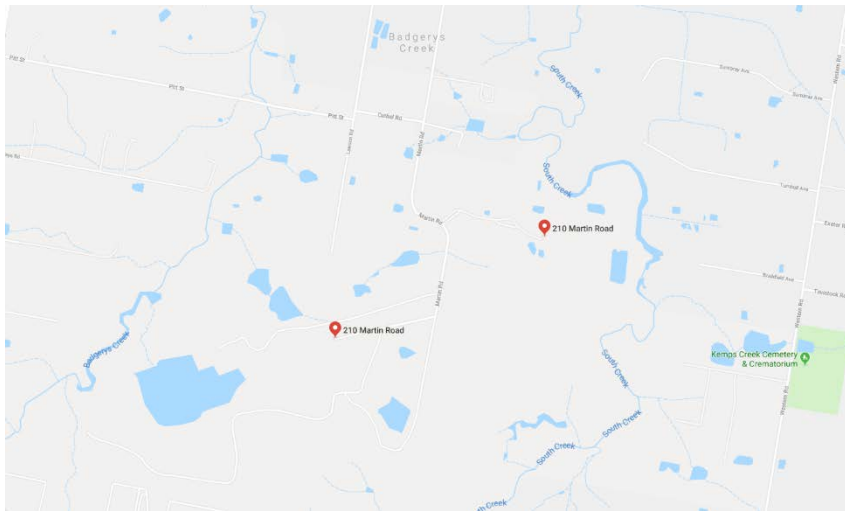
Visy Recycling - 158-160 McCredie St, Smithfield



Suez Environment - Grand Ave, Camellia



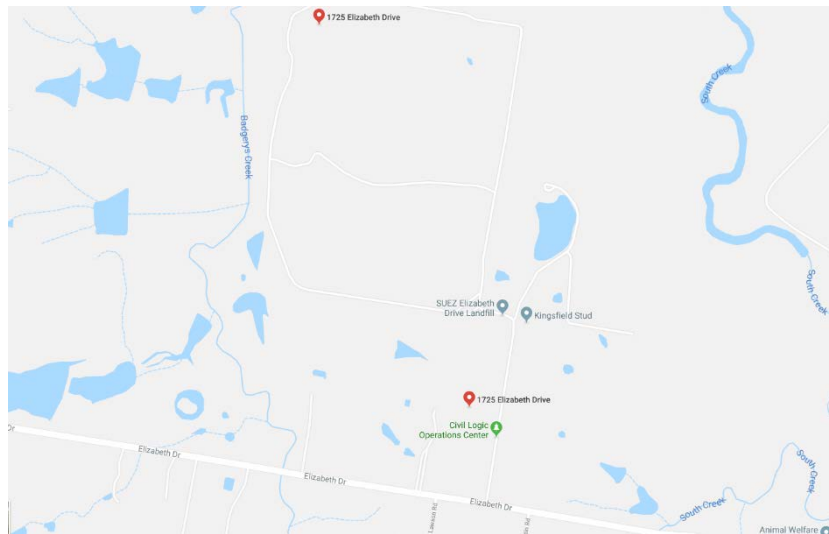
Australian Native Landscapes - 210 Martin Rd, Badgerys Creek



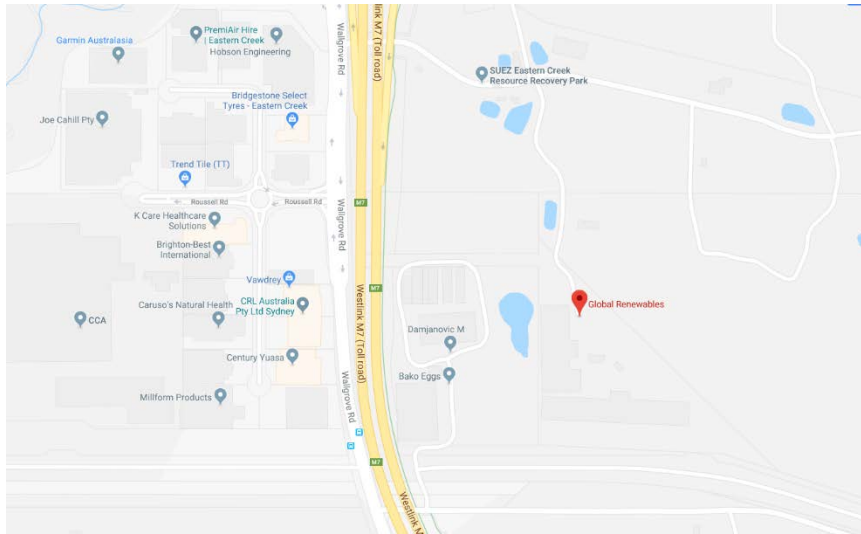
Dial-A-Dump (Ec) Pty Ltd - Honeycomb Drive, Eastern Creek



Suez Environment - 1725 Elizabeth Drive, Kemps Creek



Global Renewables Limited - Wallgrove Rd, Eastern Creek



Appendix E

Example waste management register

Illegal dumping prevention strategy

Illegal dumping prevention strategy

1. Introduction

This Illegal Dumping Prevention Strategy (IDPS) acts in support of the Waste and Resource Construction Environmental Management Plan (Waste and Resources CEMP) for the construction phase of the Western Sydney Airport Stage 1 Development.

1.1 Purpose

This plan has been prepared to address the requirements of Conditions contained in the Western Sydney Airport – *Airport Plan* (2016) (Airport Plan), the environmental mitigation and management measures listed in the *Western Sydney Airport Environmental Impact Statement* (EIS) and all applicable legislation.

The purpose of IDPS is to provide guidance for the implementation of potential strategies to minimise and managed illegal dumping during for the construction phase of the Western Sydney Airport Stage 1 Development.

1.2 Objectives

The key objective of the IDPS is to outline measures to be undertaken to minimise the risk of illegal dumping on the Project's site. The IDPS will be developed in consultation with the NSW Environmental Protection Authority and relevant local councils.

2. Environmental requirements

2.1 Relevant legislation and guidelines

As the Western Sydney Airport is to be developed under the Airport Plan determined under the *Airports Act 1996*, some state laws will not be applicable to the Project (s112 of this Act). Where state law is applicable, these laws will be complied with including obtaining relevant permits. Where state laws are not applicable, there may nonetheless be a requirement to have regard to those laws, for example, through mitigation measures to satisfy conditions under the Airport Plan.

2.1.1 Guidelines and strategies

The following approaches and strategies were considered in this IDPS:

- The NSW Environment Protection Authority (EPA) - NSW Illegal Dumping Strategy, 2017-21
- Liverpool City Council's illegal dumping web page information - <https://www.liverpool.nsw.gov.au/council/Fees-Forms-Policies-and-Enforcement/enforcement/illegal-dumping>
- Department of Environment & Climate Change NSW, *Crackdown on Illegal Dumping, Handbook for Local Government*.

2.2 Rationale for an illegal dumping prevention strategy

The Airport Plan requires the development of a Waste and Resources CEMP which meets the requirements of Chapter 28 of the EIS. The IDPS acts as a supporting document alongside the Waste and Resources CEMP to provide guidance on the issue specifically related to illegal dumping of material onto the Project's site during the undertaking of the works covered by this CEMP (refer to Table 3).

2.2.1 Conditions

The mitigation and management measures in the EIS, Table 28-17, which are relevant to illegal dumping during construction are listed in Table F1.

Table F1 EIS requirement for Illegal Dumping Prevention Strategy

Requirement
An illegal dumping prevention strategy will be developed as part of the Waste and Resources CEMP. The strategy will outline 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.

3. Illegal dumping

The State of NSW and Environment Protection Authority (State of NSW and Environment Protection Authority, 2017) defines illegal dumping as:

"Illegal dumping is the disposal of any waste that is larger than litter to land or water without correct approvals (an environment protection licence or planning approval). It includes illegal landfilling, where waste, often from construction or demolition, is used as 'fill' without approval. It can damage the environment and our health, and create unsightly community spaces and high clean-up costs."

3.1 Types of waste dumped

Examples of the types of waste illegally dumped include the following:

- General household waste;
- Mattresses;
- Furniture;
- Whitegoods;
- Green waste;
- Construction and demolition waste;
- Asbestos;
- Chemicals;
- Vehicles; and
- Tyres.

3.2 Reasons for illegal dumping

Depending on the type and quantity of the waste, people are motivated to illegally dump for the following reasons (State of NSW and Environment Protection Authority, 2017):

- Opportunity to make money;
- Unwillingness to pay;
- Convenience; and

- Uncaring attitude.

4. Illegal dumping mitigation and management measures

Specific mitigation and management measures to minimise the risk of illegal dumping on the Airport Site include the following:

4.1 Training and Awareness

- Raise community awareness of the effects of littering and illegal dumping by distributing illegal dumping awareness material such as pamphlets and posters;
- Provide training for staff personnel on lawful waste management practices and raise awareness of the impacts and penalties for illegal dumping;
- Engage with local councils on illegal dumping;
- Participate in community programs like Clean Up Australia Day; and
- Monitoring of site boundaries, fencing and other security measures to be undertaken on at least a weekly basis.

4.2 Prevention Techniques

- Install fencing, signage and security protocols early on in the Project to demonstrate a secure presence of the site;
- Reduce volume of litter and waste produced at the Airport Site, where appropriate;
- Implement measures in the surrounding areas of the site where illegal dumping is anticipated to occur, including, but not limited to:
 - Signage
 - Lighting
 - Fences and locked gates
 - Landscaping and revegetation
 - Barriers (eg. concrete blocks)
 - Consistent communication with local police
 - Surveillance.
- Provide support and promote the use of surveillance and prevention techniques by local councils and public land managers.

4.3 Clean-up of illegal dumping

- Upon identification of illegal dumping the site hygienist and Contractors Environmental Manager will assess the material immediately and make safe where required with geofabric covering, signage and flagging;
- If the material is identified to be hazardous it will be managed in accordance with the Remediation Action Plan which could include waste classification and removal from site by a licenced contractor;
- The illegal dumping of materials, whether hazardous, or clean material, will be documented and submitted to the WSA Co Environmental Manager within 24 hours together with close out actions, as required.

4.4 Complaints

- Investigate illegal dumping and littering complaints and report these to the appropriate authority.

5. Roles and Responsibilities

5.1 WSA Co Environment Manager / Site Environment Officer

The WSA Co Environment Manager and Site Environment Officer are responsible for:

- Liaise regularly with the stakeholders and contractors as to the importance of reporting illegal dumping on the site;
- Coordinate ongoing training in environmental awareness for all levels of WSA Co staff as required to implement this illegal dumping prevention strategy;
- Implement, maintain, monitor, report and advise the Executive General Manager on all environmental matters including those associated with the management of waste and resources;
- Monitor the clean-up and reporting of illegal dumping on the site;
- Provide direction and guidance on implementation of this illegal dumping prevention strategy; and
- Ensure the timely review and assessment of the illegal dumping prevention strategy.

5.2 Construction contractors Environmental Manager / Coordinator

The Contractor's Environment Manager and Environmental Coordinator are responsible for:

- Identify resources required for implementation of the Waste and Resources CEMP;
- Report to the WSA Co Environment Manager any illegal dumping activity;
- Ensure that all personnel receive appropriate induction training, including details of how to identify illegal dumping and reporting responsibilities;
- Undertake weekly inspections, ensuring all works comply with relevant regulatory and Project requirements, including waste and resource management objectives;
- Program toolbox talks and daily pre-start meetings to include any issues relating to illegal dumping;
- Ensure steps are taken to rectify and prevent illegal dumping including updating security measures;
- Ensure that waste and resource management controls are followed when cleaning up illegal dumping; and
- Review and update the illegal dumping prevention strategy to ensure the strategy remains effective.

6. Complaint management

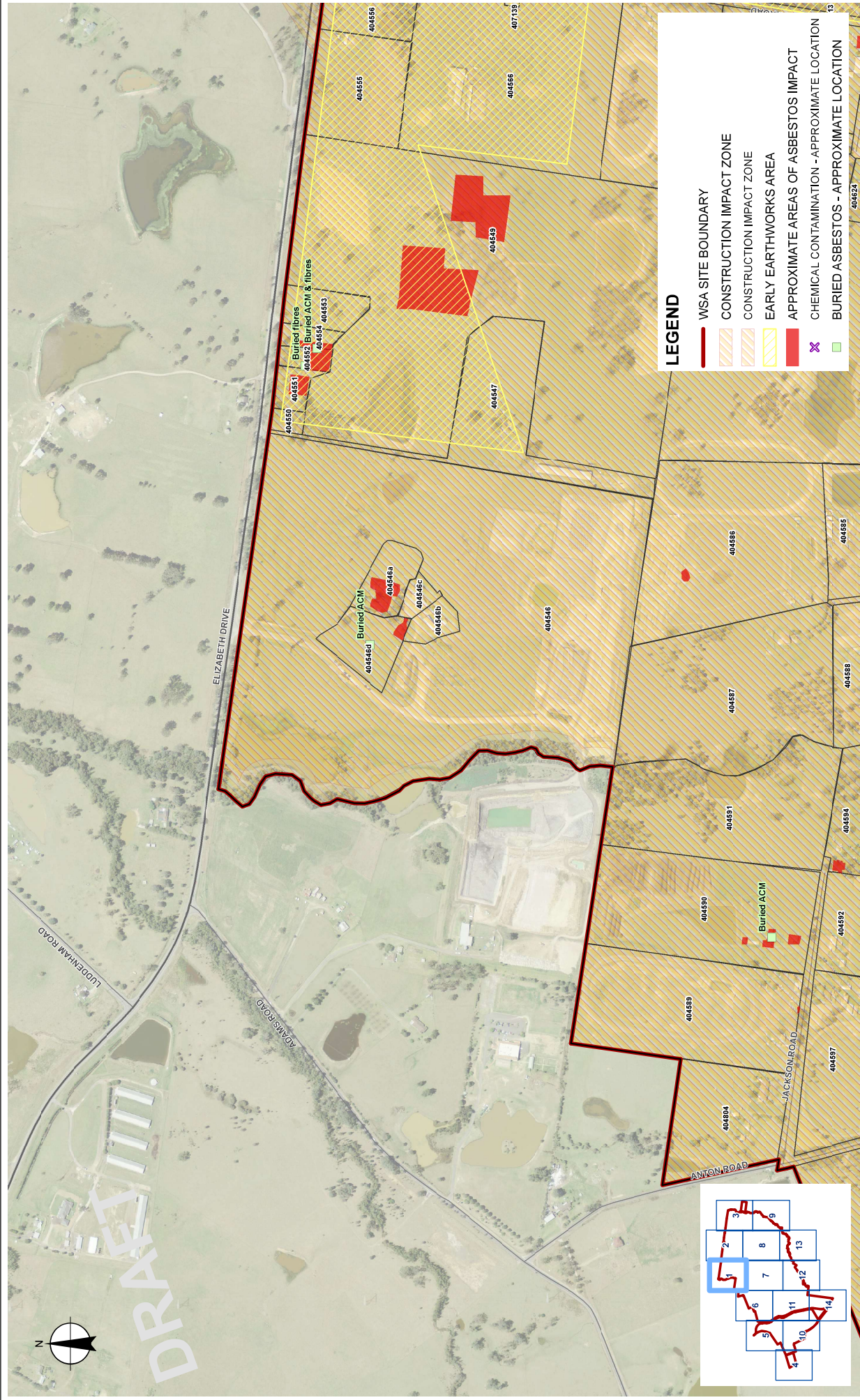
All community complaints with regards to illegal dumping will be managed by the WSA Co Community and Stakeholder Engagement Manager and the relevant WSA Co Manager (Environment / Construction or both) where required.

7. Review

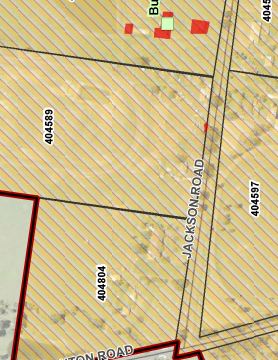
This illegal dumping and prevention strategy will be subject to a process of periodic review (as detailed in Section 9 of the SEMF). This will ensure the document is updated as appropriate to the specific work taking place onsite. It will also ensure that the provisions of this strategy are being correctly implemented, monitored, managed and audited.

Appendix G

Areas of potential asbestos contamination (RAP extract)



DRAFT



LEGEND

- WSA SITE BOUNDARY
- CONSTRUCTION IMPACT ZONE
- CONSTRUCTION IMPACT ZONE
- EARLY EARTHWORKS AREA
- APPROXIMATE AREAS OF ASBESTOS IMPACT
- CHEMICAL CONTAMINATION - APPROXIMATE LOCATION
- BURIED ASBESTOS - APPROXIMATE LOCATION

COMMERCIAL IN CONFIDENCE

DO NOT SCALE

This drawing shall not be used for construction unless approved by the Designer.

This drawing shall not be used for any other purpose.

PRELIMINARY

Scale: 1:1,000

WSACO

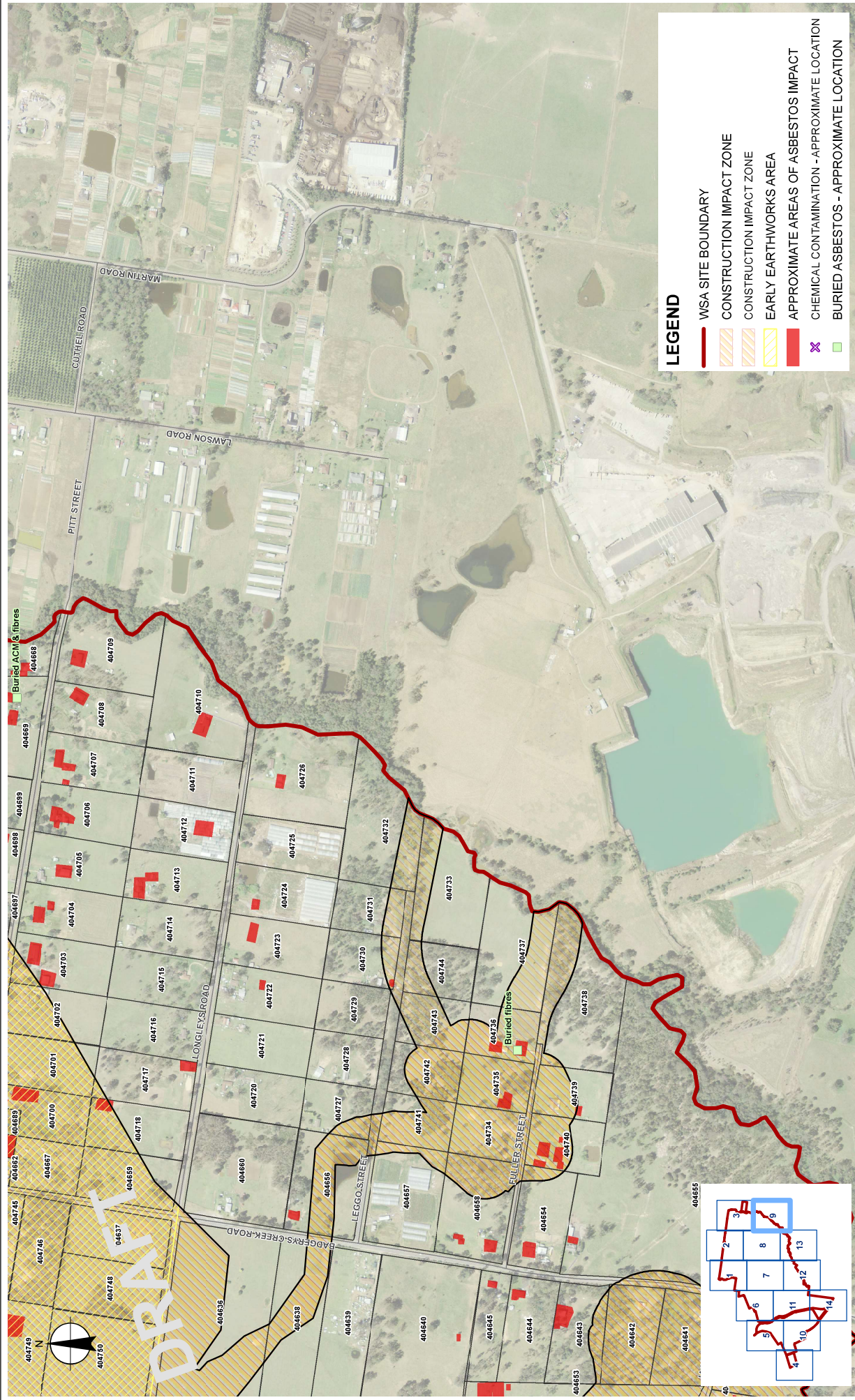
Level 6, 20 South Street
Warrington NSW 2380
T 61 2 8588 8000 F 61 2 8588 8110
W warrington@wsaco.com.au
W warrington@wsaco.com.au

Client: WSACO
Project: WESTERN SYDNEY AIRPORT
Title: REMEDIATION ACTION PLAN
Remediation Areas - SHEET (1)

Design Date: 08/02/2018
Scale: 1:1,000

No.	Revision	Date	By	Check	Project
1	PRELIMINARY ISSUE	08/02/2018	AM	MB	JM

No. 08 February 2018 12:00 PM
Revised by:
Checked by:
Approved by:
Scale: 1:1,000



LEGEND

- WSA SITE BOUNDARY
- Construction Impact Zone
- Construction Impact Zone
- Early Earthworks Area
- Approximate Areas of Asbestos Impact
- Chemical Contamination - Approximate Location
- Buried Asbestos - Approximate Location

COMMERCIAL IN CONFIDENCE

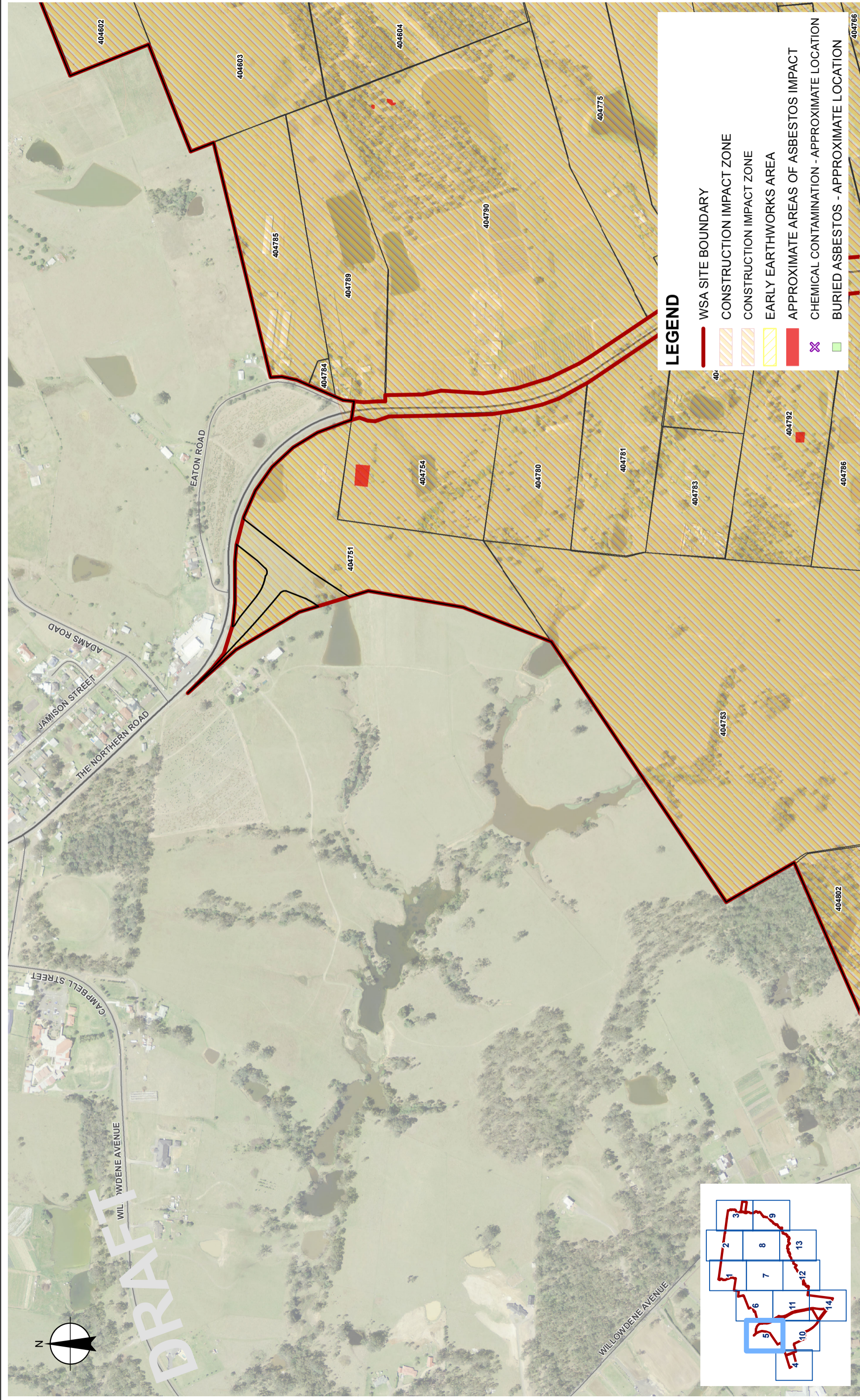
PRELIMINARY

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Title: REMEDIATION ACTION PLAN	Remediation Areas - SHEET (9)	Drawn: AM	Checked: JM
Revision: 1001 - Initial Submission on original issue of drawing on last revision of drawing		Date: 12/01/18	Project: WSA

This Drawing shall not be used for construction unless approved by the relevant authority.

GHD
Level 6, 20 South Street
Sydney NSW 2000
T 61 2 8588 8000 F 61 2 8588 8810
W www.ghd.com.au E info@ghd.com.au

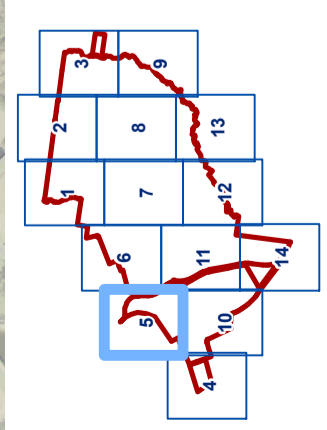
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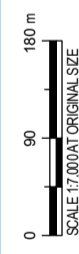
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LEGEND

- WSA SITE BOUNDARY
- CONSTRUCTION IMPACT ZONE
- CONSTRUCTION IMPACT ZONE
- EARLY EARTHWORKS AREA
- APPROXIMATE AREAS OF ASBESTOS IMPACT
- CHEMICAL CONTAMINATION - APPROXIMATE LOCATION
- BURIED ASBESTOS - APPROXIMATE LOCATION



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WSACO

PRELIMINARY

Client		WSACO	
Project		WESTERN SYDNEY AIRPORT	
Title		REMEDIAL ACTION PLAN	
Drawing No.		REMEDIAL AREAS - SHEET (5)	
Original Scale		A3	
This Drawing must not be used for any other purpose unless approved as Approved.		Scale 1:7,000	
Conditions of Use: This document may only be used by WSACO's client (and any other person who has been authorised by WSACO) for the purposes for which it was prepared and must not be used by any other person or for any other purpose.		Drawn: AM MB JM Manager: MB JM Director: JM Date: 12/01/18	
DO NOT SCALE		Design Check	
DO NOT SCALE		Design Check	