



4 March 2026

Prepared by Consultants:



Strategic Airspace Pty Limited
ABN: 60 097 857 415

Tel: +61 2 8957 2278

Email: Cathy.PakPoy@StrategicAirspace.com

Client:



Mirvac Projects Pty Ltd
ABN: 72 001 069 245
Level 28, 200 George Street
Sydney NSW 2000

Document Control

Document Number: **25.041-01-001**

Version: **1.1**

Document Title: **1669-1732 & 1669A Elizabeth Drive, Badgerys Creek — SEED Stage 1B: Aeronautical Impact Assessment Report**

Purpose / Abstract: This Aeronautical Impact Assessment (AIA) Report has been prepared by Strategic Airspace (StratAir) for Mirvac Projects Pty Ltd (Mircac) to accompany a State Significant Development Application (SSDA) SSD-99079487 which supports the staged development of SEED Stage 1. Mirvac is seeking approval for a new DA for the construction and operation of Warehouses 1, 4, 5, 7 and 8, a café and regional stormwater basin at 1669-1723 and 1669A Elizabeth Drive, Badgerys Creek. This forms the second stage of development works envisaged under the SEED Stage 1 Concept Proposal (SSD-19618251, incorporating Stage 1A development and approved on 04-Feb-2026) and is referred to as the "SEED Stage 1B".

The site is located to the north-east of the Western Sydney International (WSI) airport, just under 3km from the end of the first (northern) runway, RWY 05L/23R, and the future second runway (RWY 05R/23L) which is anticipated to commence operations in the 2050s to early 2060s. Also, notably, the site is under the direct straight in/out flight path to/from the second runway.

The Planning Secretary's Environmental Assessment Requirements (SEARs) outline the key areas that must be considered as part of the assessment to be included in the Environmental Impact Assessment (EIS) for the project. This report also fulfills Consent Condition B19 of the approved Stage 1 Concept Proposal (SSD-19618251).

The assessment takes into account the requirements outlined in the State Environmental Planning Policies (SEPPs) and other related documents that safeguard aviation operations, particularly with respect to the proposed development's proximity to the WSI airport. These requirements are rooted in the underlying technical standards set out in the National Airports Safeguarding Framework (NASF), which provides the basis for the SEPP airport safeguarding regulations.

This report concludes that the proposed development is suitable and warrants approval subject to consideration and implementation of the following mitigation measures:

- Airspace height constraints imposed by the Obstacle Limitation Surfaces (OLS), especially in relation to the feasibility of construction when considering airspace heights available for cranes. Given that the tallest of the buildings proposed will be ~16m above ground, and the OLS surface heights overhead, the airspace clearances should be sufficient to allow cranes to operate without infringing the airspace.
- Measures for ensuring that the risk to wildlife attraction (to reduce the risk of bird strikes on aircraft) is minimised through design and maintenance and mitigation strategies

Key factors include balancing canopy coverage with plant species selection, storm water and detention infrastructure and external waste disposal management.

The Project proposes to balance competing objectives within the planning framework, in consideration of the performance objectives outlined in P02 of Section 2.10.3 of the Aerotropolis DCP and SEPP Section 4.19 Wildlife hazards.

Landscaping to satisfy the Western Parkland City vision and various objectives of the Blue Green Network, the CPCP, and the Aerotropolis DCP, contradict the principles of airport safeguarding against wildlife hazards. The landscape design and plant species selection reflect the consultation between the landscape architect, ecologist and recommendations from the Wildlife Hazard Assessment. Adopting the management requirements outlined in the Wildlife Monitoring and

Management Plan, seeks to strike a balance between the objectives of the DCP as they relate to canopy cover and those relating to wildlife hazards to aviation.

The introduction of a temporary evaporation basin in Stage 1B will require ongoing monitoring and management as outlined in the Wildlife Hazard Assessment submitted with this application. The temporary evaporation basin will be removed and replaced in 2028 as part of the Stage 2 delivery of a regional solution on behalf of Sydney Water.

- *Compliance of external lighting facilities with applicable lighting intensity constraints.*

These three factors are arguably more important because of the site's location — both in its close proximity to the airport, and because it is directly under the straight in/out flight path to/from the future second runway. Following the implementation of the above mitigation measures, the remaining impacts are appropriate.

The report concludes that the proposed development satisfies the Airport Safeguarding requirements specified in the relevant planning regulations, airport-related plans and the NASF.

It is considered that approval of this SSD application will not cause any adverse effect on the airport's airspace, nor planned and future aircraft operations at WSI.

Contract: -

StratAir Ref: 25.041 (23.029)

Change History

Version	Versn Date	Version By	QA / Approval By	Version / Change Description
0.1	01-Feb-2026	P. Haubourdin	C. Pak-Poy	Initial version
0.2	16-Feb-2026	P. Haubourdin	C. Pak-Poy	Stage 1 Concept Proposal approval; updated Master Plan; updates based on Wildlife Report
1.0	18-Feb-2026	P. Haubourdin	C. Pak-Poy	Editorials, cross-check against Stage 1 DCP Compliance & SSD Development Consent, update Consultations
1.1	04-Mar-2026	P. Haubourdin, C. Pak-Poy	C. Pak-Poy	Updated standard project text

Distribution Control

Legend:	Uncont	Uncontrolled Document	WSI	Western Sydney International Airport
	Client	Mirvac Projects Pty Ltd	StratAir	Strategic Airspace
	CASA	Civil Aviation Safety Authority	AsA	Airservices, Airservices Australia
	WSA Co	Western Sydney Airport Corporation	DITRDCSA	Department of Infrastructure, Transport, Regional Development, Communications, Sport & the Arts

Issue Version	Issue Date	Issue Purpose / Description	Copy No	Copy Recipient
1.0	18-Feb-2026	For issue as part of SSDA Test of Adequacy (TOA) submission	Uncont	StratAir internal, Client
1.1	04-Mar-2026	Amended version for TOA submission	Uncont	StratAir internal, Client

Report Authors

Author	Credentials
Cathy Pak-Poy <i>Lead Consultant</i>	The Certifying Author of this report, Cathy Pak-Poy, has 30 years' experience as a specialist airspace consultant, including 9 years' experience as a Technical Advisor for Australia to the International Civil Aviation Organisation's Instrument Flight Procedures Panel, which is responsible for the international OLS, PANS-OPS and PBN standards. She has also consulted to Airservices, CASA and the Royal Australian Air Force (and trained some of their personnel), and has consulted to and trained civil and military aviation agencies, airports and airlines overseas. She held a Procedure Design Delegation for the Civil Aviation Safety Authority of PNG for two years and is the designated Chief Procedure Designer for the Part 173 design and validation approvals held by Strategic Airspace in the Republic of South Africa.
Paul Haubourdin <i>Senior Consultant</i>	Paul has conducted PANS-OPS instrument flight procedure design projects and many aeronautical impact assessments for StratAir. Previous experience includes the roles of Principle IFP Designer and Safety Investigator for Airways Corporation and Group EAD in NZ, and Manager Obstacle Assessments for the Belgian Air Force. He also has experience as an Air Traffic Controller and is a qualified pilot (CPL Helicopters, and ATPL Fixed Wing Belgium).

This document was prepared by **Strategic Airspace** Pty Limited on behalf of client **Mirvac Projects Pty Ltd**

Copyright © Strategic Airspace Pty Limited, 2026

All Rights Reserved. No part of this document or its entirety may be divulged, commercialised, translated, reproduced and/or copied in any form or by any means without the express and prior written permission of the copyright holder.

Whilst this document has been prepared using all due and customary care, StratAir reserves the right to correct any errors, omissions or misrepresentations.

The authorised recipient of this document is hereby granted permission to use the contents of this document and to make and transmit copies in a secure manner for the purposes of evaluation of the report contents; liaison with its consultants and relevant State and/or international authorities for the purposes of verification, regulatory and operational impact, and/or approvals; and any pursuant negotiation with StratAir as part of its project evaluation and completion processes.

In the event of translation for this purpose and any discrepancies between the translated and original versions, this original text will prevail.

Contents

Change History.....	v
Distribution Control.....	v
Report Authors	v
1 Executive Summary	1
1.1 Aeronautical Constraints on the Proposed Development	2
1.2 Basis of Opinion.....	2
1.3 Assessment Conclusion Summary.....	2
2 Introduction	5
2.1 The Site	6
2.2 Purpose of this Report.....	6
2.3 NSW Planning Secretary's Environmental Assessment Requirements (SEARs)	7
2.4 Scope of This Report.....	7
2.5 Regulatory Considerations	8
2.5.1 National Airports Safeguarding Framework (NASF)	8
2.5.2 State and Local Planning Requirements.....	8
3 Location of the Proposed Development	9
3.1 Location in relation to WSI Airport.....	9
3.2 Location in relation to Other Airports in the Sydney Basin	9
3.3 Location in relation to Helicopter Landing Sites & Defined Helicopter Flight Routes.....	10
3.4 Maximum Planned Building Envelope Heights & Assessment Elevations	10
4 NASF Requirements and Assessment.....	11
4.1 Introduction to NASF	11
4.2 Guideline A: Aircraft Noise (SEPP c4.17)	11
4.3 Guideline B: Windshear & Turbulence (SEPP c4.18)	12
4.4 Guideline C: Wildlife (SEPP c4.19)	12
4.4.1 Wildlife Risk to Aviation.....	14
4.4.2 Risk to Aviation in Urban and Non-Urban Sites	14
4.4.3 Balancing Landscaping & Canopy Coverage with Risk of Bird Strikes.....	15
4.4.4 Balancing Waterbodies with Risk of Bird Strikes.....	15
4.5 Guideline D: Wind Turbines (SEPP c4.20).....	15
4.6 Guideline E: Lighting Distractions to Pilots (SEPP c4.21).....	16
4.7 Guideline F: Protected Airspace (SEPP c4.22).....	17
4.7.1 Obstacle Limitation Surfaces (OLS).....	17
4.7.2 Protection of Instrument Operations — Procedures for Air Navigation Services – Operations (PANS-OPS) Surfaces.....	18
4.7.3 Considerations re Potential Impact of Airspace Height Constraints on Construction Activities & Equipment	18

For: Mirvac

4.8	Guideline G: Communication, Navigation and Surveillance (SEPP c4.23A).....	18
4.9	Guideline H: Strategic Helicopter Landing Sites (SHLS) (SEPP N/A).....	19
4.10	Guideline I: Public Safety Area (SEPP c4.23).....	19
4.11	NASF Assessment Summary & Other Regulations Referencing NASF.....	19
5	NSW State Environmental Planning Policy (Precincts – Western Parkland City) 2021.....	20
6	NSW State Environmental Planning Policy (Industry & Employment) 2021.....	21
7	Phase 2 DCP	21
8	Western Sydney Aerotropolis Plan & Precinct Plan.....	22
9	Aviation Safeguarding Guidelines – Western Sydney Aerotropolis and Surrounding Areas (2021)	22
10	Consultations	23
	10.1 Western Sydney Airport Co (WSA Co) for WSI.....	23
	10.2 Airservices Australia	23
	10.3 Civil Aviation Safety Authority (CASA)	23
11	Cumulative Impacts	24
12	Summary of Recommendations & Mitigation Measures.....	25
	12.1 Masterplan & Permanent Structures	25
	12.2 Construction Considerations	25
	12.3 Long-Term Monitoring & Wildlife Management	25
13	Conclusions	26
	Appendices.....	28
	Appendix 1 — Abbreviations.....	29
	Appendix 2 — OLS & PANS-OPS Charts.....	35

Tables

Table 1-1 — Legal Description	1
Table 1-2 — NASF Review Assessment Summary	2
Table 2-1 — Review Summary of State & Local Planning Regulations	8
Table 4-1 — NASF Assessment Summary (& Other Requirements Cross-References)	19
Table 5-1 — NSW SEPP (Western Parkland City) 2021 – Assessment Summary	20
Table 6-1 — NSW SEPP (Industry and Employment) 2021 – Assessment Summary	21
Table 7-1 — Phase 2 DCP – Assessment Summary	21
Table 13-1 — Key Conclusions	26

Figures

Figure 1-1 — Site In relation to Western Sydney International Airport	1
Figure 2-1 — The Site & Legal Title Boundaries	6
Figure 3-1 — Location of Development Site in relation to Western Sydney International Airport	9
Figure 4-1 — ANEC Noise Contours in relation to the Site	11
Figure 4-2 — Windshear, BRA and PSA Areas in relation to the Site	12
Figure 4-3 — 3km Wildlife Buffer in relation to the Site	13
Figure 4-4 — External Lighting Control Zones in relation to the Site	16
Figure 4-5 — Indicative OLS Surface Height Contours over the Site	17
Figure 13-1 — WSI's 2022 OLS Updated Chart (Commonwealth-approved June 2023)	36
Figure 13-2 — Example PANS-OPS Chart (from Sydney Airport)	37

1 Executive Summary

This Aeronautical Impact Assessment (AIA) Report has been prepared by Strategic Airspace (StratAir) to accompany a State Significant Development Application (SSDA) SSD-99079487 which supports the staged development of SEED Stage 1.

The SEED Stage 1 Concept Proposal (SSD-19618251) and detailed stage development identified as the Stage 1A Development has been approved on 4 February 2026. SEED Stage 1 (SSD-19618251) establishes a Concept Masterplan for seven (7) industrial buildings and a cafe, subdivision at 1669-1723 and 1669A Elizabeth Drive Badgerys Creek. SEED Stage 1A includes site preparation works the bulk earthworks, road construction, construction and operation of two (2) warehouse buildings (Warehouses 2 and 6).

Mirvac is seeking approval for a new DA for the construction and operation of Warehouses 1, 4, 5, 7 and 8, a café and regional stormwater basin at 1669-1723 and 1669A Elizabeth Drive Badgerys Creek. This forms the second stage of development works envisaged under the SEED Stage 1 Concept Proposal (SSD-19618251) and is referred to as the "SEED Stage 1B".

A concurrent modification application to SEED Stage 1 Concept Proposal and SEED Stage 1A (SSD-19618251) is proposed to update civil design elements and to align with proposed design for SEED Stage 1B.

The legal description of the site as it pertains to SEED Stage 1B is detailed in Table 1-1 below and depicted in Figure 2-1 (p6).

Table 1-1 — Legal Description

Property Address	Title Description
1669-1732 Elizabeth Drive, Badgerys Creek	Lot 100 in DP 1283398
1669A Elizabeth Drive, Badgerys Creek	Lot 741 in DP 810111

This report has been prepared to address the Secretary's Environmental Assessment Requirements (SEARs) issued (dated 8 December 2025) for the project (SSD-99079487) and Consent Condition B19 of the approved Stage 1 Concept Proposal (SSD-19618251).



Figure 1-1 — Site In relation to Western Sydney International Airport

1.1 Aeronautical Constraints on the Proposed Development

The site is located in close proximity to the future second runway to be installed at Western Sydney International Airport (WSI) — the site location in relation to the airport and current and future runways are depicted in Figure 1-1 above.

The proximity of the site to the future runway results in some height restrictions as the site is partially below the Obstacle Limitation Surfaces (OLS) and wholly under the Inner Horizontal Surface (IHS). These height restrictions are sufficiently high to allow for the proposed building heights with adequate clearances to allow for deployment of cranes for construction.

Restrictions regarding external lighting intensity above the horizontal will be applicable to prevent distractions to pilots around the runway, varying from max 150cd to max 450cd depending on the distance from the runway. Such restrictions can be accommodated through the use of horizontal shielding on outside lighting fixtures.

Additionally, the site is partially within the 3km wildlife sensitive zone, where all developments regardless of classification must take measures to reduce the risk of wildlife attraction. Such measures include the use of approved plant/tree species for landscaping, consideration for waste disposal facilities, and storm and drain water infrastructure.

For more details, refer to Table 1-2 below.

1.2 Basis of Opinion

The assessment in this report is based on the information provided by the client and the current planning regulations applicable to the project site. Assessment was conducted against the National Aviation Safeguarding Framework (NASF) guidelines, which ensure compliance with the requirements as set forth — in the NSW Planning Secretary's Environmental Assessment Requirements (SEARs) and the relevant State Environmental Planning Policies (SEPPs) and Development Control Plan (DCP) — for consideration as part of the Environmental Impact Statement (EIS) for the project.

1.3 Assessment Conclusion Summary

The table below summarizes the assessment against all NASF guidelines:

Table 1-2 — NASF Review Assessment Summary

NASF Guideline	Impact / Constraint	Comment
A Aircraft Noise	None	The proposed use (industrial) is not considered a noise sensitive use.
B Windshear	None	The site is laterally clear of any windshear assessment surfaces.
C Wildlife	Partly within 3km zone Entirely within 8km zone	The SEPP & DCP impose some constraints. The temporary evaporation basin will require ongoing monitoring and management to mitigate the risk associated with that water feature until it is removed in 2028 — refer section 4.4 below (p12).
D Wind Turbines	None	There are no plans for the installing of wind turbines at the site.

For: Mirvac

NASF Guideline	Impact / Constraint	Comment
E Lighting Distraction	6km Lighting Intensity Radius Zone C – Max 150cd Zone D – Max 450cd	More detailed illustration provided in section 4.6 below (p16)
F Protected Airspace	OLS Approach, Take-Off Climb, Transitional & Inner Horizontal Surfaces ~122m – 126m AHD PANS-OPS None	Refer section 4.7.1 below (p17) and the OLS impact diagram in Figure 4-5 (p17). The airport's OLS chart is also provided in Appendix 2 — OLS & PANS-OPS Charts. For Western Sydney Airport, as there are no published PANS-OPS procedures yet against which to assess possible penetrations of the OLS, the OLS is considered a hard limit. Further detailed construction planning must consider the OLS height restrictions to ensure that the building and any cranes required for construction will remain under the applicable OLS height limits.
G CNS	None	The site is laterally clear of any Building Restricted Areas (BRAs)
H SHSL	None	There are no SHLS in the vicinity of the site, and there is no information available of future helipad locations within the WSI airport boundary.
I PSA	None	The site is laterally clear of any Public Safety Areas

The intended industrial use is generally considered suitable for such a location due to the insensitivity to noise impacts and the low likelihood of attracting wildlife.

This report concludes that the proposed development is suitable and warrants approval subject to the consideration and implementation of the following mitigation measures as part of the ongoing master planning, detailed design and pre-planning for construction:

- Airspace height constraints imposed by the OLS, especially in relation to the feasibility of construction when considering airspace heights available for cranes.
- Measures for ensuring that the risk to wildlife attraction — to reduce the risk of bird strikes on aircraft — is minimised through design and maintenance and mitigation strategies.
Key factors include balancing canopy coverage with plant species selection, storm water and detention infrastructure and external waste disposal management.
These measures are addressed in the Wildlife Hazard Assessment.

Note also:

- The Project proposes to balance competing objectives within the planning framework, in consideration of the performance objectives outlined in P02 of Section 2.10.3 of the Aerotropolis DCP and SEPP Section 4.19 Wildlife hazards.
- Landscaping to satisfy the Western Parkland City vision and various objectives of the Blue Green Network, the CPCP, and the Aerotropolis DCP, contradict the principles of airport safeguarding against wildlife hazards. The landscape design and plant species selection reflect the consultation between the landscape architect, ecologist and recommendations from the Wildlife Hazard Assessment. Adopting the management requirements outlined in the Wildlife Monitoring and Management Plan, seeks to strike a balance between the objectives of the DCP as they relate to canopy cover and those relating to wildlife hazards to aviation.
- The introduction of a temporary evaporation basin in Stage 1B will require monitoring and management as outlined in the Wildlife Hazard Assessment

For: **Mirvac**

submitted with this application. The temporary evaporation basin will be removed and replaced in 2028 as part of the Stage 2 delivery of a regional solution on behalf of Sydney Water.

- Compliance of external lighting facilities and construction-related lighting with applicable lighting intensity constraints.

These factors are noted because they are arguably more important because of the site's location — both in its close proximity to the airport, and because it is directly under the straight in/out flight path to/from the future second runway.

That said, the Stage 1B proposal for SEED has been assessed to satisfy the Airport Safeguarding requirements specified in the relevant planning regulations, airport-related plans and the NASF — and therefore, subject to the mitigation measures identified above, it is considered that approval of this SSD application will not cause any adverse effect on the airport's airspace, nor planned and future aircraft operations at WSI.

2 Introduction

Mirvac is seeking approval for a new DA for the construction and operation of Warehouses 1, 4, 5, 7 and 8, a café and regional stormwater basin at 1669-1723 and 1669A Elizabeth Drive, Badgerys Creek. This forms the second stage of development works envisaged under the SEED Stage 1 Concept Proposal (SSD-19618251) and is referred to as the "SEED Stage 1B".

The SEED Stage 1B Development seeks approval for the following:

- Construction of the following warehouse buildings for the purpose of warehouse and distribution centres (including warehouse building GFA, ancillary office GFA, hardstand areas for loading/unloading/vehicular manoeuvring and on-lot car parking):
 - Warehouse 1 (Lot 1) comprising 4,130sqm of GFA and 31 car parking spaces;
 - Warehouse 4 (Lot 4) comprising 8,990sqm of GFA and 55 car parking spaces;
 - Warehouse 5 (Lot 5) comprising 6,840sqm of GFA and 42 car parking spaces;
 - Warehouse 7 (Lot 7) comprising 40,410sqm of GFA and 183 car parking spaces;
 - Warehouse 8 (Lot 8) comprising 21,370sqm of GFA and 98 car parking spaces; and
 - Operating hours for Warehouse Buildings 1, 4, 5, 7 and 8 for 24 hours, 7 days a week.
- Estate café comprising 300sqm of GFA, 24 car supporting parking spaces as part of the Edge Amenity node. Operating hours for the Estate café from 5am to 5pm, 7 days a week;
- Construction of Sydney Water Regional Stormwater Basin SC09 (through a Developer Works Agreement with Sydney Water Corporation (**SWC**) which will eventually be acquired by SWC);
- Landscaping, including on-lot landscaping and amenity areas, street reserve landscaping and estate amenity nodes;
- Construction of some new on-lot retaining walls to manage level differences between development lots; and
- Estate wayfinding signage.

This proposal concerns the construction and operation of remaining warehouse buildings established under the SEED Stage 1 Concept Masterplan and further to the site preparation works approved under the Stage 1A Development approval.

Modifications to SEED Stage 1

- Re-distribution of warehouse and ancillary office GFA across Warehouse Buildings 1, 4, 5, 7 and 8 to align with the proposed SEED Stage 1B designs (net-zero change to the total GFA across these warehouse buildings);
- Minor increase to the café GFA by 150sqm for consistency with SEED Stage 1B requirements;
- Refinement to the approved levels and retaining walls for consistency with SEED Stage 1B requirements. This includes adjustment to Lot 8s FFL as well as refinements to the design of some approved retaining walls;
- Update to the cumulative stormwater management strategy for SEED to reflect changes to the intended development outcome at the Aspect

For: Mirvac

Industrial Estate (AIE) site that is being progressed under a separate application; and

- An optional contingency to modify the interim evaporation basin within the SEED Stage 2 land.

The development sought as part of this proposal and the development under SSD-19618251 will deliver a unified, staged development of the overall Precinct.

2.1 The Site

The site, located at 1669-1732 Elizabeth Drive (Lot 100 in DP1283398) and 1669A Elizabeth Drive (Lot 741 in DP810111), Badgerys Creek, lies within the Penrith Local Government Area (LGA).

The legal description of the site as it pertains to SEED Stage 1B is detailed in Table 1-1 above (p1) and depicted in Figure 2-1 below.



Figure 2-1 — The Site & Legal Title Boundaries

2.2 Purpose of this Report

This report has been prepared in response to the requirements contained within the Secretary's Environmental Assessment Requirements (SEARs) dated 8 December 2025 and issued for the SSDA (SSD-99079487). Specifically, this report has been prepared to respond to the SEARs requirements as outlined in section 2.3 below.

This report also fulfills Consent Condition B19 of the approved Stage 1 Concept Proposal SSD-19618251, the requirement for a risk assessment of the future DAs on the development on Western Sydney Airport operations and address the requirements of the Aviation Safeguarding Guidelines – Western Sydney Aerotropolis and surrounding areas.

2.3 NSW Planning Secretary's Environmental Assessment Requirements (SEARs)

The SEARs for Application SSD-99079487, Project: SEED – Stage 1B (8 December 2025) specifies following considerations for Airport Safeguarding:

- an assessment of the potential impact of the proposed development on the ultimate development of the Western Sydney International (Nancy-Bird Walton) Airport (WSI) operations
- consideration of any impacts to the WSI owned land adjoining the site
- a wildlife hazard assessment and wildlife management plan
- consideration of related matters in the Aviation Safeguarding Guidelines – Western Sydney Aerotropolis and surrounding areas, State Environmental Planning Policy (Precincts - Western City Parkland) 2021 and the National Airports Safeguarding Framework, including (but not limit to) aircraft noise, public safety, wildlife hazards, lighting, wind shear and the prescribed airspace
- consideration of Part 4.3 of the State Environmental Planning Policy (Precincts - Western City Parkland) 2021 and the Aerotropolis Development Control Plan

Assessment of the SEPP (WPC) is provided in section 5 below (p20). Evaluation of additional documents referenced in the SEARs is provided in this report. Information on these is provided in sections 7 (p21) and 9 (p22).

For airport safeguarding and aviation matters, the SEARs specified consultation with the following agencies during preparation of the EIS:

- Western Sydney Airport Corporation (WSI)
- Air Services Australia (ASA)
- Civil Aviation Safety Authority (CASA)

Note that prior consultation for EISs for similar projects in the vicinity of WSI has not previously been required prior to submission of the planning report where the proposal has been assessed as compliant with NASF, the relevant SEPPs and other planning regulations. In this case it is anticipated that consultation may only be required in response to any feedback from the above agencies, if relevant to this report, after the consultation period.

2.4 Scope of This Report

This AIA report addresses all matters related to aviation impact on WSI as outlined in the SEARs, and specifically in relation to the documents referenced in the SEARs. Planning documents not specifically mentioned in the SEARs are also considered. A full overview of the documents considered and assessed in this report is provided in Table 2-1 below.

The National Airports Safeguarding Framework (NASF) is a comprehensive national set of guidelines, which provides the basis for all local/regional regulations. To ensure the completeness of the assessment, the NASF guidelines are used as a framework for assessment and cross-referenced for compliance with the various regulatory documents also assessed. The full NASF summary and cross-reference information is provided in Table 4-1, p19).

Another State planning policy also required to be considered is the State Environmental Planning Policy (Industry & Employment), referred to herein as the SEPP (I&E) — refer also to section 6 (p21).

2.5 Regulatory Considerations

2.5.1 National Airports Safeguarding Framework (NASF)

The NASF is a national set of guidelines, which provides the basis for all local/regional regulations. Assessment against the NASF guidelines is generally more comprehensive than assessment against specific local guidelines. This AIA report focusses on the assessment against the NASF guidelines and identifies any requirements additional to those as specified in local regulations.

Though the NASF guidelines do not specifically require any consideration for the reduction of wildlife attraction for sites classifications that are not considered to be a contributor to wildlife attraction, Clause 4.19 Wildlife Hazards of the current NSW SEPP (WPC) does impose some restrictions on all sites within the 3km sensitive zone regardless of usage classification. Local planning regulations may also promote canopy targets which may conflict with the NASF risk reduction objectives, which are supported by guidelines for plant species to be used in landscaping, and the arrangement of external waste disposal facilities. Note that the design of stormwater and detention infrastructure may also impact on wildlife attraction.

2.5.2 State and Local Planning Requirements

The following table summarises the assessment findings per regulation.

Table 2-1 — Review Summary of State & Local Planning Regulations

Regulation	Regulation Currency	This Report Ref
NSW State Environmental Planning Policy (Western Parkland City) 2021 (*SEPP, or SEPP(WPC))	16 January 2026	Section 4.11, Table 4-1 (p19) Section 5 (p20)
NSW State Environmental Planning Policy (Industry and Employment) 2021 (SEPP(I&E))	15 August 2025	Section 6 (p21)
NSW Secretary's Environmental Assessment Requirements (SEARs)	8 December 2025	Section 4.11, Table 4-1 (p19) Section 2.3 (p7)
Phase 2 Development Control Plan (DCP, or DCP 2)	September 2024	Section 4.11, Table 4-1 (p19) Section 7 (p21)
Western Sydney Aerotropolis Precinct Plan	11 July 2025	Section 8 (p22)
Aviation Safeguarding Guidelines – Western Sydney Aerotropolis and Surrounding Areas (ASG-WSASA)	November 2022	Section 4.11, Table 4-1 (p19) Section 9 (p22)

* *Note: To help distinguish between the different State Environmental Planning Policy's, and because the key planning document which refers to Development Controls – Airport Safeguards is the State Environmental Planning Policy (Western Parkland City), this will be referred to in this document as the SEPP, or alternatively SEPP(WPC).*

3 Location of the Proposed Development

3.1 Location in relation to WSI Airport

The site is located northeast of WSI Airport. The distances from the runway under construction and the future runway are:

- 2.9 km from the first runway, RWY 05L/23R
- 2.6 km from the second (future) runway, RWY 05R/23L — anticipated to be operational between 2050 and the early 2060s.



Figure 3-1 — Location of Development Site in relation to Western Sydney International Airport

3.2 Location in relation to Other Airports in the Sydney Basin

The other airports in the Sydney Basin are too distant from the study area to have any impact on the airspace above it — with the exception of the minimum vector altitude (MVA) sectors used by the air traffic controllers, which are charted on Sydney Airport's Radar Terrain Clearance Chart (RTCC) surfaces plan. It is noted that these will change prior to the commencement of aircraft operations at WSI — however, given the location of the site in relation to the airport, any such changes are not anticipated to change the assessment conclusions of this report.

3.3 Location in relation to Helicopter Landing Sites & Defined Helicopter Flight Routes

No impact. There are no known Strategic Helicopter Landing Sites (SHLS) in the vicinity of the site and there are as yet no details on the potential location of Helicopter Landing Sites (HLS) within WSI airport's boundary nor designated Helicopter Flight Routes in the vicinity.

3.4 Maximum Planned Building Envelope Heights & Assessment Elevations

The proposed warehouses have a maximum height of 16m above ground across the roof ridge. Considering the ground elevation of the site this results in maximum heights of 63.5 – 75.7m Australian Height Datum (AHD¹).

1 Heights in the Australian Height Datum are equivalent to height Above Mean Sea Level (AMSL)

4 NASF Requirements and Assessment

4.1 Introduction to NASF

The National Airports Safeguarding Framework (NASF) is issued by the Department of Infrastructure, Transport, Regional Development, Communications and the Arts. The stated purpose of the NASF is to “enhance the current and future safety, viability and growth of aviation operations, by supporting and enabling:

- the implementation of best practice in relation to land use assessment and decision making in the vicinity of airports and strategic helicopter landing sites;
- assurance of community safety and amenity near airports and strategic helicopter landing sites;
- better understanding and recognition of aviation safety requirements and aircraft noise impacts in land use and related planning decisions;
- the provision of greater certainty and clarity for developers and land owners;
- improvements to regulatory certainty and efficiency; and
- the publication and dissemination of information on best practice in land use and related planning that supports the safe and efficient operation of airports and strategic helicopter landing sites.”

While the NASF is a national set of guidelines, it provides the basis for all local/regional regulations in line with the Department’s view that the NASF should “drive improvements in planning outcomes consistently across all jurisdictions and contribute to the improvement of the safety and viability of aviation in Australia”.

4.2 Guideline A: Aircraft Noise (SEPP c4.17)

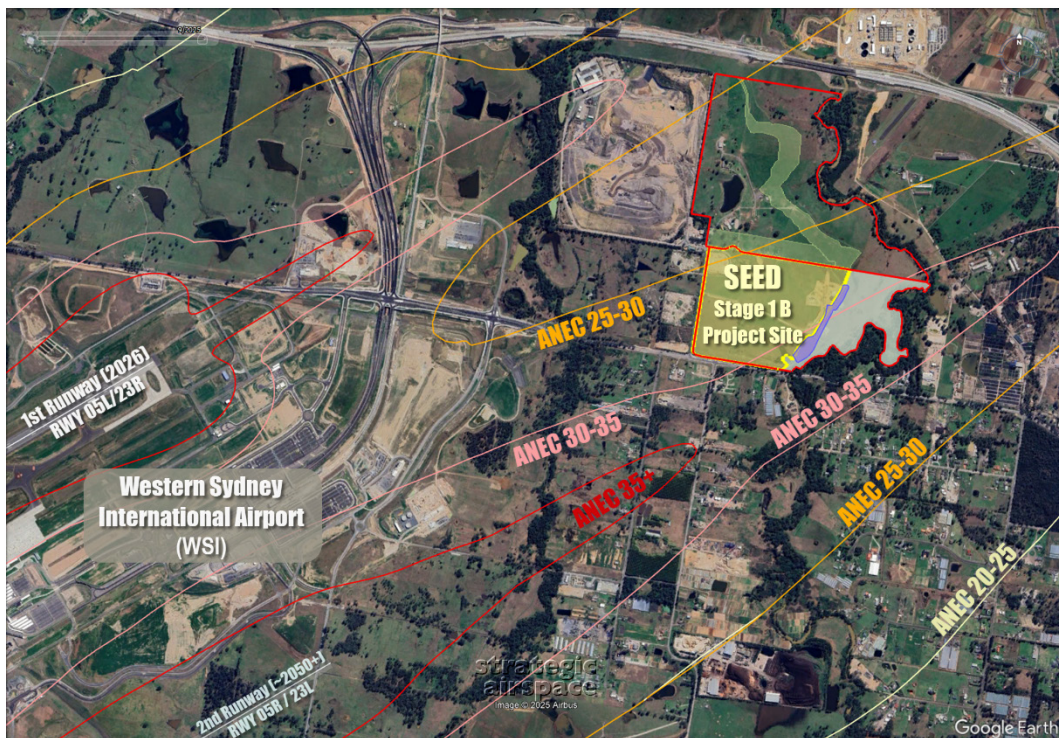


Figure 4-1 — ANEC Noise Contours in relation to the Site

For: Mirvac

The development site is considered as “Light Industrial” and is acceptable within all the ANEF zones as per the Australian Standard AS 2021:2015 Acoustics – Aircraft Noise.

4.3 Guideline B: Windshear & Turbulence (SEPP c4.18)

The site is laterally well clear of the Windshear Assessment Trigger Areas for all runways. As such no further assessment is required of the proposed development in relation to windshear and turbulence.

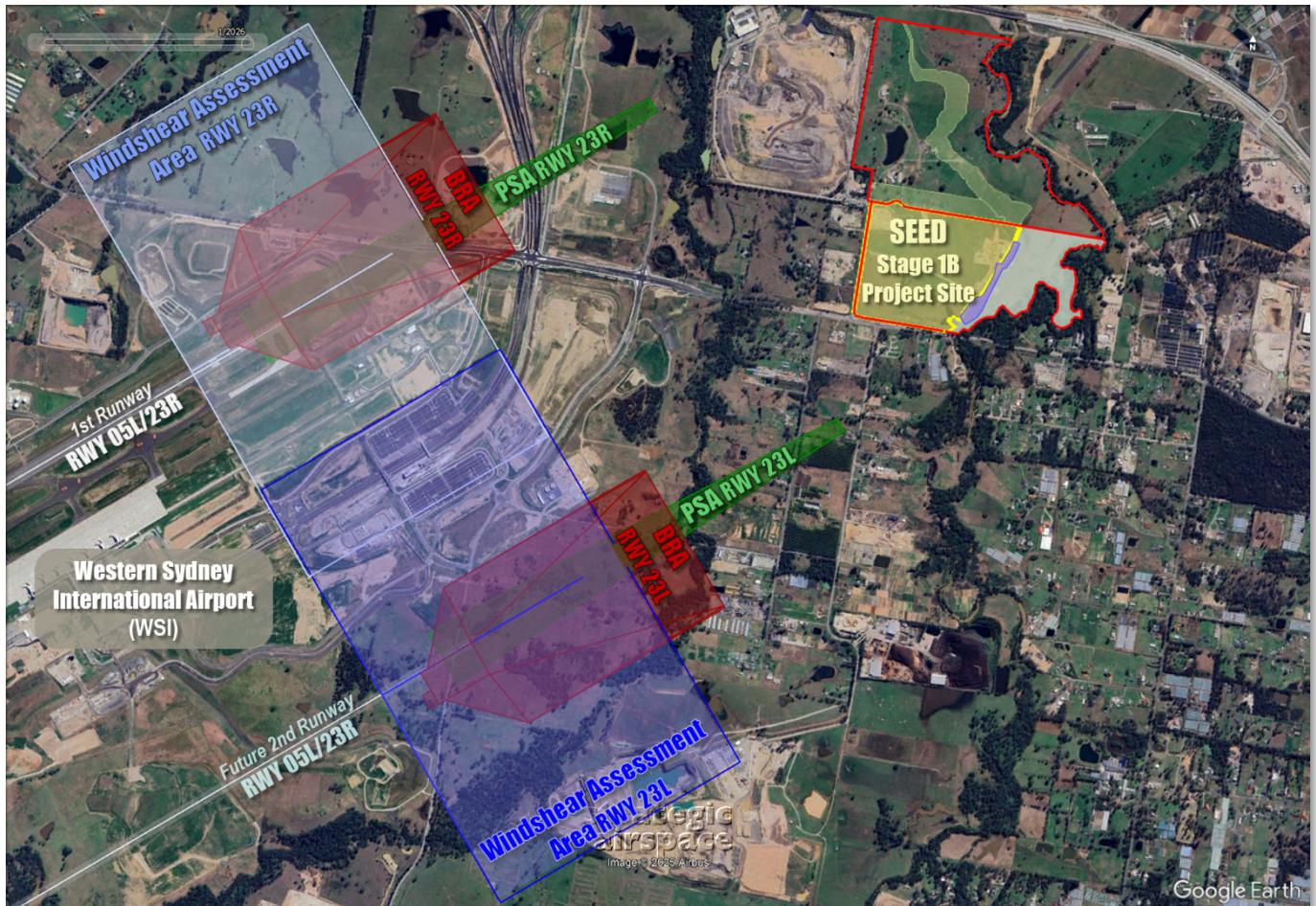


Figure 4-2 — Windshear, BRA and PSA Areas in relation to the Site

4.4 Guideline C: Wildlife (SEPP c4.19)

The site falls wholly within the 8km wildlife buffer zone and partially within the 3km wildlife buffer zone, as illustrated in Figure 4-3 below. The development foreseen for the site does not include any “incompatible” uses that would normally be associated with increased risk for wildlife impact.

It should be noted that even for projects with land use not classified as high risk for wildlife attraction, because the site is partially within the 3km sensitive zone, there can still be some restrictions imposed on general landscaping and other requirements regarding canopy coverage and vegetation species selection as well as waste disposal controls to minimise wildlife attraction risk. There are also guidelines applicable to sites within the 3km zone for stormwater and detention design and management.



Figure 4-3 — 3km Wildlife Buffer in relation to the Site

The detailed assessment and plans for monitoring, mitigation and managing ongoing risk for the SEED development are contained in the specialist Wildlife Hazard Assessment report as submitted and approved for the Stage 1A of the development. A subsequent Wildlife Hazard Assessment specifically for Stage 1B of the development² is submitted with this application and focusses on the wildlife hazard associated with the Sydney Water Regional Basin.

The Wildlife Hazard Assessment for Stage 1A indicates that there are restrictions on the types and density of trees to be planted on the site. It is noted that such restrictions may conflict with other applicable regulations requiring minimum tree coverage for development projects. While such minimum canopy coverage targets are useful in ensuring required rural qualities are retained, the need to restrict tree coverage is widely accepted as being required as crucial to ensuring aviation safety in the vicinity of aerodromes. This requirement is particularly pertinent to this site, given its proximity to the airport, the northern end of both runways, and the fact that it lies under the direct in/out flight path of the second runway.

A temporary evaporation basin in the lot to the north will be in place until 2028, after which time Mirvac will deliver on behalf of Sydney Water a Regional Solution, and the temporary evaporation basin will be removed and replaced with Stage 2 development.

The temporary evaporation basin lies entirely within the 8km wildlife buffer but is not subject to provisions related to the 3km wildlife buffer. This temporary basin is part of the Stage 1B development, and the wildlife hazard associated with the temporary basin is addressed in the Wildlife Hazard Assessment for Stage 1B.

² SEED – Stage 1B Wildlife Hazard Assessment (Rev01), Avisure, February 2026

The waterbodies require interventions to reduce wildlife attraction as outlined in Section 6 of the Wildlife Management Assessment report, wherein it is recommended to conduct wildlife monitoring and dispersal at the temporary evaporation basin and plan for the need to net or wire the basin if ongoing monitoring indicates that dispersal is insufficient to restrict wildlife.

4.4.1 Wildlife Risk to Aviation

The International Civil Aviation Organization (ICAO) governs commercial aviation worldwide and provides the framework for aviation regulation across the globe. In its 2023 Wildlife Strike Analysis for the period 2016-2021³, as compiled by the ICAO Bird Strike Information System (IBIS), ICAO confirms that the main risk for bird strikes in aviation are during the phases of take-off, approach and landing, with $\frac{3}{4}$ of bird strikes or more occurring in close vicinity to an aerodrome.

According to an international study published in 2020⁴, 88% of bird strikes in the USA over the past 27 years have occurred below 2500ft, and 95% of bird strikes in Europe also occurred below 2500ft. This corresponds to the flight phases: take-off, initial climb, landing and approach (ie, in close vicinity to an aerodrome).

The Australian Transport Safety Bureau (ATSB) also maintains a National Aviation Wildlife Strike Dashboard⁵ in consideration of the considerable risk associated with wildlife strikes:

Occurrences involving aircraft striking wildlife, particularly birds, continue to be the most common aviation occurrence reported to the ATSB. Wildlife strikes are a potential safety risk and present a significant economic risk for aerodrome and aircraft operators. The aim of this dashboard is to provide information back to pilots, aerodrome and aircraft operators, regulators, and other aviation industry participants to assist them with understanding and managing the risks associated with bird and animal strikes.

The latest information available on the dashboard again indicates that in Australia, as in the rest of the world, over 80% of bird strikes occur in the direct vicinity of an aerodrome.

It is an international consensus that measures to reduce wildlife attraction not only inside airport boundaries but also in the vicinity of aerodromes are crucial to ensuring aviation safety.

4.4.2 Risk to Aviation in Urban and Non-Urban Sites

The statistics held by ATSB show that the wildlife strikes recorded for the major capital city airports is relatively low compared to airports and airfields in more rural regions. This is obviously because the capital city airports are predominantly surrounded by dense urban developments, and even those with nearby waterways / oceans such as Sydney and Brisbane, already have well-established mitigation techniques. They also have different bird populations than are present in the Western Sydney Airport environs. Furthermore, it is widely acknowledged that it is more difficult to implement wildlife mitigations outside of existing airport boundaries, simply because of the pre-existing built and natural environments.

3 2016-2021 Wildlife Strike Analyses (IBIS) – ICAO Electronic Bulletin – Published 27 June 2023

Source: <https://www.icao.int/Aerodromes/ibis/Documents/03.%20EB%202023.30%20-%202016%2021%20WILDLIFE%20STRIKE%20ANALYSES/2016%20-%202021%20Wildlife%20Strike%20Analyses%20%28IBIS%29%20-%20EN.pdf>

4 The Bird Strike Challenge – NL, DE joint report – Published 13 March 2020

Source: https://www.researchgate.net/figure/Average-bird-strike-rates-number-of-strikes-per-10-000-aircraft-movements-for-different_tbl1_339922272

5 National Aviation Wildlife Strike Dashboard

Source: <https://www.atsb.gov.au/national-aviation-wildlife-strike-dashboard>

ICAO and similar guidelines, including those in the NASF and the SEPP (WPC) make it beholden on planning agencies to help mitigate the risk of wildlife strike by greenfield developments near new airports. And it is this requirement — to help assure the safety of aircraft, their passengers, and people on the ground by reducing the risk from the outset — that needs to be balanced with the competing desires for canopy coverage and regeneration of the Cumberland Plain ecology.

4.4.3 Balancing Landscaping & Canopy Coverage with Risk of Bird Strikes

The guidelines, objectives and planning constraints stipulated in the current versions of the NASF, Phase 2 DCP and the SEPP impose constraints on plant species selection for landscaping design and treatment of external waste disposal facilities. Another factor to consider is any canopy coverage targets that may be imposed. All of these factors have been considered in an integrated fashion during final master planning to ensure that the risk of wildlife, with or without mitigations, will be considered acceptable by WSI and the aviation authorities — especially as ultimately the site will sit under the direct in/out flight path to/from the future second runway.

It is noted that landscaping to satisfy the Western Parkland City vision and various objectives of the Blue Green Network, the CPCP, and the Aerotropolis DCP, contradict the principles of airport safeguarding against wildlife hazards.

The Project proposes to balance competing objectives within the planning framework, in consideration of the performance objectives outlined in P02 of Section 2.10.3 of the Aerotropolis DCP and SEPP Section 4.19 Wildlife hazards.

4.4.4 Balancing Waterbodies with Risk of Bird Strikes

The guidelines, objectives and planning constraints stipulated in the current Phase 2 DCP require stormwater detention within the 3km and 8km wildlife buffer to fully drain within 48 hours after a rainfall event.

A temporary evaporation basin will be in place until 2028, after which time, Mirvac will deliver on behalf of Sydney Water a Regional Solution, and the temporary evaporation basin will be removed and replaced with Stage 2 development.

The waterbodies require interventions to reduce wildlife attraction as outlined in Section 6 of the Wildlife Management Assessment report, whereby it is recommended to conduct wildlife monitoring and dispersal at the temporary evaporation basin and plan for the need to net or wire the basin if ongoing monitoring indicates that dispersal is insufficient to restrict wildlife.

4.5 Guideline D: Wind Turbines (SEPP c4.20)

No impact — there are no wind turbines planned to be installed on the site.

For: Mirvac

4.6 Guideline E: Lighting Distractions to Pilots (SEPP c4.21)

The site falls within the External Lighting Control Zones C and D. In these zones any developments must ensure lights of certain intensity are not visible above 3° above the horizontal as measured from the light source.

As illustrated in Figure 4-4 below, the majority site and the buildings proposed as part of the Stage 1B development fall are within the extent of the lighting intensity zones C and D, with maximum light intensities as follows:

- Zone C — 150 Candela limit
- Zone D — 450 Candela limit

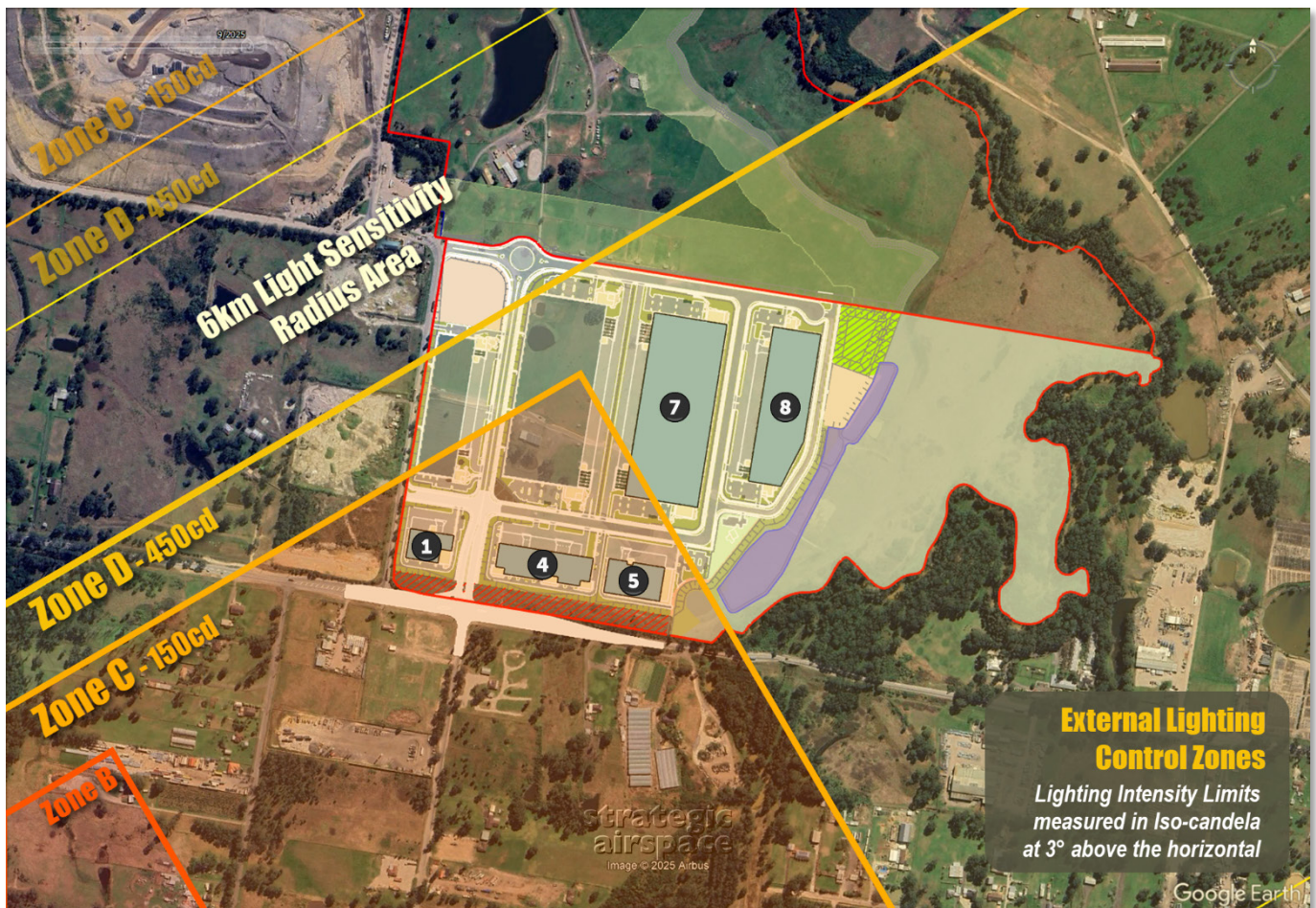


Figure 4-4 — External Lighting Control Zones in relation to the Site

The north-west corner of the site which is outside of the External Lighting Control Zones is still within the 6km light sensitivity radius, which specifies controls for flashing lights and traffic lights. No coloured or flashing lights have been considered within the design. For this project, this constraint mainly applies to construction lighting.

4.7 Guideline F: Protected Airspace (SEPP c4.22)

4.7.1 Obstacle Limitation Surfaces (OLS)

The site is wholly impacted by WSI Airport's OLS, which is based on the runway locations and elevations, as well as the defined elevation of the Aerodrome Reference Point (ARP) where elevations are the heights according to the Australian Height Datum (AHD).

The current OLS chart as published by WSI Airport is provided in Appendix 2 — OLS & PANS-OPS Charts for information^{6,7}.

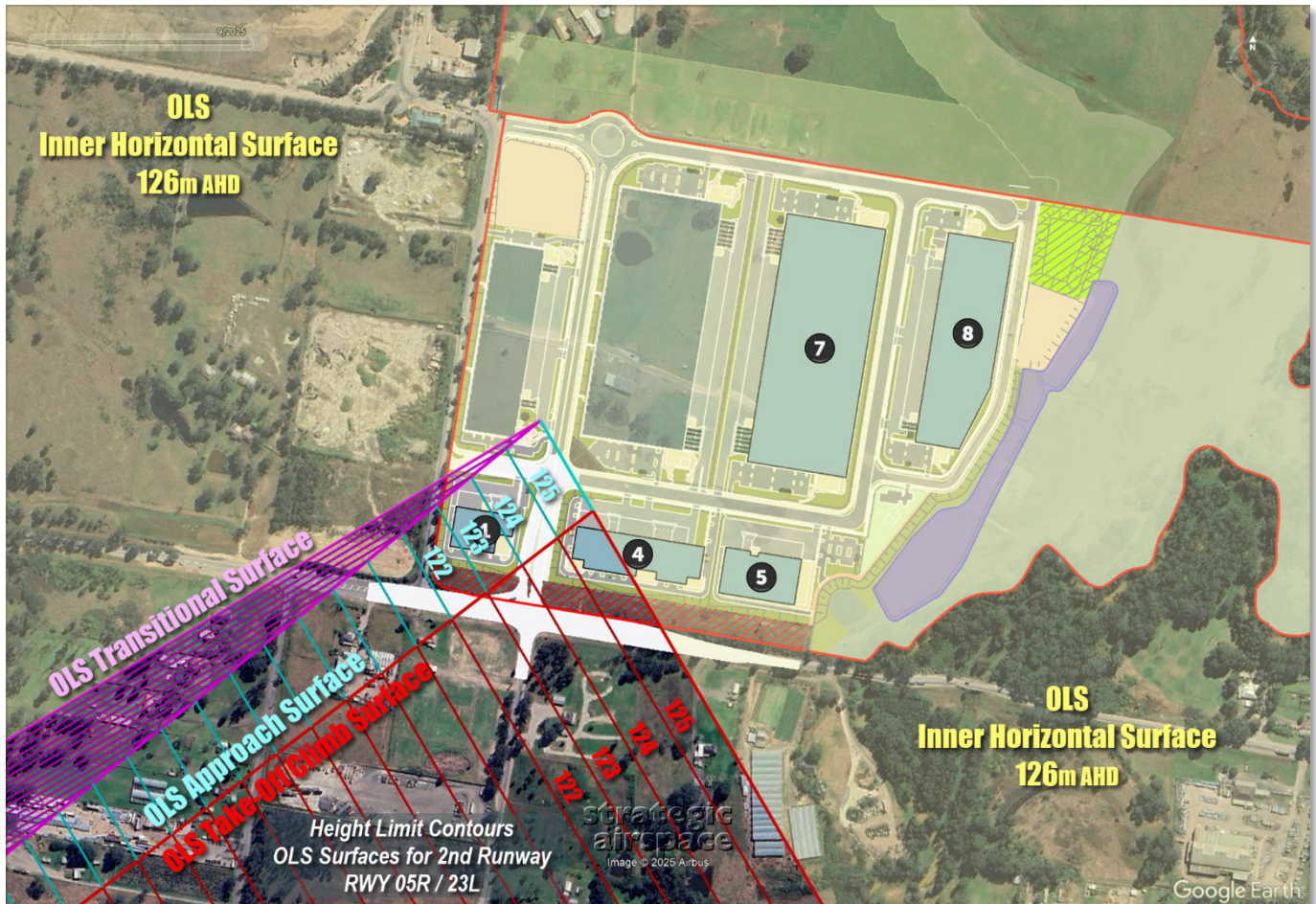


Figure 4-5 — Indicative OLS Surface Height Contours over the Site

The majority of the site is impacted by the Inner Horizontal surface, which has a height of 126m AHD. The OLS Take-Off Climb, Approach and Transitional Surfaces restrict heights to as low as 122m AHD over the southwestern part of the site.

As illustrated in Figure 4-5 above, the OLS height limits range:

- from approximately 122m AHD above the south-western corner of the site;
- to approximately 126m AHD over the rest of the site.

⁶ WSI published the updated OLS on 2nd November 2022, and the updated OLS was declared formally by the Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts as part of the airport's Prescribed Airspace on 15th June 2023.

⁷ The State Environmental Planning Policy (Precincts— Western Parkland City) 2021 Obstacle Limitation Surface Map has not yet been updated (its publication date is 25th March 2022) to reflect the declared OLS. However, WSI's version of the OLS will be the authoritative version to be used by the airport itself and Commonwealth aviation stakeholders for assessment of any planning applications.

These height limits are well above the proposed heights of the warehouses (63.5 – 75.7m AHD).

With clearances of $\geq 46.3\text{m}$ above the roof tops it is highly unlikely that any cranes deployed for construction would penetrate the OLS overhead.

In the unlikely event that a crane would need to exceed the relevant OLS height constraint overhead it would need to be included in 'airspace height' applications under the Airports (Protection of Airspace) Regulations, for consideration and explicit approval prior to construction. For Western Sydney Airport, as there are no published PANS-OPS procedures yet against which to assess possible penetrations of the OLS, the OLS is considered a hard limit and no approvals are expected to be granted for any buildings or cranes that would exceed the OLS.

Further detailed construction planning must consider the OLS height restrictions to ensure that any cranes required for construction will remain under the OLS height limits.

4.7.2 Protection of Instrument Operations — Procedures for Air Navigation Services – Operations (PANS-OPS) Surfaces

As of the date of this assessment there are no details available for any PANS-OPS procedures to be implemented at WSI, and there will be none available for the future second runway until probably at earliest 12-18 months before its actual date of commencement (in the 2050s to early 2060s).

For the purposes of this assessment, it is considered that buildings and construction activities and equipment clear of (ie, below) the applicable OLS surfaces will not impose any unreasonable restrictions on the future implementation of PANS OPS procedures at WSI — for either the first runway or the future second runway.

4.7.3 Considerations re Potential Impact of Airspace Height Constraints on Construction Activities & Equipment

This section is not strictly required for inclusion in the EIS, but is provided for consideration of potential future impact during construction.

The height constraints detailed in this section apply equally to buildings and any cranes or tall equipment required for the constructions of those buildings. When planning construction on the site the relevant OLS heights (ranging from 122-126m AHD) must be considered to ensure the feasibility of construction giving that under current planning regulations those height restraints will apply to cranes used during construction.

4.8 Guideline G: Communication, Navigation and Surveillance (SEPP c4.23A)

As depicted in Figure 4-2 (p12), the site is laterally clear of the BRA (Building Restricted Areas) as stipulated in the SEPP and depicted on the SEPP Building Restricted Area Map, which are the assessment areas associated with Communication, Navigation and Surveillance (CNS) equipment. The nearest surface (BRA for the RWY 23L ILS Glidepath) is approximately 1.3km away from the site.

The NASF stipulates an additional BRA for ILS Localisers, but these are not included in the SEPP requirements nor shown on the SEPP BRA map for WSI. This type of BRA (for the ILS Localiser), if applied at WSI, would be further from the site than the BRA (Glidepath) shown in Figure 4-2 and would equally have no impact on the proposed development.

4.9 Guideline H: Strategic Helicopter Landing Sites (SHLS) (SEPP N/A)

There are no known helicopter landing sites in the vicinity of the site, nor are there any known plans for helicopter landing sites within WSI airport.

4.10 Guideline I: Public Safety Area (SEPP c4.23)

The site is laterally clear of the PSA (Public Safety Areas) defined for WSI airport. The nearest surface (PSA RWY 23L) is approximately 550m away from the site. The PSAs for both runways are depicted in Figure 4-2 above (p12).

4.11 NASF Assessment Summary & Other Regulations Referencing NASF

The table below summarises the findings of this section 4 and also provides cross-references to the other applicable regulations.

Table 4-1 — NASF Assessment Summary (& Other Requirements Cross-References)

NASF Guideline	Impact / Constraint	Comment	Regulation References
A Aircraft Noise	None	The proposed use (industrial) is not considered a noise sensitive use.	SEPP (WPC) Clause 4.17 SEPP (I&E) Clause 2.36 DCP 2 Clause 2.10.2 ASG-WSASA Section 2
B Windshear	None	The site is laterally clear of any windshear assessment surfaces.	SEPP (WPC) Clause 4.18 DCP 2 Appendix Clause D.7 ASG-WSASA Section 3
C Wildlife	Partly within 3km buffer zone Entirely within 8km buffer zone	The SEPP & DCP impose some constraints which are in contradiction to the wildlife requirements in the NASF. The proposed development balances the requirements and stipulates ongoing monitoring and management of wildlife to ensure actual wildlife presence on the site does not compromise aviation safety. Refer section 4.4 above (p12).	SEPP (WPC) Clause 4.19 SEPP (I&E) Clause 2.38 DCP 2 Clause 2.10.3 DCP 2 Appendix Clause D.7 ASG-WSASA Section 4
D Wind Turbines	None	There are no plans for the installing of wind turbines at the site.	SEPP (WPC) Clause 4.20 ASG-WSASA Section 5
E Lighting Distraction	6km Lighting Intensity Radius Zone C – Max 150cd Zone D – Max 450cd	More detailed illustration provided in section 4.6 above (p16)	SEPP (WPC) Clause 4.21 ASG-WSASA Section 6

For: Mirvac

NASF Guideline	Impact / Constraint	Comment	Regulation References
F Protected Airspace	OLS Approach, Take-Off Climb, Transitional & Inner Horizontal Surfaces ~122m – 126m AHD PANS-OPS None	Refer section 4.7.1 above (p17) and the OLS impact diagram in Figure 4-5 (p17). The airport's latest OLS chart is also provided in Appendix 2 — OLS & PANS-OPS Charts. For Western Sydney Airport, as there are no published PANS-OPS procedures yet against which to assess possible penetrations of the OLS, the OLS is considered a hard limit. Further detailed construction planning must consider the OLS height restrictions to ensure that the building and any cranes required for construction will remain under the OLS height limits.	SEPP (WPC) Clause 4.22 SEPP (I&E) Clause 2.37 DCP 2 Appendix Clause D.7 ASG-WSASA Section 7
G CNS	None	The site is laterally clear of any Building Restricted Areas (BRAs)	SEPP (WPC) Clause 4.23A DCP 2 Appendix Clause D.7 ASG-WSASA Section 8
H SHSL	None	There are no SHLS in the vicinity of the site, and there is no information available of future helipad locations within the WSI airport boundary.	ASG-WSASA Section 9
I PSA	None	The site is laterally clear of any Public Safety Areas	SEPP (WPC) Clause 4.23 DCP 2 Appendix Clause D.7 ASG-WSASA Section 10

5 NSW State Environmental Planning Policy (Precincts – Western Parkland City) 2021

The relevant clauses in the version of the regulation assessed (dated 16 Jan 2026) are provided in the table below, cross-referenced to the NASF guideline as assessed in this report.

Table 5-1 — NSW SEPP (Western Parkland City) 2021 – Assessment Summary

Regulation Clause	Relevant NASF Guideline
Clause 4.17: Aircraft noise	Guideline A – see section 4.2
Clause 4.18: Building wind shear and turbulence	Guideline B – see section 4.3
Clause 4.19: Wildlife hazards	Guideline C – see section 4.4
Clause 4.20: Wind turbines	Guideline D – see section 4.5
Clause 4.21: Lighting	Guideline E – see section 4.6
Clause 4.22: Airspace operations	Guideline F – see section 0
Clause 4.23: Public safety	Guideline I – see section 4.10
Clause 4.23A: Operation of certain air transport facilities	Guideline G – see section 4.8

6 NSW State Environmental Planning Policy (Industry & Employment) 2021

The relevant clauses in the version of the regulation assessed (dated 15 Aug 2025) are provided in the table below, cross-referenced to the NASF guideline as assessed in this report.

Table 6-1 — NSW SEPP (Industry and Employment) 2021 – Assessment Summary

<i>Regulation Clause</i>	<i>Relevant NASF Guideline</i>
Clause 2.36: Development in areas subject to aircraft noise	Guideline A – see section 4.2
Clause 2.37: Airspace Operations	Guideline F – see section 0
Clause 2.38: Development of land adjacent to Airport	Guideline C – see section 4.4

7 Phase 2 DCP

The relevant clauses in the version of the regulation assessed (Sep-2024) are provided in the table below, cross-referenced to the NASF guideline as assessed in this report:

Table 7-1 — Phase 2 DCP – Assessment Summary

<i>Regulation Clause</i>	<i>Current Validity</i>
Clause 2.10.1: Protection of Operational Airspace	Guideline F – see section 0
Clause 2.10.2: Noise	Guideline A – see section 4.2
Clause 2.10.3: Wildlife Hazards	Guideline C - see section 4.4
Appendix Clause D.7: Protection of Airspace	Guideline F - see section 0
Appendix Clause D.7: Windshear and Turbulence	Guideline B - see section 4.3
Appendix Clause D.7: Airport Public Safety Areas	Guideline I - see section 4.10
Appendix Clause D.7: Wildlife Hazards	Guideline C - see section 4.4
Appendix Clause D.7: Communications, Navigation and Surveillance Systems	Guideline G - see section 4.8

8 Western Sydney Aerotropolis Plan & Precinct Plan

Mentioned in the SEPP Airport Safeguarding section, the Western Sydney Aerotropolis Plan 2020 is explanatory in nature and doesn't provide actual compliance clauses. Reference is made to compliance with NASF, which is confirmed in section 4 above (p11).

The related Western Sydney Aerotropolis Precinct Plan (July 2025) follows the initial guidelines set out in the Western Sydney Aerotropolis Plan, with updated precinct planning. It includes a *Height of Buildings* map (in Figure 12 of that document) which caps building heights (above ground level) by zone and refers to the OLS as the ultimate arbiter of applicable height controls. The building heights indicated for Stage 1 Masterplan will not exceed the limits specified in the Precinct Plan. As noted in section 4.7.1 above the building heights will also remain below the applicable OLS height limits.

9 Aviation Safeguarding Guidelines – Western Sydney Aerotropolis and Surrounding Areas (2021)

Compliance with the Aviation Safeguarding Guidelines – Western Sydney Aerotropolis and Surrounding Areas (2021) (ASG-WSASA) is stipulated in the latest SEARs. This document is based on the guidelines stipulated in the NASF — but for planning purposes is also framed within the context of the Western Sydney Aerotropolis and surrounding areas. It also provides additional background information for planners about Western Sydney Airport that is not available in the NASF itself.

Compliance with NASF therefore ensures compliance with the Aviation Safeguarding Guidelines – Western Sydney Aerotropolis and Surrounding Areas (2021).

As such, please refer to the results of the NASF requirements review, summarised in Table 4-1 (p19).

10 Consultations

The SEARs requires that consultations with a number of specified agencies must be undertaken. The agencies relevant to the AIA are Western Sydney Airport Corporation (WSA Co, operator of WSI), Airservices Australia (Airservices) and the Civil Aviation Safety Authority (CASA).

All of the above agencies have been consulted with by Mirvac at various times — initially for the now approved SEED Stage 1 Concept Proposal and detailed stage development identified as Stage 1A Development.

None have been specifically consulted with for the detailed Stage 1B proposal for the reasons explained below for each of the 3 relevant agencies.

It is also noted that in this particular discipline, and for this project, especially where the relevant requirements are well set out in regulations and guidelines, these agencies cannot provide any further input via consultation prior to the submission of the EIS. Rather, these agencies need to be able to review the content of this AIA as part of the EIS post exhibition in order to review the proposal and make substantive comment.

10.1 Western Sydney Airport Co (WSA Co) for WSI

WSA Co / WSI provided input on matters that it specifically wanted included in the SEARs. The Airport Safeguarding factors that WSI specifically requested to be responded to in the AIA as part of the EIS were:

- Aircraft Noise
- Wildlife Hazards
- Lighting
- Airspace Operations

Each of the above are addressed in this report.

WSI also indicated that they would then provide comment on the EIS when on public exhibition.

10.2 Airservices Australia

Airservices Australia did not need to be consulted because the proposal does not affect any of the protection areas for landing aids (refer section 4.8, p18) and will not adversely impact the PANS-OPS airspace (refer section 4.7, p17 and section 4.7.3, p18) which concerns this agency.

10.3 Civil Aviation Safety Authority (CASA)

CASA's response to a consultation request by Mirvac for the Elizabeth Enterprise Precinct Concept Proposal and detailed Stage 1 Development (SEED Stage 1A) in 2021 identified the need for a risk assessment of the proposed development on Western Sydney Airport's operations and recommended that the NASF guidelines be referred to for assessment. Those same comments apply to this SSDA.

CASA will provide comment on the EIS and this AIA in particular when on public exhibition.

11 Cumulative Impacts

With the implementation of a comprehensive Wildlife Monitoring and Management Plan the Stage 1B SSDA is not expected to result in any additional cumulative impacts on aviation safety in the area. The ongoing measures — including routine inspections, species monitoring, adaptive management responses, and specific controls such as vegetation management and waterbody drainage — are designed to ensure that wildlife hazards remain contained.

These actions will support continued compliance with airport safeguarding requirements and maintain the safety of Western Sydney International Airport's airspace and operations.

Additionally, as noted in section 4.4 (p12), the temporary evaporation basin in the lot to the north of the Stage 1B development area will be removed in 2028 and replaced with Stage 2 development, at which stage the overall risk of wildlife will be reduced.

12 Summary of Recommendations & Mitigation Measures

12.1 Masterplan & Permanent Structures

The detailed design and final masterplan for SEED Stage 1B must ensure that all permanent structures remain compliant with the Obstacle Limitation Surfaces (OLS) for Western Sydney International Airport. The proposed warehouse roof heights (63.5–75.7m AHD) are well below the applicable OLS surfaces (approximately 122–126m AHD), and this compliance must be maintained through final design certification prior to construction. External lighting associated with buildings and car parks must comply with the applicable Lighting Control Zones (Zone C – 150cd; Zone D – 450cd) and be appropriately shielded to prevent light spill above 3° from the horizontal. Landscaping, stormwater infrastructure and waste management facilities must be designed in accordance with the Wildlife Hazard Assessment to minimise the potential for bird attraction, particularly given the site's partial location within the 3km wildlife buffer.

12.2 Construction Considerations

During construction, strict adherence to OLS height constraints is required for all temporary structures, cranes and equipment. Construction planning must confirm that maximum crane operating heights remain below the relevant OLS levels at all times. Should any activity risk approaching OLS limits, early assessment and regulatory consultation under the Airports (Protection of Airspace) Regulations (APAR) would be required; however, no exceedances are anticipated. Temporary construction lighting must also comply with lighting intensity and shielding requirements applicable within the 6km lighting control radius. In addition, construction-phase water management measures must prevent the formation of standing water bodies that could attract birds, with particular attention to the temporary evaporation basin and drainage infrastructure.

12.3 Long-Term Monitoring & Wildlife Management

Ongoing wildlife risk management is essential due to the site's proximity to Western Sydney International Airport and its location beneath the future second runway flight path. The adopted Wildlife Monitoring and Management Plan should include routine inspections, species monitoring, and adaptive management responses where bird activity exceeds acceptable thresholds. Specific measures may include active dispersal techniques, vegetation management, waste control protocols, and, if required, physical deterrents such as netting or wiring of waterbodies. Stormwater detention systems must be designed to drain within prescribed timeframes to minimise habitat suitability. Through implementation of these ongoing measures, the development can maintain compliance with airport safeguarding objectives while balancing broader planning and environmental goals.

13 Conclusions

The assessment considered the applicable planning regulations, including the current versions of the SEARs and relevant reference documents. All aeronautical impact factors are fundamentally based on the NASF and its application under the SEPP (Precincts – Western Parkland City) 2021.

Key items are addressed in this section. Those not addressed are considered inapplicable or wholly compliant.

Table 13-1 — Key Conclusions

NASF Guideline	Regulation References	
C Wildlife	SEPP (WPC) Clause 4.19 SEPP (I&E) Clause 2.38 DCP 2 Clause 2.10.3 DCP 2 Appendix Clause D.7 ASG-WSASA Section 4	The site is located within an 8km wildlife zone and partially within the sensitive 3km wildlife buffer zone. As outlined in the application for the now approved Stage 1A of the development, this designation may introduce constraints related to plant species selection for landscaping, the treatment of external waste disposal facilities, storm drain and detention facility design, and potential canopy coverage targets. These elements must be addressed holistically during final master planning to ensure wildlife risks, with or without mitigation measures, remain within acceptable limits as determined by WSI and aviation authorities. This consideration is particularly critical given the site's position directly beneath the approach and departure paths of the planned second runway. Measures for ensuring that the risk to wildlife attraction (to reduce the risk of bird strikes on aircraft) is minimised through design and maintenance and mitigation strategies. Key factors include balancing canopy coverage with plant species selection, storm water and detention infrastructure and external waste disposal management. The Project proposes to balance competing objectives within the planning framework, in consideration of the performance objectives outlined in P02 of Section 2.10.3 of the Aerotropolis DCP and SEPP Section 4.19 Wildlife hazards. Landscaping to satisfy the Western Parkland City vision and various objectives of the Blue Green Network, the CPCP, and the Aerotropolis DCP, contradict the principles of airport safeguarding against wildlife hazards. The landscape design and plant species selection reflect the consultation between the landscape architect, ecologist and recommendations from the Wildlife Hazard Assessment. Adopting the management requirements outlined in the Wildlife Monitoring and Management Plan, seeks to strike a balance between the objectives of the DCP as they relate to canopy cover and those relating to wildlife hazards to aviation. In addition to the mitigations outlined for Stage 1A in the recently approved application, the introduction of a temporary evaporation basin in Stage 1B will require monitoring and management as outlined in the Wildlife Hazard Assessment submitted with this application. The temporary evaporation basin will be removed and replaced in 2028 as part of the Stage 2 delivery of a regional solution on behalf of Sydney Water.
E Lighting Distraction	SEPP (WPC) Clause 4.21 ASG-WSASA Section 6	The entire site is subject to the constraints associated with the "6km Light Intensity Radius", with the majority of the site subject to external lighting zone constraints for Zones C (max 150cd above 3° above the horizontal) and D (max 450cd). This is not an onerous requirement for the type of development proposed: however, it will require attention when planning the use of temporary lighting during construction.

For: Mirvac

NASF Guideline	Regulation References	
F Protected Airspace	SEPP (WPC) Clause 4.22 SEPP (I&E) Clause 2.37 DCP 2 Appendix Clause D.7 ASG-WSASA Section 7	Airspace height constraints imposed by the Obstacle Limitation Surfaces (OLS) provide for maximum allowable building heights ranging from 122-126m AHD across the site (as depicted in Figure 4-5 (p17)). With a maximum proposed building height of 75.7m AHD, there will be no height clearance issues for the buildings, and sufficient clearance exists between the building heights and the OLS to accommodate crane operations without impacting airspace. Thus, the airspace height constraints are not considered an impediment to the proposed building structures, nor the construction of the proposed development.

Subject to the acceptance of the requirements for an acceptable wildlife management plan and future design compliance for external lighting, it is considered that the Stage 1 planning proposal for the SEED Stage 1B satisfies the Airport Safeguarding requirements for WSI and it will not adversely affect its airspace nor planned and future aircraft operations.

On this basis the proposed development is suitable and warrants approval.

APPENDICES

APPENDIX 1 — ABBREVIATIONS

For: Mirvac

Abbreviations used in this report and/or associated reference documents, and the meanings assigned to them for the purposes of this report are detailed in the following table:

Abbreviation	Meaning
AC	Advisory Circular (document supporting CAR 1998)
ACFT	Aircraft
AD	Aerodrome
ADS-B	Automatic Dependent Surveillance – Broadcast An aircraft location identification and tracking service facilitated by satellite signals and ground tracking stations, similar to (but more accurate than) radar
Aerotropolis	Western Sydney Aerotropolis
Aerotropolis DCP	Western Sydney Aerotropolis Development Control Plan
Aerotropolis SEPP	State Environmental Planning Policy (Western Sydney Aerotropolis) 2020 Now superseded by the <i>State Environmental Planning Policy (Precincts – Western Parkland City) 2021</i> — The Aerotropolis SEPP is subsumed into this new SEPP, as Chapter 4 Western Sydney Aerotropolis
AGL	Above Ground Level (Height)
AHD	Australian Height Datum
AHT	Aircraft Height
AIP	Aeronautical Information Publication
Airports Act	Airports Act 1996, as amended
AIS	Aeronautical Information Services
ALARP	As Low As Reasonably Practicable
ALC	Airport Lease Company
Alt	Altitude
AMAC	Australian Mayoral Aviation Council
AMSL	Above Minimum Sea Level
ANEC	Australian Noise Exposure Concept
ANEF	Australian Noise Exposure Forecast
ANSP	Airspace and Navigation Service Provider
APCH	Approach
APAR / APARs	Airports (Protection of Airspace) Regulations, 1996 as amended Note: the Airports (Protection of Airspace) Regulations 2026 will come into effect on 1 st April 2026
ARP	Aerodrome Reference Point
AsA	Airservices Australia
ASDA	Accelerated Stop Distance Available
ASG-WSASA	Aviation Safeguarding Guidelines — Western Sydney Aerotropolis & Surrounding Areas
ATC	Air Traffic Control / Air Traffic Controller
ATM	Air Traffic Management
BA (Planning)	Building Application or Building Approval (Planning)
BAC	Brisbane Airport Corporation
BCC	Brisbane City Council
BRA	Building Restriction Area
CAAP	Civil Aviation Advisory Publication
CAO	Civil Aviation Order
CAR	Civil Aviation Regulation
CASA	Civil Aviation Safety Authority
CASR	Civil Aviation Safety Regulation

For: **Mirvac**

Abbreviation	Meaning
Cat	Category
CBD	Central Business District
Cd	Candelas
CG	Climb Gradient
CMP	Construction Management Plan
CNS	Communications, Navigation, Surveillance
CNS/ATM	Communications, Navigation, Surveillance / Air Traffic Management
CoS	City of Sydney (Council)
DA (Aviation)	Decision Altitude (Aviation)
DA (Planning)	Development Application or Development Approval (Planning)
DAH	Designated Airspace Handbook
DAP	Departure and Approach Procedures (published by AsA)
DCP (Planning)	Development Control Plan
DEP	Departure
DER	Departure End (of the) Runway
DEVELMT	Development
DH	Decision Height
DITRDCSA	Department of Infrastructure, Transport, Regional Development, Communications, Sport & the Arts (Commonwealth) (former abbreviations include DIRD, DIRDC, DITRDC, DITRDCA)
DME	Distance Measuring Equipment
Doc nn	ICAO Document Number nn
DoD	Department of Defence
DODPROPS	Dependent Opposite Direction Parallel Runway Operations
DPE	Department of Planning & Environment (NSW). now DPHI
DPHI	Department of Planning, Housing & Infrastructure (NSW), formerly DPE & DPIE (Department of Planning, Industry & Environment)
EEP	Elizabeth Enterprise Precinct
EIS	Environmental Impact Study
ELEV	Elevation (above mean sea level)
ENE	East North East
EP&A (Planning)	NSW Environmental Planning & Assessment Act 1979 (as amended)
ERSA	EnRoute Supplement Australia
ESE	East South East
FAF	Final Approach Fix
FAP	Final Approach Point
Ft	Feet
GBAS	Ground-Based Augmentation System, a GNSS augmentation system to provide vertical guidance and additional precision to non-precision approaches — permits GLS Approaches
GDA2020	Geocentric Datum of Australia 2020
GDA94	Geocentric Datum of Australia 1994
GLS	GNSS Landing System – a precision landing system like ILS but based on augmented GNSS using ground and satellite systems.
GNSS	Global Navigation Satellite System
GP	Glide Path
GSC	Greater Sydney Commission
HF	High Frequency

For: Mirvac

Abbreviation	Meaning
HAL	High Intensity Approach Light
HLS	Helicopter Landing Site
IAS	Indicated Air Speed
ICAO	International Civil Aviation Organisation
IFR	Instrument Flight Rules
IHS	Inner Horizontal Surface, an Obstacle Limitation Surface
ILS	Instrument Landing System, a precision approach landing system
IMC	Instrument Meteorological Conditions
IPA	Integrated Planning Act 1997, Queensland State Government
ISA	International Standard Atmosphere
IVA	Independent Visual Approach
Km	Kilometres
Kt	Knot (one nautical mile per hour)
LAT	Latitude
LCA	Liverpool Collaboration Area
LDA	Landing Distance Available
LEP (Planning)	Local Environment Plan
LDH	Local Health District
LLZ	Localizer
LNAV	Lateral Navigation
LOC	Localizer
LONG	Longitude
LSALT	Lowest Safe ALTitude
LSPS (Planning)	Local Strategic Planning Statement
M	Metres
MAPt	Missed Approach Point
MDA	Minimum Descent Altitude
MDH	Minimum Descent Height
MDP	Major Development Plan
MGA2020	Map Grid Australia 2020, based on GDA2020
MGA94	Map Grid Australia 1994, based on GDA94
MOC	Minimum Obstacle Clearance
MOCA	Minimum Obstacle Clearance Altitude
MOS	Manual Of Standards, published by CASA
MP	Master Plan
MSA	Minimum Sector Altitude
MVA	Minimum Vector Altitude
NASAG	National Airports Safeguarding Advisory Framework
NASF	National Airports Safeguarding Framework
NDB	Non-Directional Beacon
NE	North East
NM	Nautical Mile (= 1.852 km)
nnDME	Distance from the DME (in Nautical Miles)
NNE	North North East
NNW	North North West
NOTAM	NOTice to AirMen

For: Mirvac

Abbreviation	Meaning
NPR	New Parallel Runway (Project, Brisbane Airport)
OAR	Office of Airspace Regulation
OCA	Obstacle Clearance Altitude (in this case, in AMSL)
OCH	Obstacle Clearance Height
ODPROPS	Opposite Direction Parallel Runway OPERations
OHS	Outer Horizontal Surface, an Obstacle Limitation Surface
OLS	Obstacle Limitation Surface, defined by ICAO Annex 14; refer also CASA MOS Part 139
PANS-OPS	Procedures for Air Navigation – Operations, ICAO Doc 8168; refer also CASA MOS Part 173
PAPI	Precision Approach Path Indicator (a form of VGSI)
PCG (Planning)	Project Collaboration Group
PBN	Performance Based Navigation
PRM	Precision Runway Monitor
PSA	Public Safety Area
PSR	Primary Surveillance Radar
PWG (Planning)	Project Working Group
RAAF	Royal Australian Air Force
RAPAC	Regional Airspace users Advisory Committee
REF	Reference
RL	Relative Level
RNAV	aRea NAVigation
RNP	Required Navigation Performance
RNP AR	Required Navigation Performance – Authorisation Required
RPT	Regular Public Transport
RTCC	Radar Terrain Clearance Chart (refer also MVA)
RWY	Runway
SACL	Sydney Airport Corporation Limited
SEARs	(NSW) Secretary Environmental Assessment Requirements
SEPP	State Environmental Planning Policy For this project, SEPP also means <i>State Environmental Planning Policy (Precincts – Western Parkland City) 2021</i> — refer also above Aerotropolis SEPP
SEPP (WPC)	State Environmental Planning Policy (Precincts – Western Parkland City) 2021
SEPP (I&E)	State Environmental Planning Policy (Industry & Employment) 2021
SHLS	Strategic Helicopter Landing Site
SGS	Satellite Ground Station
SID	Standard Instrument Departure
SODPROPS	(Independent) Simultaneous Opposite Direction Parallel Runway OPERations
SSD	State Significant Development
SSDA	State Significant Development Application
SSP	State Significant Precinct
SSR	Secondary Surveillance Radar
STAR	STandard Arrival
STODA	Supplementary Take-Off Distance Available
TAG (Planning)	Technical Advisory Group
TAR	Terminal Approach Radar

For: **Mirvac**

Abbreviation	Meaning
TAS	True Airspeed
TC	Tower Crane
TfNSW	Transport for NSW
THR	THReshold (of Runway)
TMA	TerMinal Area
TNA	Turn Altitude
TODA	Take-off Distance Available
TORA	Take-Off Runway Available
VFR	Visual Flight Rules
VGSI	Visual Glide Slope Indicator
VHF	Very High Frequency
VIS	Visual
VMC	Visual Meteorological Conditions
V _n	Aircraft critical velocity reference
VNAV	Vertical Navigation
VNC	Visual Navigation Chart
VOR	Very high frequency Omni-directional Range
VSS	Visual Segment Surface
WAM	Wide-Area Multilateration
WGS84	World Geodetic System 1984
WNW	West North West
WSA	Western Sydney Airport
WSI	Western Sydney International Airport <i>Formal 3-letter airport code for the Western Sydney International (Nancy-Bird Walton) Airport</i>
WSW	West South West
YWSW	Western Sydney International Airport <i>ICAO 4-letter airport code for the airport</i>

APPENDIX 2 — OLS & PANS-OPS CHARTS

For: Mirvac

WSI's current & Commonwealth-approved OLS Chart

First published in November 2022, this was approved and declared as WSI's prescribed OLS airspace in June 2023.

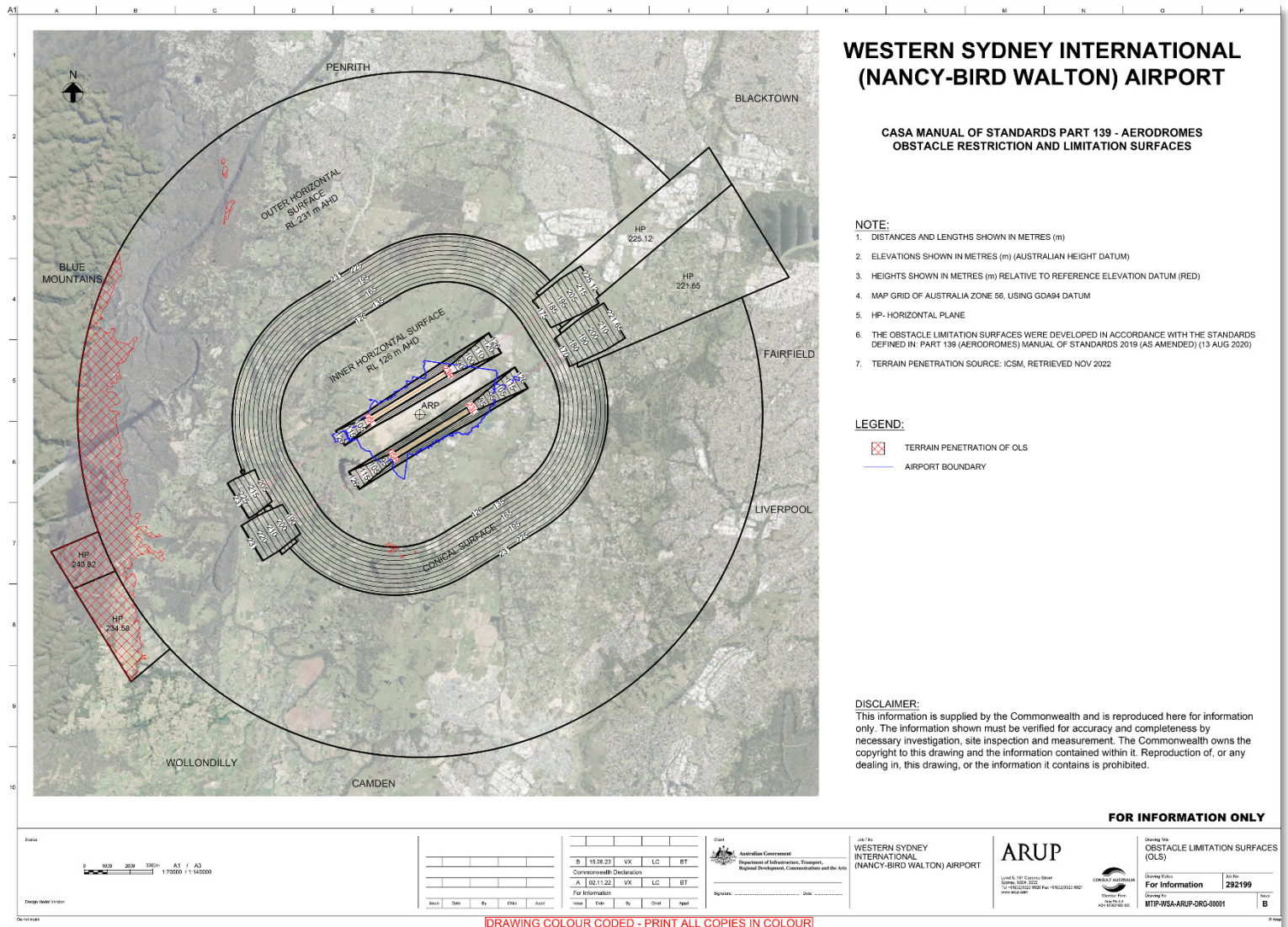


Figure 13-1 — WSI's 2022 OLS Updated Chart (Commonwealth-approved June 2023)

For: Mirvac

Example PANS-OPS Surfaces Chart

This is a copy of Sydney Airport's prescribed PANS-OPS Surfaces chart which — despite that fact that it is outdated and is no longer consistent with the PANS-OPS procedures at the airport (but is the latest published) — is included here as a realistic example of the complexity of PANS-OPS surfaces.

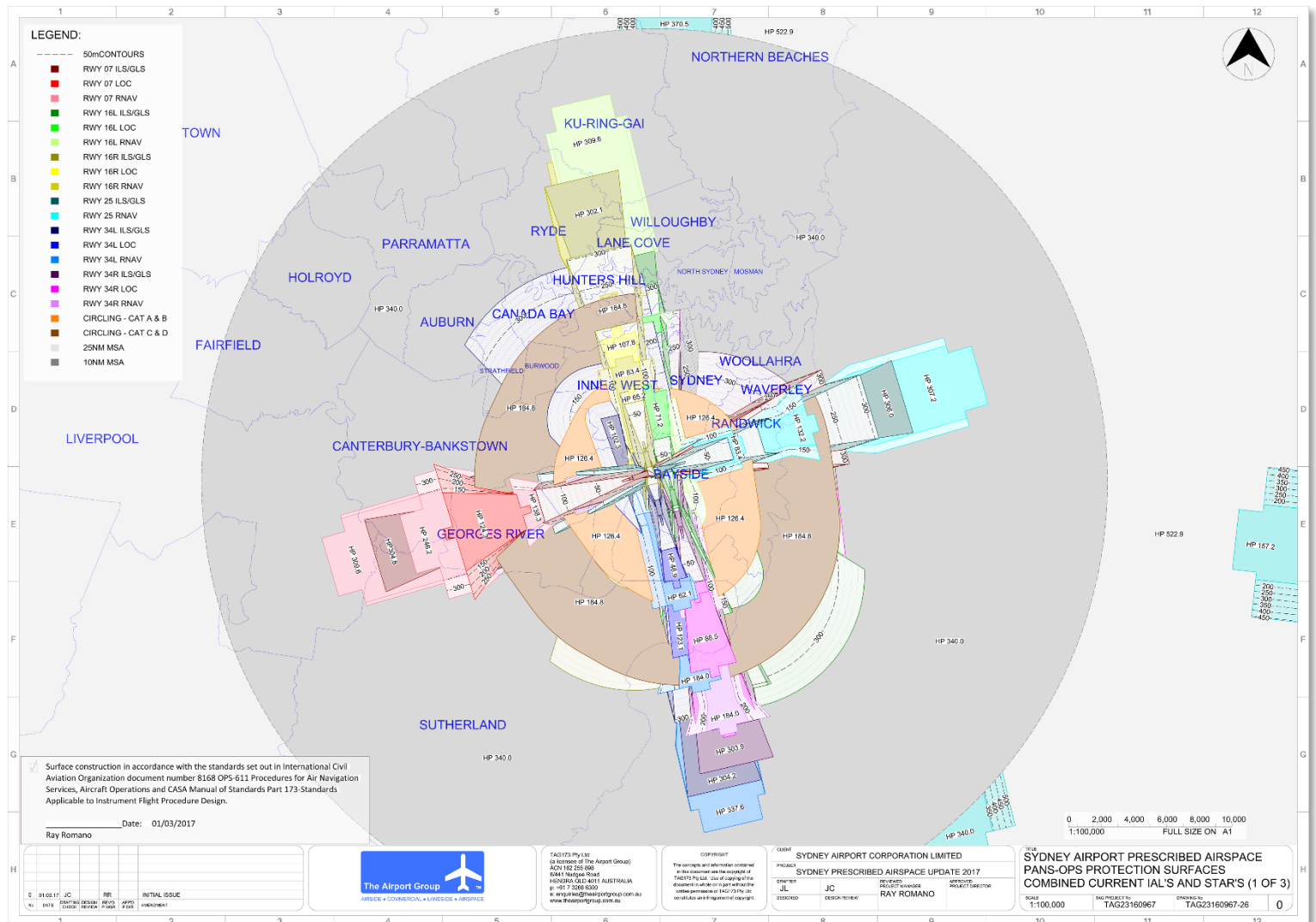


Figure 13-2 — Example PANS-OPS Chart (from Sydney Airport)