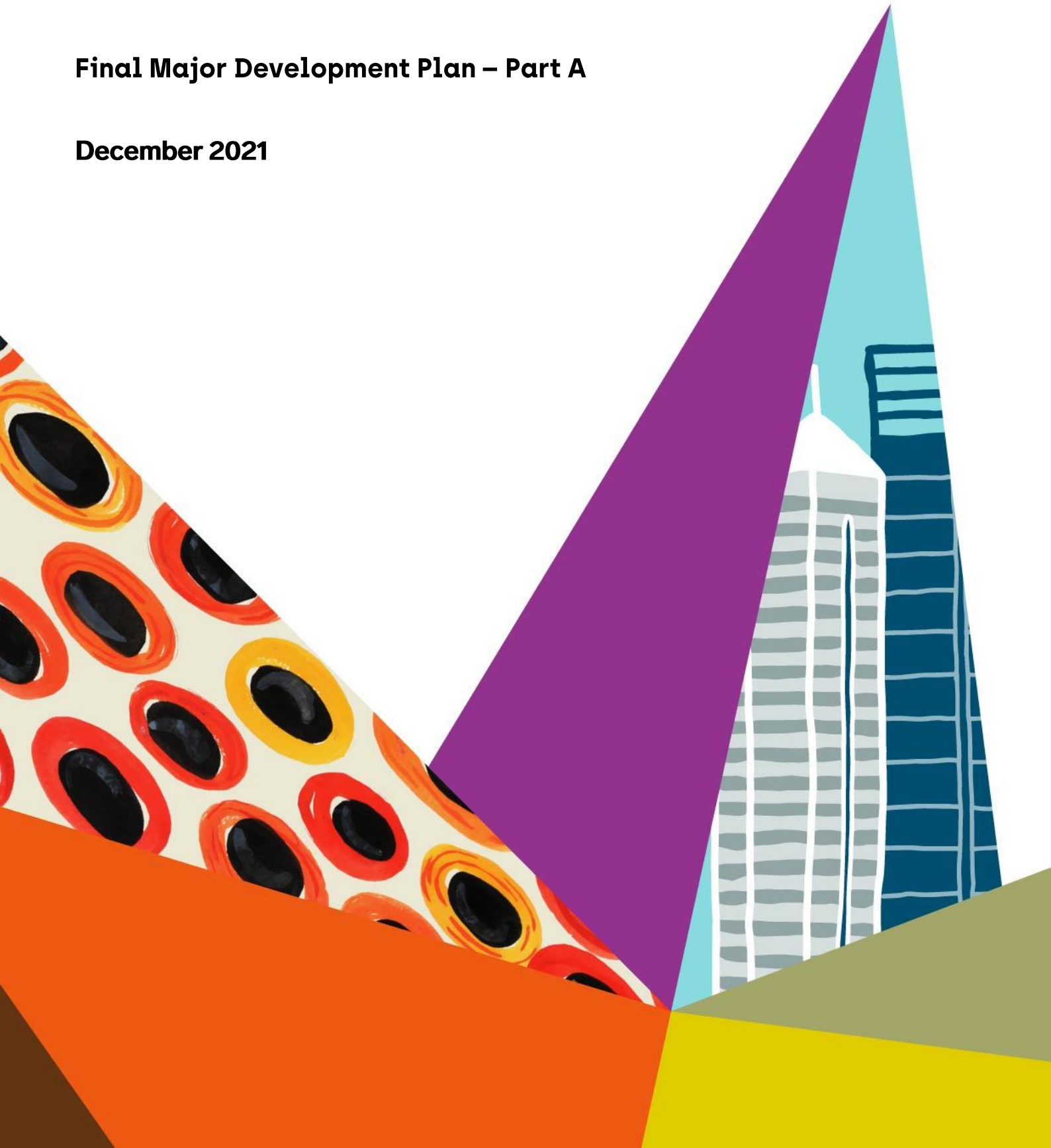


Airport West (South)

Final Major Development Plan – Part A

December 2021





This Major Development Plan has been prepared by Perth Airport Pty Ltd (Perth Airport) (ABN 24 077 153 130) to satisfy the requirements of the *Airports Act 1996* (Cth).

While all care has been taken in the preparation of this Major Development Plan:

- It is based on certain forecasts and assumptions, and Perth Airport makes no claim as to the accuracy or completeness of any of the information or the likelihood of any future matter,
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ACKNOWLEDGEMENT OF COUNTRY

Boorloo worlak kornt kaadatj Wadjak moort Noongar boodja-k wer baalabang kalyakoortl noyinand Noongar boodja-k. Ngalak kaadatj Noongar Birdiya koora-koora yeyi wer boordakan.

Perth Airport acknowledges the Whadjuk Noongar people as the Traditional Custodians of this region and respects their ongoing connection to this land. We pay our respects to Elders past, present and emerging.



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Executive Summary

Perth Airport is Australia's Western Hub linking Western Australia to the world. It operates 24 hours a day, seven days a week, and occupies a position as one of the most important infrastructure assets in Western Australia. As the fourth-largest domestic and international airport in Australia by passenger volume (pre-Covid), Perth Airport was serviced by more than 30 international, intrastate and interstate airline partners that operated to more than 50 destinations.

The COVID-19 outbreak has had a catastrophic and immediate impact to the entire aviation sector. Perth Airport has not been immune to this with international and interstate passenger numbers being dramatically impacted.

However, Perth Airport continues to plan for the future and is proceeding with its plans as set down in its Master Plan 2020. These investments will play a vital role in the recovery of the Western Australian economy.

The Perth Airport estate consists of 2,105 hectares and although the primary use of the estate is for aviation purposes, there is a significant amount of land on the estate not required for aviation purposes and as such, is available for non-aviation developments. This Major Development Plan (MDP) was prepared by Perth Airport and subsequently approved by the Commonwealth Minister for Infrastructure, Transport and Regional Development for non-aviation related development within the Airport West (South) project area. The MDP is consistent with development objectives defined in Perth Airport Master Plan 2020 and includes bringing land not required for long-term aviation services into productive use to support economic development and employment opportunities in Western Australia.

There is a demonstrated need and demand for businesses which provide goods, services and employment opportunities for the nearby growing resident and employee population and to tourists. Overall, development of Airport West (South) will play a role in activating and satisfying these needs and delivering benefits to attract these groups.

The proposed scope of works within the Airport West (South) area include vegetation clearing and site preparation, earthworks, service diversions and installations, road network construction, and landscaping and signage.

These works enabling future development of Airport West (South) are consistent with both long-term State Planning objectives for Western Australia and the planning for the localities adjacent to the airport estate.

The impacts to aviation activity associated with the proposed works have been assessed and are compliant. Perth Airport is committed to effective engagement and consultation with stakeholders where there may be aviation impacts resulting from activity within the Airport West (South) project area.

An environmental assessment has also been undertaken which investigated impacts to geology and soil, surface water and groundwater, flora and vegetation, fauna, wetlands, construction noise, vibration, air quality, and heritage. Perth Airport is in discussion with the Commonwealth Government on an appropriate offset framework to be applied to Airport West (South).

In terms of vehicular access, aviation users in Airport West are the priority until such time that all Regular Passenger Transport (RPT) services are consolidated to the Airport Central Precinct. For the period that RPT operations remain in Airport West, it is integral that priority of access for passengers to T3 / T4 via these roads is maintained.

This MDP is presented in two parts as follows, and both reports should be read together as each component addresses various triggers in the Airports Act.

- Part A (this report) details project scope, justification, socio-economic assessment, traffic and ground transport implications, relationship to aviation, consultation and ultimate implementation mechanisms, and



- Part B, which outlines and assesses environmental and heritage considerations including Aboriginal sites, flora, fauna, soils, geology, water resources, wetlands and construction air, noise and vibration impacts.

The MDP was released for a 60 business day consultation period between 7 March 2020 and 4 June 2020. Comments received from the community and other stakeholders during this time were considered and given due regard during the development of the Draft MDP which was subsequently submitted to the Minister for consideration. The Hon Barnaby Joyce MP, Minister for Infrastructure, Transport and Regional Development, approved this MDP on 29 October 2021.

This MDP fulfils the requirements under the Airports Act.



1. Introduction

This Major Development Plan (MDP) has been prepared by Perth Airport and approved by the Commonwealth for non-aviation related development within the Airport West (South) project area. This MDP is consistent with development objectives defined in Perth Airport Master Plan 2020 and includes bringing land not required for long-term aviation services into productive use to support economic development and employment opportunities in Western Australia. This MDP recognises the importance of providing strategically identified infill development sites that are connected to suitable transport infrastructure and appropriately integrated with surrounding compatible land uses to ensure long term sustainability.

Perth Airport is Australia's Western Hub linking Western Australia to the world. It operates 24 hours a day, seven days a week, and occupies a position as one of the most important infrastructure assets in Western Australia. As the fourth-largest domestic and international airport in Australia by passenger volume (pre-Covid), Perth Airport was serviced by more than 30 international, intrastate and interstate airline partners that operated to more than 50 destinations.

Perth Airport provides an access point to Western Australia from interstate locations and serves as the central transportation hub for regional destinations, such as significant mining regions and popular tourist destinations. The airport is a vital link in the Western Australian resources sector supply chain, providing connectivity for the fly-in fly-out (FIFO) workforce and for Western Australians who live in remote communities. Non-aviation development located on the airport estate assists in the facilitation of this supply chain, in addition to the creation of employment and economic benefits for the region.

Internationally, Perth Airport is strategically located for access to Southeast Asia, the Middle East, Europe and Africa. Perth Airport's contribution to employment, business, education, freight and tourism are significant. For example, approximately 95 per cent of people visiting Western Australia arrived by air in 2019, with these tourists contributing more than \$4.6 billion to the Western Australian economy.

Perth's metropolitan community is inextricably linked to its airport. The location of Perth in relation to other Australian capital cities and the vast distances between major population centres make air travel, and Perth Airport, indispensable to the people of Western Australia and to the State's economic, social and cultural development.

Perth Airport is located 12 kilometres east of Perth's Central Business District (CBD) and is well connected and integrated with major highway, freeway and rail networks, including Tonkin Highway, Leach Highway and Roe Highway, linking to the city, north-south and east-west. The location of Perth Airport in relation to the Perth metropolitan region and key transport infrastructure is shown in Figure 1-1, where it can be seen that the airport estate is well located within a broad catchment area for both aviation and non-aviation land uses.

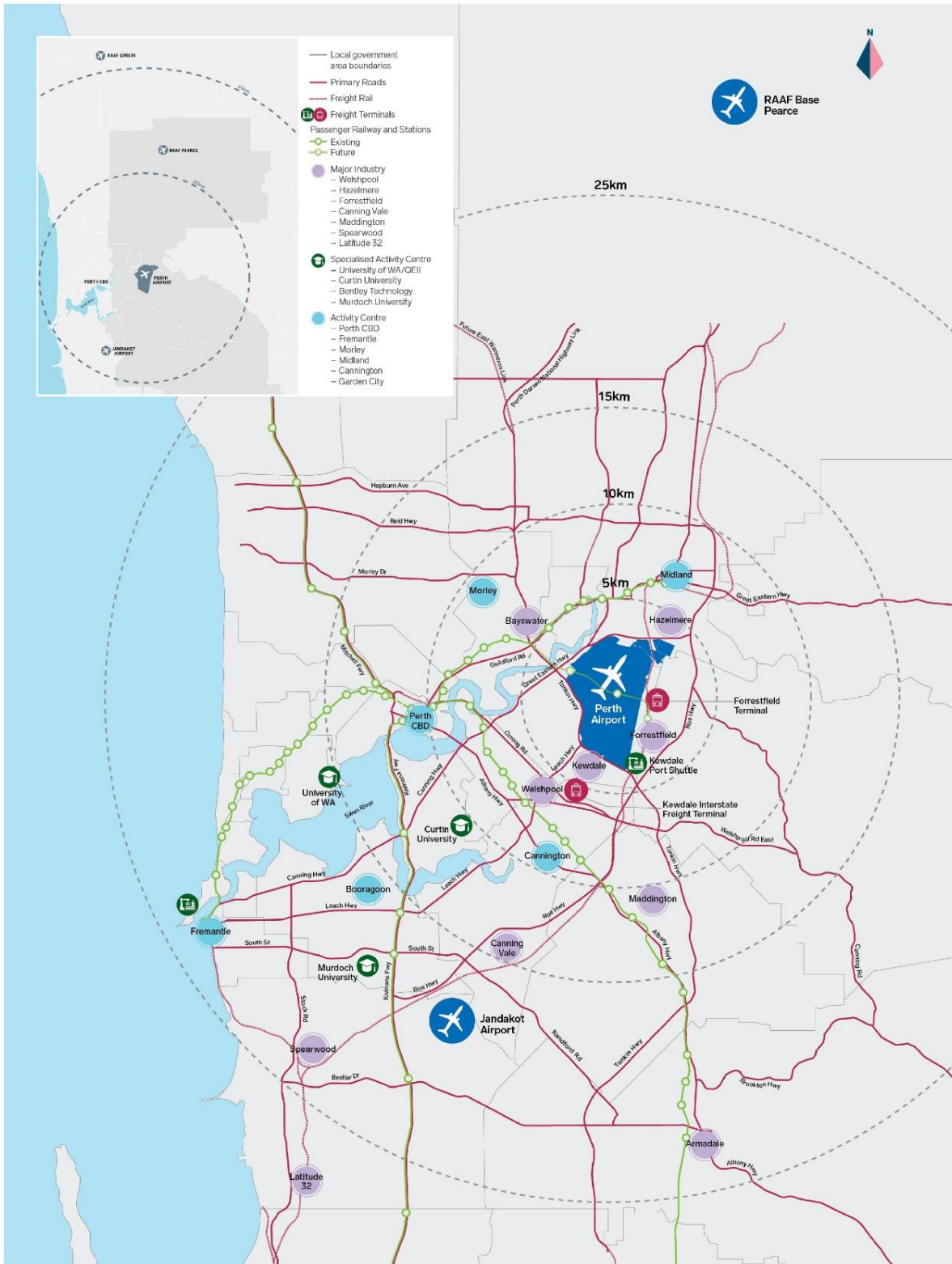


Figure 1-1 Perth Airport in Relation to Key Infrastructure

Source: Perth Airport



1.1. Major Development Plan Scope

The detailed scope of this Airport West (South) MDP is outlined in Section 2, and includes the following works for the project area illustrated in Figure 1-2:

- Vegetation clearing and site preparation,
- Earthworks,
- Service diversions and installations,
- Road network construction, and
- Landscaping and signage.

For the purpose of this MDP, the above works are referred to as ‘clearing and site preparation’ as an all-inclusive term. In terms of the study area, it should be noted that the area termed “Airport West (South)” is located within the wider Airport West precinct as defined in Master Plan 2020 and associated Land Use Plans. The Airport West precinct includes a much larger area of land to that included within this MDP, which is focussed on the southern portion of the precinct only, hence the terminology: Airport West (South).

Before Perth Airport can proceed with development in Airport West (South), it is required under Section 89(1)(h) of the Airports Act to prepare an MDP for the proposal. The development requires Commonwealth assessment on the basis that the development may result in environmental impacts to matters listed under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) and has an estimated cost of more than \$25 million. Further details concerning the statutory arrangements covering MDPs are provided under Section 5.4 of this document. This MDP met all stipulated requirements and was approved by the Minister for Infrastructure, Transport and Regional Development on 29 October 2021.

In terms of this MDP, Perth Airport has demonstrated socio economic benefits and manageable traffic impacts for the proposed scope of works, which does not include further development of commercial buildings. Future development may require separate MDPs if any of the triggers for MDPs as specified in the Airports Act are met.

Despite Perth Airport not being required to discuss benefits and impacts likely to arise from possible future development within Airport West (South), this information has been included within this MDP for completeness. The details regarding benefits and impacts have been developed based on an assumed mix of potential future land uses, which are subject to change and are included to simply outline possible development, impacts and benefits.

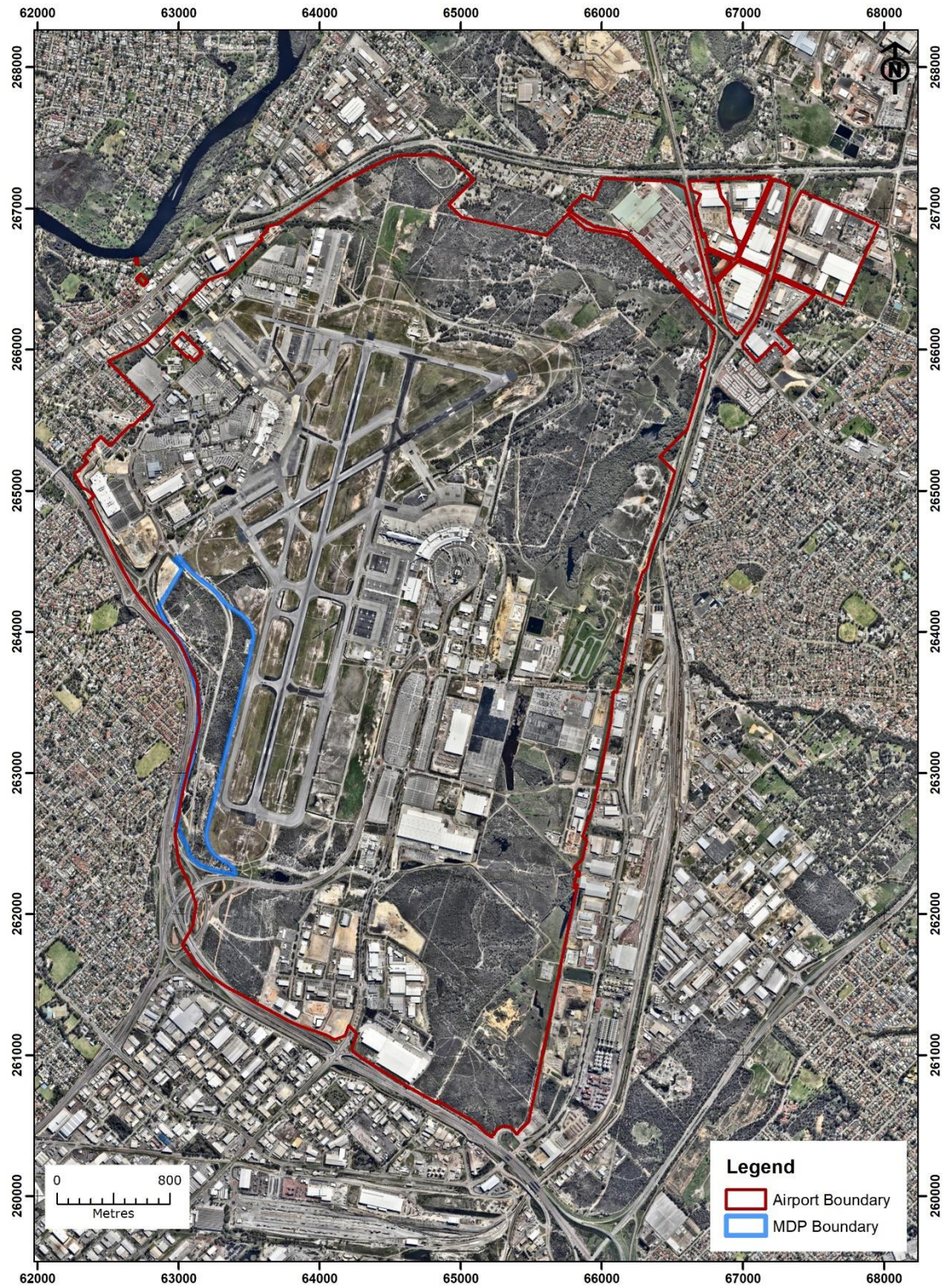


Figure 1-2 Study Area Context

Source: Perth Airport



1.2. Background

In July 1997, the operation and management of Perth Airport was transferred from the Commonwealth of Australia to Westralia Airports Corporation under a 50-year lease, with a 49-year leasehold option. In 2011, Westralia Airports Corporation changed its trading name to Perth Airport Pty Ltd.

Perth Airport Pty Ltd is a wholly-owned subsidiary of Perth Airport Development Group Pty Ltd (PADG). The shareholders of PADG, as at December 2021, are shown in Table 1-1.

Shareholders of Perth Airport Development Group Pty Ltd	Percentage Ownership
Utilities of Australia Pty Ltd ATF Utilities Trust of Australia (UTA)	38.26%
The Northern Trust Company (TNTC) TNTC in its capacity as custodian for Future Fund Investment Company No.3 Pty Ltd (FFIC3), a wholly owned subsidiary of The Future Fund Board of Guardians (FFBG)	30.01%
Utilities of Australia Pty Ltd ATF Perth Airport Property Fund (PAPF)	17.34%
Gardior Pty Ltd as trustee for The Infrastructure Fund	7.19%
AustralianSuper Pty Ltd	5.25%
Sunsuper Pty Ltd	1.95%

Table 1-1 Shareholders of Perth Airport Development Group Pty Ltd as at December 2021

Source: Perth Airport

Details regarding the history of Perth Airport can be found in Appendix A.

1.3. Report Structure

This document is consistent with the requirements of a Major Development Plan under the Airports Act and is presented in two parts which should be read together:

- **Part A** (this report) details project scope, justification, socio-economic assessment, traffic and ground transport implications, relationship to aviation, consultation and ultimate implementation mechanisms, and
- **Part B**, which outlines and assesses environmental and heritage considerations including Aboriginal sites, flora, fauna, soils, geology, water resources, wetlands and construction air, noise and vibration impacts.



2. Description of Development

This MDP is approved for the following works within Airport West (South):

- Vegetation clearing and site preparation,
- Earthworks,
- Service diversions and installations,
- Road network construction, and
- Landscaping and signage.

The ultimate purpose of the Airport West (South) MDP is to prepare land to attract future new businesses to the estate which can leverage off investments in current airport infrastructure and other commercial developments in the area. As part of this proposal, Airport West (South) should not be considered in isolation and instead is part of a broader development program across the airport estate with complementary uses to other precincts, as defined within Master Plan 2020.

The future development opportunities within Airport West (South) are framed by the surrounding road network, Tonkin Highway frontage and the inclusion of a Living Stream along the western boundary, which serves both drainage and ecological purposes, including an important fauna corridor along this portion of the airport estate.

Figure 2-1 illustrates indicative developable areas once the clearing and site preparation works have been completed along with the associated Living Stream. As noted previously, the ultimate layout for Airport West (South) is currently unknown and is subject to commercial demand and may differ from that shown. For example, in October 2019 Perth Airport signed a Memorandum of Understanding with the Australian Biome Project for a 15 hectare site to showcase Western Australia's biodiversity and Aboriginal culture (refer to Media Release in Appendix). A business case and scheme are currently being developed and this land use has been used within this MDP for the purposes of modelling possible impacts. Although efforts are being made to deliver this landmark project, it is acknowledged this is only in the early stages of planning. The land use is able to be accommodated within the developable area shown in Figure 2-1, although may require some adjustments to the indicative placement of infrastructure, including roads.

A detailed design will be prepared in conjunction with stakeholder engagement to deliver facilities and levels of service to meet the expectations of future tenants. The detailed design may alter from the concept design, however, will be consistent with the intent of this Final MDP. For example, the notional road network and lot layouts illustrated in Figure 2-1 are subject to change, but the general design intent and basis for the development detailed within this MDP will remain consistent in future development design iterations.

Furthermore, it is envisaged that the development will be staged over time, subject to land uptake and the future of the existing Perth Airport cross runway. The north western lots shown in Figure 2-2 may be considered as a second stage, although the required clearing, site preparation, service diversions, service installations, road network construction, landscaping and signage detailed within this MDP may still be enacted in parallel to these works for the remainder of the project area. As such, the staging plan shown in Figure 2-2 is indicative only and will be further considered during detailed design and through negotiations with potential tenants.

Future MDP's may be required within Airport West (South) where individual developments within the precinct have an estimated cost of more than \$25 million or where other triggers as outlined in Section 89 of the Airports Act are met, including environmental, ecological or community impacts. Furthermore, Perth Airport is committed to effective engagement and consultation with stakeholders for future development within Airport West (South). This will likely include consultation with Airservices Australia and CASA.



Figure 2-1 Indicative Airport West (South) Layout (subject to change)

Source: Perth Airport



Figure 2-2 Airport West (South) Indicative Staging Plan (subject to change)

Source: Perth Airport



3. Project Justification

The Airport West (South) development is a unique opportunity to provide high quality developable land in a readily accessible location within the eastern corridor to assist economic growth and generate employment opportunities. These and other benefits are described below and together with additional information presented in Section 7, provide justification for the proposed works.

3.1. Economic and Employment Benefits

There is a demonstrated need and demand for businesses which provide goods, services and employment opportunities for the nearby growing resident and employee populations, and for tourists. Overall, development of Airport West (South) will play a role in activating and satisfying these needs and delivering benefits to attract these groups. Development of Airport West (South) makes the wider Airport West precinct an attractive place to visit, work and dwell, for business, workers, travellers and the wider community. As the gateway into Western Australia and a highly accessible area in the Perth metropolitan area, Perth Airport therefore represents an ideal location for all of these benefits to be realised for Western Australia. The first step in realising these benefits is the clearing and site preparation works which form the basis of this MDP.

Modelling work was undertaken to calculate the construction and operational employment generated from the future development in Airport West (South). Construction employment is anticipated to generate \$898 million in total output for the broader economy, with an increase in both local employment opportunities for the eastern metropolitan region and also employment across the Perth metropolitan area. The industry makeup could be vastly different subject to ultimate development based on commercial demand, however the employment opportunities that will occur with developing the land will be realised over time, extending the benefit over many years.

Other economic benefits relate to the absence of any financial cost to Government (State or Local) or the community, in the establishment of the proposed Airport West (South) precinct, including infrastructure costs. As Perth Airport is the developer of the land, it bears all costs (and risks), which thereby increase the relative benefit for user groups. Furthermore, there will be no need for Government spending to establish new public transport infrastructure to service the area due to the Redcliffe Train Station and bus interchange.

Furthermore, as discussed in Section 1.2, Perth Airport Pty Ltd is a private company, majority owned by Australian superannuation funds and the Australian Government's Future Fund. This means that the profits from Perth Airport are ultimately returned to Australians in the form of higher returns on superannuation investments and through higher returns to the Future Fund.

The relationship with the Western Australian community is an important part of Perth Airport's values. Over the past decade, Perth Airport has invested more than \$7.5 million to positively impact the lives of many West Australians. Perth Airport also proudly contributes to a range of local schools, sporting organisations, not for profit charities and grass-root community groups as well as key industry groups with the aim of supporting those in need and engaging with the community.

3.2. Social and Tourism Benefits

This MDP includes the construction of a retention basin for native vegetation restoration in the far southern area, and a Living Stream along the western boundary (refer Part B report). There is an option for this area to be made available for active and passive recreation, which would provide amenity for employees and visitors and positive social (health) benefits.



Given the obvious connection between short term employment and economic benefits arising from clearing and site preparation and ultimate benefits following land development (outside the scope of this MDP), it is worthwhile noting future social and tourism advantages that may be generated from clearing and site preparation at Airport West (South).

For example, in future development, leisure and recreational land uses may be considered within the precinct. Both passive and active recreational land uses have social benefits by way of positive mental/wellbeing and physical health impacts. Productivity benefits can also be realised through participation in sport or recreation, as being physically and mentally healthier can have positive outcomes in the workplace.

A possible future Biome development broadly presents an opportunity to present Western Australia's unique Aboriginal Culture and connection to the natural environment for the benefit of cultural diversity and wide-ranging education.

Given that Perth Airport is strategically located for access to Southeast Asia, the Middle East, Europe and Africa, development of a tourist nature within Airport West (South) provides an opportunity to communicate Western Australia's tourism appeal and culture, flora and fauna. This MDP may facilitate the future development of unique land uses for international, interstate and intrastate tourists. Development of non-aviation land uses in Airport West (South), including those land uses which could promote tourism (e.g. recreation and leisure which have been modelled in this MDP) will add to the economic benefit that tourism currently brings.

3.3. Support for Government Objectives

Part of the justification for the development (and hence associated clearing of vegetation and site preparation), lies in the location of Perth Airport in close proximity to the Perth CBD and transport networks, including metropolitan public transport links such as the Forrestfield-Airport Link (FAL) project due for completion in 2022. The FAL includes a new train station in the suburb of Redcliffe, which immediately abuts the Airport West precinct, and is located approximately 1000m north of the Airport West (South) MDP area. This MDP will facilitate the future development of land which is soon to be well connected and serviced by public transport for the surrounding and broader catchment. The MDP is therefore considered to support the State and Federal Government's investment in rail.

The clearing and site preparation works proposed for Airport West (South) also broadly support other Western Australian Government objectives. For example, the State Government 'Diversify WA' economic development framework for the State which defines a vision for a strong and diversified economy delivering quality jobs through increased investment across a broad range of industries. The framework provides a blueprint for collaboration between Government, industry and the community and as Western Australia's primary aviation gateway, Perth Airport plays a key role in supporting the creation of more jobs and a strong and diverse economy. The development proposed within this MDP is aligned with and supports the delivery of the State's vision through the provision of an increase in economic development opportunities promoting employment.

Furthermore, the Local Planning Policy No. 14 Development Area 6 Vision was adopted by City of Belmont in 2016, following finalisation of the Forrestfield-Airport Rail Link route, incorporating a train station in Redcliffe also located within Development Area 6. Planning for the area will leverage off the benefits associated with proximity to the Redcliffe train station to create opportunities for residential infill and commercial development in line with a Transit Oriented Development. With an estimated 5,000 residents to be accommodated over time within DA6, developing Airport West (South) will provide goods, services, amenity and employment opportunities for the closest residential population to the MDP area. Clearing and site preparation is the first step in realising this benefit.



4. Site and Design Considerations

4.1. Site and Land Description

The project area for the development that is the subject of this MDP is approximately 70 hectares and is located within the western portion of the airport estate. The MDP area is partly vegetated, contains the airfield viewing platform, access roads, a number of tracks and is almost entirely undeveloped.

The subject land for this MDP abuts the boundaries of the airport estate to the west (Tonkin Highway), the airfield precinct and runway to the east, developed commercial land to the north and a highway interchange to the south.

The suburb of Cloverdale is located to the west of the project area boundary, further west of Tonkin Highway. Industrial land in the suburb of Kewdale exists south of the highway interchange.

4.2. Design Considerations

Key design principles for the Airport West (South) development have been built on a framework of the following key elements:

- environment and heritage – considers the unique cultural and environmental characteristics of the wider airport estate
- ecology – ecologically sensitive design, which includes, where possible the retention of large trees and vegetation and enhances a passive ecological corridor through the construction of a Living Stream
- economy – makes a significant contribution to the local and state economy, facilitating investment
- community – provides amenity for the local resident population and workforce, and continues to provide an area of community interest at the airport viewing platform
- infrastructure – supports development, flexibility, connectivity, sustainability and future growth
- market tested – considered within a property market model for financial robustness
- connection – provides connection to the Perth CBD and greater Perth region.

Based on the above key design principles, an indicative layout has been developed (Figure 2-1) which outlines developable areas. Variable sizes of future lots are yet to be confirmed, but will likely gain access predominately via a central spine off Dunreath Drive, with allowance for internal precinct access roads, a possible site for emergency staging and the existing aircraft viewing platform and surrounds. A significant allowance has been made for landscaping and inclusions to create ecological value and amenity for the future workforce, such as tree lined roads, which will be implemented where possible using native species (keeping in mind the risk of bird strike and the close proximity of Airport West (South) to both the main runway and cross runway). The Living Stream is also an important part of the development proposal and will provide for water management and storm event storage capacity, ecological benefit, and will also improve local amenity through 'green-space' installation for the future workforce.

4.3. Perth Airport Development Objectives

Developments at Perth Airport are guided by a set of development objectives which evolve from the company's vision and corporate objectives. Perth Airport's vision is to be *Australia's Western Hub – connecting lives, businesses and communities to a world full of possibilities*. The objectives that guide Perth Airport's development are defined in the Perth Airport Master Plan 2020, and include:

1. Bring land not required for long-term aviation services into productive use to support economic development and create employment in Western Australia.



To achieve this objective, Perth Airport will ensure the proposed development:

- is consistent with Master Plan 2020, including ensuring the land is not identified for long-term aviation purposes, and
 - contains appropriate land uses that promote employment and economic development opportunities.
2. Ensure that the airport's development and operations minimise adverse impact on surrounding communities and the environment.

To achieve this objective, Perth Airport will ensure the proposed design of the development:

- is sensitive to the existing natural environment, and provides opportunities for enhancement and revegetation where possible,
 - considers land use opportunities that improve amenity and promote community health and wellbeing,
 - manages traffic appropriately to minimise impact on the surrounding road network, and
 - reuses topsoil in non-development areas where practical.
3. Ensure Perth Airport achieves an adequate and sustained return on investment to support continuing development in the facilities.

To achieve this objective, the decisions Perth Airport will make regarding development of the precinct will take into account:

- the suitability of land uses and development mechanisms which can generate a return over the long term, and
 - the flexibility in the design of developments to cater for adaptable reuse, which makes sustainable use of land and materials.
4. Ensure the ongoing integrity of critical infrastructure that may be impacted by airport development.

To achieve this objective, the proposed development will be designed by Perth Airport to operate in a way that:

- maintains primacy of road access for users of T3 and T4 until Qantas Group's regular passenger transport operations consolidate to Airport Central, and
- all future land uses developed will pose no material impact to aviation operations or safety controls.

This MDP is consistent with the listed Perth Airport Development Objectives.

4.4. Future of the Cross Runway (06/24)

Given the proximity of Airport West (South) in relation to the cross runway, the property development constraints associated with the use of the runway need to be considered. The final decision on the use of the cross runway is yet to be made by Perth Airport and further consultation will be required with Airservices Australia in this regard. The concept of operations developed for Master Plan 2020 showed that the continued use of the cross runway once a parallel runway is in operation would reduce the efficiency and overall runway capacity at Perth Airport, therefore negating some of the benefits that a parallel runway provides. As such, the continued operation of the cross runway will be assessed by Perth Airport with the first priority of these assessments being airfield operational requirements. If the cross runway is ultimately decommissioned, there may be development opportunities for the northern lots within Airport West (South). Should this be the case, further consideration on land use types for this portion of the project area will be required.



5. Legislative Framework

The proposal contained within this MDP is primarily guided by Commonwealth regulation, which is required as Perth Airport is operated on Commonwealth land through a leasehold agreement. The Airport West (South) MDP is consistent with the applicable legislation and the associated Perth Airport Master Plan 2020, approved Land Use Plan and executed lease, as defined below.

5.1. Commonwealth Legislation

The key Commonwealth legislation applicable to planning, land use, and development on the Perth Airport estate are:

- *Aboriginal and Torres Strait Islander Heritage Protection Act 1984,*
- *Airports Act 1996,*
- *Airports Regulations 1997,*
- *Airports (Building Control) Regulations 1996,*
- *Airports (Control of On-Airport Activities) Regulations 1997,*
- *Airports (Protection of Airspace) Regulations 1996,*
- *Airports (Environment Protection) Regulations 1997,*
- *Airspace Act 2007,*
- *Aviation Transport Security Act 2004,*
- *Civil Aviation Act 1988,*
- *Civil Aviation Regulations 1988,*
- *Civil Aviation Safety Regulations 1998,*
- *Environment Protection and Biodiversity Conservation Act 1999,*
- *Environment Protection and Biodiversity Conservation Regulations 2000,* and
- *Native Title Act 1993.*

Although Perth Airport is located on Commonwealth land, State legislation may apply under the provisions of the *Commonwealth Places (Application of Laws) Act 1970*. This is typically for activities where Commonwealth legislation does not exist, such as for bushfire and Aboriginal heritage management. Where State and Commonwealth legislation conflict, Commonwealth legislation takes precedence. The State legislation relevant to planning and development on the airport estate are:

- *Aboriginal Heritage Act 1972,*
- *Bush Fires Act 1954,*
- *Dampier to Bunbury Pipeline Act 1997 and*
- *Heritage Act 2018*



5.2. Airports Act 1996

Perth Airport is located on land owned by the Commonwealth of Australia and although the day to-day management of Perth Airport was privatised in 1997, the Commonwealth Government continues to play an important regulatory and oversight role through the Airports Act and associated regulations. This statutory regime ensures that the public interest is protected.

The Airports Act is the principal statute regulating the ownership, management and operation of leased Commonwealth airports. Part 5 and Part 6 of the Airports Act prescribe controls over land use planning, environment management and development at airports, including the requirements of a Final Airport Master Plan and Major Development Plans.

5.3. Perth Airport Master Plan 2020

Under Section 70 (1) of the Act, each airport is required to produce a Final Master Plan. The Final Master Plan is one that has been submitted to the Minister as a Draft Master Plan and approved. Prior to submitting a Draft Master Plan, the airport is required to take into account public comments. Subsequent developments at the airport must be consistent with the Final Master Plan.

Section 70 of the Act states that the purposes of a Final Master Plan for an airport are to:

- Establish the strategic direction for efficient and economic development at the airport over the planning period of the plan,
- Provide for the development of additional uses of the airport site,
- Indicate to the public the intended uses of the airport site,
- Reduce potential conflicts between uses of the airport site, and to ensure that the uses of the airport site are compatible with the areas surrounding the airport,
- Ensure that all operations at the airport are undertaken in accordance with relevant environmental legislation and standards,
- Establish a framework for assessing compliance at the airport with relevant environmental legislation and standards, and
- Promote the continual improvement of environmental management at the airport.

The Perth Airport Master Plan 2020 includes an Environment Strategy and Ground Transport Plan and was approved by the Commonwealth Minister for Infrastructure, Transport and Regional Development, the Hon Michael McCormack, on 2 March 2020 and is available on the Perth Airport website (www.perthairport.com.au).

Section 91(1A) (b) of the Act requires that an MDP is consistent with the Final Master Plan for the airport.

As outlined in Section 3 and 5 of Master Plan 2020, the wider Airport West precinct comprises 341 hectares and as all RPT services will be consolidated within the Airport Central Precinct, no additional land is likely to be required for regular aviation purposes in the Airport West Precinct. After consolidation, land within the Airport West Precinct, which is currently used for aviation and aviation support, will progressively become available for complementary, non-aviation development which takes advantage of the opportunity provided by the future train station in Redcliffe.

The southern portion of Airport West, which is the subject of this MDP, is envisaged to accommodate commercial land uses such as bulky goods/retail showrooms and/or other desired land uses such as recreation, leisure, health and medical, and education and training. Each of these land uses will be aimed to provide convenient services for the growing nearby population and eastern suburbs, and the on-estate workforce.



Section 6 of Master Plan 2020 provides an outline of the current Ground Transport Plan for Perth Airport, including the intent for ground transport infrastructure and networks to support the planned consolidation of all RPT services to the Central Precinct. The construction of Gateway WA included the development of the Tonkin-Dunreath interchange, which is now the primary access to the precinct following the closure of Brearley Avenue at Great Eastern Highway. Consolidation to Airport Central will greatly decrease the demand for the road network and the ground transport plan for Airport West will evolve as land uses change.

The current proposal remains entirely consistent with the intent of Master Plan 2020.

Perth Airport Land Use Plan

Section 3 of Perth Airport Master Plan 2020 outlines the Perth Airport Land Use Plan. Perth Airport is comprised of 2,105 hectares of land, and under the Land Use Plan, is divided into five land use precincts, akin to suburbs:

- Airport Central precinct,
- Airport West precinct,
- Airport North precinct,
- Airport South precinct, and
- Airfield precinct.

Within the five precincts, there are five different zonings which dictate the desired land uses for each of the defined precincts, in a similar way Local Planning Schemes manage land use planning for Local Government areas. The zones overlayed across the airport estate comprise of 'Airfield', 'Commercial', 'Airport Services', 'Mixed use' and 'Terminal', and are shown in Figure 5-1. Each zone has an applicable Land Use Table within Master Plan 2020, detailing the discretionary land uses which can be approved within the zone.

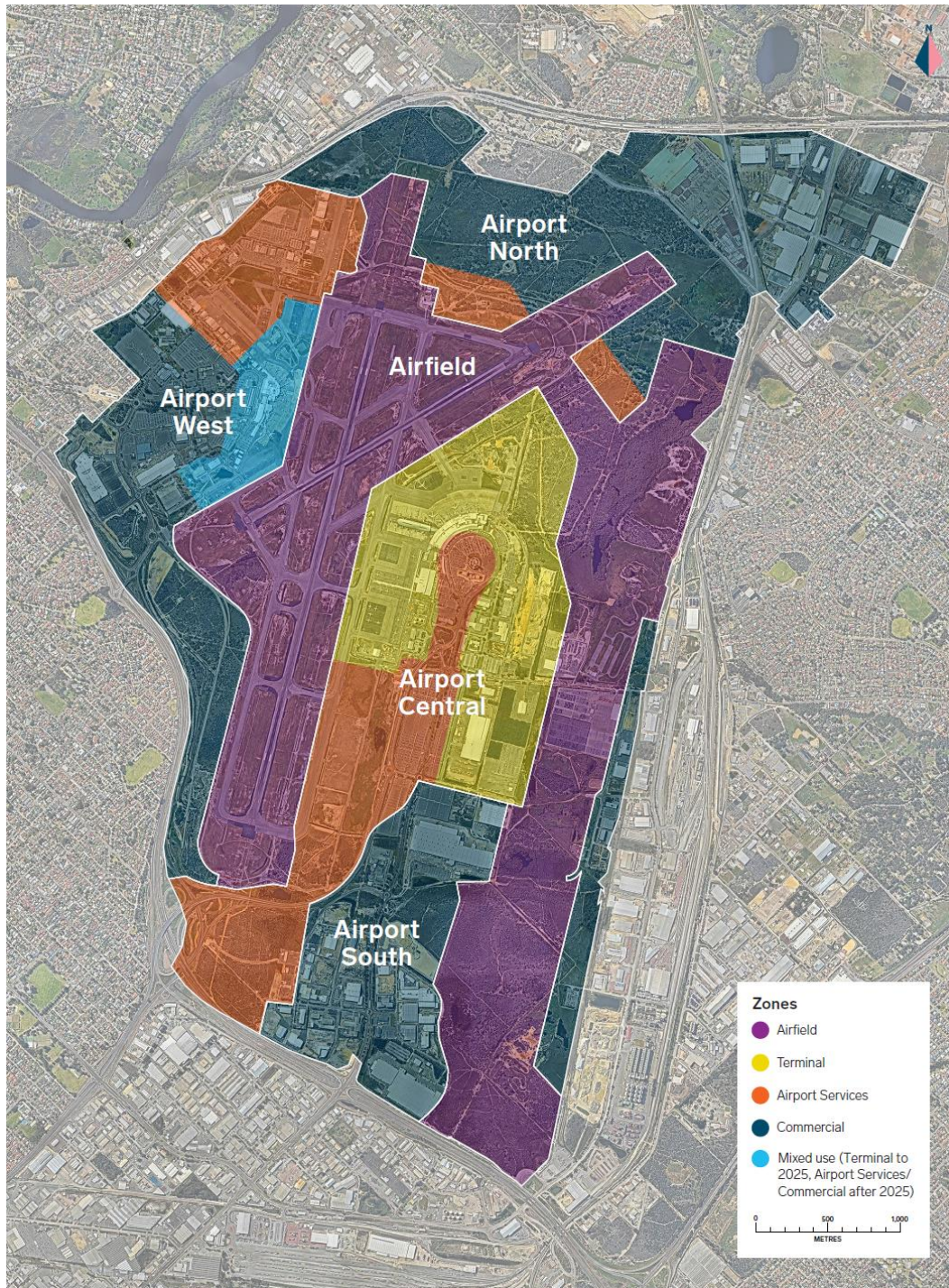


Figure 5-1 Perth Airport Precincts and Zones

Source: Perth Airport Master Plan 2020

The proposed development is located within the Airport West Precinct and falls within the ‘Commercial’ zone. As shown in Table 5-1, objectives of the zone include enabling an integrated mix of land uses to provide employment generating development opportunities.



Objectives

Facilitate land use and development in line with the characteristics of a 'Specialised Activity Centre' and encourage a mix of uses and intense development around the Redcliffe train station

Deliver a diversity of appropriate land uses to make best use of land, facilities and services and to provide a suitable interface between the airport boundary and the surrounding areas

Create through good urban design an attractive, walkable, safe and balanced built form and natural environment

To provide a focus for industry, business and employment generating development opportunities

To promote environmentally sustainable design and development outcomes

Discretionary uses

Abattoir [^]	Exhibition centre	Place of worship
Agriculture – intensive [^]	Fast food/take away	Power plant [^]
Animal establishment	Fuel depot [^]	Reception centre
Art gallery	Funeral parlour	Recreation – public
Auction mart	Garden centre	Recreation – private
Automotive charging station	Health centre	Resource recovery centre [^]
Aviation support facilities	Health studio (gym)	Restaurant/cafe
Brewery	Hospital	Service station
Bulky goods/large format retail	Hostel	Serviced apartments
Car park	Hotel	Shop
Child care premises	Industry – light [^]	Shopping centre
Cinema/theatre	Industry – service	Small bar
Club premises	Liquor store (large)	Tavern
Community purpose	Logistics centre	Telecommunications
Consulting rooms	Market	Tourist development
Convenience store	Medical centre	Trade display
Corrective institution [^]	Motel	Transport depot [^]
Dog kennels	Motor vehicle repair [^]	Utilities and infrastructure
Education establishment (training)	Motor vehicle wash	Veterinary centre
Education establishment (university)	Motor vehicle, boat, or caravan sales/hire	Warehouse [^]
Equipment hire	Office	Waste storage facility [^]

Table 5-1 Commercial Zone, Permissible Land Use Table

Note: [^]land uses to be minimised within the immediate pedestrian environment surrounding Redcliffe Train Station

Source: Perth Airport Master Plan 2020



5.4. Major Development Plan

Section 89(1)(m) of the Airports Act requires Perth Airport to seek approval, via an MDP, for a development of a kind that is likely to have significant environmental or ecological impacts and/or where the estimated cost is greater than \$25 million.

The required contents of an MDP are defined in Section 91 of the Airports Act and include:

- The objectives of the proposed development,
- An 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,
- A detailed outline of the proposed development,
- An assessment as to whether the proposed development is consistent with the airport's lease from the Commonwealth,
- An assessment as to whether the proposed development is consistent with the Final Master Plan,
- An assessment as to whether the proposed development could affect flight paths and noise exposure levels at the airport and the extent of relevant consultation with airline partners and Local Government,
- An assessment of the effect the proposed development will have on traffic flows at the airport and surrounding the airport, employment levels at the airport and the local and regional economy and community, including how the proposed development fits within the local planning schemes for commercial and retail developments in the adjacent area, and
- An assessment of environmental impacts and the plans for dealing with any such impacts.

Appendix C provides detail of the specific contents of this MDP with correlation to the Airports Act requirements for MDPs.

Section 92 of the Airports Act requires that prior to the MDP being published for public comment, the proposed document must be drawn to the attention of:

- the Minister of the State in which the airport is situated, with responsibility for town planning or use of land,
- the authority of that State with responsibility for town planning or use of land, and
- each Local Government body with responsibility for an area surrounding the airport.

Section 92 also outlines the requirement for the MDP to be made available for public comment prior to submission to the Minister for consideration. The process for assessment and approval of this MDP is presented in Figure 5-2 below, with public consultation undertaken between 7 March 2020 and 4 June 2020.

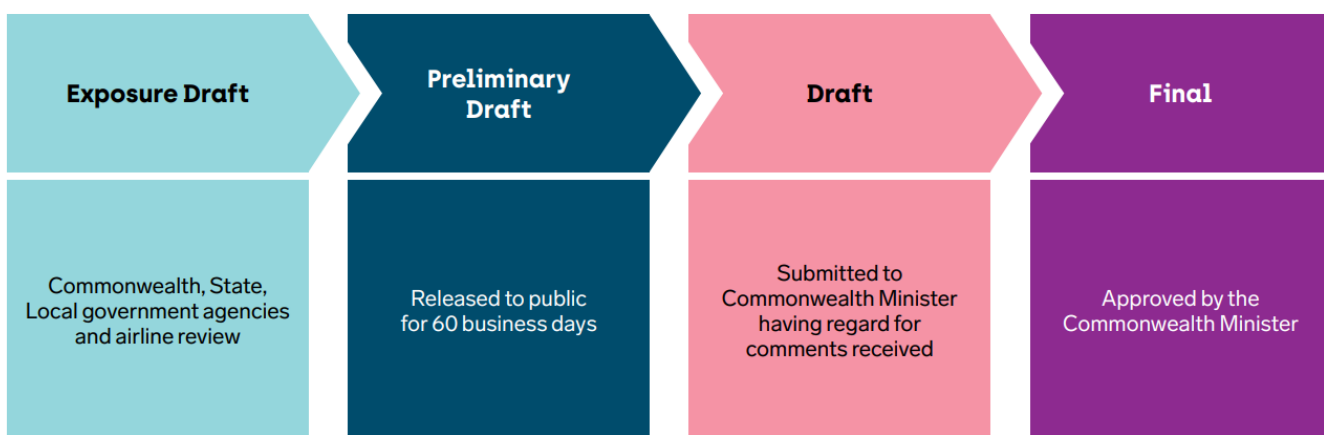


Figure 5-2 Major Development Plan Process

Source: Perth Airport

5.5. Perth Airport Lease

Perth Airport Pty Ltd is the lessee of the 214 lots of land which makes up the airport estate. The lease with the Commonwealth of Australia was executed on 1 July 1997. The term of the lease is for a period of 50 years, with an option of a further 49 years. An essential term of the lease is that the lessee must comply with all legislation relating to the Airport site, including the *Airports Act 1996*.

Section 91(1)(ca) of the Airports Act requires that a major development is consistent with the airport lease. The proposed development as outlined in this MDP is consistent with the Perth Airport lease and the obligations of Perth Airport to maintain the environment of the airport lease have been addressed in the Part B report, which considers surface water, ground water, soil, subsoils, air quality, flora and fauna and Aboriginal heritage.

The airport lease also requires that any development is in accordance with an approved Master Plan.

Pre-Existing Interests

There are several pre-existing interests that provide for access and use of land within the estate which existed when the operation and management of Perth Airport was transferred from the Commonwealth on 2 July 1997.

In accordance with Section 91(3) of the Airports Act and Section 5.04 of the Airports Regulations 1997, Perth Airport is required to address any obligations from pre-existing interests in the airport. No pre-existing interests, as outlined in the Master Plan 2020, exist within the Airport West (South) MDP area.

Pre-Existing Sub-Leases

The proposed development will impact three current sub-leases and tenancies within the Airport West (South) project area and given the notice periods in place for these leases, it is envisaged they will have no material impact on the proposed development detailed within this MDP.



6. Consistency with State and Local Planning

As discussed in Section 5, Perth Airport is governed by Commonwealth legislation and State and Local planning laws do not apply to the Perth Airport lease area. However, when planning for development on the estate, Perth Airport reviews and considers all relevant State and Local Planning documents to minimise conflict. The following information analyses the alignment between this MDP and these planning documents.

6.1. State Planning Policy Overview

State Government planning is controlled by the Western Australian Planning Commission (WAPC) which administers the State Planning Framework and the Metropolitan Region Scheme (MRS) and disseminates policies and strategies on a wide range of planning matters. The planning policies and strategies developed by the WAPC set the strategic context in which the MRS operates.

6.1.1. Metropolitan Region Scheme

The Metropolitan Region Scheme (MRS) is prepared and administered by the WAPC as the principal planning scheme for the Perth metropolitan region. The MRS considers generalised broad-scale land use zones and sets out regional reservations. Most of the airport estate is reserved for 'Public Purposes: Commonwealth Government' and a small portion (18.14 hectares) is zoned 'Urban' under the MRS. The land zoned 'Urban' is an anomaly, and Perth Airport has worked with the WAPC to pursue rezoning to be consistent with the remainder of the estate. The rezoning request was approved by the WAPC at its meeting held 24 November 2021 and the MRS will soon be formally updated. Notwithstanding the above, the portion of the estate zoned as Urban under the MRS does not fall within the MDP area and has no impact on this MDP scope.

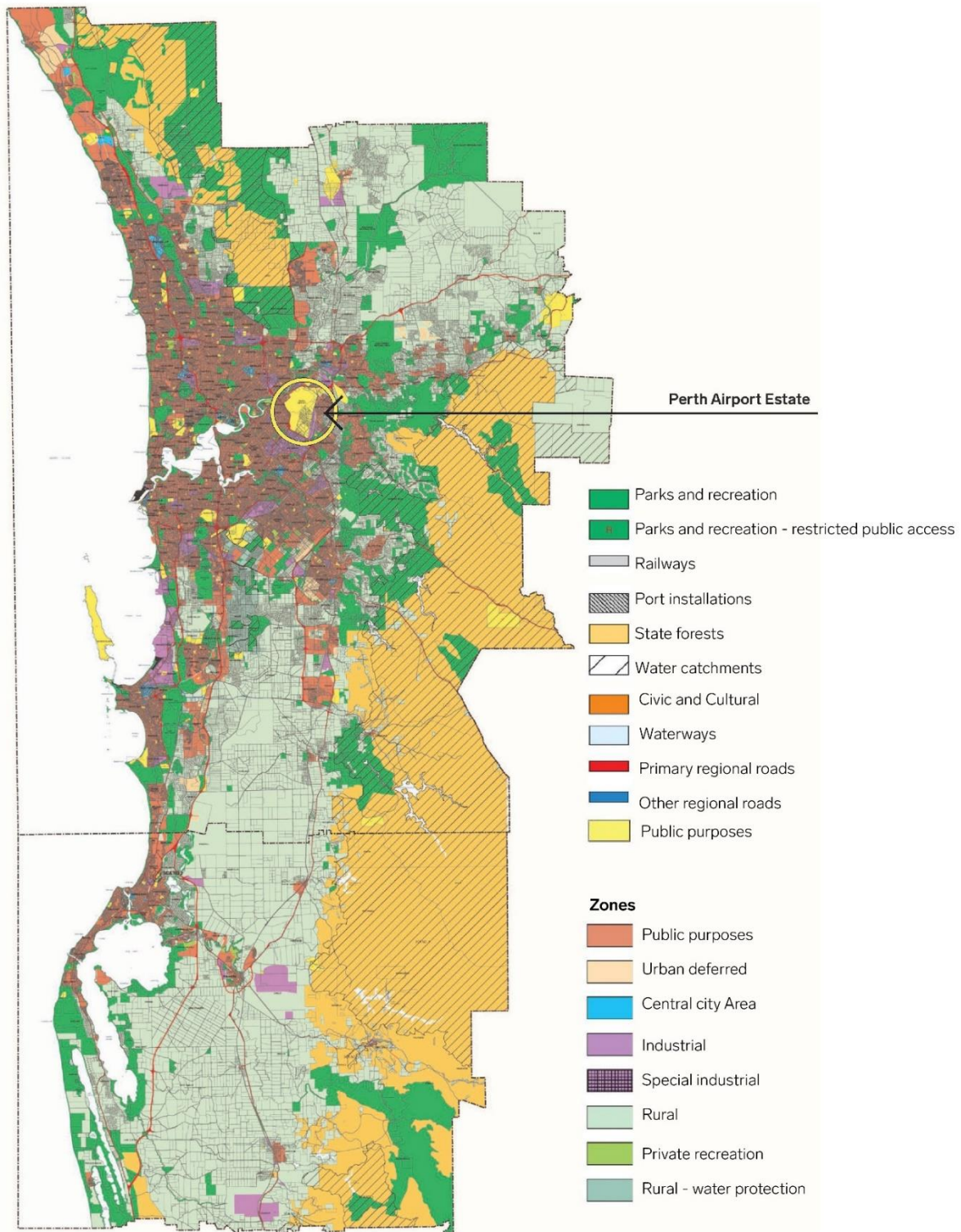


Figure 6-1 Metropolitan Region Scheme Map

Source: Western Australian Planning Commission

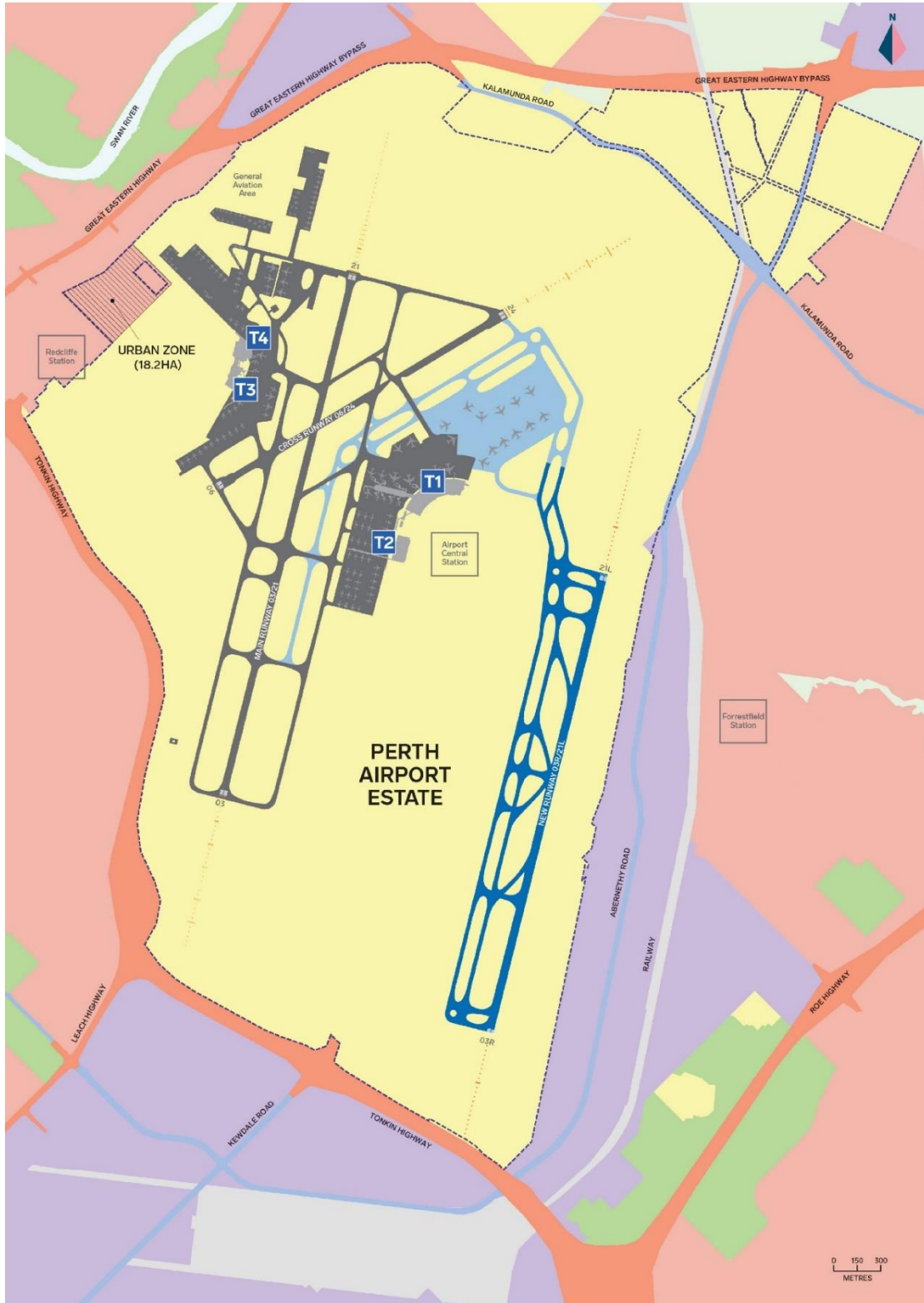


Figure 6-2 Perth Airport in the Context of the MRS

Source: Western Australian Planning Commission



6.1.2. WA Aviation Strategy 2020

The first State Aviation Strategy (Draft WA Aviation Strategy 2020) was published in February 2015. This Strategy was prepared by the State Department of Transport in conjunction with key State Government agencies covering economic development, planning, tourism, Local Government and regional development.

The State Aviation Strategy is aimed at “supporting the economic and social development of the State through the provision of safe, affordable, efficient and effective aviation services and infrastructure” and “provides a sound framework for policy setting, future planning and investment in Western Australia’s international and domestic air services and airport infrastructure.” It proposes actions that the State will take to work in partnership with airports, regional shire councils, airline partners, and the resources and energy sectors to ensure adequate services continue to meet the needs of Western Australia.

The proposed development is consistent with the intent of the State Aviation Strategy, in that it supports economic development while not jeopardising aviation infrastructure or services.

6.1.3. State Planning Strategy 2050

The State Planning Strategy 2050, prepared by the WAPC and endorsed by the Western Australian State Cabinet, was launched in June 2014. The strategy provides the strategic guidance for land-use planning within Western Australia until 2050, as well as the vision and principles for coordinated and sustainable development. The State Planning Strategy does not provide a specific land use plan for the Perth metropolitan region; however, it does identify the need to provide efficient transport routes and hubs. It also recognises Perth Airport as a key element in the movement network of the State, and as the international gateway to Perth and Western Australia, and focal point for the growth of the tourism industry.

It recognises the importance of providing strategically identified infill development sites that are connected to suitable transport infrastructure and appropriately integrated with surrounding compatible land uses to ensure long term sustainability.

The proposed development is consistent with and supports the intent of the State Planning Strategy 2050, given the project will provide serviced and accessible land to support the State’s economic development.

6.1.4. Perth and Peel @ 3.5 Million

In March 2018, the State Government released the Perth and Peel @ 3.5 million suite of land use planning and infrastructure frameworks to accommodate 3.5 million people by 2050. The Central, North-East, North-West and South Metropolitan Peel sub-regional planning frameworks provide guidance on future land to accommodate new homes and jobs and making the best use of existing and proposed infrastructure.

Perth Airport is referenced in the Central, North-East, North-West and South Metropolitan Sub Regional Planning Frameworks, which designate the estate as a ‘specialised activity centre’ in line with other State policy. Perth Airport is also referenced as a key employment node that is important to the diversification of the economy, particularly within the central sub region where Perth Airport is the focus of employment and a major contributor to productivity, and a facilitator of business clustering and agglomeration.

Jobs growth at Perth Airport as outlined in this document is predicated in part, on the development of non-aviation land uses, including within the Airport West precinct. Perth Airport has the capacity to provide land for this development of non-aviation land uses in a central location. The opportunity for employees to live in close proximity to their place of employment is considered to be a future benefit which will grow over time, as more jobs become available and more residents move to nearby areas.



Perth Airport funds all development projects privately, and any infrastructure required to be delivered to support the development of land on the estate will be undertaken without reliance on Government spending. The MDP is therefore consistent with Perth and Peel @ 3.5 Million as outlined above.

Perth and Peel @ 3.5 Million includes the long-term planning for transport infrastructure for the Perth metropolitan region. The Plan provides a framework to develop an efficient transport network to cater for Perth's population as it approaches 3.5 million and beyond.

The proposed development is consistent with the intent of the plan, in providing capacity to support the ongoing growth of Perth's population, in addition to contributing to employment generation.

6.1.5. State Planning Policy 2.8 – Bushland Policy for the Perth Metropolitan Region

State Planning Policy 2.8 Bushland Policy for the Perth Metropolitan Region (2010) aims to provide a policy and implementation framework that ensures bushland protection and management issues in the Perth Metropolitan Region are appropriately addressed and integrated with broader land use planning and decision making. The policy identifies measures that apply to proposals or decisions on State land that are likely to have an adverse impact on regionally significant bushland within a Bush Forever site, as identified in the policy and the MRS.

Bush Forever sites located on State or local reserved or managed land have specific measures detailed within the policy. SPP 2.8 identifies Bush Forever sites on the Perth Airport estate. This State policy does not directly relate to the activities on the estate, and the Department of Planning, Lands and Heritage (DPLH) has recently proposed to remove significant portions of Bush Forever from the estate.

6.1.6. State Planning Policy 4.2 – Activity Centres for Perth and Peel

The State Planning Policy 4.2 Activity Centres for Perth and Peel considers the planning and development of 'activity centres' throughout the Perth and Peel metropolitan region. It details the distribution, function, broad land use and urban design criteria of activity centres, and the coordination of land use and infrastructure planning.

Other purposes of the Policy include:

- the integration of activity centres with public transport,
- ensuring activity centres contain a range of activities to promote community benefits through infrastructure,
- efficiency and economic benefits of business clusters, and
- lower transport energy use and associated carbon emissions.

The Policy also reflects WAPC's intention to encourage and consolidate residential and commercial development in activity centres, so they contribute to a balanced network. Under the policy, Perth Airport is identified as a 'Specialised Activity Centre.' Specialised centres provide opportunities for the development of complementary activities, particularly knowledge-based businesses. A range of land uses that complement the primary function of these centres will be encouraged on a scale that will not detract from other centres in the hierarchy. It is noted that Perth and Jandakot airports are subject to Commonwealth legislation and are, therefore, outside the State and local government jurisdictions.



Perth Airport ensures that proposals for retail development are considered in accordance with SPP 4.2. Future developments within Airport West (South) will likely consist of an integrated mix of land uses which may include retail, but also a range of other potential land uses such as leisure, recreation and hospitality. Perth Airport examines such development in the context of the broader area while also acknowledging existing levels of retail development on the estate.

6.1.7. State Planning Policy 5.1 – Land Use Planning in the Vicinity of Perth Airport

State Planning Policy 5.1 – Land Use Planning in the Vicinity of Perth Airport (SPP 5.1) applies to land in proximity to Perth Airport which is, or may in the future, be affected by aircraft noise, and states:

“Perth Airport is fundamental to the continued development of the Perth metropolitan region and the State as a whole. Investment in airport infrastructure and the economic opportunities associated with the operation of the airport are now recognised as important and perhaps critical elements in the prosperity of a city such as Perth. Accordingly, the airport and its ongoing development need to be recognised in the planning of the region, and its operation protected, as far as practicable, from development that could potentially prejudice its performance. One of the main issues to be addressed in the planning of areas in the vicinity of the airport is aircraft noise, which is the focus of this policy.”

The role of this policy is to provide guidance to Local Governments in the vicinity of Perth Airport and the WAPC when considering developments on land adjacent to, or affected by, the airports operations. In practice, the policy requires relevant Local Government authorities to give due consideration to Perth Airport’s Australian Noise Exposure Forecast (ANEF) contours in local planning decision making.

The intent of this is to ensure that policy measures (such as zoning, residential density, subdivisions, development, notification on titles, and advice) are appropriately applied to applications for development, to avoid potential land-use planning conflicts, which may subsequently impact and restrict airport operations.

The MDP area includes land which is subject to the 20-25, 25-30 and 30-35 contours of the existing Airservices Australia endorsed 2020 ANEF referenced in the policy. All future land uses considered for the area will comply with the intent of SPP 5.1, noting a range of land uses are permitted under the policy in certain contours subject to noise mitigation controls.

6.1.8. State Planning Policy 5.4 – Road and Rail Noise

The State Planning Policy 5.4 Road and Rail Noise (2019) identifies the primary freight roads and rail routes within the Perth metropolitan area, with the objective to protect these key corridors from future urban expansion. The Policy recognises the hierarchy and jurisdiction of freight road routes into and around Perth Airport, and delineates both Tonkin Highway and Great Eastern Highway as Strategic Freight and/or Major Traffic Routes and Kewdale Road and a portion of Horrie Miller Drive as Other Significant Freight/Traffic Routes. Noting the strategic location Perth Airport has in relation to these freight routes, the implementation of SPP 5.4 requirements in planning decisions made off the estate carry importance for the future of the airport.

6.1.9. Diversify WA

In July 2019 the State Government released ‘Diversify WA’, an economic development framework for the State. This document sets out a vision for a strong and diversified economy delivering quality jobs through increased investment across a broad range of industries and provides a blueprint for collaboration between Government, industry and the community. As Western Australia’s primary aviation gateway, Perth Airport plays a key role in



supporting the creation of more jobs and a strong and diversified economy, such as through the tourism, primary industries and resources sectors. The proposed Airport West (South) development is consistent with, and supports the delivery of the vision outlined in the document through providing increased economic development opportunities to promote employment within identified sectors.

6.2. Local Planning Overview

Local Governments are responsible for planning of their local communities by ensuring appropriate planning controls exist for land use and development. Local planning schemes and strategies are prepared by each individual Local Government Area to:

- Establish how land is to be used and developed,
- Classify and determine the acceptability of various land uses, and
- Establish the provisions for the coordination of infrastructure and development within the Local Government area.

The Perth Airport estate sits within three Local Government areas, divided between the City of Belmont, the City of Kalamunda and the City of Swan, as demonstrated in Figure 6-3.

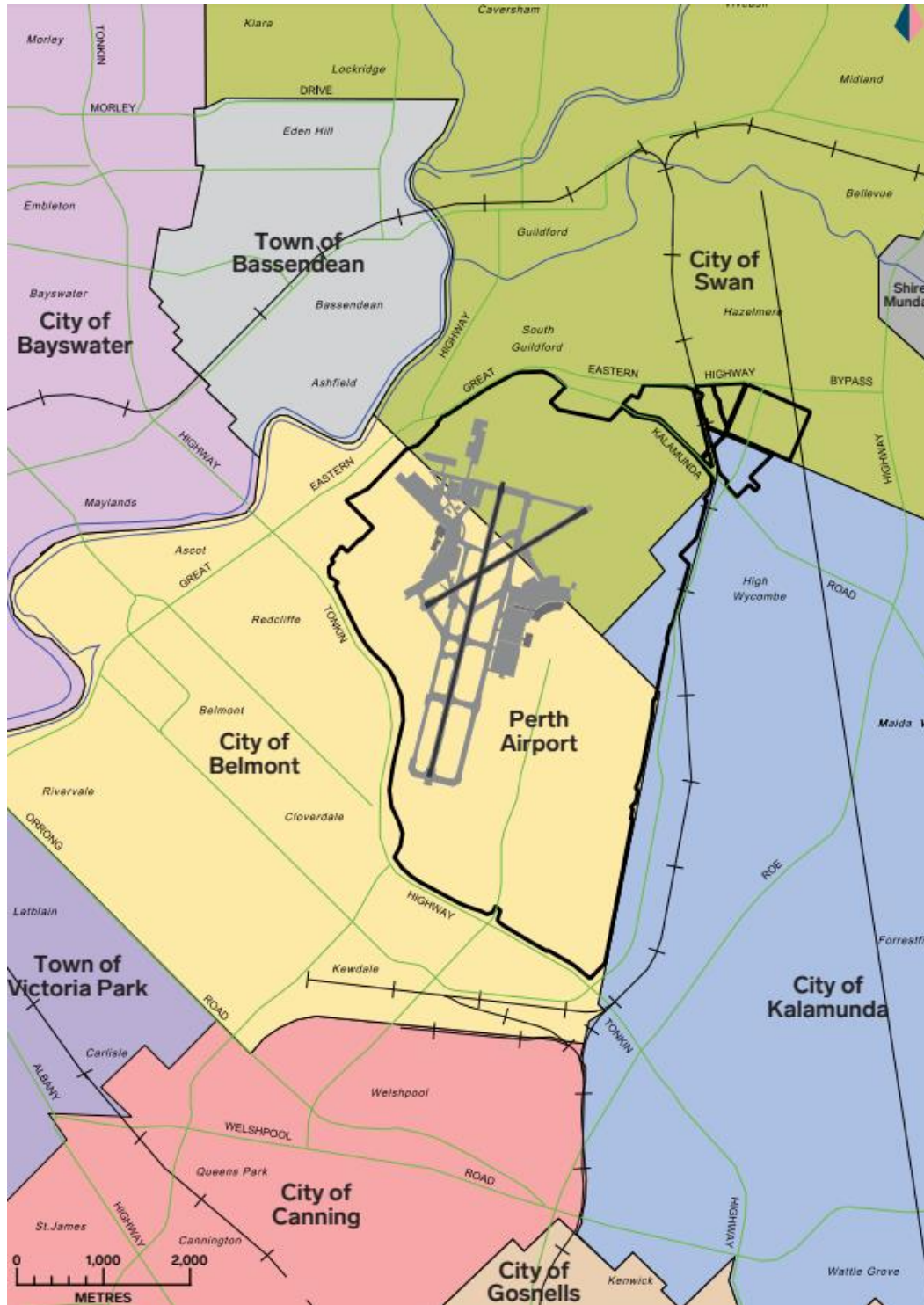


Figure 6-3 Location of Perth Airport – Local Government Areas

Source: Perth Airport

The local planning schemes of Local Government Authorities must be consistent with the MRS and State planning policies.



The proposed development is located entirely within the City of Belmont Local Government area, bounded by Tonkin Highway, Dunreath Drive and the airfield, and is adjacent the suburbs of Redcliffe and Cloverdale. Notwithstanding this, the planning schemes for all three Local Governments surrounding the airport estate have been considered in relation to the proposed Airport West (South) development in the following sections.

6.2.1. City of Belmont Local Planning Scheme No. 15

The City of Belmont Local Planning Scheme No. 15 (LPS 15) provides for 'Industrial' and 'Residential' zones adjacent to the airport estate, including the major Kewdale industrial area and the residential suburbs of Cloverdale and Redcliffe. The City of Belmont is serviced by Belmont Forum, which is classified as a 'Secondary Centre' under the provisions of State Planning Policy 4.2 – Activity Centres for Perth and Peel (SPP 4.2).

Local Planning Policy No. 14 Development Area 6 Vision (LPP 14) was adopted by Council on the 23 February 2016, following the finalisation of the Forrestfield-Airport Link route, which will incorporate a train station in Redcliffe (to be named Redcliffe Station). The location of the proposed Redcliffe Station is also within Development Area 6, which will leverage off the area's location to the future Redcliffe train station to create opportunities for medium to high density residential infill and commercial development in line with a Transit Oriented Development. With an estimated 5,000 residents to be accommodated over time within DA6, developing Airport West (South) will provide goods, services, amenity and employment opportunities for the closest residential population to the MDP area. In this regard, the proposed development is consistent with the City of Belmont LPS No. 15.

6.2.2. City of Kalamunda Local Planning Scheme No. 3

The City of Kalamunda Local Planning Scheme No. 3 (LPS 3) provides for 'Industrial' and 'Residential' areas adjacent to the airport estate. The majority of the City of Kalamunda is zoned for residential, rural-residential and rural development, and reserved for State forest and parks and recreation.

The Local Government area is serviced by the Kalamunda City Centre and Forrestfield District Centre, both classified as 'District Centres' under the provisions of SPP 4.2.

Forrestfield North is a strategic area within the City of Kalamunda which is currently undergoing planning. Draft population projections anticipate up to 14,000 residents will be housed in the area at full build-out. While it is acknowledged these additional residents would move into the area over time as development occurs, being located only two train station stops away from Airport West (Redcliffe Station), offers a convenient location for employment.

In this regard, the proposed development is consistent with the City of Kalamunda LPS No. 3.

6.2.3. City of Swan Local Planning Scheme No. 17

The City of Swan Local Planning Scheme No. 17 (LPS 17) provides for 'Industrial', 'Residential' and 'Rural' areas adjacent to the airport estate in the localities of South Guildford and Hazelmere. The majority of the City of Swan is a mix of 'Residential', 'Commercial' and 'Industrial' and 'Rural' zoned land, serviced by the Midland City Centre, which is classified as a 'Strategic Metropolitan Centre' under the provisions of SPP 4.2.

Although Airport West (South) is geographically removed from the City of Swan, future development in this area may provide employment opportunities for Midland's growing population; also noting the train connection to Redcliffe Station via Bayswater Station on the Midland line.

In this regard, the proposed development is consistent with the City of Swan LPS No. 17.



6.3. Conclusion

The proposed development is consistent with the long-term State and Local Planning objectives for Western Australia, and for the localities adjacent to the airport estate.



7. Socio-Economic Assessment

7.1. Need and Demand Analysis

Perth Airport conducted an assessment which analysed the benefits of preparing the land for development, that is, the clearing and site preparation which forms the basis of this approved MDP. The benefits of the potential future development of the land within Airport West (South) were also analysed for information to enable full community and Stakeholder consideration, although it is noted that this future development is outside the scope of this MDP. The assessment considered not only the economic and social benefits which could be created, but also whether there is an established or anticipated future need, or demand for the area to be developed with non-aviation land uses.

Two general user groups were analysed: internal users (employees and firms) and external users (visitors/tourists and nearby residents). The assessment centred on analysing needs and benefits in relation to these groups.

Each of the user groups have different activity requirements and needs, which can include those centred on the following themes:

- a. Economic – activities that transfer goods and services e.g. retail, hospitality and employment generating land uses,
- b. Social – activities focussed on exchanges in information e.g. spending time with friends and family, and leisure and recreation activities, and
- c. Environment – activities focussed on engagement with the physical environment e.g. users enjoying art, reading in a park, spending time enjoying the view.

Looking ahead into trends and the future size of user groups, the below is noted:

- **Residents:** Conservative population forecasts as outlined in WA Tomorrow Report No.11 by the DPLH show consistent growth over the next 10 years. In addition, Development Area 6 in Redcliffe is expected to house up to 5,000 residents in the future.
- **Employees:** Strong growth is predicted for industry employment, including Professional and Scientific services, one of the clusters identified at Perth Airport. Overall, employment is anticipated to grow from the approximate 16,700 full-time equivalents in 2018, to 36,000 in 2040.
- **Tourists:** WA tourism is anticipated to experience continued growth in the short to medium term as identified by Tourism Futures International.

The growth in the size of these user groups is likely to drive demand for certain land uses such as retail, recreation and entertainment.

Businesses, and the staff they employ, will need to be located in an area appropriately fitting their needs. Perth Airport has inherent advantages that other locations cannot offer, including:

- proximity to major arterial roads (Tonkin Highway, Great Eastern Highway and Roe Highway),
- the Redcliffe train station, which is due for completion in 2022, as part of the Government's Forrestfield Airport Link project, and
- the ability to customise the design and construction of lots, developments and infrastructure to suit new business and industry. Given the likely specific infrastructure demand such as that found and created at Perth Airport, it is expected this will also translate into demand for business to establish in this precinct.



A potential land use mix model (see Table 7-1) creates capacity for business to establish and strong growth in demand needs to be accommodated. The development of Airport West (South) will satisfy many of the above needs of user groups, keeping in mind that clearing and site preparation is the first step in realising potential benefits.

As outlined in Section 1.1, this MDP is for site preparation works only. However, an indicative land use mix (Table 7-1) was established for the purposes of modelling benefits of the future development. This information is provided for information only and it is recognised that the approval under this MDP does not include future land uses, which may require separate MDPs should Airports Act triggers be met.

	Land area required [hectares]	Land use floor area [hectares]
Existing Northern Detention Basin	5	
Drainage Corridor	6	
Roads	9	
Tourism/Entertainment	30	4.8
Private Recreation	5	0.16
Bulky Goods Showroom	10	2.4
Food/Beverage/Hospitality	5	0.96
	70	8.32

Table 7-1 Indicative Land Use Mix – Airport West (South)

Source: Pracsys (2019)

Land areas used are approximate, and along with the future land uses, are also subject to change. All future land uses developed in the MDP area will remain consistent with Perth Airport's approved Master Plan. The 'Tourism/Entertainment' land use partly relates to a possible future project, such as the Biome.

The proposed development is consistent with the Commercial zone objectives due to the following:

- The anticipated mix of employment generating land uses which may be developed under those listed in the Commercial zone are consistent with the purpose of the wider Airport West precinct,
- The MDP area is separated from the residential areas of Redcliffe and Cloverdale to the west by Tonkin Highway. Future development will have no direct residential interface thereby minimising negative amenity impacts such as traffic and noise,
- Potential development will integrate environmental outcomes as far as is possible, including landscaping, the Living Stream and restoration of proposed stormwater detention basins.

7.2. Economic and Employment Benefits

Perth Airport is a major centre of employment in the Perth metropolitan region and employs (directly and indirectly) 9,951 aviation-related full-time employees who contribute \$2.285 billion to the gross regional product (GRP). The number of non-aviation related full time employees is estimated at 6,768 and they



contribute approximately \$1.274 billion to the GRP. Perth Airport's direct contribution of economic activity to the Western Australian economy is about 1.4 per cent of gross state product (GSP).

A concept plan has been produced which shows lot and road layouts for the area (Figure 2-1). The clearing and land preparation of Airport West (South) is estimated to cost \$36 million. This figure will be injected into the local economy and create direct and indirect jobs for the duration of the works. Specific modelling was undertaken to calculate employment impacts from the works associated with this MDP. As displayed in Table 7-2, direct and indirect employment anticipated to be created from the clearing and site preparation works defined within this MDP is 370 full-time equivalents.

	Direct	Indirect	Total
Site Preparation Employment (Full-time equivalents for 12 month period)	109	261	370

Table 7-2 Employment Figures from Airport West (South) Site Preparation MDP (for 12 months)

Source: Pracsys (2019)

Although future land use development is not part of this MDP, a future land use mix was selected (based on the best current planning) for the purpose of providing information on the future economic and employment benefits anticipated to arise from ultimate Airport West (South) development. This land use mix is presented in Table 7-1 and includes a combination of tourism, entertainment, retail, recreation and leisure land uses, although it is noted that the ultimate land use mix will be determined based on commercial conditions and demand. The land use mix was not used to rigidly prescribe what may be built in the future, but rather to illustrate the magnitude of employment and output effects based on a current conceptual mix of possible land uses which may be developed under the applicable zoning (it is noted the mix includes the Biome project land use). Modelling work was undertaken to calculate the construction and operational employment generated from the future development of those land uses in Airport West (South), based on an assumption of an ultimate \$274 million total construction cost; see Table 7-3 below:

	Direct	Indirect	Total
Construction Employment (FTE)	444	2,053	2,497
Operational Employment (FTE)	648	n/a	648
Total	1,092	2,053	3,145

Table 7-3 Employment Figures from Airport West (South) Construction and Operation of Future Developments

Source: Pracsys (2019)

Construction employment is anticipated to generate \$898 million in total output for the broader economy. This large multiplier effect is indicative of the significant industry-to-industry inputs within the construction sector, for example, purchasing of materials that must be manufactured or supplied within Australia.

The figures represented in Table 7-2 and Table 7-3 are a significant increase in not only local employment opportunities for the eastern metropolitan region, but also across the Perth metropolitan area. The industry



makeup could be vastly different to this scenario, however the employment opportunities that will occur with developing the land will be realised over time, extending the benefits over many years.

Other economic benefits relate to the absence of any financial cost to Government (State or Local) or the community, in the establishment of the proposed Airport West (South) development, including infrastructure costs for clearing and site preparation. As Perth Airport is the developer of the land, it bears all costs (and risks), which thereby increase the relative benefit for user groups. Furthermore, there will be no need for Government spending to establish new public transport infrastructure to service the area due to the Redcliffe Station (which includes a bus interchange).

Overall, there are wide and significant economic and employment benefits which can be realised with the development of Airport West (South), initially through clearing and site preparation, but also through ultimate development.

7.3. Social Benefits

This MDP includes the construction of a retention basin for native vegetation restoration in the far southern area, and a Living Stream along the western boundary (refer Part B report). There is an option for this area to be made available for active and passive recreation, which would provide amenity for employees and visitors and positive social (health) benefits.

Amenity will be sought by all user groups of the precinct including construction workers during clearing and site preparation works. Being able to provide internal amenity on the airport estate will equate to a reduced need for users to travel outside the estate, thereby reducing trip generation, which benefits the wider road network and social economy.

The Forrestfield-Airport Link provides an added advantage for workers during clearing and site preparation activities and also for establishing businesses and their employees. That is, depending on the traveller's origin, public transport may offer a more convenient commute.

The future development of leisure and recreational land uses may be considered in the precinct. Both passive and active recreational land uses have social benefits by way of positive mental/wellbeing and physical health impacts. Productivity benefits can also be realised through participation in sport or recreation, as being physically and mentally healthier can have positive outcomes in the workplace.

A potential Biome development broadly presents an opportunity to present Western Australia's unique Aboriginal Culture and connection to the natural environment for the benefit of cultural diversity and wide-ranging education. The numerous possible future benefits of the Biome project will not be explored in detail in this MDP because if the Biome project proceeds it would likely be subject to a separate MDP.

7.4. Tourism Benefit

As mentioned in Section 1, Perth Airport is strategically located for access to Southeast Asia, the Middle East, Europe and Africa. Perth Airport's contribution to tourism is significant. Approximately 95 per cent of people visiting Western Australia arrived by air and in 2019, these tourists contributed more than \$4.6 billion to the Western Australian economy. Perth Airport has experienced significant international passenger growth over the last decade with further growth of 52 percent forecast by Tourism Futures International (TFI) for the next decade.

These strong visitor statistics and growth targets have solidified the opportunity to communicate Western Australia's tourism appeal and our culture, flora and fauna. Perth Airport, as the link to Western Australia plays



an important role in communicating this offering, and will be paramount in ensuring that Perth can take its place as a global city with tourism appeal.

This MDP will facilitate the future development of unique land uses for international, interstate and intrastate tourists. Development of non-aviation land uses in Airport West (South), specifically for those land uses which could promote tourism (e.g. recreation and leisure) will add to the economic benefit that tourism currently brings.

The Biome as an example would bring benefits by encouraging the creation of a cultural and emotional connection with those that visit. It may also support repeat visitation from those that wish to further explore this connection and knowledge. This repeat visitation could act as an anchor for those “passing through” to plan future visits to the benefit of tourism growth.

7.5. Civil Aviation User Benefit

There are no direct Civil Aviation user benefits that will result from the development detailed within this MDP.

7.6. Conclusion

There is a demonstrated need and demand for businesses which provide goods, services and employment opportunities for the nearby growing resident and employee populations, and for tourists. Overall, development of Airport West (South) will play a role in activating and satisfying these needs by taking advantage of Perth Airport’s natural positive characteristics to attract employees, businesses and visitors. Development of Airport West (South) makes the wider Airport West precinct an attractive place to visit, work and dwell, for business, workers, travellers and the wider community. As the gateway into Western Australia and a highly accessible area in the Perth metropolitan area, Perth Airport therefore represents an optimal location for development to actualise these benefits. The first step in realising these benefits is the clearing and site preparation works which form the basis of this MDP.



8. Traffic Assessment & Ground Transport Infrastructure

Section 91 (ga) of the Airports Act requires that an MDP addresses the likely effect that a proposed development will have on traffic flows. Section 6 of Master Plan 2020 outlines the vision for ground transport at Perth Airport and the development detailed within this MDP is consistent with that vision.

The Airport West Precinct is primarily serviced by the Dunreath Drive interchange from Tonkin Highway, as shown previously. Fauntleroy Avenue and Central Avenue are secondary access routes into the precinct.

The Ground Transport Plan for the Airport West precinct is premised on the current importance of the precinct to support commercial air services using T3 and T4. To support consolidated multi-user facilities for both domestic and international passengers following consolidation of all RPT services into the Airport Central Precinct, Perth Airport is working with stakeholders on progressing planning for these commercial air service facilities within the Airport Central Precinct.

The purpose of this MDP is to ready the land for future commercial development, with a separate MDP required for any subsequent development on the area that meets the triggers detailed within the Airports Act.

8.1. Regional Road Network

The domestic operations of the Qantas Group currently generate more than half the traffic entering the Airport West precinct and traffic modelling for the precinct has been progressed on the basis of Airport Central consolidation in 2025.

Figure 8-1 shows an hourly breakdown of the two directional traffic volumes on Dunreath Drive east of the Tonkin Highway / Dunreath Drive interchange in March 2019. It shows the early morning terminal peak between 4am and 5am, a steady flow during the day, and then a higher peak during the afternoon metropolitan commuter peak.

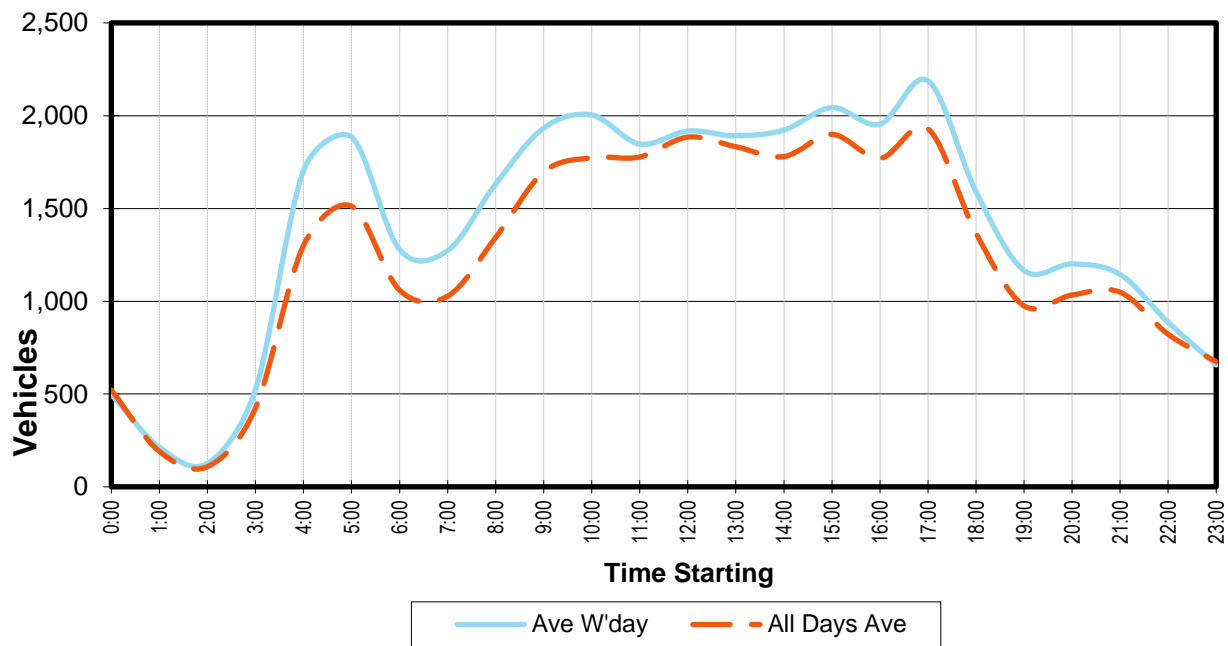


Figure 8-1 Dunreath Drive Traffic Profile March 2019

Source: Perth Airport



Congestion of the regional road network currently occurs during the afternoon commuter peak on Tonkin Highway northbound, restricting access to the Great Eastern Highway Interchange. This congestion has resulted in increased traffic volumes exiting Tonkin Highway at Dunreath Drive to bypass the congestion along Tonkin Highway. This traffic then travels through the airport estate, using Dunreath Drive to access Great Eastern Highway, through principally Central Avenue or Fauntleroy Avenue. It is estimated that up to an additional 300 through-traffic vehicles per hour in the peak hour are currently using the airport estate route, as can be seen by the comparison of Figure 8-1 (2019 traffic counts) and Figure 8-2 (2017 traffic counts), which indicate an increase of approximately 700 vehicles per hour in the PM peak (5.00pm) has occurred from 2017 to 2019. Car park access figures indicate that approximately 400 vehicles per hour of this increase can be attributed to vehicles accessing the DFO (which opened in 2018).

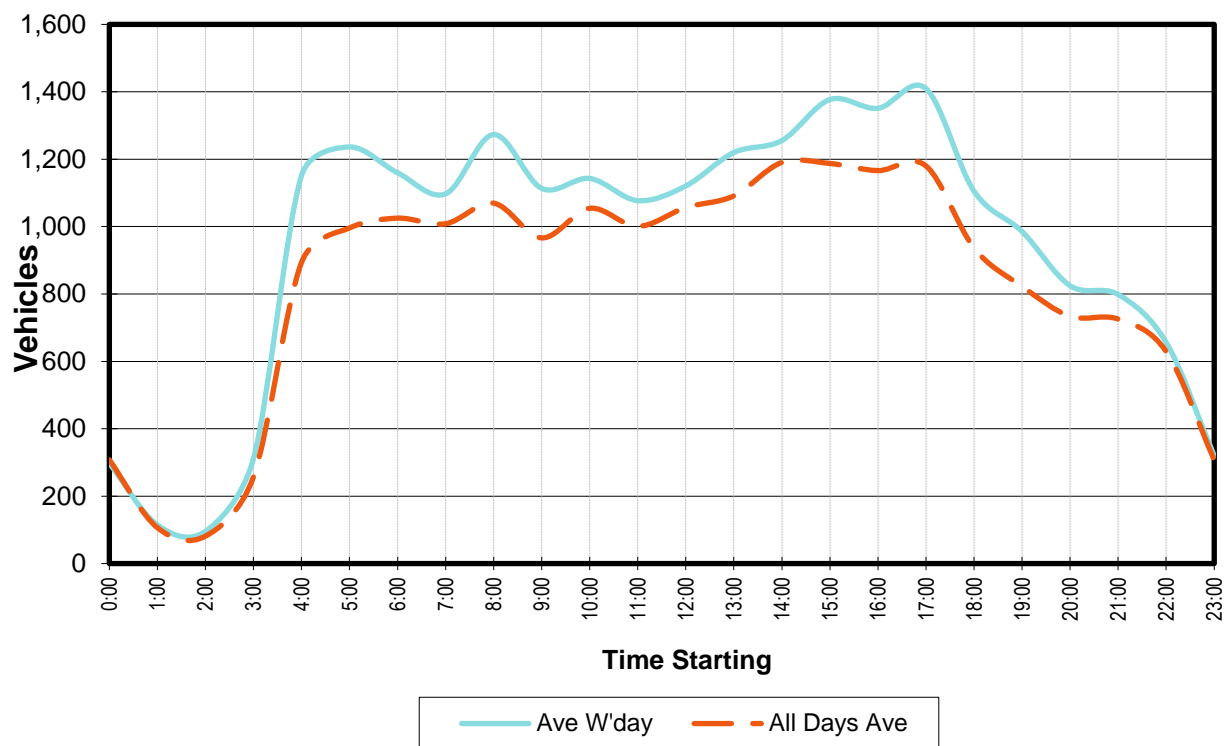


Figure 8-2 Dunreath Drive Traffic Profile March 2017

Source: Perth Airport

Main Roads WA recently commenced a \$290 million project (Tonkin Highway Gap), jointly funded by the Federal and State Governments, to upgrade the section of Tonkin Highway north of the airport which is currently experiencing commuter congestion. This section of Tonkin Highway did not form part of the Gateway WA project and this Tonkin Highway Gap project is anticipated to be completed by 2023.

To verify the impact that the congestion on Tonkin and Great Eastern Highways are having on the traffic volume using the Dunreath Drive interchange, a video origin/destination survey was carried out on 4th and 5th December 2019, for the afternoon peak period (4.00 to 6.00pm). This demonstrated that over 50% of the traffic on the northbound slip lane exiting Tonkin Highway at the intersection was external traffic, that is, not bound for a destination within the airport estate. Approximately half of these vehicles then subsequently re-enter Tonkin Highway by using the intersection off and on ramps as a bypass, as shown in Figure 8-3 (refer Table B-1 in Appendix B for data breakdown).

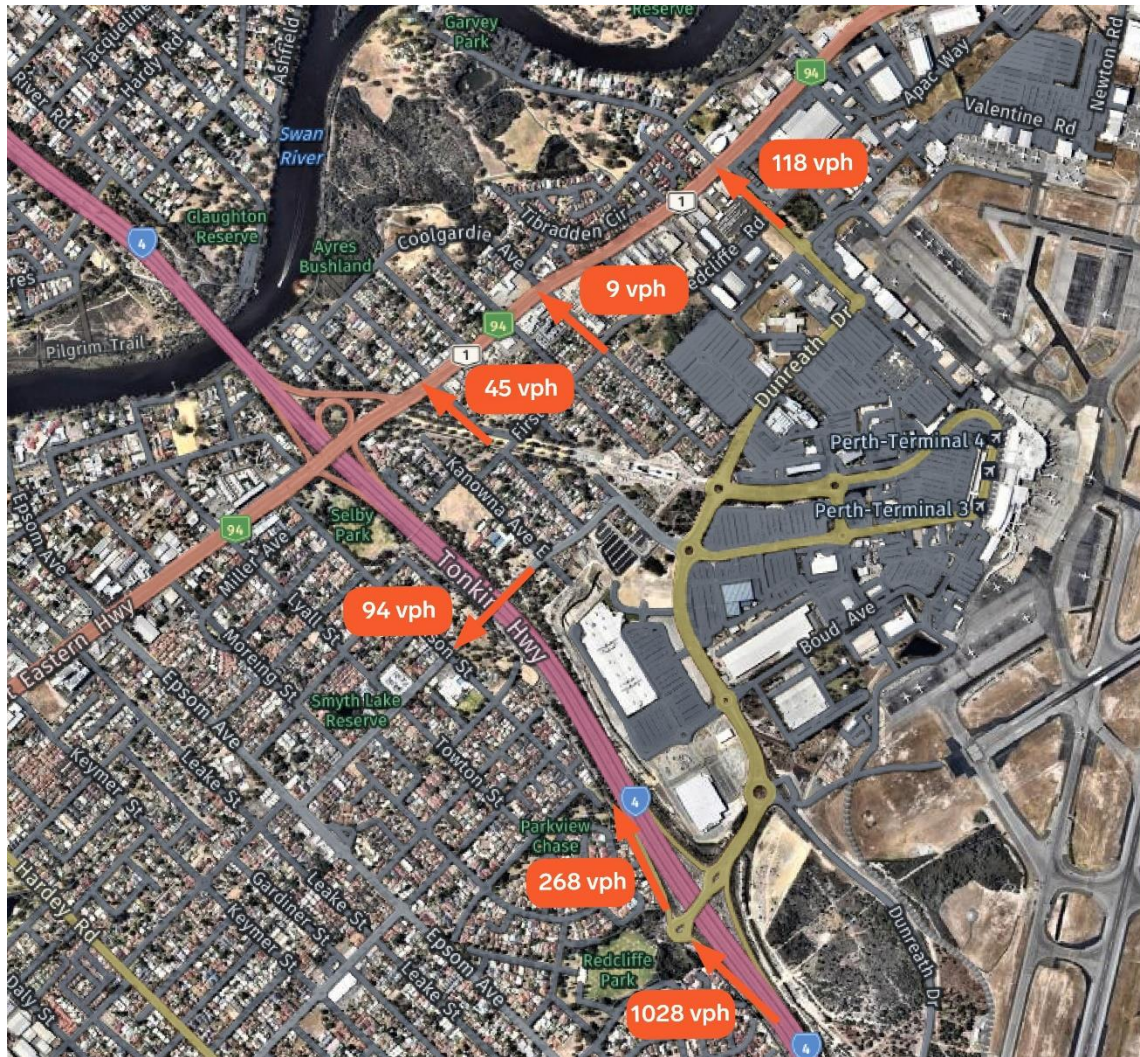


Figure 8-3 Average Hourly PM Peak Hour Flows - Origin / Destination
 Survey Results for Tonkin Highway / Dunreath Drive Northbound Off Ramp

vph = vehicle per hour

8.2. Trip Generation and Distribution

8.2.1. Clearing and Site Preparation

As already stated, the purpose of this MDP is to ready the land within Airport West for future commercial development. To achieve a site with minimal ground surface level changes and the necessary clearances to the 1 in 100 year flood levels in the adjacent Southern Main Drain, it will be necessary to import up to 350,000 cubic metres of fill. This will be either sourced from elsewhere within the estate or imported as clean fill from external sources. If imported, Tonkin Highway and Dunreath Drive will be used to access the site. It is anticipated that fill will be imported at a rate of approximately 2,000 cubic metres per day, which equates to 100 truck movements per day, or ten per hour over the day.



Traffic generation through construction of the roads and services will be significantly less than the traffic generated when the site is fully developed. As identified previously, it is estimated that the site preparation will generate 109 direct and 261 indirect full-time equivalent jobs for the 12 months period. Construction traffic will be managed through a Traffic Management Plan required at the time of Perth Airport Consent (refer Section 11).

8.2.2. Possible Future Development

Whilst traffic impacts which may arise from possible future development are outside the scope of this MDP, an assessment has been provided for community and Stakeholder information based on the indicative land use mix detailed previously.

This possible future development of Airport West (South) has been assessed to determine the impact on the existing road network with respect to possible trip generation and distribution, as well as in relation to the level of service of the road network performance both now and into the future, assuming a maximum development lot yield.

The peak number of vehicles and the likely timing for this volume of traffic generation (referred to as forecast trip generation) was benchmarked for the anticipated land uses, using data from similar developments on the airport, similar development elsewhere in Australia and overseas, and trip generation rates sourced from the United States Institute of Transportation Engineers (ITE) Trip Generation Handbook. Refer to Appendix B for Table B-2 which shows the peak hour trip generation rates used to calculate the traffic volume generated by the potential ultimate development of Airport West (South), and Table B-3 for the resulting traffic generation figures. The widely adopted United States ITE Trip Generation Handbook was also used to apportion the direction of trips (inbound or outbound) for each of these land uses during the peak hour period (refer Appendix B Table B-4).

The trips were assigned to one of the three potential origins or destinations (refer Appendix B Table B-5). This trip distribution is based on current traffic patterns in the estate with the majority of trips accessing the precinct via the Tonkin Highway/ Dunreath Drive interchange. This assessment produced traffic generation figures and distribution which are detailed in Table B-6 (Appendix B).

8.3. Traffic Capacity Analysis

8.3.1. Existing Traffic Volumes

The peak period of terminal-related traffic associated with T3 and T4 relates to the vehicle arrival and departure times for the flight time peak between 5.00am and 7.00am on weekdays, with the average daily traffic profile for the terminal precinct shown in Figure 8-4. It is worth noting that Qantas Group peak passenger volumes are reduced on the weekend when compared to the weekday volumes.

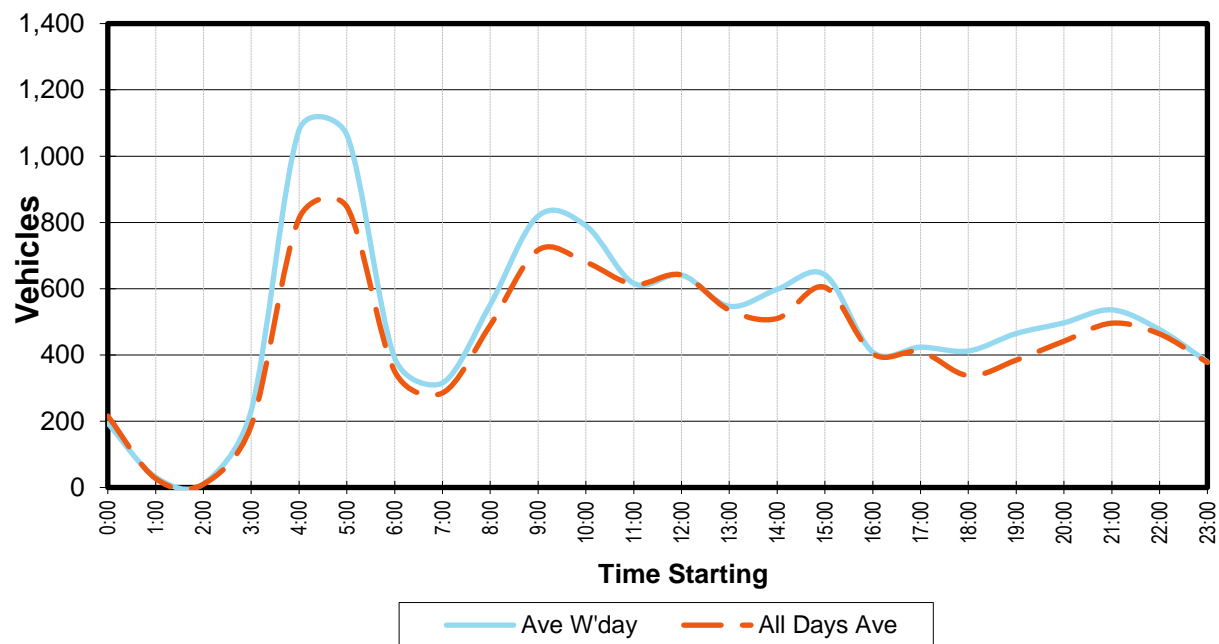


Figure 8-4 T3 and T4 Vehicle Traffic Profile (March 2019)

Source: Perth Airport

Historically, the typical traffic peaks for aviation users of the precinct, the wider metropolitan road network commuter peaks and those of the retail developments on the airport do not align together; peak terminal traffic occurs between 5.00am and 7.00am and the weekday peak retail development traffic occurs during the day and evening.

Additional traffic generating activities are planned to occur in the wider Airport West Precinct in parallel with the development of Airport West (South). This includes a neighbourhood shopping centre and additional commercial development on the airport estate adjacent to the future Redcliffe train station to support the WA State Government's METRONET project. Traffic on Dunreath Drive will also be generated by the opening of the train station and bus interchange and the 500 car parking bays serving the station. Additionally, redevelopment of the residential land surrounding the station as part of the City of Belmont's Development Area 6 (DA6) structure plan will likely commence following the opening of the station. Aviation traffic in the precinct is also forecast to grow in line with Tourism Futures International (TFI) passenger forecasts, until Airport Central consolidation (the model has used the year 2025 in this regard).

8.3.2. Proposed Road Works

Perth Airport has been working with Main Roads WA to undertake the necessary short term upgrades to the Dunreath Drive/Tonkin Highway interchange, recognising that once Airport Central consolidation occurs, the capacity of the Airport West road network and the Tonkin Highway/ Dunreath Drive interchange is no longer a constraint on development within the precinct (Figure 8-5).

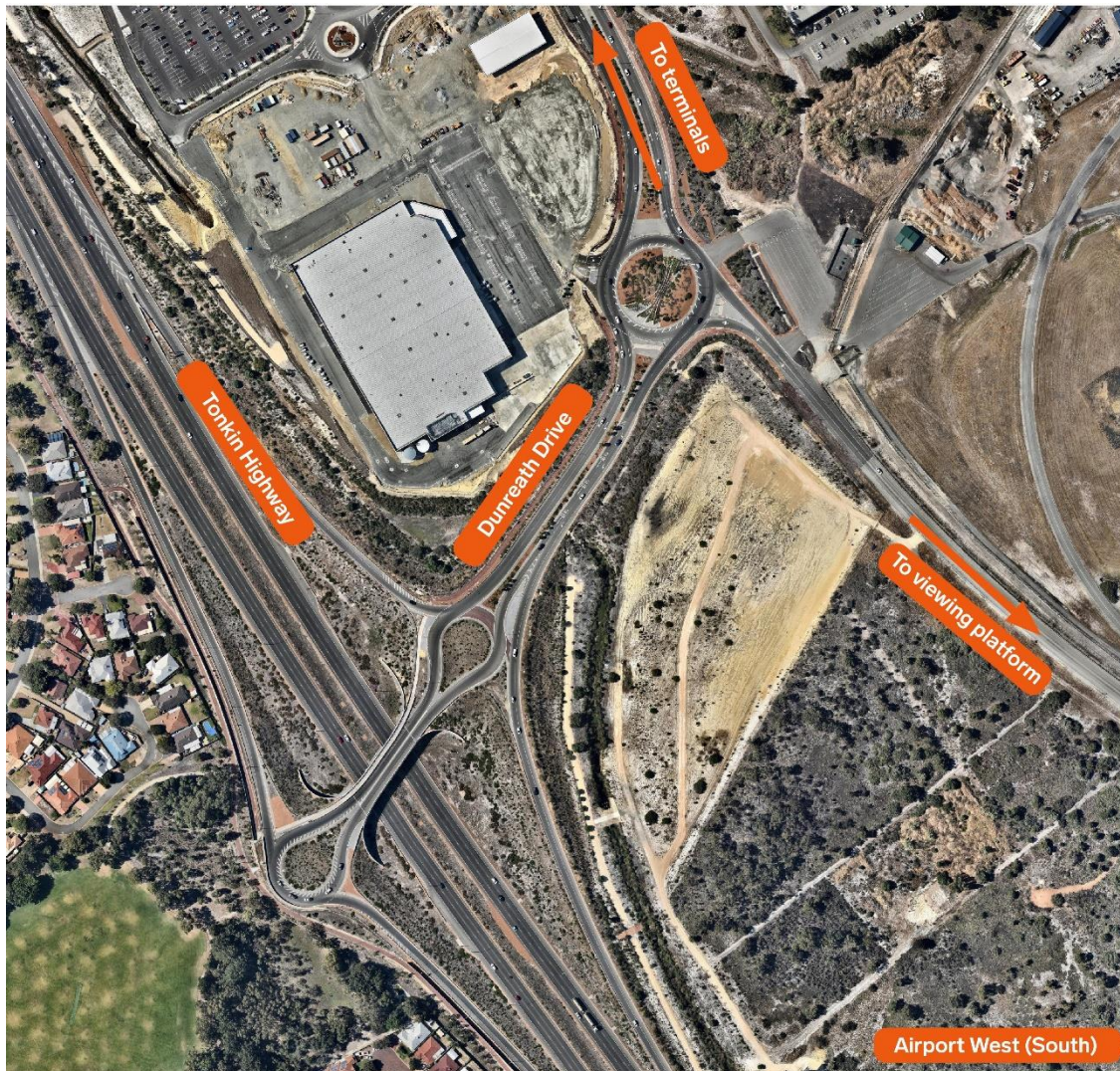


Figure 8-5 Tonkin Highway / Dunreath Drive Interchange

Source: Perth Airport

In addition to the “Tonkin Gap” project, the external road network is being further complemented by Federal and State Government funded road upgrades, such as the \$1.2 billion Northlink WA project, which will link to the completed Gateway WA upgrades and provide a strategic transport link for both commuters and freight between Muchea and Morley and additional intersection upgrades on Tonkin Highway south of the airport. Further detail regarding these projects can be accessed at:

<https://project.mainroads.wa.gov.au/home/current/Pages/default.aspx>.

As a result of observed congestion issues, Perth Airport is working with Main Roads WA on a number of road upgrades seeking to improve access to the Terminal 3/4 precinct. These current works at the Tonkin Highway / Dunreath Drive interchange, include development of an exclusive slip lane from the southbound Tonkin Highway off ramp at Dunreath Drive, and part time metering for the westbound movement to the northbound Tonkin Highway on ramp at Dunreath Drive. These works are intended to provide additional flexibility to prevent vehicle queues flowing back onto the Tonkin Highway mainline, and were completed in 2020.



These works will be part of the ongoing traffic improvement in the area as the precinct develops and as commercial air-services relocate as part of Airport Central consolidation.

It is not anticipated that the proposed Airport West (South) development will have any long-term impacts on freight movements to Perth's major intermodal freight hubs at Kewdale and Forrestfield.

8.3.3. Future Year Analysis

There have been a range of modelling activities undertaken over the previous 10 years of this precinct by various agencies for several projects, including the Gateway WA, Development Area 6, Forrestfield Airport Link (Redcliffe Station) and the New Runway Project for Perth Airport. These modelling activities have provided an indication of the likely spare capacity in the road network now and into the future.

To inform this MDP, the modelling used for the analysis of upgrades to the current Dunreath/Tonkin Highway interchange, which was based on earlier modelling of the DFO and Costco sites, was updated to enable an assessment at the interface locations with the public road network (Stanton Avenue, Tonkin Highway and Great Eastern Highway).

Preliminary traffic modelling for 2025 has included the impacts from the operation of the Redcliffe Station and associated car park, other commercial developments in the precinct and growth in terminal and commuter traffic. Similarly, assumptions have been made regarding the impacts of road improvements on the capacity of the road network. Perth Airport acknowledges that the capacity of the Tonkin Highway / Dunreath Drive interchange is constrained while Qantas are operating from Terminals 3 and 4 and that full development of Airport West (South) (outside the scope of this MDP) has the potential to cause unacceptable delays and impact traffic on the through lanes on the Tonkin Highway. As development of the precinct proceeds, Perth Airport will continue to monitor the performance of the interchange and proactively work with Main Roads WA to ensure these impacts do not become unacceptable. This may involve pre-emptive measures such as limiting the type and scale of development carried out in the early stages.

Analysis of the results from the road network modelling indicates that overall traffic volumes, if all land available in Airport West (South) is fully developed while RPT services are still operating from the Airport West precinct, will exceed the capacity of the existing road network. This preliminary modelling work was undertaken to assist in scoping the Airport West (South) development and indicates the likely network constraint is the roundabout immediately east of the Tonkin Highway at Dunreath Drive on the airport estate.

It is intended that Perth Airport will continue to work with Main Roads WA at modelling the impacts of the wider suite of current road network upgrades commensurate with the development of the Airport West (South) precinct to better understand the explicit timing of road upgrades and development to 2025.

To mitigate the possible traffic impact within Airport West (South) prior to Airport Central consolidation, development within Airport West (South) will be limited to those land uses which generate peak traffic volumes outside of the identified airport traffic profile peaks. In this case, it can be reasonably expected that trips generated would not compound impacts on traffic flow in a negative manner and would therefore not affect the level of service.

8.4. Pedestrians and Cyclists

A new shared path will be built in the future along the main access road into the precinct. This will connect to the existing airport shared path network along Dunreath Drive and will provide a route between the proposed Airport West (South) development, the Tonkin Highway Principal Shared Path, the future Redcliffe Train Station and the Great Eastern Highway shared path.



Appropriate end of trip facilities and bicycle parking will be encouraged within future developments to provide employee and visitor amenity.

8.5. Public Transport

8.5.1. Rail

In 2014, the State Government announced that a new rail link would be constructed from Bayswater to Forrestfield via the airport estate, now referred to as the Forrestfield-Airport Link project. The Forrestfield Airport Link, as shown in cross section below, is an 8.5 kilometre extension of the Perth rail network from Bayswater to Forrestfield of which 3.8 kilometres is located within the airport estate. Construction works for the project commenced in 2016.

The Forrestfield-Airport Link project will provide three new stations as summarised below:

- Redcliffe Station – located outside the western boundary of the airport estate within the former Brearley Avenue road reserve on State land in the locality of Redcliffe. This station will be approximately 1,000 metres from the closest point of the Airport West (South) development,
- Airport Central Station – located near Terminal T1 within the estate, and
- Forrestfield Station – located adjacent to Dundas Road in High Wycombe on State Government land.

It is anticipated that the rail project will be operational in 2022. Further detail can be found at forrestfieldairportlink.wa.gov.au.



Figure 8-6 Forrestfield – Airport Rail Link Project

Source: METRONET

8.5.2. Bus

The State Government, through the Public Transport Authority (PTA), is responsible for public transport in Perth. The wider Airport West Precinct is currently serviced by two bus routes, being Bus 40 and Bus 935. As shown in Figure 8-7, these routes traverse Dunreath Drive and Snook Road, with existing bus stops less than 800 metres (10 minute walk) to the closest point of the Airport West (South) development. The bus services connect to the Perth CBD and operate at 15 minute intervals during the peak commuter periods.



Figure 8-7 Bus Routes

Source: Public Transport Authority

The Redcliffe Station will also incorporate a bus interchange with the local bus routes diverted to link into the rail network. Details of the proposed bus routes have not yet been confirmed, but may include a route south of the station past the commercial developments in wider Airport West (DFO, Costco) and closer to the Airport West (South) project area.

Perth Airport will continue to work with PTA to ensure adequate public transport options to Perth Airport. Although the development does not rely on the rail station being constructed, the combination of both additional bus services and the provision of rail makes public transport a viable mode for staff and visitors to the precinct.

8.6. Construction Impacts

The site will be cleared and levelled as part of the project. Where practical, topsoil will be stored on site for re-use in the adjacent road verges, or used elsewhere within the estate. Cleared vegetation will be chipped for use in landscaped areas within the estate where possible.

Construction activities will be managed so as not to impact aircraft operations. Stockpiles will be managed to avoid windshear or dust impacts.



Before commencing works, the Contractor will be required to prepare a Construction Management Plan to demonstrate how the impacts of the work on access and the road network will be managed. This will include details of how the works will be staged, materials delivered to site and how off-site impacts such as dust and noise will be managed. It is appreciated that work proposed outside 'normal' working hours would be subject to approval.

8.7. Conclusion

Perth Airport recognises that the road network on the estate must be designed so it integrates with the surrounding regional road network. Once a road and lot layout design is finalised for Airport West (South), the traffic generated from future construction works associated with this MDP will be significantly less than the traffic generated when the site is fully developed. Construction traffic will be managed through a Traffic Management Plan required at the time of Perth Airport Consent (refer Section 11) and will be accommodated within the road network (currently undergoing capacity upgrades).

Once these MDP works are completed Perth Airport has the intention to develop land uses which can be accommodated within the road network capacity. Monitoring the impact of development and the current and planned intersection upgrades will reduce the likelihood of impact on Tonkin Highway. Perth Airport will continue to work closely with Main Roads WA to ensure this is achieved.

Aviation users are the priority for access within the Airport West Precinct until such time that all Qantas Group RPT services are consolidated in the Airport Central Precinct. Following Airport Central consolidation, the Tonkin Highway / Dunreath Drive interchange has sufficient capacity to support additional development as outlined and modelled in this MDP, as the removal of RPT related traffic is anticipated to reduce the volume of traffic in the precinct by over 50 percent.



9. Environmental and Heritage Assessment

Part B of the MDP provides details around the environmental and heritage considerations for the project, and should be read in conjunction with Part A (this report).

In particular, Part B report details a review of the baseline environmental and heritage conditions in addition to an assessment of potential impacts associated with the Airport West (South) development including:

- the environmental and heritage approval process,
- the environmental impact assessment process,
- the environmental context of the project area which identifies environmental factors/issues relevant to the project,
- a description and impact assessment for each environmental factor relevant to the project,
 - Flora and vegetation,
 - Fauna,
 - Soils and geology,
 - Water resources,
 - Wetlands,
 - Construction air, noise and vibration, and
 - Heritage,
- a Whole of Environment assessment,
- a summary of mitigation measures, and
- proposed offsets.



10. Relationship to Aviation

A review of the impacts of aviation activity associated with the construction and operation of the Airport West (South) development has been undertaken with the following key areas identified as requiring assessment:

- Aircraft noise exposure levels,
- Effect on flight paths,
- Airspace requirements,
- Lighting in the vicinity of the aerodrome,
- Windshear,
- Protection of communication, navigation and surveillance infrastructure,
- Bird and animal hazard management, and
- Public safety areas.

These considerations are guided by, but not limited to, the National Airports Safeguarding Framework (NASF) guidelines. Perth Airport continues to consider the NASF guidelines in its ongoing planning and development, and the manner in which the NASF guidelines have been considered for this development are outlined in Table 10-1.

NASF Guideline	MDP Section
Guideline A: Measures for Managing the Impacts of Aircraft Noise	Section 10.1
Guideline B: Managing the Risk of Building Generated Windshear and Turbulence	Section 10.2
Guideline C: Managing the Risk of Wildlife Strikes in the Vicinity of Airports	Section 10.3
Guideline D: Managing the Risk of Wind Turbine Farms as Physical Obstacles to Air Navigation	Not addressed in this MDP. No windfarms are planned as part of this project.
Guideline E: Managing the Risk of Distraction to Pilots from Lighting in the Vicinity of Airports	Section 10.4
Guideline F: Managing the Risk of Intrusions into Protected Airspace of Airports	Section 10.6
Guideline G: Protecting Aviation Facilities – Communications, Navigation and Surveillance (CNS)	Section 10.7
Guideline H: Protecting Strategically Important Helicopter Sites	Not addressed in this MDP. No helicopter sites are proposed as part of this project.
Guideline I: Public Safety Areas	Section 10.8

Table 10-1 NASF Guidelines and corresponding MDP Section

Source: Perth Airport

This section also addresses the effect this development will have on flight paths, and the consideration of operational risks and mitigation measures.



10.1. Aircraft Noise Exposure Levels

10.1.1. Air-Based and Ground Based Noise

The Airports Act requires that an MDP identifies whether the proposed development will affect noise exposure levels and outlines the airport's plan for managing aircraft noise within the area. The proposed development will have no impact on the aircraft noise exposure levels that currently exist as the Airport West (South) development is not aeronautical in nature and as such, will not lead to any increase in air based or ground based aircraft noise sources.

Although this MDP addresses clearing and site preparation, an assessment of possible future developments against the ANEF has been conducted. As shown in Figure 10-1, the subject site sits entirely within the endorsed 2020 ANEF, with portions within the 20-25, 25-30 and 30-35 contours. When determining aircraft noise attenuation, future buildings will predominately be classified as 'commercial' given the nature of their use and operation. Australian Standard 2021:2015 (AS2021:2015) provides guidelines for:

- determining the acceptability of aircraft noise intrusion in buildings within ANEF contours of a given aerodrome (see Table 10-2),
- the level of noise reduction measures to be taken, and
- the types of attenuation measures that should be put in place based on the classification of the building.

Under AS2021:2015, commercial land uses are classified as 'acceptable' or 'conditionally acceptable' in those ANEF contours the MDP is subject to (i.e. up to 30-35 ANEF). When the site is development-ready the current ANEF and AS2021 will be considered on a case-by-case basis. Perth Airport will remain committed to land-use planning that ensures noise-sensitive developments are avoided in areas significantly impacted by aircraft noise.

Building type	Forecast Noise Exposure Level		
	Acceptable	Conditionally acceptable	Unacceptable
House, home, unit, flat, caravan park	Less than 20 ANEF	20 to 25 ANEF	Greater than 25 ANEF
Hotel, motel, hostel	Less than 25 ANEF	25 to 30 ANEF	Greater than 30 ANEF
School, university	Less than 20 ANEF	20 to 25 ANEF	Greater than 25 ANEF
Hospital, nursing homes	Less than 20 ANEF	20 to 25 ANEF	Greater than 25 ANEF
Public building	Less than 20 ANEF	20 to 30 ANEF	Greater than 30 ANEF
Commercial building	Less than 25 ANEF	25 to 35 ANEF	Greater than 35 ANEF
Light industrial	Less than 30 ANEF	30 to 40 ANEF	Greater than 40 ANEF
Other industrial	Acceptable in all ANEF zones		

Table 10-2 ANEF Levels for Building Types

Source: Australian Standard, 2021



Figure 10-1 Airport West (South) in Relation to the ANEF

Source: Perth Airport



10.2. Building-Generated Windshear and Turbulence

The proposed development is located within the assessment trigger area for potential building induced windshear as specified in the National Airports Safeguarding Framework (NASF) – Guideline B (refer Figure 10-2). The Guideline states that buildings in the assessment trigger area that are more than 35 times their height from the relevant runway centreline (i.e. they do not penetrate the 1:35 surface) will not pose a risk and do not require aerodynamic modelling. As this MDP only includes clearing and site preparation it does not represent any increased windshear risk.

Future developments on the site will be assessed for windshear impacts in accordance with NASF Guideline B to ensure there are no impact on aircraft operations due to building-generated windshear and turbulence. This will be considered for every development on a case-by-case basis with the cumulative impact of all existing developments investigated.

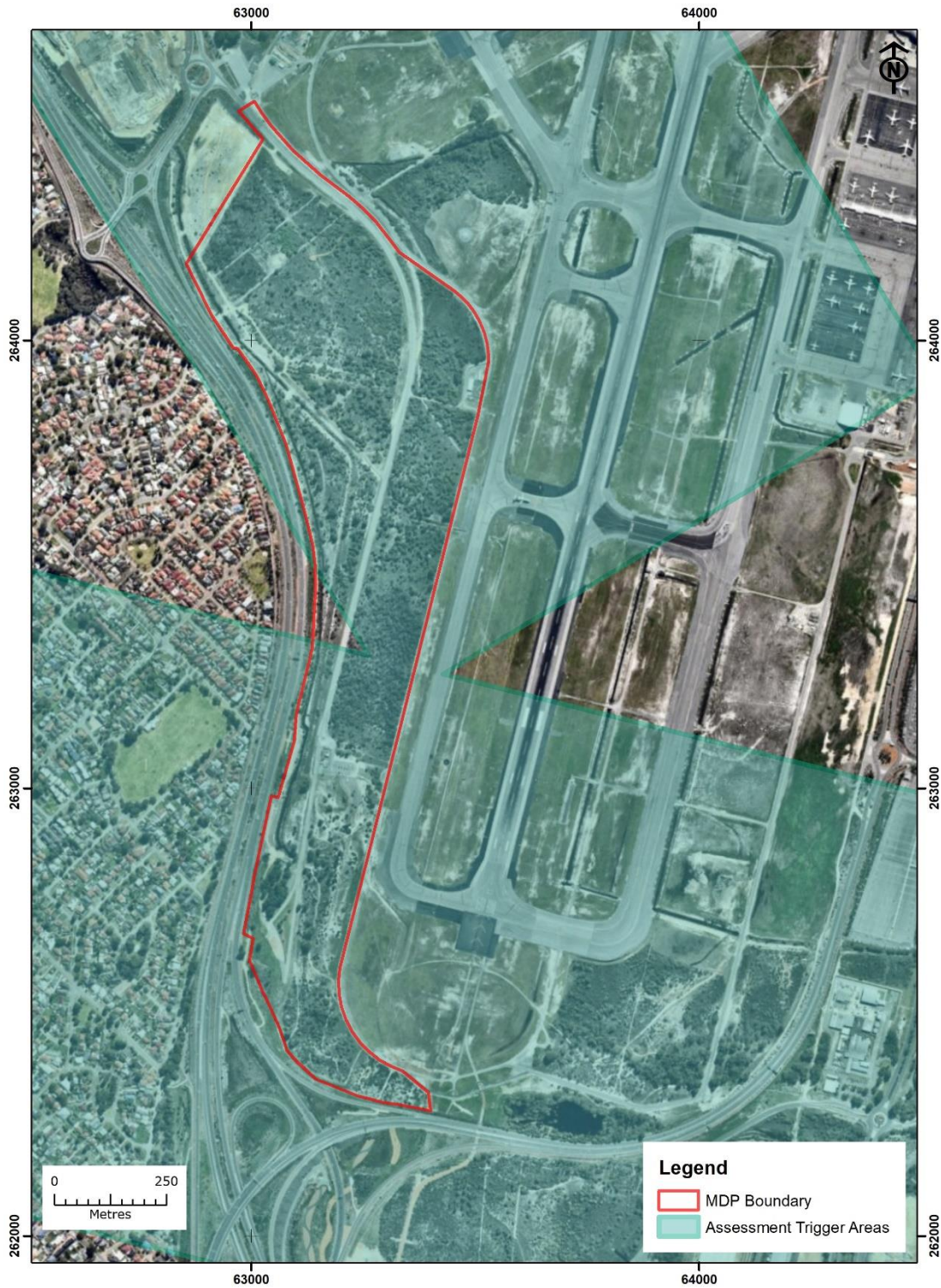


Figure 10-2 Airport West (South) Windshear Assessment Trigger Areas

Source: Perth Airport



10.3. Bird and Animal Hazard Management

Perth Airport is required to monitor and control the presence of birds and animals on, and in the vicinity of the airport in accordance with CASA requirements. Perth Airport maintains a vigilant Bird and Animal Hazard Management System to remove and reduce potential high-risk bird species. The clearing and site preparation development in Airport West (South) will be subject to the Bird and Animal Hazard Management system.

10.4. Lighting in the Vicinity of the Aerodrome

There are portions of the subject site within Lighting Intensity Control Zones A, B, C and D as specified in the Civil Aviation Safety Authority (CASA) Manual of Standards (MOS) Part 139 and illustrated in Figure 10-3. The maximum intensity of external light sources on the site, measured at three degrees above the horizontal, will be limited to:

- Zone A – 0 Candela
- Zone B – 50 Candela
- Zone C – 150 Candela
- Zone D – 450 Candela

Assessment of lighting for specific future developments are outside the scope of this MDP and will be assessed in subsequent MDPs (where applicable) and through consultation with CASA and Airservices Australia to ensure there are no impacts to aircraft operations and air traffic control.



Figure 10-3 Airport West (South) Lighting Intensity Control Zones

Source: Perth Airport



10.5. Effect on Flight Paths

The Airports Act requires an MDP to outline if a development could affect flight paths at the airport. Given this MDP is for clearing and site preparation, there will be no impact on flight paths. Future development impacts on flight paths are unlikely given the anticipated nature of future land use types.

10.6. Airspace Requirements

Protection of airspace required for Perth Airport's current and future needs is essential to provide a safe, predictable environment for the arrivals and departures of aircraft using Perth Airport in all weather conditions.

The Airports (Protection of Airspace) Regulations 1996 prescribe airspace around airports for protection from activities that could pose a hazard to air navigation.

Prescribed Airspace comprises the airspace above the lower of two sets of defined invisible surfaces above the ground known as the Obstacle Limitation Surfaces (OLS) and Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS) surfaces.

10.6.1. Obstacle Limitation Surfaces (OLS)

The OLS is generally the volume of airspace with the lowest critical surface. It is designed to provide protection for aircraft flying into or out of the airport when the pilot is flying by sight. Figure 10-4 illustrates the lowest level of the OLS over the portion of the site that is overflown by aircraft operating on runway 06/24. In this portion of the site, the OLS slopes down to 23m AHD (~6m above ground) and for the remainder of the site, the OLS varies in height from ~40m AHD - 61m AHD.

Activities associated with the clearing and site preparation will be assessed in accordance with the *Airport (Protection of Airspace) Regulations 1996*, *Civil Aviation Safety Regulations 1998* and the *Civil Aviation Regulations 1988*, ensuring the protection of airspace.

Future developments will be similarly assessed on a case-by-case basis to ensure they do not impact aircraft operations. This is especially critical in the northern portion of the site where aircraft operating on runway 06/24 will overfly. Although infringements to the OLS are permissible following successful assessment by Airservices Australia, CASA and the Department of Infrastructure, Transport, Regional Development and Communications, Perth Airport typically does not allow the take-off, approach or transitional surfaces to be infringed. Accordingly, it is acknowledged that the airspace constraints in the northern portion of the site are significant. Any future developments in this area will be planned such that there is no infringement to the OLS take-off, approach or transitional surfaces.

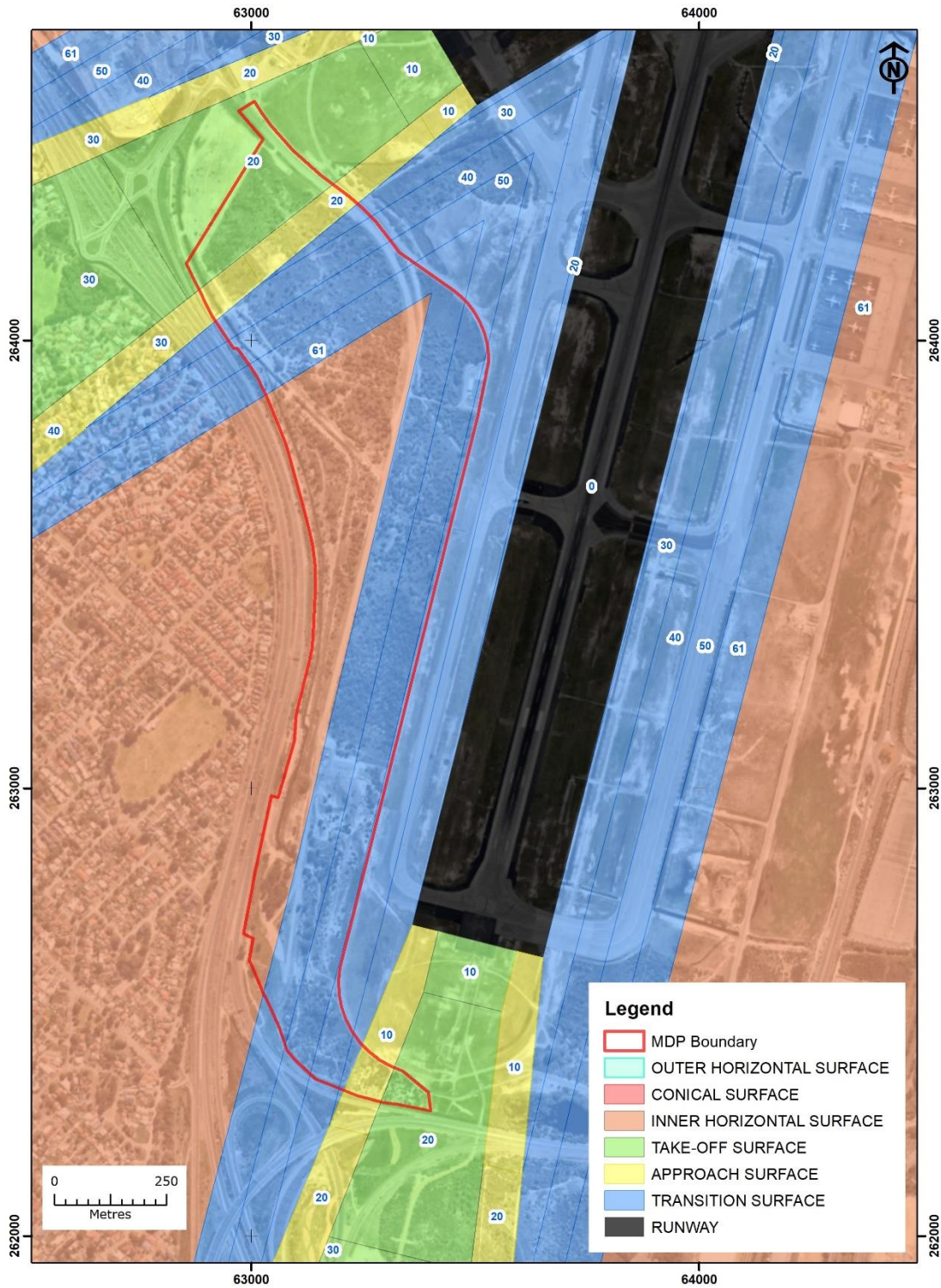


Figure 10-4 Airport West (South) Obstacle Limitation Surfaces

Source: Perth Airport



10.6.2. Procedures for Air Navigation Surfaces – Aircraft Operations [PANS-OPS]

The combined PANS-OPS surface over the subject site is complex (Figure 10-5), as the extended centreline of runway 06/24 traverses the northern portion and the southern portion is proximate to runway 03/21 laterally. Activities associated with the clearing and site preparation will be assessed in accordance with the Airport (Protection of Airspace) Regulations 1996 and Civil Aviation Regulations 1994.

Subsequent developments on this site will be subject to their own assessment and approvals process.

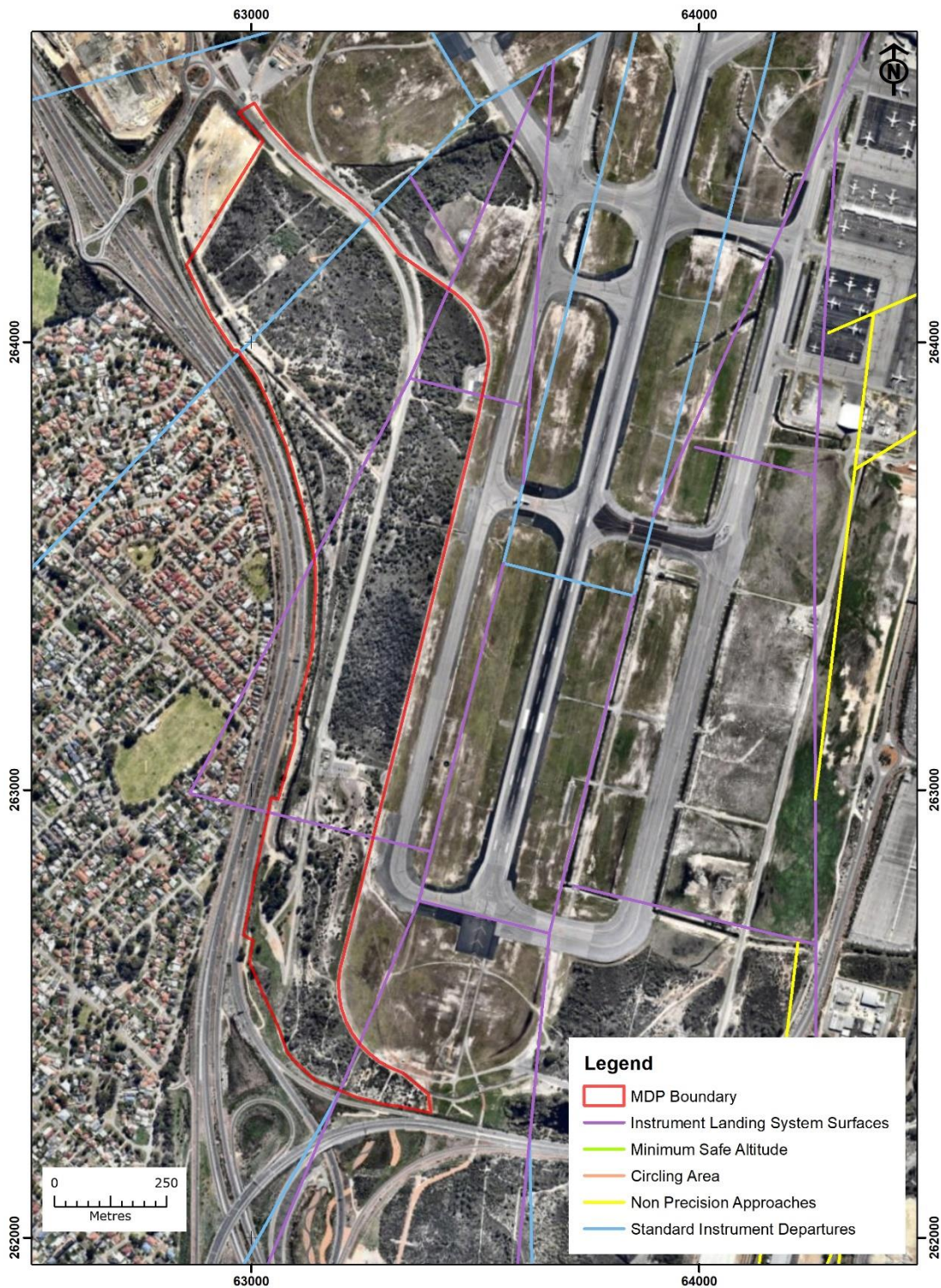


Figure 10-5 Procedures for Air Navigation Surfaces – Aircraft Operations

Source: Perth Airport



10.6.3. Crane Activity During Construction

It is unlikely that crane activity will be required for clearing and site preparation works as defined within this MDP. Nevertheless, any crane or other activity that may constitute a “Controlled Activity” will be referred to Airservices Australia, CASA and possibly the Department of Infrastructure, Transport, Regional Development and Communications for assessment in accordance with Perth Airport’s established airspace protection processes and the Airports (Protection of Airspace) Regulations 1996. This will also apply to activities associated with future developments.

The proposed development will follow the ‘Process Application’ under the Airports (Protection of Airspace Regulations) 1996 Guidelines for Operations of Federal Airports as published by the (then) Department of Infrastructure and Regional Development. Perth Airport engages early with contractors with regards to airspace so that construction methodologies can be designed to avoid any infringement of the OLS or PANS-OPS. However, should such an activity be unavoidable it will only be undertaken following consultation with local air traffic control and Perth Airport operations in addition to the referral process described above to minimise any operational impact.

10.7. Protection of Communication, Navigational and Surveillance Equipment

There are several radio navigation aids and communication installations that provide guidance to aircraft and which are operated by Airservices Australia, including Distance Measuring Equipment (DME), VHF omnidirectional range radio (VOR), Advanced Surface Movement Guidance and Control Systems (ASMGs) and Instrument Landing Systems (ILS) (glide path and localiser). These systems rely on the transmission of radio waves that must be protected from any structure or obstacles that could cause signal refraction or interference.

The known navigation aid clearances were taken into consideration as part of the assessment in this MDP. Perth Airport will continue to engage with Airservices Australia during the clearing and site preparation phase, as well as in the planning of future developments to ensure there is no negative impact on the navigational equipment used.

Perth Airport notes that there may be impacts for future developments within this site and these impacts will be addressed in future MDPs where required once detail, including design, is better understood.

10.8. Public Safety Areas

Public Safety Areas (PSA) are areas of land at the ends of the runways, identified by quantifiable risk contours, within which development is restricted in order to control the number of people on the ground at risk of death or injury in the event of an aircraft accident on take-off or landing. PSA risk contours are developed based on runway use statistics correlated against international crash data and provide an objective basis for precautionary planning decisions in those areas of highest risk.

Perth Airport has adopted the United Kingdom (UK) approach to PSAs, as referenced in NASF Guideline I, to assist with assessing appropriate developments.

Under the UK model, the PSA is generally divided into two areas representing 1-in-10,000 and 1-in-100,000 probabilities of being killed or injured per year from an aircraft accident. Although the boundary of a PSA generally corresponds with the 1-in-100,000 contours, the predicted level of risk within this area may be higher. The model considers the maximum tolerable level of individual third-party risk of being killed as a result of an



aircraft accident as 1-in-10,000 per year. Any occupied residential properties, or commercial and industrial properties occupied as normal all-day workplaces, within the 1-in-10,000 are not recommended.

In the remaining PSA between the 1-in-10,000 and 1-in-100,000 individual risk contours, developments which involve a low density of people working or congregating is considered acceptable. For example, this may include car parking, open storage or certain types of warehouse development.

Perth Airport has developed 1-in-10,000 and 1-in-100,000 PSA contours that reflect the ultimate development and demand of the airport (refer Figure 10-6). Future developments within Airport West (South) will be planned with the PSA contours taken into consideration in accordance with NASF Guideline I to ensure no unacceptable safety risk is created.



Figure 10-6 Public Safety Areas

Source: Perth Airport



10.9. Consultation on Operational Risks and Mitigation Measures

Perth Airport is committed to effective engagement and consultation with stakeholders that are impacted by the development. Perth Airport will continue to work with Airservices Australia to ensure its assets and infrastructure are not detrimentally impacted. The design of the elements included in this development will meet CASA and Airservices Australia requirements.



11. Implementation

In addition to the MDP process, the following approval steps are required for specific development within this approved Final MDP.

11.1. Development Application

A Development Application is required for all major works within the airport estate. The Development Application must include plans and relevant information for the proposed development. Perth Airport reviews the application to ensure that the proposed construction is consistent with any relevant Perth Airport Design Guidelines, Lease Agreement, the Final Airport Master Plan and any applicable MDP. An approval issued by Perth Airport may contain conditions that are required to be complied with. Any requested changes must be made prior to submitting the Perth Airport Consent and Airport Building Controller applications.

11.2. Perth Airport Consent

All building activity within the Perth Airport estate requires Perth Airport Consent assessment and approval. Perth Airport assesses the proposed activity with regards to:

- Occupational Safety and Health,
- Environmental and heritage impacts,
- Protected airspace,
- Noise impacts,
- Utilities and services,
- Choice of building materials,
- Public access, and
- Consistency with the Final Master Plan, relevant Lease Agreement and/or MDP.

The approved Perth Airport Consent may contain conditions that require compliance.

11.3. Airport Building Controller

An Airport Building Controller (ABC) and Airport Environment Officer (AEO) are appointed by the Department of Infrastructure, Transport, Regional Development and Communications to administer the building approvals required under the *Airports Act and the Airports (Building Control) Regulations 1996*.

The Regulations require a Building Permit to be obtained from the ABC (with advice from the AEO) for all developments within the Perth Airport estate.

The ABC assesses the activity under the Airports Act and Regulations, National Construction Codes and applicable Australian Standards. The ABC will also consider any conditions of approval of the Perth Airport Consent.



11.4. Part 13 Permit Under the EPBC Act

Under Part 13 of the EPBC Act, a permit to clear threatened species and ecological communities must be obtained from the Department of Agriculture, Water and Environment (DAWE) prior to clearing any Matters of National Environmental Significance. This process is being completed through direct engagement with DAWE.



12. Consultation

One of the objectives of the *Airports Act 1996* (Airports Act) is to ensure an appropriate level of vigilance, transparency and scrutiny of airport planning, so that the public interest requirements are met as the airport's development progresses. Successful development of Perth Airport therefore depends on productive interactions with a wide range of stakeholders who are impacted by and who may impact the development of the airport, including clearing and site preparation at Airport West (South).

In October 2012, the (then) Department of Infrastructure and Transport released the 'Airport Development Consultation Guidelines' to provide guidance for consultation activities undertaken as part of the MDP process. According to these guidelines, an effective consultation program ensures that a "proposal has been fully explored, concerns identified, and alternatives considered". However, it "does not necessarily mean that all interested parties will be satisfied with the outcome".

Further, the guidelines note that the goals of a consultation strategy include:

- Information – to inform stakeholders about on-airport land use, planning and developments; get input on alternative approaches and options; who will be responsible for making decisions; and what the airport-lessee company has done, is doing and plans to do,
- Airport-lessee company – to build and maintain transparent and stakeholder-focused relationships,
- Legal – to meet the airport-lessee company's legal and regulatory obligations, and
- Process – to provide stakeholders with the opportunity to influence the views of key decision makers.

12.1. Stakeholder Consultation

Perth Airport is committed to effective and transparent engagement and employs a range of ongoing consultation and education mechanisms to:

- Inform stakeholders and the community about on-airport land use planning, developments and potential impacts,
- Seek input on alternative approaches and options,
- Maintain transparency, accountability and stakeholder-focused relationships,
- Provide feedback opportunities and one-on-one information sessions,
- Provide a conduit for information exchange between Perth Airport and key stakeholders, including the community,
- Meet legal and regulatory responsibilities, and
- Provide stakeholders with the opportunity to influence the future of Perth Airport.

Part of Perth Airport's ongoing consultation process with stakeholders include the airport's facilitation of, and involvement in, various forums. These forums enable Perth Airport to engage with Commonwealth, State and Local Government authorities, airlines and the community.

Perth Airport currently engages regularly through the following forums and each group have been involved in consultation activities undertaken for the Airport West (South) MDP.



Perth Airport Planning Coordination Forum

The Perth Airport Planning Coordination Forum (PCF) aims to foster high level strategic discussions on a quarterly basis between Perth Airport and Commonwealth, State and Local Government representatives to promote better planning outcomes in relation to airport developments in the context of the broader urban setting. PCF representatives include Airservices Australia, WA Department of Planning, Lands and Heritage, WA Department of Transport, Main Roads WA, Public Transport Authority, City of Belmont, City of Swan, City of Kalamunda, Chambers of Minerals and Energy and the Commonwealth Department of Infrastructure, Transport, Regional Development and Communications.

Perth Airports Municipalities Group

Perth Airport actively participates in the Perth Airports Municipalities Group (PAMG) which includes 13 Local Government authorities whose communities have an interest in Perth and Jandakot Airports (Local Government Authorities of Armadale, Bassendean, Bayswater, Belmont, Canning, Cockburn, Gosnells, Kalamunda, Melville, Mundaring, South Perth, Swan and Victoria Park). The Group meets quarterly to discuss matters which are of interest to the community such as aircraft noise, flight paths, and off-airport and on-airport development. The PAMG has proven to be an important means of engagement with local communities for more than 30 years. The PAMG has, and will continue to be consulted regarding the Airport West (South) MDP. Further information on the PAMG can be found at pamg.com.au.

Perth Airport Community Forum

The Perth Airport Community Forum (PACF), previously referred to as the Community Aviation Consultation Group, is an event held quarterly at various PAMG Local Government venues. The PACF provides the opportunity for members of the public to meet with representatives from Perth Airport and invited guests such as Airservices Australia and the Aircraft Noise Ombudsman.

The PACF provides members of the public with the opportunity to raise and discuss issues relating to the operation and development of the airport and MDP's, such as Airport West (South).

Its purpose is to recognise and enhance:

- the long-term sustainability and growth of Perth Airport,
- Perth Airport's reputation as a responsible corporate citizen within the local and broader community, and
- Perth Airport's role as a major economic contributor for Western Australia.

Notification of PACF events, including date, time and location, are generally advertised in the West Australian or community newspapers, through Perth Airport social media, and the PAMG website, pamg.com.au.

Perth Airport Aircraft Noise Technical Working Group

The Perth Airport Aircraft Noise Technical Working Group contributes to the successful management of aircraft noise impact at Perth Airport. The Group, chaired by Airservices Australia, meets on an as-required basis (as determined by Airservices Australia) and comprises representatives from Perth Airport, Airservices Australia, and airlines.

Perth Airport Consultative Environment and Sustainability Group

The Perth Airport Consultative Environment and Sustainability Group (ACES) meets quarterly and is comprised of representatives from Commonwealth, State and Local Governments as well as airport tenants, conservation groups, catchment groups and community members. The Group discusses topics related to environmental, heritage and sustainability management on the airport estate. It is also an opportunity for tenants to learn and work together to minimise the environmental impacts of their operations and to facilitate improved environmental outcomes.



Partnership Agreement Group

The Partnership Agreement Group (PAG) was established in 2009 to facilitate active engagement between Perth Airport and Traditional Custodians. The PAG is a high-level steering group focussed on the cultural heritage management and the ongoing development of the airport. This is further discussed in Part B report – Environment and Heritage Assessment.

12.2. Exposure Draft Consultation

In addition to consultation with the above groups, an Exposure Draft version of the MDP was circulated to Government Stakeholders for initial review. The Exposure Draft is an early version of the document circulated for the purpose of seeking initial feedback. These Stakeholders included the Commonwealth, State and Local Government authorities noted below, with comments received and included within the Preliminary Draft MDP where appropriate.

- Commonwealth Government agencies
 - Airservices Australia,
 - Civil Aviation Safety Authority,
 - Department of the Environment and Energy, and
 - Department of Infrastructure, Transport, Regional Development and Communications,
- State Government agencies
 - Department of Biodiversity, Conservation and Attractions,
 - Department of Water and Environmental Regulation,
 - Department of Planning, Lands and Heritage,
 - Department of Transport (Main Roads WA and Public Transport Authority)
 - Department of Premier and Cabinet,
 - Department of Jobs, Tourism, Science and Innovation
 - Department of Water and Environmental Regulation,
 - Environmental Protection Authority, and
 - Western Australian Planning Commission.
- Local Government authorities
 - City of Belmont,
 - City of Swan, and
 - City of Kalamunda.



12.3. Release of Preliminary Draft Major Development Plan for Public Comment

Following the receipt of Exposure Draft comments from the above organisations (where provided), Perth Airport considered all comments and produced a Preliminary Draft MDP for the 60 business day public comment period required in accordance with the Airports Act. Details of the dates for this consultation and how to make a submission were published on the Perth Airport website, on social media and in newspaper notices.

12.4. Draft Major Development Plan

Following public consultation, all submissions received were given 'due regard' with changes incorporated into the Draft MDP as applicable. A Supplementary Report was also prepared as per Section 79 the Airports Act. The Supplementary Report included the following:

- a copy of written submissions received during the public comment period,
- a written certificate signed on behalf of Perth Airport, containing:
 - a list of names and organisations that provided written comments to the MDP,
 - a summary of the comments received,
 - evidence that Perth Airport had given due regard to those comments in preparing the Draft MDP, and
 - setting out other such information (if any) about those comments as is specified in the regulations.

This Supplementary Report is not issued as a public document to ensure confidentiality is maintained around personal details for individuals and their submissions. Instead, the Supplementary Report was submitted to the Commonwealth with the Draft MDP as part of the approvals package of information required under the Act.

12.5. Publication of Final Major Development Plan

In accordance with Section 96 of the Airports Act, within 50 business days of Ministerial approval of the Draft MDP, Perth Airport undertook the following notifications:

- published a newspaper notice advising that the MDP had been approved,
- made copies of the plan available for inspection or purchase at Perth Airport, and
- made a copy of the approved MDP available on the Perth Airport website, perthairport.com.au.



13. Conclusion

This Major Development Plan has been prepared by Perth Airport and approved by the Commonwealth for clearing and site preparation works within the Airport West (South) project area. The proposed scope of works in Airport West (South) as part of this approved MDP includes vegetation clearing and site preparation, earthworks, service diversions and installations, road network construction, and landscaping and signage.

These works enabling future development of Airport West (South) are consistent with both long-term State Planning objectives for Western Australia and the planning for the localities adjacent to the airport estate. The proposed works are also consistent with the approved Perth Airport 2020 Master Plan, including the approved Land Use Plan.

There is a demonstrated need and demand for businesses which provide goods, services and employment opportunities for the growing resident and employee populations, and for tourists. Overall, development of Airport West (South) will play a role in activating and satisfying these needs by delivering benefits to these groups. The first step in realising these benefits is the clearing and site preparation works which form the basis of this MDP.

An assessment of the proposed works on aviation activity concluded negligible impact and Perth Airport is committed to continued effective engagement and consultation with stakeholders. Furthermore, the environmental assessment undertaken investigated impacts to geology and soil, surface water and groundwater, flora and vegetation, fauna, wetlands, construction noise, vibration, air quality, and heritage. In this regard, Perth Airport are in discussion with the Commonwealth Government for an appropriate offset framework to be applied for Airport West (South).

In terms of access, aviation users are the priority until such time that all Qantas Group RPT services are consolidated into the Airport Central Precinct. For the period that RPT operations remain in Airport West, it is integral that minimal disruption to the level of service on the roads is achieved for vehicles accessing the T3 / T4 passenger terminals.

Before Perth Airport can proceed with the proposed works, it was required under the *Airports Act 1996* to prepare an MDP for Ministerial approval and undertake 60 business days of public consultation, giving due regard to all submissions received. Perth Airport submits that, through this MDP, it has fulfilled its statutory obligations, consistent with the MDP approval granted by the Minister for Infrastructure, Transport and Regional Development on 29 October 2021.



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15. Glossary and Acronyms

ABC	Airport Building Controller
ACES	Airport Consultative Environment and Sustainability Group
AEO	Airport Environment Officer
AH Act	<i>Aboriginal Heritage Act 1972 (WA)</i>
AHD	Australian Height Datum
Airports Act	<i>Airports Act 1996 (Cth)</i>
ATSIHIP Act	<i>Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth)</i>
ANEF	Australian Noise Exposure Forecast
AS	Australian Standard
AS2021:2015	Australian Standard 2021:2015
BC Act	<i>Biodiversity Conservation Act 2016 (WA)</i>
CASA	Civil Aviation Safety Authority
CBD	Central Business District
CCW	Conservation Category Wetland
CEMP	Construction Management Plan
CNS	Communications Navigation and Surveillance
DA6	Development Area 6
DAWE	Department of Agriculture, Water and the Environment
DBCA	Department of Biodiversity, Conservation and Attractions
DME	Distance Measuring Equipment
DoE	Department of Energy
DPC	Department of Premier and Cabinet
DPLH	Department of Planning, Lands and Heritage
DWER	Department of Water and Environmental Regulation
EMP	Environmental Management Plan
EPA	Environmental Protection Authority
EPBC	Environmental Protection and Biodiversity Conservation
EPBC Act	<i>Environmental Protection and Biodiversity Conservation Act 1999 (Cth)</i>
FAL	Forrestfield – Airport Rail Link
FFIC3	Future Fund Investment Company No.3 Pty Ltd
FIFO	Fly-in fly-out
GSP	Gross State Product
Guideline 1.2	Significant Impact Guidelines 1.2 – Actions on, or impacting upon, Commonwealth land and Actions by Commonwealth agencies
Heritage Act	<i>Heritage Act 2018 (WA)</i>
ICAO	International Civil Aviation Organisation
ILS	Instrument Landing System
ITE	Institute of Transportation Engineers
LPS	Local Planning Scheme
LPS 15	Local Planning Scheme No. 15
LPS 17	Local Planning Scheme No. 17



LPS 3	Local Planning Scheme No. 3
MDP	Major Development Plan
MOS	Manual of Standards
MRS	Metropolitan Region Scheme
NASF	National Airports Safeguarding Framework
OHP	Other Heritage Place
OLS	Obstacle Limitation Surfaces
PACF	Perth Airport Community Forum
PADG	Perth Airport Development Group Pty Ltd
PAG	Partnership Agreement Group
PAMG	Perth Airports Municipalities Group
PANS-OPS	Procedures for Air Navigation Services – Aircraft Operations
PAPF	Utilities of Australia Pty Ltd ATF Perth Airport Property Fund
PAPL	Perth Airport Proprietary Limited
PCF	Perth Airport Planning Coordination Forum
PFAS	Per and Poly Fluoro Alkyl Substances
PFOS	Per Fluorooctane Sulphonate
PSA	Public Safety Areas
PTA	Public Transport Authority
PUDO	Pick Up and Drop Off
Qantas	Queensland and Northern Territory Aerial Services Ltd
RAAF	Royal Australian Air Force
RPT	Regular Passenger Transport
SPP	State Planning Policy
SPP 4.2	State Planning Policy 4.2 - Activity Centres for Perth and Peel
SPP 5.1	State Planning Policy 5.1 – Land Use Planning in the Vicinity of Perth Airport
T1	Terminal 1
T2	Terminal 2
T3	Terminal 3
T4	Terminal 4
TFI	Tourism Futures International
TNTC	The Northern Trust Company
UTA	Utilities Trust of Australia
VOR	VHF omnidirectional range Radio
VPD	Vehicles per day
VPH	Vehicle per hour
WAPC	Western Australian Planning Commission



Appendix A: History of Perth Airport

There is a long and rich history of activity on the Perth Airport estate, which provide a foundation to the current airport development objectives and proposals, such as those contained within this MDP. In recognition of this, it is important to understand the history of the Perth Airport estate and current corporate objectives, as summarised below.

Aboriginal History

The land on which the estate is located forms part of the traditional network of communication routes, meeting places and camping sites of the Noongar people. Noongar groups traditionally lived throughout the south-west corner of Western Australia. As the Traditional Custodians, the Noongar people maintain a strong interest in the airport and its operations. A number of archaeological and ethnographic sites have been identified on the airport estate. This is further discussed in Part B report – Environment and Heritage Assessment.

Early Airport Development History and Development Objectives

The first recorded flight in Western Australia occurred in 1911, when Joseph Hammond flew a biplane from a makeshift airstrip at the Belmont Racecourse over the city of Perth and Kings Park. In 1919, Norman Brearley started operating demonstration flights and joy flights from the Western Australian Cricket Association ground in East Perth, before moving in 1920 to Langley Park, located along the Swan River adjacent to the Perth city centre. In 1925, Norman Brearley relocated his fledgling airline, Western Australian Airlines, to the newly constructed Maylands Aerodrome.

Maylands Aerodrome quickly grew with increasing air traffic movements and the development of larger aircraft. To accommodate growth, the Dunreath Golf Course and market garden land was acquired in 1938 as the site of the new Guildford Aerodrome. In early 1942, this land was converted to a Royal Australian Air Force (RAAF) base and the first runway (the now closed runway 01/19), designed for RAAF aircraft, was built in 1943 by Western Australia's Main Roads Department. A second runway (now the cross runway 06/24) was laid down a year later. As Maylands Aerodrome was too small for the larger passenger aircraft being used, in 1944 the Government agreed to allow Australian National Airways and the Queensland and Northern Territory Aerial Services Ltd (Qantas) to share Guildford Aerodrome with the RAAF. Guildford Aerodrome continued to operate as a RAAF base until 1945. A third runway (now the main runway 03/21) was constructed in 1949.

In 1952, Guildford Aerodrome was officially renamed Perth International Airport and facilitated its first international flight to South Africa. In the same year, the first international terminal was built with second-hand wartime materials at a cost of £180,000.

In 1962, the main domestic airline partners moved out of their individual hangars and into the first combined domestic and international terminal, which was opened to coincide with that year's British Empire and Commonwealth Games hosted by Perth.

The main runway was extended and upgraded in 1966 to cater for larger jet aircraft such as the Boeing 707. By the time Qantas flew the first Boeing 747 (Jumbo) flight to Perth on 3 September 1971, the facilities at Perth Airport were battling to cope with the demand for domestic and international flights.

Airport Expansion

In 1973, a Joint State and Commonwealth Working Group completed a study which confirmed that the Perth Airport site would continue as the sole RPT airport for the Perth region. A final report on the aviation requirements for the Perth Region was released by the Commonwealth Department of Transport in 1979. The working group concluded that Perth Airport should be developed as the primary airport for the Perth metropolitan region and that it be based on a parallel runway system. Following the working group's recommendations, additional land was acquired to the east to accommodate the long-term expansion of the airport, including a proposed parallel runway system.



During this period, the main runway was also extended by 300 metres to its current length of 3,444 metres.

Formalising the planning from the Joint Working Group, the Commonwealth Department of Aviation released Perth Airport's first public Master Plan in 1985. The Master Plan 1985 outlined:

- The planning concept for consolidation of terminals into a central location,
- The alignment and location for a parallel runway system, comprising the existing main runway and a new runway,
- An aircraft noise footprint, in the form of an Australian Noise Exposure Forecast (ANEF), for the future runway infrastructure options, and

The need to ensure appropriate land-use development around the airport to minimise the impact of future operations on surrounding communities.

On 25 October 1986, Prime Minister Bob Hawke opened a new \$60 million International Terminal Complex (Terminal 1) on the eastern side of the airport, along with a new Air Traffic Control tower.

In the late 1980's, Qantas constructed the now T4 and Ansett Australia constructed the now T3 for their individual domestic operations on the western side of the estate.

The Federal Airports Corporation (FAC) was formed in 1988 to manage Australia's largest and busiest airports, including Perth Airport, as a self-funding commercial entity. In 1992, FAC continued compulsory acquisition of land for the long-term development of the Perth Airport site.



Appendix B: Traffic Tables from Section 8

Date	Origin		Destination				Total Vehicles Through Airport	Total Vehicles To airport estate destinations
	Tonkin Northbound Off Ramp (vehicles)	Tonkin Northbound On Ramp (vehicles)	Stanton Road (vehicles)	Boulder Avenue (vehicles)	Coolgardie Avenue (vehicles)	Fauntleroy Avenue (vehicles)		
4/12/2019	2009	529	174	71	15	208	468	1541
5/12/2019	2101	545	200	109	21	265	595	1506
Total Vehicles Counted	4110	1074	374	180	36	473	1063	3047
Average Hourly	1028	268	94	45	9	118	266	762

Table B-1 Origin / Destination Study Results for Tonkin / Dunreath Northbound Off Ramp (4.00 – 6.00pm)

Land use description	AM Peak	PM Peak	WKD Peak
Tourism (Biome)	0.73 trips / 100m ²	1.83 trips / 100m ²	1.90 trips / 100m ²
Other Tourism/Entertainment	2.11 trips / 100m ²	10.75 trips / 100m ²	10.75 trips / 100m ²
Private Recreation	4.31 trips / 100m ²	34.40 trips / 100m ²	34.40 trips / 100m ²
Large Format Retail	1.86 trips / 100m ²	5.12 trips / 100m ²	7.80 trips / 100m ²
Food/Beverage/Hospitality	5.00 trips / 100m ²	5.00 trips / 100m ²	5.00 trips / 100m ²

Table B-2 Forecast Peak Hour Vehicle Trip Generation (ultimate development)

Land use description	AM Peak	PM Peak	WKD Peak
Tourism/Entertainment	915 trips	1,874 trips	1,954 trips
Private Recreation	69 trips	172 trips	172 trips
Large Format Retail	446 trips	1,229 trips	1,872 trips
Food/Beverage/Hospitality	480 trips	480 trips	480 trips
Total Traffic Generation	1,910 vehicles / hour	3,755 vehicles / hour	4,478 vehicles / hour

Table B-3 Forecast Vehicle Trip Generation



Land use description	AM Peak		PM Peak		WKD Peak	
	IN	OUT	IN	OUT	IN	OUT
Tourism/Entertainment	66%	34%	49%	51%	49%	51%
Private Recreation	70%	30%	21%	79%	21%	79%
Large Format Retail	73%	27%	47%	53%	47%	53%
Food/Beverage/Hospitality	51%	49%	52%	48%	52%	48%

Table B-4 Forecast Peak Hour Daily Traffic Distribution from Proposed Land Uses

	Percentage of Development traffic [%]
Tonkin Highway (Tonkin / Dunreath Intersection)	80%
Dunreath Drive (Central Ave, Fautleroy Ave)	15%
Internal Origin / Destination (Shared Trip)	5%

Table B-5 Traffic Trip Origin / Destinations

Route / Intersection	AM Peak (Vehicles per hour)		PM Peak (Vehicles per hour)		WKD Peak (Vehicles per hour)	
	IN	OUT	IN	OUT	IN	OUT
Tonkin Highway (Tonkin / Dunreath Intersection)	978	550	1,426	1,578	1,699	1,883
Dunreath Drive (Central Ave, Fautleroy Ave)	183	103	267	296	319	353
Internal	62	34	89	99	106	118
TOTAL	1,223	687	1,782	1,973	2,124	2,354

Table B-6 Airport West (South) Forecast Peak Hour Trips



Appendix C: Consistency with Airports Act

	SECTION
91 (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	Section 4
(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	Section 7
(c) a detailed outline of the development; and	Section 2
(ca) whether or not the development is consistent with the airport lease for the airport; and	Section 5
(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	Section 5
(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	Section 6 and Section 10
(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	Section 10
(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	Section 10
(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	Section 1
(ga) the likely effect of the proposed development 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 8
(ii) employment levels at the airport; and	Section 7
(iii) the local and regional economy and community, including an analysis of how the proposed developments fit within the local planning scheme for commercial and retail development in the adjacent area; and	Section 6 and Section 7
(h) the airport-lessee company's assessment of the environmental impacts that might reasonably be expected to be associated with the development; and	Section 9
(i) 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	Section 9 and Part B



	SECTION
(j) 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	N/A
(4) In specifying a particular objective or proposal covered by paragraph (1)(a) or (c), a major development plan, or a draft of such a plan, must address: <ul style="list-style-type: none"> a) the extent (if any) of consistency with planning schemes in force under a law of the State or Territory in which the airport is located; and b) if the major development plan is not consistent with those planning schemes – the justification for the inconsistencies. 	Section 6
(6) In developing plans referred to in paragraph (l)(f), an airport-lessee company must have regard to Australian Standard AS2021—1994 ('Acoustics—Aircraft noise intrusion—Building siting and construction') as in force or existing at that time.	Section 10



Appendix D: Media Release – Australian Biome Project

<https://www.perthairport.com.au/Home/corporate/articles/2019/10/15/03/05/australianbiomeproject>

Perth Airport signs MOU with Australian Biome Project

15 October, 2019

Perth Airport could become home to the proposed Australian Biome Project which would showcase Western Australia's biodiversity and Aboriginal culture to international tourists.

Perth Airport and the Australian Biome Project will sign a Memorandum of Understanding which will ring fence a 15-hectare site in the Airport West precinct whilst the business case is worked up and the scheme developed.

The potential site is adjacent to the Airport Observation Deck and the airfield and close to both Tonkin Highway and the Redcliff railway station.

Perth Airport's Chief Executive Officer Kevin Brown said that the Biome project would complement the development of the Airport West precinct.

"Perth Airport is progressively developing land that is not required for current or future aviation purposes and our estate has already become the destination of choice for a number of business operators over recent years," Mr Brown said.

"As a major employment centre new retail or tourism projects, which create jobs and economic activity, have become a very important part of our business.

"This agreement will allow the Biome Project team time to do the detailed work to determine the viability of the project and secure funding. While Perth Airport does not have a financial involvement in the project, this MOU will allow the Biome Project team to advance their work knowing that a suitable site is available.

"It will also allow them to undertake the important process of engaging and consulting with the indigenous traditional custodians of the airport estate through the Perth Airport Partnership Group.

Australian Biome Project spokesman Adam Barnard said the project draws inspiration from the Eden Project in Cornwall and Singapore's Gardens by the Bay.

"We will look to develop large dome structures showcasing the rich biodiversity of WA, and will display Dreamtime creation stories, traditional lifestyles and Aboriginal art," Mr Barnard said.

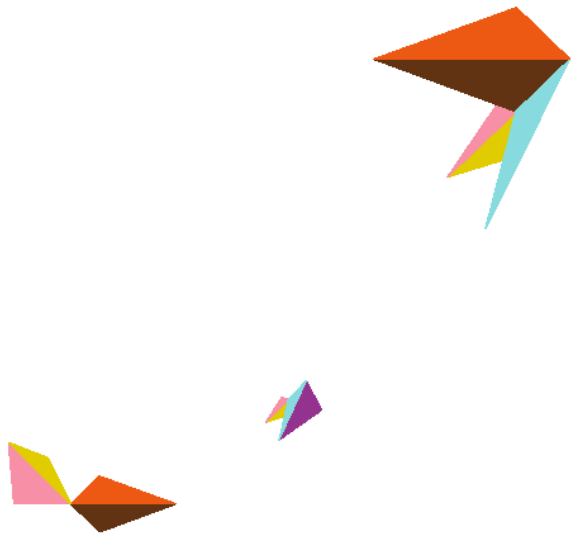


“The project is on an exceptional scale, and is designed to be a global attraction, filling our hotel rooms with visitors from around the world.

“Given its proximity to the CBD, the great transport links, and the way Perth Airport is becoming a consumer-focused retail hub, the Biome Project could be a welcome addition to Airport West,” Mr Barnard said.

Beverley Rebbeck - Australian Biome Board member (Aboriginal Affairs) said that It’s been an incredible and fantastic journey working with the Australian Biome team.

“This will be a project representative of all Aboriginal people and our culture throughout the state of WA. I am looking forward to helping develop new and exciting ways to share the stories, song lines and narratives of the Aboriginal dreamtime, and working closely with the Perth Airport,” Ms Rebbeck said.



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