Western Sydney Airport

Traffic and Access Construction Environmental Management Plan

July 2022

Western Sydney Airport

Document Control

File Name	Document Name	Revision
WSA00-WSA-00400-EN-PLN-000005	WSA Traffic and Access CEMP	4

Revision History

Revision	Date	Description	Author	Reviewer
0	24/09/2018	Approved for Early Earthworks	WSA	S Reynolds
1	14/12/2018	Revision update to include the Experience Centre Site Office and Material Importation	WSA	S Reynolds
2	18/12/2019	Approved for Bulk Earthworks	WSA	S Reynolds
3	26/10/2021	Approved for Terminal Works and SM, M12 and utilities woks on WSA land.	WSA	L Laughton
4	27/07/2022	Updated to reflect Commonwealth and stakeholder comments. Approve for Use	WSA	L Laughton

Plan Authorisation

Position	Name	Signature	Date
Environment Manager	L Laughton		27/07/2022

Terms and Definitions

Item	Definition
ABC	Airport Building Controller
ABC Regulations	*Airports (Building Control) Regulations 1996* (Cth)
ACP	Airside Civil and Pavements
AEO	Airport Environment Officer (person appointed under the AEPR 2.01)
AEPR	*Airports (Environment Protection) Regulations 1997* (Cth)
AHD	Australian Height Datum
Airport	Western Sydney International (Nancy-Bird Walton) Airport (WSI). NB: The Airport is referred to in the Airports Act as Sydney West Airport and is also commonly known as Western Sydney Airport
Airport Lease	A lease for the Airport granted under section 13 of the Airports Act
Airport Plan	Means the Airport Plan for the Airport Site as determined by the Infrastructure Minister under section 96B of the Airports Act. The latest Airport Plan was determined in September 2021 and authorises Rail Development on the Airport Site.
Airport Site	The site for Sydney West Airport as defined by the Airports Act
Airports Act (or 'the Act')	*Airports Act 1996* (Cth)
ALC	Airport Lessee Company (the Company granted a lease over the Airport Site)
Ancillary Development	An 'ancillary development' as set out in section 96L of the Airports Act
Approved Plan	A Plan approved in accordance with the Airport Plan Conditions of Approval
Approver	For Condition 30 of the Airport Plan (Biodiversity Offset Delivery Plan) and any matter relating to the Biodiversity Offset Delivery Plan – the Environment Minister or an SES employee in the Environment Department For other matters – the Infrastructure Minister or an SES employee in the Infrastructure Department
Apron	The part of an airport used for: 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
ARFFS	Aviation Rescue and Firefighting Service
AS/NZS	Australian Standard / New Zealand Standard
Associated Site	An 'associated site for Sydney West Airport' as set out in section 96L of the Airports Act
ATC	Air Traffic Control
ATCT	Air Traffic Control Tower
BEC	Bulk Earthworks Contract
Bulk Earthworks	The large-scale earthworks required to flatten the Stage 1 Airport Development Area in preparation for further construction works as described in section 6 of the Construction Plan
CASA	Civil Aviation Safety Authority
CASR	*Civil Aviation Safety Regulations 1998* (Cth)
CEMF	Contractor Environmental Management Framework

Item	Definition
CEMP	Construction Environmental Management Plan (required under Section 3.11.2 of the Airport Plan)
CIP	Cumulative Impacts Plan
CIZ	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
CJP	Transport for NSW Customer Journey Planning
Condition	A condition set out in Part 3 of the Airport Plan in accordance with section 96C of the Airports Act
Construction Period	The period from the date of commencement of Main Construction Works in any part of the Airport Site until the date of commencement of Airport Operations
CSEP	Community and Stakeholder Engagement Plan (required under Condition 15 in Section 3.11.2 of the Airport Plan)
CSR	Combined Services Route
D&C	Design and Construct
DAWE	Department of Agriculture, Water and the Environment (Cth)
DFSI	Department of Finance, Services and Innovation (Cth)
DIPNR	NSW Department of Infrastructure, Planning and Natural Resources (now DPIE)
DITRDC	Department of Infrastructure, Transport Regional Development and Communications (Infrastructure Department) (Cth)
DPC	NSW Department of Premier and Cabinet
DPE	NSW Department of Planning and Environment (formerly DPIE)
DPI	Department of Primary Industries (including Agriculture NSW, Fisheries NSW and NSW Office of Water) (now DPIE)
DPIE	NSW Department of Planning, Industry and Environment (now DPE)
ECM	Environmental Control Map
Ecologically Sustainable Development	Using, conserving and enhancing the community's resources so that the ecological processes on which life depends are maintained and the total quality of life now and in the future, can be increased (Council of Australian Governments, 1992)
ECZ	Environmental Conservation Zone
EES	The Environment, Energy and Science (EES) group within the Department of Planning, Industry and Environment, formerly known as Office of Environment and Heritage
EEW	Early Earthworks
EIS	Environmental Impact Statement prepared for WSI under the EPBC Act
EMS	Environmental Management System
Environment Minister	The Minister responsible for the EPBC Act
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW)
EPA	NSW Environment Protection Authority
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Cth)
ESA	Environmentally Sensitive Area
ESCP	Erosion and Sediment Control Plan
ETC	Enterprise Technology Contract
EWMS	Environmental Work Method Statement

Item	Definition
FASL	Final Airport Site Layout
GSE	Ground Support Equipment
Ha	Hectares
Infrastructure Department	The Department responsible for administering the Airports Act, currently the Australian Government Department of Infrastructure, Transport Regional Development and Communications (DITRDC)
Infrastructure Minister	The Minister responsible for the Airports Act from time to time
ISO 14001	AS/NZS ISO 14001:2016 Environmental Management Systems
Km	Kilometres
LCB	Landside Civil and Buildings
LDP	Land Disturbance Permit
LEP	Local Environmental Plan
M12 on Airport Works	The physical works and infrastructure, including temporary works and infrastructure which the M12 Authority, its contractors and nominees plan, investigate, design, construct, install, commission, test, accept, complete, maintain, operate or repair within the Airport Site
Main Construction Works (MWC)	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
MI	Material Importation
MTIP	Major Transport and Infrastructure Projects (Cth) - a Division of DITRDC
Non-conformance	Failure to conform to the requirements of the Airport Plan including Approved Plans
POEO Act	*Protection of the Environment Operations Act 1997* (NSW)
Preparatory Activities	a. day to day site and property management activities; b. site investigations, surveys (including dilapidation surveys), monitoring, and related works (e.g. geotechnical or other investigative drilling, excavation, or salvage); c. establishing construction work sites, site offices, plant and equipment, and related site mobilisation activities (including access points, access tracks and other minor access works, and safety and security measures such as fencing but excluding bulk earthworks); d. enabling preparatory activities such as: i. demolition or relocation of existing structures (including buildings, services, utilities and roads); ii. the disinterment of human remains located in grave sites identified in the European and other heritage technical report in volume 4 of the EIS; and iii. application of environmental impact mitigation measures; and e. any other activities which an Approver determines are Preparatory Activities for this definition
RAP	Remediation Action Plan
RMS	NSW Roads and Maritime Services (now TfNSW)
SEMF	Site Environmental Management Framework (Construction Plan, Appendix 2)
SEPP	State Environmental Planning Policy
SES	Senior Executive Service
SES Officer	An SES employee under the *Public Service Act 1999* (Cth)
Stage 1 Airport Development	The Airport development described in Part 3 of the Airport Plan

Item	Definition
Sustainability Plan	Plan required by Condition 29, Section 3.11.5 of the Airport Plan
Sydney West Airport	The Airport. NB: this is the name used in the Act. The Airport is known as Western Sydney International (Nancy-Bird Walton) Airport, or, more commonly, Western Sydney International
TCG	Traffic Coordination Group
TfNSW	Transport for New South Wales
TGS	Traffic Guidance Scheme
the Project	Western Sydney Airport – Stage 1 Airport Development
TNR	The Northern Road
TSP	Total suspended particulate matter
TSS	Terminal and Specialty Services
TTLG	Traffic and Transport Liaison Group
WCAA	Western City & Aerotropolis Authority
WSA	WSA Co Limited (ACN 618 989 272), the entity responsible for constructing and operating the Airport in accordance with the Airport Plan. For the purposes of the Airports Act, WSA is the "Airport Lessee Company" for WSI.
WSI	Western Sydney International (Nancy Bird Walton) Airport. The Airport. NB: Under the Airports Act, the Airport is referred to as Sydney West Airport

Contents

Tables

Figures

Appendices

1. Introduction

1.1. Background/Context

This Traffic and Access Construction Environmental Management Plan (Traffic and Access CEMP) (this Plan) has been prepared to satisfy the requirements of the Traffic and Access CEMP set out in the Conditions for the Stage 1 Development of the Western Sydney International (Nancy-Bird Walton) Airport (WSI) detailed in Section 3.11.2 of the Airport Plan. Specifically, Section 3.11.2 Condition 9(1) of the Airport Plan requires that a Traffic and Access CEMP be approved under the Airport Plan prior to the commencement of Main Construction Works.

The WSA Construction Plan includes the Site Environmental Management Framework (SEMF) which, in turn, comprises nine individual CEMPs. These documents set out the processes and procedures for the management of environmental resources and activities during construction activities of the Stage 1 Airport Development. The individual components of the Construction Plan should not be read in isolation due to interconnecting management outcomes and objectives between the documents.

The implementation of the Construction Plan is aligned with other Project-level management plans, including the Community and Stakeholder Engagement Plan (CSEP) and the Sustainability Plan.

The Traffic and Access CEMP documents the approach and requirements, including environmental mitigation measures, controls, monitoring, and reporting for managing traffic and access-related matters.

For the Traffic and Access CEMP, it is considered that the following management plan linkages can be made:

- Noise and Vibration CEMP – Management of noise and vibration associated with construction traffic to prevent impact on adjacent receptors.
- Air Quality CEMP – Construction traffic can be a source of dust and other emissions. Measures to mitigate these impacts are included in the Air Quality CEMP.
- Visual and Landscape CEMP – Construction traffic has the potential to affect the visual amenity and landscape of the receiving environment, particularly with regards to dust generation.
- CSEP – It is anticipated that the surrounding community and stakeholders will be sensitive to traffic and access impacts, particularly dust generation and the accumulation of particulate matter.
- Sustainability Plan – Management and reduction of greenhouse gas emissions and management of impacts regarding general health, wellbeing, and quality of life for surrounding communities. This linkage with the WSA Sustainability Plan extends to IS Rating discharge credit Energy Ene-1, where compliance with this CEMP will ensure the project will meet credit requirements.

Where relevant, linkages to other CEMPs and management objectives have been included in the risk assessment (Section 6) and the environmental control measures (Section 7).

Table 1 below highlights relationships and linkages of this Traffic and Access CEMP with other CEMPs and Plans, including key cross-referencing to the Airport Plan and Environment Impact Statement (EIS) requirements.

Table 1 - Traffic and Access CEMP relationship with other Plans

CEMP or Plan	Airport Plan Condition (3.11.2)	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 Plan	29	28-37	28-38
Traffic and Access (this Plan)	9	28-08	28-09
Visual and Landscape	14	28-18	28-19
Waste and Resources	13	28-16	28-17

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

The review and document control process for this plan are described further in Section 10 of the SEMF. The context of this Plan in relation to the WSA Environmental Management System (EMS) is presented in Figure 1.

1.2. Document Purpose

The purpose of this Plan is to avoid/mitigate traffic and access impacts and provide the foundation for the management of traffic and access impacts for all activities as per the approved Construction Plan, in accordance with best practice and legal requirements (including environmental mitigation measures, controls, monitoring and reporting). Objectives, targets and performance criteria are set out in Section 3 of this CEMP.

This Plan details the traffic and access management requirements that must be satisfied in order to demonstrate compliance with Condition 9 of Section 3.11.2 of the Airport Plan for the construction of the Stage 1 Airport Development.

Legal and other requirements are identified and maintained in a register within the SEMF (refer SEMF Appendix L). Specific traffic and access mitigation measures are included in this CEMP (refer Section 7), are derived from the EIS (refer Section 4.6) and are required to be satisfied and assessed through risk assessment processes (refer Section 6.4).

Section 7, Table 34 outlines how mitigation measures will be implemented, by who and at which phase of construction. Implementation of these measures is ensured through a program of work activities, monitoring, training and competence, inspection, auditing and reporting actions (refer Sections 10 and 11), with the responsibilities for implementation identified in Section 9. Continual improvement processes in relation to compliance with regulatory requirements are detailed in the SEMF Section 9.2.

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 and contractors;
- Provision of process for monitoring implementation, reporting, and auditing of traffic and access related management and compliance related issues;
- Commitment to meeting the requirements of AS/NZS ISO 14001:2016 Environmental Management Systems, 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 personnel and contractors to enable Project completion in accordance with the environmental requirements.

Effective implementation of this Plan will assist WSA 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.

1.3. WSA EMS Overview

WSA co-operates in general accordance with AS/NZS ISO 14001:2016 – Environmental management systems. A copy of the WSA Environmental Policy is provided in Appendix H of the SEMF.

The Stage 1 Airport 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 management plan 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 construction of the Stage 1 Airport Development.

The structure of the EMS for the Project is shown in Figure 1.

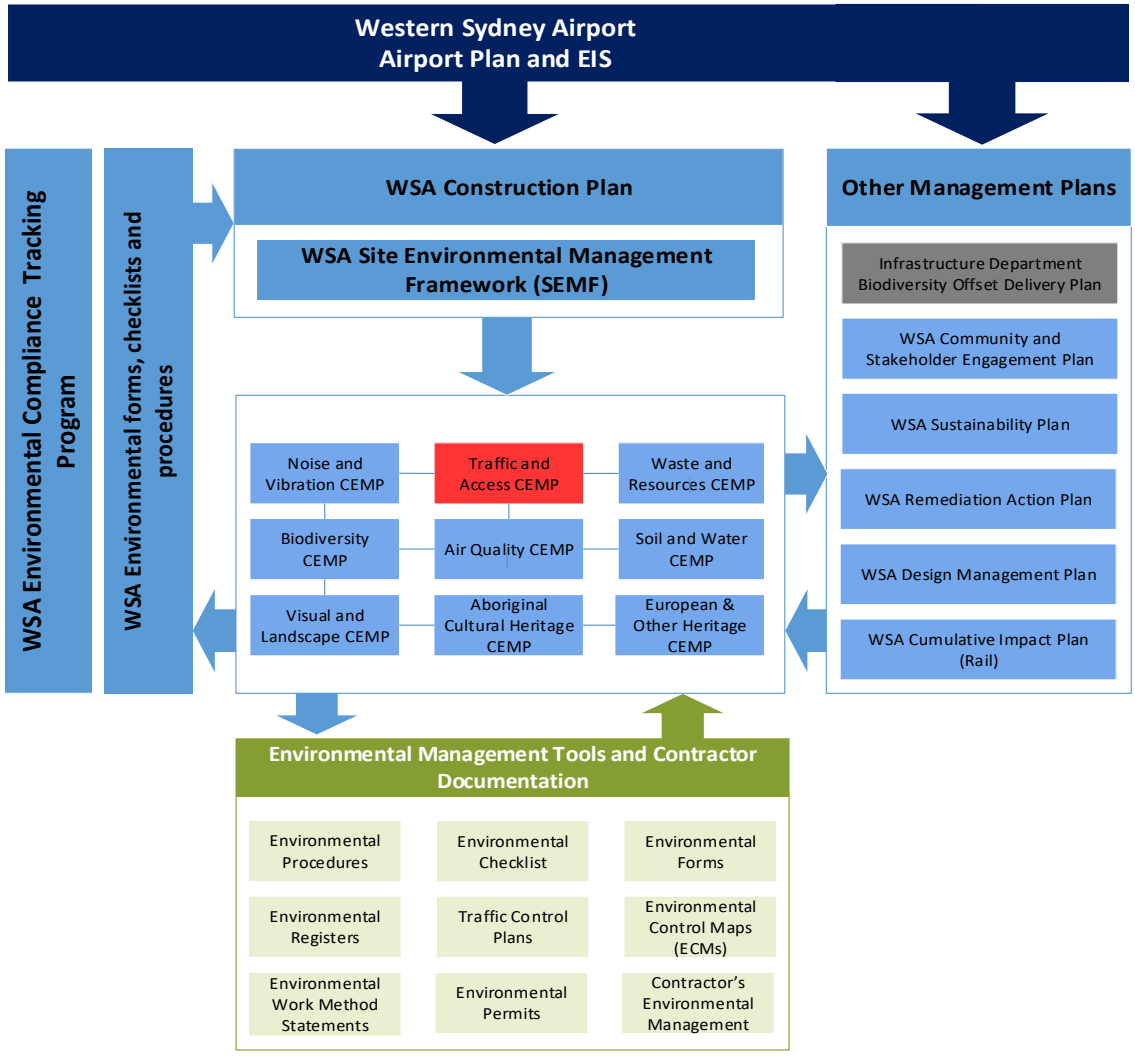


Figure 1: WSA EMS and CEMP Context

1.4. Consultation Requirements of this Plan

Airport Plan Condition 35 outlines the consultation requirements during the preparation of the CEMP documentation and requires consultation with any NSW Government agencies as specified by the NSW Department of Premier and Cabinet (DPC) as well as the NSW Department for Planning and Environment (DPE) for specific CEMPs. NSW Government agencies were identified by DPC for consultation for this Traffic and Access CEMP, including DPE, Penrith and Liverpool City Councils.

Further, Airport Plan Condition 9(3) requires that this Traffic and Access CEMP take into account Table 28-8 of the EIS which states the CEMP should also be prepared in consultation with Transport for NSW (TfNSW) (including Sydney Metro) and relevant local councils.

Consultation was undertaken during the development of this CEMP during the review and update of Revisions 0 and 1 in 2018, Revision 2 in 2019, Revision 3 in 2021, and Revision 4 in 2022. A summary of the stakeholder and government agency consultation undertaken and used to inform the review and finalisation of Revision 4 is presented in Table 2.

Consultation will continue with government agencies 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.

1.4.1. Consultation to Inform Revision 4

A Community and Stakeholder Engagement Plan (CSEP) outlining the process for engaging with stakeholders was prepared by the WSA Community and Engagement team. The CSEP and a scoping document outlining the works in the Construction Plan and potential modification of the CEMPs was provided to the stakeholders as required by the Airport Plan Conditions.

Details of the construction phases were described in the correspondence to provide context to stakeholders on the level of impact that would result from the next phase of construction activities. Upcoming phases of construction captured in Revision 4 of the CEMPs include the Airside Civil and Pavement (ACP) and Landside Civil and Building (LCB) scopes, along with the M12 on Airport works, fuel farm (being constructed by the Terminal and Speciality Services contractor), permanent utilities, and ancillary buildings. Stakeholders were invited to attend a site visit and briefing presentation at the WSI Experience Centre on 29 March 2022 to assist the stakeholders to understand the size and scale of the site elements. The briefing presentation was offered to stakeholders to attend in one of three ways:

- Face-to-face followed by a tour of the Airport site precinct;
- Via videoconference; or
- Face-to-face without participating in the site precinct tour.

On 8 April 2022, stakeholders were provided with the Construction Plan, the nine draft CEMPs and the CSEP to review and were asked to provide comment. A summary of the consultation is provided in Table 2.

Table 2 - Traffic and Access CEMP Consultation Summary

Activity	Date	Invitees	Summary
Consultation Summary			
Briefing presentation for stakeholders	29 March 2022	• Department of Agriculture, Water and the Environment (DAWE) • Greater Sydney Commission • Infrastructure Department • Liverpool City Council • NSW Aboriginal Affairs • NSW Ambulance • NSW Department of Customer Service • NSW DPE • NSW EPA • NSW Health • NSW Government Architect • NSW National Parks and Wildlife Service • Penrith City Council • Property NSW • Resilience NSW • Rural Fire Service • South Western Sydney Local Health District • Sydney Metro • Transport for NSW • Transport Management Centre • Western Parkland City Authority • WSA Community Commissioner	As part of the continuous improvement of the consultation process, a site visit and briefing presentation for stakeholders was organised. It is a useful element to assist stakeholders to understand size and scale and also have discussions related to site elements as they are seen during the site visit
CEMPs provided to stakeholders for comment	4 April 2022		

1.4.2. Ongoing Traffic and Access Consultation

WSA engages with a separate forum, the Roads and Rail Forum, and is convened jointly by the Infrastructure Department and TfNSW. Invitees / attendees to the Roads and Rail Forum include representatives from the following stakeholders on the development and delivery of transport networks connecting to WSI, notably:

- Major Transport and Infrastructure Projects (MTIP), Department of Infrastructure, Transport Regional Development and Communications (DITRDC)
- TfNSW – Western Sydney Aerotropolis Transport Integration Hub (Policy & Strategy - 'The Hub'), Customer Journey Planning (CJP), M12 and Elizabeth Drive teams
- Sydney Metro Western Sydney Airport (SMWSA)
- Western City and Aerotropolis Authority (WCAA)
- NSW Department of Planning and Environment (DPE);
- Penrith City Council (PCC); and
- Liverpool City Council (LCC).

In addition, WSA works closely with the Joint Project Integrator (JPI), a coordination role established jointly by MTIP and TfNSW to coordinate on issues affecting WSI, M12 and SMWSA projects. The JPI meets bilaterally with each party on a fortnightly basis.

Construction traffic management is addressed in the following meetings detailed in Table 3

Table 3 - Traffic and Access Consultation Forums

Forum	Meeting Period
Joint Project Integrator (JPI) – WSI Entrance Precinct Integration Working Group (JPI, M12, WSA, Sydney Metro, TfNSW, MTIP. Elizabeth Drive upgrade project (West))	Monthly
JPI – Construction Traffic Planning and Coordination Group (JPI, M12, WSA, Sydney Metro, TfNSW, MTIP)	Monthly
JPI – WSA engagement	Fortnightly
Elizabeth Drive Construction Coordination Meeting (WSA SMWSA, M12, JPI)	Fortnightly
SMWSA	Regularly at operational and management levels including TCG and TTLG meetings.
TfNSW – Western Sydney Rapid Bus project	As required by the Rapid Bus project (approximately monthly)
TfNSW – M12 on Airport	Regularly at operational and management levels including TCG and TTLG meetings.
Liverpool City Council	Quarterly and at TCG and TTLG meetings.
Penrith City Council	2-4 times per year and at TCG and TTLG meetings.
State Emergency Services	Quarterly and at TTLG meetings.
Traffic and Transport Liaison Group (TTLG)	Monthly in coordination with SMWSA
WSI ConOps – M12, TfNSW CJP, JPI, MTIP	Quarterly
Traffic Coordination Group (TCG) - WSA, Sydney Metro, M12 (and contractors reps), utility providers, TfNSW Customer Journey Planning (CJP), Liverpool & Penrith City Councils	Fortnightly in coordination with SMWSA
Western Parklands City, Infrastructure and Place, Roads and Utilities Meeting – Sydney Metro, M12, utility providers, TfNSW, Mamre Road project, Elizabeth Drive project, and any other relevant infrastructure projects in Western Sydney as deemed necessary by TfNSW.	Quarterly

Any additional consultation will occur with relevant agencies, councils and other relevant stakeholders where significant changes or amendments are made to this Plan. The outcomes of this consultation will be documented in subsequent revisions of the Traffic and Access CEMP.

1.5. Certification and Approval

This Traffic and Access CEMP has been reviewed and approved for issue by the WSA Environment Manager prior to submission to the Commonwealth Department of Infrastructure, Transport, Regional Development and Communications (DITRDC or 'Infrastructure Department') for approval in accordance with EIS requirement 28-8 (refer Table 9).

1.6. Distribution

All WSA personnel and contractors will have access to this Traffic and Access CEMP via the project document control management system. Unless otherwise agreed by the Approver, the Approved Plan must be published on WSA'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 - https://westernsydney.com.au.

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

2. Scope of Works

The Construction Plan details the construction staging of the Stage 1 Airport Development. The delivery of the Stage 1 Airport Development will be through a packaging strategy with a wide variety of package sizes, risk profiles and contracting entities. Each package (scope of work allocated to one contractor) will have different levels of environmental risk and environmental obligations, depending on the scope of works, location of works and sensitivity of the receiving environment and relevant statutory requirements and obligations.

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

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

Details of the Project construction packages, activities, staging and programming including the phases of works for each package are described in Section 6 of the Construction Plan as required by the Airport Plan Condition 1(5).

This Plan applies to all phases of works as described in Section 6 of the Construction Plan.

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

3. Objectives and Targets

3.1. Objectives

The key objective of this Plan is to ensure that movements of construction traffic (including any oversize vehicles) is appropriately managed and within the scope permitted by the planning approval.

To achieve this objective, the following will be undertaken:

- Minimise disturbance to the local and regional road network;
- Maintain communication with the potentially affected residents, visitors and businesses to minimise disruption;
- Ensure access to the Airport Site does not compromise the safety of the local road network;
- Ensure appropriate measures are implemented to address the management measures detailed in Table 28-8 and mitigation measures detailed in Table 28-9 in Chapter 28 of the EIS; and
- Ensure appropriate measures are implemented to comply with all relevant legislation and other requirements as described in Section 7 of this Plan.

3.2. Targets and Performance Criteria

Targets and performance criteria have been established for the management of traffic and access impacts during the construction phase of the works which have been, derived from the framework and performance criteria identified in the EIS, Table 28-8, as presented in Table 9 - Summary of Traffic and Access Management Requirements.

Table 4 - Traffic and Access Objectives. Targets and Performance Criteria

Objective	Target	Performance Criteria	Document Reference
Maintain communication with potentially affected local residents, visitors and businesses to minimise disruption	Effective communication of traffic management measures to the local community within specified timeframes to minimise disruption to local residents and other road users.	All complaints investigated and closed Issue monthly project newsletters Notification of upcoming works to the community Out of Hours works notifications	Community and Stakeholder Engagement Plan OOHW notifications Complaints database
Minimise disturbance to the local and regional road network	Appropriate training on access and haulage routes provided to employees and contractors. Coordination and consultation with TfNSW, Emergency Services and public transport authorities prior to and during changes to the road network. WSA coordination with NSW authorities on construction traffic activity. Comply with legislative and other requirements.	Minimal disruption to the local and regional road network associated with construction related traffic. Program of activities for the use of the local road network minimises impacts Forum for effective communication with other projects in the area in place Traffic coordination with other stakeholders No non-conformance with the requirements of the CEMP.	Training records Complaints database Traffic Meeting records Traffic Study and monitoring CEMP audit report
Ensure access to the Airport Site does not compromise the safety of the local road network	Safe access onto/from the local network implemented in full consultation with TfNSW.	Program of activities for the use of the local road network minimises impacts Forum for effective communication with other projects in the area in place Traffic coordination with other stakeholders	Site Diary regular entries Ad hoc assessments Traffic Meeting records Traffic study

The above targets in Table 4 have been set to provide a benchmark performance objective to which WSA 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 assessment of potential improvement opportunities.

4. Environmental Legal and other Requirements

Relevant environmental legislation and other requirements are identified below.

4.1. Relevant Legislation and Guidelines

As WSI is to be developed under the Airport Plan determined under the Commonwealth *Airports Act 1996* (Airports Act), some state laws will not be applicable to the Project (refer s112 Airports Act). Where state law is applicable, this Plan will set out the relevant applicable state legislation and requirements and demonstrate how compliance with those laws, including obtaining relevant permits will be achieved. Where state laws are not applicable, there may nonetheless be a requirement to have regard to those laws, for example, through mitigation measures to be incorporated in CEMPs to satisfy conditions under the Airport Plan.

4.1.1. Legislation

Relevant environmental legislation and regulations to this Plan are summarised in Table 5. Further legislative details can be found in Section 3.2 of the SEMF and its Appendix L – Legal and other Requirements Register.

Table 5 - Environmental legislation

Legislation or Regulation	Relevance	CEMP Compliance Provisions
Commonwealth		
Airports Act 1996 (Airports Act)	The 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. The Airport Plan prepared under the Airports Act covers several environmental matters and details specific measures to be carried out for the purposes of preventing, controlling or reducing the environmental impact associated with the airport. Criminal offences may be applicable if these measures are not complied with.	This CEMP forms part of the overall WSA environmental management system which has as a target, full compliance with the Airport Plan. Relevant mechanisms within this CEMP that will contribute to this include but are not limited to: Section 3.1 – Objectives Section 4.5 – Airport Plan Conditions Section 4.6 – EIS Requirements Section 6.4 – Environmental Risk Assessment Section 7 – Environmental Control Measures Section 9 – Roles and Responsibilities Section 10 – Environmental Inspection, Monitoring, Auditing and Reporting Section 10.4 – Environmental Reporting
Airports (Building Control) Regulations 1996 (ABC Regulations)	Any conditions imposed on the ABC and ALC on their consents must be satisfied by the Applicant. These conditions are additional to any requirements identified under the CEMPs.	This CEMP
Airports (Environment Protection) Regulations 1997 (AEPR)	Imposes a general duty to prevent or minimise environmental pollution once an airport lease is granted. Promotes improved environmental management practices at airports.	Refer to commentary on Airports Act above
NSW		

Legislation or Regulation	Relevance	CEMP Compliance Provisions
Environmental Planning and Assessment Act 1979 (EP&A Act)	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 EPA Act have been considered. Section 7 – Environmental Control Measures Section 8 – Traffic and access management Section 9 – Roles and Responsibilities
Liverpool Local Environmental Plan 2008 (Liverpool LEP)	The Liverpool LEP provides local environmental planning controls and standards for land in the Liverpool LGA in accordance with the standard environmental planning instrument under section 3.20 of the EPA Act.	Section 7 – Environmental Control Measures Section 8 – Traffic and access management Section 9 – Roles and Responsibilities
Penrith Local Environmental Plan 2010 (Penrith LEP)	The Penrith LEP provides local environmental planning controls and standards for land in the Penrith LGA in accordance with the standard environmental planning instrument under section 3.20 of the EP&A Act.	Section 7 – Environmental Control Measures Section 8 – Traffic and access management Section 9 – Roles and Responsibilities
Roads Act 1993	Governs the opening, operation and management, and closure, of public roads in NSW including obtaining Road Opening Permits.	Section 7 – Environmental Control Measures Section 9 – Roles and Responsibilities
State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP)	The Infrastructure SEPP aims to facilitate the effective delivery of infrastructure across NSW.	Section 7 – Environmental Control Measures
State Environmental Planning Policy (Precincts – Western Sydney Parkland City) 2021	Formerly the Aerotropolis SEPP, this SEPP was made in accordance with Division 3.3 of the EP&A Act. Chapter 4 provides planning controls for development within the Western Sydney Aerotropolis (the land immediately surrounding WSI). The SEPP overrides any LEP provisions that apply to that land.	Section 7 – Environmental Control Measures Section 8 – Traffic and access management
Work Health and Safety Act 2011 (WHS Act) & Work Health and Safety Regulation 2017(WHS Regulation)	The WHS Act provides a framework to protect the health, safety and welfare of all workers and others in relation to NSW workplaces and work activities. The WHS Regulation sets out specific requirements for particular hazards and risks, such as noise, machinery, and manual handling.	Work Health & Safety Plan

4.1.2. Guidelines and Standards

Guidelines and standards that are relevant to traffic and access management and this Plan are summarised in Table 6 below. For standards and guidelines relevant to traffic related noise, vibration and air impacts refer to the respective CEMPs (the Noise and Vibration CEMP and Air Quality CEMP).

Table 6 - Relevant Guidelines and Standards

Guidelines and Standards	Relevance to this CEMP
Austroads Guide to Road Safety – Part 6 (2009) Pre-opening scheme audit	Section 8.4 - Site Entry and Access Arrangements
Austroads Guide to Road Safety – Part 6 (2009) Roadwork traffic scheme audit	Section 8.4 - Site Entry and Access Arrangements
Austroads Guide to Road Safety – Part 6 (2009) Existing roads: road safety audit	Section 8.4 - Site Entry and Access Arrangements
Austroads Road Safety Audit Second Edition 2002: Checklist 4. Pre-opening scheme audit	Section 8.4 - Site Entry and Access Arrangements
Austroads Road Safety Audit Second Edition 2002: Checklist 5: Roadwork traffic scheme audit	Section 8.4 - Site Entry and Access Arrangements
Austroads Road Safety Audit Second Edition 2002: Checklist 6: Existing roads: road safety audit	Section 8.4 - Site Entry and Access Arrangements
Transport for NSW (TfNSW), QA Specification G7, Utility Adjustment	Section 8.5.3 - Traffic Staging Plans
Transport for NSW (TfNSW), QA Specification G10, Traffic Management	Section 8.5.3 - Traffic Staging Plans
Transport for NSW (TfNSW), QA Specification G22, Work Health and Safety (Construction Work)	Section 8.5.2 - Vehicle Movement Plans
Western Sydney Aerotropolis Development Control Plan 2020 Phase 1	Section 4.1.1 - Legislation

4.2. Approvals and other Specifications

Approvals relevant to traffic and access management and this Plan are summarised in Table 7.

Table 7 - Approvals Relevant to Traffic and Access Management

Approvals	Relevance to this CEMP
Western Sydney Airport Plan	Provides the Conditions of Approval relevant to traffic and access management during construction.
Western Sydney Airport EIS	The requirements of traffic and access management to be taken into account and addressed during the construction phase of the Stage specifically EIS Table 28-8.

In addition, to the above approvals, the following specifications are relevant to traffic and access management and this Plan:

- WSA Construction Plan including the SEMF;
- WSA Functional Specifications;
- WSA Sustainability Plan;
- WSA CSEP; and
- WSA Noise and Vibration Management Plan.

4.3. Airport Plan Conditions

Conditions relevant to traffic and access during construction of the Stage 1 Airport Development are documented in Section 3.11.2 of the Airport Plan and summarised in Table 8. 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 Airports Act.

Table 8 - Airport Plan Conditions Relevant to Traffic and Access 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	This CEMP
1.5	The approved Construction Plan may provide for Main Construction Works to be carried out in phases that commence at different times for 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 49 (Variation of Approved Plans) prior to commencement of any new phase.	Ongoing	WSA	This CEMP Construction Plan
5.3	In carrying out a Preparatory Activity for the Airport Stage 1 Development, the Site Occupier must: 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.	Construction Works	WSA	SEMF
9.1	The Site Occupier must not: a) Commence Main Construction Works until a Traffic and Access CEMP has been prepared and approved in accordance with this condition; or b) Carry out any development described in Part 3 of the Airport Plan inconsistently with the approved Traffic and Access CEMP.	Prior to Main Construction Works	WSA	This CEMP
9.2	The Site Occupier must: a) Prepare; and b) Submit to an Approver for approval, a Traffic and Access CEMP in relation to the carrying out of the developments which are part of the Airport Stage 1 Development.	Prior to Main Construction Works	WSA	This CEMP
9.3	The criteria for approval of the Traffic and Access CEMP are that an Approver is satisfied that: a) in preparing the Traffic and Access CEMP, the Site Occupier has taken into account Table 28-8 in Chapter 28 of the EIS; and	Prior to Main Construction Works	Approver	Section 4.4: EIS Requirements

Condition No.	Condition	Timing	Responsibility	Document Reference
	b) the Traffic and Access CEMP complies with Table 28-9 in Chapter 28 of the EIS and is otherwise appropriate.			
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: (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: I. the Approver; and II. each consulted agency, with an explanation of how any responses have been addressed.	Ongoing	WSA	Section 1.4: Consultation Requirements for this Plan
42	Cumulative Impacts Plan (1) The Rail Authority must not commence Rail Construction Works until a Cumulative Impacts Plan has been approved in accordance with this condition. (2) The ALC must: (a) prepare; and (b) submit to an Approver for approval; a Cumulative Impacts Plan in relation to cumulative impacts arising from the concurrent construction of the Airport Stage 1 Development and the Rail Development. (3) The criteria for approval of the Cumulative Impacts Plan are that an Approver is satisfied that the Cumulative Impacts Plan: (a) sets out: (i) co-ordination and consultation requirements between the following stakeholders as relevant to manage the interface of projects under construction at the same time: the ALC, the Rail Authority, TfNSW, Western Parkland City Authority, Sydney Water, emergency service providers and utility providers; (ii) the responsibility for management of the impacts set out in the Cumulative Impacts Plan; (iii) the relevant environmental management framework relating to construction of the Airport Stage 1 Development and the Rail Development; and (iv) the process for proactively identifying and managing cumulative impacts; (b) has been prepared in consultation with the Rail Authority; and	Prior to rail construction works occurring	WSA and the Approver	Cumulative Impacts Plan (Rail) - WSA00-WSA-00400-EN-PLN-000013

Condition No.	Condition	Timing	Responsibility	Document Reference
	(c) is otherwise appropriate. (4) Each of the Rail Authority and the ALC must not act inconsistently with the approved Cumulative Impacts Plan.			
45 - 50	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 and Approver	This CEMP

4.4. EIS Requirements

The requirements of traffic and access management to considered and addressed during the construction phase of the Stage 1 Airport Development are included in the EIS, specifically Tables 28-8 and 28-9.

A summary of these requirements and how they have been addressed in this Traffic and Access CEMP is presented in Table 9.

Table 9 - Summary of Traffic and Access Management Requirements

EIS Reference	Topic	Summary	Traffic and Access CEMP Reference
Table 28-8	Management objectives and performance criteria	Key management objectives in relation to traffic and access are summarised below: • Minimise disturbance to the local and regional road network; • Maintain communication with the potentially affected local residents, visitors and businesses to minimise disruption; • Ensure access to the Airport Site does not compromise the safety of the local road network. • The performance criteria include: • compliance with the approved Traffic and Access CEMP; • minimising disruption to the local and regional road network associated with construction related traffic; and • effective communication of traffic management measures to the local community.	Section 3 Objectives and Targets
Table 28-8	Implementation framework	A Traffic and Access CEMP will be approved prior to Main Construction Works for the proposed airport. The CEMP will collate measures to mitigate and manage potential impacts to the local and regional road network, including cross-reference to other environmental management plans where they are relevant.	This CEMP
		The Traffic and Access CEMP will include as a minimum the management and mitigation measures to be implemented, including:	Section 7 – Environmental control measures Section 8 - Traffic and Access Management
		The process for managing complaints, stakeholder engagement, and emerging traffic management issues as they arise.	Section 10.6 – Environmental incidents and complaints management
		The process for monitoring implementation, reporting, and auditing	Section 10 - Environmental inspection, monitoring, auditing and reporting

EIS Reference	Topic	Summary	Traffic and Access CEMP Reference
		Details of the party responsible for implementing the Traffic and Access CEMP.	Section 9 – Roles and responsibilities
Table 28-8	Monitoring	Monitoring requirements include that:	
		Monitoring must take place under the direction of an appropriately qualified person.	Section 10 - Environmental inspection, monitoring, auditing and reporting
		The results of the monitoring must be kept in a written record.	Section 10 - Environmental inspection, monitoring, auditing and reporting
		Monitoring of the effectiveness of traffic control measures.	Section 10 - Environmental inspection, monitoring, auditing and reporting
Table 28-8	Auditing and reporting	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 Traffic and Access CEMP for the period until the airport commences operations.	Section 10.4 – Environmental Reporting
		Additional auditing and reporting measures that will be implemented include:	
		Recording in a log book any exceptional incidents that cause excessive traffic delays on local road network and the action taken to resolve the situation.	Section 10.6 – Environmental incidents and complaints management
		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 10.6 – Environmental incidents and complaints management WSA Community and Stakeholder Engagement Plan
Table 28-8	Responsibility	Responsibilities include:	-
		the Traffic and Access CEMP will be prepared in consultation with TfNSW (including Sydney Metro) and relevant local councils.	Section 1.2 – Document Purpose
		the Traffic and Access CEMP will be submitted for approval to the Infrastructure Minister or an SES Officer in the Department of Infrastructure and Regional Development; and	Section 1.4 - Consultation requirements of this plan
		the D&C contractor will be responsible for implementing site specific environmental procedures and work method statements applicable to the	Section 1.2 – Document Purpose SEMF Section 4 – Roles and Responsibilities

EIS Reference	Topic	Summary	Traffic and Access CEMP Reference
		proposed works in accordance with the requirements of the Traffic and Access CEMP.	
Table 28-9	Community Awareness	As part of the Community and Stakeholder Engagement Plan a community awareness programme will be implemented prior to Main Construction Works commencing and would continue throughout the entire construction period. The programme will aim to make road users (including local residents) aware of construction traffic and safety issues, such as diversions, temporary road closures, traffic signalling and speed limits.	Section 7 – Environmental control measures Section 8 - Traffic and Access Management
Table 28-9	Construction traffic and access	To mitigate and manage potential traffic impacts the Traffic and Access CEMP will include the following elements: • Management for the temporary and permanent closures of roads within the Airport Site. • Ongoing consultation with TfNSW and local councils as appropriate and emergency services. • Induction for drivers working on the project to cover safety measures particularly for night works. • Review of speed environments along transport corridors. • Restriction of construction related traffic within the AM and PM peak periods where required. • Management of the transportation of construction materials to optimise vehicle loads in order to minimise vehicle movements. • Traffic control measures to manage and regulate traffic movements during construction. • Identification of potential disruption to road users. • Identification of any road closures and/or road upgrades that may be required. • Construction vehicle routes, including the use of arterial roads, haulage routes, access to the Airport Site and procedures for oversize and heavy vehicles. • Parking facilities for construction workers. • Measures to support and encourage sustainable travel for construction workers to and from the Airport Site, including public transport, shuttle buses, cycling, walking, and car-sharing (as also outlined in the Air Quality CEMP).	Section 7 – Environmental control measures Section 8 - Traffic and Access Management

5. Existing Environment

The following information is summarised from the EIS and refers to the Airport Site and surrounding environment. Refer to Chapter 15 of EIS Volume 2A for the traffic and access assessment.

For the purpose of Main Construction Works covered by this CEMP, the existing environment described herein is considered consistent and acceptable for consideration in the risk assessment process and the identification of suitable environmental mitigation measures and controls. For details with regards to environmental mitigation measures and controls for the management of traffic and access impacts refer to Section 7.

5.1. Existing Road Network

TfNSW define four levels in a typical functional road hierarchy, ranging from high mobility and low accessibility, to high accessibility and low mobility. These road classes are:

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

A description of the roads within and servicing the Airport Site, including their functional category is provided below in Table 10.

Table 10 - Existing Roads Servicing the Airport Site

Road	Functional Category	Description
Westlink M7 Motorway	Arterial	The M7 Motorway connects Western Sydney with the broader road network and Sydney CBD via the M2, M4 and M5 motorways.
The Northern Road	Arterial	The Northern Road connects Narellan in the south-west to the Great Western Highway in Penrith.
Elizabeth Drive	Arterial	Elizabeth Drive connects The Northern Road at its western end, and the M7 Motorway at its eastern end.
Bringelly Road	Arterial	Bringelly Road connects to The Northern Road at Bringelly and to Camden Valley Way at Horningsea Park.
Badgerys Creek Road	Collector	Badgerys Creek Road connects The Northern Road to the north of Bringelly to a roundabout on Elizabeth Drive, and is around seven kilometres in length, including a section of road within the airport site realigned north of Pitt Street
Adams Road	Collector	Adams Road connects The Northern Road at Luddenham to Elizabeth Drive.
Anton Road	Local	Connects Adams Road to the western side of the site (future fuel farm and fire fighting activities).
Mamre Road	Arterial	Mamre Road connects the Great Western Highway in St Marys to Elizabeth Drive.
Eaton Road	Local	Eaton Road connects to The Northern Road at Luddenham, with left in left out to/from The Northern Road.
Luddenham Road	Collector	Luddenham Road connects Elizabeth Drive at Luddenham to Mamre Road.

Road	Functional Category	Description
Previously decommissioned Local roads within the Airport Site – no public access	Local	Eaton Road; Fuller Street; Jackson Road; Jagelman Road; Leggo Street; Longleys Road (west); Pitt Street (west); Taylors Road and the Old Northern Road.

There are currently four bus services operating in the vicinity of the Airport Site. These include the following:

- Route 789 Penrith Interchange to Luddenham via The Northern Road. Offering two services per day in both directions;
- Route 801 Liverpool Interchange to Badgerys Creek via Kemps Creek, Cecil Park and Bonnyrigg, offering three services per day in both directions;
- Route 855 Rutleigh Park to Liverpool via Prestons and Churchill Gardens, offering approximately ten services per day in both directions; and
- Route 856 Bringelly to Liverpool via Prestons and Churchill Garden, offering approximately seven services per day in both directions.

The following train interchanges are currently the closest to the Airport Site:

- T1 Western line – Penrith Interchange;
- T2 Inner West and South Line – Liverpool Interchange; and
- South West Rail Link – Leppington.

Although improvements have been realised as part of The Northern Road upgrade, cycling infrastructure in the vicinity of the Airport Site remains limited.

The Northern Road upgrade included a shared pedestrian and bicycle path, separated from road traffic by a kerb and landscaped verge. Shared signalised bicycle-pedestrian crossing points were also implemented as part of The Northern Road upgrade, such as at the Mersey Road-The Northern Road intersection. Along the frontage of the Airport Site on The Northern Road, the designated bicycle-pedestrian path is on the opposite side of the road (west and north side), therefore the opportunity for direct construction vehicle-bicycle interfaces in the vicinity of the Airport Site are expected to be minimal.

Further upgrades to the network are expected during upgrades to Elizabeth Drive and the construction of the M12 motorway, however the completion and operation of these road projects are unlikely to coincide with the WSI construction phase.

WSA is working with TfNSW to integrate airport design with the design of the Principal Bicycle Network to ensure good, safe active travel connectivity through to the main locations of activity on airport: terminal, business park, aviation support and freight precincts.

5.2. Sensitive Receptors

Sensitive receptors were identified within about five kilometres of the Airport Site for the purpose of assessing the potential impacts of air emissions at these locations. Due to the density of sensitive receptors in the vicinity of the Airport Site, a representative selection comprising 152 of these sensitive receptors was made, locations for which have been provided in the Air Quality CEMP. These sensitive receptor types include residences, schools, churches and other community infrastructure. Sensitive receptors from suburbs surrounding the Airport Site at varying distances were also included.

The location of the sensitive receivers in relation to the Airport Site in general, and specifically to the phase of Main Construction Works is included in Appendix B of the Air Quality CEMP.

5.3. Land Use

Pastoral and horticultural land uses remain the primary land uses in the area. Large blocks of agricultural land are found to the north and west, while rural residential and agricultural properties are generally concentrated to the east and south of the site.

A summary of the existing road network and the various land uses immediately surrounding the Airport Site is shown in Appendix A - State Environmental Planning Policy (Precincts – Western Sydney Parkland City) 2021 Land Zoning Map.

6. Traffic and Access Aspects and Impacts

The potential for traffic, transport and access impacts was considered in Chapter 15 of the EIS. The findings are summarised in the sections below.

6.1. Construction Traffic Volumes and Distribution

6.1.1. Material Importation

Bulk material importation is nearing completion for the Bulk Earthworks scope. The majority of future Bulk Earthworks operations will utilise internal site haul roads to transport material from cut areas of the site to fill areas of the site, which will significantly decrease future heavy vehicle traffic on public roads for the purposes of Bulk Earthworks material importation.

Peak construction vehicle generation during the remainder of the Bulk Earthworks Material Importation phase will occur in Q2 2022 with a steady decrease in volumes throughout 2022 in accordance with the Bulk Earthworks commentary in Section 6.1.2. The forecast peak vehicle generation for Material Importation (forecast to occur Q2 2022) is shown in Table 11.

Material Importation impacts for remaining Main Works Contracts are included within the controls and heavy vehicle volumes specific to each package.

Table 11 - Peak Vehicle Volumes expected during Material Importation

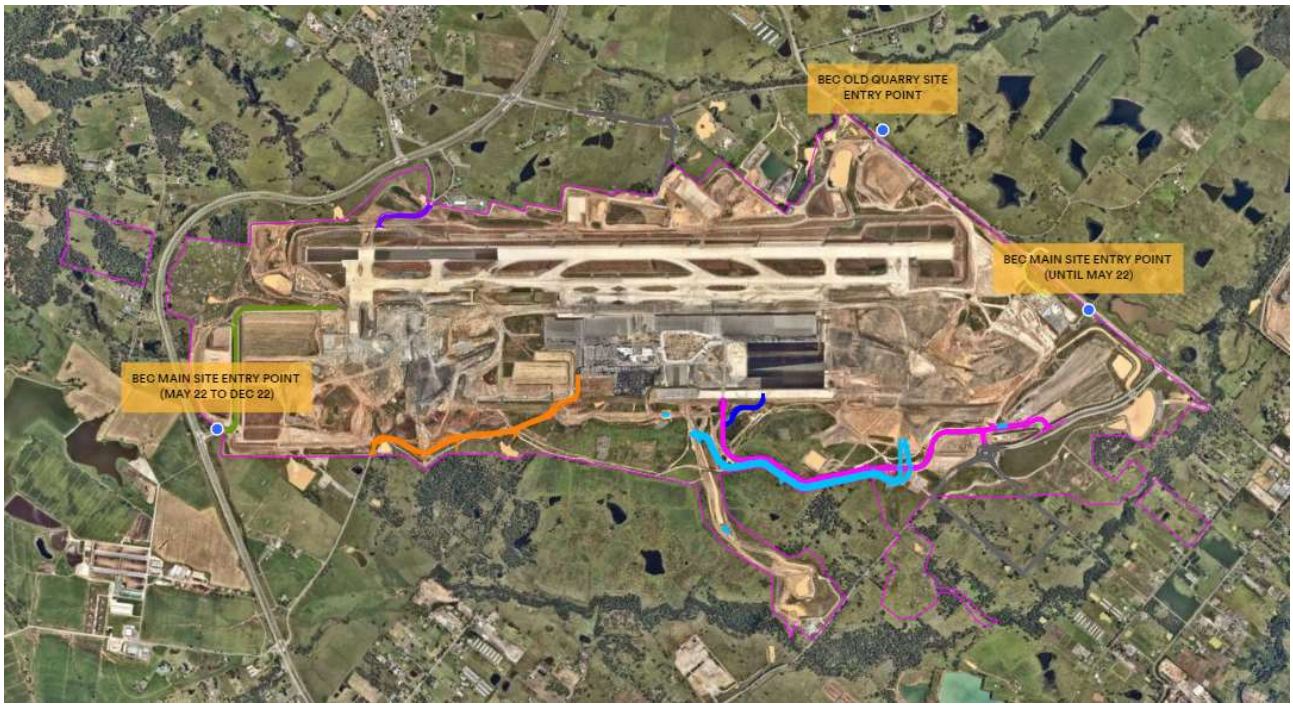
Vehicles	Direction	AM peak 0700 – 0900	Interpeak 09.00-15.00	PM Peak 15.00-18.00	Evening 18.00-07.00	Total (vtpd)
Light vehicles	In	10	4	0	4	18
	Out	4	4	6	4	18
Small Truck	In	1	2	0	0	3
	Out	0	2	1	0	3
Semi-Trailer	In	15	30	15	0	60
	Out	15	30	15	0	60
Truck and Dog	In	30	90	30	200	350
	Out	30	90	30	200	350
Total		105	252	97	408	862

Source – Bulk Earthworks resourced program

6.1.2. Bulk Earthworks

Throughout 2022, Bulk Earthworks activities will steadily decrease as the BEC completes their scope and hands over site areas to follow-on Contractors. Bulk Earthworks light and heavy vehicle traffic volumes are past their peak and will continue to decrease in conjunction with their staged completion. By the end of Q4 2022, Bulk Earthworks are expected to have completed their scope on site. The figures represented in Table 12 indicate the peak traffic volumes expected (Q2 2022) for the remainder of the Bulk Earthworks package.

The Site Entry Points (SEPs) to be utilised by the BEC throughout the remainder of their works, including Material Importation, are shown in Figure 2.



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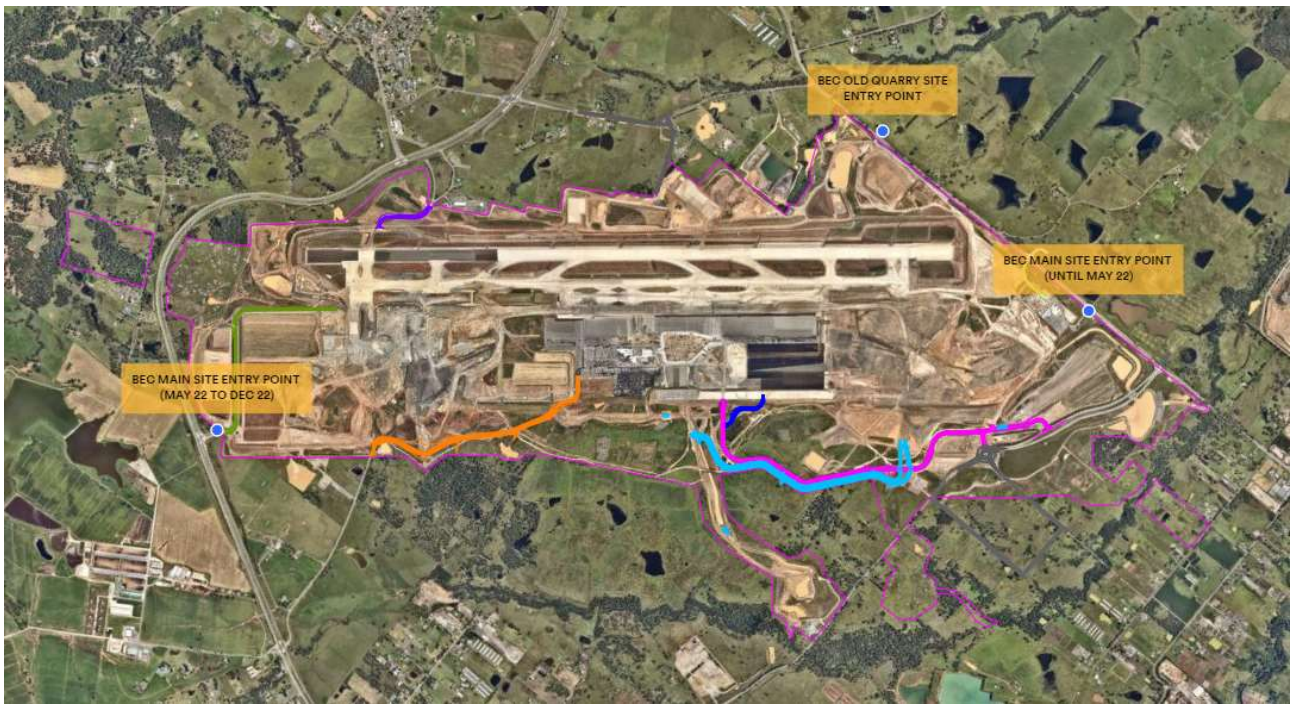


Figure 2: Location of Bulk Earthworks Site Entry Points (including Material Importation)

Light Vehicle Traffic Impacts

During the remaining Bulk Earthworks scope, the peak light vehicle volumes shown in Table 12 can be expected to enter and exit the Airport Site (Q2 2022).

Most light vehicles arrive on site prior to 7am (outside of the AM peak) and begin exiting the site at around 4pm each day until 7pm. Generally, deliveries take place during normal construction hours, with the majority occurring interpeak (9am to 3pm). This is expected to remain consistent for the remainder of 2022.

The Bulk Earthworks site compound will be relocated in Q2 2022. Primary access will be from The Northern Road "Freight Access Road" rather than from the Elizabeth Drive "Old Badgerys Creek Road" site access. This access relocation is expected to significantly decrease Bulk Earthworks traffic in the major works zones around the M12 On-Airport Elizabeth Drive site.

Heavy Haulage Traffic Impacts

During the remainder of construction of Bulk Earthworks scope through 2022, the peak heavy vehicle volumes shown in Table 12, (excluding material importation as this is included in Section 6.1.1) will enter and exit the Bulk Earthworks site. Again, the majority of these vehicles will access site via The Northern Road BEC Main Site Entry Point (May 22 to Dec 22) as shown in Figure 2, also known as the "Freight Access Road" from May 2022.

Table 12 - BEC Expected Peak Light and Heavy Vehicle Volumes

Vehicle Type	Morning (6:00–7:00)	AM Peak (7:00–9:00)	Interpeak (9:00–15:00)	PM Peak (15:00–18:00)	Evening (18:00–6:00)	Total (vtpd)
Light vehicles	200	50	50	250	50	600
Heavy vehicles	10	20	40	20	10	100
Oversized and semi-trailers	0	1	2	1	0	4
Total per day	210	71	92	271	60	704

Source – Bulk Earthworks resourced program

6.1.3. Experience Centre and Site Office Operations

The WSI Experience Centre and Site Office are located on Eaton Road with left in-left out access/egress from The Northern Road. The Experience Centre is a community engagement and education hub, allowing visitors to discover how WSI will help shape the future of Western Sydney. The Site Office is the primary office location for field-based and site office-based personnel in the vicinity of the Airport Site. Figure 3 shows the SEP relative to the overall Airport Site.

Figure 3: Location of Experience Centre and WSA Main Site Office Entry Point

Experience Centre

During operation of the Experience Centre, the majority of vehicle movements will be light vehicles with a negligible number of busses and heavy vehicle movements (forecast as four movements per day). The forecast peak volume of light and heavy vehicle movements is detailed in Table 13.

Table 13 - Expected Peak Experience Centre Vehicle Volumes

Vehicle Type	Morning (6:00–7:00)	AM Peak (7:00–9:00)	Interpeak (9:00–15:00)	PM Peak (15:00–18:00)	Evening (18:00–6:00)	Total (vtpd)
Light vehicles	1	2	80	16	1	100
Heavy vehicles	0	0	4	0	0	4
Oversized and semi-trailers	0	0	0	0	0	0

Source – WSA traffic survey

The majority of vehicle movements are expected to occur between the opening hours of the Experience Centre (10:00 until 16:00 Monday to Thursday and Saturday). The hours and days of operation are subject to change due to COVID-19 restrictions, which has resulted in temporary closures during 2020-2022, however the peak vehicle volumes are not expected to change as a result. These peaks are based on special events.

WSA Main Site Office

During operation of the WSA Main Site Office, most vehicle movements will be light vehicles with no routine heavy vehicle movements expected (approximately two movements per week i.e. waste collection). The peak expected volume of light vehicle movements is detailed in Table 14.

Table 14 - Expected Peak Site Office Operations Vehicle Volumes

Vehicle Type	Morning (6:00–7:00)	AM Peak (7:00–9:00)	Interpeak (9:00–15:00)	PM Peak (15:00–18:00)	Evening (18:00–6:00)	Total (vtpd)
Light vehicles	10	90	100	90	10	300
Heavy vehicles	0	0	0	0	0	0
Oversized and semi-trailers	0	0	0	0	0	0

Source – WSA traffic survey

The majority of arrivals during the morning peak are expected to arrive between 07:00 and 08:00, and leave prior to 17:00hrs. Traffic movements during the interpeak period are generally at a steady but low volume, with a small peak around lunchtime, between 12:00 and 13:00.

6.1.4. Terminal and Specialty Services (TSS) Works

All construction vehicles entering the main Terminal and Specialty Services (TSS) site will access via Badgerys Creek Road, and The Northern Road during TSS Construction works activities. Access to the main TSS site is staged in phases further described below.

Table 15 - TSS Entry Points

Description	Location	Access Date
TSS Phase 1 Main Entry Point	Badgerys Creek Road LILO, southbound between Pitt St and Elizabeth Drive	Q3 2021

Description	Location	Access Date
TSS Phase 2 Main Entry Point	Badgerys Creek Road-Pitt Street Roundabout, northern leg	Q2 2022
TSS Phase 3 Main Entry Point	The Northern Road intersection with old The Northern Road	Q3 2022
Eaton Road Entry Point	Eaton Road off The Northern Road	Q1 2022
Southern TER	The Northern Road, new intersection with WSA "Freight Access Road"	Q2 2022
Northern TER	Elizabeth Drive - M12 Temporary Roundabout	Q4 2022
Fuel Farm Access	Access from Anton Road	Q3 2022

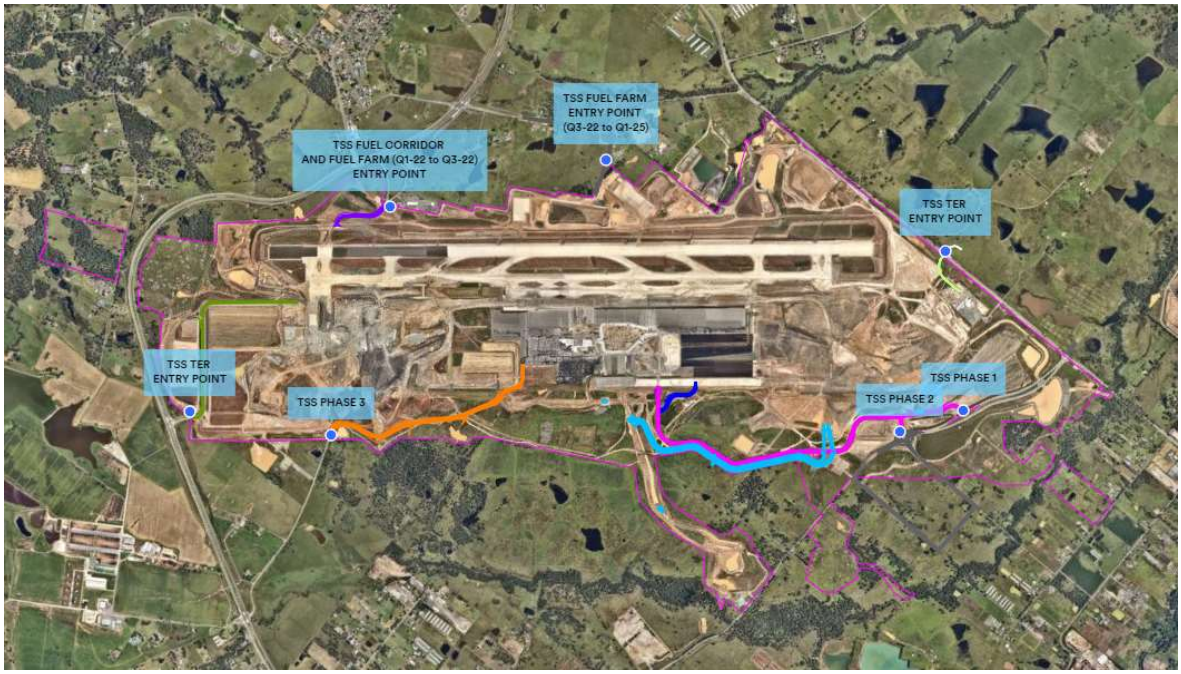


Figure 4: Location of TSS Site Entry Points

Commencing from Q1 2022, access to the Fuel Line and Fuel Farm works is via Eaton Road. Commencing Q3 2022, access to the Fuel Farm works will switch to the newly upgraded Anton Road.

Commencing from Q3 2022, access to the TER construction site areas will commence from The Northern Road via the signalised “Freight Access Road” intersection (shared with ACP Contractor) and Elizabeth Drive via the new temporary M12 roundabout (shared with LCB and M12 On-Airport).

The dates and locations for access may vary in consultation with external and interface stakeholders where opportunities are identified to further mitigate potential traffic and access impacts.

Light Vehicle Traffic

Onsite parking is provided for workers and staff for all phases of construction. For the first two phases, an 800-space car park has been constructed, which will be expanded to 1,400 spaces in Phase 3 to coincide with the forecast overall peak of TSS Works construction.

These car parks will not be fully utilised on a day-to-day basis, with the anticipated peak construction workers (and permanent staff) for each phase and ancillary site (Fuel farm, fuel line and TERs) summarised in Table 16.The peak light vehicle movements will occur during the Phase 3 construction works, from Q3 2022. An estimated profile of activity for this phase is listed in . The fuel line works, fuel farm works, and TER works are also expected to peak within the same timeframe.

Heavy Haulage Traffic

The heavy vehicle volumes will peak during the same period, during Phase 3 from Q3 2022 as indicated in the peak heavy vehicle movements profiles outlined in Table 16. Again, the heavy vehicle volumes associated with the fuel line works, fuel farm works, and TER works are expected peak during the same timeframe.

Table 16 - Expected Peak Vehicle Movements – TSS

Construction Phase	Vehicle Type	Morning (6:00–7:00)	AM Peak (7:00–9:00)	Interpeak (9:00–15:00)	PM Peak (15:00–18:00)	Evening (18:00–6:00)	Total (vtpd)
Phase 1 &3	Light vehicles	200	50	50	250	50	600
	Heavy vehicles	6	12	24	12	6	60
	Oversized and semi-trailers	4	8	16	8	4	40
	Total per day	**210**	**70**	**90**	**270**	**60**	**700**
Phase 2	Light vehicles	720	120	120	920	120	2000
	Heavy vehicles	30	60	120	60	30	30
	Oversized and semi-trailers	20	40	08	40	20	200
	Total per day	**770**	**220**	**248**	**1020**	**170**	**2230**
Specialty works - Airside	Light vehicles	2	4	4	4	2	16
	Heavy vehicles	1	4	5	3	1	14
	Oversized and semi-trailers	0	0	0	0	0	0
	Total per day	**3**	**8**	**9**	**7**	**3**	**30**
Fuel Farm Phase 3A	Light vehicles	10	5	8	10	10	43
	Heavy vehicles	2	3	3	2	1	11
	Oversized and semi-trailers	4	4	5	3	3	19
	Total per day	**16**	**12**	**16**	**15**	**14**	**73**
Fuel Farm Phase 3	Light vehicles	100	60	60	100	60	380
	Heavy vehicles	6	7	8	4	3	28
	Oversized and semi-trailers	4	4	5	3	3	19
	Total per day	**110**	**71**	**73**	**107**	**66**	**427**
Northern TER – Elizabeth Drive	Light vehicles	2	4	4	4	2	16
	Heavy vehicles	1	4	5	3	1	14
	Oversized and semi-trailers	0	0	0	0	0	0
	Total per day	**3**	**8**	**9**	**7**	**3**	**30**
Southern TER – The Northern Road	Light vehicles	2	4	4	4	2	16
	Heavy vehicles	1	4	5	3	1	14
	Oversized and semi-trailers	0	0	0	0	0	0
	Total per day	**3**	**8**	**9**	**7**	**3**	**30**

Source – TSS Contractor (Multiplex) and WSA estimates

6.1.5. ACP Works

The ACP Contractor has access to four SEPs to carry out their elements of the project works. These SEPs have been designed and designated to minimise interface with other WSA Contractors and other project (SMWSA and M12 On-Airport) Contractors, thereby mitigating traffic and access impacts on the road network. The SEPs are as shown in Table 17.

Table 17 - ACP Site Entry Points

SEP Description	Location	Access Date
Anton Road Entry Point	Anton Road	Q3 2022
ACP Eaton Road Entry Point	Eaton Road, near the WSA Experience Centre	Q2 2022
ACP Main Entry Point	The Northern Road (Stage 4), new intersection with WSA "Freight Access Road"	Q2 2022
Epic Mine Entry Point	Elizabeth Drive, east of Adams road (Old Epic Mine access gate)	Q4 2022
M12 Temporary Roundabout Entry Point	Elizabeth Drive, 80m west of old Taylor's Road	Q4 2022

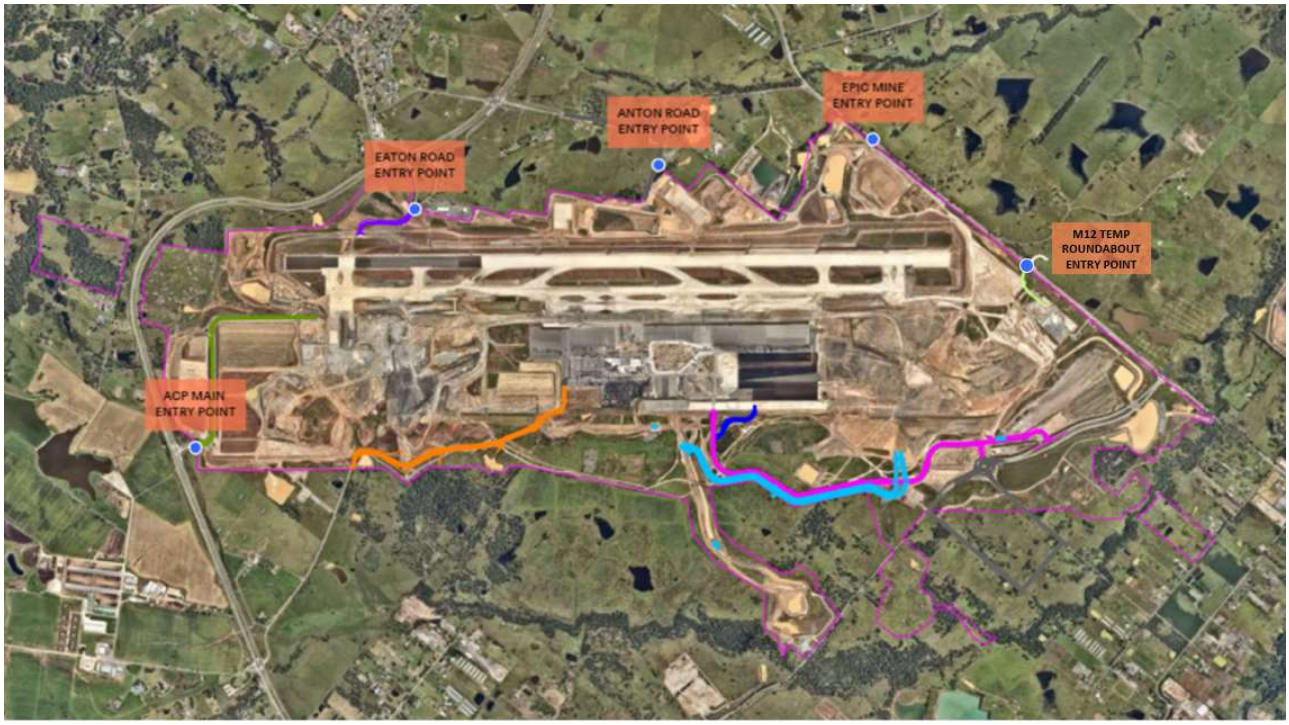


Figure 5: Location of ACP Site Entry Points

The Northern Road 'Main Entry' access point has been nominated by WSA as the primary access and egress for the ACP site. This SEP consists of a newly constructed, fully signalised, multi-directional intersection with the new alignment of The Northern Road. The signalised intersection provides safe and reliable right-turn access under red light traffic conditions, and provides right-turn queuing capacity at the intersection, further mitigating any potential traffic impacts on the wider network. The ACP Contractor is expected to be the primary user of the SEP and contribute the majority of traffic at this entry point, however initially it will be shared with Bulk Earthworks (Q2 2022 through Q4 2022) and later with the TSS Contractor (Q3 2022 to Q4 2024).

Access from Elizabeth Drive may be provided at the Epic Mine Entry Point and the M12 Temporary Roundabout during Phase 2 of the ACP Works (from Q4 2022). As noted under Material Importation (refer Section 6.1.1), the Epic Mine SEP is pre-established and to date has been under frequent heavy vehicle use

by the BEC for Material Importation from Elizabeth Drive. In order to mitigate any vehicle safety risks on Elizabeth Drive, this SEP shall be utilised as 'Left In Left Out' only as per the existing Bulk Earthworks project configuration. Due to the handover of areas, there will be no concurrent access requirement from the Bulk Earthworks Contractor and the ACP Contractor. Access via the M12 Temporary roundabout will be shared with the M12 and SMWSA teams as well as LCB an TSS for access to their limited sites in this area,

The Anton Road access point will not be available until Anton Road upgrade works are complete. These road improvements will make Adams and Anton Road, and the associated SEP, suitable for heavy vehicle use. Table 18 provides the expected peak vehicle volumes for the ACP Works scope.

The dates and locations for access may vary in consultation with external and interface stakeholders where opportunities are identified to further mitigate potential traffic and access impacts.

Table 18 - Expected peak vehicle movements - ACP

Vehicle Type	Morning (6:00–7:00)	AM Peak (7:00–9:00)	Interpeak (9:00–15:00)	PM Peak (15:00–18:00)	Evening (18:00–6:00)	Total (vtpd)
Light vehicles	300	50	50	300	100	800
Heavy Vehicles	45	122	367	147	5	685
Oversized and semi-trailers	0	5	10	0	0	15
Total Vehicles per day	**345**	**177**	**377**	**447**	**105**	**1500**

Source: ACP Contractor (CPB Acciona JV)

6.1.6. LCB Works

The LCB Contractor has access to four Site Entry Points, to access the site and carry out the project works. These SEP have been designed and designated to minimise interface with other WSA Contractors and other project (SMWSA and M12On-Airport) Contractors.

The geographic location of the LCB Works proximate to both the SMWSA and M12 On-Airport work sites, means that access must be integrated and shared with those other projects. Upgrades to existing intersections and the construction of new infrastructure (e.g., Badgerys Creek Road upgrades including new roundabouts to improve intersection capacity) have been implemented to help mitigate construction traffic and access impacts on public roads.

The dates and locations for access outlined in Table 19**Error! Reference source not found.** may vary in consultation with external and interface stakeholders where opportunities are identified to further mitigate potential traffic and access impacts. Figure 6 provides an indication of the LCB SEP locations relative to the Airport Site.

Table 19 - LCB Site Entry Points

Description	Location	Access Date
Badgerys Creek Road LILO Entry Point	Badgerys Creek Road LILO, southbound between Pitt St and Elizabeth Drive	Q2 2022
Badgerys Creek Road Roundabout Entry Point	Badgerys Creek Road-Pitt Street Roundabout, northern leg	Q2 2022
LCB Water Complex Entry Point	Badgerys Creek Road – Pitt Street roundabout southern leg	Q3 2022
M12 Temporary Roundabout Entry Point	Elizabeth Drive, 80m west of old Taylor's Road	Q3 2022

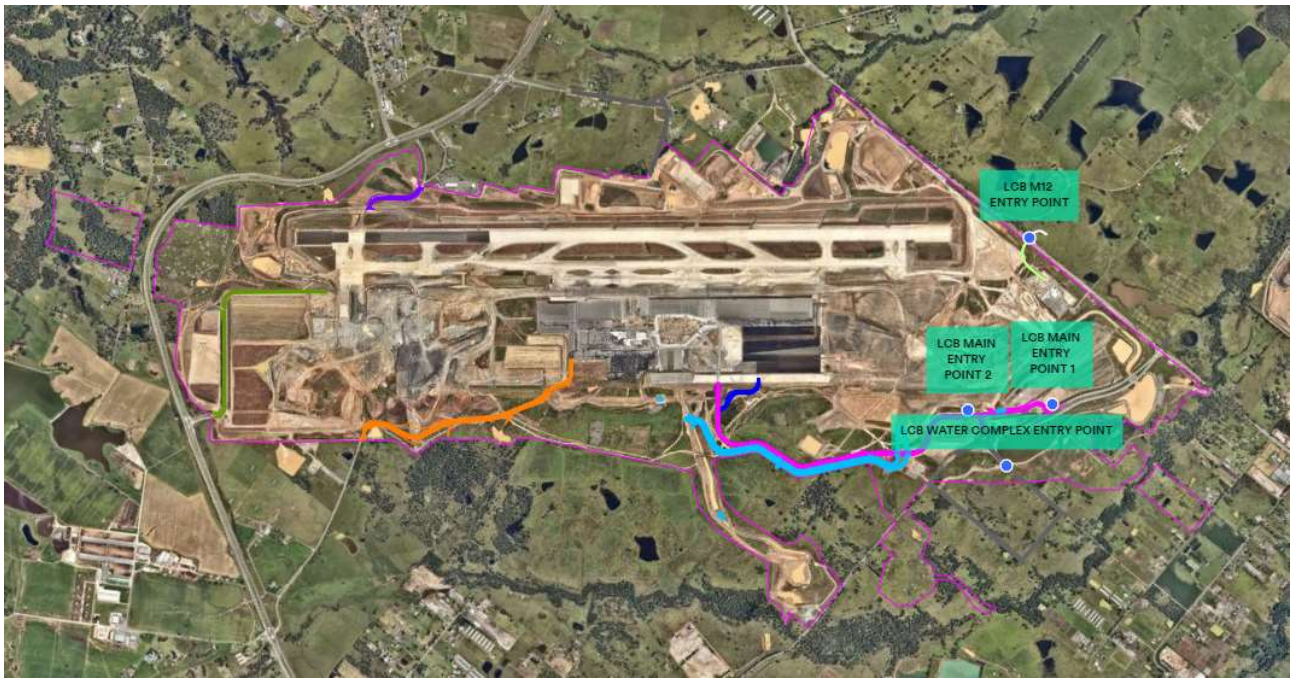


Figure 6: Location of LCB Site Entry Points

Light Vehicle Traffic Impacts

The majority of light vehicles will arrive to site prior to 7:00am and exit between 5:00pm and 6:00pm. Light vehicle arrivals and departures outside these hours are significantly less, as outlined in Table 20.

All light vehicles will arrive to, and the majority will also depart from, the LCB site main compound located off Badgerys Creek Road between SEP 1 and 2. Access to the compound will be from Badgerys Creek Road through SEP 2. Generally, private light vehicles will be parked in the main compound carpark, and labour will be transported by bus to their respective work sites.

Heavy Vehicle Traffic Impacts

The heavy vehicle haulage traffic is expected to be uniform over the hours of the day as shown in Table 20. No night deliveries are planned by the LCB Contractor.

Table 20 - Expected Peak Vehicle Volumes - LCB

Vehicle Type	Morning (6:00–7:00)	AM Peak (7:00–9:00)	Interpeak (9:00–15:00)	PM Peak (15:00–18:00)	Evening (18:00–6:00)	Total (vtpd)
Light vehicles	203	24	0	189	38	454
Heavy vehicles	10	48	114	48	0	220
Oversized and semi-trailers	0	6	6	0	0	12
Total per day	**213**	**78**	**120**	**237**	**38**	**686**

Source: LCB Contractor (Aerowest JV)

6.1.7. M12 On-Airport

Construction traffic impacts associated with the M12 on Airport works have been modelled in the following M12 on Airport Environmental Assessment Documents:

- M12 Motorway Project Environmental Impact Assessment (EIS) (October 2019)

- M12 Motorway Project Amendment Report (October 2020)
- M12 Motorway Project West Package Consistency Assessment (October 2020)

M12 access to On-Airport activities will be via the temporary roundabout and the shared site access road (to be shared with the LCB, TSS and ACP Contractors). Once the temporary roundabout and shared access road are decommissioned, access will be Left In Left Out from the proposed new intersection at Elizabeth Drive (to be constructed as part of the M12 On-Airport scope). Access to the Elizabeth Drive and Badgerys Creek Road roundabout intersection upgrade will be Left In Left Out as illustrated in Figure 7.

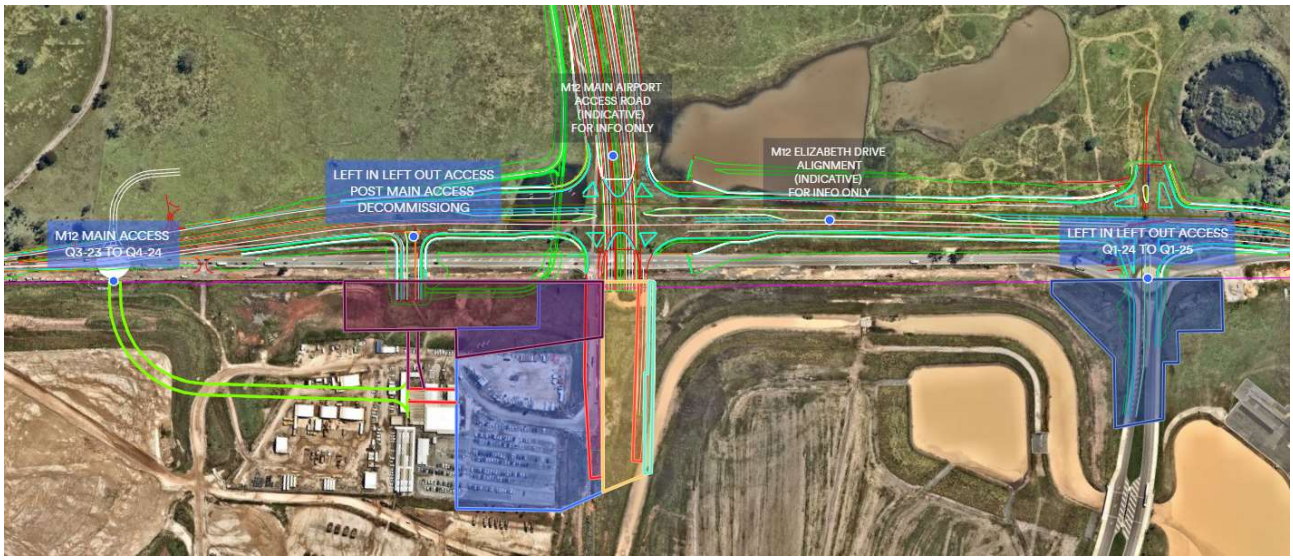


Figure 7: Location of M12 On-Airport Site Entry Points

Light Vehicle and Heavy Vehicles Volumes

The M12 On-Airport peak light and heavy vehicle movement profiles are summarised in Table 21. The data presented is at 1-hour AM Peak (7:30-8:30) and 1-hour PM Peak (16:30-17:30) for light and heavy vehicle generation 10% allowance for other 10 hours outside the two hours AM and PM peaks.

Table 21 - Expected Peak vehicle movements – M12 on Airport Construction Activities

Vehicle Type	Morning (6:00–7:00)	AM Peak (7:00–9:00)	Interpeak (9:00–15:00)	PM Peak (15:00–18:00)	Evening (18:00–6:00)	Total (vtpd)
Light vehicles	3	15	9	14	3	44
Heavy Vehicles	1	4	9	5	1	20
Total per day	**4**	**19**	**18**	**19**	**4**	**64**

Source: TfNSW

6.2. Effects on Road Network Performance

The roads to and from the Airport Site are designated with a functional category of ‘arterial roads’. The Airport Site has motorway access from the M7 Motorway via arterial roads; Bringelly Road onto The Northern Road (northbound) and Elizabeth Drive (westbound), M5 via arterial roads; Bringelly Road onto The Northern Road (northbound) and the M4 Motorway via arterial roads; The Northern Road (southbound).

The EIS envisioned only one access point for the airport construction, which would likely have concentrated traffic impacts to the network around that point. WSA’s current access strategy includes additional access points for construction, enabling distribution of construction traffic over a greater area of the existing roadway network. Additionally, several roadway upgrades were completed that go beyond what was contemplated in the EIS and are expected to convey significant volumes of WSA construction traffic. These include:

- The Northern Road from Narellan to South Penrith, including M4-The Northern Road intersection upgrade and two new signalised intersections for access onto the airport at old The Northern Road and WSA "Freight Access Road";
- Bringelly Road from Camden Valley Way to The Northern Road, included The Northern Road-Bringelly Road intersection upgrade;
- Badgerys Creek Road between Pitt Street and Elizabeth Drive, including intersection capacity improvements at Elizabeth Drive and Pitt Street.

Further road upgrades are planned or underway for Badgerys Creek Road-Pitt Street roundabout (forecast completion Q2 2022), Adams Road between Anton Road and The Northern Road (forecast completion Q3 2022), Anton Road from the Airport boundary to Adams Road (forecast completion Q3 2022), Mamre Road including signalised intersection at Luddenham Road (forecast completion 2025) and Elizabeth Drive as part of the M12 On-Airport Works (forecast completion before opening of WSI).

Given the completion of Badgerys Creek Road-Pitt Street roundabout and Adams-Anton Road upgrades prior to the peak of WSI construction traffic, these upgrades will further mitigate potential traffic impacts.

Other road upgrades which may extend into the WSI peak construction traffic periods, namely Elizabeth Drive and Mamre Road, have also been considered in the designation of the Contractor SEPs, to mitigate any potential exacerbation of construction traffic impacts as a result. Further detail on construction haulage routes is provided in Construction Haulage Routes.

In summary, given the functional category of existing roads in the vicinity of the Airport Site, and the significant road infrastructure development underway, it is considered that the site is well situated within the road network to handle the traffic which will be generated by the Project.

The designation of the access routes has been strategically nominated by WSA to minimise disturbance to the local and regional road network and ensure access to the Airport Site does not compromise the safety of the local road network. WSA's assessment of the access routes to site from major arterial intersections indicates that the primary, secondary and tertiary travel routes for the Project packages of works is indicated in Table 22.

Table 22 - Forecast Access Routes to the Airport Site based on Travel Time (without Traffic)

T&A CEMP Relevant sub-section	Package of Works	Primary Route (travel time)	Secondary Route (travel time)	Tertiary Route (travel time)	Comments
6.1.1	Material Importation	M4 via The Northern Road and Elizabeth Drive (10 minutes)	M7 via Elizabeth Drive (10 minutes)	M5 / M31 via Bringelly Road and the Northern Road (24 minutes)	Elizabeth Drive site entry point is west of M12 work zone. Bulk Earthworks material importation forecast to be substantially complete prior to M12 works commencement.
6.1.2	Bulk Earthworks	M4 via The Northern Road (12 minutes)	M5 / M31 via Bringelly Road and the Northern Road (16 minutes)	M7 via The Northern Road and Elizabeth Drive (18 minutes)	Bulk Earthwork scope expected to be complete ahead of overall WSA construction traffic peak. Forecast primary access routes assume relocation to site entry to The Northern Road.
6.1.3	Experience Centre and Site Office Operations;	M4 via The Northern Road (9 minutes)	M5 / M31 via Bringelly Road and the Northern Road (17 minutes)	M7 via The Northern Road and Elizabeth Drive (17 minutes)	
6.1.4	TSS site;	M4 via The Northern Road	M5 / M31 via Bringelly	M7 via The Northern Road and	Accounts for entry point at peak; Phase 3 TSS access

T&A CEMP Relevant sub-section	Package of Works	Primary Route (travel time)	Secondary Route (travel time)	Tertiary Route (travel time)	Comments
		(13 minutes)	Road and the Northern Road (15 minutes)	Elizabeth Drive (17 minutes)	
6.1.5	ACP site	M4 via The Northern Road (12 minutes)	M5 / M31 via Bringelly Road and the Northern Road (16 minutes)	M7 via Badgerys Creek Road and Elizabeth Drive (18 minutes)	
6.1.6	LCB site	M7 via Elizabeth Drive and Badgerys Creek Road (8 minutes)	M4 via The Northern Road, Elizabeth Drive and Badgerys Creek Road (13 minutes)	M5 / M31 via Badgerys Creek Road, The Northern Road and Bringelly Road (16 minutes)	
6.1.7	M12	M7 via Elizabeth Drive (8 minutes)	M4 via The Northern Road and Elizabeth Drive (11 minutes)	M5 / M31 via Badgerys Creek Road, The Northern Road and Bringelly Road (17 minutes)	

(Tertiary Routes have been omitted for clarity)

Table 22 presents the forecast most likely journey scenario for construction vehicles, based on the locations of the primary site entry points for each project element and based on principal travel routes to regional population centres. The table is not intended to indicate that these will be the sole access routes utilised by each project element. A further breakdown of the project elements by forecast proportion of travel routes is included in Section 6.3.

Travel time from major arterial route intersections is based on 'low-no traffic' conditions and is not indicative of expected travel time during normal road operating conditions, either peak or interpeak.

The various geographically diverse WSA site entry points will distribute construction traffic to the existing road network via the primary, secondary and tertiary routes outlined in Table 23. The proportion of distribution will vary depending on the geographic location of the entry points and the associated routes advantage to access major arterial roads. These factors have been assessed and Table 23 estimates the likely distribution of construction traffic by entry point to reach the major arterial routes (M4, M7 and M5/M31Motorways).

Table 23 - Traffic Distribution to Road Network based on Site Entry Point

	BCR LILO /R'bout/ Water Complex	Old TNR	FAR	Eaton Road	Anton Road	Epic Mine	M12 Temp R'bout	Unweighted Average
Elizabeth Drive - West of Epic Mine Entry Point	32%	0%	0%	20%	20%	60%	40%	
Elizabeth Drive - East of Badgerys Creek Road, West of Epic Mine Entry Point	32%	0%	0%	20%	20%	40%	100%	
Elizabeth Drive - East of Badgerys Creek Road	48%	20%	2%	20%	20%	40%	40%	
The Northern Road - North of Elizabeth Drive	32%	30%	60%	50%	50%	40%	40%	
The Northern Road - North of Badgerys Creek Road, South of Elizabeth Drive	0%	100%	100%	100%	100%	20%	0%	
The Northern Road - South of Badgerys Creek Road	20%	50%	38%	30%	30%	20%	20%	
Badgerys Creek Road - North of Pitt Street	80%	20%	2%	0%	0%	0%	20%	
Badgerys Creek Road - South of Pitt Street	20%	20%	2%	0%	0%	0%	20%	
M4 Motorway	32%	30%	60%	50%	50%	40%	40%	43%
M7 Motorway	48%	20%	2%	20%	20%	40%	40%	27%
M5/M31 Motorway	20%	50%	38%	30%	30%	20%	20%	30%

The 'unweighted average' column in Table 23 outlines the distribution between major arterial routes but does not account for the varying vehicle volumes between the various project elements, or the volume of traffic forecast to use each of the available entry points for each project element. This is further explored within Section 6.3.

6.2.1. Material Importation

Material importation to date has, and is expected to continue to have, a negligible impact on the overall traffic volumes on the public road network as delivery will predominantly occur during interpeak traffic hours, and the delivery volumes associated with this element of the project have achieved their peak.

Further Material Importation narrative is included within the relevant Contractors' sections.

6.2.2. Bulk Earthworks

The peak of the Main Construction Works for the Bulk Earthworks stage is complete .

The heavy vehicle traffic generated by the Project (including Material Importation) had resulted in a nominal increase in heavy vehicle volumes as expected on the arterial routes around the vicinity of WSI. However given that this element of the Project is in its later stages, and that the main Bulk Earthworks site access will be

located at The Northern Road from Q2 2022, it is expected that any residual traffic impacts as a result of the remaining Bulk Earthworks scope will be negligible.

Table 24 - BEC Expected Heavy Vehicle Volumes

Road	Heavy Vehicles/Day	AADT	% of volume
The Northern Road	258	16,944	1.5%
Elizabeth Drive	496	3600	~13.8%
Badgerys Creek Road	264	Estimated 1,000	2.1%

Source: EIS Table 15-3 and Contractor Resourced Program of Works

Furthermore, Bulk Earthworks peak (to occur in 2022) will occur prior to the peak of any other Contractor work elements, and therefore cross-package combined impacts are expected to be very low.

6.2.3. TSS Works

The peak impacts of the construction works are expected to be during Phase 3. For the TSS Works Phase 1 and 2, the Bulk Earthworks stage is nearing completion and the new realigned Badgerys Creek Road and its associated roundabout at the intersection with Elizabeth Drive has been operating with improved intersection capacity. None of the other Main Works Contractors have mobilised to site until Phase 3.

Eaton Road is an auxiliary road of The Northern Road, and it is expected that traffic volumes will be manageable.

The heavy vehicle traffic generated by the overall project (including material importation) will result in an increase in heavy vehicle volumes as per . The impact as a result of the TSS Works has been mitigated by the relocation of the primary TSS entry point away from Elizabeth Drive and Badgerys Creek Road, and as a result is expected to be manageable

Table 25 - TSS & Fuel Farm Expected Heavy Vehicle Volumes – Peak Phases

Road	Heavy Vehicles/day	AADT	% of volume
The Northern Road	385	16,944	2.2%
Elizabeth Drive	94	7,311 (axle pairs)	1.3%
Badgerys Creek Road	146	Estimated 1,000	8.4%
Eaton Road	14	Assumed as part of the Northern Road	<1%
Anton Road	47	Assumed as part of the Northern Road	<1%

Source: MPX

The EIS indicates that the expected increase in construction traffic will not result in operating conditions worse than currently encountered on Elizabeth Drive and in the vicinity of the Airport Site.

During the earlier construction phasing, access and egress will have the most impact on Badgerys Creek Road in the vicinity of the intersection with Elizabeth Drive, however given this section of road and its intersection capacities have been upgraded, it is not that expected a noticeable increase in light vehicle volumes compared to current volumes will be observed. This access is expected to be in place until Q3 2022.

For the later construction phasing works, access and egress will have the most impact on The Northern Road. This access is due to be in place between Q3 2022 and Q4 2024.

6.2.4. ACP Works

Light Vehicle Traffic Impacts

During construction of the ACP Works it is expected that the peak light vehicle volumes shown in Table 26 can be expected to exit and enter the Airport Site, with majority of access/egress via the Main Site Entry Point located off The Northern Road at the WSI “Freight Access Road”.

The majority of light vehicles would arrive on site prior to 7am (outside of the AM peak) and begin exiting the site at around 4pm each day until 7pm. All deliveries are expected to take place during normal construction hours.

As the Northern Road already has traffic volumes which are more than the baseline volumes outlined, it is forecast that the light vehicle traffic will have a negligible impact on the road network operation and noise levels.

Heavy Haulage Traffic Impacts During peak construction of the ACP Works, to facilitate the importation of large quantities of quarry products and construction material, it is expected that the heavy vehicle volumes in Table 26, can be expected to exit and enter the ACP site. For the first Phase of the project access (Q2 2022 to Q4 2022) all HV access will be into the Main SEP (The Northern Road). The Epic Mine SEP will be available from Q4 2022 for access via Elizabeth Drive. Access from Anton Road into the northern part of the Site is expected to be available from Q4 2022, however this is still to be confirmed. This access will only be made available after the upgrade works are completed. The below figures are anticipated peak volumes during 2023 and early 2024 when construction works are active across all disciplines.

The vast majority of heavy vehicle deliveries (with the exception of Material Importation) are expected to enter the site from the west and south sides, via the newly upgraded and completed, Northern Road via the ACP Main SEP.

The heavy vehicle traffic generated by the ACP Works element of project is expected to result in an increase in heavy vehicle volumes as per Table 26.

Table 26 - ACP Expected Heavy Vehicle Volumes

Road	Heavy Vehicles/day	AADT	% of volume
The Northern Road	520	16,944	3.1%
Elizabeth Drive	183	7,311 (axle pairs)	2.5%
Badgerys Creek Road	12	Estimated 1,000	1.2%

In summary, construction vehicles for the ACP Works are anticipated to have negligible impact (~3%) on the perimeter roads around Western Sydney International.

Out of Hours Imported Material Operations

As indicated in WSA’s Construction Plan and in the Traffic and Access CEMP, high volumes of imported material is expected to be hauled into the ACP site over the course of the Project. It is possible that the Contractor may seek to continue the current approval to import the material to site 24 hours per day, seven days per week. The majority of material will be delivered using truck and trailer combinations capable of carrying up to 39 tonnes of material. The main delivery route will be via the motorway network to The Northern Road and to site via Site Entry Point 3. If this approval is granted, we anticipate the total heavy vehicle volumes in Tables 24 and 25 will be maintained.

6.2.5. LCB

Considering the existing traffic, the expected impact on The Northern Road and most of Elizabeth Drive and Badgerys Creek Road is minor.

Table 27 - Contractor Expected Peak Heavy Vehicle Volumes - LCB

Road	Heavy Vehicles/day	AADT	% of volume
The Northern Road	76	16,944	<1%
Elizabeth Drive	110	7,311 (axle pair)	1.5%
Badgerys Creek Road	172	Estimated 1,000	17.2%*

6.2.6. M12 On-Airport

The net increase effect on the road networks performance is in the order of an increase of traffic volumes by 1.5% to 2% along Elizabeth Drive derived by M12 On-Airport and estimated from the baseline data available in the M12 Motorway Project EIS and the predicted volumes captured within the M12 Motorway Project Consistency Assessment presented in Table 28.

Table 28 - M12 On-Airport Expected Heavy Vehicle Volumes

Road	Heavy Vehicles/day	AADT	% of volume
Elizabeth Drive	20	16,944	<1%

Source: M12 on Airport West Package Consistency Assessment

6.3. Combined WSA Package Impacts

A further assessment was undertaken on the forecast distribution of WSI construction traffic by WSI packagea cross the various WSA SEPs. The assessment was undertaken based on a review of the scope of works expected to be completed and associated required usage of each SEP per package. The proportion of construction volumes by package at each SEP is outlined in Table 29.

By combining the total peak construction volumes forecast from each package, in correlation with the forecast percentage distributions from each SEP onto the existing road network (Table 30) and the forecast percentage distribution of construction traffic volumes by SEP and WSI package (Table 29), an assessment of the combined impacts of the WSI scope, at the peak stage of the Project, is able to be calculated.

From analysis of the construction programs of the various project elements it is expected that the peak workforce and deliveries will occur in Q4 2023 and Q1 2024. Therefore the construction activities occurring during this period have been estimated at their peak as outlined in Table 30. The combined impact of the remainder of Experience Centre and Site Office operations, TSS Works, ACP Works, LCB Works, and M12 On-Airport elements on the existing road network has been estimated at its peak and detailed in Table 30. The Material Importation (other than material importation included separately within other packages) and Bulk Earthworks scope have been completed and are not included in the peak combined daily traffic movements.

Although it can be expected that there is some loss of construction traffic volume to collector and local roads during transit between the SEPs and the main arterial roads, for the purposes of this combined WSA impact assessment, this has been omitted.

The total forecast volume of construction traffic to travel on the major arterial routes in the vicinity of the Airport Site is outlined in Table 31.

Table 29 - Forecast Percentage Distribution of Construction Traffic Volumes, by SEP and Package

		Material Importation	Bulk E/works	EC/SO (Operations)	TSS	ACP	LCB	M12	Other Activities
Badgerys Creek Road LILO / Roundabout/ Water Complex Entry Points	Light	0%	0%	0%	6%	0%	90%	0%	20%
	Heavy	0%	0%	0%	5%	0%	90%	0%	20%
Old The Northern Road Entry Point	Light	0%	0%	0%	76%	0%	0%	0%	0%
	Heavy	0%	0%	0%	72%	0%	0%	0%	0%
"Freight Access Road" Entry Point	Light	50%	90%	0%	1%	75%	0%	0%	0%
	Heavy	0%	90%	0%	3%	69%	0%	0%	0%
Eaton Road Entry Point	Light	0%	0%	100%	1%	5%	0%	0%	0%
	Heavy	0%	0%	100%	4%	0%	0%	0%	0%
Anton Road Entry Point	Light	0%	0%	0%	15%	10%	0%	0%	0%
	Heavy	0%	0%	0%	12%	0%	0%	0%	0%
Epic Mine Entry Point	Light	50%	0%	0%	0%	5%	0%	0%	80%
	Heavy	100%	0%	0%	0%	16%	0%	0%	80%
M12 Temp Roundabout	Light	0%	10%	0%	1%	5%	10%	100%	0%
	Heavy	0%	10%	0%	4%	15%	10%	100%	0%

Table 30 - Peak Combined Daily Traffic Movements (2023/24) By Road Section

Road+	Section	Vehicles	Construction stage/package*						Combined Peak Vehicle Movements
			EC/SO (Operations)	TSS	ACP	LCB	M12	Other Activities	(vtpd)
Elizabeth Drive	West of Epic Mine	Light	80	136	72	149	18	3	458
		Heavy	1	27	131	76	8	5	248
	East of Epic Mine, West of Badgerys Creek Road	Light	80	151	56	176	44	2	509
		Heavy	1	27	131	76	8	5	248
	East of Badgerys Creek Road	Light	80	536	68	214	18	2	918
		Heavy	1	91	97	110	8	4	310

Road+	Section	Vehicles	Construction stage/package*						Combined Peak Vehicle Movements
			EC/SO (Operations)	TSS	ACP	LCB	M12	Other Activities	(vtpd)
The Northern Road (including Eaton Road and Anton Road)	North of Elizabeth Drive	Light	200	833	452	149	18	2	1654
		Heavy	2	147	375	76	8	4	612
	North of Badgerys Creek Road, South of Elizabeth Drive	Light	400	2298	736	0	0	1	3435
		Heavy	4	385	523	0	0	2	914
	South of Badgerys Creek Road	Light	120	1102	280	91	9	1	1602
		Heavy	1	185	226	46	4	2	464
Badgerys Creek Road	North of the site entrances	Light	0	500	12	336	9	1	857
		Heavy	0	81	10	172	4	2	268
	South of the site entrances	Light	0	411	12	91	9	0	522
		Heavy	0	68	10	46	4	0	129

*As per Construction Plan Section 6 – Construction Activities.
+ As pe Figure 3: Site Access
Source Data – Contractor estimated resources / WSA traffic survey

Table 31 - Construction Traffic Travelling on Major Routes Surrounding WSI

Road	Section	Vehicles	Construction stage/package						Combined Peak Vehicle Movements
			EC/SO	TSS	ACP	LCB	M12	Other Activities	
Motorways	M4	Light	200	833	452	149	18	2	**1654**
		Heavy	2	147	375	76	8	4	**612**
	M7	Light	80	536	68	214	18	2	**918**
		Heavy	1	91	97	110	8	4	**310**
	M5 / M31	Light	120	1102	280	91	9	1	**1602**
		Heavy	1	185	226	46	4	2	**464**

A comparison of percentage distribution for the three main arterial routes against the total WSI construction traffic volume is presented in Table 32 with a direct comparison present against the distribution of construction vehicles within the EIS.

Table 32 - Comparison of Forecast Percentage of Construction Traffic Volume Distribution against the EIS Equivalent Distributions

Road	Forecast WSA Construction Traffic Volume (Heavy & Light)	Equivalent Percentage Distribution	EIS Percentage Distribution	Percentage Difference
M4 Motorway	2809	41%	40%	+1%
M7 Motorway	1771	22%	20%	+2%
Hume Motorway (M5 / M31 Motorways)	2338	37%	40%	-3%
Total	6917	100%	100%	

On the basis of Table 32 it has been assessed that the distribution of construction vehicles remains consistent with the EIS distributions.

A visual representation of the expected combined peak vehicle volumes on the main roads in the vicinity of the Airport Site are shown in Figure 8, this corresponds to the peak combined daily traffic movements by road section as shown in Table 30.

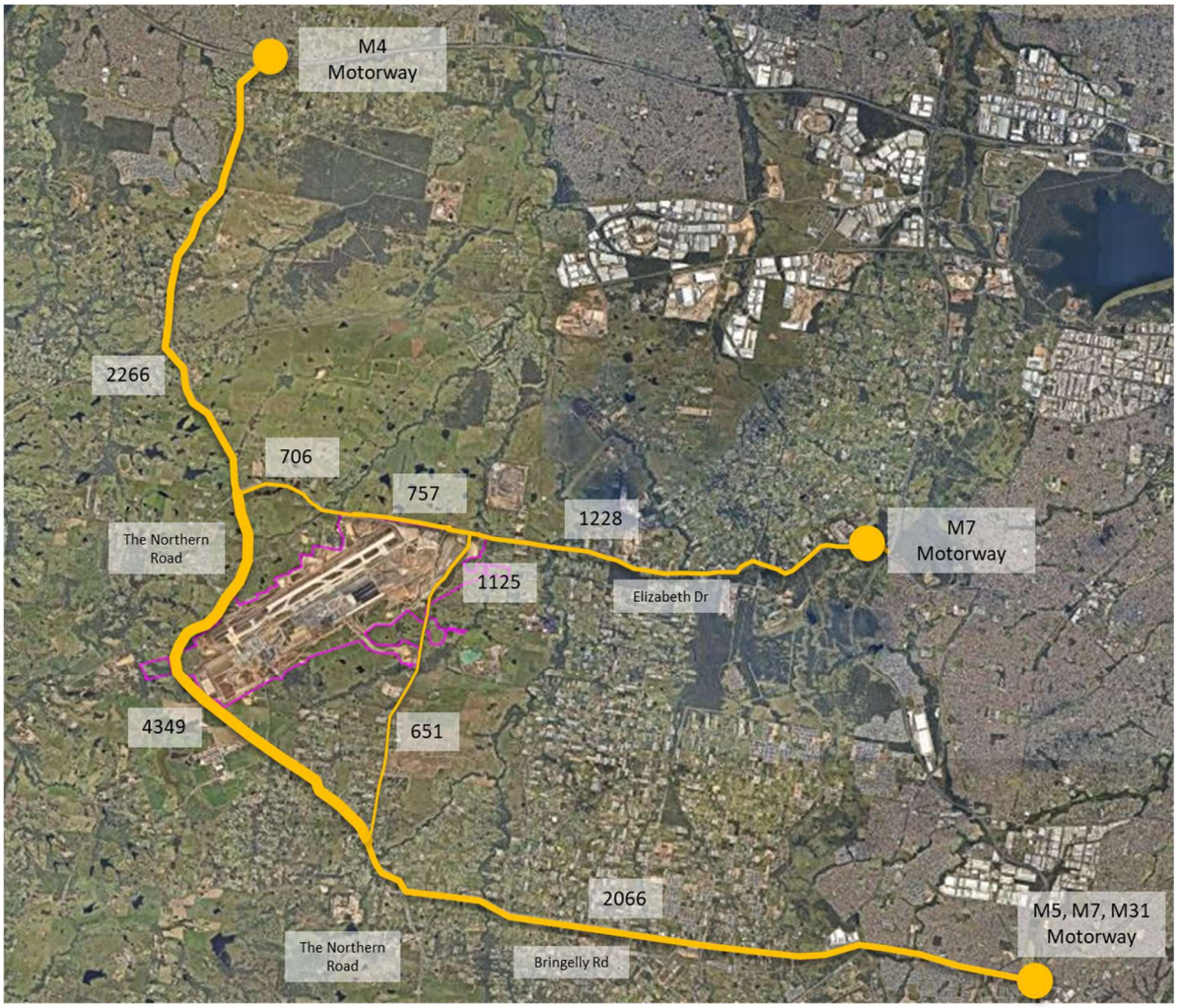


Figure 8 – Expected peak combined vehicle movements (all packages and vehicle types)

As noted in Section 6.2, a number of roads in the vicinity of the Airport Site have been upgraded earlier than anticipated in the WSA EIS. As such, the strategic distribution of SEPs around the Airport Site has been adjusted to take advantage of these opportunities. In particular, the upgraded The Northern Road has allowed the Project to distribute traffic away from Elizabeth Drive/M7. In comparison with the timing considered in EIS, bulk Material Importation has been accelerated in the overall WSI construction program; meaning the construction traffic volume peak has been reduced relative to the overall construction traffic volume.

6.4. Environmental Risk Assessment

A risk assessment has been undertaken as part of the review and development of this CEMP and in accordance with Environmental Aspects, Impact and Risk Procedure (Appendix G of the SEMF). The parts of the overall risk assessment relevant to Traffic and Access have been extracted and summarised in Table 33. below and applies to all phases of works that the Construction Plan authorises.

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.

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 33 - Traffic and Access Risk Assessment

Ref	Works	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level pre-mitigation	Mitigation measure	Risk level post-mitigation	Management tools
1	BEC	Site establishment	Importing construction materials	Additional traffic	Delays to local traffic, potential for accidents	Med (17)	TA_01 TA_03 TA_04 TA_07 TA_08 TA_09 TA_10 TA_12	Low (9)	• CSEP • Traffic and Access CEMP • Air Quality CEMP • Soil and Water CEMP • Traffic Control Plans • Complaints Procedure • Induction • Environmental Control Map (ECM)
2	BEC	Site establishment	Transportation of site buildings	Additional traffic	Delays to local traffic, potential for accidents	Med (13)	TA_01 TA_03 TA_04 TA_08 TA_09 TA_10	Low (9)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
3	BEC	Site establishment	Site personnel travel to/from site	Additional traffic during peak hour	Additional traffic congestion	Low (8)	TA_01 TA_12 TA_13	Low (5)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM

Ref	Works	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level pre-mitigation	Mitigation measure	Risk level post-mitigation	Management tools
4	BEC	Construction works	Works adjacent to existing roads	Temporary reduction in speed limit	Delays to local traffic, caused by traffic control, temporary slow zone	Med (13)	TA_01 TA_03 TA_04	Low (5)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
5	BEC	Construction works	Out of Hours Works	Temporary road closures	Delays to local traffic, caused by traffic control, temporary slow zone	Med (13)	TA_01 TA_03 TA_04 TA_05 TA_09 TA_10	Low (9)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
6	BEC	Construction works	Delivery to project	Break down of heavy vehicles and Blockage of roads	Delays to local traffic, caused by traffic incidents	Med (18)	TA_12 TA_15 TA_16	Low (10)	• CSEP • Traffic and Access CEMP • Vehicle movement plans. • Complaints Procedure • Induction • Engagement with traffic controllers where required
7	BEC	Construction works	Delivery to project	The siltation and debris management on the road network both internal and external to the work site	Delays to local traffic, caused by traffic incidents Damage to vehicles	Med (18)	TA_12 TA_17 TA_18	Low (10)	• CSEP • Traffic and Access CEMP • Vehicle Movement Plans • Complaints Procedure • Induction • ECM • Soil and Water CEMP • Chain of responsibility management plan
8	BEC	Construction works	Delivery to project	Road incidents. Management of	Delays to local traffic, caused by traffic incidents	Med (18)	TA_12	Low (10)	• CSEP • Traffic and Access CEMP

Ref	Works	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level pre-mitigation	Mitigation measure	Risk level post-mitigation	Management tools
				any potential crashes					• Vehicle Movement Plans • Complaints Procedure • Induction • Fatigue protocol • Drug and Alcohol testing • Chain of responsibility management plan • Soil and Water CEMP
9	TSS	Terminal Construction Works - Typical	General education	Site requirements	Failure to follow site protocols	Low (9)	TA_14	Low (6)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
10	TSS	Terminal Construction Works - Typical	Site personnel travel to/from site	Additional traffic during peak hour	Additional traffic congestion	Low (9)	TA_01 TA_12 TA_13 TA_14	Low (6)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
11	TSS	Terminal Construction Works - Typical	Importing construction materials	Additional traffic	Delays to local traffic, potential for accidents	Low (9)	TA_01 TA_03 TA_04 TA_07 TA_08 TA_09 TA_10 TA_12	Low (6)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction 2ECM

Ref	Works	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level pre-mitigation	Mitigation measure	Risk level post-mitigation	Management tools
12	TSS	Terminal Construction Works - Typical	Transportation of oversized deliveries	Additional traffic	Delays to local traffic, potential for accidents	Low (9)	TA_01 TA_03 TA_04 TA_09 TA_10 TA_12	Low (6)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
13	TSS	Terminal Site Establishment	Temporary Roads and bridges	Changes to traffic conditions	Delays to local traffic, potential for accidents	Low (9)	TA_01 TA_07	Low (6)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
14	TSS	Detailed Civil works	Concrete deliveries	Additional traffic	Additional traffic congestion	Low (9)	TA_01 TA_03 TA_04 TA_07 TA_08 TA_10 TA_12	Low (6)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
15	TSS	Installation of Aviation Fuel Ring Main	Works adjacent to existing roads	Temporary reduction in speed limit	Delays to local traffic, caused by traffic control, temporary slow zone	Medium (17)	TA_1 TA_03 TA_04 TA_09 TA_10 TA_12	Low (9)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM

Ref	Works	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level pre-mitigation	Mitigation measure	Risk level post-mitigation	Management tools
16	TSS	Construction works (continued)	Delivery to project Terminal	Break down of heavy vehicles	Delays to local traffic, caused by traffic incidents	Medium (17)	TA_12 TA_15 TA_16	Low (9)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction
17	TSS	Construction works (continued)	Delivery to project Terminal	Blockage of roads	Delays to local traffic, caused by traffic incidents	Medium (17)	TA_12 TA_15 TA_16	Low (9)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction
18	TSS	Construction works (continued)	Delivery to project Terminal	The siltation and debris management on the road network both internal and external to the work site	Delays to local traffic, caused by traffic incidents	Medium (17)	TA_12 TA_17 TA_18	Low (9)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
19	TSS	Construction works (continued)	Delivery to project Terminal	Road incidents	Delays to local traffic, caused by traffic incidents	Medium (17)	TA_12 TA_15 TA_16	Low (9)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction
20	TSS	Construction works (continued)	Delivery to project Terminal	Management of any potential crashes	Delays to local traffic, caused by traffic incidents	Medium (17)	TA_12 TA_15 TA_16	Low (9)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction

Ref	Works	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level pre-mitigation	Mitigation measure	Risk level post-mitigation	Management tools
21	ACP	Site establishment	Importing construction materials	Additional traffic	Delays to local traffic, potential for accidents	Med (17)	TA_01 TA_03 TA_04 TA_07 TA_08 TA_09 TA_10 TA_12	Low (9)	• CSEP • Traffic and Access CEMP • Air Quality CEMP • Soil and Water CEMP • Traffic Control Plans • Complaints Procedure • Induction • Environmental Control Map (ECM)
22	ACP	Site establishment	Transportation of site buildings	Additional traffic	Delays to local traffic, potential for accidents	Med (13)	TA_01 TA_03 TA_04 TA_08 TA_09 TA_10	Low (9)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
23	ACP	Site establishment	Site personnel travel to/from site	Additional traffic during peak hour	Additional traffic congestion	Low (8)	TA_01 TA_12 TA_13	Low (5)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
24	ACP	Construction works	Works adjacent to existing roads	Temporary reduction in speed limit	Delays to local traffic, caused by traffic control, temporary slow zone	Med (13)	TA_01 TA_03 TA_04	Low (5)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM

Ref	Works	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level pre-mitigation	Mitigation measure	Risk level post-mitigation	Management tools
25	ACP	Construction works	Delivery to project	Break down of heavy vehicles and Blockage of roads	Delays to local traffic, caused by traffic incidents	Med (18)	TA_12 TA_15 TA_16	Low (10)	• CSEP • Traffic and Access CEMP • Vehicle movement plans. • Complaints Procedure • Induction • Engagement with traffic controllers where required
26	ACP	Construction works	Delivery to project	Road incidents. Management of any potential crashes	Delays to local traffic, caused by traffic incidents	Med (18)	TA_12 TA_15 TA_16	Low (10)	• CSEP • Traffic and Access CEMP • Vehicle Movement Plans • Complaints Procedure • Induction • Fatigue protocol • Drug and Alcohol testing • Chain of responsibility management plan 7Soil and Water CEMP
27	ACP	Terminal Construction Works - Typical	General education	Site requirements	Failure to follow site protocols	Low (9)	TA_14	Low (6)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
28	ACP	Terminal Construction Works - Typical	Site personnel travel to/from site	Additional traffic during peak hour	Additional traffic congestion	Low (9)	TA_1 TA_12 TA_13 TA_14	Low (6)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM

Ref	Works	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level pre-mitigation	Mitigation measure	Risk level post-mitigation	Management tools
29	ACP	Terminal Construction Works - Typical	Importing construction materials	Additional traffic	Delays to local traffic, potential for accidents	Low (9)	TA_01 TA_03 TA_04 TA_07 TA_08 TA_09 TA_10 TA_12	Low (6)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
30	LCB	All Works	Site personnel travel to/from site	Addition traffic	Traffic congestion, delays to local traffic, potential for accidents or incidents	Low (9)	TA_01 TA_05 TA_12 TA_13 TA_14	Low (6)	• CSEP • Traffic Control Plans • Complaints Procedure • Induction • ECM
31	LCB	All Works	Importing construction materials	Addition traffic	Traffic congestion, delays to local traffic, potential for accidents or incidents	Low (9)	TA_01 TA_03 TA_04 TA_05 TA_07 TA_08 TA_09 TA_10 TA_12	Low (6)	• Traffic and Access CEMP • CSEP • Traffic Control Plans • Complaints Procedure • Induction • ECM
32	LCB	All Works	Transport of oversized deliveries	Addition traffic	Traffic congestion, delays to local traffic, potential for accidents or incidents	Low (9)	TA_01 TA_03 TA_04 TA_05 TA_07 TA_08 TA_09 TA_10 TA_12	Low (6)	• Traffic and Access CEMP • CSEP • Traffic Control Plans • Complaints Procedure • Induction • ECM
33	LCB	All Works	Breakdown of heavy vehicles / road accidents	Blockage of roads	Delays to traffic caused by blockages	Medium (17)	TA_04 TA_12	Low (9)	• Traffic and Access CEMP • CSEP • Traffic Control Plans • Complaints Procedure

Ref	Works	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level pre-mitigation	Mitigation measure	Risk level post-mitigation	Management tools
									• Induction
34	LCB	All Works	Construction traffic utilising the road network	The siltation and debris management on the road network	Delays caused to traffic and potential for accidents or incidents	Medium (17)	TA_05 TA_10 TA_12	Low (9)	• Traffic and Access CEMP • CSEP • Soil and Water CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
35	LCB	All Works	Operation of the site entry points	Construction vehicles queuing onto public roads	Delays caused to traffic and potential for accidents or incidents	Medium (17)	TA_01 TA_08 TA_09 TA_12	Low (9)	• Traffic and Access CEMP • CSEP • Traffic Control Plans • Complaints Procedure • Induction
36	M12 on Airport	Site Establishment (continued)	Delivery of temporary buildings	Additional traffic	Delays to local traffic, potential for accidents	Med (13)	TA_01 TA_03 TA_04 TA_08 TA_09 TA_10	Low (9)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
37	M12 on Airport	Site Establishment (continued)	Delivery materials to compound	Additional traffic	Delays to local traffic, potential for accidents	Low (9)	TA_01 TA_03 TA_04 TA_07 TA_08 TA_09 TA_10 TA_12	Low (6)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM

Ref	Works	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level pre-mitigation	Mitigation measure	Risk level post-mitigation	Management tools
38	M12 on Airport	Site Establishment (continued)	Site personnel travel to/from site	Additional traffic during peak hour	Additional traffic congestion	Low (8)	TA_01 TA_12 TA_13	Low (5)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
39	M12 on Airport	Earthworks and Drainage	Import and export of materials from site	Additional traffic	Delays to local traffic, potential for accidents	Low (9)	TA_01 TA_03 TA_04 TA_07 TA_08 TA_09 TA_10 TA_12	Low (6)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM • Vehicle Movement Plans
40	M12 on Airport	Earthworks and Drainage (continued)	Site personnel travel to/from site	Additional traffic during peak hour	Additional traffic congestion	Low (8)	TA_01 TA_12 TA_13	Low (5)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
41	M12 on Airport	Bridge Works	Abutment earthworks	Additional traffic	Delays to local traffic, potential for accidents	Low (9)	TA_01 TA_03 TA_04 TA_07 TA_08 TA_09 TA_10 TA_12	Low (6)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM

Ref	Works	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level pre-mitigation	Mitigation measure	Risk level post-mitigation	Management tools
42	M12 on Airport	Bridge Works (continued)	Concrete deliveries	Additional traffic	Additional traffic congestion	Low (9)	TA_01 TA_03 TA_04 TA_07 TA_08 TA_10 TA_12	Low (6)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
43	M12 on Airport	Bridge Works (continued)	Delivery of bridge decks	Changes to traffic conditions	Delays to local traffic, potential for accidents	Low (9)	TA_01 TA_07	Low (6)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
44	M12 on Airport	Road Construction	Import and export of materials from site	Additional traffic	Delays to local traffic, potential for accidents	Low (9)	TA_01 TA_03 TA_04 TA_07 TA_08 TA_09 TA_10 TA_12	Low (6)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
45	M12 on Airport	Road Construction (continued)	Line marking, installation of ITS and lighting	Additional traffic	Delays to local traffic, potential for accidents	Low (9)	TA_01 TA_03 TA_04 TA_07 TA_08 TA_09 TA_10 TA_12	Low (6)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM

Ref	Works	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level pre-mitigation	Mitigation measure	Risk level post-mitigation	Management tools
46	M12 on Airport	Landscaping and Stabilisation	Import and export of materials from site	Additional traffic	Delays to local traffic, potential for accidents	Low (9)	TA_01 TA_03 TA_04 TA_07 TA_08 TA_09 TA_10 TA_12	Low (6)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
47	M12 on Airport	Landscaping and Stabilisation (continued)	Works adjacent to existing roads	Temporary reduction in speed limit	Delays to local traffic, caused by traffic control, temporary slow zone	Medium (17)	TA_1 TA_03 TA_04 TA_09 TA_10 TA_12	Low (9)	• CSEP • Traffic and Access CEMP • Traffic Control Plans • Complaints Procedure • Induction • ECM
48	Fuel Farm	Construction Works – Typical	General education	Site requirements	Failure to follow site protocols	Low 9	TA_14	Low 6	• CSEP, Traffic and Access CEMP, Traffic Control Plans, Complaints Procedure, Induction, ECM
49	Fuel Farm	Construction Works – Typical	Site personnel travel to/from site	Additional traffic during peak hour	Additional traffic congestion	Low 9	TA_1, TA_12, TA_13, TA_14	Low 6	• CSEP, Traffic and Access CEMP, Traffic Control Plans, Complaints Procedure, Induction, ECM
50	Fuel Farm	Construction Works – Typical	Importing construction materials	Additional traffic	Delays to local traffic, potential for accidents	Low 9	TA_01, TA_03, TA_04, TA_07, TA_08, TA_09, TA_10, TA_12	Low 6	• CSEP, Traffic and Access CEMP, Traffic Control Plans, Complaints Procedure, Induction, ECM

Ref	Works	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level pre-mitigation	Mitigation measure	Risk level post-mitigation	Management tools
51	Fuel Farm	Construction Works – Typical	Transportation of oversized deliveries	Additional traffic	Delays to local traffic, potential for accidents	Low 9	TA_1, TA_03, TA_04, TA_09, TA_10, TA_12	Low 6	• CSEP, Traffic and Access CEMP, Traffic Control Plans, Complaints Procedure, Induction, ECM
52	Fuel Farm	Site Establishment	Temporary Roads and bridges	Changes to traffic conditions	Delays to local traffic, potential for accidents	Low 9	TA_01, TA_07	Low 6	• CSEP, Traffic and Access CEMP, Traffic Control Plans, Complaints Procedure, Induction, ECM
53	Fuel Farm	Detailed civil works	Concrete deliveries	Additional traffic	Additional traffic congestion	Medium 17	TA_1, TA_03, TA_04, TA_09, TA_10, TA_12	Low 9	• CSEP, Traffic and Access CEMP, Traffic Control Plans, Complaints Procedure, Induction, ECM
54	Fuel Farm	Construction works	Delivery to project	Breakdown of heavy vehicles	Delays to local traffic, potential for accidents	Medium 17	TA12, TA15, TA16	Low 9	• CSEP, Traffic and Access CEMP, Traffic Control Plans, Complaints Procedure, Induction, ECM
55	Fuel Farm	Construction works	Delivery to project	blockage of roads	Delays to local traffic, potential for accidents	Medium 17	TA12, TA15, TA16	Low 9	• CSEP, Traffic and Access CEMP, Traffic Control Plans, Complaints Procedure, Induction, ECM
56	Fuel Farm	Construction works	Delivery to project	The siltation and debris management on the road network both internal and external to the work site	Delays to local traffic, potential for accidents	Medium 17	TA12, TA17, TA18	Low 9	• CSEP, Traffic and Access CEMP, Traffic Control Plans, Complaints Procedure, Induction, ECM
57	Fuel Farm	Construction works	Delivery to project	Road incident	Delays to local traffic, potential for accidents	Medium 17	TA12, TA15, TA16	Low 9	• CSEP, Traffic and Access CEMP, Traffic Control Plans, Complaints Procedure, Induction, ECM

Ref	Works	Activity	Construction Aspect	Environmental Aspect	Potential Impact	Risk level pre-mitigation	Mitigation measure	Risk level post-mitigation	Management tools
58	Fuel Farm	Construction works	Delivery to project	Management of any potential crashes	Delays to local traffic, potential for accidents	Medium 17	TA12, TA15, TA16	Low 9	• CSEP, Traffic and Access CEMP, Traffic Control Plans, Complaints Procedure, Induction, ECM
59	Fuel Farm	Detailed civil works	Fuel deliveries during testing & commissioning	Additional traffic	Additional traffic congestion	Medium 17	TA1, TA04, TA06, TA07, TA09, TA10, TA13,	Low 9	• CSEP, Traffic and Access CEMP, Traffic Control Plans, Complaints Procedure, Induction, ECM

7. Environmental Control Measures

Mitigation and management measures that will be implemented during construction are detailed in Table 34 and are consistent with those provided in Tables 28-9 and 28-10 in Chapter 28 of the EIS. The relevant control measures will be included in the site-specific Environmental Work Method Statement (EWMS) and Environmental Control Map (ECM) – refer to Section 4.3 of the SEMF for further detail.

Table 34 - Environmental Control Measures

Ref.	Measure / Requirement	When to Implement	How to Implement	Responsibility	Reference
BEC: Bulk Earthworks Contract EEW: Early Earthworks MI: Material Importation All Contractors: BEC, EEW MI, TSS, ACP, LCB, M12 and other Contractors as delegated by WSA					
TA_01	As part of the Community and Stakeholder Engagement Plan a community awareness programme will be implemented prior to Main Construction Works commencing and would continue throughout the entire construction period. The programme will aim to make road users (including local residents) aware of construction traffic and safety issues, such as diversions, temporary road closures, traffic signalling and speed limits.	Pre-construction	Implement as per community awareness programme and overarching Community and Stakeholder Engagement Plan, (CSEP) as per Table 14 of the CSEP.	All Contractors	EIS Table 28-9
TA_02	To mitigate and manage potential traffic impacts the Traffic and Access CEMP will include the following elements:	N/A	N/A	N/A	N/A
TA_03	Management for the temporary and permanent closures of roads within the Airport Site.	Construction	Traffic Control Plans to be developed for individual closures, requiring approval before road closures can occur. See section 8.9	All Contractors	EIS Table 28-9
TA_04	Ongoing consultation with TfNSW and local councils as appropriate and emergency services.	Construction	In addition to the existing engagement forums with TfNSW, LCC, PCC and other key NSW Government transport authorities, including the Stakeholder Planning Forum, a Traffic and Transport Liaison Group (TTLG) has been established for the project. TfNSW CJP is the forum that will manage the TTLG with WSA participating, refer Section 8.5.4	WSA All Contractors	EIS Table 28-9

Ref.	Measure / Requirement	When to Implement	How to Implement	Responsibility	Reference
BEC: Bulk Earthworks Contract EEW: Early Earthworks MI: Material Importation All Contractors: BEC, EEW MI, TSS, ACP, LCB, M12 and other Contractors as delegated by WSA					
			Consultation will be undertaken as per the community awareness programme and overarching Community and Stakeholder Engagement Plan. This includes regular meetings with council by way of Environmental Review Groups, and other meetings as necessary before TGS's are approved. See section 8.5.1		
TA_05	Induction for drivers working on the project to cover safety measures particularly for night works.	Construction	All drivers are to be inducted onto site before commencing their works. Induction to include specific night-works requirements such as lighting and communication measures. Temporary delivery drivers to undertake temporary driver inductions when onsite.	All Contractors	EIS Table 28-9
TA_06	Review of speed environments along transport corridors.	Construction	To be assessed during regular inspections by the relevant contractor. Corrective actions such as driver education, signage to be implemented as necessary. No modification to signage will be made without consultation and approval from TfNSW.	All Contractors	EIS Table 28-9
TA_07	Restriction of construction related traffic within the AM and PM peak periods where required.	Construction	To be mitigated when preparing the TGSs. See section 8.5.1.	All Contractors	EIS Table 28-9
TA_08	Management of the transportation of construction materials to optimise vehicle loads in order to minimise vehicle movements.	Construction	Deliveries and load outs, and load ins are scheduled for efficiency to minimise vehicle movements and to limit changes to traffic control setups.	All Contractors	EIS Table 28-9
TA_09	Traffic control measures to manage and regulate traffic movements during construction.	Construction	Keeping traffic flowing safely is a primary focus of contractor TGSs. See section 8.9.1. Any changes or control measures will be done with the approval of TfNSW as required.	All Contractors	EIS Table 28-9
TA_10	Identification of potential disruption to road users.	Construction	This is undertaken in the planning phase of TGS development. See section 8.5.1.	WSA All Contractors	EIS Table 28-9
TA_11	Identification of any road closures and/or road upgrades that may be required.	Construction	Road closures and upgrades requiring work are identified in the project design and TGSs used for project works. See section 8.5.1.	All Contractors	EIS Table 28-9

Ref.	Measure / Requirement	When to Implement	How to Implement	Responsibility	Reference
BEC: Bulk Earthworks Contract EEW: Early Earthworks MI: Material Importation All Contractors: BEC, EEW MI, TSS, ACP, LCB, M12 and other Contractors as delegated by WSA					
			Community and stakeholder consultation to be undertaken in accordance with the Community and Stakeholder Engagement Plan. No state roads will be closed without consultation and approval from TfNSW, refer section 8.5.4.		
TA_12	Construction vehicle routes, including the use of arterial roads, haulage routes, access to the Airport Site and procedures for oversize and heavy vehicles.	Construction	Construction vehicle routes/haulage roads have been identified and can be seen in section 8.3 of this Plan	All Contractors	EIS Table 28-9
TA_13	Parking facilities for construction workers.	Construction	Parking facilities are available in the main compound areas for each package. Use of streets for parking will not be allowed.	All Contractors	EIS Table 28-9
TA_14	Measures to support and encourage sustainable travel for construction workers to and from the Airport Site, including public transport, shuttle buses, cycling, walking, and car-sharing (as also outlined in the Air Quality CEMP).	Construction	Site vehicle pooling will be undertaken for workers from the main compound to individual site locations to limit individual vehicle movements. Section 8.4 discusses bus routes which can be used by site workers, where possible.	All Contractors	EIS Table 28-9

8. Traffic and Access Management

8.1. Construction Vehicles Routes and Site Access

8.1.1. Project Site Access

Access to the site will be controlled by the relevant Principal Contractor to protect the general public from exposure to the inherent hazards of a construction site. The Principal Contractor may employ security guards at the main entry points to the site or another suitable level of access control, in accordance with the WHS Act or other relevant standards or codes.

Figure 9 shows the SEP, SEP restrictions and locations of major site features in relation to access points.

Section 8.7 below outlines the key SEP mitigations employed by WSA.

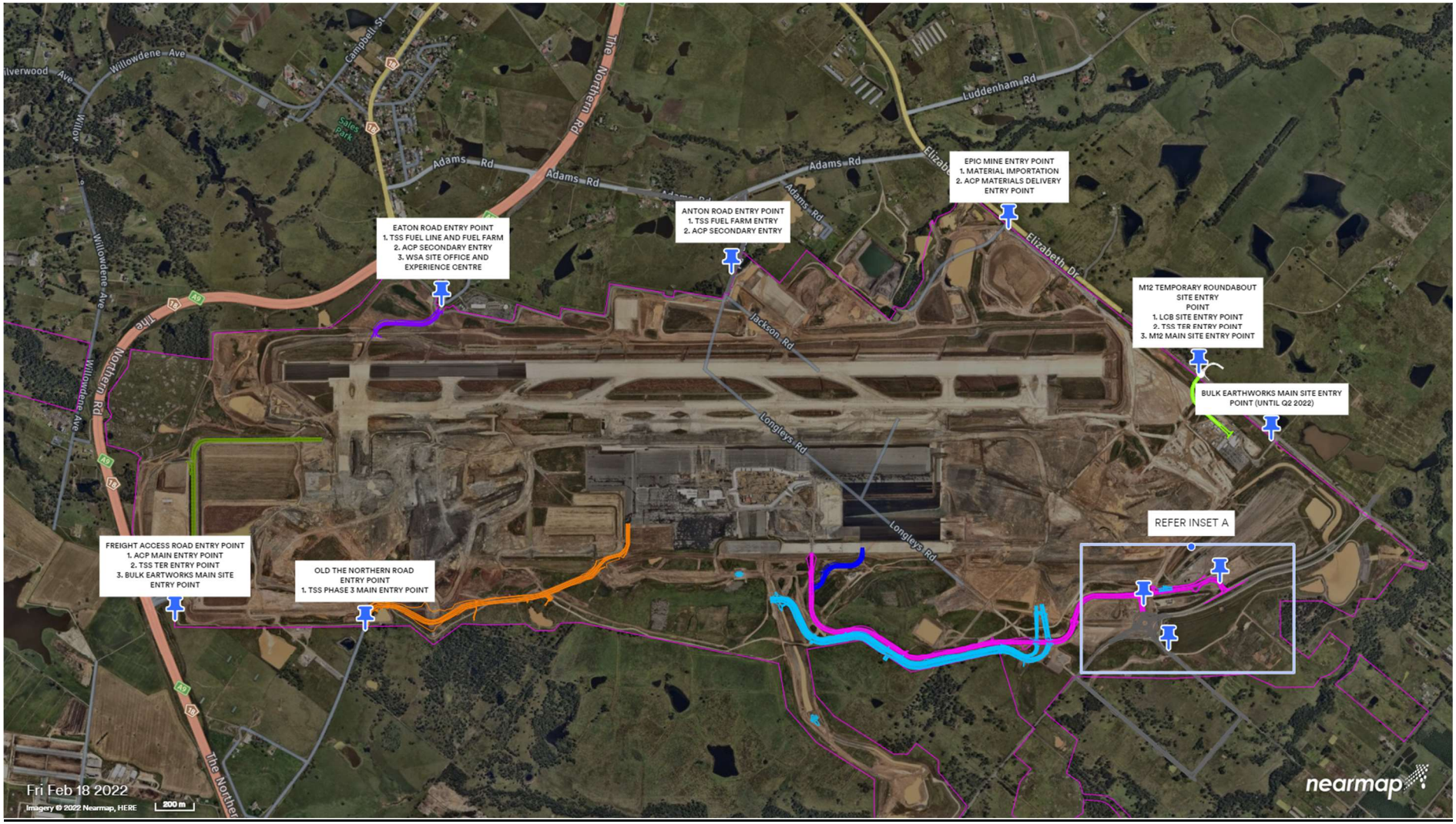


Figure 8: WSA Site Entry Points

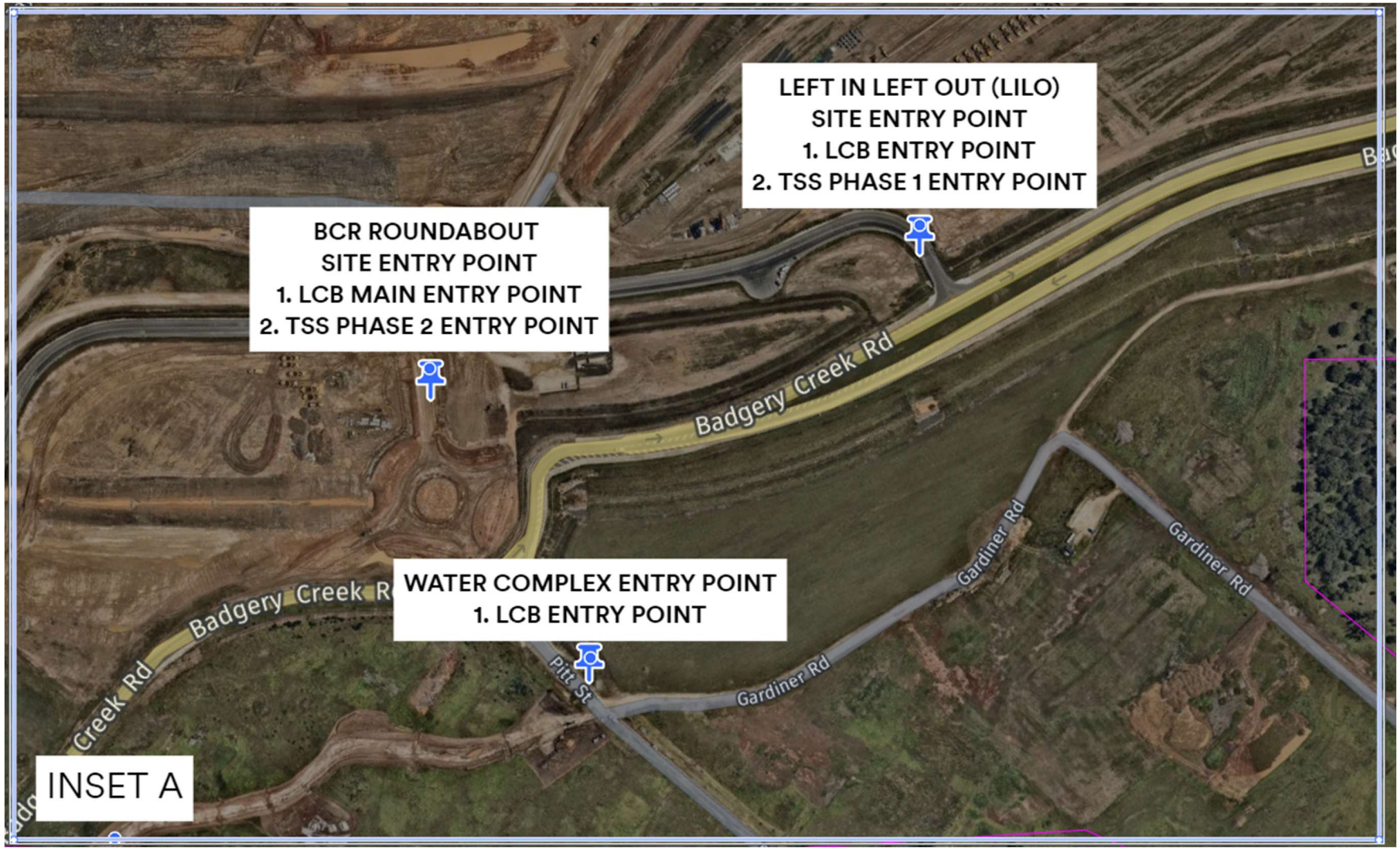


Figure 9: WSA Site Entry Points - Inset A

8.1.2. Material Importation

As outlined in Section 6.1.1; construction traffic for Material Importation would use the nearby road network, all traffic will access Elizabeth Drive as the main arterial road followed by use of the purpose built, sealed haul road running from the entrance to the former Epic Mine Entry Point. This entry point is Left-In Left-Out only.

8.1.3. Bulk Earthworks

As outlined in Section 6.1.2; the existing main SEP is located on the old Badgerys Creek Road south of the intersection with Elizabeth Drive. This entry point is forecast to be decommissioned in Q2 2022 in conjunction with the relocation of the Bulk Earthworks main site compound to the southern end of the Airport Site. The new Bulk Earthworks main site entry will utilise the WSA “Freight Access Road” from The Northern Road.

8.1.4. Experience Centre and Site Office

As outlined in Section 6.1.3;; entry to the Experience Centre and Site Office is via Eaton Road from The Northern Road. The access to Eaton Road is limited to Left-In Left-Out from the southbound lane of The Northern Road.

8.1.5. TSS Works

As outlined in Section 6.1.4; the TSS site has a phased site entry approach culminating in access via their Phase SEP at The Old Northern Road. The Northern Road is expected to become the primary means of site access and egress from Q3 2022.

Secure access boom gates and traffic control will be stationed at the primary access points to manage and control the flow of traffic into the site. There is to be no unloading of materials, plant or equipment outside the boundary, with all large deliveries to be housed within the site boundary and designated marshalling area.

8.1.6. ACP Works

As outlined in Section 6.1.5, the main ACP site access will be from The Northern Road onto the WSA “Freight Access Road”. The signalised intersection offers queuing capacity for right-turning traffic and minimises the risk to public road users through interface with construction traffic.

8.1.7. LCB Works

As outlined in Section 6.1.6; the LCB site access will be via both Badgerys Creek Road and Elizabeth Drive. The main SEP will be from Badgerys Creek Road via the Left-Iin Left-Out and the new Badgerys Creek Road-Pitt Street roundabout.

Secure access boom gates and traffic management will be utilised at the primary access points to manage the flow of traffic into the site. There is to be no unloading of materials, plant or equipment outside the boundary.

8.1.8. M12 On-Airport

As outlined in 6.1.7; M12 On-Airport will access WSA land via the temporary roundabout and the shared construction site access road within the Airport Site. Later in the project, the Left-In Left-Out intersection at Elizabeth Drive and the Elizabeth Drive-Badgerys Creek Road roundabout will also be utilised for access and egress to the M12 On-Airport construction activities.

8.2. Traffic and Access Management Mitigation Measures

8.2.1. Parking Facilities

For all scopes of work, construction plant, machinery and vehicle parking areas will be located as far as practicable from sensitive receivers. Parking locations will be identified on ECMs and shown on Vehicle Movement Plans (VMPs) as applicable.

8.2.2. Public Transport

Public transport options include four bus routes within the immediate surrounds of the Airport Site and the closest train station is situated 15 kilometres away (e.g. Penrith and Leppington). Refer to Section 5.1 for further details.

Public transport options would be maintained in consultation with TfNSW during construction.

WSA is committed to providing equitable short walking distances (less than 300m) to all transport modes (including rail and buses) at the terminal. This is consistent with WSA's obligation to the Commonwealth. WSA is working closely with the Western Sydney Rapid Bus and SMWSA teams to ensure a good public transport customer experience, albeit these facilities are expected to be operational after the major construction activities have been completed.

8.2.3. Property Access

Property access affected by the construction works will be maintained or alternative arrangements made in consultation with the affected landowners.

8.2.4. General Road User Delay Prevention Strategies

Maintaining the capacity of the road network, including local roads, and minimising the delays experienced by road users during the construction of the Project is a key Project objective. Delay minimisation strategies can generally be divided into four categories:

- Isolation of work areas;
- Maximising through traffic speeds and the number of available lanes;
- Work methods; and
- Road occupancy planning.

Each project contractor is responsible for complying with the Heavy Vehicle National Law (HVNL). Traffic Management Plans are a requirement of the HVNL, which is covered in the Chain of Responsibility Management plan as prescribed for all project contractors.

The Chain of Responsibility (CoR) management plan is submitted by the contractor and includes the management of oversize and over-mass (OSOM) vehicles, broken down vehicle and management of roadway debris.

Any movement of heavy vehicles on public roads is to be completed under the requirements of the HVNL and be certified by the National Heavy Vehicle Regulator.

WSA encourages all Contractors to schedule deliveries that do not disrupt public movements and the local and regional roads.

The measures to be implemented to minimise Road User delays include, but are not limited to:

- Creating specific VMPs to minimise likelihood of construction traffic impacts on the public roads (for example to mitigate construction vehicle queuing at SEPs);
- Creating clear gate signage to minimise driver and public confusion, and mitigate potential resultant safety risks. As a result, the project has implemented a ‘WSA Project - Gate Signage Strategy’ which includes a standardised layout for gate signage across the project and a designated identification number for each access gate to avoid duplication of identification numbers across difference contractor packages, or coordination challenges which could lead to confusion for deliveries;
- Creating a designated main site access by Contractor, geographically remote from other Contractor main accesses, which can accept the majority of the Contractor’s construction traffic;
- Manage OSOM deliveries to occur outside of peak travel periods where possible and in consultation with relevant stakeholders and adjacent projects;
- Plan the routes of OSOM deliveries to ensure that the roads through which these deliveries pass are designated for that purpose;
- Manage truck deliveries so that they can access the site safely through designated gates;

- Provide space for enough parking within the site to eliminate the risk of roadside parking of construction vehicles;
- Develop construction staging and temporary works that avoid conflicts with the existing road network, maximises separation between work areas and travel lanes, isolates work areas and maintains existing road network capacity;
- Isolate work areas from traffic flows (e.g. using alternative routes, temporary side-tracks, lane deviations/widening and temporary safety barriers);
- Develop alternative work methods to minimize impacts (e.g. utilize more efficient plant/equipment, apply different solution, enclosed work platforms);
- Plan all road occupancies with the aim to; minimise the actual work area; limit obstructions and restrictions; maximise road capacity; and avoid peak traffic flow periods;
- Analyse traffic volume data to
  - identify the capacity requirements of the road;
  - assess the potential impact on traffic flows; and
  - identify the time to minimise the inconvenience to road users;
- Provide road users with changed traffic condition information to enable them to plan their journey and avoid roadwork;
- Perform Road Safety Audits as required;
- Perform Traffic Control inspections at least once a week during the duration of the works; and
- Additional inspections to be undertaken when new traffic arrangements are set up to monitor effectiveness.

8.2.5. Road and Lane Closures

In general road and lane closures, with a likelihood to impact public traffic, will be conducted outside of peak hours, and notifications prepared and distributed in accordance with the Community and Stakeholder Engagement Plan.

Consultation between WSA and other adjacent project stakeholders also occurs regularly, with detailed planning and coordination of OSOM, temporary road or lane closures occurring in the Traffic Coordination Group (TCG), in addition to varying levels of discussions in various other ongoing construction traffic and access coordination and consultation forums (as outlined in 1.4.2).

Road Closures

OSOM movements and public road upgrades may at times require temporary road closures or escorts to the site. Dependent on the routes and/or roads involved, closures would likely require approval from TfNSW and/or Liverpool City Council, however this would be identified as part of the planning process, and approval would be gained prior to the notifications being distributed.

Closure of Shoulders or Auxiliary Lanes

Road occupancies involving closure of any shoulder or auxiliary lane, where auxiliary lane(s) exist, must always provide a minimum of one travel lane in each direction through the road occupancy.

A minimum of 1 metre shoulder width will be provided on all roads except as approved by relevant authorities (e.g TfNSW, Local Council, or the Airport Building Controller).

Any closure of shoulders or auxiliary lanes needs to be considered, assessed and approved by TfNSW in coordination with adjacent project contractors.

Partial Closures of Auxiliary Lanes

Partial closures of any length of an auxiliary lane may only be implemented if the remaining open length of the auxiliary lane is equal to or greater than 600 metres where the posted speed is 70km/hr and 600 metres where the posted speed is 60km/hr.

If this open length cannot be achieved, the entire length of the auxiliary lane must be closed.

Temporary Lane Closures

Lane closures on arterial roads will not be implemented during the following periods:

- From 6.00am to 9.30am Monday to Friday;
- From 3.00pm to 7.00pm Monday to Friday;
- 1 day prior and 1 day after commencement of school holidays; and
- During the Christmas period.

The temporary lane closures for all roads will be managed to minimise stoppages and to minimise impacts on motorists by implementing the following:

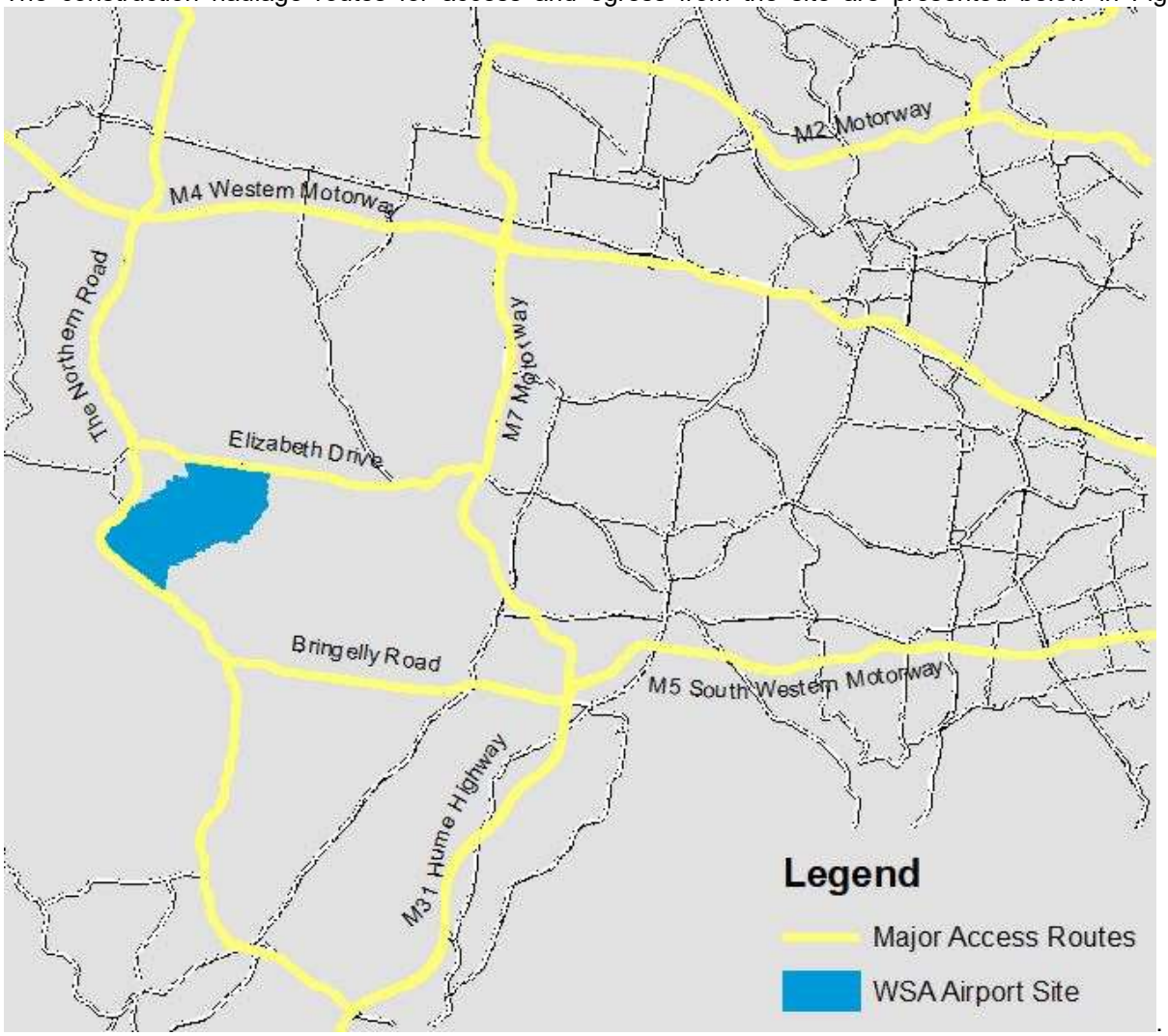
- No stoppages will occur which are longer than five (5) minutes, including the time taken to clear all stopped, slowed and queued traffic;
- Cumulatively delay to all road occupancies, including temporary speed zoning complying with not cause a delay longer than eight (8) minutes including the time taken to clear all stopped, slowed and queued traffic; and
- Traffic queues caused lane closures, measured along a single lane in any direction, must not exceed 250 metres in length for any period of traffic delay. If traffic queues reach 250 metres in length, the traffic control measures will be reviewed and adjusted to remove the cause of the traffic delay until the flow of traffic returns to free flow conditions.

8.3. Construction Access and Egress Mitigations

Construction access and egress will be closely managed to ensure the safety of the community and construction workers. This will be managed from both a high level with regards to the nomination of construction haulage routes, utilising key arterial roads / routes, in addition to site level management with regards to construction site access and egress. Further details are provided in the following sections.

Construction Haulage Routes

The construction haulage routes for access and egress from the site are presented below in Figure 10



. These haulage routes will be included in site induction material and will be distributed to all key suppliers and providers of goods and services. Stipulation of these routes is aimed at ensuring only suitable (i.e. major/primary and collector / arterial) roads are used.

Periodic inspections and audits of the use of the appropriate use of the construction haulage routes will be undertaken in accordance with Section 10.

As per Section 8.2.4, each project contractor is responsible for complying with the Heavy Vehicle National Law (HVNL). Contractors shall ensure they have a Chain of Responsibility Management plan as prescribed by the Law.

The Chain of Responsibility (CoR) management plan is submitted to WSA by the contractor and includes the management of oversize and over-mass (OSOM) vehicles procedures, broken down vehicle and management of roadway debris.

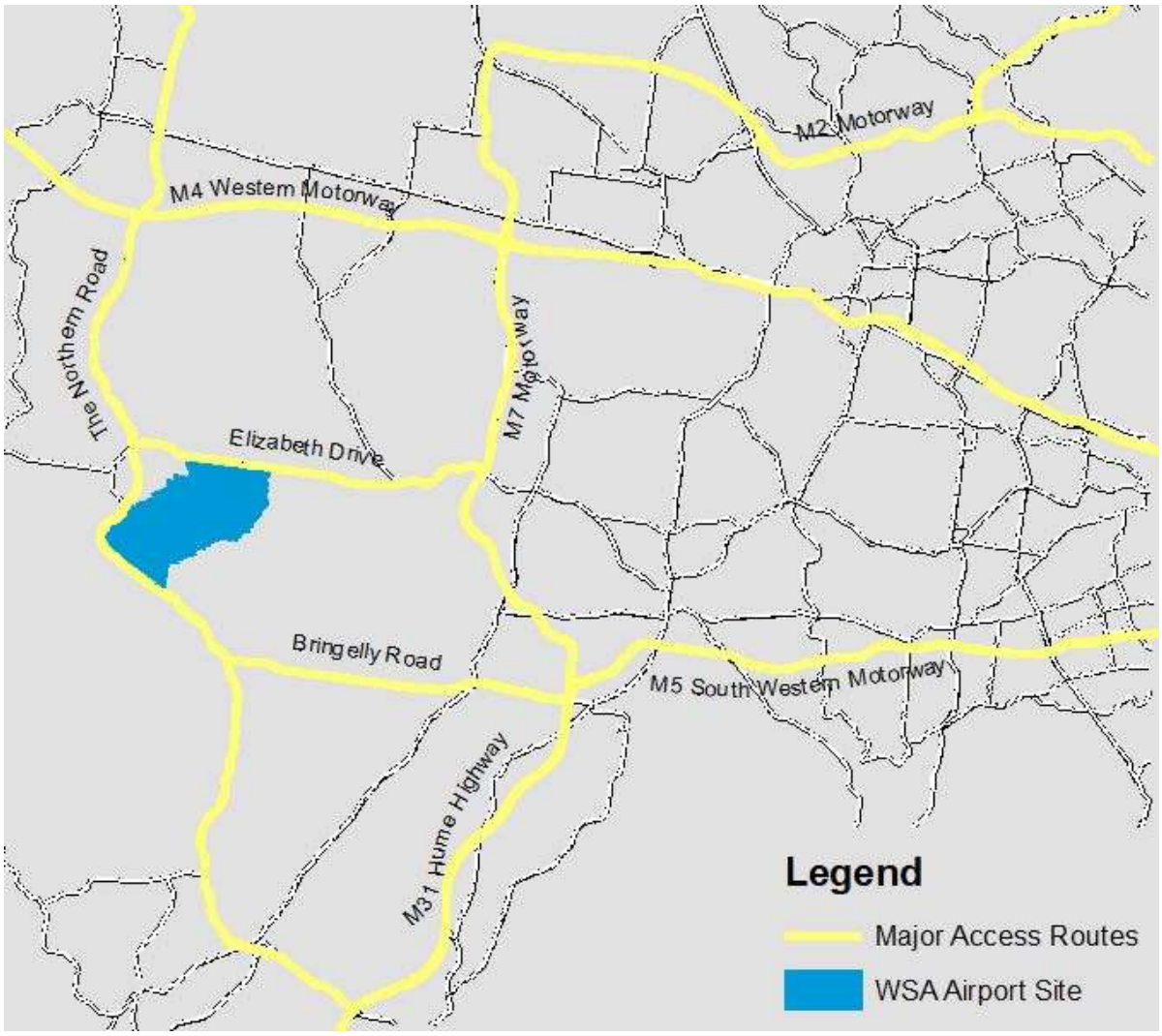


Figure 10: Construction Haulage Routes

8.4. Site Entry and Access Arrangements

Access to the project will be via the existing local road network. The local roads used for access to the project site are Badgerys Creek Road, Elizabeth Drive, The Northern Road, Eaton Road and Anton Road. These access arrangements are subject to change in response to the works, to reduce any potential impacts to the road network and maintain safety.

Refer Section 6.1 for details of each WSA Project element's agreed site access and entry points.

8.5. Documentation

8.5.1. Traffic Guidance Schemes (TGS)

TGS's are diagrams that illustrate the controls and traffic management methods, including signage and devices, that will be installed on public roads during periods of construction work, to safely manage the movements of vehicles, pedestrians and cyclists around the work site. These plans will address the specific control measures required to safely work on the road during a single shift period in accordance with the TfNSW Traffic Control at Work Sites Technical Manual.

Contractors will submit site specific TGS's (not Traffic Control at Work Sites generic plans) for all road occupancies which form part of the their scope. These will be prepared by a person qualified in the "Prepare

Work Zone Traffic Management Plan" and "Design and Inspect Traffic Control Plans" course or equivalent and who has at least 5 years relevant experience.

The TGSs will include:

- Types and locations of permanent regulatory (R series) and warning (W series) signs;
- Types and locations of temporary signs (T series) including advance warning signs and variable message signs (VMS);
- Locations of permanent and temporary traffic signals;
- Locations of any required Traffic Controllers;
- Locations and lengths of taper and safety buffer areas;
- Locations of safety barrier systems including end terminals;
- Pedestrians and cyclist paths;
- Locations of entry and exit gates to work areas, individually numbered and signposted;
- Details of access to adjoining properties, car parking areas, and side roads;
- Pavement marking details, including types of delineation required, turning arrows, stop/holding lines and other road markings, types and positions of raised pavement markers and other delineation devices; and
- Location of temporary lighting, if required.

A TGS can only be prepared by a person who has undertaken and passed the TfNSW training course and holds a current accreditation. All traffic control plans will be implemented by suitably qualified personnel as per the authorised TGS for the stage of the works.

8.5.2. Vehicle Movement Plans

Site specific Vehicle Management Plans (VMPs) will be developed prior to implementation for every active site compound and site gate. VMPs are specific to vehicle movements within the construction site, however are relevant to Traffic and Access where there is a potential for 'spillover' into the public domain. The project endeavours to maximise controlled vehicle movement into the Airport Site, and wherever practicable, entry will be at signalised intersections, followed by roundabouts, and then left in-left out movements for access to and from work sites. Where Left-In Left-Out is not practicable, additional controls will be implemented to manage the safe access and egress from the site gate. These controls may include, use of traffic controllers, controlled crossing points and directional signage.

The VMPs will:

- Show the vehicle entry and exit points into the work areas, and indicate clearly that these are the only points where interface with the through traffic is permitted;
- Consider the entire length of the route travelled by the construction or delivery vehicle, in line with CoR requirements;
- For major haulage operations, the plan must show the entire travel route, and include detail of all key points that are remote from the work site, such as intersections, U-Turn facilities, holding areas, accesses, ramps and side roads; and
- Comply with the TfNSW G10 and G22 specifications, where applicable.

Traffic management controls and measures will be applied to mitigate the risk of hazardous movements including restricting the practice of specific movements (e.g. turning bans) in coordination with TfNSW. Appropriate controls and measures will be assessed on a case by case basis, however may include; providing permanent major traffic controls and devices, providing deceleration, acceleration and turning lanes outside of the through lanes, educating drivers, installing warning devices on vehicles and implementing contingency plans for adverse weather, unplanned incidents or unforeseen circumstances.

8.5.3. Traffic Staging Plans

The Traffic Staging Plans will include a set of long-term Traffic Staging Drawings. These drawings will conform to the procedures outlined in TfNSW G10.

These drawings will comply with the requirements detailed in Section 2.4 of TfNSW G10 will be to scale and provide exact geographical references for:

- Lane configurations on existing and new (temporary and permanent) pavements, indicating any departures from existing traffic lanes;
- Intersection layouts and temporary traffic signals arrangements;
- Pedestrian and cyclist facilities;
- Bus stopping requirements where applicable;
- Work areas and exclusion zones, buffer zones etc.
- Access to adjoining properties, the site and side roads;
- Pavement markings and signage including advance warning and electronic signs;
- Drainage system, both temporary and permanent, including any pollution control measures;
- Utilities and their impact on the traffic staging;
- Locations of any required temporary structures such as retaining walls or the like;
- Street lighting, including temporary arrangements where required (refer to TfNSW G7 Clause 4.5);
- Impacts on existing traffic signals and staging of new traffic signal installation;
- New signage;
- Safety Barrier placement; and
- Portable VMS, VSLS and RASS positions.

If removal of pavement markings is required, the Traffic Staging Plans will provide details of the proposed methods for removal, the estimated durations to carry out the removal, and if necessary, any proposed measures to restore the road surface.

8.5.4. Governance and Approvals

All aspects of traffic management will be coordinated by TfNSW Customer Journey Planning (CJP) to address coordination of transport and road issues in the Western Sydney area with particular regard to the immediate vicinity of the Airport Site.

Technical working groups have been formed to address project interfaces associated with particular locations ensuring that overall objectives are met by integrating permanent and temporary transport solutions.

Traffic and Transportation Liaison Group (TTLGs) meetings are utilised to enable consultation with stakeholders. TTLGs are generally attended by stakeholders such as TfNSW, emergency services, bus operators, and local councils etc, who are consulted prior to the approval of traffic control measures. TTLG meetings are coordinated by TfNSW to minimise stakeholder “fatigue” due to the number of projects in the vicinity of the airport development all requiring input from the same stakeholders.

Through the coordination provided by TfNSW CJP and TCG meetings, the cumulative impact of the numerous transport and roads infrastructure projects in the vicinity of the airport development can be minimised, ensuring that the road networks integrity and capacity is maintained and suitable levels throughout the initial construction phase of the Western Sydney Airport and its supporting infrastructure.

Sydney Metro’s TCG meeting is utilised enabling focus on the area from Elizabeth Drive and South towards Bringelly. The forum is used to coordinate planned works on the public road network, to enable any potential challenges to be identified and resolved. It includes attendance from the TfNSW Customer Journey Planning (CJP) amongst others (refer Table 3).

9. Roles and Responsibilities

The key environmental management roles and responsibilities for the construction phase of the work are detailed in Section 4.4 of the SEMF.

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

The Airport Environment Officer (AEO) will be responsible for day-to-day regulatory oversight of the AEPR compliance at WSI after an Airport Lease is granted.

10. Environmental Inspection, Monitoring, Auditing and Reporting

Monitoring, inspection, auditing and reporting will be undertaken to measure the effectiveness, of the implementation of this Plan. Continuous improvement workshops will be facilitated on a regular basis.

General environmental monitoring, inspection, auditing and reporting requirements are summarised in Section 8 of the SEMF.

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

10.1. Environmental Inspections

10.1.1. WSA Environmental Inspections

Environmental site inspections at active, exposed work sites will be undertaken by the WSA Environment Manager (or delegate) on a weekly basis with relevant construction personnel to evaluate the effectiveness of environmental controls implemented by the Contractor.

The site inspection is to include a visual check of traffic and access control measures including but not limited to the following:

- Adherence to the designated traffic access and transport routes (this may include observation from strategic locations); and
- Ensuring that all vehicle movements (including contractors and sub-contractors) are compliant with the approved routes.

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

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

10.1.2. Contractor Environmental Inspections

Weekly site inspections will be undertaken to monitor compliance with this Plan, with a focus on active work sites. Inspection results will be recorded, and the inspection log made available to the Infrastructure Department upon request. Any improvement opportunities or non-conformances will be documented in the monthly report and discussed at the Environmental Coordination meeting.

More frequent site inspections by the person accountable for traffic and access issues will be conducted onsite when activities with many vehicle movements are underway.

The Contractor's Environmental Manager and/or Environmental Coordinators will undertake inspections in accordance with the Contractor Environmental Management Framework. The Contractor's Environmental Coordinators will record inspection findings on an inspection checklist form.

If any maintenance and/or deficiencies in environmental controls or in the standard of environmental performance are observed, they will be recorded on the checklist form. Records will also include details of any maintenance required, the nature of the deficiency, any actions required and an implementation priority.

10.1.3. 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 traffic and access management mitigation measures and controls where applicable. Works are not to commence unless inspections are found to be satisfactory.

The Foreman will undertake the pre-work inspections.

10.2. Traffic and Access Monitoring

General environmental monitoring requirements are set out in the AEPR 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 traffic and access monitoring requirements, including timing and responsibilities, are included in Table 35 below.

Table 35 - Traffic and Access Monitoring Requirements

Reference	Requirement	Timing	Responsibility
TA_M_01	Monitoring the effectiveness of traffic control measures on site by way of observation of site traffic speed and adherence to designated site traffic routes (the latter may require off-site surveillance). If vehicles to and from site are not adhering to traffic and access requirements, consideration should be given to improvement of mitigation measures and controls, including upgrade of signage, clearer signage, training etc.	Pre-construction and during construction	All Contractors WSA

Where a non-conformance or an improvement opportunity is identified, the non-conformance and improvement opportunity process described in the SEMF Section 8 will be implemented.

Monitoring data and inspections will be used as a basis to assess the implementation of the objectives and determine if the targets have been achieved. Where an issue is identified additional measures considered. This may require:

- Review and modification of work practices as appropriate; and/or
- Provide training to relevant workforce or contractors.

10.3. Environmental Auditing

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

10.4. Environmental Reporting

General environmental reporting requirements are detailed in Section 8.3 of the SEMF.

In addition, a summary of reporting requirements under this Traffic and Access CEMP (including environmental reporting requirements required under the Airport Plan specific to the Traffic and Access CEMP) is provided in Table 36.

Table 36 - Traffic and Access Reporting

Action	Scope	Timing / Frequency	Responsibility
Annual reporting	Unless otherwise agreed in writing by an Approver, an annual report will be prepared in relation to compliance with this Traffic and Access CEMP (Condition 47). In accordance with Condition 47 (2) WSA 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	As required	WSA Environment Manager

Action	Scope	Timing / Frequency	Responsibility
	Environment Department. The report must remain on the website for a period of at least 12 months.		
Complaints reporting	Recording of complaints and stakeholder interactions	As required	WSA Environment Manager WSA Community and Stakeholder Manager All Contractors
General environmental inspection	Inspection of environmental management controls on site and sighting of site documentation as required by the contractor's CEMP	Weekly	WSA
General environmental inspection	Inspection of environmental management controls and site documentation for contractor works (as required by the contractor's CEMP).	As per Contractor environmental management system (at least weekly)	All Contractors
Recording of exceptional incidents	Recording in a log book any exceptional incidents that cause excessive traffic delays on local road network and the action taken to resolve the situation.	As required	All Contractors WSA
Reporting pollution incidents (required under the Act)	Report pollution incidents resulting in offsite impacts to the Airport Environmental Officer – refer to WSA *Environmental Non-conformance Classification and Reporting Procedure.* Notification to NSW Agency's will be assessed on a case-by-case basis.	As required	WSA Environment Manager
Reporting of non-conformances 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.	As required	All Contractors WSA

10.5. Review of Approved Plans

As per the WSA EMS, review of all Approved Plans will be undertaken annually to ensure they continue to meet conditions set out in Section 3.11.2 of the Airport Plan (refer Condition 47). 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.

Under Condition 49 (4) of the Airport Plan, WSA is also required to review each Approved Plan at least every five years (from the date of approval). Findings of this review will be included in the Annual Report (refer Section 8.3 of the SEMF) and if needed, a variation to the Approved Plan will be prepared and submitted for approval.

Additionally, WSA may initiate reviews of Approved Plans at other times in response to improvement opportunities, non-conformances, and 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 Approved Plan and subsequent training and awareness (refer Section 4 of the SEMF).

10.6. Environmental Incidents and Complaints Management

The management and reporting of environmental incidents shall be undertaken by the appropriate person as detailed in Section 6 of the SEMF.

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

11. Competence, Training and Awareness

To ensure this Traffic and Access 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 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.

12. References

AS/NZS ISO 14001: 2016 *Environmental management systems – Requirements with guidance for use*

Commonwealth Department of Infrastructure and Regional Development, 2016*. Airport Plan (September 2021)*

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

M12 Motorway Project Environmental Impact Assessment (EIS) (October 2019)

M12 Motorway Project Amendment Report (October 2020)

M12 Motorway Project West Package Consistency Assessment (October 2020)

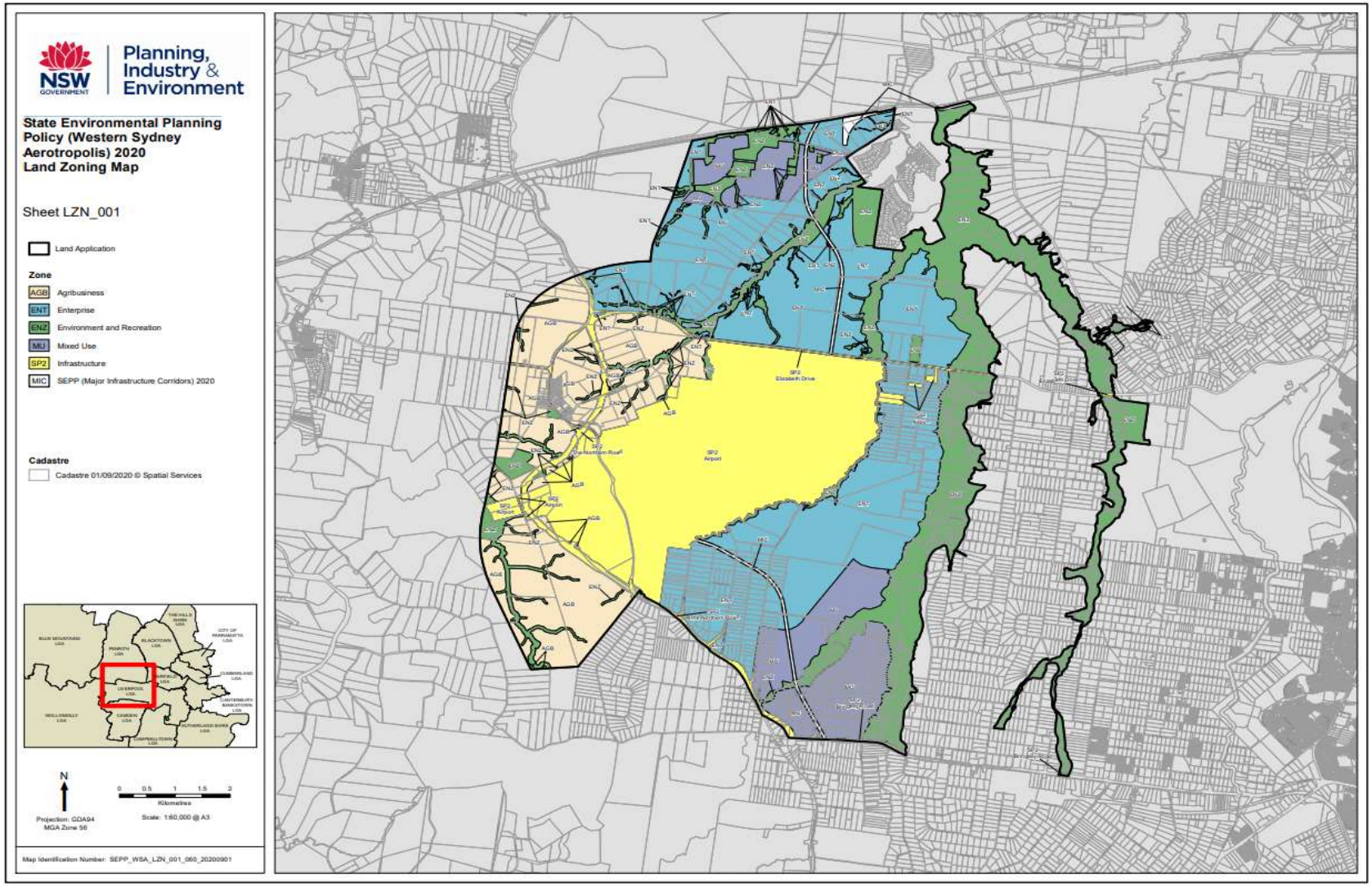
Transport for NSW (TfNSW), QA Specification G7,Utility Adjustment

Transport for NSW (TfNSW), QA Specification G10, Traffic Management

Transport for NSW (TfNSW), QA Specification G22, Work Health And Safety (Construction Work)

Appendix A

State Environmental Planning Policy (Precincts – Western Sydney Parkland City) 2021 Land Zoning Map


Planning, Industry & Environment
NSW GOVERNMENT
State Environmental Planning Policy (Western Sydney Aerotropolis) 2020
Land Zoning Map
Sheet LZN_001
Land Application
Zone
AGB Agribusiness
ENT Enterprise
ENZ Environment and Recreation
MU Mixed Use
SP2 Infrastructure
MIC SEPP (Major Infrastructure Corridors) 2020
Cadastre
Cadastre 01/09/2020 © Spatial Services
N
Projection: GDA94 MGA Zone 56
Scale: 1:60,000 @ A3
Map Identification Number: SEPP_WSA_LZN_001_060_20200901