

ELITE PARK

MAJOR DEVELOPMENT PLAN

PRELIMINARY DRAFT
SEPTEMBER 2024



MELBOURNE AIRPORT

AUSTRALIA PACIFIC AIRPORTS (MELBOURNE) PTY LTD

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ABBREVIATIONS

ABC	Airport Building Controller
Airports Act	Airports Act 1996 (Cth)
AEO	Airport Environment Officer
AEP	Annual Exceedance Probability
AES	(Melbourne Airport) Airport Environment Strategy
AFFF	Aqueous Film Forming Foams
AHD	Australian Height Datum
ALC	Airport Lessee Company
ANEF	Australian Noise Exposure Forecast
APAM	Australia Pacific Airports (Melbourne) Pty Ltd – the airport lessee company
CACG	Community Aviation Consultation Group
CASA	Civil Aviation Safety Authority
CBD	Central Business District
CEMP	Construction Environmental Management Plan
CHMP	Cultural Heritage Management Plan
CNS	Communication, Navigation and Surveillance
CTMP	Construction Traffic Management Plan
DCCEEW	Department of Climate Change, Energy, the Environment and Water (Cth)
DEECA	Department of Energy, Environment and Climate Action (Vic)
DFO	Direct Factory Outlets
DITRDCA	Department of Infrastructure, Regional Development, Communication and the Arts (Cth)
DOS	Degree of Saturation
DTP	Department of Transport and Planning (Vic)
EMP	Environmental Management Plan
EMS	Environmental Management System
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Cth)
ESD	Ecologically Sustainable Design/Development
EVC	Ecological Vegetation Classes
F&B	Food and Beverage
FFL	Finished Floor Level
FFG Act	Flora and Fauna Guarantee 1988 Act (Vic)

GED	General Environmental Duty
FP-SR	First Peoples – State Relations
GFA	Gross Floor Area
GGF	Growling Grass Frog (<i>Litoria raniformis</i>)
GLA	Gross Lettable Area
GRP	Gross Regional Product
GSM	Golden Sun Moth (<i>Synemon plana</i>)
GSP	Gross State Product
GTS	(Melbourne Airport) Ground Transport Strategy
GVA	Gross Value Added
HV	High Voltage
LFR	Large Format Retail
LGA	Local Government Area
LOS	Level of Service
M3R	Melbourne Airport's Third Runway
MABP	Melbourne Airport Business Park
MAR	Melbourne Airport Rail
MDP	Major Development Plan
MNES	Matters of National Environmental Significance
MSS	Municipal Strategic Statement (Hume City Council)
NASAG	National Airports Safeguarding Advisory Group
NASF	National Airports Safeguarding Framework
NBN	National Broadband Network
NTGVVP	Natural Temperate Grassland of the Victorian Volcanic Plain
OEMP	Operational Environmental Management Plans
OLS	Obstacle Limitation Surface/s
PANS-OPS	Procedures for Air Navigation Services – Aircraft Operations Surface
PBN	Principal Bicycle Network
PCF	Planning Coordination Forum
PCU	Passenger Car Unit
P&E Act	Planning and Environment Act 1987 (Vic)
PFAS	Per- and polyfluoroalkyl substances
POC	Points of Connection

PPF	Planning Policy Framework
PSA	Public Safety Area
PUDS	Planning and Urban Design Strategy
RAP	Registered Aboriginal Party
SCC	Strategic Cycling Corridor
SLL	Striped Legless Lizard (<i>Delma impar</i>)
SUP	Shared Use Path
TEC	Threatened Ecological Community
TIA	Traffic Impact Assessment
TSS	Total Suspended Solids
UD	Urban Design
UDS	Urban Design Strategy
VGED	Victorian Grassland Earless Dragon (<i>Tympanocryptis pinguicolla</i>)
VPP	Victoria Planning Provisions
VQA	Vegetation Quality Assessment
WSUD	Water Sensitive Urban Design
Wurundjeri	Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation

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EXECUTIVE
SUMMARY**1.1 INTRODUCTION**

This Major Development Plan (MDP) has been prepared by Australia Pacific Airports (Melbourne) (APAM) for the 'Elite Park' precinct development at Melbourne Airport.

Melbourne Airport is a major contributor to the growth of Victoria's economy through tourism, air freight and business development. It is the main airport hub in southern Australia.

Elite Park supports the growth of Melbourne Airport, as documented in the Melbourne Airport Master Plan 2022. It provides the opportunity to expand and diversify Melbourne Airport's non-aviation activity and is consistent with commercial development strategies described in the Master Plan. Non-aviation development plays a key role in Melbourne Airport's economic versatility and complements its key aviation functions.

The location of Elite Park is well suited for uses complementary to Melbourne Airport's Business Park, the airport and nearby communities, providing an important physical buffer between 24-hour airport operations and residential areas. The proposed growth of Elite Park will complement existing nearby uses, including URBNSURF, the Hanrob Pet Hotel and Essendon Football Club's training and community facility.

Elite Park will result in significant socio-economic benefits. It will support Hume's emergence as a major tourist destination and create substantial new employment opportunities for Hume and Brimbank local government areas. The precinct is expected to create approximately \$246 million in value add annually - directly supporting the growth of Victoria's economy.

Construction is anticipated in stages over nine years and is targeted to be completed by 2034.

1.2 PROJECT OVERVIEW

This MDP proposes a master plan for Elite Park, comprising multiple non-aviation sub-precincts to be delivered across three stages. The total site area is 322,400 square metres within which 113,985 square metres of Gross Lettable Area (GLA) is proposed to complement neighbouring leisure and commercial occupancies.

This MDP presents the Elite Park project proposal within the context of Melbourne Airport and its community, with analysis of the range of benefits and impacts that are expected to accompany the development. The MDP supports APAM's application for approval of the project pursuant to the Airports Act 1996.

This MDP is consistent with the approved Melbourne Airport Master Plan 2022.

1.3 KEY FINDINGS

A range of assessments and assurance activities have been undertaken in preparation of this MDP in accordance with Section 91 of the Airports Act. This MDP demonstrates that potential impacts have been appropriately considered, will be managed in accordance with relevant legislation and guidelines, and are acceptable according to all applicable regulations, systems and guidelines.

The Elite Park project is expected to deliver significant overall benefit when potential impacts are assessed collectively. The economic and employment benefits delivered by the project substantially outweigh the potential detrimental impacts outlined in this MDP - particularly with implementation of proposed environmental mitigations, which importantly include mitigation of impact to EPBC Act listed flora.

The key findings and results contained in this MDP are summarised in Table 1.1.

Table 1.1 Summary of Key Assessment

SECTION	ASSESSMENT SUBJECT	ASSESSMENT OUTCOMES <i>[APAM management and mitigation measures]</i>
Major Development Plan Requirements and Framework		
2	Ministerial considerations for MDP approval	Project MDP fails to meet statutory requirements and/or Ministerial expectations to secure approval.
4	Regulatory, legal and policy instruments	<i>[Process defined in Airports Act specifies 'Contents of major development plan' which details minimum requirements to qualify an MDP for approval.]</i>
4	Consistency with the airport lease and master plan	
2	'Precinct' concept MDP	Presentation of Elite Park as an amalgamation of 11 precincts in 3 delivery stages as a 'Precinct MDP' – this concept has not been tested by APAM or VIC/TAS DITRDCA to date. <i>[Elite Park has been produced with reference to precedent precinct MDPs from other airports.]</i>
Consultation		
5	Government (Federal, State, local)	Failure to thoroughly advise, liaise with and engage about the project (including via this MDP) risks an inadequate MDP submission. <i>[APAM's approach to consultation with Government departments and agencies, stakeholders and community - including key notifications as required by the Airports Act Section 92 and EPBC Act].</i>
5	Community	
79	Related projects	Interaction of Elite Park development (both in temporal and physical location/proximity terms) complicates or exacerbates impact of other airport projects. <i>[Related projects can be de-conflicted if/when necessary.]</i>
Aviation Operations and Safety		
8	National Airports Safeguarding Framework guidelines	Safeguarding measures applied to protect current and future runway and flight operations interact with the Elite Park site. <i>[Application of NASF guidelines and related standards to facilitate complementary land uses with appropriate mitigations in design achieves acceptable operating conditions].</i>

Traffic and Transport		
9	Construction	Increased use of access roads requires management in accordance with Melbourne Airport's Ground Transport Plan.
9	Development Stages 1 & 2	
9	Development Stage 3	<i>[A Construction Traffic Management Plan shall govern development of roads (Elite Park internal and surrounding access routes) and capacity changes to access routes necessary to meet growth].</i>
Economics		
10	Commercial activity	<i>[New development of non-aviation commercial activity promotes beneficial economic growth. The new commercial activity is likely to particularly benefit local economies through supply chains and generation of a range of employment opportunities].</i>
10	Employment	
Environmental		
11	Ecology	Site is heavily disturbed but no significant ground or water contamination has been assessed.
11	Air quality	Site water is managed by existing catchment monitoring and treatment facilities.
11	Earthworks, contamination & waste	Site contains Natural Temperate Grassland of the Victorian Volcanic Plain (NTGVVP) which will be removed as part of development. NTGVVP is listed as a Matters of National Environmental Significance (MNES).
11	Water	<i>[Construction Environmental Management Plans shall govern responsible development. The Melbourne Airport Environmental Plan and Melbourne Airport Environment Strategy shall govern responsible and sustainable operations in Elite Park. Any community complaints shall be mitigated/resolved by APAM.]</i>
11	Landscape and visual amenity	
Community		
12	Economic activity and employment	New and varied employment and business opportunities are expected to be significantly beneficial – particularly for the Hume and Brimbank cities.
12	Urban amenity, noise and air quality	Planning and Urban Design Strategy guides effective, attractive, cohesive and sustainable precinct design.
12	Traffic	<i>[Elite Park access routes are restricted to Mercer Drive and Airport Drive – avoiding amenity impact to the residential community on Melrose Drive.]</i>

Figure 1.1 Aerial view of Elite Park site from south - towards Melbourne Airport and along Tullamarine Freeway

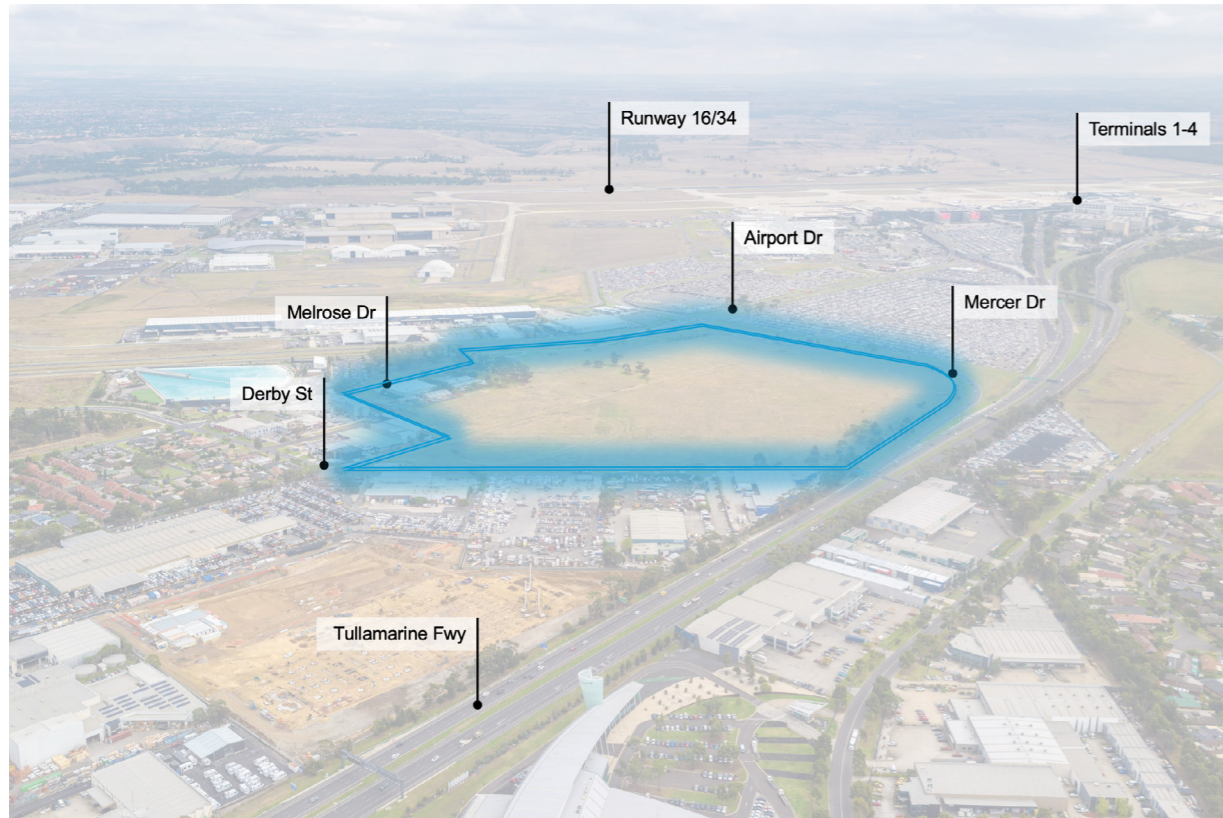


Figure 1.2 Master Plan 2022 Elite Park precinct concept illustration (source: Master Plan 2022)



Figure 1.3 Aerial Elite Park precinct concept render from east



02

MAJOR DEVELOPMENT
PLAN REQUIREMENTS
AND FRAMEWORK**2.1 OBJECTIVE OF THIS
MAJOR DEVELOPMENT
PLAN**

Melbourne Airport is operated by Australia Pacific Airports (Melbourne) (APAM) Pty Ltd under a Head Lease from the Commonwealth Government as the owner of the Airport.

APAM presents this Major Development Plan (MDP) in support of developing the 'Elite Park' precinct at Melbourne Airport in accordance with Section 89 of the Airports Act 1996 (Airports Act) as a major airport development.

Section 90 of the Airports Act requires that a major airport development requires the preparation of an MDP which requires approval from the Minister for Infrastructure, Transport, Regional Development, Communication and Local Government.

This MDP includes:

- Details of the development of Elite Park, including design considerations, infrastructure, and staging.
- Explanation of how applicable legislative requirements, regulations and policies are addressed.
- Construction and operational phases impact assessments.
- Environmental impact assessments and management plans.

2.2 PROJECT PROPONENT

APAM, as the 'airport-lessee company' (ALC) per the Airports Act for Melbourne Airport, is the project proponent and responsible for the submission of this MDP in support of Elite Park.

APAM can be contacted via:

*Australia Pacific Airports (Melbourne)
Pty Ltd
International Terminal,
Locked Bag 16,
Tullamarine, VIC, 3043*

All communications regarding this MDP should be addressed to:

*Rosie Offord
Head of Master Planning
Rosie.offord@melair.com.au*

**2.3 MDP APPROVAL
- MINISTERIAL
CONSIDERATIONS**

The Elite Park project meets criteria defining a 'major airport development' per Section 89 of the Airports Act.

A major airport development requires an MDP according to Section 90 of the Airports Act, which requires approval from the Commonwealth Minister for Infrastructure, Transport, Regional Development and Local Government (the Minister). The MDP process is described in Section 4.2.1 and Figure 4.11.

Table 2.2 outlines the matters which must be considered by the Minister in determining whether to approve an MDP, pursuant to Section 94 of the Airports Act, and where these matters are addressed in this MDP.

Table 2.2 Ministerial Considerations (per Airports Act Section 94 Approval of major development plan by Minister)

94(3) In deciding whether to approve the plan, the Minister must have regard to the following matters:		Addressed in this MDP
(aa)	the extent to which the plan achieves the purpose of a major development plan (see subsection 91 (1A));	<p>Section 3 describes the project that is the subject of this MDP.</p> <p>Section 4 describes the legislative context and consistency with relevant federal, state and local legislation and policy.</p> <p>Section 6 defines the scope of the assessment and describes the methodology used for the assessment of impacts associated with the project.</p>
(a)	the extent to which carrying out the plan would meet the future needs of civil aviation users of the airport, and other users of the airport, for services and facilities relating to the airport;	<p>Section 3.2.2 explains the relationship between Elite Park and Melbourne Airport's aviation operations.</p> <p>The location of Elite Park, physically separated from the airport's core aviation operation, and complementary to other non-aviation uses, means that it will not adversely affect the airport's operating capacity (indeed it is likely to enhance the airport's core functions).</p>
(b)	the effect that carrying out the plan would be likely to have on the future operating capacity of the airport;	<p>Section 11 describes the impacts that might reasonably be expected to be associated with the project and the plans proposed for ameliorating or preventing environmental impacts.</p> <p>Section 11 provides a summary of the environmental effects of the project.</p>
(c)	the impact that carrying out the plan would be likely to have on the environment;	<p>Section 5 defines the consultation and approval process undertaken as part of this MDP.</p>
(d)	the consultations undertaken in preparing the plan (including the outcome of the consultations);	<p>Section 5 describes the consultation process that APAM has undertaken and will undertake in relation to Elite Park. This includes the Civil Aviation Safety Authority and Airservices Australia where appropriate.</p>
(e)	the views of the Civil Aviation Safety Authority and Airservices Australia, in so far as they relate to safety aspects and operational aspects of the plan.	

Section 6.1 details the MDP requirements of the Airports Act and demonstrates that this MDP is consistent with those requirements.

03

PROJECT
DESCRIPTION

3.1 PROJECT CONTEXT

Melbourne Airport’s estate is approximately 2,457 hectares, located at the northern end of the Tullamarine Freeway, 25 kilometres north-west of the Melbourne Central Business District (CBD) and within the Hume City Council region, as shown in Figure 3.4.

Melbourne Airport is well serviced by road transport links to metropolitan Melbourne and regional Victoria. The Hume Highway and Calder Freeway provide links to the north, the Western Highway to the west, and Tullamarine Freeway to metropolitan Melbourne.

The ‘Elite Park’ precinct occupies 32.2 hectares on the eastern side of the airport between Airport Drive and the Tullamarine Freeway, as shown in Figure 3.5 and Figure 3.6.

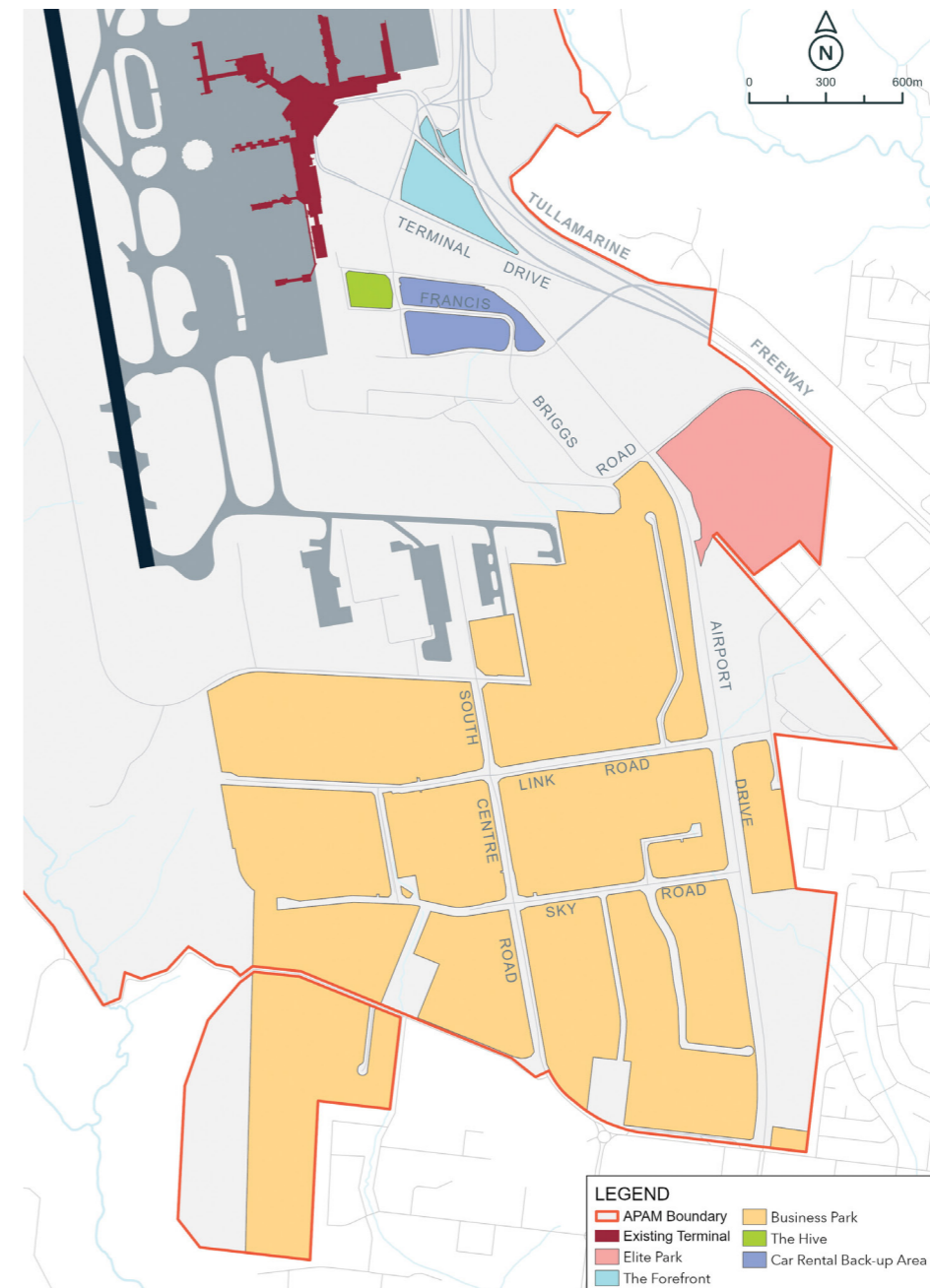
Elite Park is not appropriate for aviation activities given its location and separation from the airfield, however it is ideal for commercial and other complementary non-aviation uses due to its high exposure and ease of access along the Tullamarine Freeway and Airport Drive.

Elite Park is identified in the Melbourne Airport Master Plan 2022 as a non-aviation development precinct. Non-aviation uses are to be developed on ‘landside precincts’, which support a range of commercial and complementary activities.

Figure 3.4 Melbourne Airport location plan



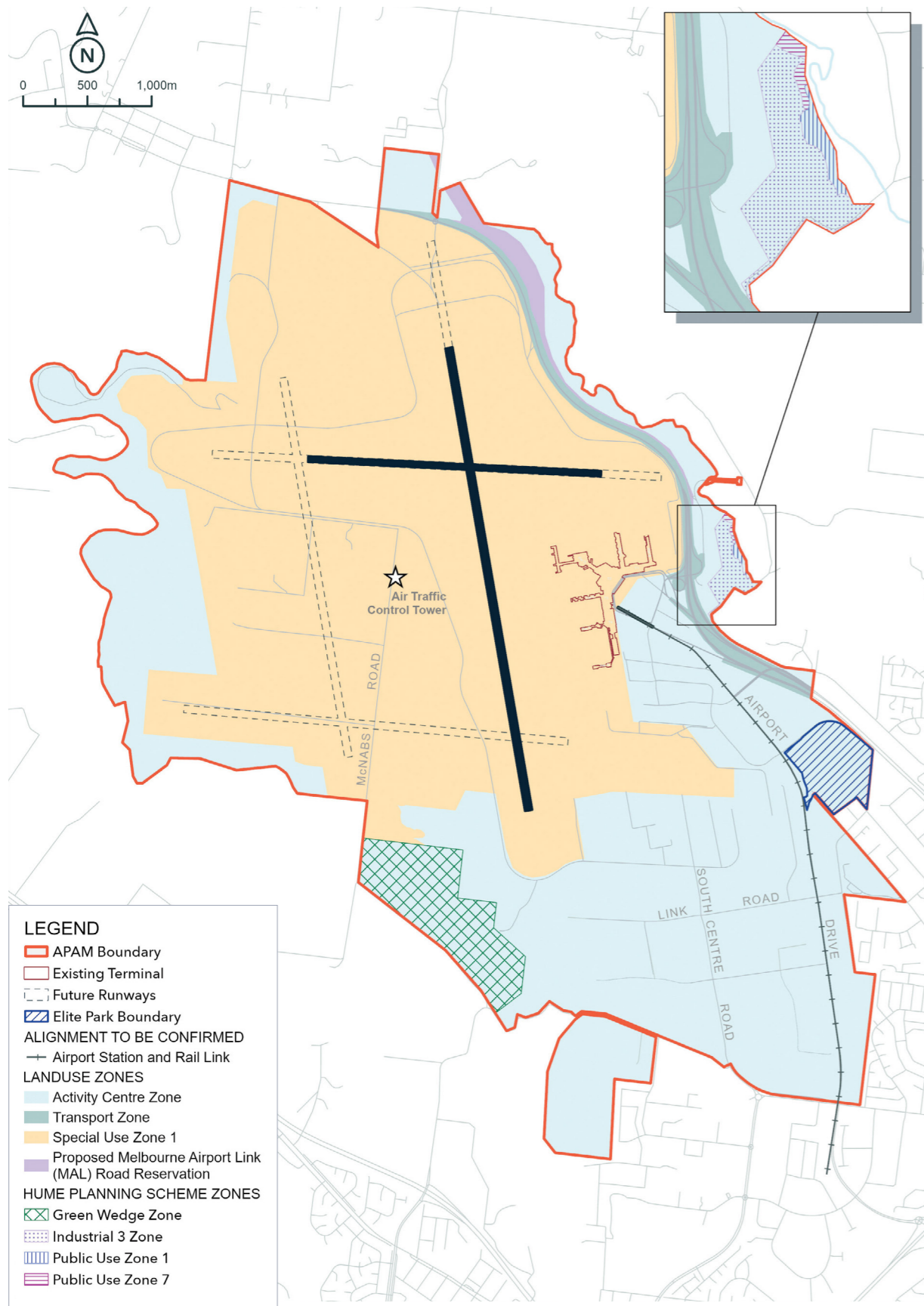
Figure 3.5 Melbourne Airport’s non-aviation development precincts



The Activity Centre Zone is the applied planning zone for the landside precincts, including Elite Park. The Zone reflects the mix of uses proposed for this land and facilitates more intensive development for business, shopping, working, leisure, hotels, transport and community facilities. The Activity Centre Zone within Melbourne Airport is shown in Figure 3.6.

Melbourne Airport Master Plan 2022 designates landside precincts for development of a range of non-aviation related commercial purposes. Figure 3.6 illustrates the distribution of non-aviation development zones, including Elite Park in the ‘Landside Main’ precinct designated as an ‘Activity Centre’ zone.

Figure 3.6 Master Plan 2022 – zoning plan for Melbourne Airport



3.2 ELITE PARK PROJECT DESIGN

3.2.1 Overview

Non-aviation development plays a vital role in Melbourne Airport’s economic vitality and complements its key aviation function - ensuring the Airport continues to be one of the state’s key activity centres.

Melbourne Airport’s diversified commercial portfolio supports growth and disperses business risks. Non-aviation development that is complementary to the airport’s core activities is essential to the airport’s growth and resilience and enhances the airport’s contribution to the broader community.

Elite Park is an important element of APAM’s non-aviation development plans. It is envisaged that development of the precinct will enhance the airport’s contribution to community and economy through a range of attractive employment and recreation offerings.

The larger Activity Centre Zone adjacent to Elite Park currently contains three existing tenancies which do not form part of this MDP:

- URBNSURF - Australia’s first artificial surf park.
- Hanrob Pet Hotel – pet daycare, boarding and training facility.
- Essendon Football Club’s training and community facility - administration and indoor training areas, two full-sized football ovals and five hectares of landscaped environment.

The proposed growth of Elite Park, as presented by this MDP, will complement these existing uses, and will bolster Hume’s emergence as a significant tourist destination in Victoria.

The development of Elite Park is planned in three major Stages - each comprised of sub-precincts (eleven in total). The development is targeted for completion in 2033.

The completed Elite Park will deliver 113,985 square metres of floorspace across a range of uses. This MDP outlines the master plan for development, which will guide the detailed design of each stage. The final design and shape

of the developments within each stage and sub-precinct is subject to detailed space planning investigations and construction feasibility, however the detailed design process will not materially change the development footprint or the proposed use.

The development will be designed in accordance with:

- Relevant Australian Standards, as appropriate.
- Melbourne Airport Landside Planning and Urban Design Strategy.

Compliance with The Melbourne Airport Landside Planning and Urban Design Strategy will ensure a high-quality and cohesive sense of place is delivered across all stages of Elite Park, delivering a superior customer experience for future users.

Figure 3.7 and Table 3.3 detail the layout of Elite Park, the land uses proposed for each precinct and of the proposed staging of the development.

3.2.2 Relationship with the Airport’s Aviation Functions

The Elite Park project is both physically and functionally separated from Melbourne Airport’s aviation operations, including the terminal precinct. The proposal, as presented in this MDP, is complementary to proximal land uses including the Melbourne Airport Business Park and existing tenancies on Melrose Drive.

Elite Park will have no direct interaction with the airport’s aviation functions and will not inhibit the airport’s growth or operating capacity. Section 8 of this MDP includes evaluation of the project’s conformance with safeguarding protections for all current and planned runways and operations.

Elite Park is likely to indirectly serve users of the airport (passengers and staff) through its provision of high quality leisure, retail, food and beverage and accommodation attractions and services.

Figure 3.7 Overall indicative Elite Park precinct layout



Table 3.3 Stage and precinct scopes

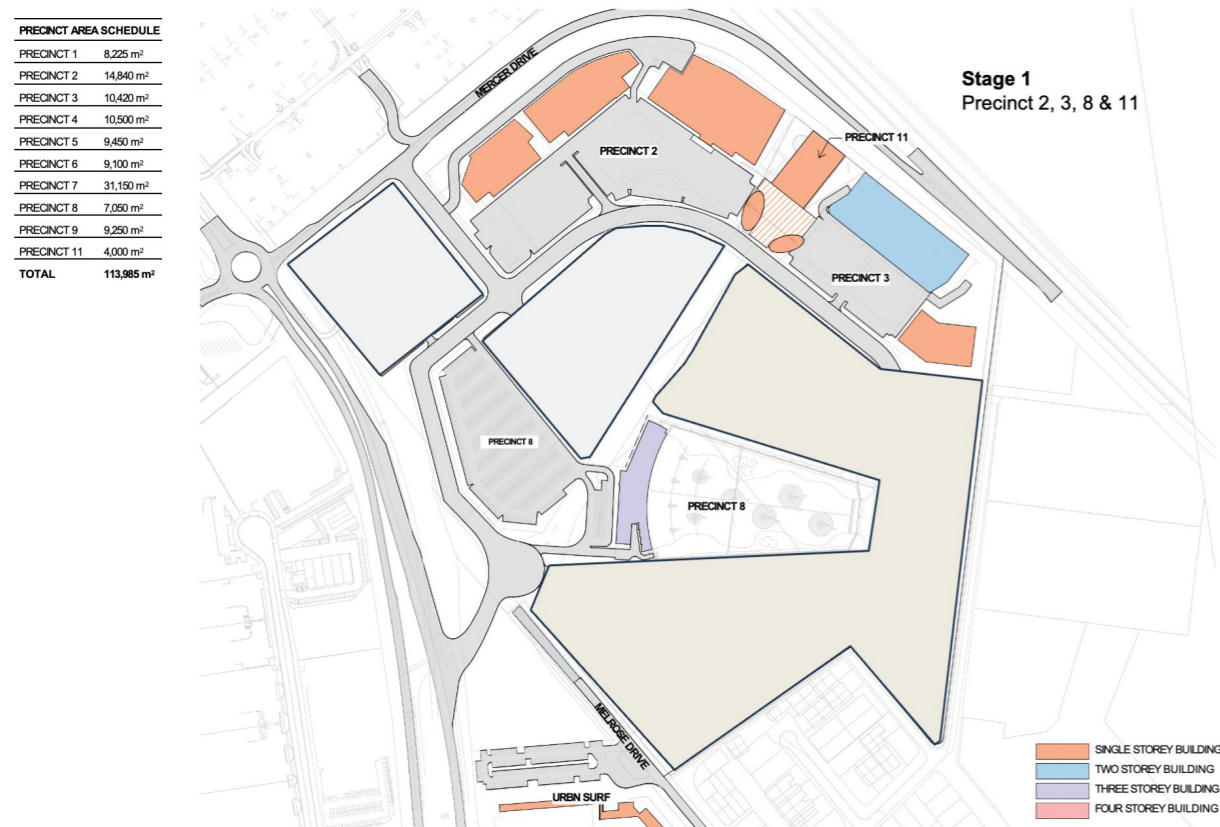
	Precinct	Precinct Area (m2)	Land Use	GFA (m2)
Stage 1 2024-2027	2	43,000	LFR (sub-precinct 2.1)	3,000
			LFR (sub-precinct 2.2)	4,500
			LFR (sub-precinct 2.3)	7,000
			Leisure (sub-precinct 2.4)	340
	3	23,900	Leisure (sub-precinct 3.1)	650
			Showroom/Retail (sub-precinct 3.2)	7,000
			Showroom/Retail (sub-precinct 3.3)	2,770
8	45,600	Leisure	2,350 (x3 levels)	
11	6,250	Retail	4,000	
Stage 2 2027-2028	1	18,500	LFR	8,025
			F&B	200
	5	21,000	Leisure F&B (sub-precinct 5.1)	1,650
			Hotel	1,950 (x4 levels)
	6	19,000	Entertainment and Retail (Zone 6.A)	4,100
			Entertainment and Retail (Zone 6.B)	3,000
Entertainment and Retail (Zone 6.C)			1,000 (x2 levels)	
Stage 3 2029-2034	4	21,500	Maker Space (sub-precinct 4.1)	2,500
			Maker Space (sub-precinct 4.2)	2,000
			Maker Space (sub-precinct 4.3)	2,000
			Maker Space (sub-precinct 4.4)	4,000
	7	25,500	Retail (sub-precinct 7.1)	2,600 (x2)
			Cinemas & F&B	3,150 (x3 levels)
			Commercial	5,500 (x3 levels)
	9	16,800	Entertainment and Retail (sub-precinct 9.1)	3,275 (x2 levels)
Entertainment and Retail (sub-precinct 9.2)			2,700	

*Precinct 10 is URBNSURF, which is established and not part of this MDP and therefore omitted from this list.

Note: GFA values may be varied through detailed design processes.

3.2.3 Stage 1

Figure 3.8 Stage 1 developments (2024-2027)



Stage 1 includes the delivery of four precincts: Precinct 2, 3, 8 and 11 comprising large format retail (LFR), retail, food and beverage (F&B) and leisure (Top Golf), which will bolster Elite Park’s entertainment offering.

Construction of Stage 1 will be commencing Q4 2024 (pending MDP approval) with completion estimated to be in mid-2027.

The development site is currently substantially cleared and levelled. Enabling works required prior to commercial precinct construction will include earthworks, utility installation, construction traffic access and construction staging as described in Section 7.

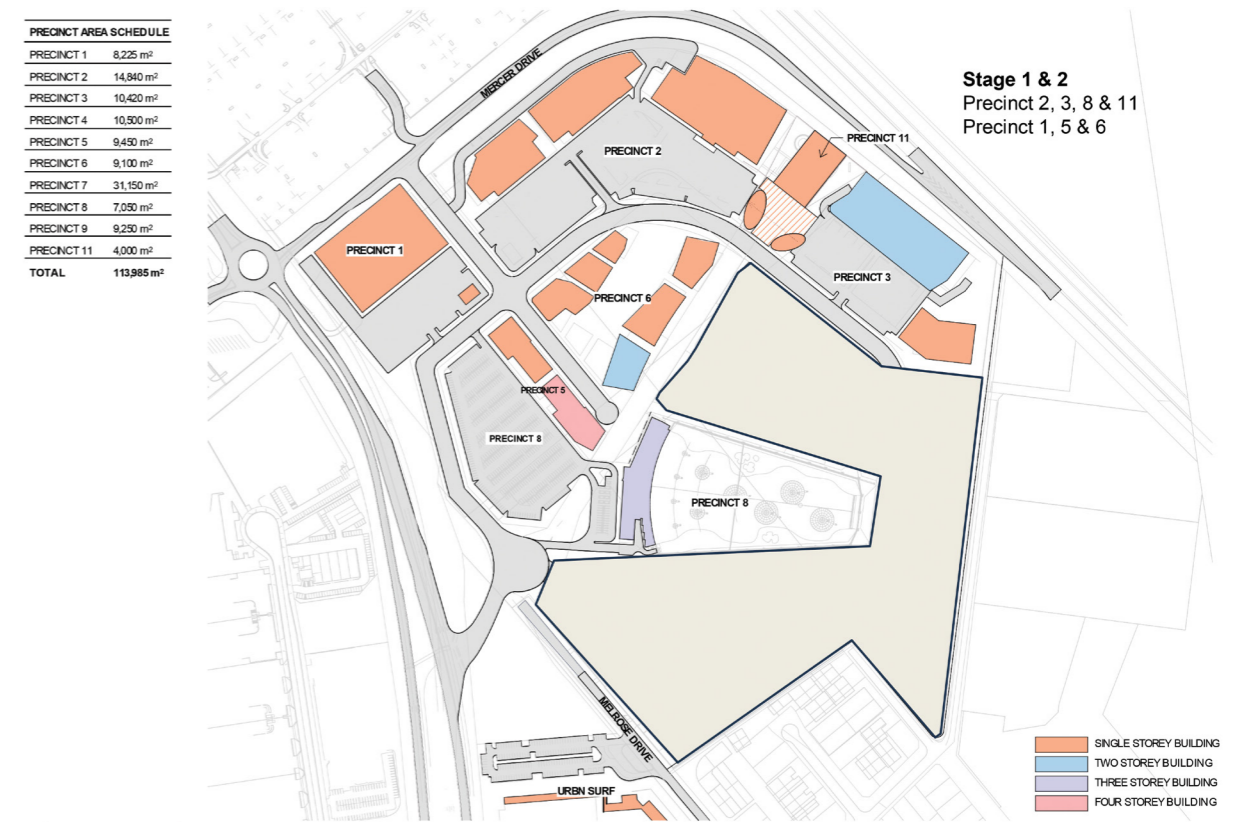
Commercial agreements for Stage 1 comprising precincts 2, 3, 8 and 11 are advanced and will be finalised upon approval of this MDP.

This stage will deliver primary access points into Elite Park, with vehicle access to/from Elite Park provided via new left-in/left-out access points on Mercer Drive and Airport Drive. An internal loop road will be built to connect precincts scheduled for development in Stages 1 and 2 and associated carparking with Mercer Drive and Airport Drive.

Landscaping complementary to the Stage 1 built environment and sensitive to future (i.e. Stages 2 and 3) development sites.

3.2.4 Stage 2

Figure 3.9 Stages 1 and 2 (2027-2028)



Stage 2 comprises the delivery of three precincts: Precinct 1, 5 and 6 which will further support Elite Park’s entertainment offering through additional leisure, food and beverage, retail space and a hotel.

Construction commencing in Q3 2027 and completed by Q4 2028.

Continued expansion of utilities, services, infrastructure and landscaping to serve Stage 2 developments. Introduction of a pedestrian-access urban retail space to complement Precinct 6.

Commercial agreements for Stage 2 comprising precincts 1, 5 and 6 are yet to be established.

There will be no changes to vehicle access arrangements between Stage 1 and 2, but additional parking areas will be provided to facilitate needs of Stage 2 developments.

3.2.5 Stage 3

Figure 3.10 Stage 3 - full development of Elite Park (2034)

PRECINCT AREA SCHEDULE	Area (m ²)
PRECINCT 1	8,225 m ²
PRECINCT 2	14,840 m ²
PRECINCT 3	10,420 m ²
PRECINCT 4	10,500 m ²
PRECINCT 5	9,450 m ²
PRECINCT 6	9,100 m ²
PRECINCT 7	31,150 m ²
PRECINCT 8	7,050 m ²
PRECINCT 9	9,250 m ²
PRECINCT 11	4,000 m ²
TOTAL	113,985 m²



Stage three comprises the delivery of the final three precincts: Precinct 4, 7 and 9, which will further diversify employment opportunities through commercial floorspace and enhance Elite Park’s leisure appeal, with retail, food and beverage offerings and a cinema.

Construction commencing in Q1 2029 and completed by Q4 2034.

Completion of utilities, services, infrastructure and landscaping.

Commercial agreements for Stage 3 comprising precincts 4, 7 and 9 are yet to be established.

Airport Drive access will be upgraded to a signalised intersection enabling vehicles to turn right-in/out of Elite Park. The junction of Airport Drive, Mercer Drive and Francis Briggs Road will be upgraded from a roundabout to a signalised intersection, and Airport Drive will be widened to three lanes in each direction. Mercer Drive access will retain its existing configuration.

Completion of the Elite Park internal loop road and roundabout (providing access to the internal loop road and Airport Drive access).

3.3 PROJECT OBJECTIVES

3.3.1 Melbourne Airport Context

Patronage and freight movement through Melbourne Airport has recovered to pre-COVID activity and is rapidly growing. Employment at the airport is also increasing from the current complement of 18,000 staff who are directly employed by 114 businesses on the airport site. Melbourne Airport is a key asset to the Victorian economy, contributing an estimated \$17.7 billion in 2023.

Melbourne Airport will be a particularly important gateway for the northern and western metropolitan areas of Melbourne moving forward. Both regions are expected to almost double their population by 2050. Coupled with this population growth will be corresponding development of nominated Places of State Significance, Activity Centres, and existing and emerging employment clusters as defined by the Victorian Government in Plan Melbourne, the recent Housing Statement and anticipated in the upcoming Plan for Victoria.

This project is important to facilitate Melbourne Airport’s expansion over the coming decades and to in turn support the growth and economic expansion of Melbourne and Victoria. Planned developments at the airport include the third and potential fourth runways, new terminal buildings and associated facilities, new hotels and a major new freight terminal precinct.

3.3.2 Project Justification

Melbourne Airport’s strategic policy, as outlined in Master Plan 2022, allots the Elite Park site for future employment and leisure activities. Elite Park is designed to be a destination for work and leisure, to strengthen Melbourne Airport as a transport gateway with a strong economic presence. The land is currently vacant and underutilised. The site’s greenfield status and large site area means there are few impediments to development, providing opportunity to attract large and/or unique anchor tenancies.

Situated on a high-exposure corner, the majority of traffic to Melbourne Airport passes the Elite Park site on the Tullamarine Freeway and Airport Drive. The site has excellent exposure and accessibility for vehicle traffic. Elite Park’s scale and exposure profile provides an excellent opportunity to establish a strong identity for both business and leisure, within a key transport gateway. Its high visibility will be a sought-after component for prospective tenants.

The site’s context is ideal for significant transformation to deliver job growth and amenity to the community. The site also benefits from its proximity to residential communities, supported by Melbourne’s north and west growth corridors.

Elite Park will deliver in excess of 113,000 square metres of mixed-use floor space, spread across 10 precincts, to be developed in three stages. A range of complementary businesses will be drawn together, including large format retail, sports and leisure, hospitality and dining destinations.

Elite Park will create significant new employment opportunities for the Hume and Brimbank local government areas. These are two of Melbourne’s largest local government areas, with a collective population of over 450,000 people. The new jobs will provide opportunities for local residents and will deliver broader economic benefits to the Victorian economy.

Upon completion, around 2,140 people will be employed, providing growth and diversity to Hume’s employment market. On-site activity will support a further 382 jobs annually throughout supply chains.

It is anticipated that 39 per cent of these jobs will be related to normal and large format retail, 28 per cent related to commercial, 16 per cent related to food catering and the remaining 18 per cent related to leisure and others.

Elite Park will support Hume’s emergence as a significant tourist destination and will generate significant economic benefits throughout Hume, and Victoria’s economy. Annually, the precinct is expected to create around \$246 million in value add, throughout on-site and supply-chain activities.

3.4 MASTER PLAN 2022

Land use and development at Melbourne Airport is governed by requirements of the Airports Act and in accordance with the approved airport Master Plan. Melbourne Airport's current Master Plan was approved in 2022 and is the applicable APAM planning governance for the Elite Park project.

Master Plan 2022 supports Melbourne Airport's strategic planning objectives and was developed in accordance with the provisions of Part 5 of the Airports Act, and related Regulations.

3.4.1 Master Plan Zoning Framework

The Melbourne Airport Master Plan 2022 applies a zoning framework to the airport which is consistent with the policy and zones of the Victoria Planning Provisions (VPP). The 'Activity Centre' zone has been applied to the Landside Main and Landside Business (including Elite Park) precincts to reflect their mix of uses and intensive development - and their role as a focus for business, shopping, working, leisure, hotels, transport and community facilities.

Master Plan 2022 explains that the purpose of the Melbourne Airport Activity Centre Zone is:

- *To implement the Melbourne Airport Master Plan 2022.*
- *To advance Melbourne Airport as one of the state's key activity centres and transport gateways.*
- *To provide for the long-term and sustainable growth of Melbourne Airport.*
- *To encourage a mix of uses and the development of the activity centre:*
 - *as a focus for airport activities, complementary business, commercial and shopping activities, working, travellers' accommodation, leisure, transport and community facilities.*
 - *to support sustainable urban outcomes that optimise the use of infrastructure.*
- *To create an attractive, pleasant, safe, secure and stimulating environment through good urban design.*
- *To facilitate the use and development of land in accordance with the Melbourne Airport Framework Plan (Land Use Precincts Plan and Zoning Plan).*
- *To facilitate ground transport facilities and services for efficient access to the airport, including Melbourne Airport Rail.*

3.4.2 Non-Aviation Developments at Melbourne Airport

Plan Melbourne encourages complementary uses and employment-generating activities at State-Significant Transport Gateways, such as Melbourne Airport. The Hume Planning Scheme recognises the airport's Transport Gateway status, and its significant role in local, regional and state economic and employment growth.

Select non-aviation development complements the airport's core business and capitalises upon available infrastructure and real estate. The airport's non-aviation precincts are strategically located to act as a buffer between the aviation uses and surrounding residential communities, protecting the established communities from the impacts of airport operations.

Elite Park is identified in the Melbourne Airport Master Plan 2022 as a key non-aviation precinct. The Master Plan expresses the following vision for the precinct:

It is anticipated that Elite Park will evolve over time, initially (over the next five years) with leisure and customer experience facilities (that build off the existing facilities and tenants). And ultimately as a mixed-use environment with the addition of higher value, higher-density developments to support existing facilities.

Elite Park's location is incompatible with aviation use due to separation from the airfield, however the site is ideal for commercial development drawing upon its high exposure and ease of access along the Tullamarine Freeway and Airport Drive. The location and size of the site is ideal for special and complementary developments that benefit from ample space but are not particularly sensitive to airport noise. Sporting, leisure and customer experiences are attractive, in addition to more traditional urban-commercial developments such as low-density offices, ancillary retail and showrooms.

URBNSURF has demonstrated that Melbourne Airport can be an attractive destination for visitors and tourists in its own right. In the three years since it opened, URBNSURF has become one of the top ten most-visited attractions in Victoria, with 332,000 visitors in FY2023.

APAM's control of the Elite Park site enables a unique model for development that is ideal for agglomerated leisure offerings that build on the success of URBNSURF. The size, accessibility and commercial structure that APAM offers for Elite Park make it an attractive proposition for businesses interested in capitalising on the iconic, spacious, high-visibility destination that is Melbourne Airport.

04

LEGISLATIVE AND
POLICY CONTEXT

4.1 INTRODUCTION

This section provides an overview of legislation, lease arrangements and policy relevant for airport development and the Elite Park project, including:

- Airports Act 1996
- Environment Protection and Biodiversity Conservation Act 1999
- National Airports Safeguarding Framework
- Head Lease for Melbourne Airport
- Melbourne Airport Master Plan 2022
- State and local planning policy, including Plan Melbourne and the Hume Planning Scheme.

The project is located within the Melbourne Airport 'airport site' (as defined in the Airports Regulations 1997 (Cth)) and on Commonwealth land, as shown in Figure 3.4 and Figure 3.5.

Planning and development at Melbourne Airport is primarily regulated by the Airports Act. Part 5 of the Airports Act is particularly relevant as it relates to land use and planning, the airport's Master Plan, and this MDP. Section 112 sets out the Commonwealth's intention that Part 5 of the Airports Act applies to the exclusion of the law of a state, specifically laws of the state relating to land use and planning.

Notwithstanding section 112, section 91(1)(ga) requires this MDP to set out the likely effect of the proposed MDP on traffic flows at the airport and surrounding the airport, employment levels at the airport and the local and regional economy and community, including an analysis of how the proposed development fits within the local planning schemes for commercial and retail development in the adjacent area.

In addition, section 91(4) requires that, in specifying a particular objective or proposal in section 91(1)(ga), this MDP will address the extent (if any) of consistency with planning schemes in force in Victoria and, if this MDP is not consistent with those planning schemes, the justification for the inconsistencies.

This section of the MDP describes the consistency of the development with relevant Commonwealth, State and local planning provisions.

4.2 COMMONWEALTH LEGISLATION

4.2.1 Airports Act 1996

Elite Park is tendered for approval as a major airport development according to Section 89 of the Airports Act (as discussed in Section 2.1).

Section 90 of the Airports Act provides that major airport developments must not be carried out except in accordance with an approved MDP.

Section 91 of the Airports Act sets out the required contents of an MDP, which includes:

The airport-lessee company's assessment of the environmental impacts that might be reasonably be expected to be associated with the development; and

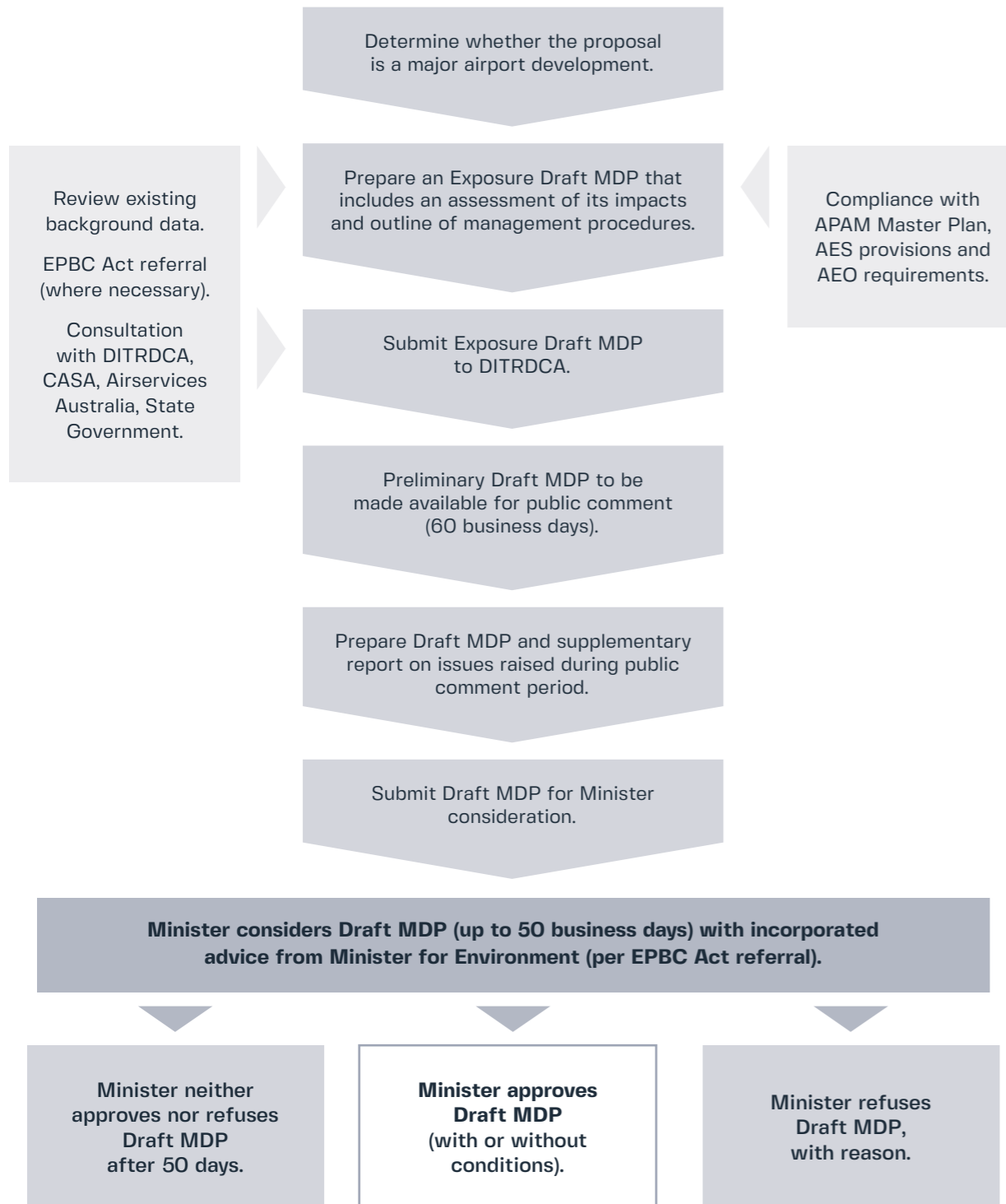
the airport-lessee company's plans for dealing with the environmental impacts...

This MDP has been prepared to address the requirements of the Airports Act. Impacts and proposed mitigation measures are described in Section 18.

Section 6.1 identifies the Airports Act requirements for an MDP and demonstrates that this MDP is consistent with the requirements.

The key steps in the approval process for an MDP under the Airports Act are shown in Figure 4.11. It is of note that the preparation and distribution of an Exposure Draft to external stakeholders is not a process mandated under the Airports Act.

Figure 4.11 MDP Approval Process



4.2.2 Environment Protection and Biodiversity Conservation Act 1999

Overview

The Environment Protection and Biodiversity Act 1999 (Cth), (referred to as the EPBC Act), is administered by the Commonwealth DCCEEW and represented by its Minister (hereafter referred to as 'Minister for the Environment and Water'.) The EPBC Act serves as Commonwealth environmental legislation relating to the environmental impacts of developments.

The EPBC Act details 'triggers' for formal assessment associated with impacts to Matters of National Environmental Significance (MNES) and actions on, or impacting upon, Commonwealth land, and actions by Commonwealth agencies. It applies to the Elite Park project because the 'proposed action' will occur on Commonwealth land and affects MNES.

As well as formal assessment requirements, the EPBC Act requires a Commonwealth agency or employee to consider advice from the Minister for the Environment and Water on protection of the environment, before authorising the adoption or implementation of a Major Development Plan (as defined in the Airports Act).

Matters of National Environmental Significance

The EPBC Act requires actions that have, or are likely to have, a significant impact on any of the following MNES, to be considered by the Minister for the Environment:

- Listed threatened species and communities
- Listed migratory species
- Ramsar wetlands of international importance
- Commonwealth marine environment
- World Heritage properties
- National Heritage places
- The Great Barrier Reef Marine Park
- Nuclear actions
- A water resource, in relation to coal-seam gas development and large coal mining development.

As described in Section 11, MNES are present on the Elite Park site and will be impacted by the project.

Actions on, or impacting upon, Commonwealth land and actions by Commonwealth agencies

Actions on, or impacting upon, Commonwealth land or actions by Commonwealth agencies may require formal assessment under the EPBC Act. Guidance on whether an action requires advice to be sought from the Minister (i.e. a referral) for assessment under this part of the EPBC Act is contained in Actions on, or impacting upon Commonwealth land, and actions by Commonwealth agencies, Significant impact guidelines 1.2 Environment Protection and Biodiversity Conservation Act 1999 (Significant impact guidelines 1.2) (DSEWPC, 2013).

Appendix D of the previously mentioned publication provides specific guidance on the interaction between the Airports Act, MDP approval process and the requirements of the EPBC Act in relation to actions on Commonwealth leased airports, such as Melbourne Airport.

Requirement to take account of Minister's advice (section 160)

The EPBC Act requires that, before a Commonwealth agency or employee gives an authorisation of certain 'actions', that agency or employee must obtain and consider advice from the Minister for the Environment and Water. In relation to Elite Park, the Minister for Infrastructure (who will make the approval decision regarding the MDP) must obtain and consider advice from the Minister for the Environment and Water for the following actions (s160 EPBC Act, 1999):

(2)

(c) the adoption or implementation of a major development plan (as defined in the Airports Act 1996); and

To formalise this process and the approach to the assessment of the action, a referral is submitted to the Minister for the Environment and Water specifying the authorisation the Commonwealth agency or employee is intending to consider. The Minister then confirms the assessment approach to be adopted under the EPBC Act.

For major airport developments, the referral process must take place prior to the required public consultation period. APAM submitted the Exposure Draft of the Elite Park MDP to DITRDCA (as set out in Figure 4.11) and DITRDCA subsequently referred it to the then Department of Agriculture, Water and the Environment (DAWE, now DCCEEW) for consideration under section 160 of the EPBC Act.

In September 2024 DCCEEW formally advised that the Environment Minister's advice is required to be obtained and considered before the MDP is approved by the Minister for Infrastructure and adopted or implemented. DCCEEW also decided that the proposal requires further assessment under the EPBC Act by an accredited process, being the MDP process as defined under the Airports Act.

Significant impact criteria and guidelines

The Significant Impact Guidelines 1.2 consider the 'whole of environment' impacts to be the 'total adverse impact of the action in the entire context of the environment which will be impacted' by the proposed action (particularly those elements of the environment which are sensitive or valuable). This applies to:

- Any person who proposes to take an action which is either situated on Commonwealth land or which may impact on Commonwealth land, and/or
- Representatives of Commonwealth agencies who propose to take an action that may impact on the environment anywhere in the world.

The guidelines identify a series of criteria to determine whether an action is considered 'significant':

- Landscapes and soils
- Coastal landscapes and processes
- Ocean forms, ocean processes and ocean life
- Water resources
- Pollutants, chemicals and toxic substances
- Plants
- Animals
- People and communities
- Heritage.

Part 13 EPBC Permit

Elite Park will impact listed species and communities. As outlined in Section 12, this includes removal of 4.58 hectares of Natural Temperate Grassland of the Victorian Volcanic Plain (NTGVVP).

Under Part 13 of the EPBC Act, actions including an action that damages or will significantly damage critical habitat for a listed threatened species or a listed threatened ecological community are prohibited (and constitute offences) unless a permit is issued under section 201 of the EPBC Act.

Melbourne Airport will apply to DCCEEW for a permit under Part 13 of the EPBC Act prior to the commencement of any action and in parallel with the completion of the offset management plan. This will occur either immediately prior to finalisation of the MDP, or following approval of the MDP (depending on the level of detailed design completed by that time).

Consideration of the potential impacts the Elite Park precinct may have on the environment, including matters covered by the EPBC Act, are contained in Section 11 of this MDP. Section 17 provides a breakdown of how the project addresses this potential risk and how project design and construction management processes will mitigate potential impacts to MNES and the wider environment.

4.2.3 Natural Hazards and Climate Change

No Commonwealth legislation currently provides for climate change risks to be considered in infrastructure developments. The Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) and the Airports Act 1996 (Cth) (Airports Act) do not explicitly address climate change.

The Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) administers the EPBC Act and undertakes assessments under this Act. Section 3A of the EPBC Act does set out the principles of Ecologically Sustainable Development (ESD), including "decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations".

The Airports Act requires that Major Development Plans be prepared for significant developments at airports and that each airport has an environment strategy. Melbourne Airport's Environment Strategy under the Melbourne Airport Master Plan (the Master Plan) (2022) identifies that Melbourne Airport has undertaken a Climate Risk and Natural Hazard Assessment (in 2020).

4.3 NATIONAL AIRPORTS SAFEGUARDING FRAMEWORK

The National Airports Safeguarding Framework (NASF) is a national land-use planning framework that aims to:

- Improve community amenity by minimising aircraft noise-sensitive developments near airports including through use of noise metrics and noise-disclosure mechanisms; and
- Improve safety outcomes by ensuring aviation safety requirements are recognised in land-use planning decisions.

The National Airport Safeguarding Advisory Group (NASAG), comprising high-level Commonwealth, state, territory and local government transport and planning officials, was formed to develop the Framework. Commonwealth, state and territory ministers agreed to the NASF principles and six guidelines at the Standing Council on Transport and Infrastructure meeting on 18 May 2012. Since then, three additional NASF guidelines have been adopted.

NASF represents a collective commitment from governments to ensure that an appropriate balance is maintained between the social, economic and environmental needs of community and the effective use of airport sites. The framework applies at all airports in Australia and affects planning and development around airports, including development activity that might disrupt operational airspace and/or affect navigational procedures for aircraft.

NASF is comprised of a set of seven principles and nine guidelines. The NASF principles are:

- Principle 1: The safety, efficiency and operational integrity of airports should be protected by all governments, recognising their economic, defence and social significance.
- Principle 2: Airports, governments and local communities should share responsibility to ensure that airport planning is integrated with local and regional planning.
- Principle 3: Governments at all levels should align land-use planning and building requirements in the vicinity of airports.
- Principle 4: Land-use planning processes should balance and protect both airport/aviation operations and community safety and amenity expectations.
- Principle 5: Governments will protect operational airspace around airports in the interests of both aviation and community safety.
- Principle 6: Strategic and statutory planning frameworks should address aircraft noise by applying a comprehensive suite of noise measures.
- Principle 7: Airports should work with governments to provide comprehensive and understandable information to local communities on their operations concerning noise impacts and airspace requirements.

The nine guidelines are:

- Guideline A: Measures for Managing Impacts of Aircraft Noise
- Guideline B: Managing the Risk of Building Generated Windshear and Turbulence at Airports
- Guideline C: Managing the Risk of Wildlife Strikes in the Vicinity of Airports
- Guideline D: Managing the Risk of Wind Turbine Farms as Physical Obstacles to Air Navigation
- Guideline E: Managing the Risk of Distractions to Pilots from Lighting in the Vicinity of Airports
- Guideline F: Managing the Risk of Intrusions into the Protected Airspace of Airports
- Guideline G: Protecting Aviation Facilities – Communications, Navigation and Surveillance (CNS)
- Guideline H: Protecting Strategically Important Helicopter Landing Sites
- Guideline I: Managing the Risk in Public Safety Areas at the Ends of Runways.

The design of Elite Park has accounted for and complies with the NASF guidelines. Assessment of Elite Park against the NASF guidelines is outlined in Section 8 of this MDP.

4.4 CONSISTENCY WITH THE AIRPORT LEASE

The proposed development is consistent with the airport Head Lease for Melbourne Airport. The major development:

- Is for a lawful purpose and does not breach legislation in accordance with Clause 3.1 (a) (iv) of the Head Lease (and expanded on as follows).
- Maintains the environment of the airport in accordance with Clause 6 of the Head Lease.
- Complies with all legislation relating to the airport site and its structures or use or occupation in accordance with Clause 7.1 of the Head Lease.
- Does not grant any sublease or license prohibited under legislation, in accordance with Clause 10 of the Head Lease.
- Has regard to actual and anticipated future growth in, and pattern of, traffic demand for the airport site as required by Clause 12.1(a) of the Head Lease.
- Will be to the quality standards reasonably expected of an airport in Australia and will have regard to good business practice, in accordance with Clauses 12.1(b) and (c) of the Head Lease.

In developing this MDP, all interests existing at the time the Head Lease was created were identified including easements, licenses, leases and sub leases. There are no known conflicts or inconsistencies existing between these interests and any part of the proposal in this MDP. There are no known impacts to any pre-existing interests of adjacent property owners. APAM will ensure that any development works allowed under this MDP will not interfere with the rights granted under any pre-existing interest, including impacts during construction.

4.5 LEGAL COMPLIANCE

An essential requirement of the Head Lease is that the lessee must comply with all legislation relating to the airport site. Section 91 (1A) of the Airports Act states that all major development is to be consistent with the airport lease.

APAM, as the ALC for Melbourne Airport, has an obligation to ensure all developments on airport land are consistent with the legislation and development to maintain appropriate urban planning and ensure safe and sustainable outcomes. APAM must confirm that any proposal on airport land is consistent with:

- The Melbourne Airport Master Plan 2022
- Any approved Major Development Plan for the airport (Airports Act, section 90), if applicable
- The approved Environment Strategy (as incorporated in Melbourne Airport Master Plan 2022)
- APAM's planning objectives for the airport.

The Elite Park precinct is consistent with the above matters, as outlined by the content of this MDP.

4.6 CONSISTENCY WITH THE MASTER PLAN

Melbourne Airport Master Plan 2022 provides a development framework for the airport to 2042. The Master Plan includes integrated planning for aviation activity, land use, commercial development and environmental management to achieve sustainable growth.

With respect to non-aviation development, Master Plan 2022 Chapter 11.0 'Non-Aviation Development Plan' states objectives:

Non-aviation development plays a vital role in Melbourne Airport's economic vitality while complementing its key functions. It supports the airport's growth and diversifies business risk, enhances the contribution it makes to the broader community, and underlines its importance as a decentralised employment activity centre.

The objectives of non-aviation development are to:

- *protect the airport's long-term viability*
- *plan and make provision for constructing world-class facilities to benefit airport stakeholders*
- *encourage developments that achieve the highest standards in sustainable environmental development, safety and security*
- *encourage developments that complement the airport's key functions and support aviation activities.*

Section 11.2 of Master Plan 2022 discusses the proposed development of the Elite Park precinct within the designated Landside Main Precinct. The Master Plan explicitly lists development of Elite Park as a key segment of diversified development to be delivered in the near term (initially within 5-10 years).

The Master Plan and Activity Centre Zone provide for complementary retail and commercial development to take place on land not required for aviation uses. Developments proposed for Elite Park have been selected for their suitability for supporting Melbourne Airport's commercial objectives – which are complementary to local and regional economic objectives and planning schemes.

The non-aviation landside precinct is an important physical buffer between 24-hour airport operations and residential areas. This pattern of development is complementary to other activity centres near the airport and capitalises on available access and trunk infrastructure. Areas of significant aircraft noise can be effectively utilised with thoughtful selection of tenancies. Careful land use allocation can also support aviation safety and security objectives.

The 2027 Ground Transport Plan and 20-Year Ground Transport Strategy outlined in Master Plan 2022 identify transport network upgrades in support of expected traffic growth and mode changes, including attributable to the development of Elite Park. These include:

- A new ramp connection to Mercer Drive from the Tullamarine Freeway southbound carriageway.
- Signalisation of the junction of Airport Drive, Mercer Drive and Francis Briggs Road
- Widening Airport Drive to three lanes in each direction.
- Improved bus connectivity to residential areas within 5-10km of the airport.
- A network of safe bicycle riding infrastructure to and within the airport in line with Victorian department of Transport and Planning (DTP) Strategic Cycling Corridors (SCC) network.
- Pedestrian routes to/from/within Elite Park.

The Environment Strategy embedded within Master Plan 2022 details the environmental requirements of the airport lease and how development of the airport must consider environmental values. Elite Park is consistent with the Environment Strategy on the basis that it commits to management of environmentally sensitive areas as defined within the strategy – including processes, where necessary, for removal of EPBC Act listed species in accordance with provisions of the EPBC Act.

This Elite Park MDP is consistent with Melbourne Airport Master Plan 2022, including the associated ground transport and environment strategies contained within.

4.7 CONSISTENCY WITH STATE AND LOCAL GOVERNMENT PLANNING

Melbourne Airport is located on Commonwealth land subject to the Head Lease from the Commonwealth Government. The Airports Act 1996 and other relevant Commonwealth legislation, including the EPBC Act, are the governing requirements for planning matters.

State and local planning provisions are not directly applicable to development occurring at the airport. However, the Airports Act requires an MDP to address, where possible, the extent of any inconsistencies with the prevailing planning scheme/s of related state and local jurisdictions.

The following sections outline relevant strategic planning documents and state and local planning policy and how Elite Park responds to relevant planning objectives.

4.7.1 Strategic State Planning Documents

Plan Melbourne

Plan Melbourne (2017-2050) outlines the State Government of Victoria's vision for Melbourne's growth to the year 2050. Plan Melbourne identifies infrastructure, services and major projects necessary to support the city's growth.

The proposed development of Elite Park directly and indirectly supports several key objectives of Plan Melbourne relating broadly to economic activity, urban and local amenity, sustainability and connectivity - including (but not limited to):

- Direction 1.1 Create a city structure that strengthens Melbourne's competitiveness for jobs and investment

- Policy 1.1.5 Support major transport gateways as important locations for employment and economic activity

Melbourne Airport is Victoria's primary gateway for air passengers and air-freight exporters. It handles around 30 million passengers a year and accounts for almost a third of Australia's air freight. Melbourne Airport is directly responsible for 14,300 jobs—an employment figure that is expected to grow to 23,000 by 2033.¹ Its curfew-free status is a competitive advantage that must be protected. Additionally, the airport's central location—between three of Melbourne's major growth areas—means it is well placed to capitalise on growing labour markets.

...

Designated ports, airports, freight terminals and their surrounds will be protected from incompatible land uses to ensure they keep generating economic activity and new jobs. Adjacent complementary uses and employment-generating activities will be encouraged.

- Policy 1.1.7 Plan for adequate commercial land across Melbourne

Population growth will continue to drive demand for well-located and competitively priced commercial land. Growth could create demand for an additional 8 million square metres of stand-alone office floor space and 8 million square metres of retail floor space by 2051.

An adequate supply of commercial land needs to be secured to accommodate this growth, as well as a range of services, entertainment and civic activities in suburban locations.

Increasingly, there is desire for activity centres and commercial areas to allow mixed-use development, including retail, commercial and residential. While this approach supports greater flexibility of uses, it can also lead to residential uses competing with commercial uses and employment opportunities.

- Direction 1.2 Improve access to jobs across Melbourne and closer to where people live

- Policy 1.2.1 Support the development of a network of activity centres linked by transport

All activity centres have the capacity to continue to grow and diversify the range of activities they offer. Opportunities to partner with the private sector to enable future diversification, investment and employment growth should be explored and, where appropriate, facilitated through planning provisions.

- Policy 1.2.2 Facilitate investment in Melbourne's outer areas to increase local access to employment

There is a need to support investments that create jobs in outer suburbs and growth areas.

...

Planning for outer suburbs and growth areas must ensure there is sufficient zoned land to support future development and job creation. This will provide for strong local economies and ease pressure on transport infrastructure by providing employment close to home.

- Direction 4.1 Create more great public places across Melbourne

- Policy 4.2.3 Plan and facilitate private-sector tourism investment opportunities

The Australian Government's Tourism Forecasting Committee indicates that Victoria's number of visitor nights will increase to 82 million (or 13.9 per cent of the national total) by 2020-21, worth an estimated \$17.7 billion in overnight tourism expenditure. This growth will drive demand for short-stay accommodation and new or enhanced tourism experiences.

Melbourne's challenge is to create innovative tourism experiences, encourage investments that meet tourism demand, and ensure that transport and aviation networks can support the growth in tourism. Tourism services need to be located appropriately—such as positioning internationally branded accommodation in the inner city catering to international leisure and business travellers.

Melbourne Airport is noted in Plan Melbourne as a Place of State Significance and as a Transport Gateway for the Victorian Region - crucial for the movement of passengers and freight both in and out of Victoria. Plan Melbourne identifies the need to protect Melbourne Airport's curfew-free status and supports the overall growth expansion. The development of Elite Park directly aligns with this objective and contributes to the long-term growth and vitality of Melbourne Airport.

Though Melbourne Airport is not specifically listed as one of Plan Melbourne's Metropolitan Activity Centres, the Elite Park site is ideally situated to serve as a complementary activity centre. The demonstrated success of URBNSURF is testament to the ability of Melbourne Airport's non-aviation development sites to support Plan Melbourne objectives for commercial and mixed-use space.

Visitor Economy Master Plan 2022

The Visitor Economy Master Plan 2022 aims to rebuild the Victorian tourism sector and its communities post-COVID. It is a blueprint to

guide development of attractive and innovative tourism experiences.

The plan promotes collaboration between key stakeholders, including private enterprises and government authorities, to deliver key projects in support of the recovering tourism sector.

The Visitor Economy Master Plan recognises the need to attract inspirational and innovative tourism products from intra-state, interstate and overseas to drive employment and visitation opportunities.

4.7.2 Planning Policy – Hume Planning Scheme

The planning policy within the Hume Planning Scheme relevant to Elite Park is summarised following.

Purpose and Vision

The Purpose and Vision of the Planning Scheme sets out the vision and the strategic direction for the municipality of Hume.

The Municipal Planning Strategy at Clause 2 sets out the strategic directions for Hume. The following are relevant to Elite Park:

- Protect Melbourne Airport's curfew free status from encroachment by development (Clause O2.03-1)
- Reinforce the role of Melbourne Airport as one of Victoria's key economic assets (Clause O2.03-7).
- Provide genuine mode choice for travel within Hume, particularly to activity centres, train stations, major employment areas and Melbourne Airport (Clause O2.03-8).

Planning Policy Framework

The Victorian Planning Policy Framework (PPF) seeks to implement the objectives of planning in Victoria (as set out in the Planning and Environment Act 1987) to facilitate appropriate land use and development policies and practices that encompass relevant environmental, social, and economic factors.

Applying the Activity Centre Zone designation to Elite Park is consistent with the PPF.

Key policies of relevance are summarised following. An assessment of the project against the provisions of the Hume Planning Scheme is provided in Section 4.7.3.

Clause 11 – Settlement

- Clause 11.01-1S – Settlement seeks to facilitate the sustainable growth and development of Victoria and deliver choice and opportunity for all Victorians through a network of settlements.
- Clause 11.01-1R – Settlement – Metropolitan Melbourne seeks to focus investment and growth in places of state significance, including Transport Gateways.
- Clause 11.02-2S – Structure Planning seeks to facilitate the fair, orderly, economic and sustainable use and development of urban areas.
- Clause 11.02-3S – Sequencing of Development seeks to manage the sequence of development in areas of growth so that services are available from early in the life of new communities.
- Clause 11.03-1S – Activity Centres seeks to encourage the concentration of major retail, residential, commercial, administrative, entertainment and cultural developments into activity centres that are highly accessible to the community.
- Clause 11.03-1L – Activity Centres – Hume seeks to ensure that land uses within the Melbourne Airport Transport Gateway do not adversely impact on the viability of nearby activity centres.

Clause 12 – Environmental and Landscape Values

- Clause 12.01-1S – Protection of Biodiversity seeks to protect and enhance Victoria's biodiversity.
- Clause 12.01-2S – Native Vegetation Management seeks to ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation.

- Clause 12.05-1S – Environmentally Sensitive Areas seeks to protect and conserve environmentally sensitive areas.
- Clause 12.05-2S – Landscapes seeks to protect and enhance significant landscapes and open spaces that contribute to character, identity and sustainable environments.

Clause 13 – Environmental Risks and Amenity

- Clause 13.01-1S – Natural Hazards and Climate Change seeks to minimise the impacts of natural hazards and adapt to the impacts of climate change through risk-based planning.
- Clause 13.02-1S – Bushfire Planning seeks to strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life.
- Clause 13.03-1S – Floodplain Management seeks to assist the protection of:
 - Life, property and community infrastructure from flood hazard, including coastal inundation, riverine and overland flows.
 - The natural flood carrying capacity of rivers, streams and floodways.
 - The flood storage function of floodplains and waterways.
 - Floodplain areas of environmental significance or of importance to river, wetland or coastal health.
- Clause 13.05 – Noise Management seeks to assist the management of noise effects on sensitive land uses.
- Clause 13.06-1S – Air Quality Management seeks to assist the protection and improvement of air quality.
- Clause 13.07-1S – Land Use Compatibility seeks to protect community amenity, human health and safety while facilitating appropriate commercial, industrial, infrastructure or other uses with potential adverse off-site impacts.
- Clause 13.07-1L-02 – Liquor Licensing acknowledges the need for prioritisation of public safety and amenity around licensed premises. This policy applies to an application under Clause 52.27 – Licenced Premises.

Clause 15 – Built Environment and Heritage

- Clause 15.01-1S – Urban Design seeks to create urban environments that are safe, healthy, functional and enjoyable and that contribute to a sense of place and cultural identity.
- Clause 15.01-1R – Urban Design – Metropolitan Melbourne seeks to create a distinctive and liveable city with quality design and amenity.
- Clause 15.01-1L-05 – Signs seeks to encourage signage in appropriate locations and ensure appropriate wayfinding and promotion.
- Clause 15.01-2S – Building Design seeks to achieve building design and siting outcomes that contribute positively to the local context, enhance the public realm and support environmentally sustainable development.
- Clause 15-01-2I-01 – Building Design – Hume, seeks to ensure the redevelopment of corner sites includes side fencing that is designed to achieve a balance between providing privacy and maintaining visual connections to the public realm.
- Clause 15.01-2L-03 – Environmentally Sustainable Development – Hume seeks to achieve best practice in environmentally sustainable development from the design stage through to construction and operation.

Clause 17 – Economic Development

- Clause 17.01-1S – Diversified Economy seeks to strengthen and diversify the economy and regional, cross-border and inter-regional relationships to harness emerging economic opportunities.
- Clause 17.01-1R – Diversified Economy – Metropolitan Melbourne supports the diverse employment generating uses, including offices, innovation, and creative industries in identified areas within regionally significant industrial precincts, where compatible with adjacent uses and well connected to transport networks.
- Clause 17.01-1L – Diversified Economy – Hume seeks to support existing employment areas with a large number of businesses in similar sectors.

- Clause 17.01-2S – Innovation and research seeks to create opportunities for innovation and the knowledge economy within existing and emerging industries, research, and education. The provision of infrastructure that helps innovation is encouraged as well as locating business in identified employment and economic growth areas.
- Clause 17.02-1S – Business – seeks to encourage development that meets the community's needs for retail, entertainment, office and other commercial services.
- Clause 17.02-2S – Out-of-centre development – Hume seeks to manage out-of-centre development by ensuring that out-of-centre proposals are only considered where the proposed use or development is of net benefit to the community in the region served by the proposal.
- Clause 17.02-2L – Out-of-centre development – Hume seeks to discourage the development of restricted retail premises in existing and future industrial areas outside of identified bulky goods centres.
- Clause 17.03-3S – State Significant Industrial Land – seeks to protect industrial land of state significance.
- Clause 17.03-3R – Regionally Significant Industrial Land – Metropolitan Melbourne – Northern Metro Region – seeks to protect established industrial precincts adjacent to Melbourne Airport and Essendon Airport, including the Tullamarine, Keilor Park, Keilor East and Airport West industrial precincts.

Clause 18 – Transport

- Clause 18.01-1S – Land Use and Transport Integration seeks to facilitate access to social, cultural and economic opportunities by effectively integrating land use and transport.
- Clause 18.01-3S – Sustainable and Safe Transport seeks to facilitate an environmentally sustainable transport system that is safe and supports health and wellbeing.
- Clause 18.01-3L – Sustainable Personal Transport – Hume seeks to facilitate continuous walking and cycling links and ensure development addresses gaps in active travel.

- Clause 18.02-1S – Walking seeks to facilitate an efficient and safe walking network and increase the proportion of trips made by walking.
- Clause 18.02-2S – Cycling seeks to facilitate an efficient and safe bicycle network and increase the proportion of trips made by cycling.
- Clause 18.02-3S – Public Transport seeks to facilitate an efficient and safe public transport network and increase the proportion of trips made by public transport.
- Clause 18.02-4S – Roads seeks to facilitate an efficient and safe road network that integrates all movement networks and makes best use of existing infrastructure.
- Clause 18.02-7S – Airports and Airfields seeks to strengthen the role of Victoria's airports and airfields within the state's economic and transport infrastructure, guide their siting and expansion, and safeguard their ongoing, safe and efficient operation.

The relevant Strategies of this Clause include:

- Ensure land use and development at airports and airfields contributes to the aviation needs of the state and the efficient and functional operation of the airport or airfield.
- Ensure land use and development at airports complements the role of the airport including as listed below: Melbourne Airport – major domestic and international airport with no curfew, 24-hour access, freight capability and an adjoining employment precinct.
- Plan for areas around airports and airfields so that land use or development does not prejudice future airport or airfield operations or expansions in accordance with an approved strategy or master plan for that airport or airfield.
- Ensure that in the planning of airports and airfields, land use decisions are integrated, appropriate land use buffers are in place and provision is made for associated businesses that service airports.
- Plan the visual amenity and impact of any land use or development on the approaches to an airport or airfield to be consistent with the status of the airport or airfield.

The National Airports Safeguarding Framework is a policy document requiring consideration under Clause 18.02-7S.

- Clause 18.02-7R – Melbourne Airport protects the curfew-free status of Melbourne Airport and ensure any new use or development does not prejudice its operation or optimum usage. This Clause requires consideration of the Melbourne Airport Master Plan 2022 and the Melbourne Airport Strategy (Government of Victoria/ Federal Airports Corporation, approved 1990) and its associated Final Environmental Impact Statement, as relevant.
- Clause 18.02-7L – Melbourne Airport – Hume encourages use and development around the Melbourne Airport related to transport and logistics, wholesale trade and other sectors that require immediate access to the airport.

Clause 19 – Infrastructure

- Clause 19.02-3S – Cultural Facilities seeks to develop a strong cultural environment and increase access to arts, recreation and other cultural facilities.
- Clause 19.02-6S – Open Space seeks to establish, manage and improve a diverse and integrated network of public open space that meets the needs of the community.

4.7.3 Planning Policy Assessment

Being Commonwealth land, state and local planning policy is not applicable to development occurring at the airport, however, in accordance with the Airports Act, consideration has been given to planning policy contained within the Hume Planning Scheme and outlined above.

Elite Park complies with key planning objectives relevant to Melbourne Airport land use and development contained within the Planning Scheme, as discussed following.

The Planning Policy Framework recognises the importance of protecting Melbourne Airport's curfew-free status and ensuring the airport's continued contribution to the local and state economies.

Relevant policies seek to facilitate land use outcomes that support the ongoing vitality of Melbourne Airport as a destination for travel, work, play, and visiting. The proposal achieves the broad objectives of these guiding policies as follows:

- The proposal contributes to the sustainable growth of the local and regional economies through a staged delivery aligned with the Melbourne Airport Master Plan 2022, which provides guidance on development and growth over a long-term period. In accordance with land use policy objectives at Clause 11.03, the proposal seeks to concentrate major retail, commercial and entertainment developments in one area. The proposal ensures land uses do not adversely impact the viability of nearby activity centres and will strengthen Melbourne Airport as a key destination for work, play and visit.
- The proposal protects and enhances biodiversity where possible. The plan for Elite Park includes sufficient landscaping opportunity, with future landscaping to include the revegetation of native species in accordance with Melbourne Airport landscaping guidelines.
- Consistent with Clause 13.05, indicative uses are not typically noise generating and will not impact the surrounding area. In accordance with Clause 13.07, all indicative land uses ensure the protection of community amenity, health and safety and

ensure minimal off-site amenity impacts. All indicative uses and heights are conducive to the Melbourne Airport context. Each development will be subject to future approval ensuring all aviation operations are sufficiently addressed prior to development.

- Elite Park will create an urban environment that is safe, functional and enjoyable, contributing to a sense of place. The proposal supports high-quality building design and siting outcomes that contribute positively to the local context, enhance the public realm and support environmentally sustainable development in accordance with Clause 15.01.
- Clause 17 acknowledges the need for diverse employment generating uses, including offices, innovation, and creative industries in appropriate areas that are well connected to transport networks. The Elite Park precinct is ideally located adjacent to Melbourne Airport, a nationally recognised Transport Gateway and has excellent access to the broader region via the Tullamarine Freeway and Airport Drive. As highlighted in Section 10, the Elite Park precinct is also projected to generate 2,140 new jobs in its ongoing operation.
- Safe and efficient travel within Elite Park will be delivered in alignment with Melbourne Airport Ground Transport Strategy, as outlined in Master Plan 2022. An internal access road will facilitate vehicle and active transport options in accordance with Clause 18.01 and Clause 18.02. Specifically, consistent with Clause 18.02-7S, Elite Park will ensure land use and development complements the role of the airport as a curfew-free transport gateway.

4.7.4 Planning and Environment Act 1987 (P&E Act)

The P&E Act controls the planning and development of land in Victoria and provides for the development of a comprehensive set of planning provisions for Victoria (the Victoria Planning Provisions) and specific planning schemes for all municipalities. The local Hume Planning Scheme recognises the Commonwealth's exclusive power to

legislate with respect to Commonwealth land at Melbourne Airport, identifying it as 'Commonwealth Land not controlled by Planning Scheme' (Hume Planning Scheme Map Numbers 15, 16, 21, 22, 25 and 26).

Removal, destruction and lopping of native vegetation in Victoria is regulated through the planning schemes and through Victoria's Guidelines for the Removal, Destruction or Lopping of Native Vegetation (DELWP, 2017), which is an incorporated document of all planning schemes in Victoria. These Guidelines provide a policy setting for defining native vegetation, assessing its values, making decisions regarding clearing and providing compensatory offsets. Although the P&E Act, and therefore the Guidelines, do not directly apply to Commonwealth land at Melbourne Airport, the Guidelines provide standard methods for defining and assessing native vegetation. These methods have been applied in the absence of any standard Commonwealth approach to native vegetation assessment.

4.7.5 Flora and Fauna Guarantee Act 1988 (FFG Act)

The FFG Act is the key piece of Victorian legislation for the conservation of threatened species and communities and for the management of potentially threatening processes in Victoria.

The FFG Act does not apply to Commonwealth land at Melbourne Airport. It is excluded by the operation of the Commonwealth Airports (Environment Protection) Regulations 1997. Furthermore, the offences and permit requirements of the FFG Act for the handling of flora do not apply to private land (unless part of critical habitat for the flora). For the purposes of the FFG Act, private land includes land that APAM has leased or purchased at Melbourne Airport, since APAM has a right to exclusive possession of this leasehold and freehold land.

However, in accordance with the Significant Impact Guidelines 1.2, the FFG Act as a Victorian Government biodiversity protection mechanism is used as a guide for identifying ecological components of the environment that can be considered to have 'special value'. Threatened

taxa, threatened communities and threatening processes listed under Section 10 of the FFG Act, associated Action Statements, Victorian Scientific Advisory Committee determinations and the Flora and Fauna Guarantee Amendment Act 2019, provide local context for an assessment of impacts to the environment on Commonwealth land under the Significant Impact Guidelines 1.2. They were therefore considered as part of the current assessment.

4.7.6 Natural Hazards and Climate Change

Climate Change Act 2017

The Climate Change Act 2017 sets out guiding principles to be applied in considering climate change as part of program decision making. Section 23 (a) states:

(a) It is a guiding principle of this Act that a decision, policy, program or process should be based on a comprehensive analysis of the best practicably available information about the potential impacts of climate change that is relevant to the decision, policy, program or process under consideration.

The Climate Change Act 2017 Section 34 also provides for the future required preparation of adaptation action plans:

(1) An adaptation action plan must be prepared by the relevant nominated Minister on or before 31 October 2021.

(4) An adaptation action plan must be prepared in respect of the following systems – (a) the built environment system; (f) the transport system.

The Victorian Climate Change Strategy 2021 identifies emissions reduction targets for Victoria and outlines adaptation priorities, providing reference to the system-based Adaptation Action Plans (i.e. transport system). The Strategy outlines focus areas to 'adopt best practice climate risk management' and 'support the use of best available climate change data'. The Transport Climate Change Adaptation Action Plan 2022-2026 (DoT, 2022)

was published in February 2022. Its objective is to build the transport system's capacity to adapt to climate change, while meeting community expectations for service levels and environmental sustainability.

The Transport Sector Action Plan is focused on building a cohesive and consistent approach to climate resilience across the transport portfolio, incorporating best-practice evidence-based climate science and climate risk assessment into decision making across the asset lifecycle. This is consistent with the climate resilience approach adopted for Elite Park.

Transport Integration Act 2010

The Victorian Transport Integration Act 2010 Section 10 (e) requires the transport system to be "preparing for and adapting to the challenges presented by climate change".

Emergency Management Amendment (Critical Infrastructure Resilience) Act 2014

The Emergency Management Amendment (Critical Infrastructure Resilience) Act 2014 is focused on driving the resilience of Victoria's critical infrastructure. The Act provides for a sector-based approach to managing infrastructure resilience, requiring government and industry to consider and plan for consequences of all emergencies (EMV, 2021). The transport sector is one of the defined critical infrastructure sectors.

Infrastructure declared as 'vital' on the critical infrastructure register is required to undertake legislated emergency risk management planning. The assessment methodology used to determine 'vital' infrastructure is prescribed in the Ministerial Guidelines for Critical Infrastructure Resilience (2017). Victoria's Critical Infrastructure All Sectors Resilience Report 2020 (State of Victoria, 2020) also identifies climate change as a relevant risk for the State's critical infrastructure.

Statutory Authority – Melbourne Water-Floodplain Management Authority (MWFMA)

Melbourne Airport is sited within the Port Phillip and Westernport Catchment Management Authority (PPWCMA) area of statutory responsibility, with Melbourne Water acting as the Floodplain Manager under the Water Act 1989. Consequently, the Melbourne Water standards for infrastructure projects in flood-prone areas (version 2.3.1) have been provided by the PPWCMA and clause 3 f) ii states:

"A rainfall intensity increase figure must be derived from either the Australian Rainfall and Runoff (ARR) 2019 or the ARR Data Hub. The adopted figure must reflect the project's asset life and project's flood protection technical performance requirements".

The Elite Park project has adopted a baseline design parameter of a +18.4 per cent rainfall intensity change due to climate change (indicative at the year 2100) for drainage and flooding design.

While the Melbourne Water standards do not apply to Elite Park given it is located on Commonwealth Land, it has been included to ensure consistency with Victorian commitments and achieving overall objectives set out by the Victorian government.

4.8 AIRPORT PLANNING AND BUILDING APPROVALS

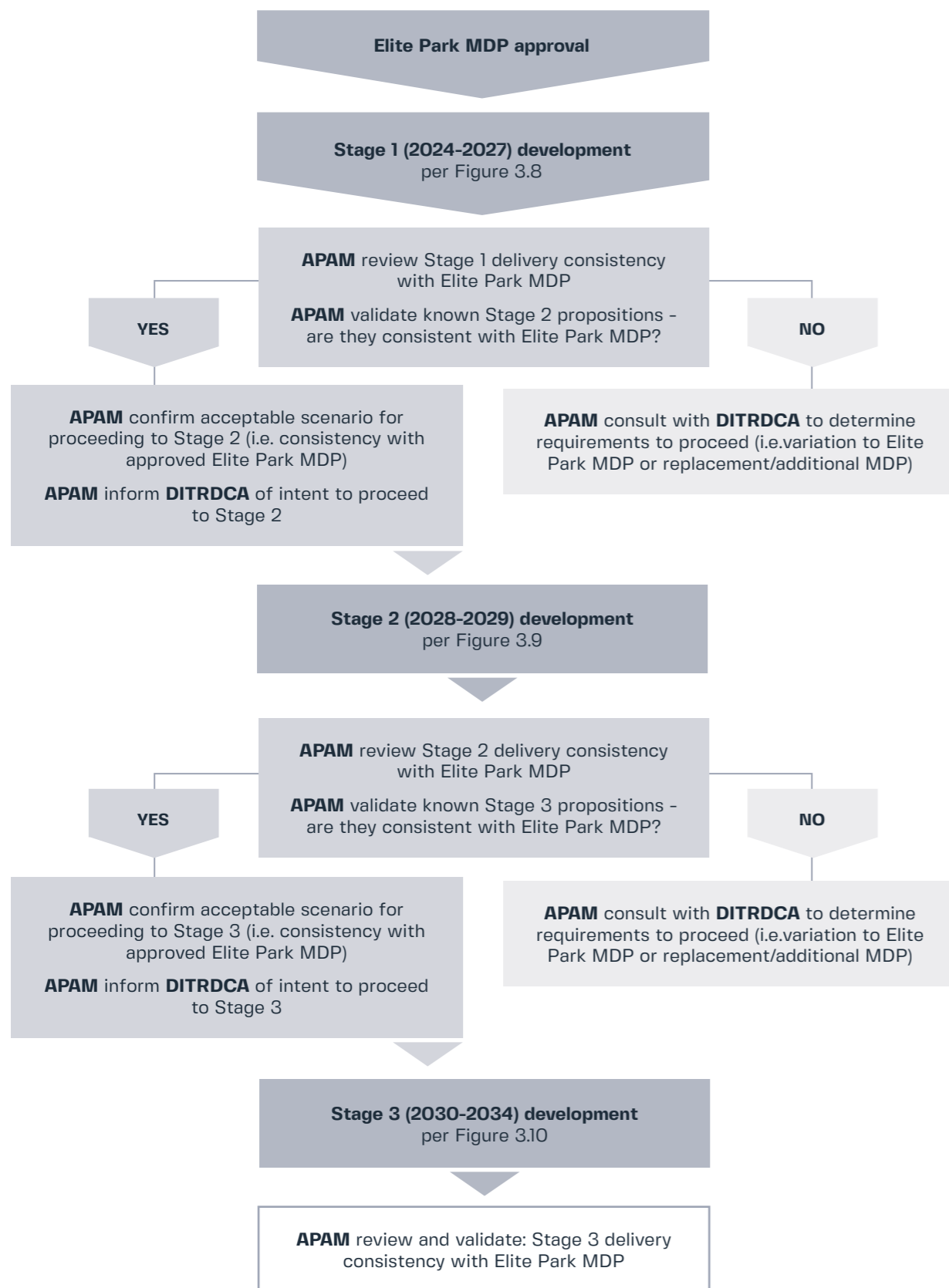
4.8.1 Stages

This MDP seeks approval for the entire Elite Park precinct, within which three major 'Stages' of progressive development are proposed (as detailed in Section 3.2).

Effective governance of development approvals in this staged strategy requires an appropriate system of oversight to ensure continued compliance and consistency with the approval of this MDP. APAM shall achieve this objective through the following process:

See Figure 4.12 on Page 54

Figure 4.12 Staged delivery of approved Elite Park project - proposed process



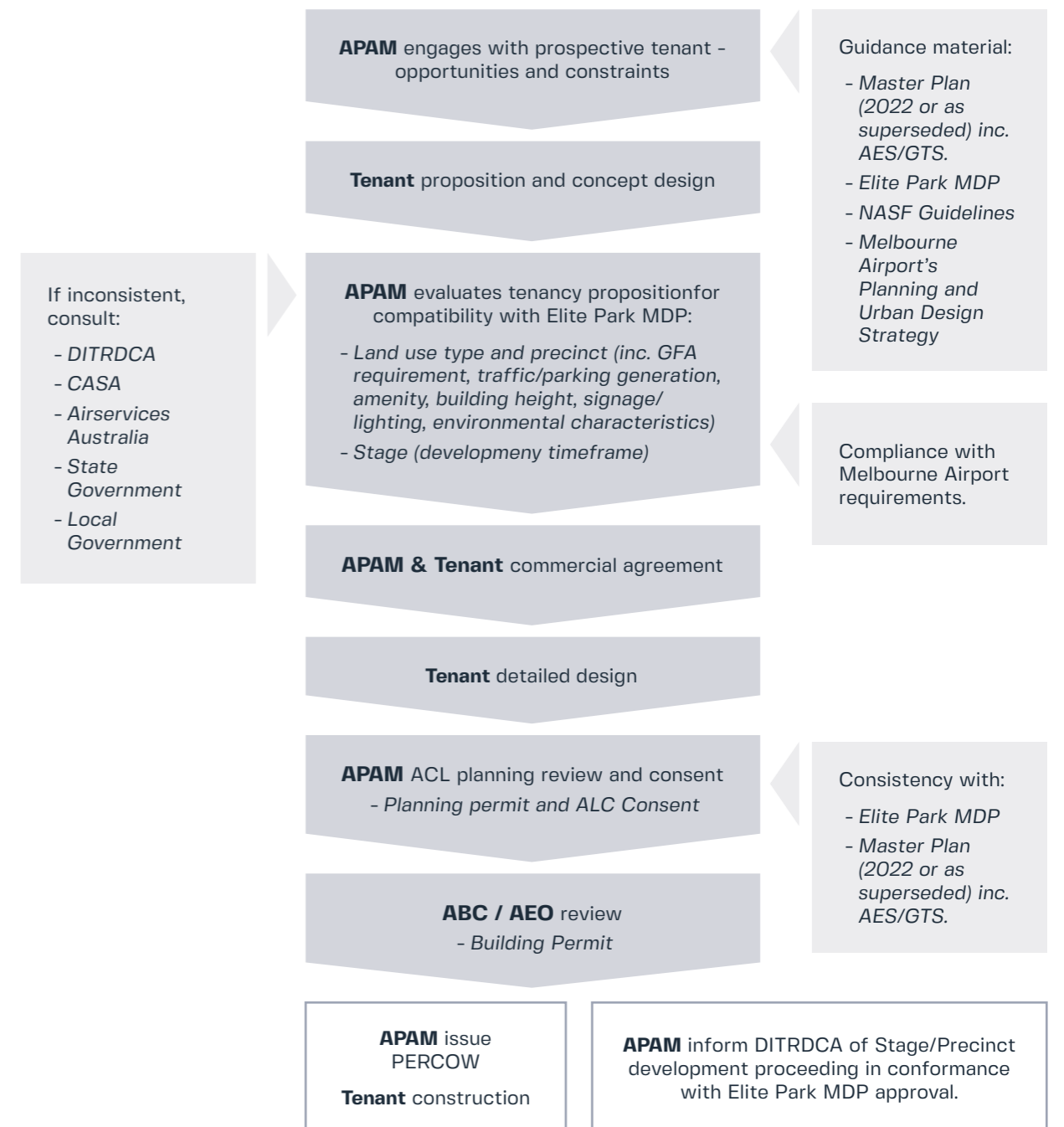
4.8.2 Precinct Developments

Development of each precinct site is subject to airport lessee consent from APAM and a Building Permit from the appointed Airport Building Controller (ABC) with relevant advice from the Airport Environment Officer (AEO).

As APAM is the project proponent, the internal APAM approval process will also be undertaken.

The process for evaluating and approving Elite Park developments for construction is:

Figure 4.13 APAM precinct planning approvals process



4.8.3 Building Approvals

New development at the airport is subject to Airport Lessee Consent from APAM and a Building Approval from the appointed Airport Building Controller (ABC) as required under the Airports (Building Control) Regulations 1996 (Cth).

The Building Approval cannot be issued by the ABC without written consent from Melbourne Airport, confirming that Elite Park is consistent with:

- The Master Plan
- Airport Environment Strategy
- Planning objectives for the airport
- An approved MDP.

4.8.4 Secondary Consents

In addition to the approvals outlined in previous sections, a number of secondary consents are required for the development of Elite Park. Although the Melbourne Airport site is a Commonwealth place, Victorian legislation applies to Elite Park where the development footprint, associated activities or significant impact occur outside of the Commonwealth-lease boundary. Approvals under the Planning and Environment Act 1987 (Vic), the Water Act 1989 (Vic) and the Flora and Fauna Guarantee Act 1988 (Vic) may be triggered in these circumstances.

Activities requiring secondary consents may include:

- Creating or altering access to certain roads serving construction vehicle access
- Removal or lopping of native vegetation as a result of road alterations serving construction vehicle access, or to enable stormwater outlet construction
- Works on, or proximal to, Melbourne Water assets and the establishment of stormwater structures and connections
- Impacts to protected flora or fauna species on public land because of road alterations serving construction vehicle access, or to enable stormwater outlet construction.

05

**CONSULTATION
AND APPROVAL
PROCESS**

5.1 CONSULTATION OBJECTIVES

Melbourne Airport is committed to comprehensive consultation and engagement with the community for all its projects and operations. APAM undertakes proactive community consultation underpinned by our commitment to operate Melbourne Airport as a responsible corporate citizen. This commitment includes a desire to exceed the requirements of the Airports Act for community consultation. Statutory and non-statutory consultation strategies have been developed for Elite Park, of which this MDP is a component.

The airport's overarching objective is to foster strong community engagement; it is about connecting with the community at a broad, grass-roots level and showing commitment to social welfare, the economy, education and participation.

Engagement enables Melbourne Airport to be responsive to the needs of stakeholders and deliver better outcomes for all involved. Melbourne Airport must do this within a highly regulated and complex operating environment.

Engagement also drives improved:

- Business decision-making
- Stronger levels of understanding and shared knowledge
- Levels of trust and reputation.

Melbourne Airport is a member of the International Association of Public Participation Australasia and our approach to engagement is underpinned by the IAP2 Core values.

In undertaking this project our consultation objectives are to:

- Increase the awareness of the project
- Inform key stakeholders about the project and how they can make a submission
- Identify issues and concerns with the project and involve key stakeholders to develop appropriate management strategies
- Enhance the connection and understanding that stakeholders and community groups have with Melbourne Airport.

A variety of promotion, advertising and communication activities will accompany this MDP process. The public consultation phase will be undertaken alongside other engagement opportunities for the community, government members, agencies, and regulators, in accordance with the Airports Act.

5.2 ENGAGEMENT PRINCIPLES

The following principles guide how engagement will be conducted throughout the lifecycle of the MDP. They provide reference to ensure activities are delivered in a way that supports the overall objectives of Elite Park. The engagement principles are:

- Explain the engagement objectives and opportunities to influence decisions
- Respect the views and opinions of all community members
- Share information about project activities
- Provide feedback about the outcomes of community engagement and how they have influenced project planning and development
- Ensure engagement activities are inclusive and equitable
- Provide technical information in clear, concise and accessible language
- Conduct engagement in a timely manner
- Make every effort to properly understand the community
- Measure the outcomes of engagement to support continual improvement.

5.3 KEY GOVERNMENT STAKEHOLDERS

In accordance with Section 92(1A) of the Airports Act 1996, the following persons and authorities will be formally presented with the Preliminary Draft MDP for consideration:

Commonwealth

- Minister for Infrastructure, Transport, Regional Development and Local Government
- Minister for the Environment and Water
- Department of Infrastructure, Transport, Regional Development, Communication and the Arts (DITRDCA)
- Department of Climate Change, Energy, the Environment and Water (DCCEEW)

State

- Minister for Planning
- Minister for Roads
- Minister for Transport Infrastructure
- Department of Transport and Planning (DTP)
- Department of Energy, Environment and Climate Action (DEECA)

Local Government

- Cities of Hume and Brimbank

APAM will also notify:

- Civil Aviation Safety Authority
- Airservices Australia
- Melbourne City Council
- Local state and federal MPs
- Melbourne Airport business tenants.

5.4 COMMUNITY CONSULTATION

Engagement activities with Melbourne Airport's Community Aviation Consultation Group (CACG) commenced during the Exposure Draft phase of this MDP to gather views from community representatives familiar with the airport's Master Plan and development plans. Similarly, the Melbourne Airport Planning Coordination Forum (PCF), which is comprised of planning representatives from surrounding Local Government Areas (LGA) and Victorian State Government, was consulted for early views to be incorporated in the Preliminary Draft and thus contribute to the public exhibition of this MDP.

Pursuant to Section 92(1) of the Airports Act 1996, the Preliminary Draft MDP is subject to a formal period of public consultation, which includes a notice published in a newspaper circulated within Victoria stating that a Preliminary Draft MDP has been prepared, and that copies of the Preliminary Draft MDP are available for public view. This period shall be used to concurrently meet EPBC Act requirement for a public comment period relating to the EPBC Act MNES referral.

Broad communication engagement will continue throughout the formal public exhibition period, and then (subject to approval of the MDP) through the construction and opening phases of the project. More specific and tailored engagement techniques are being used in local communities to ensure that those with closest vested interests in the impacts and benefits of the project are effectively informed and involved in the process.

Pursuant to Section 92(1) of the Airports Act 1996, the Preliminary Draft MDP is subject to a formal 60 business day period of public comment. Newspaper notices have been published stating that a Preliminary Draft MDP has been prepared, and that online and printed copies of the Preliminary Draft MDP are available for public view and comment.

Melbourne Airport's dedicated engagement website (melbourneairport.com.au/community) is hosting online resources to inform and encourage two-way communication between

Melbourne Airport and the community. It is part of an engagement strategy employing multiple channels to make community participation easier and to increase awareness of the project. It complements traditional channels such as the community phone line and email.

Public engagement channels during the public exhibition include; project briefings, airport information sessions, community pop-ups, online engagement, community newsletters and conversations with the community.

The community can provide formal feedback during the MDP's public exhibition period. All written submissions will be accepted, but participants will be encouraged to use the website portal.

The comments/submissions received during the public comment period will be given due consideration in preparing the Draft MDP and Supplementary Report.

5.5 SUBMISSION TO MINISTER

Following the statutory public exhibition period for the Preliminary Draft MDP, Melbourne Airport will consider all written submissions and the document will be revised as appropriate. This will then form the Draft MDP, which will be provided to the (Commonwealth) Minister for Infrastructure, Transport, Regional Development and Local Government for a decision.

The Draft MDP will be accompanied by copies of all written comments/submissions received during the public exhibition period, and a written statement demonstrating that the Draft MDP has been prepared with due regard for those comments. The Draft MDP will also list the names of organisations such as the Victorian Government and agencies, councils, airlines, other airport users, nearby communities and other interested parties who were consulted during the preparation of the document, along with a summary of their comments.

If the Draft MDP is approved by the Minister, a newspaper notice will be published and information will be provided on the Melbourne Airport and Victoria's Big Build websites stating that the MDP has been approved and advising where copies can be accessed and viewed.

06

ASSESSMENT OF IMPACT

An assessment of the Elite Park project has been undertaken against the objectives of the Melbourne Airport Land Use Plan (as detailed in Master Plan 2022), Plan Melbourne and the Hume Planning Scheme. This assessment has determined that the project is generally consistent with the objectives of airport, local and state land use planning policies and contexts.

Construction phase impacts are expected to be temporary and low (some negligible) impact in nature. Any negative impacts shall be appropriately managed and mitigated through the process described in this section, such that residual effects are acceptable.

Impacts associated with the ongoing operation of Elite Park are evaluated through the process described in this section, with mitigated effects estimated to range from medium (aircraft noise effects in the precinct) to negligible. In operation, Elite Park is expected to introduce a range of beneficial attributes to Melbourne Airport and surrounding local and regional communities and economies, resulting in an overall beneficial effect given the balance of benefits and impacts it yields.

6.1 ASSESSMENT SCOPE

Section 91 of the Airports Act requires that a project MDP contain the following evaluations:

Table 6.4 MDP correlation against Airports Act Section 91 requirements

Section 91 Contents of a Major Development Plan		Relevant Section of Elite Park MDP
(1) A major development plan, or a draft of such a plan, must set out:		
(a)	the airport-lessee company's objectives for the development; and	Elite Park project objectives are described in Section 3.3.
(b)	the airport-lessee company's assessment of the extent to which the future needs of civil aviation users of the airport, and other users of the airport, will be met by the development; and	Justification of the Elite Park MDP, including in terms of the airport's civil aviation context, is provided in Sections 3.3.1 and 3.3.2.
(c)	a detailed outline of the development; and	Section 3 details the Elite Park project scope.
(ca)	whether or not the development is consistent with the airport lease for the airport; and	Refer to Section 4.3 for a description of the consistency with the Airport Lease.
(d)	if a final master plan for the airport is in force, whether or not the development is consistent with the final master plan; and	Refer to Section 4.5 for analysis of Elite Park's consistency with the Melbourne Airport Master Plan 2022.
(e)	if the development could affect noise exposure levels at the airport - the effect that the development would be likely to have on those levels; and	Assessment of likely noise generation by Elite Park, in the context of 24-hour airport operations, is provided in Section 11.5.

Section 91 Contents of a Major Development Plan		Relevant Section of Elite Park MDP
(ea)	if the development could affect flight paths at the airport - the effect that the development would be likely to have on those flight paths; and	Assessment of Elite Park developments against airspace safeguarding protections is given in Section 8.5.
(f)	the airport-lessee company's plans, developed following consultations with the airlines that use the airport, local government bodies in the vicinity of the airport and--if the airport is a joint user airport--the Department of Defence, for managing aircraft noise intrusion in areas forecast to be subject to exposure above the significant ANEF levels; and	Assessment of Elite Park developments for noise, including in the context of Melbourne Airport's ANEF, is given in Section 8.2.
(g)	an outline of the approvals that the airport-lessee company, or any other person, has sought, is seeking or proposes to seek under Division 5 or Part 12 in respect of elements of the development; and	The proposed process for processing building approvals and planning permits for Elite Park is described in Section 4.8.2. Protection of airspace evaluations and measures related to Elite Park are presented in Section 8.6.
(ga)	the likely effect of the proposed developments that are set out in the major development plan, or the draft of the major development plan, on:	
(i)	traffic flows at the airport and surrounding the airport; and	Section 9 summarises the outcomes of the project's Traffic Impact Assessment.
(ii)	employment levels at the airport; and	Section 10 discusses expected economic benefits associated with the project, importantly including new employment growth.
(iii)	the local and regional economy and community, including an analysis of how the proposed developments fit within the local planning schemes for commercial and retail development in the adjacent area; and	Section 10 discusses expected economic impacts and benefits associated with the project, importantly including new employment growth. Section 4 examines Elite Park in consideration of applicable planning schemes. Section 13 explores the likely effects of Elite Park in its local community.

Section 91 Contents of a Major Development Plan		Relevant Section of Elite Park MDP
(h)	the airport-lessee company's assessment of the environmental impacts that might reasonably be expected to be associated with the development; and	Section 11 describes the existing environmental attributes of the Elite Park site, and describes expected changes and improvements that the project proposes.
(j)	the airport-lessee company's plans for dealing with the environmental impacts mentioned in paragraph (h) (including plans for ameliorating or preventing environmental impacts); and	Melbourne Airport's Environmental Management Plan, and how it applies to Elite Park, are detailed in Section 11.
(k)	if the plan relates to a sensitive development—the exceptional circumstances that the airport-lessee company claims will justify the development of the sensitive development at the airport; and	Not applicable as no sensitive uses are proposed.
(l)	such other matters (if any) as are specified in the regulations.	Not applicable.
(4) In specifying a particular objective or proposal covered by paragraph 1(a), (c) or (ga), a major development plan, or a draft of a major development plan, must address:		
(a)	the extent (if any) of consistency with planning schemes in force under a law of the State in which the airport is located; and	Section 4 describes applicable legislative and policy context (including State and Local Government policy) and examines Elite Park's conformance.
(b)	if the major development plan is not consistent with those planning schemes—the justification for the inconsistencies.	Section 4 describes applicable legislative and policy context (including State and Local Government policy) and examines Elite Park's conformance.

Airports Regulations		
Reg 5.04 Contents of major development plan		
For subsection 91 (3) of the Act, a major development plan must address the obligations of the airport-lessee company as sublessor under any sublease of the airport site concerned, and the rights of the sublessee under any such sublease, including:		
(a)	any obligation that has passed to the relevant airport-lessee company under subsection 22 (2) of the Act or subsection 26 (2) of the Transitional Act; or	Section 3.1 describes the land use and planning provisions applicable to Elite Park, in accordance with Master Plan 2022. Section 4.5 explains that there are no known conflicts or inconsistencies between interests existing at the time of the Head Lease (including easements, licenses, leases and sub leases) and any part of the proposal in this MDP.
(b)	any interest to which the relevant airport lease is subject under subsection 22 (3) of the Act, or subsection 26 (3) of the Transitional Act.	

6.2 ASSESSMENT METHODOLOGY

6.2.1 Evaluation Subjects

This MDP presents the findings of impact assessments covering a range of effects associated with Elite Park, including:

Construction

- Utilities
- Earthworks, contamination and waste
- Air quality, noise and vibration
- Surface water and drainage
- Ecology
- Protected airspace
- Landscape and visual amenity
- Related projects
- Traffic and transport

Aviation operations and safety

- Aircraft noise
- Windshear
- Wildlife strikes
- Lighting
- Protected airspace
- Public safety areas

Operations

- Traffic generation and distribution
- Landscape and visual amenity
- Community
- Economic activity
- Employment

Environmental

- Ecology
- Air quality, noise and vibration
- Land and water
- Heritage

The assessments have sought opportunities to prevent or minimise significant adverse effects and, where possible, enhance benefits.

A consistent process has been applied to the assessment of impacts associated with each subject:

1. Describe existing baseline conditions
2. Assess anticipated impacts of Elite Park, incorporating standard mitigation (e.g. statutory compliance and measures incorporated by design)
3. Assess the significance of each impact - by considering severity and likelihood in accordance with the framework described in Section 6.3.2
4. If/where an extreme or high adverse impact is identified, consider additional mitigation measures to reduce severity and/or likelihood
5. Revised assessment of impact significance, incorporating any mitigation measures to determine the residual impact.

6.3 IMPACT ASSESSMENT CRITERIA

6.3.1 Introduction

To assist in the assessment of potential impacts identified in this MDP, and to ensure consistency between topics, significance criteria have been defined which follow the generic framework shown in Tables 6.5, 6.6, 6.7 and 6.8.

The use of significance criteria to assess impacts is a standard technique applied in impact assessments of this nature and is an approach that has been consistently used by APAM in Melbourne Airport MDPs. This approach enables different topics to be assessed in a consistent manner against the same criteria which are set in an ascending scale of potential significant impact and ability to mitigate those impacts.

Impacts can also be beneficial, where a project delivers a positive outcome to the community and environment. This is particularly true for economic and social criteria.

Assessment of environmental impacts is guided by the EPBC Act instrument Significant impact guidelines 1.2 - Actions on, or impacting upon, Commonwealth land and Actions by Commonwealth Agencies, which consider the 'whole of environment' impact and direct that severity be determined according to four factors - intensity, scale, duration and timing/frequency.

As defined in the Significant impact guidelines 1.2, a 'significant impact' is:

an impact which is important, notable, or of consequence, having regard to its context or intensity. Whether or not an action is likely to have a significant impact depends upon the sensitivity, value, and quality of the environment which is impacted, and upon the intensity, duration, magnitude and geographic extent of the impacts. These factors need to be considered when determining if an action has a significant impact on the environment.

6.3.2 Impact Assessment Criteria

Reasonably expected effects and outcomes of impacts are key considerations in evaluating the project. Considerations of impact severity, duration and likelihood are combined to evaluate the project's overall impact assessment profile.

Severity

Adverse and beneficial outcomes are considered in terms of their potential severity.

Table 6.5 Severity Assessment Criteria

Magnitude	Description
Major adverse	Only adverse effects are assigned this level of importance as they represent key factors in the decision-making process. These effects are generally, but not exclusively associated with sites and features of national importance. A change in a national or state scale site or feature may also enter this category, as well as a very high intensity impact. They tend to be permanent, or irreversible, or otherwise long term. Typically, mitigation measures are unlikely to remove such effects.
High	These effects are likely to be important considerations at a state scale but, if adverse, are potential concerns to the project, depending upon the relative importance attached to the issue during the decision-making process. They tend to be permanent, or otherwise long to medium term of high intensity. Effects can be beneficial as well as adverse.
Moderate	These effects, if adverse, while important at a regional scale, are not likely to be key decision-making issues. Impacts tend to range from long term to short term of medium intensity. Nevertheless, the cumulative effects of such issues may lead to an increase in the overall effects upon a particular area or particular resource. Effects can be beneficial as well as adverse.
Minor	Effects are at a local scale and are unlikely to require amelioration unless identified by a specific stakeholder group. Impacts tend to be short term, or temporary in scale of low intensity. Effects can be beneficial as well as adverse.
Negligible	No effects or those which are beneath levels of perception, within normal bounds of variation within the margin of forecasting error. Impacts tend to be short term or temporary.
Beneficial	Effects are likely to benefit the attribute of the environment under consideration.

Duration

A temporal scale defines durations of impact to inform the overall impact assessment.

Table 6.6 Temporal Description

Term	Duration
Temporary	Up to 1 year
Short-term	From 1 to 5 years
Medium-term	From 5 to 20 years
Long-term	From 20 to 50 years
Permanent	Period in excess of 50 years

Likelihood

Consideration of likelihood that impacts will occur is factored into the overall impact assessment.

Table 6.7 Likelihood Assessment Criteria

Frequency	Duration
Almost certain	Very likely to occur as a result of the proposed project construction and/ or operations; could occur multiple times during relevant impacting period (probability >90%)
Likely	Event likely to occur once or more during period of the project (probability 70-90%)
Possible	Event could occur during period of the project (probability 30-70%)
Unlikely	Event is unlikely to occur, but is possible during period of the project (probability 10-30%)
Rare	May occur only in exceptional circumstances – can be assumed event will not occur during period of the project (probability <10%)

Impact Assessment Matrix

Once the severity, duration and likelihood of an impact was determined, its significance level was defined by considering the intersection in accordance with Table 6.8.

Table 6.8 Elite Park Impact Assessment Matrix

		SEVERITY					
		Major Duration	High Adverse	Moderate Adverse	Minor Adverse	Negligible	Beneficial
LIKELIHOOD	Almost certain	Extreme	Extreme	High	Medium	Low	Beneficial
	Likely	Extreme	High	Medium	Medium	Negligible	Beneficial
	Possible	High	Medium	Medium	Low	Negligible	Beneficial
	Unlikely	High	Medium	Low	Low	Negligible	Beneficial
	Rare	High	Medium	Low	Negligible	Negligible	Negligible

07

CONSTRUCTION**7.1 CONSTRUCTION MANAGEMENT PLANS****7.1.1 Introduction**

Elite Park construction will occur progressively as the site's development requires through the three major stages and 10 sub-precincts. Core infrastructure (including roads, carparks and utilities networks) shall be provided in readiness for each stage.

Detailed design prior to commencement of each stage and precinct shall determine precise scope, detail and methodology for individual sites. This shall be based on the specific requirements of prospective tenants.

Temporary construction works are expected to include:

- Site access for trucks, plant and equipment
- Construction site amenities and laydown areas
- Suitable parking areas for the proposed site staff
- Environmental controls
- Temporary fencing and signage.

7.1.2 Construction Environmental Management Plans (CEMP)

Environmental management of Elite Park construction and operational impacts will be undertaken in accordance with the Melbourne Airport Environment Strategy and Environmental Management System. Specifically, construction impacts will be managed through development and implementation of CEMPs.

CEMPs will document and shall address all environmental aspects of the construction process. The detail necessary to produce this documentation shall be drawn from the detailed designs and works plans for each stage, precinct and development (per Table 3.3). CEMPs shall be reviewed and updated as/when appropriate to accommodate significant changes, per the Melbourne Airport-approved process and prior to commencing each onsite works package.

7.1.3 Construction Traffic Management Plan (CTMP)

A CTMP will be prepared in advance of each stage of construction works to provide greater clarity on the form and scale of the construction traffic, including the truck fleet that will bring plant and materials to and from the Elite Park works site. The CTMP will confirm access arrangements, timeframes, truck route haulage plans, and traffic analysis of the access points to the main roads adjacent to the airport site and any other relevant intersections. The CTMP will also include management/mitigation measures to minimise the impact of any truck movements to and from the construction site that occur during peak periods.

Construction access will be provided to the Elite Park Precinct from either Mercer Drive or Airport Drive depending on the development type and location within the precinct.

On this basis it is expected that the scale of the construction activity will be able to be managed and mitigated to the extent that traffic can be largely accommodated within the capacity of the existing road networks with negligible adverse impact.

7.2 UTILITIES**7.2.1 Supply Principles**

The required services for the proposed Elite Park Precinct development servicing are likely to come from the existing airport utility network, will be consistent with the Master Plan and be designed and delivered in accordance with the relevant Australian and Melbourne Airport Standards.

All services will be provisioned underground and be aligned to the objectives of the Elite Park MDP.

Engagement with external service authorities will facilitate the precinct development for any required utilities which are not controlled and maintained by Melbourne Airport.

7.2.2 Electricity

The Elite Park precinct will be fed from Melbourne Airport's existing 22KV High Voltage (HV) network. A reticulated HV ring will be designed and constructed for the precinct, with HV kiosks being placed at optimal locations within the precinct to allow for the required Points of Connection (POC) to service all the proposed developments.

7.2.3 Potable Water

The Elite Park precinct will be fed from Melbourne Airport's existing potable water network. A reticulated potable water ring will be designed and installed for the precinct with property connections installed to service all the proposed developments. Water supply for firefighting purposes will also be connected to the precinct's potable water ring. An assessment of the required pressures and flows will be completed for each development and if required, booster pumps will be installed to ensure sufficient coverage.

7.2.4 Recycled Water

There is currently no recycled water network proposed for the Elite Park Precinct, however there will be provision for a future recycled water main alignment which could accommodate a future connection, should one become available.

7.2.5 Stormwater

The Elite Park precinct is located within the Steele Creek North catchment which is one of the major drainage catchments across the Melbourne Airport site. A Stormwater Strategy across this catchment has been developed which considers the proposed long-term development across the entire catchment and identifies the trunk drainage requirements. A detailed assessment of the required Finished Floor Level (FFL) for each building will be completed to ensure the freeboard height and drainage system within the lot boundary is adequate to maintain flood immunity during storm events (up to and including the 1% Annual Exceedance Probability (AEP) event).

As outlined in the Steele Creek North Catchment Stormwater Strategy, the required detention is achieved through a combination of retarding basins and all stormwater quality improvements for the catchment is completed at the retarding basin at the corner of Sharps Road and Airport Drive, immediately prior to discharging off the airport estate. As a result, there is no requirement to provide any additional stormwater quality treatment or detention as part of the Elite Park precinct development.

Designated stormwater points of discharge and the associated conveyance network will be designed and constructed within the precinct to service all the proposed developments.

7.2.6 Sewer

The Elite Park precinct will have a connection to Melbourne Airport's existing wider sewer network. A local sewer network will be designed and constructed within the precinct with property connections installed to service all the proposed developments.

7.2.7 Gas

The Elite Park precinct will likely require a connection to the available gas main that runs adjacent to the precinct. There will be provision for a gas main alignment within the precinct's road reserve which will accommodate connection to any required developments. The sizing and alignment of proposed gas main and connection to the existing gas main will be coordinated with the service authority.

7.2.8 Communications

Pit and Pipe infrastructure to National Broadband Network (NBN) standards will be designed and installed, to suit the proposed developments within the Elite Park precinct. The new pit and pipe infrastructure will terminate immediately adjacent to the existing telecommunication service providers assets closest to the Elite Park precinct, to allow future connection by the service authority and/or service providers.

7.3 EARTHWORKS, CONTAMINATION AND WASTE

The master grading for the Elite Park precinct will target a cut/fill balance across the site, as far as practicable. In the first instance, Melbourne Airport will seek to re-use any suitable excess fill generated from the precinct (pending contamination testing results) within the airport site. Any reuse will be on accordance with the Airports (Environment Protection) Regulations 1997, the Melbourne Airport Environmental Management Plan, the PFAS National Environmental Management Plan (2020) and the Melbourne Airport PFAS Management Framework.

Any fill required to be imported to the precinct will be reviewed and approved by Melbourne Airport as per the approved process, prior to arriving at site.

Appropriate measures for removal and disposal of construction waste shall be incorporated into contractor requirements for each site's development.

7.3.1 Per- and poly- fluorinated alkyl substances (PFAS)

Aqueous Film Forming Foams (AFFF) containing PFAS have historically been used at airports because they are very effective at putting out liquid fuel fires. At Melbourne Airport, AFFF has been used extensively in training for and responding to firefighting emergencies involving liquid fuels and is stored in aircraft hangars and at bulk fuel installations for deluge systems (which are the closest potential source areas to Elite Park).

Airport-wide human health risk assessments have been commissioned by APAM as part of broader estate management and have identified that on-estate and off-estate risks are generally considered low and acceptable.

Soil sampling conducted on site in 2022 found no significant presence of asbestos or other similar industrial contaminants that are known to pose significant human health risk. There is, however, a potential for discovery of contaminants during construction, in which case appropriate provisions of the CEMP shall be activated.

7.4 AIR QUALITY, NOISE AND VIBRATION

The Elite Park CEMP shall contain measures for identifying, quantifying and mitigating potential impacts for communities adjoining the precinct. These shall include operating hour limitations for noise- and vibration-producing activities where these effects may be felt at nearby sensitive receptor sites such as residential dwellings (closest ~400 metres from Elite Park) and accommodation providers (such as Ciloms Airport Lodge ~ 200 metres from Elite Park).

Dust suppression techniques shall be employed during earthworks.

Assessments for potential air quality, noise and vibration impacts shall be conducted prior to each stage of construction so that appropriate avoidance, management and mitigation measures can be incorporated in the relevant CEMP.

7.5 SURFACE WATER AND DRAINAGE

The Elite Park site is supported by existing water utility infrastructure that facilitates drainage and discharge into the Steele Creek North catchment. The proposed works will increase the impervious surfaces within this catchments and without careful management, may cause increased flows to enter the waterway.

Potential construction phase impacts on surface water quality will be managed and mitigated by appropriate control measures in the CEMP, which will be defined through the detailed design phase for each precinct. The CEMP will incorporate a whole of project approach from source management to mitigation of surface water impacts discharging off-site.

7.6 ECOLOGY

Natural Temperate Grassland of the Victorian Volcanic Plain (NTGVVP), which is a Threatened Ecological Community (TEC) defined by the EPBC Act, is present on the Elite Park site. Governance applicable to removal of NTGVVP shall be conducted as discussed in Section 11.

The project's location in a heavily disturbed landscape and physical separation from other identified native vegetation or ecological communities minimises the chance of any further impact.

Some landscaping, including trees, will need to be removed to facilitate construction.

This is not considered to have an impact on threatened species or ecological communities as the landscaped vegetation is not classed as protected under Commonwealth or State legislation.

7.7 PROTECTED AIRSPACE

It is likely that equipment including cranes will be used during construction, however these are not expected to protrude into the Obstacle Limitation Surface (OLS). If it is identified during detailed design that temporary infringement of the OLS is required, Melbourne Airport will work with Airservices Australia and seek the appropriate internal and external approvals from the Civil Aviation and Safety Authority (CASA) under the Airports (Protection of Airspace) Regulations 1996.

Additional assessments may be required as part of any construction activity (for example if cranes are used) if it is identified during detailed design that temporary infringement of the PANS-OPS (Procedures for Air Navigation Services – Aircraft Operations) airspace surface is required. Melbourne Airport will work with Airservices Australia and seek the appropriate internal and external approvals from CASA, under the Airports (Protection of Airspace) Regulations 1996.

7.8 LANDSCAPE AND VISUAL AMENITY

The location and characteristics of the Elite Park site and surrounds offer a combination of opportunities and challenges for managing visual amenity during construction phases.

The current site is effectively 'greenfield' disturbed but undeveloped flat grassland with some tree coverage breaking up lines of sight from the adjacent major roads (Airport Drive and Mercer Drive) and the Tullamarine Freeway. The site is adjoined by a range of commercial and light industrial precincts in Tullamarine and in the Melbourne Airport Business Park (MABP).

The phased construction of Elite Park, along with its street-aspect location, make it an attractive proposition for large-format promotional signage and/or advertising. The phased delivery of Elite Park developments will require careful separation of active construction sites from developed precincts. Development of each stage/precinct shall carefully consider the temporary visual impacts of construction work within the overall context of Elite Park's presentation, and incorporate commensurate plans that minimise undesirable, and optimise desirable, visual aspects of the project.

7.9 RELATED PROJECTS

7.9.1 VIVA pipeline

A supplementary aviation fuel supply line for Melbourne Airport is currently in advanced planning. Though the final alignment of this pipeline does not directly conflict with Elite Park (in the region it is placed generally within the road reserves of Airport Drive and Mercer Drive), the process of its construction will overlap with elements of the planned road access to Elite Park.

Careful coordination and planning of works for the VIVA pipeline and Elite Park shall feature in each project's construction schedule if/as necessary to avoid, manage and/or mitigate conflict.

7.9.2 Melbourne Airport Rail (MAR)

At the time of this MDP's production development of the MAR project is paused indefinitely, however there is potential for the MAR project to recommence during the development phases of Elite Park.

Any recommencement of MAR during Elite Park development shall require careful coordination and planning of works to avoid, manage and/or mitigate conflict. These efforts shall particularly address the capacity and planned upgrades (prior to Stage 3) of Airport Drive with respect to the central road reserve alignment of the MAR track.

7.9.3 Melbourne Airport's Third Runway (M3R)

The M3R project construction phase is expected to occur concurrently with much of the Elite Park precinct development. Though it is not likely that the projects will interact due to their physical separation (including their different construction access routes), Melbourne Airport shall monitor each project's construction schedule if/as necessary to avoid, manage and/or mitigate conflict.



AVIATION OPERATIONS AND SAFETY

8.1 INTRODUCTION

Developing land near an airfield has the potential to impact aviation operations and safety. Consideration has been given to the proposed growth of Elite Park to ensure it has no unreasonable impact on Melbourne Airport’s aviation operations.

8.2 GOVERNANCE AND REGULATION

It is imperative that developments at Melbourne Airport are compatible with the site’s primary aviation uses. Safeguarding of aviation operations is achieved through a range of mechanisms, importantly including the instruments of CASA, Airservices Australia (‘Airservices’) and the National Airports Safeguarding Framework (NASF) guidelines.

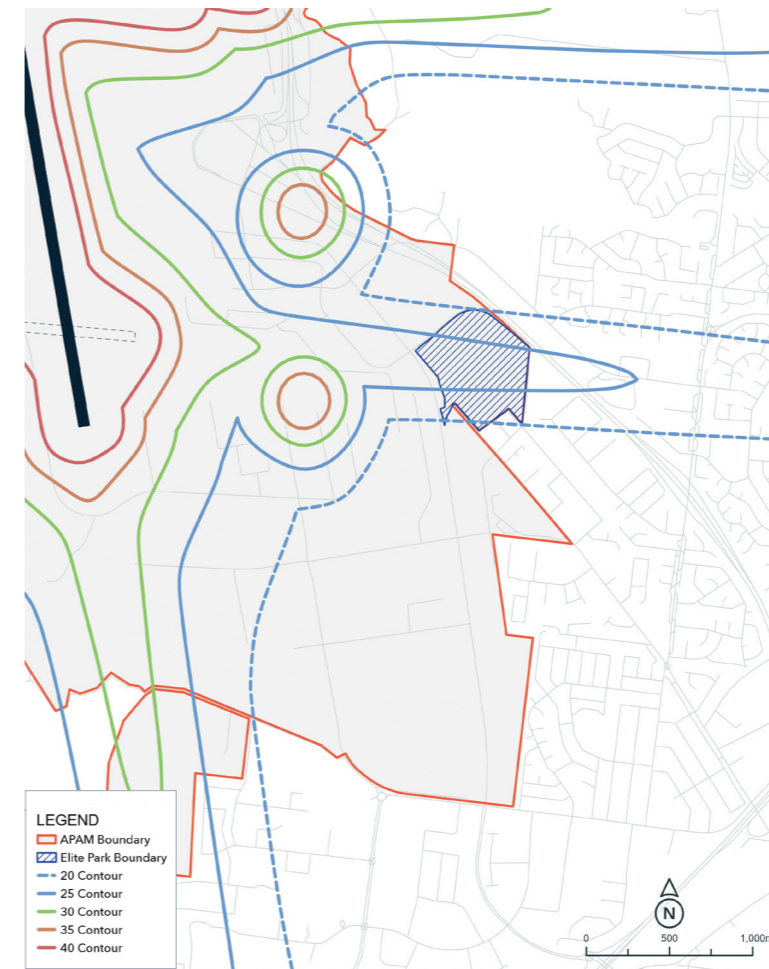
Elite Park has been assessed against applicable NASF guidelines (as outlined in Section 4.3). The findings of the assessment are summarised in Table 8.9 following and discussed in the below sections.

Table 8.9 Applicable guidelines for aviation operations and safety

Consideration	Guidelines	Relevance to the Project
Aircraft Noise	NASF – Guideline A: Measures for Managing Impacts of Aircraft Noise	Sections of Elite Park are located within ANEF 20 & 25 contours and thus subject to land use restrictions for noise-sensitive development types. Refer to Section 8.3.
Windshear	NASF – Guideline B: Managing the Risk of Building Generated Windshear and Turbulence at Airports	Applicable but acceptable. Windshear protection areas of (future) Runway 09R/27L do not interact with Elite Park.
Wildlife Strikes	NASF – Guideline C: Managing the Risk of Wildlife Strikes in the Vicinity of Airports	Applicable but acceptable. Developments in Elite Park will be undertaken in adherence to Melbourne Airport’s Planning and Urban Design Strategy and Planting Guidelines. Refer to Section 8.4.
Wind Turbine Farms	NASF – Guideline D: Managing the Risk of Wind Turbine Farms as Physical Obstacles to Air Navigation	Not applicable.

Consideration	Guidelines	Relevance to the Project
Lighting and Reflection	NASF – Guideline E: Managing the Risk of Distractions to Pilots from Lighting in the Vicinity of Airports	Elite Park is located within assessment Zones B & C. Maximum intensity of light sources measured at 30 above the horizontal cannot exceed 50 and 150 candelas, respectively. Refer to Section 8.5
Protected Airspace	NASF – Guideline F: Managing the Risk of Intrusions into the Protected Airspace of Airports	Applicable but acceptable. Subject to mitigations, Precinct 8 will penetrate current and future Obstacle Limitation Surface (OLS) protections. Refer to Section 8.6.
Communication, Navigation and Surveillance Facilities	NASF – Guideline G: Communication, Navigation and Surveillance (CNS)	Not applicable. Elite Park is located outside Airservices’ referral zone.
Protection of Strategic Helicopter Landing Sites	NASF – Guideline H: Protecting Strategically Important Helicopter Landing Sites	Not applicable.
Public Safety Areas	NASF – Guideline I: Managing the Risk in Public Safety Areas at the Ends of Runways	Applicable. A section of Precinct 1 is located within the outer Public Safety Area (PSA) extent for (future) Runway 09R/27L. Commensurate land use restrictions shall be applied. Refer to Section 8.6.3.
Plume Rise	CASC – CASA Advisory Circular AC 139-5(1): Plume Rise Assessments	Potential impacts related to construction activities. Refer to Section 8.7.

Figure 8.14 Melbourne Airport Australian Noise Exposure Forecast (ANEF) interaction with Elite Park



8.3 AIRCRAFT NOISE

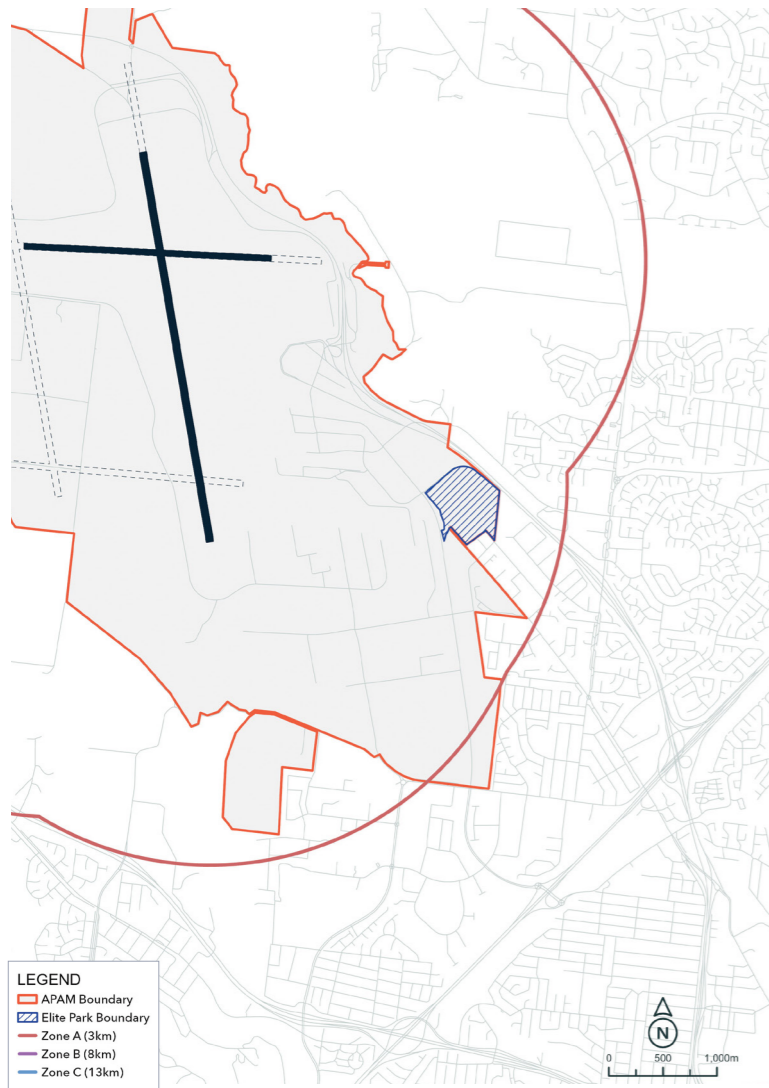
Potential land uses for the Elite Park precinct have been evaluated with respect to applicable safeguarding frameworks relating to aircraft noise. The site is located within ANEF 20 and 25 contours, as presented in the 2022 Melbourne Airport Master Plan and is thus subject to controls for certain sensitive land uses per AS2021:2015.

Certain development types, including commercial and public buildings and the hotel in Precinct 5, will require acoustic treatment to meet the ‘conditionally acceptable’ requirements of AS2021:2015 Table 2. Appropriate measures for compliance with AS2021:2015 shall be determined in the detailed design processes for each development.

The hotel is considered conditionally acceptable given that it is expected to function as an airport stop/lay-over facility. Acoustic treatment of the proposed hotel to AS2021:2015 standard will be required in detail design to ensure it is fit for the use of the intended occupants and provides a good level of amenity for its context.

The potential impact of aircraft noise on the uses within Elite Park is assessed as medium, which APAM considers acceptable given the airport context within which Elite Park is positioned. Appropriate mitigations in line with AS2021:2015 and Melbourne Airport’s Planning and Urban Design Strategy are expected to ameliorate noise impacts.

Figure 8.15 Melbourne Airport Wildlife Hazard Management Plan (WHMP) zone interaction with Elite Park



8.4 WILDLIFE STRIKES

Wildlife, particularly birds, can cause significant damage to aircraft when collisions occur. Any bird is a potential hazard to aircraft, with the hazard increasing with the size of individual birds and the presence/size of flocks of birds. The number of wildlife strikes and the attendant risk of fatalities, injuries, aircraft damage and operational delays can be reduced by managing land use around airports to minimize the potential for wildlife to conflict with aircraft operations.

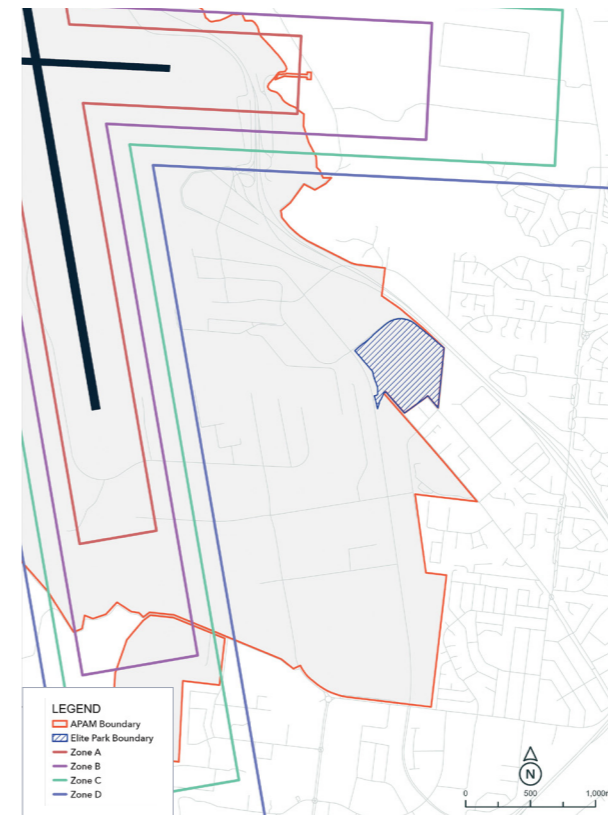
Elite Park is located within the assessment zone A (three-kilometre radius) applicable for wildlife hazard management per NASF Guideline C. Sensitive application of mitigation strategies, as detailed in Melbourne Airport's Planning and

Urban Design Strategy and Planting Guidelines, shall be included in the detailed design of each stage and in the project CEMP to control wildlife hazards to the airport's aviation operation.

During construction, the CEMP will outline procedures to keep the site clean and limit stockpiles (insect life in stockpiles can attract other wildlife). Further, plant species selection in accordance with the Melbourne Airport Planting Guidelines will avoid bird-attracting species and mitigate the risk of bird strike during operation.

The potential impact of Elite Park on wildlife strike risk at Melbourne Airport is assessed as negligible.

Figure 8.16 Melbourne Airport light control zones interaction with Elite Park (current two-runway configuration)



8.5 LIGHTING AND REFLECTION

Lighting near airports can distract or disorient pilots and it is therefore important that lighting systems are carefully controlled to avoid this risk. According to Regulation 94 of the Civil Aviation Regulations 1988 (CAR 1988), CASA can require lights which may cause confusion, distraction or glare to pilots in the air, to be extinguished or modified.

National Airports Safeguarding Framework, Guideline E – Managing the Risk of Distractions to Pilots from Lighting in the Vicinity of Airports, provides guidance for the installation of lighting within six kilometres of an aerodrome (from the centre point of each runway). Within this large area there exists a primary area which is divided into four light control Zones: A, B, C and D. These zones reflect the degree of interference ground lights can cause as a pilot approaches to land.

Figure 8.17 Melbourne Airport light control zones interaction with Elite Park (ultimate four-runway configuration)



Elite Park is located across assessment Zones B and C for the future Runway 09R/27L (see Figure 8.17), within the six-kilometre radius of lighting sensitivity. These zones require restriction of development designs for maximum intensity of light sources measured at three degrees above the horizontal not in exceedance of 50 and 150 candelas respectively.

The lighting design of Elite Park will comply with Australian Standards and requirements of APAM and CASA. External lighting will be designed to minimise upward waste light. This will include consideration of factors such as light intensity, light colours and light spill above the horizontal.

Elite Park shall be monitored for reported confusion, distraction or glare to airborne pilots. Similarly, any lighting required during construction will be configured to comply with requirements and minimise the risk of light distraction to pilots.

The potential impacts from lighting during operation of Elite Park have been assessed as negligible.

8.6 PROTECTED AIRSPACE

8.6.1 Obstacle Limitation Surfaces (OLS)

OLS are regions of airspace that are defined to manage the height of objects around an aerodrome to protect the airspace for the safe arrival and departure of aircraft. Objects that project through the OLS become obstacles. Building heights and the height of other fixed objects are limited so that they do not intrude into the airspace defined by the OLS.

Through its Master Plans Melbourne Airport safeguards for an 'ultimate' four-runway layout that includes parallel north-south and east-west oriented runways. The maximum height of proposed developments in Elite Park is 161.9 metres AHD which is a penetration of the current OLS (Inner Horizontal Surface elevation 157.5 metres AHD in this location) by 4.4 metres as shown in Figure 8.20.

Based on an initial assessment of an obstacle, APAM does not consider mitigation necessary and would request for a long-term controlled activity approval.

Elite Park is overlaid by OLS protections for the future east-west parallel runway (Runway 09R/27L) which is planned for development no earlier than 2042 (the planning horizon of the current Master Plan).

Figure 8.20 demonstrates that the critical surface above Elite Park is the Runway 09R Take-Off Climb Surface (TOCS) which is penetrated by the development in Precinct 8 (elevation 161.9 metres AHD) by 13 metres. APAM does not consider mitigation of the Precinct 8 penetration necessary until the future Runway 09R/27L is developed and will therefore request a long-term controlled activity approval for the precinct.

APAM further notes that upcoming changes to the OLS provisions of ICAO Annex 14 are likely to be incorporated in both Australian legislation and CASA standards before the proposed Runway 09R/27L is commissioned. APAM will re-assess Precinct 8 against the updated regulation as/when it is incorporated into Australian governance and commits to mitigating or removing the penetration as appropriate for safe operation of Runway 09R/27L.

APAM notes that the OLS for Essendon Fields Airport reaches Elite Park and thus commits to engaging with Essendon Fields Airport where developments interact with their safeguarding.

Impact to the OLS applicable for current runways (including proposed M3R Runway 16R/34L) during operation is negligible.

Figure 8.18 Current runway configuration Obstacle Limitation Surface interaction with Elite Park

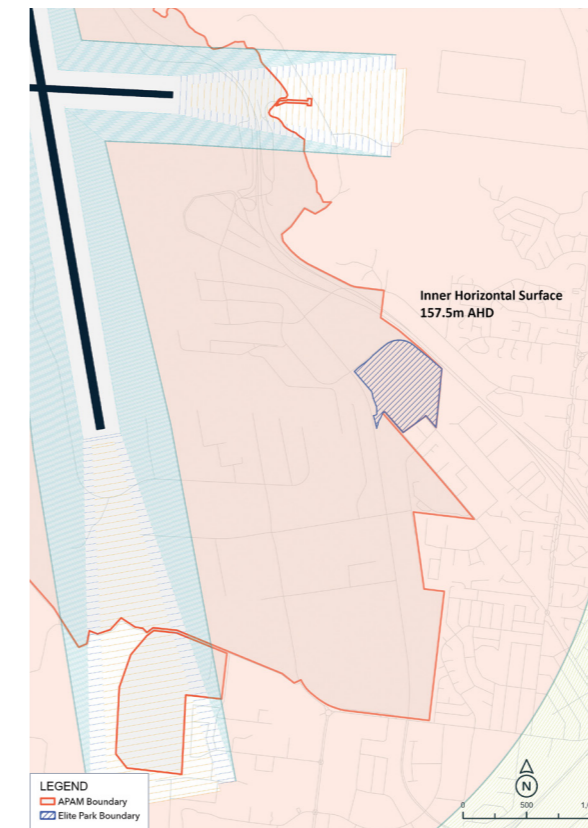


Figure 8.19 Ultimate (four-runway) configuration Obstacle Limitation Surface interaction with Elite Park

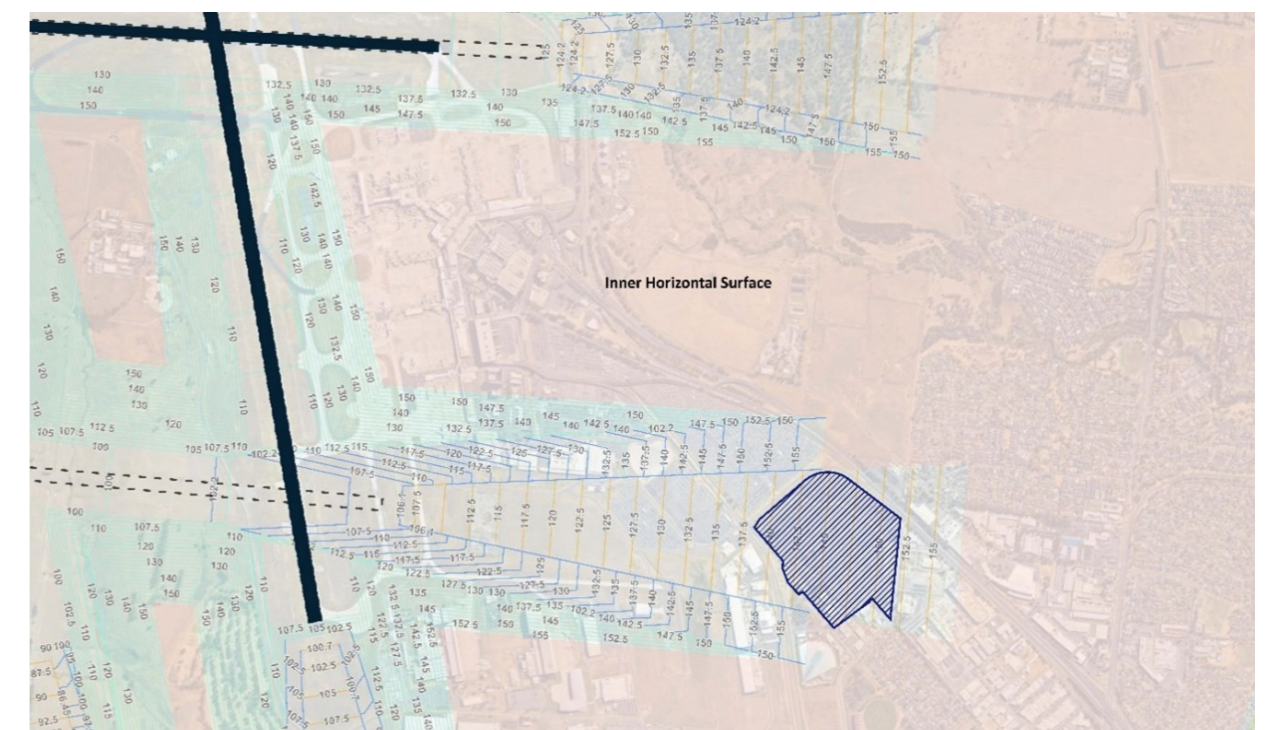


Figure 8.20 Ultimate (four-runway) critical obstacle surface interaction with Elite Park

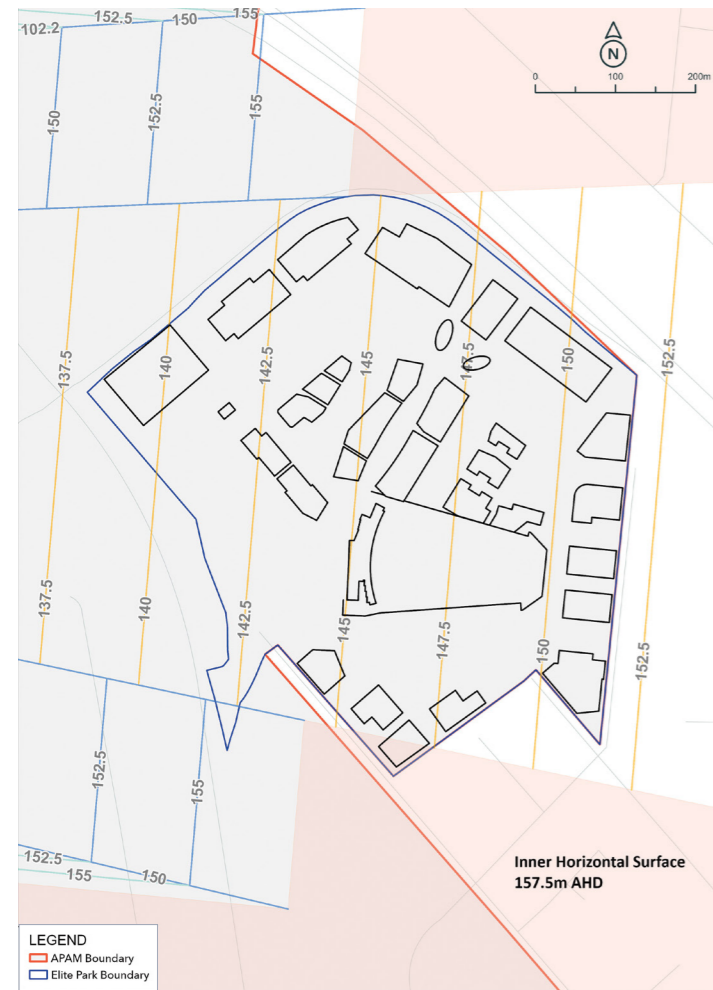
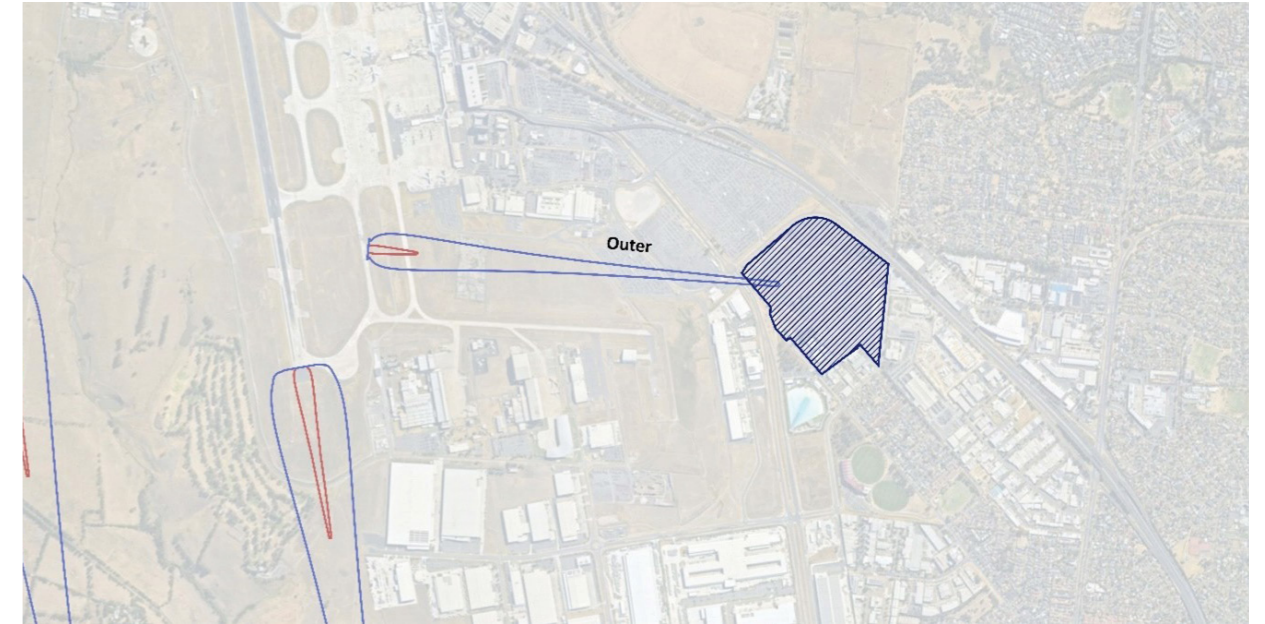


Figure 8.21 Melbourne Airport Public Safety Area interaction with Elite Park

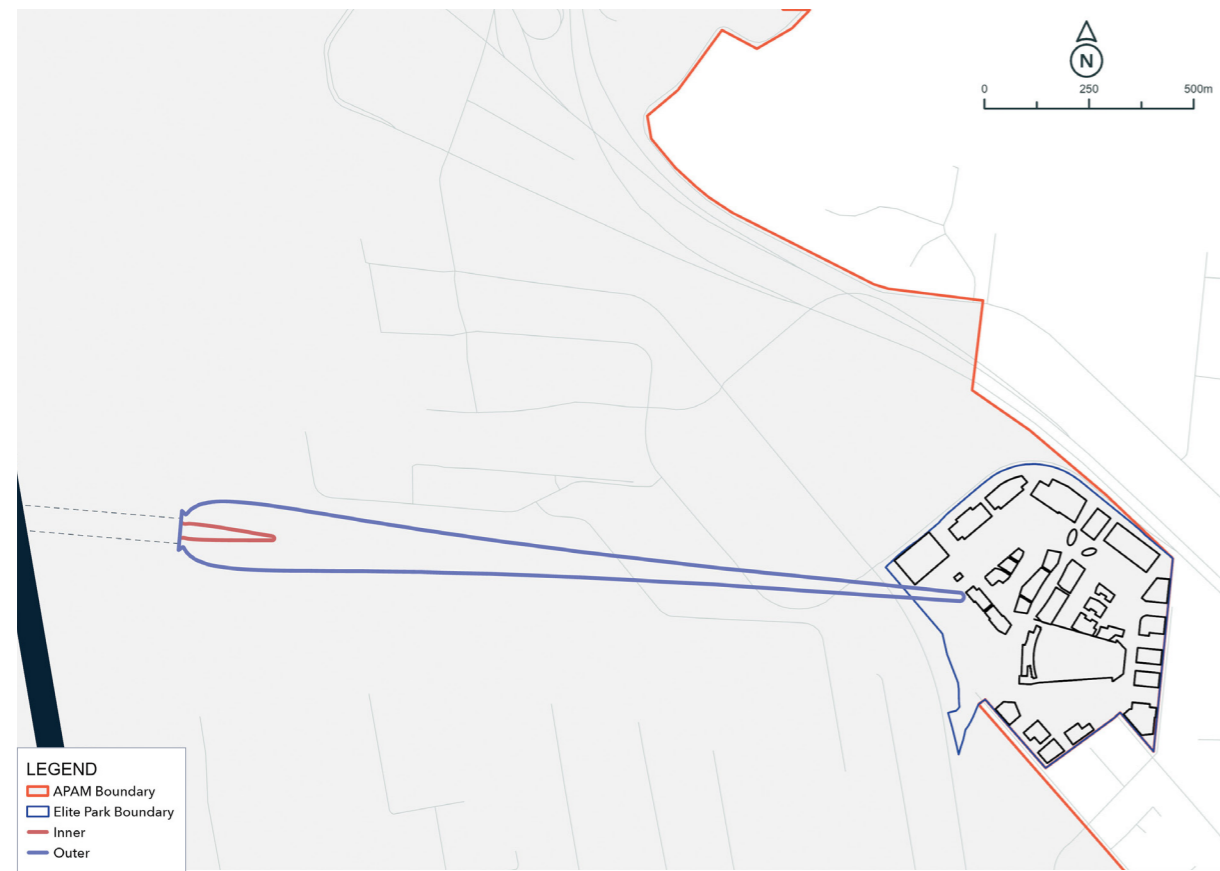


8.6.2 Public Safety Areas (PSA)

Public Safety Areas are designated zones near end of airport runways within which there may be restrictions on development to control the number of people on the ground to reduce risk from an aircraft incident.

Precinct 1 of Elite Park is partially overlaid by the 'outer' (1:100,000) PSA for future east-west parallel runway (Runway 09R/267L) as shown in Figures 8.21 and 8.22. This precinct is thus designed to comply with PSA restrictions upon compatible land use. The impact of Elite Park on PSA protection has thus been assessed as negligible.

Figure 8.22 Runway 09R/27L Public Safety Area interaction with Precinct 1



8.6.4 Plume Rise and Dust Emissions

Aircraft operations may be affected by an exhaust plume of significant vertical velocity and CASA has identified that there is a need to assess the potential hazard to aviation posed by vertical exhaust plumes more than 4.3 metres per second (m/s) velocity. This would generally relate to plumes generated from industrial facilities with vents or stacks. Elite Park will not produce any exhaust plumes, and therefore this impact criteria is not applicable.

During construction, there are likely to be minor dust emissions due to ground disturbance and movement of vehicles at the site. Dust generation during construction will be managed through measures in the CEMP and are not likely to pose a risk to aircraft. No dust is expected to be generated during operation.

The potential impacts from plume rise and dust emissions have been assessed as negligible during construction and operation.



9.1 INTRODUCTION

A Transport Impact Assessment (TIA) has been prepared by Arup that assesses the potential traffic impacts associated with Elite Park. The report's key assumption, methodology, findings and recommendations are summarised as follows.

9.2 EXISTING TRAFFIC AND TRANSPORT CONDITIONS

9.2.1 Road network

The existing road network surrounding the site is shown in Figure 9.23

Figure 9.23 Road network surrounding the Elite Park site



Tullamarine Freeway

Tullamarine Freeway is the main access to the airport from the CBD and most of metropolitan Melbourne. The section of freeway within the study area provides a westbound exit via Mercer Drive for access to facilities within the airport precinct area. The freeway is managed by VicRoads.

Mercer Drive

Mercer Drive is a two-lane road which provides a one-way connection between the northbound direction of Tullamarine Freeway and Airport Drive. The speed limit is 70 km/h at the exit ramp nose and reduces to 60 km/h at approximately 100 metres east of the Value Carpark entrance. The road is managed by APAM. Mercer Drive provides access to the Value Carpark (right-in only) and a Ring & Ride facility (left-in-left-out) via short, dedicated lanes.

Airport Drive

Airport Drive is a road consisting of a divided carriageway with two lanes in each direction, with a speed limit of 80 km/h south of Mercer Drive. It is primarily used by vehicles accessing Melbourne Airport from the southwest (i.e. not coming from Tullamarine Freeway).

The road is managed by APAM. It originates from the Western Ring Road to the south of the site and travels north through the eastern section of the Business Park before terminating at Terminal 4.

Melrose Drive

Melrose Drive is a road that runs north-west to south-east with one lane in each direction. It provides access to residences as well as industrial sites via Watson Drive and Springbank Street and is managed by Hume City Council. It is classified as a major road south of Springbank Street and a local access street north.

At its southeastern terminus, Melrose Drive connects to the secondary state arterial roads of Mickleham Road and Broadmeadows Road. The road currently terminates in the north-west with a court bowl.

Watson Drive

Watson is a collector road which primarily serves as a connection between Link Road and Melrose Drive. It provides access to several industrial sites south of its intersection with Link Road.

Springbank Street

Springbank Street is a continuation of Watson Drive north of Melrose Drive. Classified as a local traffic street, it provides access to several industrial sites, terminating in a dead end just south of Tullamarine Freeway.

Link Road

Link Road serves as an east-west connection between South Centre Road, Airport Drive and Watson Road, and provides access to several industrial sites along its length. The road has a posted speed limit of 60 km/h. East of South Centre Road, Link Road is classified as a collector road and runs as a divided carriageway with two lanes in each direction. West of South Centre Road, it is classified as a local traffic street and narrows to one lane in each direction.

Table 9.10 Summary of key roads within the area

Road	Road authority	Road classification	Speed limit (km/h)	B-Double / HML / OSOM declared road
Tullamarine Freeway	VicRoads	Freeway	100	Yes
Mercer Drive (between Tullamarine Freeway and Airport Drive)	APAM	Collector	60-70	Yes
Melrose Drive (between Broadmeadows Road and 452 Melrose Drive)	Hume City Council	Major road	60	No
Airport Drive (between APAC Drive and Sharps Road)	APAM	Primary arterial	60-80	Yes
Link Road (between Airport Drive and Watson Drive)	APAM	Collector	60	No
Watson Drive	APAM	Collector	60	Yes
Springbank Street	Hume City Council	Access street	50	No

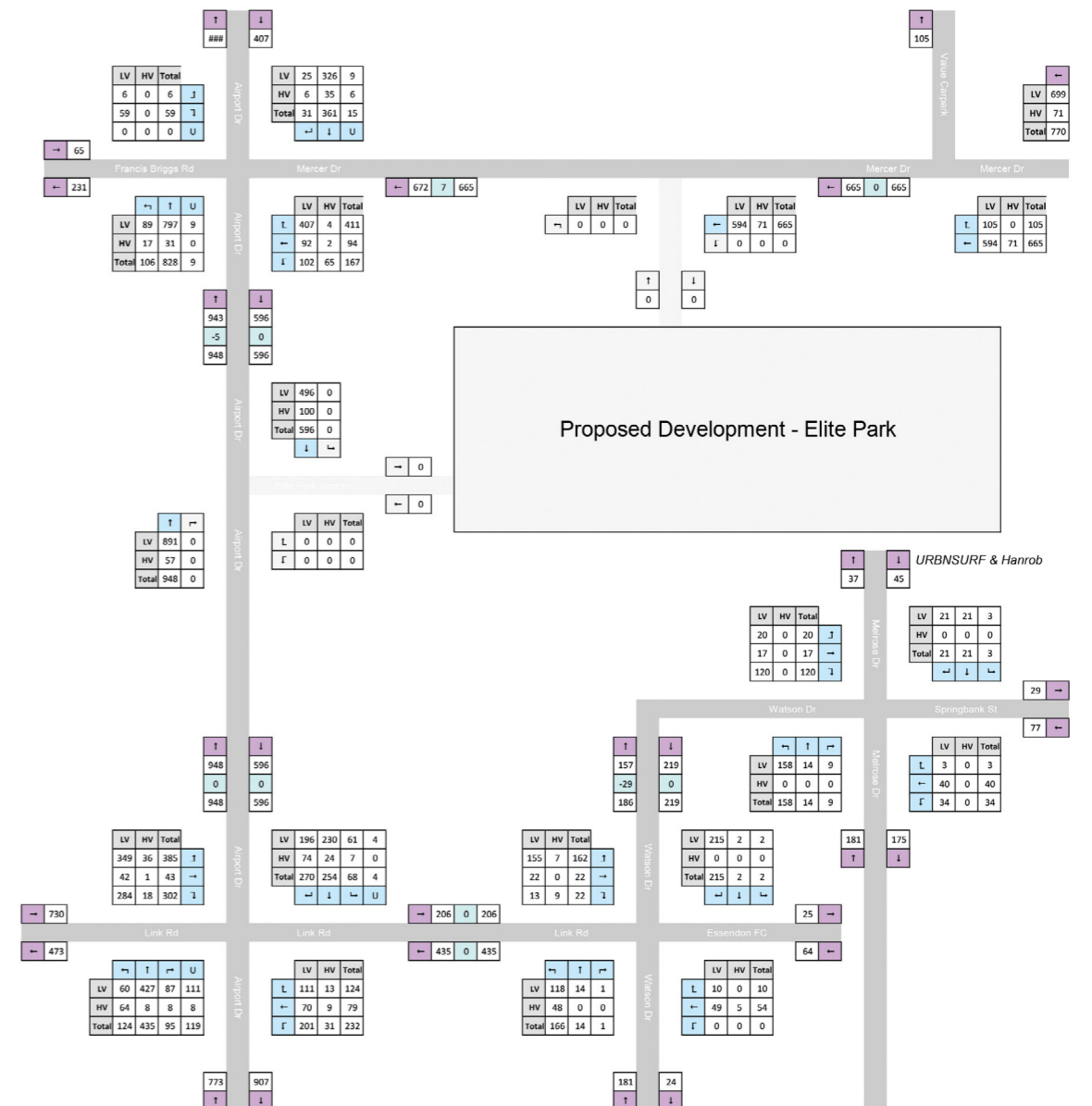
9.2.2 Existing traffic demands

Figure 9.24 summarises the existing nominated weekday PM peak hour traffic demands across the road network immediately surrounding the proposed development.

Figure 9.24 Existing PM peak hour traffic demands (4:30pm – 5:30pm)

Turning movement volume diagram - existing

Base year survey volumes with seasonality applied to reflect 30th busiest day
 Year: 2023
 Time period: PM peak hour



An analysis of existing intersection performance using SIDRA Intersection 9.1 at the Airport Drive / Mercer Drive / Francis Briggs Road intersection was undertaken, to provide a base model that will be carried forward for testing future performance. Only this intersection was selected given that it is:

- The closest intersection located to the Elite Park site that will also provide a direct connection to future potential site access points along Mercer Drive and Airport Drive
- The only existing intersection that is expected to carry more than 10 per cent additional traffic in the future, with the majority of traffic likely accessing development via the Tullamarine Freeway and Mercer Drive.

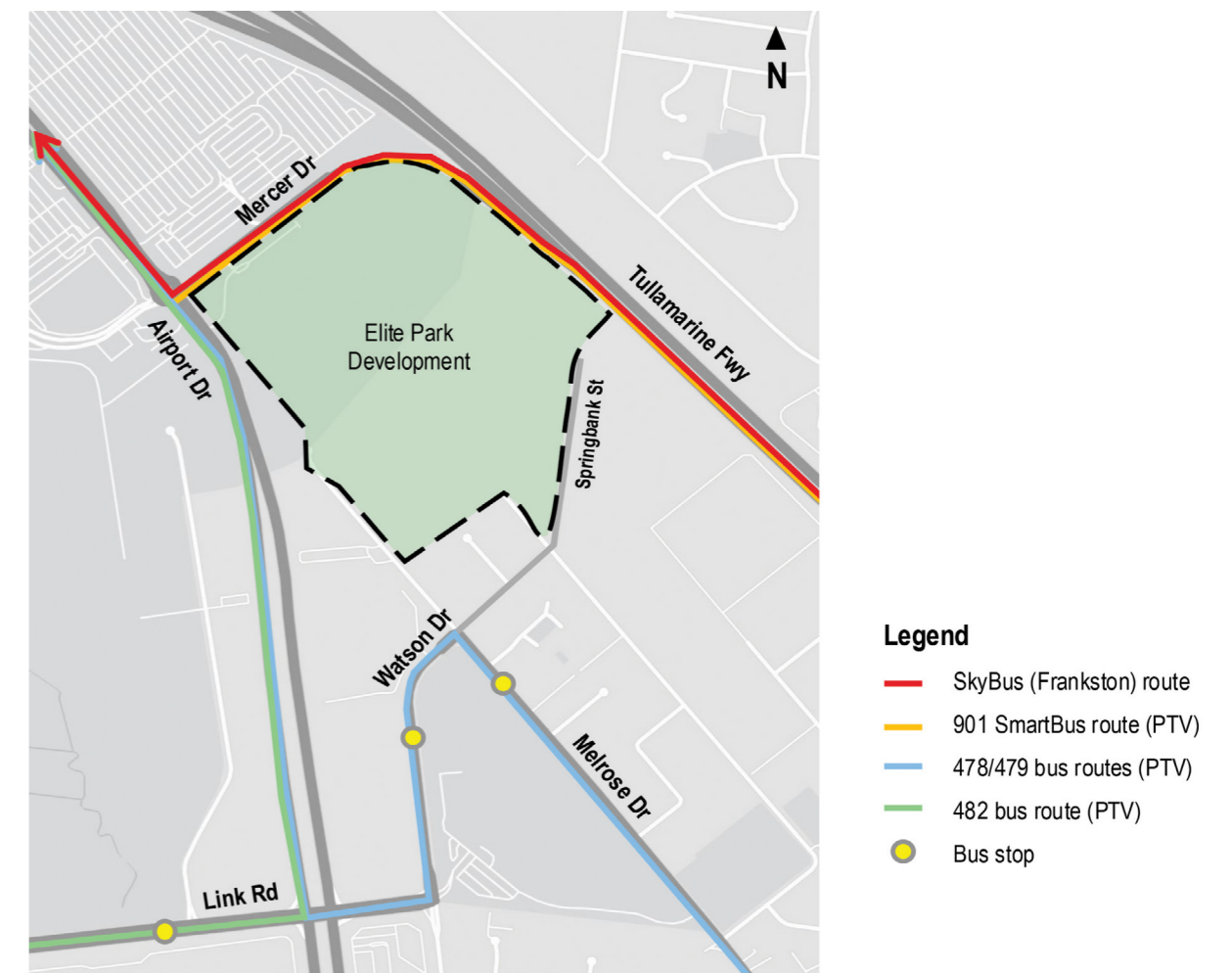
The current and future performance of other intersections including Airport Drive / Link Road and Airport Drive / APAC Drive have not been considered in this TIA given that the development is expected to generate less than 10 per cent additional traffic. However, APAM's 2027 road network plan (as documented in the 2022 Master Plan) includes plans to widen Airport Drive, which may assist in increasing intersection capacity for some of these signalised intersections outside the study area.

The SIDRA analysis demonstrates that the Airport Drive / Mercer Drive / Francis Briggs Road roundabout is currently operating well below the Victorian Department of Transport and Planning's (DTP) target Degree of Saturation (DOS) of 0.85 and Level of Service (LOS) of D for sign-controlled intersections as provided in their Transport Modelling Guidelines, Volume 5: Intersection Modelling (June 2020). Minimal vehicular delays and queues are also observed. The roundabout therefore has spare capacity to absorb airport related growth (i.e. background traffic) and future traffic demand associated with the proposed Elite Park development.

9.2.3 Public transport network

Several bus services currently operate in the study area, as shown in Figure 9.25.

Figure 9.25 Public transport network surrounding the site



Current bus services operating along Airport Drive and Mercer Drive include:

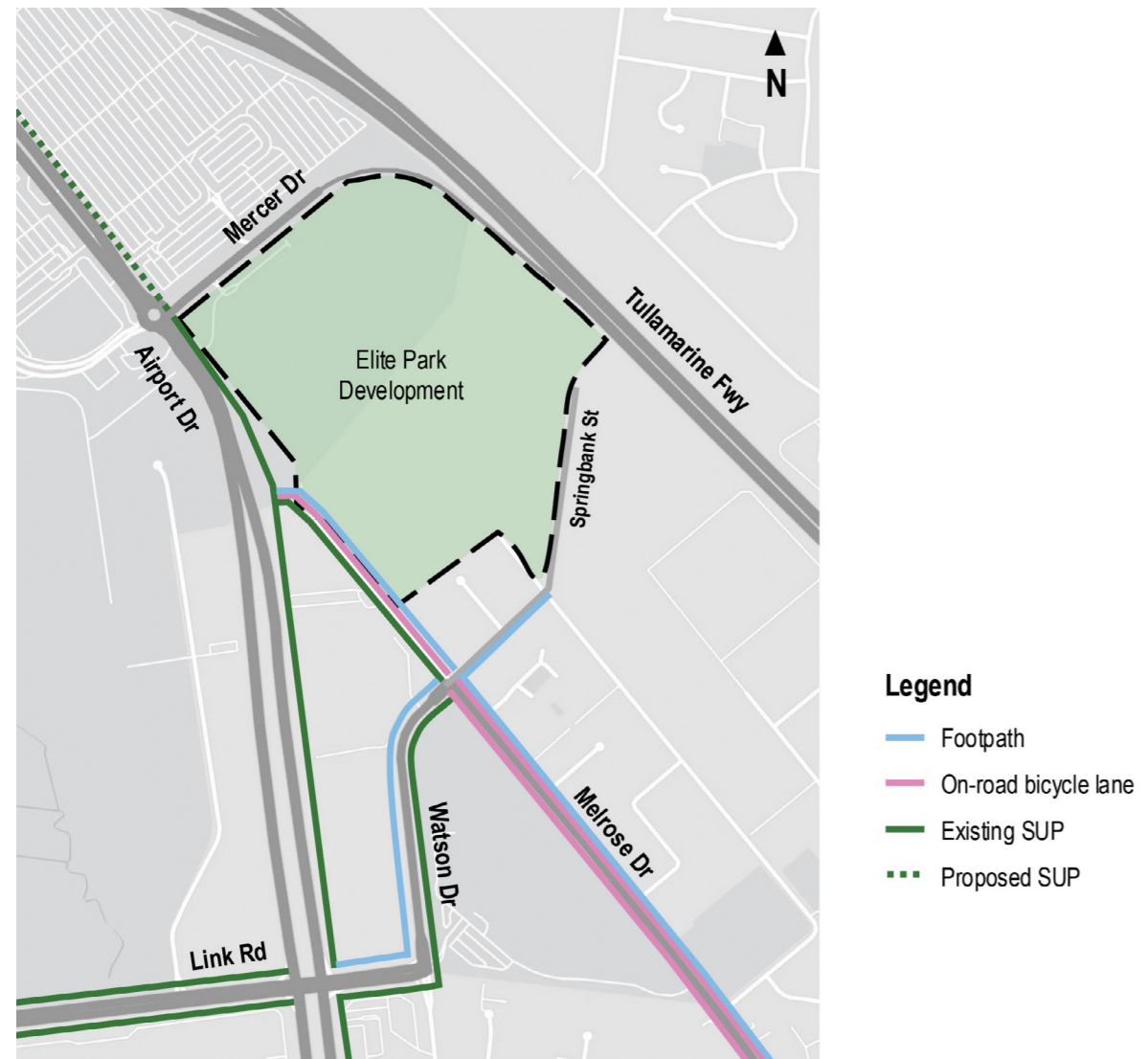
- SkyBus (Peninsula Link from Frankston) – travels along Mercer Drive after exiting Tullamarine Freeway to drop off passengers at Terminal 4, with services every 15 minutes.
- Public Transport Victoria (PTV) SmartBus Route 901 (Frankston to Melbourne Airport direction only) – travels along Mercer Drive after exiting Tullamarine Freeway, with services every 15-30 minutes.

- PTV bus routes 478 and 479 (Airport West Shopping Centre to Sunbury Station via Melbourne Airport) – travel along Melrose Drive and Watson Drive, with bus stops immediately south of the Melrose Drive / Watson Drive / Springbank Street intersection, and a combined frequency of services every 30 minutes.
- PTV bus route 482 (Airport West Shopping Centre to Melbourne Airport via South Centre Road) – travels along Link Road and Airport Drive, with hourly services during the AM and PM peaks.

9.2.4 Active transport network

Active transport links currently available within the area are shown in Figure 9.26.

Figure 9.26 Active transport network surrounding the site



Cycling network

Melrose Drive and Airport Drive are part of the Principal Bicycle Network (PBN) and Strategic Cycling Corridor (SCC) networks. A Shared Use Path (SUP) is present on the eastern side of Airport Drive, south of Mercer Drive. There are unprotected on-road bicycle lanes on both sides of Melrose Drive south of the intersection with Watson Drive / Springbank Street, north of which, the western side becomes a SUP and joins the SUP along Airport Drive. The eastern side remains an on-road bicycle lane, and on-street parking is permitted within it.

SUPs have also been built on along the east side of Watson Drive and along the south side of Link Road, as well as the north side of Link Road west of Airport Drive.

Pedestrian network

Sealed pedestrian paths are provided along the west side of Watson Drive, the southern side of Springbank Street (south of Derby Street) and the eastern side of Melrose Drive between Broadmeadows Road and the connection with the Airport Drive SUP.

Pedestrian crossings are present at the signalised intersections of Airport Drive / Link Road and Melrose Drive / Watson Drive.

There are currently no pedestrian or cyclist facilities along Mercer Drive.

9.3 TRAFFIC GENERATION AND DISTRIBUTION

The proposed Elite Park development during the PM peak hour is expected to generate up to:

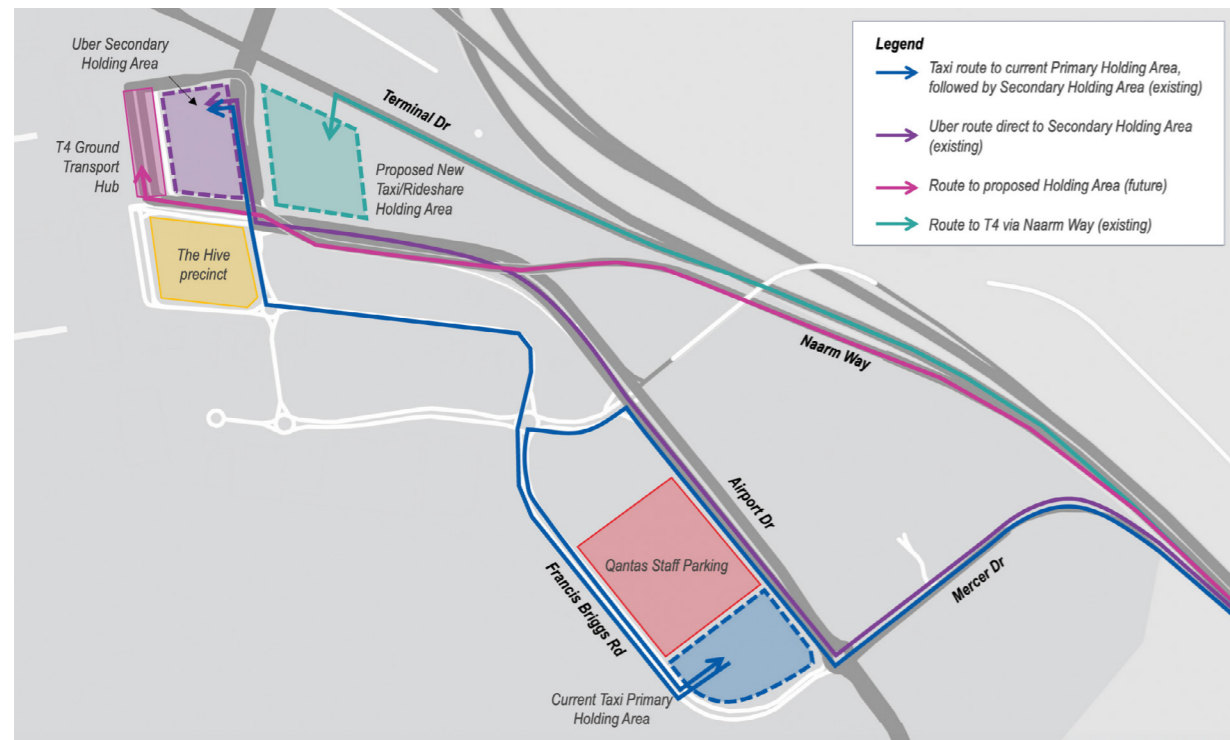
- 430 inbound and 439 outbound vehicle trips in 2027 (Stage 1)
- 755 inbound and 769 outbound vehicle trips in 2028 (Stage 2)
- 1,088 inbound and 1,327 outbound vehicle trips in 2034 (Stage 3)

Note that while Elite Park will have peaks of activity on weekends (that are potentially busier than weekday peaks), the busiest weekend peak hour combined with weekend background traffic (which is noticeably lower than the weekday PM peak) is still not expected to be busier compared to the weekday PM peak.

The Tullamarine Freeway/Mercer Drive is estimated to carry around 65-75 per cent of all traffic entering and leaving Elite Park. The remaining 25-35 per cent will use Airport Drive.

In the future, instead of turning onto Mercer Drive, all taxi and rideshare vehicles picking up passengers will continue along the Tullamarine Freeway to access a new holding area with an entry from Terminal Drive (see Figure 9.27). This TIA has assumed that the new holding area will be built and operating prior to Stage 3. Therefore, before any background traffic growth factors are applied, the number of vehicles exiting the Tullamarine Freeway onto Mercer Drive and turning right onto Airport Drive have been reduced by 80 per cent (i.e. from 411 vehicles per hour in 2023 down to 82 vehicles per hour in 2034 (-329 vehicles per hour).

Figure 9.27 Access routes to current and proposed Taxi and Rideshare Primary Holding Area



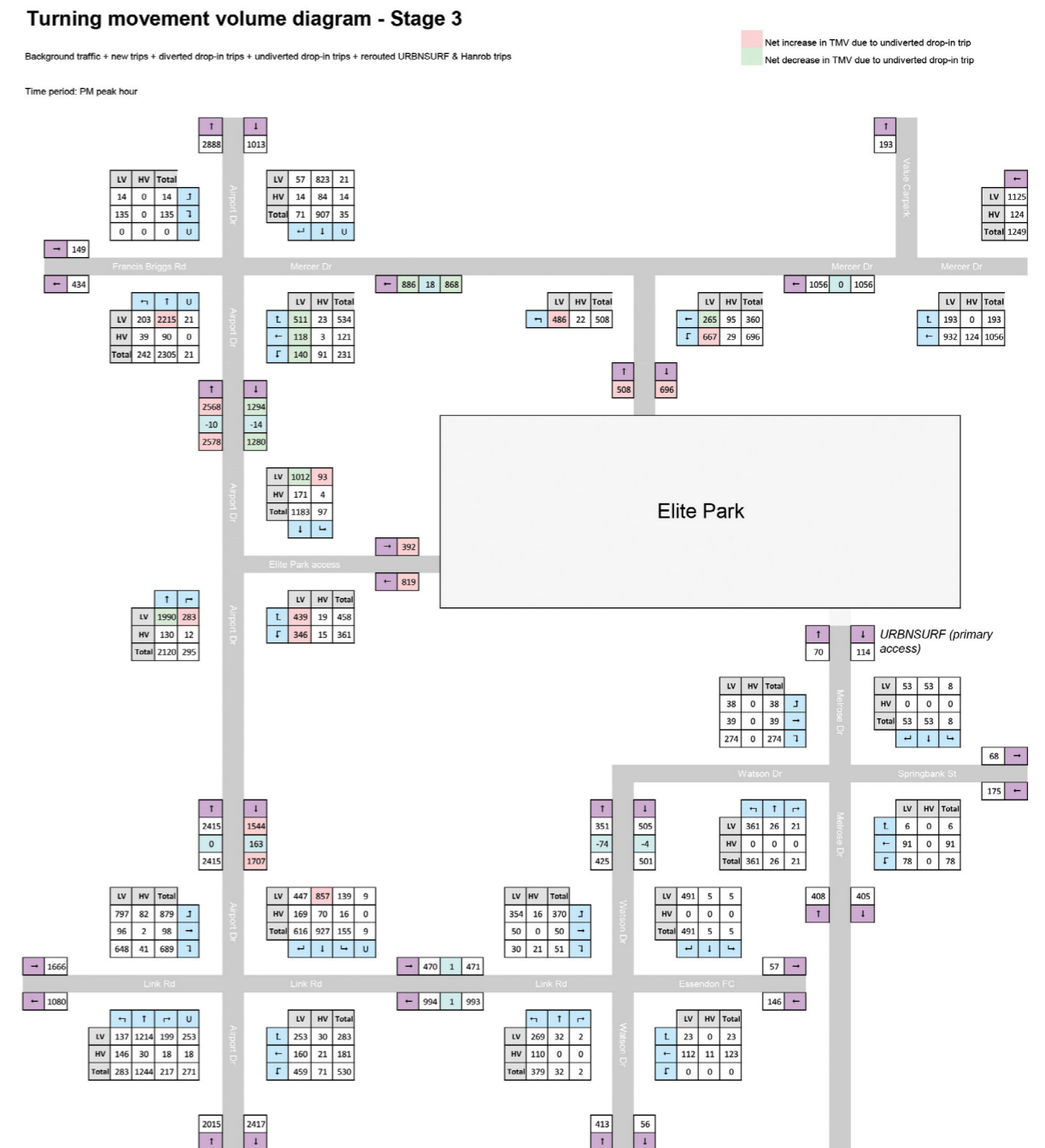
Growth factors have been calculated using the Melbourne Airport Master Plan 2022 future busy-day vehicle demand projections capturing passenger, employee and commercial growth. Table 9.11 summarises the growth rates that were adopted to scale all existing traffic demands (2023) to reflect the future baseline traffic volumes used to assess the Elite Park Stage 1 (2027), 2 (2028) and 3 (2024) development scenarios.

Table 9.11 Adopted background traffic growth rates

Stage	Increase from 2023 traffic demands (all roads except Mercer Drv)	Increase from 2023 traffic demands (Mercer Drv only)
Stage 1 (2027)	21%	12%
Stage 2 (2028)	29%	15%
Stage 3 (2024)	128%	40%

Figure 9.28 summarises the Stage 3 PM peak hour net traffic generated by Elite Park and future background traffic volumes.

Figure 9.28 Elite Park Stage 3 (2034) PM peak hour traffic demands (4:30pm – 5:30pm)



9.4 OPERATIONAL OUTCOMES

9.4.1 Future intersection performance

Based on the preceding traffic demands, analysis of future PM peak hour intersection performance has been carried out for key locations and stages, using SIDRA Intersection. To differentiate the Elite Park potential traffic and transport impacts from background traffic (i.e. airport related) impacts, both 'no development' (i.e. background traffic only) and 'with Elite Park' scenarios were assessed for each build-out stage/future year.

The SIDRA analysis suggests that:

- The current Airport Drive / Mercer Drive / Francis Briggs Road roundabout configuration is generally expected to be able to cater for both background traffic and additional traffic generated by Elite Park up to 2028 (Stage 2), with delays being moderate and queue lengths being contained. However, based on input parameters, the roundabout will be fully saturated (the DOS is just over 1.00) by the completion of Stage 2.
- It is also likely that the performance of the upstream signalised intersection (i.e. Airport Drive / APAC Drive) will be impacted due to additional vehicles turning right from Airport Drive onto APAC Drive to access the Tullamarine Freeway or travelling straight ahead towards Sunbury, as well as background traffic growth. Note that the future performance of other intersections including Airport Drive / APAC Drive and Airport Drive / Link Road have not been assessed given that the development is expected to generate less than 10 per cent additional traffic and there are future plans to widen Airport Drive to three lanes in each direction - which may assist in increasing intersection capacity for some of these signalised intersections.

- The upgraded Airport Drive / Mercer Drive / Francis Briggs Road intersection (depending on the final layout and optimisation of traffic signal operations) will be able to cater for both 2034 background traffic and traffic generated by Elite Park Stage 3. The indicative intersection layout tested is expected to operate at the target DOS of 0.95, with average delays of 50 seconds. Queue lengths on all approaches are not expected to spill back onto any of the adjacent intersections.
- Both the proposed single left-in/left-out Elite Park access arrangements on Mercer Drive and Airport Drive are anticipated to perform well below the acceptable DOS of 0.85 for sign-controlled intersections and have minimal vehicle delays and queues across all applicable stages.
- In 2034, the Elite Park Airport Drive upgraded access to a single left-in/double left-out/double right-in/double right-out signalised intersection and internal double lane roundabout are both expected to perform satisfactorily.

9.4.2 Mercer Drive exit ramp from Tullamarine Freeway capacity

Table 9.12 summarises the estimated traffic demands exiting the Tullamarine Freeway via Mercer Drive during the PM peak hour for each future year considered. As at 2023, there are approximately 770 vehicles (equivalent to 841 Passenger Car Units (PCU)) exiting the Tullamarine Freeway via the Mercer Drive off ramp.

Note that this TIA has assumed that by 2027 (Stage 1), instead of turning onto Mercer Drive to pick up passengers it is assumed that all taxi and rideshare vehicles will continue along the Tullamarine Freeway to access a new holding area with an entry from Terminal Drive.

Table 9.12 Estimated total number of vehicles exiting the Tullamarine Freeway via Mercer Drive (by stage)

Future Year	Estimated total vehicles per hour exiting Tullamarine Freeway via Mercer Drive in the PM peak			
	No development (in vehicles)	No development (in PCU)	With Elite Park (in vehicles)	With Elite Park (in PCU)
2027 (Elite Park Stage 1)	539	615	789 (+250)	878 (+263)
2028 (Elite Park Stage 2)	553	631	979 (+426)	1,078 (+447)
2034 (Elite Park Stage 3)	674	769	1,249 (+575)	1,373 (+604)

Based on the high-level guidance on capacity of freeway exit ramps provided in Section 3.7.3 of the VicRoads Managed Motorway Design Guide Volume 2: Design Practice Part 3: Motorway Planning and Design (Ed1, Rev1, October 2019), the current Tullamarine Freeway Mercer Drive single lane exit ramp capacity is in the order of up to 1,500 vehicles per hour (for a non-loop alignment).

It is important to note that it should not be assumed this maximum ramp volume can actually be achieved, and a more complex assessment including testing a number of design iterations to determine the best combination for mainline / exit ramp layouts may be required.

Therefore, the existing single lane exit ramp will likely be adequate to accommodate the post-development demands associated with Elite Park Stage 3 by 2034.

9.4.3 Other considerations

Active transport

The delivery of the proposed Airport Drive / Elite Park Access and Elite Park Airport Drive / Internal Loop Road intersections by Stage 1 will change the current SUP alignment east of Airport Drive and on the SUP/footpath alignment around the court bowl on Melrose Drive that connects to the Airport Drive SUP and the on-road bicycle lane along Melrose Drive.

Amenity

The Elite Park development will likely result in improvements to the immediate surrounding local residential amenity by limiting the use of Melrose Drive to primarily residential trips by Stage 3, when a proportion of development traffic is directed to access the site via Airport Drive.

9.4.4 Mitigation Measures

Vehicle access and carparking

The SIDRA Intersection assessment carried out to test the future performance of key external intersections resulted in the following actions and considerations for APAM to incorporate in the staged delivery of the project:

Airport Drive / Mercer Drive / Francis Briggs Road

- The current Airport Drive / Mercer Drive / Francis Briggs Road roundabout is upgraded to a signalised intersection as part of Stage 3 (i.e. between 2029 and 2034), to accommodate the additional traffic generated by Elite Park.
- The future signalised intersection will require a minimum of two dedicated right turn lanes on Mercer Drive and four stand-up lanes on both the north and south approaches to meet DTP's target performance criteria for signalised intersections.

- Roundabout upgrade works should be combined with the planned widening of Airport Drive from two to three lanes in each direction to avoid abortive works.
- The performance of the current roundabout should also be monitored to determine if upgrades are required even earlier due to background growth and/or incremental development within Stage 2, noting that performance (which can vary significantly based on driver behaviour).

Airport Drive / Elite Park Access

- The ultimate signalised intersection layout can potentially be reduced to include a single left-out and single right-out turning lane instead of double left and right turns – which are as per the configurations provided within previous planning studies undertaken for the Melbourne Airport precinct.
- It is recommended that the ultimate design of this intersection be revisited if/when more detailed traffic demand forecasts become available. For instance, as part of the planning and design process for future widening of Airport Drive itself. It is also recommended that when a single left-in and left-out unsignalized intersection to/from Elite Park along Airport Drive is provided in the interim, that it is future proofed to accommodate the ultimate signalised intersection layout.
- The roundabout connecting Airport Drive and the loop road can potentially be reduced to a single lane roundabout with double circulating lanes on some approaches to tie in with the east approach of the ultimate Airport Drive / Elite Park Access signalised intersection instead of a double roundabout.
- Wayfinding should be provided to manage travel to URBNSURF via Airport Drive.

Tullamarine Freeway Mercer Drive exit ramp

Based on wider analysis of traffic and transport impacts and a review of the latest precinct masterplan, it is recommended that, if a new holding area cannot be built before commencement of Stage 3:

- At minimum, the new holding area is built by 2034, to ensure that the Tullamarine Freeway Mercer Drive exit ramp demands do not exceed DTP's indicative guidance regarding capacity; and
- The current Airport Drive / Mercer Drive / Francis Briggs Road roundabout is upgraded earlier (i.e. by 2028).

Elite Park Internal Road Network and Carparking

- A priority-controlled intersection or roundabout is delivered by Stage 1 to provide access between the proposed Mercer Drive access and internal loop road. Further investigation is required to determine the preferred intersection layout based on internal site trip distribution assumptions.
- A T-junction is provided by Stage 1 as a staged version of the proposed Elite Park Airport Drive Access / Internal Loop Road roundabout which will be required by Stage 3.
- Major Elite Park carpark access points are set back from intersections and arrival gateways and control points within carparks designed to accommodate queueing on entry (e.g. through duplication of surrounding roads).
- The design of the Elite Park internal road network and dedicated carparking areas should also discourage rat-running and/or informal use of the area as a 'ring & ride'. For instance, through implementing access controls and/or traffic management measures (e.g. gated entries/exits, speed humps).

Loading access

While the Elite Park masterplan to date has not identified the location of servicing/loading areas for precincts other than TopGolf, off-road service areas are expected to be provided either within individual developments or as part of a shared service yard/facility where practical. These back-of-house areas are to be determined as part of subsequent stages of planning and design of Elite Park and are required to consider loading bay and pedestrian walkway alignment, allocations and dimensions, the delineation between pedestrian walkways, and interface with access to public carparking areas.

Public transport access

There is an opportunity to provide a shuttle service operated by APAM between Elite Park and the airport. Patronage for this service would include airport and Elite Park staff, guests staying at the Elite Park hotel and a small number of airport passengers. While there is considerable free capacity available for additional shuttle services at the T4 bus interchange, in contrast, the T123 forecourt is heavily trafficked, and would require a separate study to determine whether there is adequate capacity to accommodate an Elite Park shuttle service. The design of the Elite Park internal loop road should be 'bus capable' in the event of future service being provided through the site.

In consultation with PTV and DTP, it is also recommended that new bus stops be constructed along Airport Drive near Elite Park for existing public transport routes along the corridor, along with quality pedestrian connections into the precinct. Other measures may include extending hours of operation for existing bus routes into the late evenings (as the current frequency of bus services in the area drops off after 7:30 pm) and increasing frequencies of existing bus routes such as the 479.

Active transport access

To maintain connectivity and not preclude any future development of new links/upgrades to existing links it is recommended that active transport crossings are provided at the following locations:

- Upgraded Airport Drive / Mercer Drive / Francis Briggs Road signalised intersection on the east, south and west approaches.
- Airport Drive / Elite Park Access intersection on the east and south approaches.

9.5 IMPACTS DURING CONSTRUCTION

Construction of Elite Park is likely to generate additional traffic between Q4 2024 and Q4 2034. This additional traffic will consist of small to large sized heavy vehicles to carry out construction activities/deliver construction materials and construction staff driving to/from the site. It is assumed that after construction of Stage 1 has been completed, construction on Stage 2 will be undertaken while Stage 1 is in operation. Similarly, after construction of Stage 2 has been completed, construction of Stage 3 will occur while Stages 1 and 2 are in operation.

The amount of construction related vehicle trips per day will likely be lower than the traffic generated by the development per day when it is in operation. Peak times of construction traffic entering/exiting the site throughout the day/night are also likely to occur at different times to the peak customer visitation period (i.e. between 4:30pm and 5:30pm).

Construction traffic is expected to access the site via the Tullamarine Freeway/Mercer Drive, Airport Drive and/or Melrose Drive. Melrose Drive is likely to experience more use during initial stages of construction as both Mercer Drive and Airport Drive access points are being built.

Potential transport impacts because of construction include:

- Increased congestion across the surrounding road and freeway network, which may warrant additional intersection and midblock capacity upgrades.
- Reduced road pavement quality along key site access roads due to increased heavy vehicle traffic.
- Reduced amenity along Melrose Drive and disruption to local residents (particularly if temporary lane/road closures are also required to facilitate construction).
- Disruption of local businesses within the Melbourne Airport Business Park and off Melrose Drive (particularly if temporary lane/road closures are also required to facilitate).

Once construction schedules have been developed and a contractor has been appointed, a Construction Traffic Management Plan will be developed. The CTMP will quantify all potential traffic and transport impacts during the construction phases in detail and provide mitigation measures.

9.6 SAFETY

The detailed design process for road infrastructure serving and within Elite Park shall ensure that appropriate traffic safety management is achieved. Standard safety measures (e.g. turn warrants, safe sight distance, roundabout to signals) shall be employed at minimum. A Construction Traffic Management Plan (CMTP) shall be developed to govern construction access and traffic safety during development phases (see Section 7.1.3).

10

ECONOMIC IMPACTS AND BENEFITS

10.1 INTRODUCTION

Economic impact Assessment conducted by Urbis evaluates the economic context and likely effects of Elite Park at local and state scales.

Key findings from the report are summarised in this chapter.

10.2 BASELINE

Elite Park has been designed as a leisure and entertainment destination to be delivered in three major stages through an anticipated timeframe to 2034. Upon completion, the precinct will deliver 113,985 square metres of floorspace across a mix of different uses. Tourists travelling to Melbourne have a broad range of attractions that cater to diverse interests across both Metropolitan Melbourne and Regional Victoria.

The five most visited attractions are in Central Melbourne, led by the Queen Victoria Market and Melbourne Zoo. However, URBNSURF, located at Melbourne Airport, has quickly become one of Melbourne's most-visited attractions, drawing in 332,000 visitors in the 2022-2023 financial year.

More recently leisure and entertainment facilities have developed to ensure adaptability and sustainability. These developments range from offering beverages at an arcade, to capturing moments with flickering LED-lit trees, or combining tourism and sports/activities. New trends and concepts actively influencing the sector include:

- Mixing sports and social activities ('competitive socialising')
- Gamification of augmented reality
- Immersive art / interactive museum / play concepts
- Hybrid / multiple activity-based facilities.

Many of these concepts target families, young adults and organised groups (social and corporate).

Elite Park, an anticipated world-class mixed-use and entertainment precinct, will be anchored by TopGolf. The Elite Park location will be TopGolf's second Australian destination (after the Gold Coast). Over subsequent years, Elite Park and TopGolf will be supplemented by further retail and employment floorspace, ultimately delivering a diversified offering that services both visitor and local resident markets.

10.3 HUME AND BRIMBANK OVERVIEW

10.3.1 Hume and Brimbank's resident profile

Hume and Brimbank are two of Melbourne's largest local government areas, with a collective population of over 450,000 people. The areas, while distinct in their resident characteristics, share several key demographic characteristics:

- Solid population growth
- Family oriented
- High proportions of residents aged 25 – 44
- A diverse ethnic background
- Typically low – moderate income, with lower levels of educational attainment
- A resident workforce predominantly engaged in blue collar occupations
- Higher than average levels of unemployment
- Generally working locally.

Elite Park, will create new employment opportunities that could readily be filled by the current residents of Hume and Brimbank, including the unemployed and workers transitioning out of declining industries. The development could be particularly valuable in providing jobs for young or otherwise lower qualified workers.

10.3.2 Cities of Hume and Brimbank economic overview

At June 2022, the Cities of Hume and Brimbank support an economy worth approximately 26 billion dollars in Gross Regional Product (**GRP**), equivalent to five per cent of Victorian Gross State Product (**GSP**).

The municipalities are traditionally blue collar, with logistics and manufacturing the most significant industries by value add, driven by proximity to Melbourne Airport. The leisure and tourism market in Hume currently makes a modest contribution to the City of Hume economy, representing only 2.1 per cent of GRP.

While Hume and Brimbank have traditionally made modest contributions to tourism markets in Victoria, in recent years the opening of URBNSURF has put the area on the radar of many interstate and overseas visitors. The development of Elite Park, with the addition of TopGolf, a cinema complex and extensive retail offering is expected to bolster the area's reputation as a tourist destination. Elite Park's redevelopment presents an opportunity to further diversify Hume's economic base.

10.4 STATE AND LOCAL PLANNING POLICIES

10.4.1 The Hume Planning scheme

This section discusses the Elite Park development's consistency with the following local planning policies:

- Clause 11.03-1S – Activity Centres seeks to encourage the concentration of major retail, residential, commercial, administrative, entertainment and cultural developments into activity centres that are highly accessible to the community.
- Clause 11.03-1L – Activity Centres – Hume seeks to ensure that land uses within the Melbourne Airport Transport Gateway do not adversely impact on the viability of nearby activity centres.
- Clause 17.02-2S – Out-of-centre development – Hume seeks to manage out-of-centre development by ensuring that out-of-centre proposals are only considered where the proposed use or development is of net benefit to the community in the region served by the proposal.
- Clause 17.02-2L – Out-of-centre development – Hume seeks to discourage the development of restricted retail premises in existing and future industrial areas outside of identified bulky goods centres.

Though Melbourne Airport is not specifically listed as one of Plan Melbourne's Metropolitan Activity Centres, the Elite Park site is ideally situated to serve as a complementary activity centre. The concentration of mixed-use and commercial activities on a site easily accessible from the Tullamarine Freeway is consistent with Clause 11.03-1S, and the significant economic benefits of the construction and operation of the development (later in this section) support the delivery of such a facility in an out of centre location (Clause 17.02-7S).

The Elite Park development is not expected to adversely impact on the viability of nearby activity centres (Clause 11.03-1L). As noted in the section above, the leisure and tourism market in Hume currently represents only 2.1 per cent of Hume's GRP. Elite Park's redevelopment presents an opportunity to further diversify Hume's economic base.

The Elite Park development's commercial and mixed-use activities are consistent with the local non-residential Hume Planning overlays:

- **Industrial 3 Zone:** To provide for industries and associated uses in specific areas where special consideration of the nature and impacts of industrial uses is required or to avoid inter-industry conflict. To provide a buffer between the Industrial 1 Zone or Industrial 2 Zone and local communities, which allows for industries and associated uses compatible with the nearby community. To allow limited retail opportunities including convenience shops, small scale supermarkets and associated shops in appropriate locations.
- **Commercial 2 Zone:** To encourage commercial areas for offices, appropriate manufacturing and industries, bulky goods retailing, other retail uses, and associated business and commercial services.

This document notes that Elite Park provides commercial and mixed-use activities that form an important physical buffer between the airport's 24/7 activities and residential areas. This purpose is consistent with the local planning scheme surrounding the site.

10.5 LEISURE AND TOURISM MARKET

The primary reason for travel to the City of Hume is 'Visiting Friends and Relatives'.

URBNSURF has demonstrated that Hume is capable of becoming a significant tourist destination, benefiting from its immediate access to Melbourne Airport. In the three years since it opened, URBNSURF has become one of the top ten most-visited attractions in Victoria, with 332,000 visitors in FY2023.

A record number of day trippers visited Hume over the 12 months to June 2023. Similarly, domestic visitation is back to 2019 levels, while international visitors are returning rapidly. Elite Park is well-positioned to capitalise on this visitation rebound, reaching new heights over coming years.

Elite Park, an anticipated world-class mixed-use and entertainment precinct upon completion, will be anchored by TopGolf's second Australian destination. Over subsequent years, TopGolf will be supplemented by further retail and employment floorspace, ultimately delivering a diversified offering that services both visitor and local resident markets.

10.6 ASSESSMENT OF IMPACTS

10.6.1 Construction

Construction of the Elite Park development will require substantial capital investment, which will contribute to local and state economic growth, and facilitate significant new employment.

The proposed development has an estimated total construction cost of 475 million dollars (exclusive of GST) in constant 2023 dollars over an assumed construction timeframe of nine years.

Construction of the proposed development will generate approximately 270 million dollars Gross Value Added (GVA) to the State economy over the nine years of construction. The project will support an average of 135 jobs per annum over the construction period, including 69 direct and 66 indirect jobs throughout supply chains.

10.6.2 Operation

The precinct will support a significant number of jobs on an ongoing basis.

Upon completion, around 2,140 people will be employed within Elite Park, providing diversity to local employment markets. On-site activity will support a further 382 jobs annually throughout supply chains.

It is anticipated that 39 per cent of these jobs will be related to normal and large format retail, 28 per cent related to commercial, 16 per cent related to food catering and the remaining 18 per cent related to leisure and others.

These employment opportunities will be across various levels of skills, providing a diversity of employment opportunities for nearby communities. This will include a range of job opportunities in hospitality and sports industries, as well as retail, entertainment and professional services. This will further support the transformation of the region surrounding Melbourne Airport, particularly Hume and Brimbank Local Government Areas in diversifying their employment bases and inducing growth for the northern Melbourne region more broadly.

Annually, the precinct is expected to create around 246 million dollars in value add, throughout on-site and supply-chain activities.

Overall, Elite Park will generate significant economic benefits to the economies of Hume, and Victoria more broadly. The benefits of employment generation are also significant to the community.

10.7 COMMERCIAL COMPETITION

The Elite Park proposal has been developed to capitalise on the unique advantages afforded by its location within the context of Melbourne Airport. These advantages include arterial road network visibility and accessibility, connection to the airport's transport connectivity and nearby populations well-suited to filling employment opportunities.

As discussed in Section 4.7 and Section 10.4, Elite Park is also well-suited to support the objectives of State and local planning policies that seek to improve and promote social and economic outcomes for Victoria – particularly in the local cities of Hume and Brimbank.

Melbourne Airport has considered commercial zones that are similar and/or complementary to Elite Park in developing this MDP. The purpose of this evaluation was to identify potential

competitive and constructive outcomes, including how they relate to section 91(1)(ga)(iii) of the Airports Act (see Table 6.4).

The size, location and relative flexibility of the Elite Park site render it uniquely capable of supporting a wide range of land uses, as listed in Table 3.3, that will collectively be complementary – within Elite Park and to Melbourne Airport and the airport's passengers and staff. TopGolf is an excellent example of a tenancy likely to serve as both an independent attraction but also an intermediary destination for travellers and likely contributor to airport hotel demand.

Melbourne Airport intends to expand upon the demonstrated appeal and success of active leisure destinations that require considerable real estate, of which URBNSURF and the Essendon Football Club's training and community facility are examples. Similar real estate offerings in Melbourne's North/West are rare, especially with opportunity for accompanying food and beverage and accommodation venues.

Airports have been demonstrated as well suited to large format retail offerings, such as the Essendon Airport Direct Factory Outlets (DFO) precinct. Though APAM does not plan to offer any product that directly competes with DFO in Elite Park, it does plan to secure large format retail tenancies requiring similar precinct-style accommodations and infrastructure.

11

ENVIRONMENTAL
MANAGEMENT**11.1 ENVIRONMENTAL
POLICY**

APAM's Environment and Sustainability Policy (melbourneairport.com.au/corporate/environment) outlines Melbourne Airport's goals and commitments for environmental management. APAM recognises that a sustainable and environmentally responsible approach to business is vital to our success and actively engages with tenants, contractors and other stakeholders to achieve these commitments.

11.2 Environment Strategy

APAM is committed to continuous improvement in environmental management. In June 2004, Melbourne Airport became the first Australian airport to achieve international certification of its Environmental Management System (**EMS**) and continues to be certified to the international standard ISO 14001:2015.

The Airports Act requires that Melbourne Airport prepare and implement an Environment Strategy every five years. The current Environment Strategy is published in Melbourne Airport Master Plan 2022.

The 2022 Environment Strategy provides a framework for environmental management at Melbourne Airport. All development within the Melbourne Airport precinct must comply with and meet the relevant objectives of within the Environment Strategy. Those most relevant to Elite Park are outlined in Table 11.13

These commitments have been considered in the design of the project to date and will continue to be considered through detailed design and construction.

Table 11.13 Summary of environmental objectives

Topic	Key Commitments
Planning and design	As Melbourne Airport expands to meet future demand in terms of its physical footprint and operational activities, it wants to ensure that planning and design decisions are focused on building long-term sustainability and resilience. This encompasses Ecologically Sustainable Development (ESD) and water efficiency measures.
Ecologically Sustainable Development	<p>Ecologically Sustainable Development aims to meet the needs of people today while conserving our ecosystems for the benefit of future generations.</p> <p>The Melbourne Airport Planning and Urban Design Strategy (2015) provides a framework to encourage the adoption of ESD principles and initiatives in Melbourne Airport projects. The incorporation of ESD principles into asset management and operational practices at the airport drives efficiencies in resource use, minimises environmental impacts, and maximises commercial returns.</p> <p>The airport's Contractor Guide to Working at Melbourne Airport, and property and retail works fit-out guides, provide direction for incorporating ESD principles into the design and fit-out of Melbourne Airport developments. These guides recognise the importance of environmentally sensitive building design and construction practices to achieve high-performance building operations that are efficient and effective, and fit for purpose. This includes the use of environmentally sustainable materials, low-volatile organic compound finishes, and improved energy and water efficiency.</p> <p>Melbourne Airport recognises the need to achieve a balance between future development and its environmental impacts. The mitigation of environmental impacts will be addressed by the integration of ESD principles into design guidelines, construction management, and the operation and maintenance of buildings and infrastructure.</p>
Water Efficiency	<p>Responsible water consumption and management is a key priority for Melbourne Airport due to the forecast demand from future airport growth and the potential impacts that climate change (and Melbourne's population growth) could have on water availability.</p> <p>Melbourne Airport is working through several initiatives that will promote water efficiency and water sensitive urban design, minimise potable water consumption and improve water quality. Melbourne Airport has invested in significant rainwater and stormwater harvesting infrastructure and water treatment facilities. There are further opportunities to expand and complement this existing infrastructure. The incorporation of water-sensitive urban design initiatives within specific developments will result in a reduction in potable water demand and costs, improve water quality, and improve waterway resilience.</p>

Topic	Key Commitments
Ground Transport	<p>Master Plan 2022 includes a Ground Transport Plan giving five-year and 20-year outlooks on how Melbourne Airport aims to extend and expand the internal road network, enhance the safety of the forecourt and parking areas, improve the external road network, and work with governments to plan for a future rail link to Melbourne Airport.</p> <p>Melbourne Airport is actively developing sustainable ground transport initiatives such as:</p> <ul style="list-style-type: none"> • Optimising waiting zones • Installing electric vehicle charging stations and increasing use of electric vehicles • Expanding shuttle bus routes • Reducing congestion at intersections • Extending the off-road bicycle path network to provide better and safer connections to the cycle path network.
Tenant and Contractor Management	<p>Melbourne Airport's tenants and contractors are responsible for conducting their activities in an environmentally responsible manner and in accordance with the appropriate environmental legislation.</p> <p>Tenants and contractors with significant environmental risk must develop and maintain Operational Environmental Management Plans (OEMP) outlining how they will manage environmental issues or pollution and ensure that they comply with the Airports Act and have evaluated the environmental risks and opportunities associated with their activities.</p>
Responsible procurement	<p>Sustainable procurement is a process that aims to reduce the triple bottom line (i.e. environmental, social and economic) impacts of purchased products and services. The process considers these impacts across the lifecycle of a product or service: from raw materials to operation and disposal/ recycling.</p> <p>The scale of Melbourne Airport's operations means the upstream and downstream impacts of its procurement decisions can be far reaching and long-lasting. In recognition of this, Melbourne Airport includes responsible procurement within its procurement policy to help it better manage the sustainability risks up and down its supply chain, including through tenants and contractors. It also seeks to achieve positive social impact delivered through local employment opportunities. Its environmental action plan for tenant and contractor management focuses on responsible procurement and integration of this into tenant and sub-contractor contracts.</p>

Topic	Key Commitments
Energy and Carbon	<p>Melbourne Airport carefully balances its energy requirements with available technologies and towards its decarbonisation commitments, all while ensuring reliability of services to customers and tenants. Ongoing objectives and initiatives include:</p> <ul style="list-style-type: none"> • Continue to transition from high to low carbon intensity electricity • Continue to track APAM's emissions against science-based emissions reduction trajectory • Maintain the Airports Council International Level 2 Airport Carbon Accreditation and progress towards Level 3 accreditation • Target of net-zero Scope 1 and 2 emissions by end of 2025 and engaging on Scope 3.
Biodiversity and Conservation	<p>APAM is committed to responsible stewardship of its ecological assets, including as governed by provisions of the EPBC Act. Objectives related to the Elite Park project include:</p> <ul style="list-style-type: none"> • No contribution to net increase of the airport's annual 12-month average wildlife strike rate • Reduce pest animal impacts on higher value ecological areas through the Implementation of a site-wide Integrated Pest Animal Management Plan • Maintain and enhance the quality of high value ecological areas through the Implementation of the Ecological Community Management and Improvement Plan and adaptative management.
Air Quality, Noise and Vibration	<p>Non-aviation activities at the airport have the potential to affect air quality, ground-based noise and vibration. These have the potential to adversely impact nearby communities and commercial activities, particularly during construction.</p> <p>Benchmark objectives include:</p> <ul style="list-style-type: none"> • All CEMPs outline strategies for managing dust, airborne particulates and noise/vibration control measures - which are verified through regular site inspections • Any exceedances of relevant air quality criteria attributable to a construction site that are detected by our air quality monitors are promptly investigated and rectified • Complaints from the community regarding noise and/or vibration attributable to construction or operation of a non-aviation site are promptly investigated and addressed.

Topic	Key Commitments
Land and Water Management	<p>The management of land and water at Melbourne Airport involves mitigating risks that have a potential impact on both these environmental aspects. Land and water management is an integrated environmental issue.</p> <p>APAM, in development of CEMP undertakes to:</p> <ul style="list-style-type: none"> • Conduct soil contamination testing and address any identified issues promptly and effectively in accordance with appropriate Environmental Management Plans and Strategies • Implement the PFAS National Environmental Management Plan, or any other such documents that may supersede this in time.
Hazardous Materials	<p>Melbourne Airport will continue to work to reduce the risk associated with hazardous materials. Through our action plan, we will continuously examine options to replace hazardous materials with non-hazardous alternatives, reduce their use and manage the use and storage of those hazardous materials that cannot be avoided.</p>
Waste Management	<p>Melbourne Airport takes a leadership role in ensuring tenants and operators contribute to improvements in waste management. Relevant to Elite Park, we will:</p> <ul style="list-style-type: none"> • Achieve 80% diversion of construction waste from landfill • Identify and implement opportunities to develop circular economy projects across the airport estate

11.3 ENVIRONMENTAL MANAGEMENT SYSTEM

APAM maintains a comprehensive Environmental Management System (**EMS**) which is audited and certified against the International Standard for Environmental Management Systems (ISO14001:2015). The EMS includes a range of established systems and processes which must be adhered to during the construction and operation of Elite Park.

11.3.1 Construction Environmental Management Plan

Construction activities that have the potential to cause environmental harm within the airport boundaries require a CEMP to be submitted and approved by the Melbourne Airport Environment and Sustainability Team, and the federal regulator (the Airport Environment Officer (**AEO**)) prior to construction.

The CEMP must address all potential environmental impacts identified in this MDP and meet the requirements of the Melbourne Airport Environmental Management Plan and Melbourne Airport PFAS Management Framework, at a minimum. During construction, a representative of the APAM Environment and Sustainability Team will conduct regular inspections of the project site to verify compliance with the approved CEMP. If any non-conformances are identified, corrective actions must be implemented by the Contractor in accordance with procedures outlined in the approved CEMP.

11.3.2 Operational Environmental Management

Potential environmental impacts during the operational phase are limited and are expected to be similar to current operations. Environmental management of the project area during operation will be in accordance with the Melbourne Airport Environmental Management Plan. Any tenancies with a higher environmental risk profile require an Operational Environmental Management Plan to be approved by the APAM Environment and Sustainability team prior to operation.

12

ECOLOGY

12.1 ASSESSMENT FRAMEWORK

This chapter reports on the ecological values present within the Elite Park project area. It outlines the ecological assessment methods, details the findings of the ecological assessments and provides a significance assessment of the project's potential impacts on threatened species, ecological communities, listed migratory species and relevant ecological features on Commonwealth land.

The provisions of the Airports Act and associated regulations are intended to 'cover the field' and provide a comprehensive regime for development at the airport. While some Victorian environmental laws can apply to Commonwealth land at Melbourne Airport, the FFG Act is excluded due to the operation of the provisions of the Airports (Environment Protection) Regulations 1997, which deal with biota and habitat. Similarly, section 112(2) of the Airports Act states that Part 5 of the Act applies to the exclusion of State laws relating to the regulation of building activities or land use planning, which includes the Victorian Planning and Environment Act 1987 (P&E Act).

12.2 EXISTING CONDITIONS

APAM has investigated known ecological values across the airport estate, including identified Matters of National Environmental Significance (MNES) under the EPBC Act and known Ecological Vegetation Classes (EVC) protected by state legislation.

The Elite Park project area consists of vegetation that is highly modified due to previous land clearing and current land management including cattle grazing and intensive mowing/slashing. Patches of native vegetation persist and are dominated by native grasses.

Part of the Elite Park project area is subject to an existing EPBC Act approval (E2022-0208) authorising removal of Natural Temperate Grassland of the Victorian Volcanic Plain (NTGVVP) (as shown in Figure 12.29). For the purposes of this MDP only conditions and impacts outside the existing approval area have been considered.

An EPBC Act Protected Matters Search was undertaken with a two kilometre buffer (see Section 19 EPBC Act Protected Matters Report), which identified a number of threatened species and ecological communities that may occur in the project area or surrounds.

12.2.1 Summary of habitat assessments and targeted surveys for threatened species

Ecological consultants have monitored, and continue to monitor and assess Melbourne Airport's flora and fauna, both terrestrial and aquatic. As a result, a number of surveys have been carried out in the project area and surrounds. The following surveys have been undertaken and have informed the assessment of the presence of MNES in the project area:

- Habitat Assessment and Presence of *Synemon plana* (Golden Sun Moth) – Melbourne Airport, Tullamarine, January 2008 (Gagin, 2008).
- Second Report - Presence of the Golden Sun Moth *Synemon plana* – Melbourne Airport, Tullamarine, January 2009 (Gagin, 2009).
- Survey for the Presence of the Golden Sun Moth *Synemon plana* – Melbourne Airport, Tullamarine, February 2010 (Gagin, 2010).
- Melbourne Airport, Tullamarine: Targeted Golden Sun Moth Survey, January 2013 (Brett Lane & Associates, 2013).
- Melbourne Airport's Third Runway Project Ecology Technical Report, 31 March 2023 (Biosis 2023).
- Vegetation quality assessments of native grasslands at Elite Park, Tullamarine, 15 March 2024 (WSP, 2024).
- Elite Park - Victorian Grassland Earless Dragon *Tympanocryptis pinguicolla* habitat assessment, August 2024 (Biosis, 2024).

12.2.2 Native vegetation extent

Native vegetation in the study area covers 766 hectares of the total Elite Park project area. Native vegetation is predominantly Plains Grassland (EVC 132). There are also small areas of Plains Grassy Wetland (EVC 125). In addition to native grass scattered native trees are also present within the project area.

12.2.3 Threatened ecological communities

Four listed threatened ecological communities were identified as potentially occurring within the search area.

A site specific assessment undertaken in November 2023 (WSP, 2024) identified 4.58 hectares of NTGVVP present in the project area as shown in Figure 12.29. No other threatened ecological communities have been identified in the project area.

Figure 12.29 Native Vegetation Extent Within Elite Park Study Area (including mapped extents of NTGVVP)



12.2.4 Threatened Flora

A total of 13 listed threatened flora species were identified in the search as potentially being located within the project area (and/or within two kilometres of the project area). None of these threatened flora species were identified during the vegetation survey (WSP, 2024) and it is therefore considered unlikely that there is potential habitat for any threatened flora species in the project area.

12.2.5 Threatened Fauna

A total of 31 listed threatened species were identified in the search as potentially being located within the project area (and/or within two km of the project area). Based on the ecological values (native grasses) in the project area, the assessment found that there may be potential habitat for the following species.

Golden Sun Moth

Potential habitat for the Golden Sun Moth (*Synemon plana*) (GSM) includes NTGVVP (Commonwealth of Australia 2009). NTGVVP is present within the project area.

The species has been recorded from Woodlands Historic Park and the Moonee Ponds Creek corridor to the north and east. Potential habitat for GSM includes grassy habitats supporting suitable larval food plants including Spear Grasses, Wallaby Grasses and the introduced Chilean Needle-grass (*Nassella neesiana*) and potentially Serrated Tussock (*Nassella trichotoma*) (Biosis, 2023).

Several targeted surveys for GSM have been undertaken in the previous 15 years at Melbourne Airport, with the most recent undertaken as part of the M3R project (Biosis, 2023).

No GSM have been identified in surveys undertaken in the project area or adjacent areas. Only one of the targeted surveys for GSM confirmed the presence of this species in the broader Melbourne Airport area. This is in the northern portion of the site, with the closest record over three kilometres away from the project area. This GSM habitat identified is bounded by Sunbury Road to the north and the Grey Box Woodland to the south, east and

west. The north-west of the GSM habitat is bounded by a pasture improved paddock. Due to the considerable distance and extensive development between the project area and the GSM habitat identified, there is no connection between these patches of native vegetation and the Elite Park project area. As the female GSM are relatively immobile, it is unlikely that other isolated areas a significant distance away would be recolonised as habitat (DAWE, 2021).

Due to the extent and previous effort of GSM surveys, the highly modified nature of any potential habitat on site, as well as the historic and current land management practices, it is considered highly unlikely that a population of the species is present within the project area or adjacent areas.

Striped Legless Lizard

Potential habitat for the Striped Legless Lizard (*Delma impar*) (SLL) includes all areas which have, or once had, native grasslands or grassy woodlands (DCCEEW 2024b). Potential SLL habitat is present within the project area.

Several targeted surveys for SLL have been undertaken in the previous 15 years at Melbourne Airport, with the most recent undertaken as part of the Melbourne Airport's Third Runway Project (Biosis, 2023). Past targeted surveys have not detected the species within Melbourne Airport. There are no known database records of the species within a five kilometre radius of the Airport, although they have been detected just beyond that radius (Biosis 2023).

With records of the species just beyond a five kilometre radius of Melbourne Airport, it is probable that potential habitat at Melbourne Airport would have once been colonised by the species. It is possible that the bulk earth works required to establish both the airfield and Melbourne Airport Business Park (MABP) at Melbourne Airport has rendered that particular area unsuitable for the species. It is also possible that the long history of the land utilised for farming purposes including pasture improvement, cropping, stocking, ploughing, removal of embedded rock and recently small block farming (Barbiston Road area) have caused a local extinction of the species in the area, or even that the species was never historically present within the area.

Conservation advice for the SLL (DEE, 2016) notes that the species does not disperse long distances as they are observed to be genetically differentiated at distances of less than 400 metres. Noting the location of the Elite Park in a heavily fragmented landscape with urban and commercial development surrounding the site on all sides, it is considered very unlikely for SLL to have dispersed to the Elite Park site from any surrounding populations.

Due to the extent and previous effort of SLL surveys, the highly modified nature of any potential habitat on site, as well as the historic and current land management practices, it is considered highly unlikely that a population of the species is present within the project area or adjacent areas.

Victorian Grassland Earless Dragon

The Victorian Grassland Earless Dragon (*Tympanocryptis pinguicolla*) (VGED) is a native grassland specialist inhabiting natural temperate grasslands (DCCEEW 2024b). There are no previous assessments and no records of the species across Victoria since 1969, apart from a recent discovery in Western Melbourne in 2023.

A habitat assessment for the VGED was undertaken by Biosis, including a site survey in May 2024. No soil cracks or invertebrate burrows were recorded during the site assessment that could provide shelter opportunities to VGED. No burrowing invertebrates were recorded. No surface rock was recorded within the study area. A small number of deeply embedded rocks were noted in the north-western section of the study area, however these occur amongst pugged black soils and introduced weedy vegetation. Historical aerial imagery suggests that a dam once occurred in this area and therefore the embedded rocks are likely to have emerged following historical earth works. While survey coverage, vegetation cover and season may affect the detection of these important shelter features, the results of the assessment indicate that burrows and soil cracks are unlikely to occur at sufficient densities to support a population of VGED within the study area. The evidence of previous ploughing indicates that

significant soil disturbance has occurred across the study area (Biosis, 2024).

The assessment concluded that a population of VGED is unlikely to persist within the study area due to the evidence of historical ploughing, ongoing disturbance (intensive cattle grazing and surrounding road and industrial development), lack of appropriate refugia and high cover of weeds.

Growling Grass Frog

The Growling Grass Frog (*Litoria raniformis*) (GGF) is dependent upon permanent freshwater lagoons for breeding. Refuge habitat includes soil cracks, fallen timber, debris and dense vegetation on low, frequently inundated floodplains (DCCEEW, 2024b). There are no waterways or drainage lines within the project area, and therefore no suitable habitat for GGF.

The Elite Park project area is located within the Steele Creek North catchment. The Steele Creek North catchment receives discharges from the eastern and southern regions of Melbourne Airport. Steele Creek North flows through piped-stormwater assets south along Airport Drive for approximately one kilometre and then through the Steele Creek North water harvesting facility that includes a flood retention basin, sedimentation basin and raingarden, before discharging off the Airport Estate to a concrete drainage channel near Churchill Drive Reserve.

There are no known records of GGF within the Steele Creek North Catchment. There is a known record from 2018 of GGF in Steele Creek North approximately 1.7 kilometres downstream of Melbourne Airport. A recent targeted habitat survey completed by Biosis in January 2022 did not identify any GGF populations in waterbodies and wetlands associated with Steele Creek North located in close proximity to the project area (Biosis, 2022).

Despite the 2022 survey not identifying any GGF within the investigation area, the Steele Creek North water harvesting facility and downstream, off-airport reach of Steele Creek North is identified as potential dispersal habitat.

Impacts to the potential dispersal habitat of the Steele Creek North are to be considered for the possibility for indirect impacts to GGF further downstream (i.e. as the result of sedimentation and altered hydrology).

12.2.6 Other species

Several bird species were identified in the search (DCCEEW, 2024a). There are limited trees in the area and while some bird species may potentially fly over the area to utilise woodland areas nearby, there is no important habitat for bird species in the project area. Therefore, impacts to these species have not been considered further.

There were also several flora species identified in the search (DCCEEW, 2024a). The grassland survey did not identify the presence of any of these flora species. Therefore, impacts to these species have not been considered further.

12.2.7 Migratory species

A total of 13 listed migratory species have been recorded or are predicted to occur within the project area (and/or within two kilometres of the project area). The project area is within the core range for several of the bird species identified, however due to the lack of important wetland habitat for these species, the area does not support important habitat. Therefore, impacts to these species have not been considered further.

12.3 ASSESSMENT OF POTENTIAL IMPACTS

The impacts associated with the project area are due to the clearing of vegetation, specifically NTGVVP. Therefore, the nature and likelihood of impacts are well known, and will not be repeated. There will be direct and permanent impacts to NTGVVP as a result of clearing. Indirect impacts on threatened species are possible, due to a decrease in available habitat and noise and earthworks associated with construction. However, these impacts

are temporary only. The identified impacts will occur during the construction period only. The construction of the works is expected to take approximately nine years.

The assessment of impacts has taken into account relevant conservation advice, recovery plans or threat abatement plans into the significant impact assessment for species identified in the following sections. Only those species identified or likely to occur within the project area will be assessed for potential impacts.

12.3.1 NTGVVP (critically endangered)

As it has been determined that there is NTGVVP present in the project area, Table 12.14 includes an assessment on the significance of the impacts associated with the proposed action, in accordance with the Significant Impact Guidelines 1.1.

Table 12.14 Significant Impact Assessment for NTGVVP

Significant impact criteria	Assessment
Is there a real chance or possibility that the proposed action will:	
Reduce the extent of an ecological community	<p>Possible. The assessment undertaken (WSP, 2024) has identified 4.58 ha of grassland that met or had the potential to meet the criteria of NTGVVP in the Elite Park area. This does not include NTGVVP that has been approved to be removed under permit E2022-0208 (see Figure 12.30).</p> <p>NTGVVP remnants occurring around Melbourne are subject to ongoing clearance and other threats from urbanisation. Less than 5% of the original extent of NTGVVP remains, although patches in good condition are likely to constitute less than one per cent (DSEWPaC, 2012). Due to the decline in the amount of NTGVVP, it is possible that the removal of 4.58 ha will reduce the extent of an ecological community.</p> <p>Avoidance and mitigation measures and their effectiveness will be discussed further in Section 12.3.</p>
Fragment or increase fragmentation of an ecological community	<p>Unlikely. It is estimated that more than 95% of known patches of NTGVVP are less than 10ha in size, as a result of fragmentation by clearing and modification of the TEC over time (TSSC 2008). The project would impact a number of patches of NTGVVP that are each less than 10ha in size. In the broader context of the Melbourne Airport estate, patches of NTGVVP remain to the north and west of the project area and therefore the project is considered unlikely to cause any significant fragmentation of a TEC.</p>
Adversely affect habitat critical to the survival of an ecological community	<p>Unlikely. No Recovery Plan has been prepared or adopted for this TEC and no critical habitats have been formerly identified by the Australian Government. However, given that less than 2% of the TEC is estimated to still exist, most areas that continue to support the TEC are likely to be considered critical habitat, particularly if those areas support moderate to high quality examples of the TEC.</p> <p>Melbourne Airport supports a broader area of grassland covering approximately 270ha. Given the broader context, the removal of 4.58ha is considered unlikely to have a significant impact on the ability of this TEC to persist in the airport or in the broader context.</p>

Table 12.14 Significant Impact Assessment for NTGVVP

Significant impact criteria	Assessment
Is there a real chance or possibility that the proposed action will:	
Modify or destroy abiotic factors necessary for an ecological community's survival, including reduction of groundwater levels, or substantial alteration of surface water drainage patterns	Unlikely. Project construction activities are unlikely to result in reduction of groundwater levels, or substantial alteration of surface water drainage patterns that will impact the ecological community's survival.
Cause a substantial change in the species composition of an occurrence of an ecological community, including a decline or loss of functionally important species, for example through regular burning or flora and fauna harvesting;	Unlikely. Permanent removal of 4.58ha of NTGVVP within the project area would be unlikely result in loss of functionally important species from the broader occurrence of the TEC. Project-specific CEMPs will be developed to address weed and pathogen management within the project area.
Cause a substantial reduction in the quality or integrity of an occurrence of an ecological community, including but not limited to: Assisting invasive species establishment Causing regular mobilisation of fertilisers, herbicides or other chemicals or pollutants into the ecological community which kill or inhibit the growth of species in the ecological community	Unlikely. The project-specific CEMPs to be developed for the project will include appropriate weed management measures and No-Go areas to protect remaining vegetation adjacent to the project area. The CEMP will meet minimum requirements of the Melbourne Airport EMP and Melbourne Airport PFAS Management Framework.
Interfere with the recovery of an ecological community	Unlikely. No Recovery Plan has been prepared or adopted for this TEC and therefore recovery priorities have not been formally articulated by the Australian Government. However, the action of clearing 1.7% of the estimated remaining area of this TEC within the airport estate is not considered likely to interfere with priority recovery and threat abatement actions.

12.3.2 Impacts to the Environment on Commonwealth Land

As the project area exists on Commonwealth Land, impacts to the environment in accordance with the Significant Impact Guidelines 1.2 – Actions on, or impacting upon, Commonwealth land and Actions by Commonwealth Agencies (DSEWPaC 2013) have been considered as follows.

Impacts on landscapes and soils

Table 12.15 Impacts on landscapes and soils

Significant impact criteria	Assessment
Is there a real chance or possibility that the proposed action will:	
Substantially alter natural landscape features	Unlikely. The proposed action is located fully within the Melbourne Airport boundary, being a highly modified environment which has undergone extensive landscape alteration in the past. The proposed action is surrounded by infrastructure and therefore will not substantially alter natural landscape features.
Cause subsidence, instability or substantial erosion	Unlikely. The proposed action is located on flat ground surrounded by existing infrastructure, it is unlikely to cause subsidence, instability or substantial erosion.
Involve medium or large-scale excavation of soil or mineral?	Unlikely. Although some excavation will be required for the works, no excavation considered as medium or large-scale would be required.

Impacts on coastal landscapes and processes

Table 12.16 Impacts on coastal landscapes and processes

Significant impact criteria	Assessment
Is there a real chance or possibility that the proposed action will:	
Alter coastal processes, including wave action, sediment movement or accretion, or water circulation patterns;	No. The proposed action is not located within the vicinity of coastal environments and no works within aquatic environments are proposed.
Permanently alter tidal patterns, water flows or water quality in estuaries;	
Alter coastal processes, including wave action, sediment movement or accretion, or water circulation patterns;	
Reduce biological diversity or change species composition in estuaries, or	
Extract large volumes of sand or substantially destabilise sand dunes?	

Impacts on ocean forms, ocean processes and ocean life

Table 12.17 Impacts on ocean forms, ocean processes and ocean life

Significant impact criteria	Assessment
Is there a real chance or possibility that the proposed action will:	
Reduce biological diversity or change species composition on reefs, seamounts or in other sensitive marine environments;	Unlikely. The proposed action is not located within the vicinity of coastal environments and no works within aquatic environments are proposed.
Alter water circulation patterns by modification of existing landforms or the addition of artificial reefs or the other large structures	
Substantially damage or modify large areas of the seafloor or ocean habitat, such as sea grass;	
Release oil, fuel or other toxic substances into the marine environment in sufficient quantity to kill larger marine animals or alter ecosystem processes, or	
Release large quantities of sewage or other waste into the marine environment?	

Impacts on water resources

Table 12.18 Impacts on water resources

Significant impact criteria	Assessment
Is there a real chance or possibility that the proposed action will:	
Measurably reduce the quantity, quality or availability of surface or ground water; or	Unlikely. The proposed action will not include any modification to waterways, flows or groundwater extraction.
Channelise, divert or impound rivers or creeks or substantially alter drainage patterns, or measurably alter water table levels?	Unlikely. The proposed action will not include diverting or impounding rivers or creeks, altering drainage patterns or altering water table levels.

Pollutants, chemicals, and toxic substances

Table 12.19 Pollutants, chemicals and toxic substances

Significant impact criteria	Assessment
Is there a real chance or possibility that the proposed action will:	
Generate smoke, fumes, chemicals, nutrients, or other pollutants which will substantially reduce local air quality or water quality;	Unlikely. Fumes from vehicles and machinery will be limited and will not exceed normal background levels and will therefore not substantially reduce local air, soil or water quality.
Result in the release, leakage, spillage or explosion of flammable, explosive, toxic, radioactive, carcinogenic, or mutagenic substances, through use, storage, transport, or disposal; or	Unlikely. Substance use will be limited to fuels for vehicles and equipment. The project-specific CEMPs to be prepared for the project will include appropriate mitigation measures to manage any spills or leaks. The CEMP will meet minimum requirements of the Melbourne Airport EMP.
Increase atmospheric concentrations of gases which will contribute to the greenhouse effect or ozone damage, or substantially disturb contaminated or acid-sulphate soils?	Unlikely. While soils in the project area are likely to contain low levels of contaminants including PFAS, the scale, intensity and duration of excavation works is not considered to be significant. Spoil management procedures, including specific requirements for the management of PFAS-impacted soils, will be included in the project-specific CEMPs. The project-specific CEMPs will meet minimum requirements of the Melbourne Airport EMP and Melbourne Airport PFAS Management Framework. See Section 14.3.4 for further information regarding PFAS management.

Impacts on plants

Table 12.20 Impacts on plants

Significant impact criteria	Assessment
Is there a real chance or possibility that the proposed action will:	
Involve medium or large-scale native vegetation clearance;	Unlikely. Commonwealth land at Melbourne Airport is approximately 2,665 ha in size of which 650 ha contains native vegetation of varying qualities and patch sizes. Approximately 410 ha of this native vegetation is Plains Grassland EVC of which approximately 270 ha is comprised of the NTGVVP ecological community. Native vegetation in the Elite Park area covers less than a third (766 ha) of the total Elite Park area. Native vegetation is predominantly Plains Grassland (EVC 125), with 4.58 ha determined as EPBC Act listed NTGVVP. There are also small areas of Plains Grassy Wetland (EVC 125). It is unlikely that this removal of native vegetation would be considered as medium to large scale clearing of native vegetation in the context of the broader landscape.
Involve any clearance of any vegetation containing a listed threatened species which is likely to result in a long-term decline in a population or which threatens the viability of the species;	Unlikely. No listed threatened plants are present within the impact area and no impacts to listed threatened plant species are expected.
Introduce potentially invasive species;	Unlikely. The project-specific CEMPs to be prepared for the project will include vehicle and machinery procedures to address the potential introduction of invasive species. The CEMP will meet minimum requirements of the Melbourne Airport EMP.
Involve the use of chemicals which substantially stunt the growth of native vegetation; or	Unlikely. There will be no use of chemicals which will impact plants.
Involve large-scale controlled burning or any controlled burning in sensitive areas, including areas which contain listed threatened species?	Unlikely. The proposed action does not include burning.

Impacts on animals

Table 12.21 Impacts on animals

Significant impact criteria	Assessment
Is there a real chance or possibility that the proposed action will:	
Cause a long-term decrease in, or threaten the viability of, a native animal population or populations, through death, injury or other harm to individuals;	Unlikely. There is little habitat in the project area for animals, due to the lack of trees and waterways. As discussed in Section 12.3 above, there is no important habitat for listed threatened species under the EPBC Act.
Displace or substantially limit the movement or dispersal of native animal populations;	A number of FFG Act listed species were considered to have a medium to high likelihood of occurring within the project area or have been previously recorded in the local area. Indirect impacts to these species associated with the project have the potential to occur. Of the FFG Act listed threatened species that are known or likely to be affected by the project, Tussock Skink (listed as endangered under the FFG Act) has the potential to be most affected. It is difficult to quantify the precise impact on the population of Tussock Skink, as very little population data exists for Melbourne Airport and surrounds, however it can be inferred that the proportion of habitat removed is unlikely to have a significant impact on the local population of Tussock Skink. The area of good quality habitat (Plains Grassland) is approximately 542 ha across the broader Melbourne Airport estate. The permanent removal of 7.66 ha of Plains Grassland from the project area constitutes approximately 1.4% of total available habitat, which is not considered to be a significant reduction.
Substantially reduce or fragment available habitat for native species;	Mitigation measures will be implemented during construction of the project with the aim of avoiding or minimising any possible impacts on FFG Act listed species. These include: <ul style="list-style-type: none"> • Avoiding the removal of native vegetation adjacent to the project area. • Implementation of exclusion zones to protect species adjacent to the project area. • Implementation of noise and dust control procedures. • Ensuring that all employees and contractors complete environmental inductions prior to undertaking works within the project area so they are aware of the protected and vulnerable species located in and around the project area.
Reduce or fragment available habitat for listed threatened species, which is likely to displace a population, result in a long-term decline in a population, or threaten the viability of the species;	

Significant impact criteria	Assessment
Is there a real chance or possibility that the proposed action will:	
Reduce or fragment available habitat for listed threatened species, which is likely to displace a population, result in a long-term decline in a population, or threaten the viability of the species;	Noting that some of the FFG Act listed species have the potential to interact with airspace nearby the project, there is potential for indirect impacts via noise from the construction works. As any noise impacts during construction of the project will be significantly less than that of the current airport operations and standard construction activities (including use of plant and equipment), indirect impacts via noise are not considered likely.
Introduce exotic species which will substantially reduce habitat or resources for native species; or	Unlikely. The proposed works will not result in the introduction of exotic fauna species.
Undertake large-scale controlled burning or any controlled burning in areas containing listed threatened species?	Unlikely. The proposed action does not include burning.

12.4 AVOIDANCE, MITIGATION AND MANAGEMENT MEASURES

12.4.1 Avoidance measures

The project is constrained to the area for the development of Elite Park, in line with the Airport Master Plan. Avoidance of impacts to ecological values is not possible with all vegetation within the project area requiring removal. All vegetation outside of the project area in undeveloped areas will be retained, noting that the majority of the surrounding area is already developed. Through the planning process of the Melbourne Airport expansion, the project has designated certain areas in the Airport estate as conservation areas, which contain high ecological values and will be avoided (see Figure 12.30).

12.4.2 Construction phase management and mitigation measures

Melbourne Airport has a site wide Environmental Management Plan (EMP) that applies to all operations carried out by, and on behalf of APAM. This EMP includes a number of general environmental management expectations which apply to all activities undertaken across the airport.

A Construction Environment Management Plan (CEMP) will be developed for each commercial/retail project to outline the appropriate environmental goals and objectives with respect to the project. It will ensure the environmental management procedures included are consistent with the Melbourne Airport EMP, the Melbourne Airport PFAS Management Framework, and PFAS National Environment Management Plan 2.0.

The project-specific CEMPs will capture all stages of commercial/retail project and ensure adequate environmental controls are in place to address all potential risks and impacts that may arise during the project works.

The project-specific CEMPs will document all processes and management strategies to minimise and/or prevent impacts on ecological values. Implementation of the project-specific CEMPs will limit impacts to the proposed action area, and all downstream impacts will be considered negligible. The project-specific CEMPs will include detail on the following mitigation and management strategies:

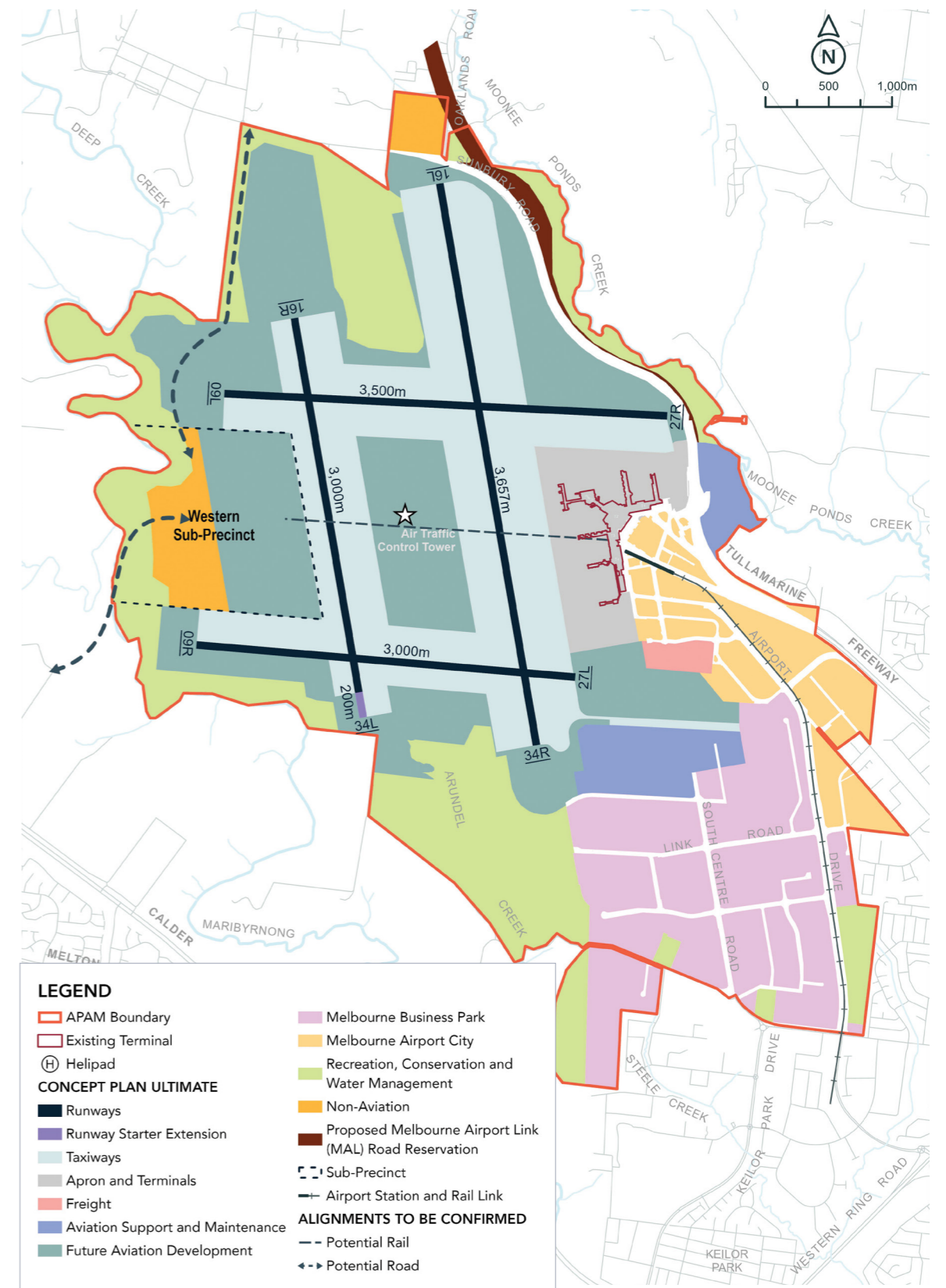
- Protection of EPBC Act listed communities (NTGVVP) and other areas of native vegetation that are to be retained adjacent to the proposed action area. Exclusion fencing will be erected to protect these areas and identified with appropriate signage such as 'Environmental Protection Area' or 'No-go zone' at regular intervals along the fence line. Access to and from the project area will be restricted to the project area and traversing native and introduced grasslands outside of this project area will be strictly prohibited. Sufficient buffers will be allowed for to ensure that all construction works can be conducted within the project area, without encroaching on 'No-go zones'.
- Locating all material stockpiles, vehicle

parking and machinery storage within the project area, and not in areas of retained native vegetation.

- Ensuring that all employees and contractors complete environmental inductions prior to undertaking works within the project area.
- Implementation of strict hygiene protocols that reduces the risk of establishment of novel and/or high threat weeds or disease. The establishment of new high threat weeds, introduction of disease or spread of existing weeds from or around the project area will be mitigated through vehicle washdown procedures incorporated into the project-specific CEMPs.
- Measures to be implemented to prevent and manage potential mobilisation of contaminants, such appropriate sediment fencing downslope of stockpile and stabilisation of temporary stockpiles.
- Measures to be implemented in managing the offsite disposal (if unexpected contamination is unearthed) of soil excavated during project construction works, including sampling requirements, likely areas of contaminated soil and disposal requirements.
- Requirements for vehicle and onsite personal hygiene regarding minimising the potential for transportation of PFAS and other potential contaminants offsite.
- Sediment and erosion control procedures.
- Refuelling and spill response procedures.

Post-construction rehabilitation of the development footprint will focus on establishing an erosion resistant ground condition. This will require a program of revegetation, erosion control, targeted weed management and ongoing monitoring.

Figure 12.30 Long term development including conservation areas identified in the Airport Master Plan (as per legend item 'Recreation, Conservation and Water Management' (Source: APAM, 2022b. MP22 Figure 2-3)



12.4.3 Offsets and proposed offset strategy

For any residual impacts to significant ecological values that cannot be eliminated through avoidance, minimisation and management, the provision of appropriate offsets in accordance with the EPBC Act Environmental Offsets Policy (DSEWPaC, 2012) will be established and secured.

The key ecological value proposed to be offset is 4.58 hectares of NTGVVP.

APAM is committed to securing a direct offset to compensate for the permanent removal of 4.58 hectares of NTGVVP within the project area, in accordance with the EPBC Act EPBC Act Environmental Offsets Policy (DSEWPaC 2012a), the Offsets Assessment Guide (DSEWPaC 2012b) and the accompanying How to Use the Offsets Assessment Guide published by DCCEEW.

APAM has identified and secured an offset site near Foxhow, Victoria which will be suitable to provide the required offset. APAM is currently engaging with the landowner to secure the offset. A baseline survey of the offset site has been completed, and the results of the survey used to inform the Offsets Assessment Guide. It is noted that the offset site supports a total of 25.72 hectares of NTGVVP. Only a portion of this (9.83 hectares) will be required to offset 100 per cent of the residual significant impact associated with the project.

The following sections present justifications for the proposed offset amount and values used in the Offset Assessment Guide.

Habitat Quality Scoring System for NTGVVP

NTGVVP has been assessed using the Victorian Department of Energy, Environment and Climate Action (DEECA) Vegetation Quality Assessment (VQA) method, underpinning the 'habitat hectares' concept) 'Habitat hectares' is Victoria's standard metric to quantify native vegetation losses and gains for regulatory approvals and biodiversity offsets. It gives habitats a score out of 100: a site condition score out of 75 plus a landscape context score out of 25. When expressed as a decimal (i.e. divided by 100 for a score out of 1), the VQA score can then be multiplied by the area of the vegetation (in hectares) to calculate the number of habitat hectares in a patch of vegetation.

This method is a good surrogate for habitat quality because it considers important structural and functional elements. These include the density of large trees, understorey complexity, plant species richness, weediness, plant recruitment and coarse woody debris. It also considers the physical connectivity of native vegetation in the landscape (e.g. patch size, configuration and continuity). VQA scores are readily converted to habitat scores out of 10 for use in the Offsets Assessment Guide. The quality score for the offset site as well as other parameters used in the Offsets Assessment Guide are set out in Table 12.22.

Table 12.22 NTGVVP offset assessment guide calculations

Parameter	Parameter	Justification for input
Impact Calculator		
Annual probability of extinction	6.8%	The annual probability of extinction of NTGVVP, a critically endangered ecological community, is 6.8% based on International Union for Conservation of Nature (IUCN) category definitions. This % is set by DCCEEW guidance.
Area of habitat	4.58 hectares	A total of 4.58 ha of NTGVVP has been mapped within the project area.
Quality	3/10	<p>The quality of the NTGVVP was assessed in a survey conducted in November 2023 using the Vegetation Quality Assessment (VQA) method (Victorian Department of Sustainability and Environment, 2004). The weighted average VQA score of the confirmed NTGVVP within the project area is 33/100 which, rounded, converts to a habitat quality score of 3/10. This score is made up of the following components:</p> <ul style="list-style-type: none"> • A weighted average site condition score of 28.56/75 made up of the following weighted average VQA component scores: lack of weed score of 8.16/20.4, recruitment score of 8.16/13.6, organic litter score of 5.44/6.8 and understorey score of 6.8/34. • A landscape score of 4/25 made up of the following VQA component scores: patch size 1/10, neighbourhood score of 2/10 and distance to core score of 1/5.

Parameter	Parameter	Justification for input
Offset Calculator		
Risk-related time horizon	20 years	The offset site will require active conservation management (and improvements) for the first 10 years, after which the offset area is to be managed and maintained as a conservation area in perpetuity. However, 20 years is the maximum value that can be entered into the Offsets Assessment Guide.
Start area	9.83 hectares	This represents the portion of the offset site which will be required to offset 100% of the residual significant impact associated with the project.
Risk of loss without offset	0%	As advised by DCCEEW with reference to Guidance for deriving 'Risk of Loss' estimates when evaluating biodiversity offset proposals under the EPBC Act (Maseyk et al. 2017).
Risk of loss with offset	0%	As advised by DCCEEW with reference to Guidance for deriving 'Risk of Loss' estimates when evaluating biodiversity offset proposals under the EPBC Act (Maseyk et al. 2017).
Confidence in result – risk of loss	90%	A 90% confidence reflects that there is a high degree of confidence that there is no (0%) risk of loss of the NTGVVP with or without an offset in place.
Time until ecological benefit	10 years	A measurable improvement in habitat quality will be achieved after 10 years of management in accordance with the OMP.

Parameter	Parameter	Justification for input
Offset Calculator		
Start quality	5/10	<p>Biosis assessed the baseline quality of the NTGVVP at the offset site in January 2024, using the VQA method (DSE, 2004). The weighted average quality score of the NTGVVP was 52.65/100, which rounds to 5/10. The score was made up of the following components:</p> <ul style="list-style-type: none"> A weighted average site condition score of 44.41/75 (4.4/7.5), made up of the following weighted average VQA component scores: lack of weeds score of 5.92/20.45; recruitment score of 7.98/13.64; organic litter score of 4.09/6.82; and, understorey score of 26.43/34.09. A weighted average site context score of 8.24/25 (0.8/2.5), made up of the following weighted average VQA component scores: patch size score of 4.24/10; neighbourhood score of 1.00/10; and, distance to core score of 3.00/5.

Parameter	Parameter	Justification for input
Offset Calculator		
Future quality without offset	3/10	An initial survey of the offset site was conducted in January 2018 to determine presence of NTGVVP. At that time 210.48 ha of NTGVVP was recorded. Ecologists revisited the site in October and December 2023 to complete further preliminary surveys. These surveys confirmed only 26.98 ha of NTGVVP remained on site. This represents a decline of 87.81% over six years in the extent of the ecological community. There were no changes to the use of the site, nor the existing management practices that would have led to this decline in NTGVVP. This decline is almost exclusively a result of increased weed cover across the site resulting in areas previously mapped as NTGVVP now being entirely made up of introduced vegetation. Without protection and management as an offset site, the quality of the NTGVVP within the offset site is expected to decline within 10 years to such a point that it would no longer meet the condition thresholds for NTGVVP (i.e. the community will be functionally lost). This type of change has been observed to occur rapidly (in as little as 2 years) in other NTGVVP patches observed in the vicinity of Melbourne Airport when basic biomass management ceases to be undertaken. For example, in December 2019, Biosis assessed one area of grassland located closer to the airport. This grassland was being regularly slashed and met the condition thresholds for NTGVVP, with perennial weeds comprising 20% of total perennial vegetation cover (15% absolute cover). When the same botanists returned in October 2021, after almost 2 years of reduced biomass management, the cover of perennial weeds had increased to approximately 50% of total perennial vegetation cover across large areas. Importantly, many of the perennial weed species that can bring about this change are not listed as noxious weeds and there is no legal obligation for landowners to control them. This includes Tall Fescue <i>Festuca arundinacea</i> , Water Couch <i>Paspalum distichum</i> , Toowoomba Canary-grass <i>Phalaris aquatica</i> , Ribwort <i>Plantago lanceolata</i> and Flatweed <i>Hypochaeris radicata</i> . One of these weed species (Flatweed <i>Hypochaeris radicata</i>) was noted as having a high cover across the proposed offset site during the baseline survey.

Parameter	Parameter	Justification for input
Offset Calculator		
Future quality with offset	6/10	It is anticipated that through intensive control of weeds, pest animals and biomass as part of implementation of the OMP, the weighted average VQA score for existing NTGVVP within the offset site would increase by at least 10 points, resulting in a habitat quality score which rounds to 6/10.
Confidence in result - raw	90%	A 90% confidence in the result reflects that there is a high level of confidence that the landowner would have the support, guidance and resources to intensively manage, maintain and improve the NTGVVP at the offset site, bringing about the 1-point improvement over 10 years.

12.5 CONCLUSION

The impact assessment summary of the impacts of Elite Park on ecology is included in Section 17. A summary of the outcomes is presented below.

The project area is located within a modified and managed environment. The surrounding areas of the airport have been disturbed due previous development. Despite the existing level of disturbance, specialist studies and assessments were undertaken within the project area and confirmed:

- The project area supports 4.58 hectares of NTGVVP, which will be directly and permanently impacted as a result of vegetation clearing. The project will likely result in residual significant impacts on the NTGVVP ecological community within the project area.
- There is limited value for native fauna and flora within the project area due to historic land clearing and current land management, which includes vegetation mowing and insecticide spraying regime, in line with airport operational and safety requirements, and grazing activities on adjacent land.
- The project will be undertaken within Commonwealth land and although potential impacts include clearing and disturbance of native vegetation, this is not expected to be significant.

APAM will manage and offset any potential impacts associated with the proposed action, including:

- A Construction Environment Management Plan (CEMP) will be developed to outline the appropriate environmental goals and objectives with respect to the project. The CEMP will document all processes and management strategies to minimise and/or prevent impacts on ecological values. Implementation of the CEMP will limit impacts to the project area, and all downstream impacts will be considered negligible.

- APAM has identified a direct offset to compensate for the permanent removal of 4.58 hectares of NTGVVP within the project area, in accordance with the EPBC Act Environmental Offsets Policy (DSEWPaC 2012a). APAM is engaging with the landowner to secure the offset.

12.6 REFERENCES

Australia Pacific Airports (Melbourne) Pty Ltd (APAM) 2021, Melbourne Airport Environmental Management Plan, 2021.

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13

SURFACE
WATER**13.1 ASSESSMENT
FRAMEWORK**

Melbourne Airport is located on Commonwealth land. Management of water quality within Melbourne Airport estate is governed by Commonwealth regulations, and management of waters leaving Melbourne Airport estate are governed by Victorian legislation. The key legislative requirements related to water quality management include the following:

Commonwealth – on airport:

- Airports Act 1996
- Airports (Environment Protection) Regulations 1997 (Airport Regulations).
- Environment Protection and Biodiversity Conservation Act 1999
- Environment and Biodiversity Protection Regulations 2000
- National Environment Protection Council Act 1994

State Government of Victoria – off airport:

- Environment Protection Act 2017 (EP Act Vic)
- Environmental Reference Standard 2021 (Vic)
- Water Act 1989 (Vic)
- Yarra River Protection (Wilip-gin Birrarung murron) Act 2017.

13.2 COMMONWEALTH

The Airports Act 1996 establishes a regulatory system for airports providing due regard to the interests of airport users and the general community. These regulations define standards and impose compliance requirements. The environmental requirements include regulations relating to pollution generated at airport sites, impacts on biota and habitat, and impacts on heritage value.

The Airport Regulations aim to improve environmental management practices for activities conducted at airport sites

and establish a system of regulation and accountability for pollutant-generating airport activities. These regulations aim to minimise adverse effects on waters and promote their beneficial use through management of pollution and promotion of habitat preservation.

Schedule 2 of the Airport Regulations, 'Water Pollution – accepted limits', sets out the accepted limit for pollutants in fresh water for a range of substances.

The Airport Regulations also refer to Section 14 of the National Environment Protection Council Act 1994 (Division 2 – Making of national environment protection measures) where monitoring is to be undertaken "in a way that is not inconsistent with (i) any international convention, treaty or agreement, relating to environment protection to which Australia is a party; or (ii) a provision of national environment protection measures made under section 14 of the National Environment Protection Council Act 1994".

Based on the above it is considered that the following key documentation also applies:

- National Environmental Protection (Assessment of Site Contamination) Measure, as amended 15 May 2013, National Environmental Protection Council (1999) (NEPM).
- Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG, 2018)
- PFAS National Environmental Management Plan Version 2.0 – January 2020 (PFAS NEMP 2020), National Chemicals Working Group of the Heads of EPAs Australia and New Zealand (HEPA, 2020).

**13.3 STATE GOVERNMENT
OF VICTORIA**

The EP Act Vic creates a legislative framework for the protection of environment in Victoria. The EPA are responsible for administering and enforcing the Environment Protection Act to ensure that no adverse impacts result to receiving waters by reducing harmful effects of

pollution and waste. A cornerstone of the Act is the General Environmental Duty (GED), requiring reasonably practicable steps to be undertaken to eliminate or otherwise reduce the risks of harm to human health and the environment.

The Environmental Reference Standard (Vic) defines clear and relevant standards, legal rules and statutory obligations to protect and improve the quality of Victoria's waters, having regard to the principles of environment protection set out in the EP Act Vic. Melbourne Airport is predominantly located within the Central Foothills and Coastal Plains Segment for rivers and streams with Steele Creek North and Steele Creek being located in the less sensitive Urban Segment.

For Urban Segment, these waterways have lower quality indicators and objectives to support highly modified water dependent ecosystems.

The indicators and objectives for the identified environmental values have been sourced from Environmental Reference Standard (Vic) (were directly referenced) and where no objective is provided, sourced from other applicable guidelines including:

- National Environmental Protection (Assessment of Site Contamination) Measure, as amended 15 May 2013, National Environmental Protection Council (1999) (NEPM)
- Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG, 2018)
- Australian Drinking Water Guidelines, National Water Quality Management Strategy. National Health and Medical Research Council & Natural Resource Management Ministerial Council (2011) (incorporating rolling revisions) (NHMRC/ NRMCC 2011)
- Guidelines for Managing Risk in Recreational Waters National Health and Medical Research Council (2008) (NHMRC 2008)
- PFAS National Environmental Management Plan Version 2.0 – January 2020 (PFAS NEMP 2020), National Chemicals Working Group of the Heads of EPAs Australia and New Zealand (HEPA, 2020), as amended from time to time.

13.4 EXISTING CONDITIONS

13.4.1 Catchment drainage and surface water features

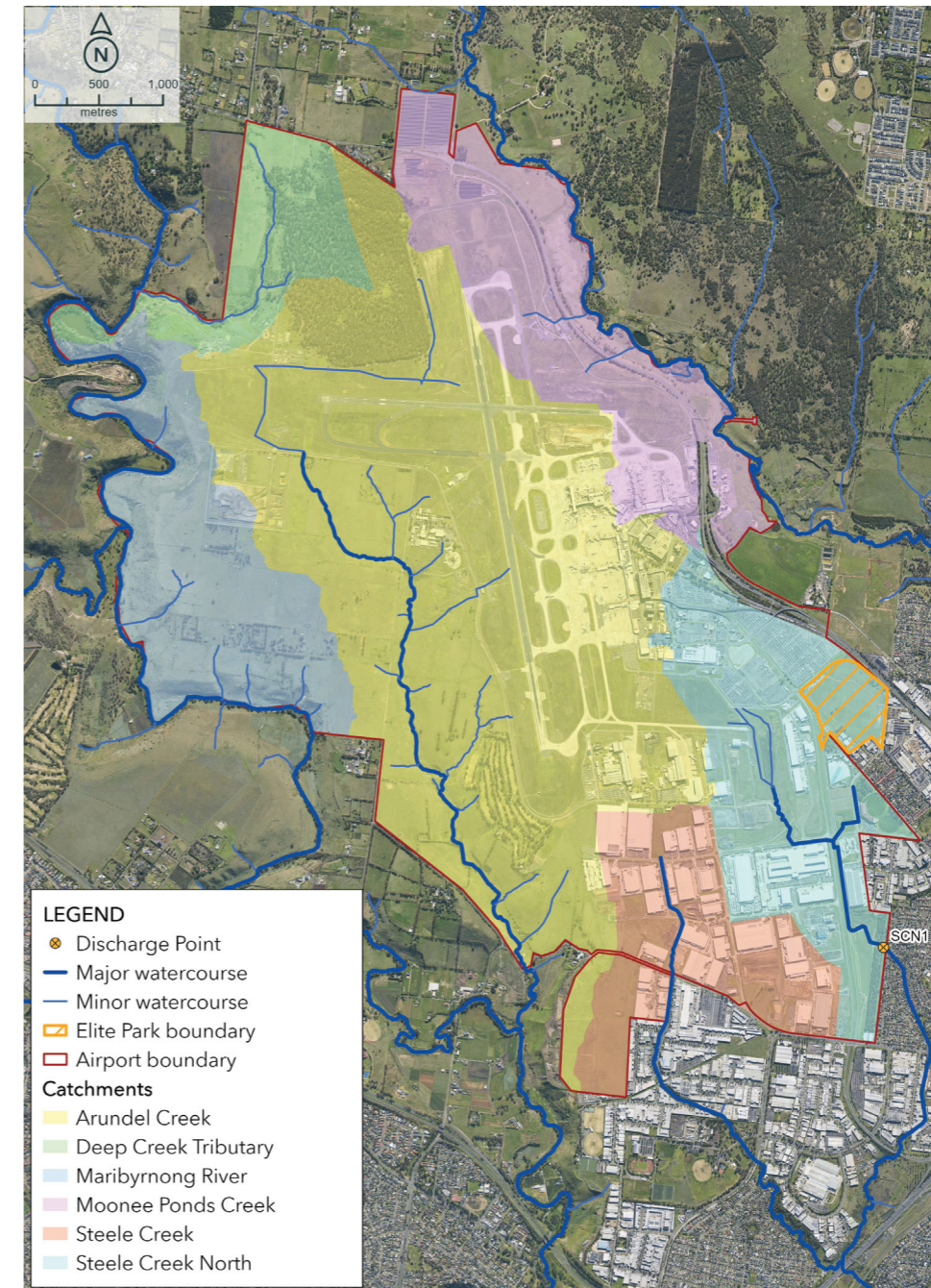
The Melbourne Airport estate drains to a number of local creeks and rivers, including Moonee Ponds Creek, Arundel Creek, Maribyrnong River, Steele Creek and Steele Creek North. Previous ground surface modifications and artificial stormwater drainage infrastructure have modified the pre-existing natural drainage patterns of the site. The current site drainage catchments are shown in Figure 13.31.

The Elite Park precinct is located within the Steele Creek North catchment. Steele Creek North catchment receives discharges from the eastern and southern regions of Melbourne Airport. The proposed works and operation of Elite Park occur only in this catchment.

Steele Creek North flows south along Airport Drive for approximately one kilometre and then through the Steele Creek North water harvesting facility that includes a flood retention basin, sedimentation basin and raingarden, before discharging off the Airport Estate at the SCN1 outfall structure to a concrete drainage channel near Churchill Drive Reserve (Figure 13.31). Steele Creek North then continues to flow south through residential and industrial areas before discharging to Steele Creek approximately 2.5 kilometres south of the airport boundary.

Figure 13.31 Existing drainage and catchment boundaries

Source: Modelled by Senversa using existing surface elevations sourced from Photomapping Project #5806, Melbourne Airport LiDAR Acquisition (8 March 2017)



13.4.2 Erosion Potential

The Elite Park site is currently undeveloped. Surface water flows are largely undisturbed and managed within existing catchment and water monitoring processes. Stormwater infrastructure catchments connected to Elite Park ultimately discharge to Steele Creek North. The surface conditions and gentle slope of the Elite Park project area indicate a low erosion risk in its current state.

13.4.3 Baseline surface water quality

APAM is required to monitor surface water quality as part of environmental obligations under its long-term lease of the airport. The current annual monitoring program consists of approximately 40 locations which include key up-gradient and downgradient discharge points. The intention of the monitoring network is to meet APAM’s responsibilities, verify tenant monitoring programs and limit duplication of data that is being collected by tenants.

The following provides a broad overview of key contributions to water quality in catchments and receiving waterways at Melbourne Airport:

- Natural sources from soil sediment load such as runoff from existing soils across the Melbourne Airport estate and broader catchment, (e.g. naturally occurring metals in soil).
- Agricultural practices (both past and present) in non-operational areas of the airport estate and within the broader catchments (e.g. nutrient loads, faecal coliforms).
- Application of pesticide and herbicides as part of pest management in operational areas of the airport.
- Runoff from operational areas of the airport where use of chemicals and fuels are required as part of general operations.

- Historical accidental spills/releases which may also occur as secondary sources within sediment in the artificial and natural drainage lines.
- Potential impacts during construction activities including increased sediment loads, runoff from imported fill.
- Groundwater discharges to surface water systems.

13.4.4 Monitoring parameters

Melbourne Airport’s surface water quality monitoring program is reviewed and updated periodically to ensure currency and ongoing relevance. The program includes monitoring for parameters listed in Airport Regulations and Environmental Reference Standard (Vic) and consideration of the known water quality contributions as listed in Section 13.4.3 below presents the water quality parameters monitored.

Table 13.23 Water quality parameters monitored

Group	Individual parameters
Physico-chemical	Electrical conductivity, pH, dissolved oxygen, temperature, turbidity, total dissolved solids, suspended solids, hardness, biochemical oxygen demand, chemical oxygen demand
Metals	Aluminium, arsenic, copper, cadmium, chromium, lead, zinc, nickel
Nutrients	Total nitrogen, nitrate, nitrite, total kjeldahl nitrogen, total phosphorus
Hydrocarbons	TPH C6-C40 fractions, benzene, toluene, ethylbenzene, xylenes, naphthalene, chlorinated hydrocarbons, methylene blue active substances
Pesticides and herbicides	Phenoxy acid herbicides, triazine herbicides, synthetic pyrethroids, fungicides, organophosphorus pesticides, organochlorine pesticides
Microbiological	E. coli, faecal coliforms
Per- and poly-fluoroalkyl substances (PFAS)	Extended suite of 28 key PFAS compounds

It should be noted that the adopted guidelines consider water quality within the airport boundary (Airport Regulations) or in the receiving waters (Environmental Reference Standard (Vic)). Runoff into Steele Creek North and other natural creek lines within the Airport bounds is governed by Commonwealth legislation (Airport Regulations). Stormwater runoff and discharge from natural creeks, and modified creeks (Steele Creek North) leaving Melbourne Airport is governed by state legislation (Environmental Reference Standard (Vic)). Many of the monitoring locations within

the current monitoring program specifically target drainage discharge points to understand from where impacts may be derived as part of identifying improvement measures and are not necessarily reflective of water quality within natural drainage lines. Monitoring of all airport boundary discharge points is included in the monitoring program to understand potential contributions to off-site water quality.

13.4.5 General water quality indicators – Airport Regulations

Average concentrations across the historical data set have been compared to Airport Regulations to provide a summary of existing water quality conditions and are summarised in Table 13.24.

Table 13.24 General water quality indicators at sample location SCN-1 - Airport Regulations

Group	Individual parameters	Comments
Physio-chemical	Average concentrations for physio-chemical parameters generally meet Airport Regulations. The key exceedances are:	Surface water sampling is often undertaken during rainfall events, not during low flow periods where turbidity and total suspended solids would not be as significant.
	Turbidity based on the variation of total suspended solids compared to long term averages, noting that recent results indicate lower turbidity to long term averages.	
Nutrients	Average concentrations for ammonia (as N), total nitrogen, phosphorous (as P) have been reported above Airport Regulations.	Ammonia, total nitrogen and phosphorous also exceed at some upgradient locations and are considered to be catchment wide issues.
Microbiological	Average concentrations for faecal coliforms have been exceeded across the airport.	Faecal coliforms have also been reported at upgradient locations and are considered to be a catchment wide issue.

For the purposes of this MDP, assessment of project risks from general water quality indicators will need to consider the current risk profile and general water quality. Indicators will be managed to ensure that the risk profile does not increase and/or can be improved as part of project works.

13.4.6 Comparisons against Environmental Reference Standard (Vic) quality objectives

The historical data set for SCN1, was reviewed against Environmental Reference Standard (Vic) quality indicators and the results are summarised in Table 13.25.

SCN1 as the boundary discharge point for Steele Creek North is considered representative of airport discharge and receiving waters (as defined in Environmental Reference Standard (Vic).

Table 13.25 General water quality indicators in the Steel Creek North Catchment – Environmental Reference Standard (Vic)

Quality Indicator	Metric	Receiving water objective	Environmental Quality Indicator Results
Electrical Conductivity	75 th percentile	≤ 3000 µS/cm	The objective was met.
pH	25 th percentile	≥ 6.5	The 25 th percentile objective was met.
	75 th percentile	≤ 8.2	The 75 th percentile objective was met.
Dissolved Oxygen ¹	25 th percentile Maximum	≥ 60% Saturation	Field and laboratory DO met the 25th percentile objective.
		130 % Saturation	SCN1 has historically reported above the maximum (2 out of up to 27 events) with no exceedances post installation of the bioretention basin that became operational in 2015.
Turbidity	75 th percentile	≤ 30 NTU	The objective was not met at all locations including SCN1. Surface water sampling is often undertaken during rainfall events, not during low flow periods where turbidity and total suspended solids would not be as significant. For SCN1, a significant decrease in turbidity and total suspended solids has been reported since the bioretention basin became operational in 2015.
Total phosphorus	75 th percentile	≤ 110 µg/L	The objective was not met at SCN1. The concentrations of phosphorous have decreased over time, in particular since the bioretention basin became operational in 2015.

Quality Indicator	Metric	Receiving water objective	Environmental Quality Indicator Results
Total nitrogen	75 th percentile	≤ 1,200 µg/L	The objective was not met at SCN1. However, the objective has been met since the bioretention basin became operational in 2015.
E. coli ² (water based recreation)	Short term indicator	≤ 260 orgs / 100mL (consecutive sample) ≤550 orgs/100 mL (single sample)	Average E. coli concentrations exceeded the consecutive sample guideline at SCN1. Maximum E. coli concentrations have exceeded the single sample guideline at SCN1. 95th percentiles indicate that water quality is not suitable for primary contact recreation but is suitable for secondary contact recreation at site discharge points noting that sampling is often undertaken during rainfall events.

Note 1: Dissolved oxygen was converted from mg/L to % saturation assuming 1 atmospheric pressure and temperature of 20 degrees Celsius.

Note 2: These results are provided for general comparison only as the collection of E. coli data as part of surface water monitoring program does not fully comply with the *Environmental Reference Standard (Vic)* requirements to allow for direct comparison with the guidelines.

Review of the surface water data against Environmental Reference Standard (Vic) indicates that not all objectives are met. This is generally consistent with the outcomes from assessment against the Airport Regulations. These quality indicators can often be impacted by broader catchment quality and environmental factors. As previously noted, as surface water sampling is undertaken at stormwater outlets during rainfall events to maximise available sampling locations in the network, it is not necessarily a true indication of general water quality in the receiving waters.

13.4.7 PFAS

The key source areas within this catchment for PFAS are the Satellite Fire Station and Maintenance Areas (refer to Figure 14.34). PFAS impacts within the Steele Creek North catchment are summarised as follows:

- Historically, concentrations of PFOS have exceeded the guideline value for freshwater ecosystems (95 per cent species protection level); however, no exceedances have been reported since Spring 2018 and the long-term average concentration does not exceed the guideline value.
- Historically Sum of PFHxS and PFOS has exceeded the stock watering guideline value but more commonly prior to 2018 with less frequent exceedances in recent years.
- No exceedances of the adopted guidelines for PFOA have been reported.
- Average concentrations of Sum of PFHxS and PFOS at SCN1 discharge point are 0.096 µg/L.

PFOS concentrations are exceeded at all locations (both on and off-site) due to the low guideline limit of 0.00023 µg/L for 99 per cent protection of species (which is adopted in consideration of bioaccumulation potential). It should be noted that the low guideline limit of 0.00023 µg/L is below the laboratory limits of reporting of 0.01 µg/L.

Estate-wide human health risk assessments have been commissioned by APAM and identified that on-site risks are low and acceptable with existing management controls (Senversa, 2022; Senversa, 2024). Off-site risks have also been assessed to be low and acceptable, with the exception of:

- Potentially unacceptable health risks due to recreational fish consumption. These risks are managed via an EPA fish consumption advisory.
- Potentially unacceptable risks to ecological receptors due to indirect exposure pathways (bioaccumulation of PFAS in the aquatic food chain). However, active clean-up of impacted off-site waterways to reduce these risks has been assessed as impracticable due to the associated physical damage to the off-site ecosystems and riparian zones, which is considered to be more harmful than the potentially elevated risk posed by PFAS pollution. APAM is therefore working with airport tenants as part of broader estate management improvements to reduce PFAS migration from the airport into surrounding waterways – with the objective of progressively reducing the off-site risk profile.

13.4.8 Metals and toxicants (non-PFAS)

Average and maximum concentrations at sample location SCN1 have been compared to Airport Regulations (and, where applicable, to Environmental Reference Standard (Vic)) to provide a summary of existing water quality conditions at the point of discharge for the Elite Park project area. They are summarised in Table 13.26

Table 13.26 Summary of non-PFAS impacts at SCN1

Group	Airport Regulations	Airport Regulations
Metals	<p>Aluminum, copper and zinc are the key dissolved metals concentrations that exceed Airport Regulations (average and maximum concentrations).</p> <p>Aluminum is also reported in waterways upgradient of the airport which indicate the widespread presence of aluminum in the catchments and not a site derived pollutant. The presence of copper and zinc are also reported in soil and groundwater and are inferred to be associated with natural background concentrations in soil.</p> <p>Concentrations of lead had historically on occasion exceeded Airport Regulations at SCN1 but has not exceeded since 2018.</p> <p>Concentrations of chromium had also historically exceeded Airport Regulations at SCN1 but has not exceeded since 2016.</p>	<p>Metals also exceed aquatic ecosystem 95% protection guidance with many also exceeding upstream of the airport.</p>
Hydrocarbons	<p>Long term averages are below Airport Regulations with the majority of records below laboratory detection limits. Petroleum hydrocarbons have been reported on occasion above Airport Regulations between 2014 and 2016.</p>	<p>Average concentrations are all below Environmental Reference Standard (Vic) guidance at Estate discharge points.</p>

13.4.9 Observed improvements of water quality in Steele Creek North catchment

There is significant research and literature available exploring the correlation between TSS and heavy metal concentrations (Nasrabadi et al, 2016); many studies demonstrate a positive correlation between the two. Studies also demonstrated that excellent removal of dissolved heavy metals can be expected through bioretention infiltration (Davis et al, 2003, Jianlong et al, 2017). Adsorption and filtration are the most dominant metal retention processes present within bioretention systems, with metals

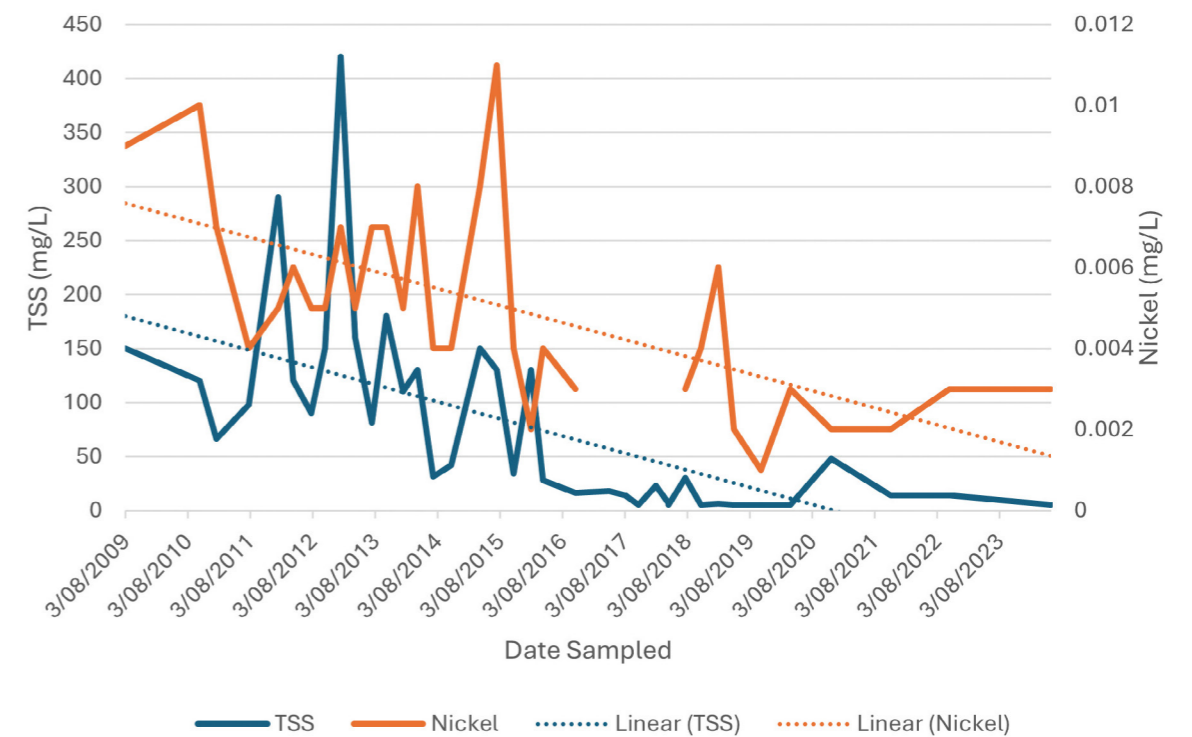
becoming largely immobile following bonding to bioretention media, and predominantly concentrated within the top layer of biofiltration media.

Concentrations of key water quality indicators at the monitored discharge point for Steele Creek North - SCN1, in more recent sampling events were generally less than the historical maximum and the long-term average concentrations, which suggests water quality may be improving. The Steele Creek North bioretention basin was installed up-gradient of monitoring location SCN1 in 2015. As-built drawings prepared by Spiire in 2015 indicate that the existing dam was drained and desludged prior to construction,

and a 100,000 m³ flood retention basin and a 7,000 m² sedimentation basin with a rain garden were installed. The bioretention basin is designed so that water infiltrates through mulch, a sandy loam filtering material, and coarse sand transition layer prior to draining out of the system. The results indicate a general downwards trend over time for Total Suspended Solids (TSS) and aluminium, copper, nickel, zinc and Sum of PFHxS and PFOS (noting that

PFAS compounds were not incorporated into the monitoring program until 2017). Figure 13.32 below presents an example of the relationship between total suspended solid and nickel concentrations. Pre-2015 downstream concentrations were much higher and subject to larger fluctuation compared to post-2015.

Figure 13.32 Observed relationship between Total Suspended Solids (TSS) and metals concentrations at SCN1



13.5 ASSESSMENT OF POTENTIAL IMPACT

The construction and operation of Elite Park has the potential to modify existing catchment specific water quality, surface water and erosion characteristics.

The construction stages of the program include earthworks and use of plant and machinery presenting risks for enhanced erosion and sedimentation and discharge of PFAS, hydrocarbons and other hazardous materials. These effects may be experienced on-site and off-site. Operational phase impacts resulting from the increase in impervious land use include modified hydrologic and hydraulic responses to rainfall events and altered water quality.

This section assesses likely impacts on local site features and off-site features with respect to erosion potential, water quality and surface water. The assessment process is based on a review of project-specific site characteristics which for the purposes of this MDP is qualitative in nature but will be confirmed via quantitative methods during detailed design. Impacts are assessed relative to the existing condition and legislative requirements.

13.5.1 Erosion potential

The potential for erosion within the Elite Park project area results from the stripping of topsoil, vegetation removal, pavement removal and bulk earthworks. Impacts may occur at the site of erosion, in the transportation of sediments into surface water systems and/or at the site of sediment deposition.

Construction phase

There is potential for impacts to stormwater quality during construction which may result in reduced water quality leaving the Elite Park site.

During construction, the following activities have the potential to contribute to erosion risk and sedimentation:

- Topsoil stripping and vegetation removal
- Excavation and handling of soil and fill material.
- Poor stockpiling of soil.
- Placement and re-use of soil / fill material near drainage lines and other watercourses
- Movement of vehicles, plant and equipment over unsealed soils and tracking sediment on access roads and other off site areas

Potential impacts relating to poor erosion and sediment control (ESC) include:

- Sediment runoff into adjacent drains and watercourses (Steele Creek North).
- Mobilisation of potentially contaminated soils to adjacent drains and watercourses.
- Reduction in surface water quality in Steele Creek North and downstream aquatic ecosystems.
- Sedimentation and reduction in water quality in the Steele Creek North bioretention basin, which may impact on suitability be used for stormwater harvesting.
- Loss of topsoil and soil erosion in existing and newly formed surfaces (eg working platforms, batter slopes etc).
- Dust generation from wind events, which has the potential of impacts to sensitive receptors and airfield operations.

Operational phase

During the post-construction and operational phases of Elite Park, erosion risks may be associated with greater run-off and surface water flows from an increase in impermeable surfaces. These ongoing risks may increase sediment loading in surface waters without suitable design considerations and effective mitigation measures.

13.5.2 Surface water run off

Elite Park works have the potential to impact the surface water and flooding behaviour of Steele Creek North. The proposed works will increase

the impervious surfaces within Steele Creek North catchment and without mitigation, may cause increased flows to enter the waterway.

13.5.3 Water Quality

The increase in impervious areas and modifications to land use also have the potential to also impact on water quality. Potential water quality impacts include:

- Hydrology – changes in the timing, frequency and volume of flow. Increases in flow volumes and rates generally increase the pollutant generation potential of a catchment.
- Water quality – changes in the quality of water and load of pollutant generated. Typically, low intensity uses such as vegetated lands generate lower quantities of pollutants in run-off, while higher intensity usage types such as urban areas generate significantly higher quantities of pollutant in run-off. Hence intensification of land use brought about through construction of Elite Park development in previously grassed areas may increase the pollutant generation potential of a catchment.

13.6 AVOIDANCE, MANAGEMENT AND MITIGATION MEASURES

The construction and operation of Elite Park may, without mitigation and management measures, impact surface water, water quality and quantity and erosion potential.

13.6.1 Erosion potential

Mitigation measure in design and construction

Management and mitigation measures to effectively limit the risk of erosion during construction of Elite Park will include implementation of industry standard erosion and sediment controls in accordance with requirements of the Melbourne Airport EMP. The specific details regarding implementation and monitoring of mitigation measures will be included any project-specific CEMP developed for Elite Park works.

Operation

The proposed development works will involve the majority of the Elite Park area being converted to hardstands. The increase in impervious surfaces post-construction will inherently reduce the ongoing erosion potential within the Elite Park area. Surface water generated from hardstands will be managed via stormwater designs that incorporate Water Sensitive Urban Design principles. Grassed areas, garden beds, grassed swales and stormwater drains will be maintained in accordance with the Melbourne Airport EMP to ensure stable surfaces are maintained and therefore the potential for erosion is reduced.

13.6.2 Surface water

Mitigation in design

The hydraulic modelling to be undertaken as part of Elite Park design will inform any specific measures to mitigate impacts from the change in conditions within the catchment such as the increase in impervious surfaces. This will include consideration of existing controls such as the Steele Creek North bioretention basin as well as any additional mitigation measures that may be required to achieve a net-zero flux outcome. Drainage designs will incorporate Water Sensitive Urban Design principles as appropriate.

Mitigation in construction

During the construction of Elite Park, there is a risk that a significant rainfall event could result in an increase to the existing condition discharges if the designed drainage infrastructure has not been completed. This risk could occur if the construction of the new infrastructure did not occur in parallel with the construction of the required drainage infrastructure (swales and retention basins). This risk is considered low due to the requirements to implement elements of this drainage infrastructure to manage the water quality during the construction process. The CEMP will also include controls and management of dewatering where required to remove standing or stored water from the construction site following a rainfall event.

13.6.3 Water quality

Mitigation in design

The Elite Park design will include water quality modelling (e.g. MUSIC modelling) and best practice stormwater initiatives (water sensitive urban design principles) to identify any potential changes in water quality and inform the required mitigating measures. This will include consideration of existing controls such as the Steele Creek North bioretention basin as well as any additional mitigation measures that may be required to ensure there is no negative impact to water quality and where practicable measures that may also improve current water quality for the operational phase of Elite Park.

Establishment phase

Once construction has commenced there are additional controls which will be applied to ensure the stormwater mitigation measures have been established correctly and are operating at design levels. During the on-maintenance period the following elements will be verified by the contractor as part of the normal construction verification process:

- No water ponding in swales (for more than a couple hours after rainfall flows have passed).
- Underflow drainage is working adequately.
- Vegetation has established appropriately.

Operation

During the operational phase, continued monitoring and maintenance will be required to ensure that stormwater systems remain operational. The Melbourne Airport EMP will apply to all development applications and the ongoing operation of tenancies.

13.7 CONCLUSIONS

Impact summary assessments of the Elite Park works on erosion, surface water and water quality are provided in Section 17. A summary of the outcomes is presented below:

- Steele Creek North runs through the airport and part of this catchments will be impacted by Elite Park. The proposed works will increase the impervious surfaces within this catchment and without mitigation, may cause increased flows to enter the waterways.
- The impacts from Elite Park are expected to be minor. Impacts associated with changes in flow and flood levels/depths are expected to be localised and will be mitigated to ensure the proposed development will not impact land downstream from the airport.
- Water sensitive urban design will be incorporated into the design of Elite Park to improve the quality of water discharging into waterways. Water quality treatment measures (both existing and new) will effectively remove the increased pollutants the project will generate.

13.8 REFERENCES

- Airports Act 1996.
- Airports (Environment Protection) Regulations 1997.
- ANZG 2018. Australian and New Zealand Guidelines for Fresh and Marine Water Quality.
- APAM, 2021, Melbourne Airport Environmental Management Plan.
- APAM, 2022a. Melbourne Airport Master Plan.
- APAM, 2022b. Melbourne Airport PFAS Management Framework (Rev. 2).
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- Environment Protection Act 2017 (Vic).
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- National Environment Protection Council Act 1994. A1994-95. Republication No 8. Effective 1 September 2016. Australian Capital Territory.
- NEPM, 1999. National Environmental Protection (Assessment of Site Contamination) Measure, as amended 15 May 2013, National Environmental Protection Council.
- NHMRC/NRMMC 2011. Australian Drinking Water Guidelines, National Water Quality Management Strategy. National Health and Medical Research Council & Natural Resource Management Ministerial Council (2011) (incorporating rolling revisions).
- NHMRC 2008. Guidelines for Managing Risk in Recreational Waters National Health and Medical Research Council.
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- Yarra River Protection (Wilip-gin Birrarung murrn) Act 2017.
- Water Act 1989 (Vic).

14

CONTAMINATION
AND WASTE14.1 STATUTORY AND POLICY
REQUIREMENTS

Melbourne Airport is located on Commonwealth land. The Airports Act 1996 (Airports Act), the Airports (Environmental Protection) Regulations 1997 (Airport Regulations) and Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) are the key pieces of legislation that set the regulatory framework for Contamination and Waste related works on airport land. Where there is the potential to impact on the environment outside of the airport estate boundary (and on State land), Victorian acts, policies and regulations apply.

Consideration of both on-estate and off-estate impacts in this assessment meets the requirements of the Significant Impact Guidelines (Department of Sustainability, Environment, Water, Population and Communities, 2013) that the MDP consider the project in the context of the 'whole of the environment' affected by Elite Park.

The Airport Regulations include criteria for "accepted limits" of contamination for soil and water pollution.

The Airport Regulations also refer to Section 14 of the National Environment Protection Council Act 1994 (Division 2 – Making of national environment protection measures) where monitoring is to be undertaken "in a way that is not inconsistent with (i) any international convention, treaty or agreement, relating to environment protection to which Australia is a party; or (ii) a provision of national environment protection measures made under section 14 of the National Environment Protection Council Act 1994".

The Environment Protection Act 2017 (EP Act Vic) and Environment Protection Regulations 2021 (EP Regulations Vic) apply in relation to waste management as there is no Commonwealth equivalent for the management of wastes. In addition, wastes generated by Elite Park may be managed/disposed of off-estate in which case the State legislation applies.

The following sections outline key regulations and guidelines, noting that supporting guidance documentation is often reviewed and updated on a regular basis. Any changes in legislation, regulations and guidance will be considered and adopted by the Elite Park project as required.

14.2 SOIL AND
GROUNDWATER

In addition to the regulatory framework outlined in Section 14.1, the following key regulations and guidelines apply to the assessment of soil and groundwater contamination:

- Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG 2018).
- Australian Drinking Water Guidelines, National Water Quality Management Strategy. National Health and Medical Research Council & Natural Resource Management Ministerial Council (2011) (Updated October 2017) (NHMRC/NRMMC 2011).
- Guidelines for Managing Risk in Recreational Waters National Health and Medical Research Council (2008) (NHMRC 2008)
- Guide to the Sampling and Investigation of Potentially Contaminated Soil. Part 2: Volatile Substances, Australian Standards: 4882.2
- Guide to the Investigation and Sampling of Sites with Potentially Contaminated Soil, Part 1: Non-Volatile and Semi-Volatile Compounds, Australian Standard: AS4482.1-2005.
- National Environmental Protection (Assessment of Site Contamination) Measure, as amended 15 May 2013, National Environmental Protection Council (1999) (NEPM).
- PFAS National Environmental Management Plan Version 2.0 – January 2020 (PFAS NEMP), National Chemicals Working Group of the Heads of EPAs Australia and New Zealand (HEPA, 2020) and draft PFAS NEMP 3.0 for public consultation.
- Environmental Reference Standard, Victorian Government, 2021 (as amended by Environmental Reference Standard No. S158 Gazette 29 March 2022).

The assessment also considers the Melbourne Airport PFAS Management Framework (APAM, 2022) which provides guidance for reuse and management options of PFAS-impacted soil and water across the Melbourne Airport estate. The framework identifies management levels for soil reuse and thresholds for temporary stockpiling and management of soils for future reuse within the airport. The framework applied to current construction and maintenance

projects across the Melbourne Airport estate. For major projects, additional requirements above those outlined in the framework may be required if identified as part of a risk-based approach to PFAS management.

14.2.1 Adopted Assessment Criteria for Soil and Groundwater

Taking into consideration the relevant legislation and guidance and the proposed land use, the following assessment criteria were adopted for soil investigations:

- Airport Regulations Soil Pollution – accepted limits – Table 1 – areas of an airport generally.
- Airport Regulations Soil Pollution – accepted limits – Table 2 – areas of environmental significance.
- NEPM Human Health Setting ‘D’ – Commercial / Industrial.
- NEPM Maintenance of Ecosystems – Commercial/ Industrial (including relevant derivations for nickel and zinc).
- PFAS NEMP Human Health – Industrial / Commercial.
- PFAS NEMP Ecological indirect exposure – All land uses.
- Melbourne Airport PFAS Management Levels.

The following assessment criteria were adopted for groundwater investigations with consideration to both on-estate and off-estate receptors:

- Airport Regulations – Freshwater.
- PFAS NEMP “Aquatic Ecosystem – Freshwater 95 per cent and 99 per cent species protection” criteria.
- PFAS NEMP Health-based guidance values – Drinking water and recreational water.
- ANZG 2018 - “Aquatic Ecosystem – Freshwater 95 per cent species protection” criteria.
- ANZG 2018 – “Primary Contact Recreation” and where relevant, guidelines were sourced from NHMRC 2011.
- ANZG 2018 – “Irrigation & Stock watering”.

When assessing existing soil impacts, consideration of all applicable guideline criteria are used as screening levels noting that in general, limits for areas of environmental significance are the lowest protective value and that where human health exceedances are exceeded this indicates an exceedance of all adopted criteria.

When assessing existing impacts in groundwater, consideration of all applicable guideline criteria are used as screening levels with more conservative 99% species protection threshold limits adopted for PFAS compounds based on the potential for bioaccumulation and biomagnification.

14.2.2 Asbestos

The following additional legislation and guidance are applicable to management of asbestos:

- Work Health and Safety Act 2011 (Cth).
- Work Health and Safety Regulations 2011 (Cth).
- Occupational Health and Safety Act 2004 (Vic).
- Occupational Health and Safety Regulations 2017 (Vic).
- WorkSafe Guidance Note - Asbestos-contaminated soil, October 2010 (Vic).

14.2.3 Wastes

In addition to the regulatory framework outlined in Section 14.1, the following key regulations and guidelines apply to the management of wastes:

- Guide to classifying industrial waste, Publication 1968¹, EPA Victoria.
- Waste disposal categories – characteristics and thresholds, Publication 1828, EPA Victoria.
- Relevant EPA Waste Determinations as published on EPA’s website (<https://www.epa.vic.gov.au/determinations>) including PFAS, Fill Material and Recycled Aggregates.

14.3 EXISTING CONDITIONS

This section outlines the existing conditions of the project area that relate to soil, groundwater and waste.

14.3.1 Geology

The project area is underlain by the Quaternary-aged Newer Volcanics Formation. It is comprised of moderate to very high strength, basalt rock with an overlying soil profile of residual basalt clay and fill soils.

Soil investigations undertaken for the project (Douglas Partners, 2022; Doulgas Partners, 2024) have confirmed that the ground conditions across the development footprint are generally consistent with the wider region. Fill soils were observed across the project area generally consisting of reworked or disturbed natural soils of 0.05 to 0.2 metres thickness. Residual clays were typically observed to be 2.1 metres to greater than 3.0 metres thick. Shallow basaltic rock was generally extremely or highly weathered in the western half of the site and more competent (slightly to moderately weathered) in the east.

14.3.2 Hydrogeology

The groundwater table across the project area occurs in the Newer Volcanics. Groundwater was encountered during project investigations at one location at a depth of 11.24 metres bgl) (Douglas Partners, 2022). This is consistent with recorded groundwater levels in nearby monitoring wells.

Based on the depth to groundwater within the project area and the proposed depth of intrusive works as part of the development, groundwater is not expected to be intercepted as part of the project main works. However, groundwater may be encountered if deep foundation and footing works are required based on proposed structures and therefore may need to be managed during these works.

Regional groundwater flow is generally south towards Port Phillip Bay. Based on groundwater depths recorded in monitoring wells across the airport estate within the Newer Volcanics Formation, this general trend is observed. Across the broader estate, groundwater is heavily influenced by the presence of incised river/creek valleys with groundwater flow direction having a south westerly component towards Arundel Creek and Maribyrnong River.

The current APAM groundwater monitoring well network consists of 37 wells located across the airport estate as well as project specific and tenant managed monitoring wells. Figure 14.33 presents the monitoring well network that was used to inform site conditions for the project area.

[1] EPA Publication numbers in this document are presented as the primary publication number noting that these publications are updated regularly with current versions at the time of writing being Publication 1968.1 and 1828.2

Figure 14.33 Groundwater monitoring well network within and surrounding the project area (Source: Senversa, 2021, Douglas Partners, 2022)



14.3.3 Current and Historical Land Use

The project area is located within the landside area of the Melbourne Airport estate. The project area is predominantly vacant apart from the “Wait Zone” carpark in the northwest. Land uses within the surrounding area include roadways, long term carparking areas, leased areas for commercial/ industrial use with a broad range of activities including URBNSURF and predominantly un-utilised/ undeveloped areas of the business and commercial precincts.

Other key potentially contaminated land uses adjacent to the project area include the Satellite Fire Station and Maintenance Areas which are discussed further in Section 14.3.4. Although no landfilling activities have been identified within the project area, the former Tullamarine Landfill is located directly northeast of the project area and is discussed further in Table 14.27.

The site has been predominantly vacant from 1931 (earliest historical aerial available) to 2024 except for some small structures present across the site from 1968 onwards. No potential historic sources of contamination were identified as part of the site historic review (Douglas Partners, 2024).

14.3.4 Contaminants of Potential Concern

PFAS

At airports, Aqueous Film Forming Foams (AFFF) containing per- and poly-fluoroalkyl substances (PFAS) were historically used because they are very effective at putting out liquid fuel fires. At Melbourne Airport, AFFF has been stored in aircraft hangers for deluge systems and used extensively in training for and responding to firefighting emergencies involving liquid fuels. The closest potential source areas to the Elite Park project area include operational and maintenance areas of the airport (west of the project site) and the Satellite Fire Station operated by Airservices Australia (Airservices) (Figure 14.34). Diffuse PFAS impacts are widespread across the Airport Estate including the Elite Park Project Area.

The key PFAS compounds of concern within the Airport Estate are perfluorooctane sulfonate (PFOS) and perfluorohexane sulfonate (PFHxS). Although other PFAS compounds have been detected above laboratory Limits of Reporting (LOR), PFOS and PFHxS are considered suitable as indicators of overall PFAS impacts and the primary drivers of risk as they:

- Have as high or higher toxicity than other PFAS for which toxicological studies have been conducted
- Have screening and toxicity reference values published by Australian agencies for use in both screening level and detailed quantitative health risk assessments
- Comprise the majority (predominantly greater than two-thirds) of total analysed PFAS compounds at Australian sites where PFAS-containing fire-fighting foams have been used.

It is noted that screening levels are also available for perfluorooctanoic acid (PFOA), however PFOA has not been demonstrated to be a risk driver at Melbourne Airport estate due to its lower toxicity than PFOS and PFHxS and its occurrence at lower concentrations in environmental media.

Extensive PFAS investigation works have been undertaken across the Melbourne Airport estate, including sample locations within the project area. A heatmap was developed based on the estate-wide sampling to identify areas of potential elevated PFAS impacts (refer to Figure 14.34). As shown, the Elite Park project area is modelled to be Level 1 based on the defined Management Levels in the Melbourne Airport PFAS Management Framework.

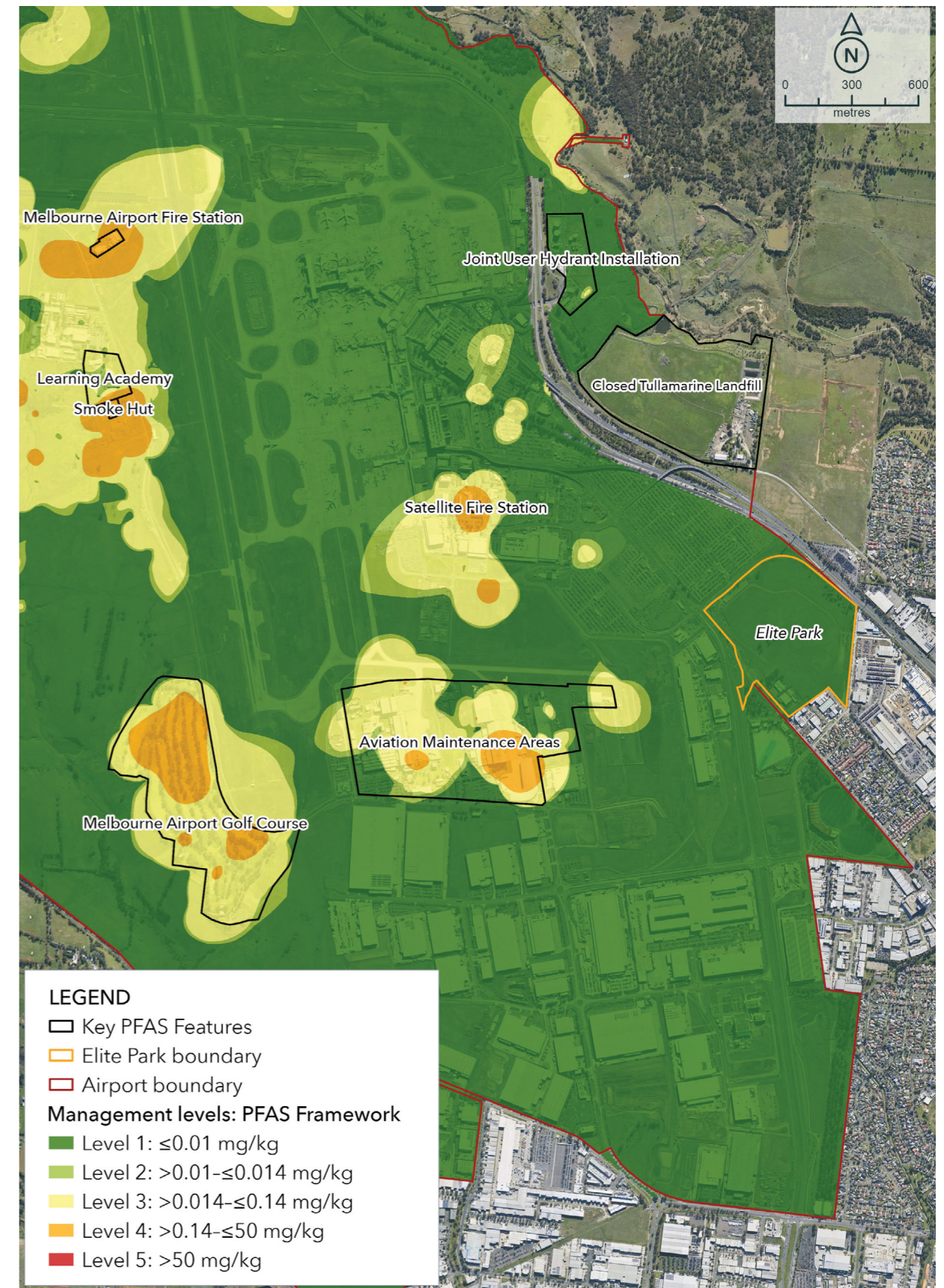
Site-specific sampling was undertaken across the project area (Douglas Partners, 2024). PFAS concentrations (as indicated by sum of PFOS and PFHxS) were reported above laboratory LOR, particularly in near surface soil samples, however, concentrations are below 0.01 mg/kg (Figure 14.34), and are therefore below adopted screening levels and within the range of ambient concentrations reported in mixed and urban land use areas (EPA Victoria Publication 2049). PFOA concentrations are generally non-detect and no exceedances of the ecological or health-based criteria have been reported within the project area.

In total, 86 soil sample locations have been investigated within the project area to inform the potential for site contamination.

Although project specific groundwater wells have not been investigated, previous monitoring of groundwater within and adjacent to the project area has generally reported below laboratory limits of reporting for PFAS with only GA19-BH083 (located directly east of Elite Park) reporting a PFAS concentration (as indicated by sum of PFOS and PFHxS) of 0.013 ug/L which is within the range of concentration considered representative of diffuse impacts on Melbourne Airport Estate and surrounds.

In summary, the soil and groundwater data collected to date (both project specific and broader estate) is considered comprehensive and the understanding of PFAS impacts for the purpose of the MDP is considered sufficient. Further investigations are not likely to be required to inform management requirements for PFAS impacted soil and groundwater.

Figure 14.34 Concentration map of PFOS+PFHxS total concentrations in soil (near surface) and key (Source: Data collation from Senversa, 2021)



Other Contaminants

Other non-PFAS contaminants of potential concern in soil within the project area include metals, asbestos and herbicides/pesticides. Site-specific sampling did not identify any exceedances of the adopted ecological or human health criteria protective of commercial/ industrial land use settings for these contaminants.

In addition to PFAS impacts reported in groundwater, the following contaminants have been reported above adopted guideline levels in groundwater monitoring wells in the surrounding Airport Estate:

- Groundwater quality parameters including total dissolved solids, pH, chloride, phosphorus, sulfate and sodium
- Nutrients in particular total nitrogen
- Metals in particular chromium, cobalt, copper, iron, manganese, nickel, selenium, silver and zinc with isolated occurrences of arsenic, lead, mercury, molybdenum and vanadium.

14.3.5 Summary of impacts across project area

Table 14.27 summarises key contamination issues and the known and potential impacts across the project area.

Table 14.27 Summary of impacts across the project area

Key Contamination Issue	Summary of impacts across project area
Diffuse PFAS impacts in soil	The absence of observed PFAS sources within the project area and the consistency of low-level concentrations reported in samples collected in the project area suggest a low risk of identifying new and unexpected PFAS impacts. The presence of low level (Level 1) PFAS concentrations is considered to present a low risk to the project.
Metals impacts in soil	Metals have been identified as a contaminant of potential concern both as naturally elevated occurrence in geological units as well as at most areas where there has been any historical site use. The data indicates that the project area contains low concentrations of metals in soils, below the Airport Regulations Soil Pollution – accepted limits ‘areas of an airport generally’ (Schedule 3). Isolated exceedances of the Airport Regulations Soil Pollution – accepted limits ‘areas of environmental significance’ (Table 2) included chromium and nickel. The presence of low level metal concentrations is considered to present a low risk to the project.
Soil impacted by demolition and building waste (asbestos)	The presence of asbestos in soil is considered likely in localised areas where historical buildings/ infrastructure has been present and/or if deeper filling areas are encountered. Asbestos containing materials may also be present in some existing conduits that will require removal and/or replacement as part of project works. The potential presence of demolition and building waste including unexpected finds of asbestos in shallow soils is considered to present a low risk to the project.
Use of herbicides and pesticides	The use of herbicides and pesticides for weed control and insect management has been identified as a contaminant of potential concern across the Melbourne Airport estate. No impacts have been identified within the project area with all results reporting below laboratory limits of reporting.

Key Contamination Issue	Summary of impacts across project area
<p>Impacts from neighbouring closed Tullamarine Landfill</p>	<p>No landfilling activities have been identified within the project area.</p> <p>The former Tullamarine Landfill located approximately 540 m to the northeast of the project area operated as a liquid and hazardous waste disposal site from 1972 to 1986 and continued to accept solid waste until 2008.</p> <p>The project area is outside of the landfill buffer zone and therefore the likelihood of intercepting landfill gas as part of the works is low. Although likely to be low risk, the potential for deeper preferential pathways in the Sandringham Sandstone and Older Volcanics may result in elevated methane levels in these deeper units further from the landfill. These deeper units are not expected to be intercepted as part of the proposed works.</p> <p>The extent of groundwater impacts from the former landfill are not fully delineated and may extend below the project area. Key contaminants of potential concern in groundwater related to landfilling activities include: PFAS compounds, nitrate, metals and hydrocarbons.</p> <p>Based on the depth to groundwater within the project area and the proposed depth of intrusive works as part of the development, groundwater is not expected to be intercepted as part of the project main works. No significant dewatering is proposed as part of the project but if required may need to consider drawdown impacts and migration of groundwater during any extraction processes.</p>
<p>Contaminated groundwater</p>	<p>The groundwater quality is influenced by a number of factors including targeting deeper aquifers with poorer groundwater quality parameters, varying geologic units influencing dissolved metal concentrations, regional background concentrations of metals and nutrients, diffuse impacts from off-estate sources (former Tullamarine Landfill) and on-estate sources in the broader area (various historic use). Based on the depth to groundwater within the project area and the proposed depth of intrusive works as part of the development, groundwater is not expected to be intercepted as part of the project main works.</p>

14.3.6 Other soil characteristics and impacts

Acid Sulfate Soil

Acid sulfate soil is the common name given to soils (and rock) that contain metal sulphide materials which have the potential to generate sulphuric acid when exposed to oxygen which could occur during construction (e.g. dewatering or excavation activities).

An online review of the Atlas of Australian Acid Sulfate Soils (CSIRO, 2013) was undertaken and the project area is not identified as an area of known or potential acid sulfate soils. The surface geology and geological units likely to be encountered during construction activities within the project area are primarily the Tertiary-aged Newer Volcanics unit which are not recognised potential acid sulfate soil generating soil types/rock types in Victoria.

Odour, Gas and Vapours

Excavation and other construction activities could release underground gas and vapours impacting human health and the environment. Excavation of soils during construction may also expose volatile contamination and create a pathway for gas and vapours to migrate from below the ground surface into buildings and other enclosed spaces. Potential site derived sources of vapour, odour and gas with the project area are considered to be low risk. As discussed in Table 14.27 the main risk identified is associated with the former Tullamarine Landfill, in particular if deep piling and foundation works are required to support the proposed buildings identified.

14.3.7 Conceptual Site Model

Table 14.28 presents a summary of the potential sources of contamination, the identified receptors that may be exposed to contamination and the pathways by which sources of contamination may reach receptors.

Table 14.28 Conceptual site model

Source	Contamination	Pathway	Potential Receptor(s)	Potential Linkage
Diffuse PFAS Impacts	PFAS contamination in shallow soil and groundwater.	Dermal contact, dust inhalation, ingestion, uptake by plants and organisms, leaching to surface water and groundwater and discharging off-estate into waterways, transport of impacted soils via water run-off.	Construction/maintenance workers. Land-based and aquatic based ecosystems, surface water users.	PFAS concentrations are below the adopted criteria protective of workers and indirect ecosystems protection. The risk associated with these low-level, diffuse concentrations is considered low providing the management controls for Level 1 soils in line with the Melbourne Airport PFAS Management Framework are adhered to.
Fill and natural soils	Metals contamination both natural and anthropogenic impacts.	Uptake by plants and organisms, leaching to surface water and groundwater and discharging off-estate into waterways, transport of impacted soils via water run-off.	Land-based and aquatic based ecosystems, surface water users.	Naturally elevated concentrations are not considered to present a risk due to low leachability potential. Site specific metals concentrations are below adopted criteria and therefore unlikely to present a significant risk.
Building waste	Asbestos in shallow soil.	Inhalation of dust.	Construction/maintenance workers.	Asbestos containing material may be encountered in localised areas where historical buildings/ infrastructure has been present and/or if deeper filling areas are encountered. If encountered, disturbance of asbestos may cause fibres to be released and become airborne.

Source	Contamination	Pathway	Potential Receptor(s)	Potential Linkage
Historic landfilling activities (offsite, upgradient)	Key contaminants of concern include PFAS, metals, hydrocarbons and nutrients in groundwater as well as the potential to encounter landfill gas (methane and carbon dioxide) to be emanating from the former landfill into the surrounding geology.	Key pathways are associated with deep piling/ foundation works, where groundwater may need to be extracted as part of construction works and/or the potential to encounter migrated landfill gas.	Construction/maintenance workers. Land-based and aquatic based ecosystems, surface water users.	Pathways are generally only complete if there is a potential vapour issue in headspace areas around deep piling holes or for groundwater to flow out of holes due to built up gas pressures and/or poor management of and extracted groundwater required as part of construction process.

14.3.8 Wastes

The key potential wastes to be generated by Elite Park across the lifespan of the project are presented in Table 14.29.

Wastes are to be managed in accordance with Melbourne Airport Environmental Management Plan which aims to reduce overall impacts from waste generation by maximising reuse/recycling opportunities.

Table 14.29 Potential waste types and sources

Waste Type	Presence/ waste generation activity	Comments
Demolition waste	Pavements, former structures and buildings, fencing, lighting, redundant underground services, stormwater structures, stockpiled or buried wastes.	Greater than 80% of demolition waste is expected to be recycled.
Green waste generated from surface scraping and removal of trees	Pre-construction removal of surface vegetation (grass and weeds) and topsoil, removal of trees and other native vegetation.	Storage of green waste from surface vegetation (grass) has potential to spread noxious species that require management. Site-won topsoil will be reused on site where possible. Any excess material will be transported to the on-estate Temporary PFAS Storage Facility in accordance with the Melbourne Airport PFAS Management Framework. Native trees and vegetation will be mulched for on-estate reuse.

Waste Type	Presence/ waste generation activity	Comments
Excavated PFAS contaminated soil and sediments	Bulk excavation works. Piling. Drainage and other utility installations.	Reuse as part of site levelling works where possible. Any excess material will be transported to the on-estate Temporary Soil Storage Facility in accordance with the Melbourne Airport PFAS Management Framework. As low-level contamination is expected within the excavation footprint there is potential for reuse with the estate for other construction projects.
Infrastructure containing asbestos. Asbestos in soil.	If identified, removal/ replacement of any existing assets containing asbestos is required as part of the project works. Potential for unexpected finds in soil.	Removal and appropriate disposal of asbestos containing infrastructure to a licenced landfill will be required. Removal of asbestos and remediation of soils where asbestos is suspected/ confirmed to maximise on-estate reuse potential.
Construction wastes	Waste associated with construction activities including but not limited to: <ul style="list-style-type: none"> Asphalting Concreting formwork Plant and equipment maintenance Offcuts from construction materials Packaging, pallets Wash water General wastes including putrescibles. 	Greater than 80% of construction waste is expected to be recycled/diverted from landfill.

Waste Type	Presence/ waste generation activity	Comments
Site Office – Sewage	Wastes generated from provision of facilities (hygiene, toilets and lunchroom water supply and wastewater).	Appropriate disposal either via approved sewer connections or disposal off-estate by licenced contractor to appropriate disposal facility.
Operational (based on 20 years of operation and maintenance)		
General operational wastes	Miscellaneous solid wastes including general waste, organic wastes and recyclables.	Tenancies to manage waste in accordance with the Melbourne Airport Environmental Management Plan. Higher risk tenants will be required to develop a specific Operational Environmental Management Plan including appropriate waste management procedures to meet minimum requirements of the Melbourne Airport Environmental Management Plan.
Landscaping maintenance	Green waste generated from non-paved areas of the site.	Reuse on site where possible (e.g. mulch). Appropriate transport to licenced facility for recycling/ reuse.
Concrete	Waste concrete from repairs	Greater than 80% of waste concrete is expected to be recycled and/or reused on-estate.
Asphalt	Waste asphalt from repairs.	Greater than 80% of waste asphalt is expected to be recycled and/or reused on-estate.

14.4 AVOIDANCE, MANAGEMENT AND MITIGATION MEASURES

14.4.1 Soils

The contamination assessment has identified low-level soil contamination that without avoidance, management or mitigation measures will potentially present an increased risk of impacts as a consequence of Elite Park works.

PFAS management is a minimum requirement for any construction works being conducted at Melbourne Airport where disturbance of soil is anticipated. The Melbourne Airport PFAS Management Framework (APAM, 2022) outlines the minimum environmental management requirements that will be included in any project-specific CEMP. PFAS impacts and potential risks during construction are well understood and APAM has a number of existing and effective management controls in place both as part of wider estate management, and as part of project-specific works.

No source zones are identified within the project area and the level of contamination is consistent with diffuse impacts observed across the broader estate. The main project risk associated with the presence of PFAS impacts is the potential for soil to be disposed of to landfill rather than identifying appropriate opportunities for reuse (either off-estate or within the estate). Where suitable, any excess material not able to be reused during works will be taken to the onsite Temporary PFAS Soil Storage Facility.

The presence of other contaminants such as metals and herbicides/pesticides will be considered as part of overall management strategies including appropriate segregation of upper soil profile to ensure that it is not impacted by presence of potential contaminants and appropriate management measures for unexpected finds. Appropriate measures will be included in any project-specific CEMP.

Although asbestos-containing material has not been identified in shallow soils (or on the ground surface) during investigation works, hazardous materials management measures for potential for unexpected finds will be incorporated into any project-specific CEMP.

14.4.2 Groundwater

Although groundwater is unlikely to be intersected during the majority of project works, there is potential to intersect groundwater if deeper piling works are required. Groundwater is known to be impacted by PFAS and other contaminants. The expected volumes and potential to intersect groundwater are considered low, but if encountered will require management.

If groundwater is encountered and is required to be extracted as part of works, existing water treatment facilities both on-estate and off-estate are available to treat water to remove contaminants of concern. This is the preferred option rather than seeking permits for trade waste or to disposing off-estate to a licenced facility. The suitability for on-estate treatment will be dependent on non-PFAS contaminants and treatment volume capacity and the decision for on-estate or off-estate treatment/disposal will be confirmed as required. Any transport, treatment and disposal of PFAS-impacted groundwater will be in accordance with the PFAS NEMP. For any off-site transport and disposal of wastes the State jurisdictional requirements take precedence.

14.4.3 Waste

Elite Park has the potential to produce a large quantity of waste including, but not limited to, excavated soil, demolition, operational and maintenance wastes that would present a low environmental impact if disposed of to landfills.

In accordance with waste hierarchy, the most preferred to least preferred options for management of wastes are:

- Avoidance
- Reuse
- Recycling
- Recovery of energy
- Treatment
- Containment
- Disposal.

The primary management measure for the various waste streams for Elite Park is to avoid creating wastes in the first instance. Where waste generation cannot be avoided the priority is to look to either reuse or recycle the wastes, with various procedures and targets set for segregating wastes for reuse or recycling. With the exception of hazardous wastes including asbestos and other contaminated soils/materials, the primary objective is to divert wastes from landfill (disposal) and therefore mitigate the potential longer-term impacts to the environment.

Mitigation and management measures in accordance with Melbourne Airport EMP minimum requirements will be outlined in any project-specific CEMP for waste streams.

14.5 CONCLUSION

The soil, groundwater and waste study identified that the presence of low-level contamination in soils and groundwater, and the generation of wastes have the potential to impact the environment as part of construction and operation of Elite Park if appropriate management or mitigation controls are not implemented.

Where impacts were identified, appropriate mitigation measures are proposed and residual risks of negative impacts are classified as low or negligible.

Without appropriate management and mitigation, the potential for impacts from disturbance of PFAS-impacted soil is considered low due to the potential for soils to be reused within the Melbourne Airport Estate. Based on existing and demonstrated on-estate PFAS management practices, the risks to human health and the environment are considered low and negligible. Soil reuse options both within the project area and within the estate will be confirmed prior to the commencement of construction and will be in accordance with requirements of the Melbourne Airport PFAS Management Framework.

The presence of asbestos in near-surface soils is a common issue for construction projects that have had historical buildings and infrastructure. No significant areas of impact have been identified to date but the potential for unexpected finds will need to be incorporated into any project-specific CEMP. The residual impact from the presence of asbestos wastes is considered to be negligible.

Although there is likely to be some additional impacts from non-PFAS contamination identified as part of demolition and construction works, the relatively small volumes and level of impacts expected to be encountered are able to be readily managed via general construction activities and preparation of any project-specific CEMP. As such, impacts to the environment from non-PFAS contamination are considered to be negligible.

Key waste streams identified include those that will be generated during demolition and construction activities as well as ongoing operation and maintenance of the new tenancies and assets to be delivered as part of Elite Park. Wastes generated during demolition, construction, operation and maintenance activities will be managed in accordance with Melbourne Airport EMP and PFAS Management Framework requirements. As such, impacts to the environment are considered to be negligible.

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15

NATURAL HAZARDS
AND CLIMATE
CHANGE**15.1 ASSESSMENT
APPROACH AND
ASSUMPTIONS**

APAM recognises its responsibility for contributing to a resilient, connected, and sustainable Victoria. The Melbourne Airport Master Plan 2022 defines a series of actions aimed at ensuring that planning and design decisions are focused on building long-term sustainability and resilience. This includes a commitment to consider climate change as part of broader airport resilience to future scenarios. Considering climate change risk and challenges is also a key aspect of the Airport Environment Strategy under the Master Plan.

This section contemplates that the Elite Park site and proposed development are exposed to risks associated with climate change, including increasing incidence of natural hazard events. Consideration in design of potential climate change impacts is important to ensure a safe and sustainable environment is maintained through Elite Park's ongoing operation.

Elite Park can aim to avoid and/or mitigate contributing to climate change factors through effective design and sustainable operation, as discussed in Section 15.2.3.

Given the relative short duration (nine years) of the construction phase, potential climate change impacts for this phase have not been considered/included in the assessment.

15.2 EXISTING CONDITIONS**15.2.1 Rainfall**

North-west Melbourne's long-term average rainfall is 531 mm but has ranged between 310 mm (1997) and 821 mm (1978). Rainfall is relatively evenly distributed throughout the year, with a peak in late spring. The rainfall total on the wettest day on record was 139 mm (February 2005).

15.2.2 Temperatures

Average maximum temperatures range between 13.2 °C in July and 26.6 °C in January and February, and average minimum temperatures range between 5.5 °C in July and 14.2 °C in February. The coldest temperature on record is -2.5 °C (August 1986) and the hottest 46.8 °C (February 2009). Days in which maximum temperatures exceed 40 °C are uncommon in the area, occurring on 1.6 days per year on average since 1970 (based on the period of record from 1970 to 2020; this has increased to an average 4.7 days/y between 2002 and 2022 (BoM, 2023)). Freezing temperatures (≤ 0 °C) are also rare, with an average of 1.1 days per year over the historical record.

15.2.3 Prevailing Wind

Mean daily wind speed at Melbourne Airport (BoM station 086282) ranges from 16.7 km/h to 24.4 km/h (based on recorded daily observations at 9am and 3pm). The maximum wind gust speed recorded at the Airport is 139 km/h.

15.2.4 Extreme Weather

Severe thunderstorms with large hailstones, wind gusts, flash flooding and/or tornadoes can occur in Melbourne and, when they do, may cause extensive property damage. Recent severe storm events at Melbourne Airport have impacted airport operations, causing travel delays and disruptions and water leaks in the terminals.

Victoria experiences extensive bushfires every few years, with Melbourne directly or indirectly affected.

15.3 CLIMATE CHANGE AND NATURAL HAZARD RISK NARRATIVES AND POTENTIAL IMPACTS

15.3.1 Extreme Rainfall and Flooding

While average annual rainfall in the greater Melbourne region is not projected to change materially in the short term, it is expected to decline by the end of the century. Conversely, extreme rainfall events are projected to intensify due to warming of the atmosphere and the consequent increase in its capacity to hold water.

There is potential for overland flows to increase and this may lead to increased risk of flooding in and around the airport. Flooding may also occur around the precinct and surrounding road networks and carparks. Flooding may cause damage to buildings/assets and sensitive equipment due to increased areas of inundation and require clean-up and repair. There are also safety concerns to employees, customers or the public.

15.3.2 Extreme Heat

The frequency and severity of extreme heat events is projected to increase with climate change. By the end of the century, temperatures experienced on a rare but plausible hottest day (analogous to Black Saturday under historical conditions) are projected to approach or exceed 50 degrees.

Higher extreme temperatures may increase heat stress experienced by patrons, workforce and vegetation (i.e. landscaping).

15.3.3 Drought

Annual rainfall is expected to be dominated by natural variability in the short term, with a decrease attributable to climate change projected later in the century. Potential evaporation is projected to increase in line with temperature, which will contribute to the drying of soils and catchments. The effect of periodic droughts may also be enhanced by changes in rainfall seasonality and the effects of increased temperature and evaporation. These drying conditions may cause death of vegetation and impacts to landscaping and visual amenity of the precinct (this may also be driven by water restrictions under drought conditions).

The increased wet/dry cycles may also lead to shrink/swell of soils which may affect infrastructure foundations and pavement substrates, leading to cracking and costs for repair.

15.3.4 Bushfire

Due to increasing temperatures and decreasing winter-spring rainfall, the frequency of days with elevated fire weather conditions is expected to increase. Fire in the precinct may destroy vegetation in landscaped areas and damage infrastructure.

16

LANDSCAPE AND VISUAL AMENITY

16.1 MELBOURNE AIRPORT

Melbourne Airport is well established in and central to the landscape of Tullamarine. The airport has directly influenced surrounding land uses and road networks, much of which were built to facilitate and capitalise on its economic, commercial and passenger activity.

Non-aviation development plays a complementary role to the airport's core aviation growth. In 2022 Melbourne Airport had approximately 230 hectares of vacant land available for commercial development – of which the 54 hectares of Elite Park is a key element.

Elite Park also importantly builds on existing commercial and industrial developments on Melrose Drive and in the 'Melbourne Airport Business Park' (**MABP**).

16.2 THE 'ELITE PARK' SITE

Elite Park physically separates the airport terminals and carparks from commercial, industrial and leisure occupancies along Melrose Drive and the Tullamarine Freeway. The precinct also serves as a buffer between nearby residential communities and the 24-hour operations of the airport.

Prior to 1961 the Elite Park area use was agricultural, predominantly used for grazing and crops. A former roadway was present along a similar alignment to the present-day Melrose Drive. Several properties with homesteads, sheds and dams were present in the southern portion of the project area.

The site is currently highly disturbed but undeveloped flat grassland with some tree coverage breaking up lines of sight from adjacent major roads. Some light landscaping, including an active use pathway, has been installed along Airport Drive for visual appeal. Utility of the pathway is limited because it terminates at the intersection of Mercer Drive and Airport Drive.

All road aspects adjoining Elite Park feature prominent advertising and lighting that capitalise on the airport's 24-hour operation and draw of traffic.

The following photographs demonstrate current visual ranges around and into Elite Park:

Figure16.35 View from Short-Stay Waiting Area (Mercer Drive) over Elite Park towards Melbourne Airport Business Park (Airport Drive)



Figure16.36 View from Mercer Drive over Elite Park towards Tullamarine Freeway



Figure 16.37 View from Melrose Drive along Airport Drive (existing Shared User Path and landscaping)



Figure 16.38 View from Melrose Drive across Elite Park towards Tullamarine Freeway



16.3 DESIGN

16.3.1 Planning and Urban Design Strategy

APAM's 'Landside Planning and Urban Design Strategy' provides design and planning guidance for developments and Melbourne Airport. The objectives of the strategy include:

- Support orderly and logical development of high-quality public realm
- Ensure that a high level of amenity is provided for all visitors, workers and other users of the airport
- Encourage the development of a cohesive pedestrian and cycle network
- Respond to a range of current and future needs
- Support existing Federal and State planning objectives
- Support the aims of the airport's Master Plan
- Support the APAM vision for Melbourne Airport to be Australia's favourite airport destination by delivering a superior customer experience.

The strategy is delivered in four Parts:

- Part A – Introduction - Describes the purpose and application of the strategy
- Part B - Vision & Strategies - Outlines the vision and strategies that will guide landside development and spatial change at Melbourne Airport
- Part C - Planning Overlays - Outlines the Overlays that apply at Melbourne Airport and describes the implications for land use and development within areas affected by the Overlays

- Part D - Urban Design Guidelines - Sets out the urban design guidelines that apply to landside development at Melbourne Airport. The guidelines are organised into four Urban Design (UD) Precincts:

- UD Precinct 1 - Terminal & Surrounds
- UD Precinct 2 - Car Parks & Freeway
- UD Precinct 3 - Gateway
- UD Precinct 4 - Business Park

UD Precinct 3 'Gateway' refers to the zone now known as 'Elite Park'. The strategy defines specific attributes and values that APAM will apply in the precinct to develop an appealing atmosphere that is functional, sustainable and attractive for businesses and visitors. Treating Elite Park as a separate and dedicated precinct (distinct from the Terminal and Business Park zones) allows for the design guidelines that are complementary to its mixed leisure, retail and hospitality uses.

16.3.2 Elite Park Concept

APAM have engaged Buchan to develop a dedicated precinct master plan and design concept for Elite Park. The following renders present Elite Park in the context of Melbourne Airport and its surrounds.

Figure 16.39 Elite Park Concept Render - aerial from east



Figure 16.39 shows Elite Park in the context of Melbourne Airport and the Melbourne Airport Business Park. URBNSURF and MABP are shown in the background, with the Tullamarine Freeway joining Mercer Drive in the foreground.

Figure 16.40 Elite Park Concept Render - aerial from north



Figure 16.40 shows Elite Park in the context of surrounding road networks, commercial developments and communities. The Tullamarine Freeway, Mercer Drive and Airport Drive facilitate access to Elite park and the larger airport site. Elite Park is adjoined by Melbourne Airport car parks (foreground), with commercial and industrial developments along the Tullamarine Freeway and Airport Drive to the east and west. Existing commercial and leisure tenancies, including URBNSURF and Essendon Football Club separate Elite Park from the nearest residential suburb, Tullamarine, to the south.

16.4 CONSTRUCTION

16.4.1 Concepts

The location and characteristics of the Elite Park site and surrounds offer a combination of opportunities and challenges for managing visual amenity during construction phases.

Construction in Elite Park will impact the site's landscape value due to the introduction of activity and built forms. Visual impacts caused by construction activity will be short term and phased through the progression of stage and precinct deliveries. These impacts are unlikely to be significant in the context of the existing airport and surrounding commercial and industrial uses.

The phased delivery of Elite Park developments will require careful separation of active construction sites from developed precincts. Development of each stage/precinct shall carefully consider the temporary visual impacts of construction work within the overall context of Elite Park's presentation.

16.4.2 Development Applications

Development permit applications within Elite Park will need to demonstrate consistency with the Planning and Urban Design Strategy guidance for 'Gateway' through submission of drawings and reports, including:

- Site context plan - Identifies surrounding land uses, built form siting, landscape elements and transport networks.
- Site analysis plan - Provides analysis of the characteristics of the site including landform (contour plans), drainage networks, vegetation, existing buildings, climate (sun paths, wind patterns), easements, planned nearby development.
- Design response plan - Provides an overview of how the proposed development responds to the analysis and context of the site.
- Site layout plan - Details the boundaries and dimensions of the site, adjoining roads, relevant ground levels, the layout of existing and proposed buildings and works (including Kiosk Substations), driveways and vehicle parking and loading areas, proposed landscape areas, and external storage and waste management areas.
- Landscape plan - includes a description of vegetation to be planted, the surfaces to be constructed, a site works specification and the method of preparing, draining, watering and maintaining the landscape area. The landscape plan is to be prepared by a qualified Landscape Architect.
- Floor plans - Functional building layout plans including basement and mezzanine levels.
- Roof plans - Showing access provisions, roof mounted services and materials.
- Elevations and cross sections - Required as necessary to show the dimensions, heights (AHD), colours and materials of all buildings and works.
- Lighting plan and details - Showing a plan for lighting across the site and details of lighting products proposed.

For developments at key corners and interfaces, the following additional requirements may be required:

- Streetscape perspectives - Demonstrating the proposed development in context with nearby buildings on either side of the subject site.

17

COMMUNITY

17.1 INTRODUCTION

A Social Impact Assessment of the Elite Park project has been prepared by Urbis under instruction by APAM. The assessment examines the potential positive and negative impacts associated with the proposal and its likely impacts on the community. The assessment identifies appropriate mitigation measures and provides recommendations aligned with professional standards and statutory obligations.

17.2 BASELINE CONTEXT – TULLAMARINE, HUME LOCAL GOVERNMENT AREA, VICTORIA

A community profile has been developed for Tullamarine based on demographic data from Australian Bureau of Statistics (2021) Census of Population and Housing.

The demographic characteristics of the Hume City LGA and Greater Melbourne have been used, where relevant, to provide a comparison.

In 2021, it was estimated that there were approximately 6,576 people living in Tullamarine. Key characteristics of this community include:

- Most people employed in the suburb work as professionals, clerical and administrative workers (33 per cent) or as machinery operators, drivers, labourers, technicians and trade workers (34 per cent)
- Tullamarine has a lower unemployment rate (5 per cent) than both the Hume LGA (7.5 per cent) and Greater Melbourne (5.3 per cent)
- Tullamarine has a median age of 40 years which is higher than that in the Hume LGA (33 years). The suburb also has a higher rate of people aged over 50 years (38 per cent) compared to the LGA (27 per cent)
- More than a third of residents of the suburb were born overseas (39 per cent) and speak a language other than English at home (38 per cent). Arabic (seven per cent) and Italian (five per cent) are the most common non-English languages spoken

- Most residents of Tullamarine live in separate dwellings (60 per cent) the remaining 40 per cent live in semi-detached, terrace or town houses. In comparison 88 per cent of Hume LGA residents live in separate dwellings
- The suburb has a lower-than-average rate of people per household (2.3) than the Hume LGA (3.1) and Greater Melbourne (2.6), with a higher prevalence of lone person households (33 per cent) compared to the Hume LGA (17 per cent) and Greater Melbourne (25 per cent).

The Social Impact Assessment identifies potential social impacts identified relating to traffic, employment generation, noise, urban amenity and heritage. These are discussed as follows.

17.3 ECONOMIC

The proposed development of Elite Park is expected to generate significant local employment opportunities, through construction and operation of the multiple businesses and enterprises. It is expected to complement (and therefore beneficially impact) the viability of business centres in the surrounding area.

17.4 EMPLOYMENT

The precinct will support a significant number of jobs on an ongoing basis. Upon completion, around 2,140 people will be employed within Elite Park, providing diversity to Hume's employment markets. On-site activity will support a further 382 jobs annually throughout supply chains.

It is anticipated that 39 per cent of these jobs will be related to normal and large format retail, 28 per cent related to commercial, 16 per cent related to food catering and the remaining 18 per cent related to leisure and others.

Overall, Elite Park will generate significant economic benefits throughout Hume, and Victoria's economy.

17.5 TRAFFIC

17.5.1 Access

At the completion of Stage 3, by 2034, Elite Park is expected to generate 1,088 inbound and 1,327 outbound vehicle trips per day.

All sites and precincts within Elite Park will be serviced by an internal loop road that can be accessed from both Mercer Drive and Airport Drive. The internal loop road will be accessed by all vehicles, including service vehicles. Melrose Drive is a Hume City Council managed road, the final segment inclusive of the court bowl exists on APAM land and clashes with the proposed alignment of the internal loop road and will therefore require modification. It is assumed that the internal loop road, connecting to both the proposed Mercer Drive and Airport Drive access points, is built progressively, corresponding with the precincts and associated car parking for each stage.

For Stages 1 and 2 all vehicles travelling to and from Elite Park will access the site via a new left-in/left-out intersection on Mercer Drive located northeast of the Airport Drive/Mercer Drive/Francis Briggs Road roundabout. There will also be a new left-in/left-out intersection on Airport Drive located approximately 350 metres south of the Airport Drive/Mercer Drive/Francis Briggs Road roundabout.

By Stage 3, vehicles will also be able to turn right-in and right-out to/from Airport Drive to access Elite Park, with the left-in/left-out intersection being upgraded to a signalised intersection that permits all turning movements to and from Elite Park.

17.5.2 Public Transport:

The closest (existing) bus stop is more than one kilometre walking distance from the site. Opportunities for adding and/or enhancing public transport routes to/from/through Elite Park will be consulted with the Victorian Department of Transport and Planning.

The development will also consider providing shuttle services between Elite Park and the Melbourne Airport terminal precinct.

17.5.3 Active Transport:

At this stage, the Elite Park masterplan has not identified:

- The location of future pedestrian/cyclist routes, paths and crossings to/from the site along the new access points from the existing road network
- The location of future pedestrian/cyclist paths and crossings along the proposed internal road network, as well as to/from and within the proposed carparks.

It is noted that as each individual site develops, bicycle parking, internal pedestrian links and end-of-trip facilities will be provided in accordance with the Melbourne Airport Planning and Urban Design Strategy and local policy where applicable.

17.6 NOISE, VIBRATION AND AIR QUALITY

The uses identified for Elite Park would typically be developed within an urban context. Given their operations these uses do not typically generate large volumes of noise, vibration or air pollution and are often found adjacent to sensitive uses.

As each individual site is developed, detailed assessments should be undertaken to determine potential noise, vibration or air pollution impacts.

17.7 URBAN AMENITY

Detailed design of the built form for each precinct and individual site will be required as each site develops. New development will need to comply with the Melbourne Airport Masterplan, the approved MDP, Melbourne Airport Planning and Urban Design Strategy (2015) and local policy as relevant. New developments will need to consider:

- Front setback
- Side and rear setbacks
- Building height
- Overshadowing
- Signage

17.8 HERITAGE

17.8.1 First Nations

First Peoples – State Relations (**FP-SR**) (formerly Aboriginal Victoria) does not have jurisdiction on Commonwealth land therefore the provisions of the Victorian Aboriginal Heritage Act 2006 do not apply on Melbourne Airport land. However, to manage potential impacts to Aboriginal cultural heritage at Melbourne Airport in a way that is comprehensive, Cultural Heritage Management Plans (**CHMPs**) are completed on a voluntary basis in accordance with requirements of the Victorian Aboriginal Heritage Act 2006. CHMPs are an appropriate management methodology to ensure that Commonwealth requirements under the Airports Act and the Environment Protection and Biodiversity Conservation Act are met. This process also ensures detailed consultation with the relevant Registered Aboriginal Party (**RAP**), the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation (**Wurundjeri**).

APAM prepared a voluntary CHMP in accordance with the Victorian Aboriginal Heritage Act 2006 (CHMP 12498). This was approved by the RAP on 5 September 2023 and applies to the Elite Park site. Noting the age of this approved CHMP, APAM will undertake additional consultation with the RAP to confirm the management recommendations outlined in the approved CHMP are still appropriate for the site.

The Elite Park assessment was undertaken in accordance with the requirements of the Commonwealth and Victorian governments. The assessment identified that historical use and development has heavily disturbed the site and there are no known cultural heritage assets. There is, however, a potential for discovery of assets during construction so the project CEMP shall include specific heritage management requirements to be implemented should any discoveries occur during construction.

17.8.2 European

Detailed assessments of European heritage have previously been completed at Melbourne Airport to understand the heritage values of the estate, including the Elite Park footprint and immediate surrounds. The assessment identified no existing historical sites with heritage value within the Elite Park footprint or immediate surrounds.

This assessment has determined that the study project area has no remaining significant archaeological deposits or features due to significant prior ground disturbances including construction works.

18

SUMMARY OF IMPACT ASSESSMENTS

This environmental assessment component of the MDP has been undertaken to meet the requirements of Section 91 (1) (h) of the *Airports Act 1996*. Table 18.30 summarises expected environmental and community impact assessments for the construction and operating phases of Elite Park.

The Elite Park project is expected to deliver overall benefit with environmental and social disbenefits with residual assessments ranging between medium (permanent removal of the EPBC Act listed ecological community NTGVVP) to negligible. The benefits ultimately delivered by the project substantially outweigh the potential impacts outlined in this assessment – particularly with implementation of proposed mitigations.

Table 18.30 Summary of Impacts

Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result
MAJOR DEVELOPMENT PLAN REQUIREMENTS AND FRAMEWORK									
Ministerial considerations for MDP approval	Project MDP fails to meet statutory requirements and/or Ministerial expectations to secure approval. Failure to appropriately address/respond risks rejection of project.	Section 91(1) of the Airports Act specifies 'Contents of major development plan' which details minimum requirements to qualify an MDP for approval.	High	Unlikely	Medium	s91 checklist (Table 6.4) lists requirements and how/where the Elite Park MDP addresses them. Elite Park MDP Sections 2 & 3 describe the project and the applicable MDP requirements and frameworks, which demonstrate how the Elite Park MDP meets the stipulations of Airports Act Section 91(1).	Moderate	Unlikely	Low

Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result
MAJOR DEVELOPMENT PLAN REQUIREMENTS AND FRAMEWORK									
Legislative and policy context	Project MDP fails to satisfactorily describe consistency with applicable legislation, regulation and/or policy. Project MDP failure to adequately justify inconsistencies, if/where they occur, with State instruments risks rejection of project.	Section 91(1) of the Airports Act specifies 'Contents of major development plan' which details minimum requirements to qualify an MDP for approval.	High	Unlikely	Medium	s91 checklist (Table 6.4) lists requirements and how/where the Elite Park MDP addresses them. Elite Park MDP Section 4 discusses the governance contexts applicable to the project.	Moderate	Unlikely	Low
Statutory and policy compliance	APAM must demonstrate that all applicable instruments and guidelines have been appropriately considered by this MDP to successfully secure project approval. Failure to appropriately address/respond risks rejection of project.	Section 91(1) of the Airports Act specifies 'Contents of major development plan' which details minimum requirements to qualify an MDP for approval.	High	Unlikely	Medium	s91 checklist (Table 6.4) lists requirements and how/where the Elite Park MDP addresses them. Elite Park MDP Section 4 discusses the governance contexts applicable to the project (4.2 specifically addresses statutory and policy compliance).	Moderate	Unlikely	Low

Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result

MAJOR DEVELOPMENT PLAN REQUIREMENTS AND FRAMEWORK

Consistency with the airport lease	APAM's head lease for Melbourne Airport stipulates requirements and obligations applicable to significant developments. Consistency with these terms is necessary to secure project approval. Failure to appropriately address risks rejection of project.	Section 91(1)(ca) of the Airports Act specifies 'Contents of major development plan' which details minimum requirements to qualify an MDP for approval.	Minor	Rare	Negligible	s91 checklist (Table 6.4) lists requirements and how/where the Elite Park MDP addresses them. Elite Park MDP Section 4 discusses the governance contexts applicable to the project (4.3 specifically addresses consistency with the airport lease).	Negligible	Rare	Negligible
Consistency with Master Plan 2022	The MDP must compare the project against the development plans contained in the approved Master Plan and confirm that project is in accordance with those plans. Failure to appropriately address risks rejection of project.	Section 91(1)(d) of the Airports Act specifies 'Contents of major development plan' which details minimum requirements to qualify an MDP for approval.	Minor	Unlikely	Low	s91 checklist (Table 6.4) lists requirements and how/where the Elite Park MDP addresses them. Elite Park MDP Section 4 discusses the governance contexts applicable to the project (4.5 specifically addresses consistency with the Master Plan).	Negligible	Rare	Negligible

Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result

MAJOR DEVELOPMENT PLAN REQUIREMENTS AND FRAMEWORK

Consistency with state and local government planning	Airports Act applies primacy to Federal legislation but requires evaluation of consistency (or justification for inconsistency) with related State instruments. Thorough consideration of all instruments is required by this MDP. Failure to appropriately address/ respond risks rejection of project.	Sections 91(4) and 91(ga)(iii) of the Airports Act specifies 'Contents of major development plan' which details minimum requirements to qualify an MDP for approval.	High	Unlikely	Medium	s91 checklist (Table 6.4) lists requirements and how/where the Elite Park MDP addresses them. Elite Park MDP Section 4 discusses the governance contexts applicable to the project (4.6 specifically addresses consistency with state and local government planning).	Moderate	Unlikely	Low
Airport planning and building approvals	Governance of detailed design, airport planning and permit processes must adequately ensure that MDP commitments are met and related provisions of Airports Act are satisfied. Failure to appropriately define and enact risks rejection of project.	APAM and Airport Building Controller (ABC) have established processes for airport developments. MDP process supports.	Moderate	Unlikely	Low	MDP Figure 4.13 describes responsibilities and processes for airport planning and permit processes that are applicable for Elite Park and include management of Elite Park's delivery in 11 precincts over 3 stages.	Minor	Rare	Negligible

Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result

MAJOR DEVELOPMENT PLAN REQUIREMENTS AND FRAMEWORK

Precinct MDP concept	<p>Presentation of Elite Park as an amalgamation of 11 precincts in 3 delivery stages (with associated supporting rationale and MDP content) does not meet Government and/or Minister expectation.</p> <p>'Precinct MDP' concept has not been tested by APAM or VIC/TAS DITRDCA to date.</p> <p>Failure to appropriately address/respond risks rejection of project.</p>	None – Airports Act does not contain guidance related to 'Precinct MDP' concept.	High	Possible	Medium	<p>Elite Park has been produced with reference to precedent precinct MDPs from:</p> <ul style="list-style-type: none"> - Bankstown - Brisbane - Western Sydney <p>Extensive consultation with VIC/TAS DITRDCA shall be undertaken to assist with ensuring process meets the Government's expectations.</p>	Moderate	Unlikely	Low
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CONSULTATION

Advice to Government stakeholders	<p>Appropriate engagement with Federal, State and Local government departments/agencies is necessary to ensure the project is understood and that these parties are able to consider and suitably respond to the project.</p> <p>Failure to advise, liaise with and engage about the project (including via this MDP) with Government stakeholders risks an inadequate MDP submission.</p>	Section 92 of the Airports Act specifies requirements for MDP notifications to relevant State Minister/s and local government bodies.	Moderate	Unlikely	Low	MDP Section 5 explains APAM's approach to consultation for the Elite Park MDP. Section 5.3 specifies the mechanisms for consultation with Government departments and agencies, including key notifications as required by the Airports Act Section 92.	Moderate	Rare	Low
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Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result

CONSULTATION

Community engagement and public exhibition	<p>Appropriate engagement with community and public parties is necessary to ensure the project is understood and that these parties are equipped to make submissions in the public exhibition process.</p> <p>Failure to advise, liaise with and engage about the project (including via this MDP) with community risks an inadequate MDP submission.</p>	Section 92 of the Airports Act specify minimum requirements for public consultation to qualify an MDP for approval.	Moderate	Possible	Medium	MDP Section 5 explains APAM's approach to consultation for the Elite Park MDP. Section 5.4 specifies the mechanisms for consultation with community, per Airports Act Section 92 and in accordance with APAM's policies for effective community engagement.	Moderate	Unlikely	Low
Related projects	Interaction of Elite Park development (both in temporal and physical location/proximity terms) complicates or exacerbates impact of other airport projects.	The physical location of Elite Park separates it from all proposed projects other than the VIVA jet fuel pipeline and Melbourne Airport Rail.	Minor	Unlikely	Low	VIVA is in early stages and can be de-conflicted if/when necessary. Melbourne Airport Rail has been delayed indefinitely but can be de-conflicted if/when necessary.	Minor	Rare	Negligible

Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result

AVIATION OPERATIONS AND SAFETY

Aircraft noise	Aircraft noise impacts due to the current and future operation of Melbourne Airport restrict potential developments in Elite Park.	NASF Guideline A governs. Elite Park is in ANEF 25 and 20.	High	Almost Certain	Extreme	Elite Park developments will be subject to design requirements to conform with NASF Guideline A provisions (including application of AS2021:2015 standard).	Moderate	Possible	Medium
Wildlife strikes	Proximity of land uses that attract wildlife (particularly birds) to Melbourne Airport can elevate risks of strikes on flights operating to/from Melbourne Airport.	NASF Guideline C governs. Elite Park is located within wildlife hazard assessment zone A.	Moderate	Rare	Low	Elite Park developments shall be subject to detailed design requirements to conform with NASF Guideline C provisions (including application of Melbourne Airport's Planning and Urban Design Strategy and Planting Guidelines).	Negligible	Rare	Negligible

Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result

AVIATION OPERATIONS AND SAFETY

Lighting	Artificial lighting near airports can distract or disorient pilots. Developments in Elite Park could introduce hazardous lighting conditions.	NASF Guideline E governs. Elite Park is located within assessment zones B & C for future Runway 09R/27L.	Minor	Rare	Negligible	Elite Park developments shall be subject to detailed design requirements to conform with NASF Guideline E provisions. TopGolf (precinct 8) has been consulted in advance with CASA and Airservices Australia	Negligible	Rare	Negligible
Protected airspace	Obstacle infringement into protected airspace can pose a threat to safe flight in the proximity of an airport. Developments in Elite Park could introduce hazardous obstacles for current and further planned runways.	Melbourne Airport OLS and PANS-OPS protections apply. Essendon Airport OLS protections apply.	Minor	Rare	Negligible	Elite Park developments shall be subject to detailed design requirements to conform with OLS protections for all current and future runways at Melbourne Airport and Essendon Airport. This may require mitigation/removal of Precinct 8 obstacles for operation of future Runway 09R (TOCS).	Negligible	Rare	Negligible
Public safety area	Defined zones beyond the end of operational runways are subject to elevated risk of aircraft accidents, with associated potential impacts if/where people are gathered.	NASF Guideline I governs. Precinct 1 of Elite Park is located partially within the outer (1:100,000) contour for future Runway 09R/27L.	Negligible	Rare	Negligible	Detailed design and development of Precinct 1 shall comply with restrictions on compatible land use to conform with NASF Guideline I recommendations.	Negligible	Rare	Negligible

Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result

AVIATION OPERATIONS AND SAFETY

Plume rise and dust emissions	Aircraft operations may be affected by an exhaust plume of significant vertical velocity (more than 4.3 m/s)	NASF Guideline F governs.	Negligible	Rare	Negligible	Elite Park will not produce any exhaust plumes.	Negligible	Rare	Negligible
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TRAFFIC AND TRANSPORT

Construction	Section 91(1)(ga) (i) of the Airports Act specifies 'Contents of major development plan' which details minimum requirements to qualify an MDP for approval.	Melbourne Airport's Ground Transport Strategy (as contained in Master Plan 2022 and ongoing amendments) applies. Estimated construction traffic volumes/ routes are not expected to impact on existing access road function.	Minor	Unlikely	Low	Road access suitable for initial construction activities shall be installed prior to Stage 1 commencement. CTMP shall be developed and apply to ensure appropriate traffic management measures are in place.	Minor	Rare	Negligible
Operation – Stage 1		Melbourne Airport's Ground Transport Strategy (as contained in Master Plan 2022 and ongoing amendments) applies. Estimated traffic volumes/ routes are not expected to impact on existing access road function.	Minor	Unlikely	Low	Internal road network shall be developed per MDP infrastructure commitment (subject to detailed design). CTMP shall be developed and apply to ensure appropriate traffic management measures are in place.	Minor	Rare	Negligible

Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result

TRAFFIC AND TRANSPORT

Operation – Stage 2	Section 91(1)(ga) (i) of the Airports Act specifies 'Contents of major development plan' which details minimum requirements to qualify an MDP for approval.	Melbourne Airport's Ground Transport Strategy (as contained in Master Plan 2022 and ongoing amendments) applies. Estimated traffic volumes/ routes are not expected to impact on existing access road function.	Moderate	Possible	Medium	Internal road network shall be developed per MDP infrastructure commitment (subject to detailed design). CTMP shall be developed and apply to ensure appropriate traffic management measures are in place.	Minor	Unlikely	Low
Operation – Stage 3		Melbourne Airport's Ground Transport Strategy (as contained in Master Plan 2022 and ongoing amendments) applies. Estimated traffic volumes/ routes are expected to impact on existing access road function that require infrastructure changes outside Elite Park.	High	Likely	High	Modifications to Airport Drive, Mercer Drive and the junction of Airport, Mercer Internal road network shall be developed per MDP infrastructure commitment (subject to detailed design). CTMP shall be developed and apply to ensure appropriate traffic management measures are in place.	Minor	Unlikely	Low

Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result
ECONOMICS									
Commercial activity	Section 91(1)(ga) (iii) of the Airports Act specifies 'Contents of major development plan' which details minimum requirements to qualify an MDP for approval.	Elite Park is undeveloped with no economic activity.			N/A	Elite Park is located advantageously proximal to the commercial contexts of Melbourne Airport, including its Business Park, existing complementary tenancies on Melrose Drive, and adjoining light commercial and industrial zones.	Beneficial	Almost Certain	Beneficial
Employment – construction phase	Section 91(1)(ga) (ii) of the Airports Act specifies 'Contents of major development plan' which details minimum requirements to qualify an MDP for approval				N/A	Elite Park is a new development project and can access local construction employment markets (particularly Hume & Brimbank).	Beneficial	Almost Certain	Beneficial
Employment – operation phase					N/A	Elite Park is a new development project and can access local employment markets (particularly Hume & Brimbank) for a wide range of employment types.	Beneficial	Almost Certain	Beneficial

Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result
ENVIRONMENTAL									
Natural Temperate Grassland of the Victorian Volcanic Plain	Direct removal of 4.58 ha of this TEC. 4.58 ha located within the impact area.	Minimise permanent removal where possible.	Major	Almost Certain	Extreme	Implementation of CEMP during construction phase. Provision of appropriate offsets to compensate for unavoidable impacts.	Minor	Almost Certain	Medium

Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result

ENVIRONMENTAL

Erosion potential in the Elite Park project area	Increase in erosion potential during construction works	Low potential for erosion due to soil conditions generally comprising fine-grained basaltic clay with overlying topsoil and established vegetation	Minor	Unlikely	Low	Appropriate erosion and sediment controls to be included in any project-specific CEMP in accordance with Melbourne Airport EMP.	Minor	Unlikely	Low
	Increase in erosion potential via surface loading from reduction of pervious surface	Suitable revegetation of non-paved areas. Design of appropriate run-off management including culverts, buffer strips and grass swales.	Minor	Possible	Low	No additional mitigation or management measures in addition to those inherent to design/practice area required.	Minor	Possible	Low

Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result

ENVIRONMENTAL

Flooding potential in Steele Creek North catchment	Increased flow rates from site due to increased impervious surfaces resulting in increased flood levels. Increased flood velocities due to concentrated discharge from outlets and culverts. Increased flood levels in airport drainage network. Increased flow rates from increased impervious surfaces decreasing the performance of existing drainage.	Mitigation measures to be confirmed during design and may include but not be limited to: · Use of swales to attenuate the discharge back to existing conditions. · Use of energy dissipaters at outlet structure to reduce outlet velocity. · Use of retention basins and storage to maintain discharges to existing conditions. · Upgraded drainage elements and additional drainage elements. APAM's existing and ongoing airport-wide surface water monitoring program will provide an additional level of monitoring throughout the project duration.	Negligible	Almost certain	Low	No additional mitigation or management measures in addition to those inherent to design/practice are required.	Negligible	Almost certain	Low

Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result

ENVIRONMENTAL

Water quality in all waterways within or downstream of the airport	Existing waterways both within project area and the receiving waters show some exceedances of water quality objectives, including physico-chemical, nutrients, and toxicants.	<p>Current stormwater guidance associated with new construction projects will provide improvements to current stormwater network (mitigation measures and improvements to be confirmed during design).</p> <p>This includes use of swales, bio-retention swales, buffer strips as well as other more compact bio-retention/ filtration systems to mitigate increases in pollutant loads</p> <p>Project-specific CEMPs will identify risks associated with planned construction activities and higher level risks will be mitigated through explicit controls on machinery, products or construction practices. The CEMP will also detail monitoring requirements and define an inspection/ audit program.</p> <p>APAM's existing and ongoing airport-wide surface water monitoring program will provide an additional level of monitoring throughout the project duration.</p>	Minor	Possible	Low	No additional mitigation or management measures in addition to those inherent to design/ practice are required.	Minor	Possible	Low
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Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result

ENVIRONMENTAL

Air quality, noise and vibration	Generation of airborne contamination, noise and/or vibration that exacerbates the existing context of the airport's 24-hour operation. Impact to nearby sensitive receptors from dust, noise and/or vibration.	Sections 91(1) (e) of the Airports Act specifies 'Contents of major development plan' which details minimum requirements to qualify an MDP for approval.	Minor	Possible	Low	CEMP shall be developed and be implemented to ensure appropriate environmental management measures are in place in accordance with Melbourne Airport EMP and Airport Environment Strategy. Any community complaints to be mitigated/resolved by APAM.	Minor	Rare	Negligible
Contamination	Disturbance/ removal of PFAS impacted soils.	<p>Assessments have identified no significant PFAS contamination on site. PFAS concentrations are in line with the Melbourne Airport PFAS Management Framework Level 1.</p> <p>Excess fill to be reused onsite wherever possible.</p>	Minor	Possible	Low	CEMPs shall be developed and implemented to ensure appropriate environmental management measures are in place in accordance with the Melbourne Airport PFAS Management Framework, EMP and Airport Environment Strategy.	Minor	Unlikely	Low
	Disturbance/ removal of existing non-PFAS contaminated soils uncovered as part of demolition works.	Assessments have identified no significant contamination on site. Excess fill to be reused onsite wherever possible.	Minor	Possible	Low	CEMPs shall be developed and implemented to ensure appropriate environmental management measures are in place in accordance with the Melbourne Airport EMP and Airport Environment Strategy.	Negligible	Unlikely	Negligible

Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result

ENVIRONMENTAL

Contamination	Intersecting groundwater	Based on the depth to groundwater within the project area and the proposed depth of intrusive works as part of the development, groundwater is not expected to be intercepted as part of the project. However, groundwater may be encountered if deep foundation and footing works are required and may need to be managed during these works.	Minor	Unlikely	Low	<p>If deeper intrusive works are proposed that extend below the expected depth of groundwater, additional controls will need to be adhered to. These will be incorporated into CEMPs as required.</p> <p>If groundwater is encountered and is required to be extracted as part of works, existing water treatment facilities are available to treat water to remove contaminants of concern, including the on-estate Water Treatment Plant.</p> <p>Water can preferentially be treated rather than disposed of off-estate to licenced facility.</p>	Minor	Rare	Negligible
	Intercepting landfill gas from closed Tullamarine Landfill	There is potential for landfill gas to be emanating from the closed Tullamarine Landfill to the north of the Project Area via preferential pathways in deeper lithologies however Elite Park is outside of the 500 m buffer zone and intrusive works into deeper lithologies are unlikely to be required.	Minor	Unlikely	Low	CEMPs shall be developed and implemented to ensure appropriate environmental management measures are in place in accordance with the Melbourne Airport EMP and Airport Environment Strategy in case landfill gas is discovered.	Minor	Rare	Negligible

Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result

ENVIRONMENTAL

Disturbance/ removal of soil or infrastructure potentially containing asbestos	<p>Although no asbestos has been identified in the project area to date, there is the potential for unexpected asbestos impacts in near surface soils.</p> <p>The potential to encounter asbestos in fill soils poses a potential occupational health risk and may result in an increased volume of waste required to be disposed of off-estate.</p>	Nil	Minor	Unlikely	Low	Removal of asbestos-containing material under controlled conditions and disposed of to landfill.	Minor	Unlikely	Low
Importation of fill	Importation of fill may be required to achieve engineered design requirements. Importation of fill if not managed properly can present a risk to the receiving environment.	Any imported material must meet PFAS NEMP guidance, and EPA guidance for Fill Material.	Minor	Unlikely	Low	Management of importation of fill in accordance with CEMPs to ensure it meets EPA guidance for Fill Material and does not present a risk to the receiving environment. Early identification of fill source sites, confirming Fill Material categorisation and appropriate tracking and monitoring of incoming material to confirm compliance will be key elements to mitigating risks.	Negligible	Unlikely	Negligible

Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result

ENVIRONMENTAL

Green waste removal	Improper handling of green waste during removal leads to spread of pest weeds and/or pathogens disrupting native species.	Nil	Minor	Unlikely	Low	Management of weeds in accordance with the Melbourne Airport EMP and Airport Environment Strategy requirements.	Negligible	Unlikely	Negligible
Waste	Wastes generated from demolition works and construction works requiring disposal to landfill including inadequately controlled waste generated by construction activities.	A number of waste streams (solids and liquids) will be generated as part of construction works but many can be considered suitable for reuse/recycling which diverts waste from landfill. Recycling opportunities for waste generated from operational and maintenance activities falls under Melbourne Airport's Environmental Management Plan which aims to reduce overall impacts from waste generation.	Minor	Possible	Low	CEMPs shall be developed and implemented to ensure appropriate environmental management measures are in place in accordance with the Melbourne Airport EMP and Airport Environment Strategy. On-estate management and reuse/recycling of PFAS impacted demolition wastes may be considered rather than off-estate disposal to landfill. This shall be completed in accordance with requirements of the Melbourne Airport PFAS Management Framework. Removal of asbestos-containing material under controlled conditions and disposed of to landfill.	Negligible	Unlikely	Negligible

Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result

ENVIRONMENTAL

Waste	Waste generated from operational use and maintenance, including concrete and asphalt repairs, requiring disposal to landfill.	A number of waste streams (solids and liquids) will be generated as part of operational activities. Recycling opportunities for waste generated from operational and maintenance activities falls under Melbourne Airport's Environmental Management Plan which aims to reduce overall impacts from waste generation.	Minor	Possible	Low	Management of wastes in accordance with OEMPs to maximise reuse/recycling opportunity.	Minor	Rare	Negligible
Landscape and visual amenity – Construction	Poor consideration of visual impacts related to infrastructure and Precinct works results in unacceptable presentation of the Elite Park site.	Elite Park is undeveloped but surrounded by developed carpark, commercial and light industrial sites – and bordered by major roads with high visual impact.	Minor	Possible	Low	CEMP shall be developed and apply to ensure appropriate environmental management measures are in place in accordance with Planning and Urban Design Strategy. Any community complaints to be mitigated/resolved by APAM.	Minor	Rare	Negligible
Landscape and visual amenity – Operation	Poor consideration of visual impacts in design results in unacceptable presentation of the Elite Park site.	Planning and Urban Design Strategy governs development concept – focused on visual appeal and sustainability.	Minor	Possible	Low	Any community complaints to be mitigated/resolved by APAM.	Minor	Unlikely	Low

Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result
COMMUNITY									
Economic activity	Development of Elite Park creating economic activity (non-aviation business in accordance with Melbourne Airport Master Plan 2022).	Elite Park is undeveloped with no economic activity.			N/A	APAM secures high-value tenancies that are complementary to each other and to the airport. Ongoing commercial viability for the Elite Park precinct is valuable as a non-aviation commercial asset for APAM, and as a contributor (direct and indirect) to local and Victorian economies.	Beneficial	Almost Certain	Beneficial
Employment	Development of Elite Park creating employment opportunities.	Elite Park is undeveloped with no economic activity.			N/A	APAM secures high-value tenancies that generate high-quality employment opportunities. Stable employment generation (direct and indirect) is beneficial to individuals and communities.	Beneficial	Almost Certain	Beneficial
Traffic	Generation of additional road traffic adversely affecting residential areas.	Melrose Drive not connected to Elite Park (no opportunity for traffic accessing Elite Park to use Melrose Drive).	Negligible	Rare	Negligible	Any community complaints to be mitigated/resolved by APAM.	Negligible	Rare	Negligible

Aspect of the MDP	Potential Impact Summary	Mitigation inherent in design and practice	Significance of inherent impact			Additional mitigation, management, avoidance and offset measures	Significance of residual impact		
			Severity	Likelihood	Assessment Result		Severity	Likelihood	Assessment Result
COMMUNITY									
Noise, vibration and air quality	Generation of airborne contamination, noise and/or vibration that exacerbates the existing context of the airport's 24-hour operation for community.	Elite Park is undeveloped – does not contribute to noise, vibration or emissions.			N/A	Any community complaints to be mitigated/resolved by APAM.	Minor	Rare	Negligible
Urban amenity	Poor consideration of visual impacts results in detrimental experience for community engaged with the Elite Park site.	Planning and Urban Design Strategy governs development concept – focused on visual appeal and sustainability.	Minor	Possible	Low	Any community complaints to be mitigated/resolved by APAM.	Minor	Unlikely	Low
Heritage	Failure to identify and salvage heritage assets.	Site is heavily disturbed. Assessments have identified no heritage assets likely to exist in site.			N/A	CHMP shall be developed and apply to ensure appropriate environmental management measures are in place in accordance with Airport Environmental Plan (and associated strategies) in case are heritage assets are discovered.	Beneficial	Rare	Beneficial

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CONCLUSION

Elite Park provides an opportunity to enhance underutilised land and expand and diversify Melbourne Airport's non-aviation activities. Melbourne Airport is a major contributor to Victoria's economy and non-aviation uses play a critical role in the Airport's economic growth and versatility and complement its core aviation functions.

Located to the east of the airport, Elite Park will capitalise on the site's highly visible and strategic location along the Tullamarine Freeway. The expansion of Elite Park will complement the existing non-aviation uses, including URBNSURF, and will support Hume's emergence as a significant tourist destination.

There is clear support for the growth of Elite Park in planning policy and strategic planning documents. This MDP seeks to realise the vision of the Melbourne Airport Master Plan 2022, which anticipates that Elite Park will evolve over time, with high-value commercial developments and leisure and customer experience facilities. Ultimately, it will be a genuine mixed-use precinct that contributes to the vitality of the airport and its surrounds.

Elite Park will generate substantial economic benefits throughout Hume, and Victoria's economy, through construction and ongoing operation, including the creation of new employment opportunities for local residents.

The potential impact of Elite Park on aviation operations and safety and the environment have been carefully considered.

This MDP demonstrates that the Elite Park project is expected to deliver overall benefit with negligible environmental and social detriments. The benefits ultimately delivered by the project substantially outweigh the potential impacts outlined in this assessment – particularly with implementation of proposed mitigations.

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**EPBC ACT
PROTECTED
MATTERS REPORT**



Australian Government

Department of Climate Change, Energy,
the Environment and Water

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 14-Mar-2024

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[Acknowledgements](#)



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This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 14-Mar-2024

[Summary](#)

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Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar)	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	4
Listed Threatened Species:	44
Listed Migratory Species:	13

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at <https://www.dcceew.gov.au/parks-heritage/heritage>

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	5
Commonwealth Heritage Places:	None
Listed Marine Species:	21
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	14
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities [\[Resource Information \]](#)

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Grassy Eucalypt Woodland of the Victorian Volcanic Plain	Critically Endangered	Community likely to occur within area	In feature area
Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia	Endangered	Community may occur within area	In feature area
Natural Temperate Grassland of the Victorian Volcanic Plain	Critically Endangered	Community likely to occur within area	In feature area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community may occur within area	In feature area

Listed Threatened Species [\[Resource Information \]](#)

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act. Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat likely to occur within area	In feature area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat may occur within area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area
FISH			
Nannoperca obscura Yarra Pygmy Perch [26177]	Endangered	Species or species habitat may occur within area	In feature area
Prototroctes maraena Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area	In feature area
FROG			
Litoria raniformis Southern Bell Frog,, Growling Grass Frog, Green and Golden Frog, Warty Swamp Frog, Golden Bell Frog [1828]	Vulnerable	Species or species habitat known to occur within area	In feature area
INSECT			
Synemon plana Golden Sun Moth [25234]	Vulnerable	Species or species habitat likely to occur within area	In feature area
MAMMAL			
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Petaurus australis australis Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area	In feature area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In feature area
PLANT			
Amphibromus fluitans River Swamp Wallaby-grass, Floating Swamp Wallaby-grass [19215]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Dianella amoena Matted Flax-lily [64886]	Endangered	Species or species habitat likely to occur within area	In feature area
Diuris fragrantissima Sunshine Diuris, Fragrant Doubletail, White Diuris [21243]	Endangered	Species or species habitat may occur within area	In feature area
Dodonaea procumbens Trailing Hop-bush [12149]	Vulnerable	Species or species habitat may occur within area	In feature area
Glycine latrobeana Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Lepidium aschersonii Spiny Peppercross [10976]	Vulnerable	Species or species habitat may occur within area	In feature area
Lepidium hyssopifolium Basalt Pepper-cress, Peppercross, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat likely to occur within area	In feature area
Leucochrysum albicans subsp. tricolor Hoary Sunray, Grassland Paper-daisy [89104]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pimelea spinescens subsp. spinescens Plains Rice-flower, Spiny Rice-flower, Prickly Pimelea [21980]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Prasophyllum suaveolens Fragrant Leek-orchid [64956]	Endangered	Species or species habitat may occur within area	In feature area
Pterostylis cucullata Leafy Greenhood [15459]	Vulnerable	Species or species habitat may occur within area	In feature area
Rutidosia leptorhynchoides Button Wrinklewort [67251]	Endangered	Species or species habitat likely to occur within area	In feature area
Senecio macrocarpus Large-fruit Fireweed, Large-fruit Groundsel [16333]	Vulnerable	Species or species habitat likely to occur within area	In feature area

REPTILE

Aprasia parapulchella Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Delma impar Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat known to occur within area	In feature area
Lissolepis coventryi Swamp Skink, Eastern Mourning Skink [84053]	Endangered	Species or species habitat may occur within area	In feature area
Tympanocryptis pinguicolla Victorian Grassland Earless Dragon [66727]	Critically Endangered	Species or species habitat likely to occur within area	In feature area

Listed Migratory Species

[[Resource Information](#)]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area

Migratory Terrestrial Species

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat may occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat likely to occur within area	In feature area

Migratory Wetlands Species

Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Tringa nebularia			
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area

Other Matters Protected by the EPBC Act

Commonwealth Lands [\[Resource Information \]](#)

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State	Buffer Status
Unknown		
Commonwealth Land - [21545]	VIC	In buffer area only
Commonwealth Land - [21500]	VIC	In buffer area only
Commonwealth Land - [22574]	VIC	In feature area
Commonwealth Land - [21593]	VIC	In feature area
Commonwealth Land - [21540]	VIC	In feature area

Listed Marine Species [\[Resource Information \]](#)

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis			
Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris acuminata			
Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris melanotos			
Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Chalcites osculans as Chrysococcyx osculans			
Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area	In feature area
Gallinago hardwickii			
Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
Haliaeetus leucogaster			
White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus			
White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Lathamus discolor			
Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Merops ornatus			
Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Monarcha melanopsis			
Black-faced Monarch [609]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area	In feature area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat likely to occur within area overfly marine area	In feature area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Sterna striata White-fronted Tern [799]		Migration route may occur within area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area

Extra Information

EPBC Act Referrals					[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status	
Melbourne Airport Business Park (MABP) ? Sky Road West Warehouse Developments	2023/09633		Referral Decision	In feature area	

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Melbourne Airport Rail Project Corridor Section	2021/9081		Post-Approval	In feature area
Controlled action				
Industrial Estate Cooper Road	2005/2178	Controlled Action	Post-Approval	In buffer area only
Melbourne Airport Rail Link - Albion East and West Routes	2001/197	Controlled Action	Post-Approval	In feature area
Not controlled action				
Craigieburn Rail Project	2004/1508	Not Controlled Action	Completed	In buffer area only
Development of Watervale Primary School	2005/2023	Not Controlled Action	Completed	In feature area
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
M80 Ring Road Upgrade	2009/5085	Not Controlled Action	Completed	In buffer area only
M80 Ring Road Upgrade, Part 2	2010/5509	Not Controlled Action	Completed	In buffer area only
Warehouse construction	2001/394	Not Controlled Action	Completed	In feature area
Not controlled action (particular manner)				
drainage, trenching and cable laying works	2003/1132	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Upgrade of Cooper Street, Epping	2001/292	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

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- [Office of Environment and Heritage, New South Wales](#)
- [Department of Environment and Primary Industries, Victoria](#)
- [Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [Department of Environment, Water and Natural Resources, South Australia](#)
- [Department of Land and Resource Management, Northern Territory](#)
- [Department of Environmental and Heritage Protection, Queensland](#)
- [Department of Parks and Wildlife, Western Australia](#)
- [Environment and Planning Directorate, ACT](#)
- [Birdlife Australia](#)
- [Australian Bird and Bat Banding Scheme](#)
- [Australian National Wildlife Collection](#)
- [Natural history museums of Australia](#)
- [Museum Victoria](#)
- [Australian Museum](#)
- [South Australian Museum](#)
- [Queensland Museum](#)
- [Online Zoological Collections of Australian Museums](#)
- [Queensland Herbarium](#)
- [National Herbarium of NSW](#)
- [Royal Botanic Gardens and National Herbarium of Victoria](#)
- [Tasmanian Herbarium](#)
- [State Herbarium of South Australia](#)
- [Northern Territory Herbarium](#)
- [Western Australian Herbarium](#)
- [Australian National Herbarium, Canberra](#)
- [University of New England](#)
- [Ocean Biogeographic Information System](#)
- [Australian Government, Department of Defence Forestry Corporation, NSW](#)
- [Geoscience Australia](#)
- [CSIRO](#)
- [Australian Tropical Herbarium, Cairns](#)
- [eBird Australia](#)
- [Australian Government – Australian Antarctic Data Centre](#)
- [Museum and Art Gallery of the Northern Territory](#)
- [Australian Government National Environmental Science Program](#)
- [Australian Institute of Marine Science](#)
- [Reef Life Survey Australia](#)
- [American Museum of Natural History](#)
- [Queen Victoria Museum and Art Gallery, Inveresk, Tasmania](#)
- [Tasmanian Museum and Art Gallery, Hobart, Tasmania](#)
- [Other groups and individuals](#)

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Please feel free to provide feedback via the [Contact us](#) page.

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