Perth Airport

Airport Central Ground Transport Upgrade

Final Major Development Plan

November 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,
- It should not be relied upon by any party for any purpose,
- It does not commit Perth Airport to any particular development, and
- Perth Airport accepts no liability whatsoever to any person who in any way relies on any information in this Major Development Plan (including making any decisions about development or any activity on or off Perth Airport).

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ACKNOWLEDGEMENT OF COUNTRY

Boorloo worlak kornt kaadatj Wadjak moort Noongar boodja-k wer baalabang kalyakoorl noyinang 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.

Perth Airport is planning to invest up to $2.5 billion to upgrade the International Terminal, construct a new parallel runway, and build additional terminal capacity within the T1 precinct to allow consolidation of all commercial air services into the Airport Central precinct.

This Major Development Plan (MDP) provides detail on a critical component of consolidation – the provision of necessary ground transport infrastructure and upgrades.

Perth Airport forecasts that by 2038, annual passenger numbers will increase to 26.8 million, and annual aircraft movements will grow to approximately 192,000 movements.

The Airport Central Ground Transport Upgrade MDP works will ensure that Perth Airport provides the necessary infrastructure to cater for predicted passenger growth and support consolidation, while maintaining optimum levels of service for passengers.

Furthermore, the proposal detailed within this MDP ensures that quality access for passengers with reduced mobility and other airport users is maintained and that efficient access to terminal facilities for taxi and rideshare vehicles, public transport and coaches are provided.

To ensure these outcomes, this MDP was prepared by Perth Airport and subsequently approved by the Commonwealth Minister for Infrastructure, Transport and Regional Development for:

- Two Multi Modal Transport Interchanges (MMTIs) which include at grade passenger drop off and pick up facilities and multi storey car parks included on upper levels, to be located within the area of the existing Terminal 1 short term car park and delivered in a staged manner,
- Upgraded road network including partial grade separation of the Airport Drive/Sugarbird Lady Road intersection, upgrade of the Airport Drive/Paltridge Road intersection and widening of sections of Airport Drive to four lanes, and
- Other associated road network adjustments.

A number of benefits will arise during both the construction of the proposed infrastructure and through its ultimate operation including job creation, increased efficiency for airline partners and businesses, and improved access to facilities of a global standard, enhancing the passenger experience at Perth Airport.

This upgrade will result in a more positive experience for tourists and other airport users through quality parking facilities and travel efficiency, culminating in an improved journey. The works also support Perth Airport's broader strategy to become Australia's Western Hub airport which includes airport consolidation and new terminal infrastructure, greatly improving an integrated passenger experience with a superior transport experience.

These works are broadly consistent with both long-term State Planning objectives for Western Australia, including the Forrestfield-Airport Link, and the planning for the localities adjacent to the airport estate. The proposed works are consistent with the Perth Airport Master Plan 2020.

The project area for the works defined within this MDP is cleared of vegetation and includes existing car parks, roads and other developed hard surfaces.

The impacts to aviation activity associated with the proposal has been assessed and are compliant. Perth Airport is committed to effective engagement and consultation with stakeholders where there may be impacts resulting from the development proposed within this MDP.

The MDP was released for a 60 business day consultation period between 30 April 2020 and 24 July 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 was submitted to the Minister for consideration. The Hon Barnaby Joyce MP, Minister for Infrastructure, Transport and Regional Development, approved this MDP on 2 September 2021.

This MDP fulfils the requirements under the Airports Act.

1 Introduction

This Major Development Plan (MDP) has been prepared by Perth Airport for the purpose of seeking Commonwealth approval for development within the Airport Central precinct. This MDP is consistent with development objectives defined in the Perth Airport Master Plan 2020 and includes accommodating passenger growth and improving the passenger experience.

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 regional 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 tourism is significant. Approximately 95 per cent of people visiting Western Australia arrived by air and in 2019, these tourists contributed more than $4.1 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 and freeway 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.

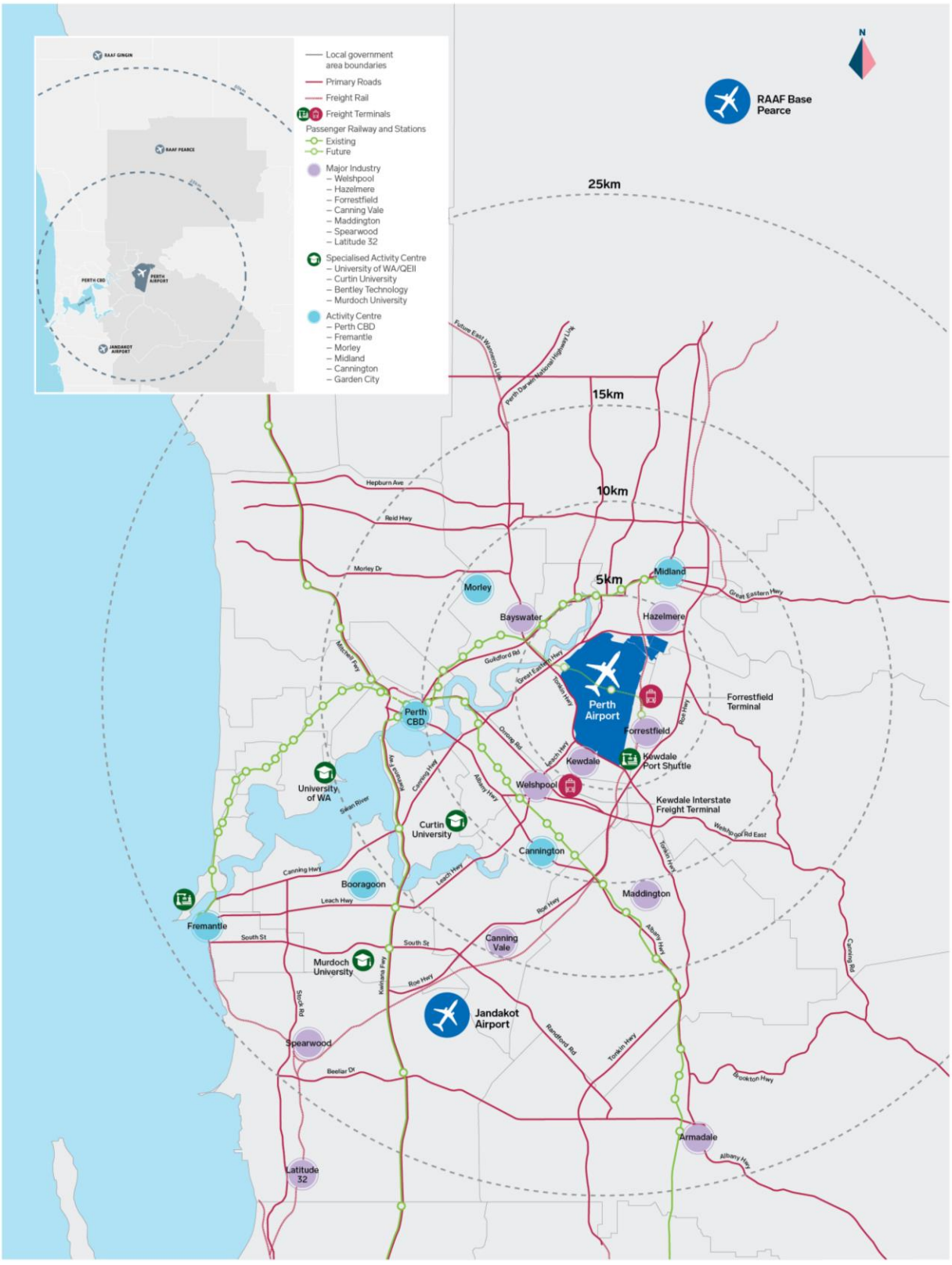

Figure 1-1 Perth Airport in Relation to Key Infrastructure

Source: Perth Airport

1.1 Major Development Plan Scope

The detailed scope of this Airport Central Ground Transport Upgrade Major Development Plan (MDP) is outlined in Section 2, but for context, includes works associated with the following transport elements required to support consolidation of airport operations within the Airport Central Precinct (refer Figure 1-2):

- Two Multi Modal Transport Interchanges (MMTIs) which include at grade passenger drop off and pick up facilities and multi storey car parks included on upper levels, to be located within the area of the existing Terminal 1 short term car park and delivered in a staged manner,
- Upgraded road network including partial grade separation of the Airport Drive/Sugarbird Lady Road intersection, upgrade of the Airport Drive/Paltridge Road intersection and widening of sections of Airport Drive to four lanes, and
- Other associated road network adjustments.

Before Perth Airport can proceed with the proposed works, it is required under Section 89(1)(h) of the *Airports Act 1996* (Airports Act) to prepare an MDP for the proposal. The development requires Commonwealth assessment on the basis that it involves the construction of a new road or vehicular access facility that significantly increases the capacity of the airport to handle movements of passengers and has an estimated value of more than $25 million. Further details concerning the statutory arrangements covering MDPs are provided under Section 5.4. This MDP met all stipulated requirements and was approved by the Minister for Infrastructure, Transport and Regional Development on 2 September 2021.

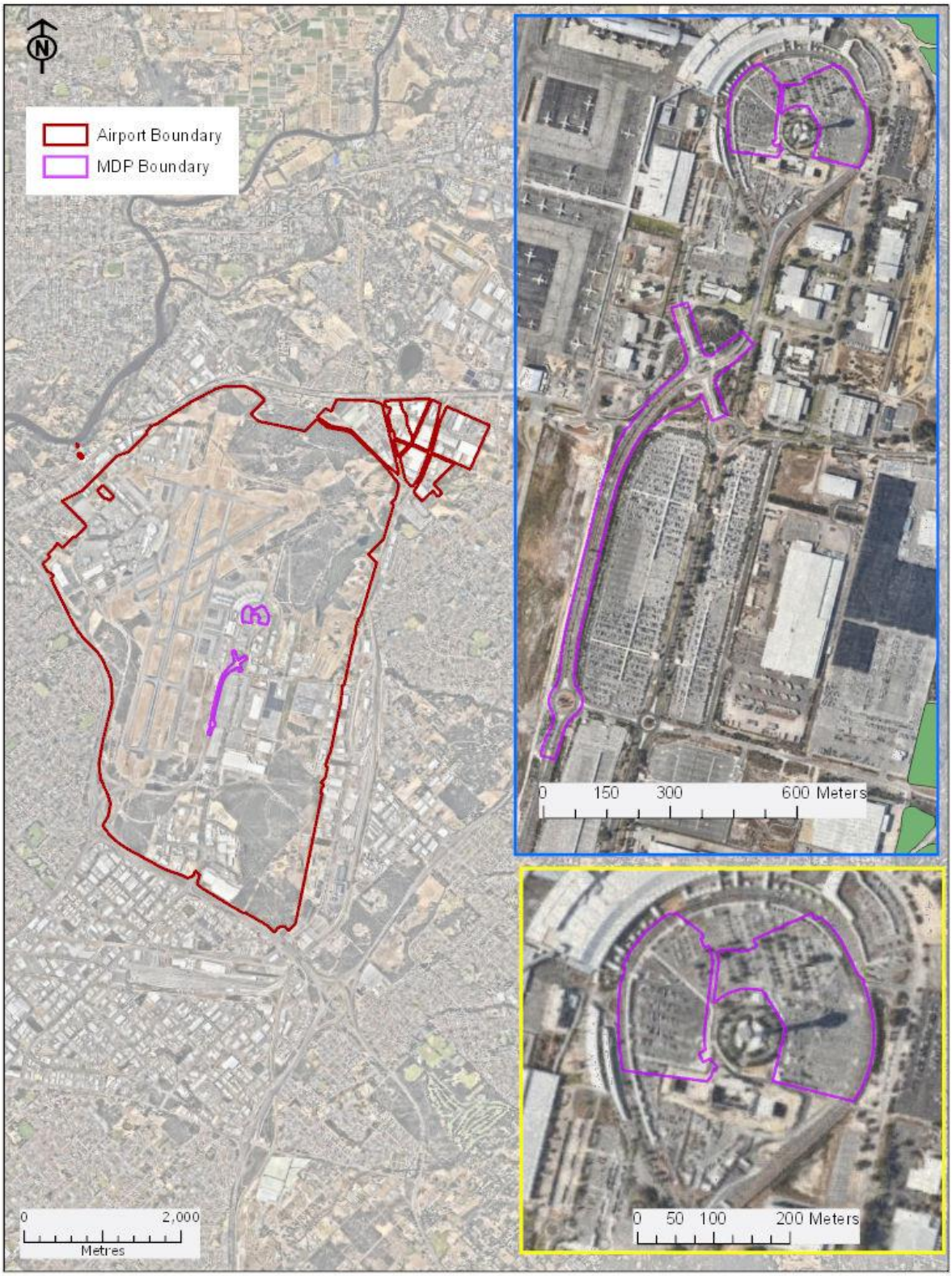

Figure 1-2 Study Area Context

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 October 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 October 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 for a Major Development Plan under the Airports Act and is structured as follows:

- Section 2 – Description of Development,
- Section 3 – Project Justification,
- Section 4 – Project Details,
- Section 5 – Legislative Framework,
- Section 6 – Consistency with State and Local Planning,
- Section 7 – Socio-economic Assessment,
- Section 8 – Traffic Assessment and Ground Transportation Infrastructure,
- Section 9 – Environment and Heritage Assessment,
- Section 10 – Relationship to Aviation,
- Section 11 – Consultation,
- Section 12 – Implementation, and

- Section 13 – Conclusion.

Further details regarding consistency with the requirements of the Airports Act are included in Appendix B.

1.4 Forrestfield–Airport Link Major Development Plan Overlap

An MDP for the Forrestfield–Airport Link (FAL) was approved by the Hon Warren Truss, Deputy Prime Minister and Minister for Infrastructure and Regional Development, on 30 November 2015 for the portion of the FAL within the Perth Airport estate. A small part of the boundary for that MDP overlaps a section of the current project area, as shown in Figure 1-3. It should be noted that this overlap is above ground for the current project, and below ground for the FAL MDP and as such, there is no direct interaction between the two project areas. The FAL project design anticipated this overlap, with the station and tunnels designed to allow construction of the MMTIs.

The two MMTIs may be designed to interface with the elevated Skybridge, which also forms part of the FAL MDP, to provide walking routes for train passengers between the Airport Central Train Station and the terminals, however the Skybridge does not intrude into the area included for this MDP.

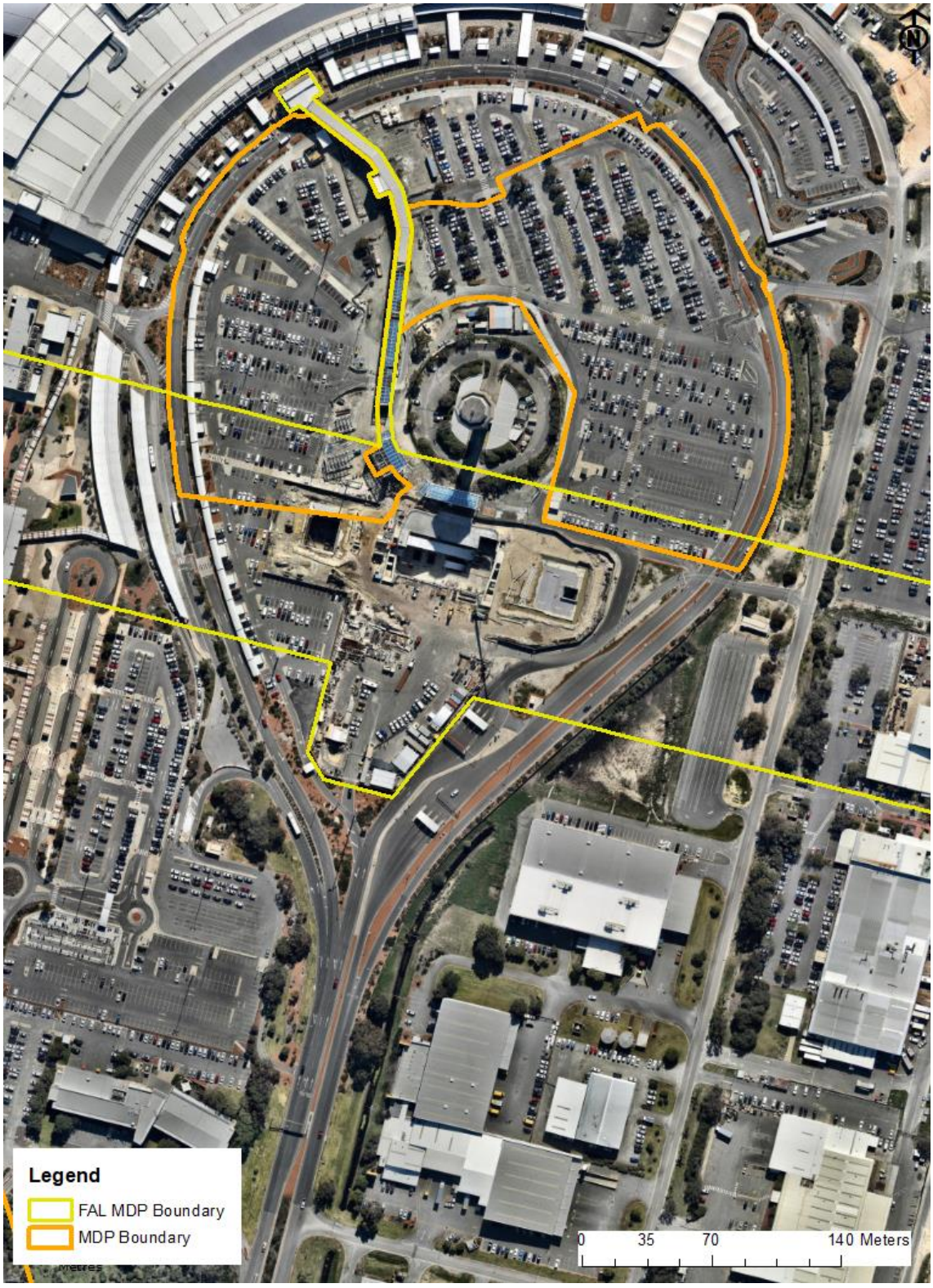

Figure 1-3 MDP Study Area Overlap with Approved Forrestfield-Airport Link Project Area

Source: Perth Airport

2 Description of Development

This MDP is seeking approval for the construction and operation of the following:

- Two Multi Modal Transport Interchanges, which include at grade passenger drop off and pick up facilities and multi storey car parks included on upper levels, to be located within the area of the existing Terminal 1 short term car park,
- Upgraded road network including partial grade separation of the Airport Drive/Sugarbird Lady Road intersection, upgrade of the Airport Drive/Paltridge Road intersection and widening of sections of Airport Drive to four lanes, and
- Other associated road network adjustments.

The location for these works is illustrated in Figure 2-1, where it can be seen that the MMTIs are situated east and west of the existing Air Traffic Control Tower, adjacent to Terminal 1 and the Airport Central Train Station which forms part of the FAL. It should be noted that the location and footprint of the two MMTIs as depicted by the outlined boundary areas in Figure 2-1 are currently based on schematic level design. The scope of this MDP includes the entirety of the outlined areas, including the intersection of Airport Drive and Sugarbird Lady Road, the intersection of Airport Drive and Paltridge Road, widening for sections of Airport Drive and associated road network adjustments within the Airport Central Precinct. Minor road network adjustments external to the areas overleaf may also be required and will be consistent with the intent of this MDP. These include:

- Closure of the existing forecourt road and the creation of a pedestrian plaza
- Re-configuration of the access roads to Terminal 2 to create a one-way (southbound) flow of traffic to improve the efficiency and operation of the area
- Re-configuration of the T2 short term car park entry
- Closure of the taxi holding area at T2 and subsequent expansion of the T2 short term car park
- Re-configuration of the entry and exit access roads to the Combined Logistics Facility
- Road network modifications to enable access and egress to the MMTIs and other mode facilities
- Inclusion of three PTA bus bays to the eastern side of the rail station
- Other minor road network adjustments or upgrades as required.

The project is intended to be delivered through a Design and Construction (D&C) Contract, which requires the project brief and reference design to be progressed sufficiently to inform the Request for Tender (RFT) to be released to the market. Through a competitive RFT process, a lump sum fee will be agreed, and a D&C Contractor appointed to develop and finalise the detailed design and ultimately deliver the project. This approach has been selected to meet the project timeframes, de-risk the project and ensure that construction innovation is incorporated where possible. Based on this procurement methodology, it is possible that the development footprint of the MMTIs may be marginally refined in the final design, however, will remain within the project boundary nominated within this MDP (as per Figure 2-1).

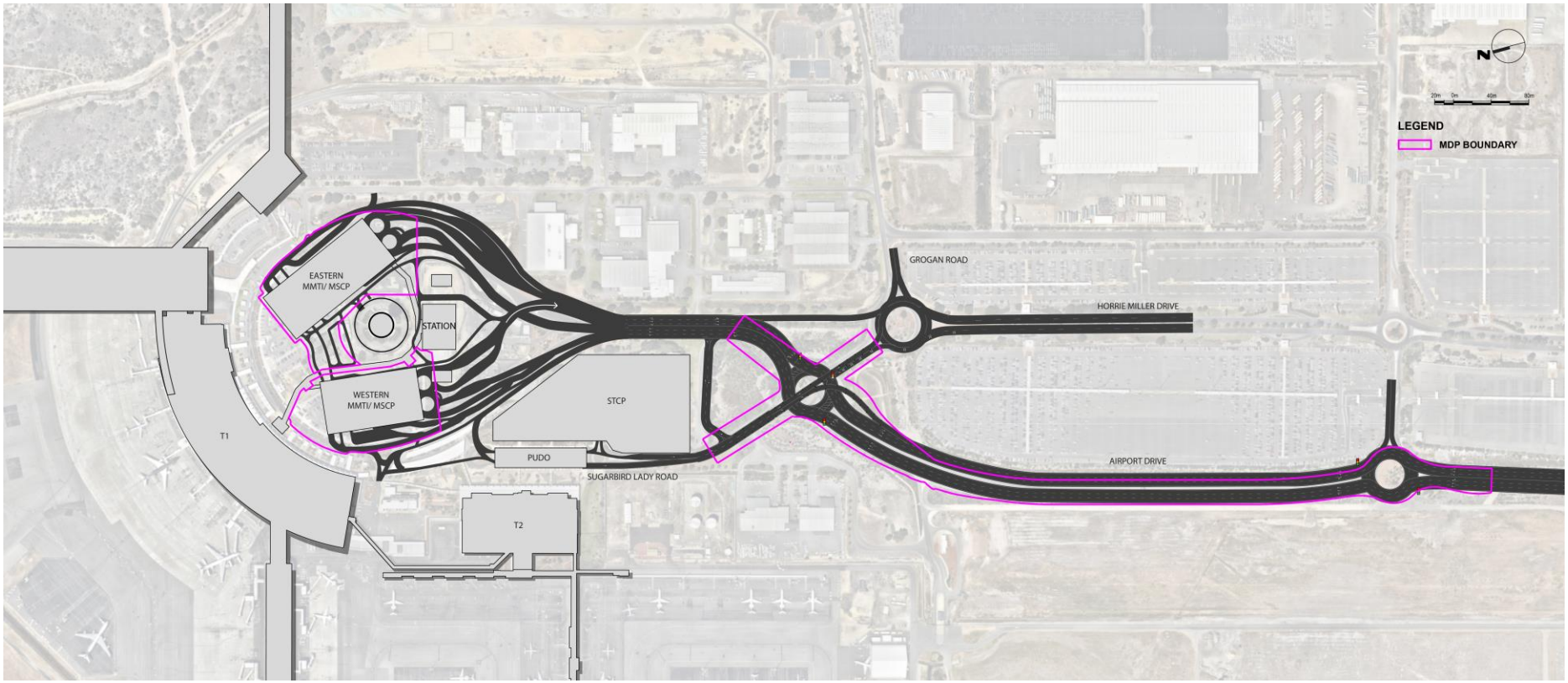

Figure 2-1 Proposed Development Under this MDP

(MMTI = multi modal transport interchange, STCP = short term car park, PUDO = pick up and drop off)

Source: Perth Airport

The inclusion of the above elements within this MDP are as per the requirements of the Airports Act. Section 89 of the Airports Act notes an MDP is required for a major airport development that includes:

(*h) constructing a new road or new vehicular access facility, where (i) the construction significantly increases the capacity of the airport to handle movements of passengers, freight or aircraft; and (ii) the cost of construction exceeds the threshold amount.*

The proposals contained within this MDP meet both the $25 million threshold requirement and will also significantly increase the capacity of Perth Airport to handle passenger movements arising from both consolidation at Airport Central and projected passenger increases over the coming decades.

Complementary to the MMTIs, a partial grade separation of the Airport Drive/Sugarbird Lady Road intersection, upgrade of the Airport Drive/Paltridge Road intersection and widening sections of Airport Drive to four lanes are a number of local access road adjustments as discussed in Section 8. These local access road adjustments and other modifications to the ground transport network within the Airport Central Precinct do not meet the requirements of the Airports Act detailed above in that they do not *significantly increase the capacity of the airport to handle movements of passengers.* Instead, these adjustments complement the major upgrades and new builds of MMTIs. Notwithstanding this, these road network adjustments are necessary to enable the ground transport network within Airport Central to operate efficiently and as such, are included within this MDP for context and completeness where appropriate.

It should be noted that detailed design for the inclusions within this MDP will be undertaken in conjunction with continuing stakeholder engagement to deliver facilities and levels of service to meet the expectations of airline partners and customers. While the detailed design may differ marginally from concept design, it will remain consistent with the approved MDP.

3 Project Justification

The proposed ground transport upgrades are required to support the consolidation of all Regular Passenger Transport (RPT) operations into the Airport Central Precinct. In particular, the works are required to accommodate future capacity for projected growth, without falling below International Air Transport Association (IATA) optimum levels of service for passengers arriving and departing the airport. The proposed works detailed under this MDP are required to facilitate airport consolidation and will lead to an improved passenger experience with a high quality integrated transport solution.

The proposals under this MDP are required to meet the needs of airport users and are consistent with the intent of the Ground Transport Plan contained within the Perth Airport Master Plan 2020. This plan outlines the strategy for providing efficient access to terminal facilities for passengers and other airport users.

3.1 Perth Airport Development Objectives

In May 2008, Perth Airport released its '*Vision for the Future'* which, through a staged major redevelopment, would see all RPT commercial air services consolidated in terminal facilities within the Airport Central Precinct. This Vision for the Future and airport consolidation are intrinsically linked to Perth Airport's over-arching corporate vision, which is '*Australia's Western Hub – connecting lives, businesses and communities to a world full of possibilities.* This vision guides the corporate objectives for the development and management of Perth Airport.

The objectives that guide Perth Airport's development are defined in the Perth Airport Master Plan 2020 and include:

"Develop a consolidated central terminal precinct maximising efficiency for airline partners and passengers and supporting the State and Commonwealth Government's significant investment in road and rail connections within the central precinct".

Perth Airport has already significantly progressed consolidation and is currently preparing for a $2.5 billion investment program. The proposed development outlined within this MDP are complementary to major investments from the State and Federal government to provide road and rail infrastructure. The proposed developments are necessary to facilitate continued airport capacity to meet the needs of the business, airline partners, and all airport users into the future.

3.2 Accommodating Growth

Final consolidation of all RPT services to the Airport Central Precinct is planned from December 2025. All services will then be operated from Terminal 2, Terminal 1 Domestic, and the existing Terminal 1 International, in conjunction with additional new terminal infrastructure catering for domestic and international passengers. Airport consolidation will allow Terminal 3/Terminal 4 facilities to be demolished, given the infrastructure is at the end of its useful life, causing deteriorating passenger experience and operational efficiency. This will result in approximately a 75% increase in the number of passengers using the central terminal precinct, thereby significantly increasing the demand for all passenger facilities at Airport Central (refer Figure 3-1).

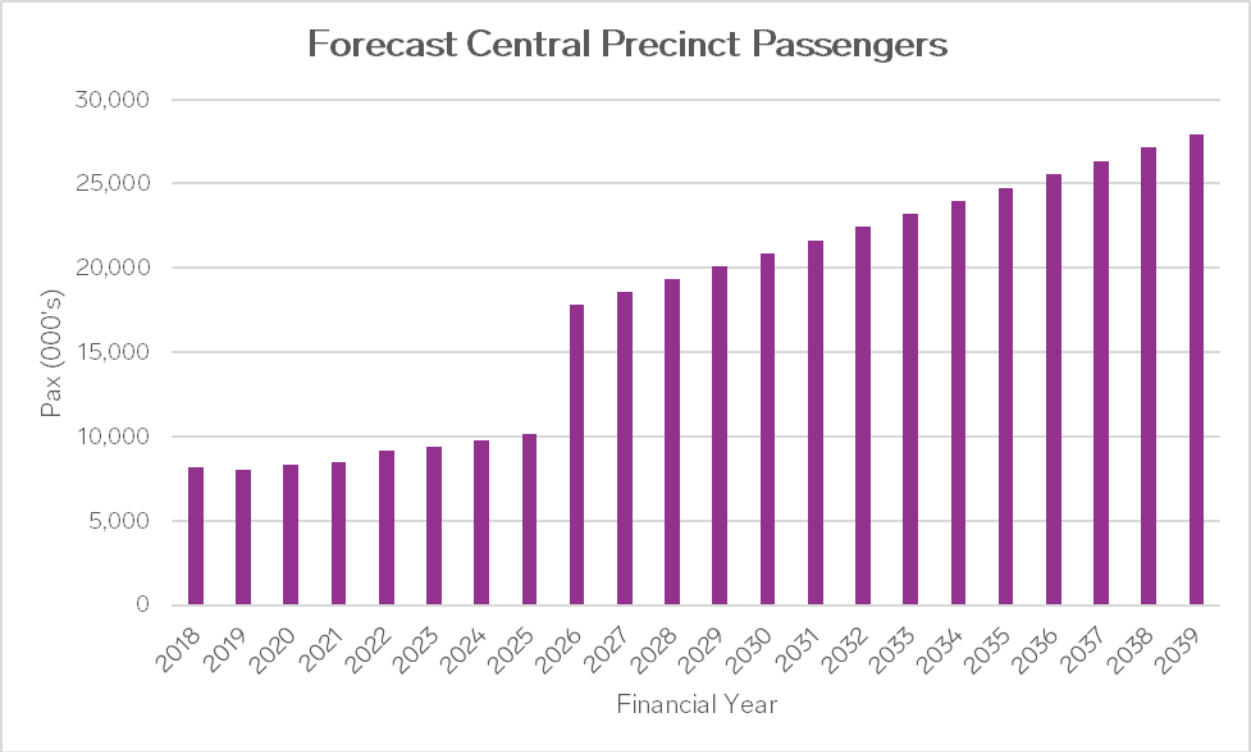

Figure 3-1 Forecast Passenger Numbers (Airport Central)

Source: Tourism Futures International Forecasts, 2019

In addition to the impact of consolidation, Perth Airport has also experienced significant international passenger growth over the last decade, with further growth of 52% forecast by Tourism Futures International (TFI) for the next decade within the Airport Central Precinct. International passengers are forecast to increase by an average of 3.8% per annum over the next 10 years as shown in Table 3-1, and more than double current numbers over the next 20 years growing from almost 4.4 million passengers per annum (mppa) to more than 9.4 mppa.

FINANCIAL YEAR	2018	2019	2020	2021	2022	2023	2024	2028	2038
Total International Passengers (million)	4.37	4.37	4.49	4.55	4.74	4.98	5.23	6.34	9.42

Table 3-1 Terminal 1 International Passenger Forecasts

Source: TFI Airport Central Precinct, April 2019

The above anticipated growth coupled with domestic passenger growth and the consolidation of Qantas Group operations to the precinct will place pressure on the ground transport network in Airport Central. As such, infrastructure upgrades as proposed within this MDP are required to prevent declining service levels for ground transport and access into the future. For example, traffic volumes on Airport Drive are projected to rise, with terminal related traffic forecast to increase to almost 48,000 vehicles per day following airport consolidation in 2025, rising to approximately 90,000 vehicles per day by 2045, while allowing for improved public transport mode share resulting from the operation of the FAL, as shown in Table 3-2. Note, the figures included in Table 3-2 take into account the introduction of the FAL.

YEAR	MILLION PASSENGERS PER ANNUM	TERMINAL RELATED TRAFFIC (VEHICLES PER DAY)
2018	7.0	30,000
2025 (Consolidation)	16.6	47,800
2035	24.1	65,300
2045	32.1	90,200

Table 3-2 Predicted Terminal Related Traffic

Source: Aurecon

Based on the above, the road traffic generated by the increase in passenger numbers will exceed the capacity of the existing terminal face road and pick up and drop off facilities and short term car parking proximate to the terminals, and will also cause unacceptable levels of congestion at intersections affecting the ability of passengers to access terminal facilities unless improvements are made as per this MDP.

3.3 Improved passenger experience and efficient operations

Passenger satisfaction with airport service quality is monitored and benchmarked by Perth Airport through participation in the Airports Council International (ACI) Airport Service Quality (ASQ) survey programme. Figure 3-2 identifies the top ten drivers of customer satisfaction at Perth Airport. For international customers, 'parking' facilities was weighted 6th in importance, and for domestic travellers 'ground transport' was weighted 10th.

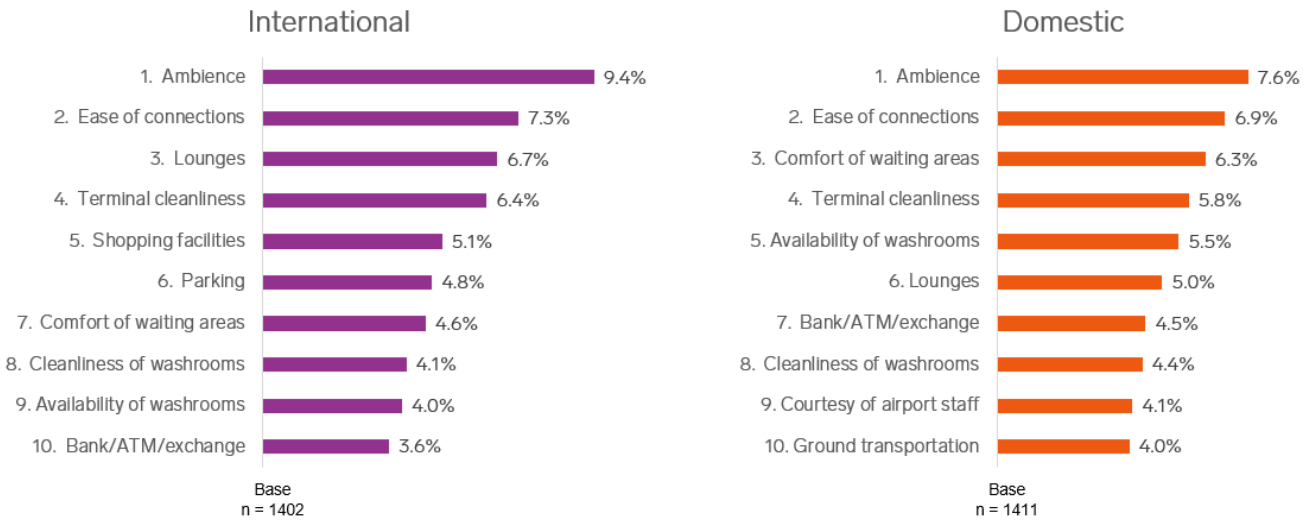

Figure 3-2 Top Ten Drivers of Customer Satisfaction at Perth Airport

Source: ACI, 2018

Limitations with regards to passenger experience relative to parking facilities and ground transport are consistently reflected in ASQ results given the importance of these facilities to overall customer satisfaction. In Perth Airport's (pre Covid) ASQ results for Q4 2019 (refer Figure 3-3), mean scores by category demonstrated that customers were least satisfied with access (ground transport and parking facilities).

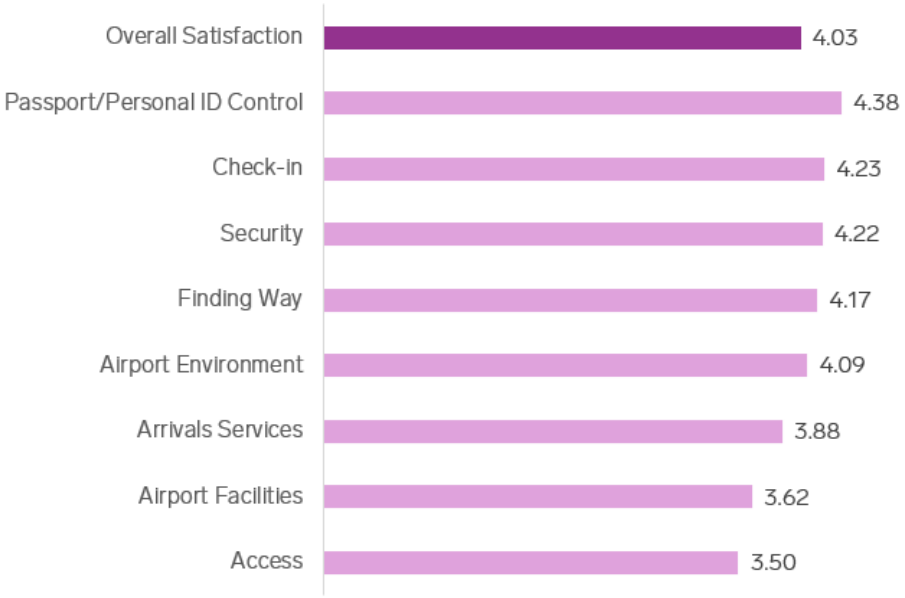

Figure 3-3 Q4 2019 Perth Airport Mean Scores by Category

Source: ACI, 2020

Given the importance of maintaining ASQ scores to ensure positive passenger experiences and the influence of parking (and presumably access to parking facilities) within these scores, it is essential that Perth Airport maintains quality access and parking facilities within the central precinct into the future, for an optimal customer experience.

3.4 Level of Service

Following consolidation, the roundabout at the intersection of Airport Drive and Sugarbird Lady Road will require upgrading to accommodate the additional volume of traffic accessing and egressing the terminals. Converting the intersection to full signal control will offer limited improvement, with a modelled level of service remaining at "F" (delays greater than 80 seconds) for peak times and traffic queues extending through adjacent intersections. Perth Airport has installed traffic signals on one leg of the roundabout to provide a short term improvement to traffic flows, but grade separation of the intersection is required to provide acceptable levels of service.

Similarly, the demand for pick up and drop off bays cannot be met by a single forecourt road configuration, instead requiring multiple lanes to satisfy future demand. Transferring pick up and drop off functions into the ground floor of each MMTI will provide sufficient capacity to meet forecast demand to 2040, and provide additional flexibility through the ability to provide pick up and drop off on multiple floors in the structures as may be required.

The demand for parking bays in close proximity to the terminals following consolidation in 2025 is predicted to be approximately 4,500 spaces. Following construction of the Airport Central Train Station, there will be approximately 1,600 bays proximate to Terminal 1 at grade which will not satisfy the predicted 2025 demand. Providing adequate facilities for pick up and drop off, taxis and rideshare within the available area would further reduce the availability of short term parking spaces close to the terminals to less than 100. If the MMTIs are not

built, the hourly and overnight short term parking demand cannot be met, while passenger services such as car rental would need to be located remote from the terminals. Construction of the MMTIs will allow each of these uses to remain conveniently located within the terminal precinct as passenger numbers increase, again, ensuring optimal customer experience. Furthermore, the MMTIs will provide facilities for the Long Term Car Park buses, thereby maintaining an appropriate level of service in close proximity to terminals.

3.5 Summary

Development proposed under this MDP is required to:

- Support the consolidation of all RPT passenger air services into the Airport Central Precinct,
- Accommodate future capacity for passenger growth,
- Provide sufficient capacity to meet forecast pick up and drop off demand to 2040,
- Provide sufficient parking bays in close proximity to the terminals to accommodate hourly and overnight parking, and car rental to 2040,
- Deliver simple, intuitive access to and from the airport for all transport modes,
- Improve customer experience by providing covered parking in close proximity to the terminals for public pick up and drop off, taxi and rideshare with continuous cover to the terminal building,
- Improve customer experience for hourly and overnight parking, and car rental, by providing covered bays, the majority of which are closer to the terminal than existing at grade bays, and
- Provide space for undercover motorcycle parking and premium parking products.

4 Project Details

4.1 Site and Land Description

The project boundary for the development subject to this MDP is approximately 94,000 m^2 plus road network adjustments and is located within the Airport Central Precinct, as shown in Figure 4-1. Land within the project boundary is currently occupied by at grade car parking and access roads.

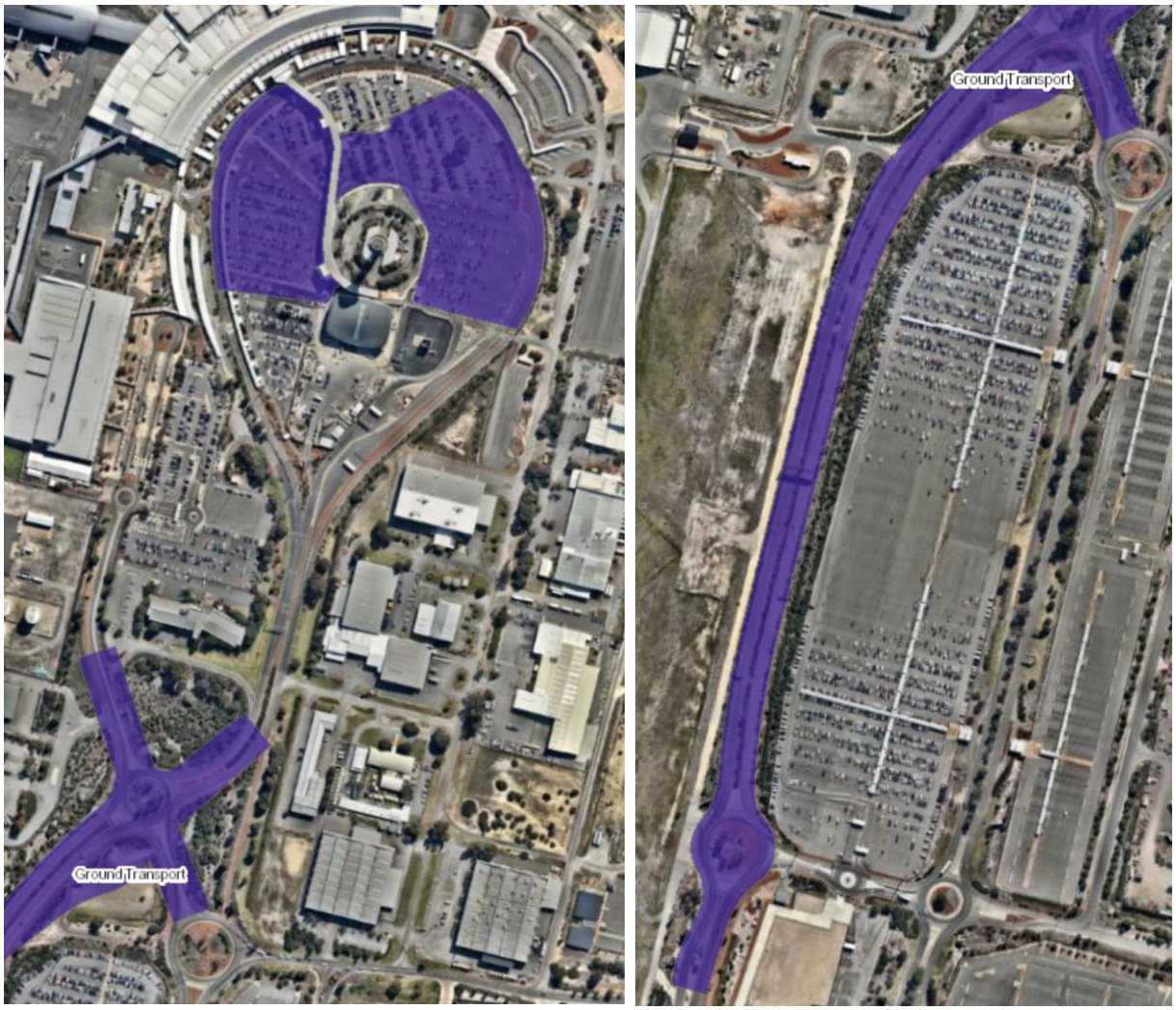

Figure 4-1 Aerial Photo of MDP Project Areas

Source: Perth Airport

Further site descriptions for environmental and heritage matters are detailed in Section 9.

4.2 Multi Modal Transport Interchanges

The MMTIs are proposed to be located within the existing Airport Central short-term car park, as shown previously in Figure 2-1. This figure shows an indicative layout only, as the location of the eastern MMTI, for example, will depend on the orientation of the new terminal and location of the terminal entry and exit doors, which have not yet been finalised and will be the subject of a separate MDP.

For the initial build of the MMTIs, it is anticipated that taxi pick up, rideshare pick up and public pick up will be provided, as well as drop off for all modes and PAPL Long Term car park buses . This will be laid out to facilitate the efficient and safe movement of passengers. It is anticipated that the floors above ground level of the transport interchange will be available for multiple levels of parking and car rental vehicles, constructed in line with business case and forecast demand.

Access to the upper floors will be via a ramp system separate from the ground floor access. Access roads within the immediate area will require upgrading and realignment to service the MMTIs and upper floors (refer Section 8 for a full description of road upgrade works proposed). Access to individual floors and different nested pricing areas will be controlled through a licence plate recognition or similar system. The parking areas will likely include active wayfinding and empty bay recognition systems to improve efficiency of operation and reduce the internal circulation driving required. Necessary ticketing and entry and exit infrastructure and technology will also be incorporated.

The eastern MMTI will have a footprint of approximately 12,000 m^2 and be constructed with a ground level plus up to eight floors (subject to the business case) to give an overall maximum capacity of approximately 3,400 parking spaces. The overall height of the structure, including any canopies on the upper level will be approximately 35m, giving a maximum level of approximately 55m Australian Height Datum (AHD). This height lies below the control tower line of sight.

The western MMTI will have a footprint of approximately 11,000 m^2 and be constructed with a ground level plus up to eight floors to give an overall capacity of approximately 3,200 parking spaces. It will be the same potential overall maximum height as the eastern MMTI, which also lies below the control tower line of sight.

The use of individual floors in the MMTI will be capable of flexible adjustment to respond to changes in transport mode share. It is anticipated that likely future changes in transport mode share may include an increased level of public transport use and further demand for rideshare products, accelerating as automated vehicles become more widely available. This would increase the demand for pick up and drop off facilities whilst reducing the demand for car parking, which can be accommodated within the structures by allocating additional floors within the MMTIs for this function, serviced by direct speed ramps as required.

Passenger access to the terminals from the proposed structures will be primarily at ground level, with an intuitive and direct route being provided from each MMTI structure to the terminal access doors. Safe and accessible pedestrian routes will be provided within the structures, including clearly marked pedestrian crossings, signage and wayfinding. Interaction between pedestrians and vehicles will be significantly reduced and pedestrian safety to access the terminals enhanced with the closure of the existing forecourt road and the relocation of passenger pick up and drop off functions into the MMTIs.

With the scheduled opening of the Airport Central Train Station in 2022, passengers will be able to access the airport by train and arrive at the terminal forecourt through the elevated Skybridge pedestrian link. This will provide an elevated route from the station to the T1 forecourt. Future connections to the Skybridge from the upper levels of the MMTIs may be safeguarded to provide a supplementary pedestrian access route to all terminals through the parking structures.

Figure 4-2 and Figure 4-3 illustrate MMTI massing to show their relationship with existing and possible future development, including T1, T2, a future new terminal, a potential hotel (north of the control tower) and the train station entrance/interface (south of the control tower).

Figure 4-2 Indicative Massing Study Showing Relationship of MMTIs to Existing and New Infrastructure within the Airport Central Precinct

Figure 4-3 Indicative Massing Study to Demonstrate Scale and Context of MMTIs

The two MMTIs are proposed to be built in a staged manner in order to service both the additional passengers within the Airport Central Precinct resulting from airport consolidation in 2025, as well as the incremental future forecasted growth of passengers.

The MMTIs will be designed in accordance with the requirements of the Australian and New Zealand Standards for Parking Facilities (AS/NZ 2890) and the relevant building codes.

Parking space allocation and access arrangements for reduced mobility users will be provided in accordance with the requirements of AS 2890.6 - Accessible (Disabled) Car Parking Requirements and AS 1428 - Design

for Access and Mobility. Parking bays for person(s) with reduced mobility will be located on each level close to the lifts with clear markings for wayfinding. This will provide the shortest and most direct journey possible for those parking and going to the terminal.

The impact of the height of the structures on protected air surfaces, navigation aids and control tower visibility has been considered and is addressed in Section 10.

4.3 Sugarbird Lady Road Grade Separation and Road Network Adjustments

Terminal 2 Access

Grade separated roads will be provided to allow traffic from the T2 forecourt and short term car park to exit the terminal precinct onto Airport Drive and Horrie Miller Drive. Improvement works, not part of this MDP, will modify the access route into T2 to provide a one way (southbound) route through the forecourt, with access to the existing car park following a similar route, as shown in Figure 4-4. This work is being carried out to improve the performance of passenger pick up and drop off while still maintaining access to the terminals.

Terminal 1 Access

The main route used for travel to the terminals, Airport Drive, will be upgraded as a result of this project and passenger access to the terminals will be modified, with pick up and drop off provided within the MMTI structures.

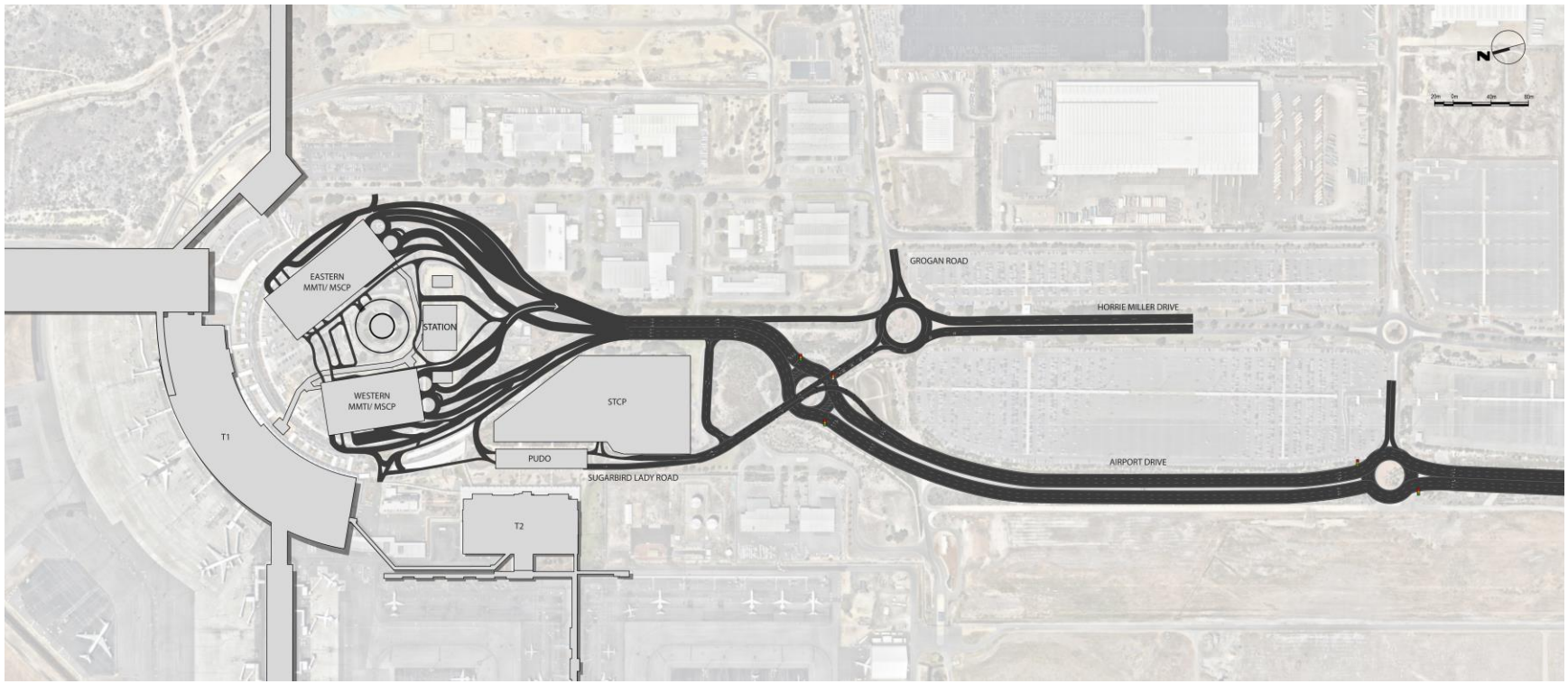

Figure 4-4 Airport Central Road Layout

(STCP = short term car park, MSCP = multi storey car park, MMTI = multi-modal transport interchange, PUDO = pick up and drop off, T1 = Terminal 1, T2 = Terminal 2)

Source: Perth Airport

4.4 Design Requirements

Key design requirements for the development are driven by ground transport access and airport user requirements, as well as providing efficiencies in ground transport operations and operational expenditure.

Multi Modal Transport Interchange key design requirements

Perth Airport has identified the following key design considerations for the MMTIs.

- Each structure to provide multi-modal transport functions at ground floor, with a multiple level car park above,
- Each structure and adjoining associated ground floor works will accommodate all transport functions, including public, taxi and rideshare drop off and pick up, car rental, short term hourly and overnight parking, premium parking, special charter vehicles (SCV), bus and coach pick up and drop off,
- Ground floor passenger drop off from long term car park buses to have minimum 5m clearance to allow unrestricted access,
- The remainder of the ground floor is planned to be approximately 3.5m in height,
- Parking vehicle flows to be separate from drop off and pick up vehicle flows,
- Internal layout able to be modified easily to accommodate changes in demand over time, with flexibility for functions to either be moved internally or relocated to other parking locations,
- Internal layout to ensure disability access and inclusion principles applied,
- Internal layout to consider safety of pedestrian movements,
- Parking structure should incorporate active bay guidance systems,
- Top level to likely incorporate a roof and solar panels, and
- Electric vehicle charging to be provided in multiple locations.

Possible Future Airport Central Hotel

Subject to the ultimate position of the MMTIs within the Airport Central forecourt, there may be available land for a future hotel development in close proximity to the terminals. Further design work for the MMTIs will define any potential land for a hotel and if deemed feasible in this location, a separate MDP will be prepared.

4.5 Design Elements

The following sub-sections provide an overview of the design intent relative to each element, with further detail to be developed through subsequent stages of design. As part of the process, Perth Airport will consider a way to recognise and/or embed Aboriginal heritage and culture in the design and build process.

Building Materials

The building materials used for the MMTIs and road network will be dependent on the type of construction and the approved final architectural design. Other variables that will determine the materials selected are the costs, sustainability, aesthetic, and safety standards and requirements, all to be refined during the detailed design phase of the D&C Contract.

Materials are likely to incorporate a combination of steel, reinforced concrete (either pre-cast, cast-in-situ, or a combination of the two), screening and other finishes that follow the Australian Standards and appropriate compliancy. Construction type and specifications of the materials will incorporate innovative concepts, consistent with the 'look and feel' of other Perth Airport buildings, providing an overall contemporary and modern feel.

Façade

Perth Airport will strive to find a balance between addressing the need for a functional transport interchange and parking facility and responding appropriately in terms of scale and visibility. Using a decorative façade similar to those shown in Figure 4-5, will not only provide visual appeal but will offer opportunities to combine architectural and aesthetic impact with additional benefits such as improving energy efficiency, reducing dust and minimising noise impact. The creative application of lighting will also ensure that the MMTIs can be appreciated at night.

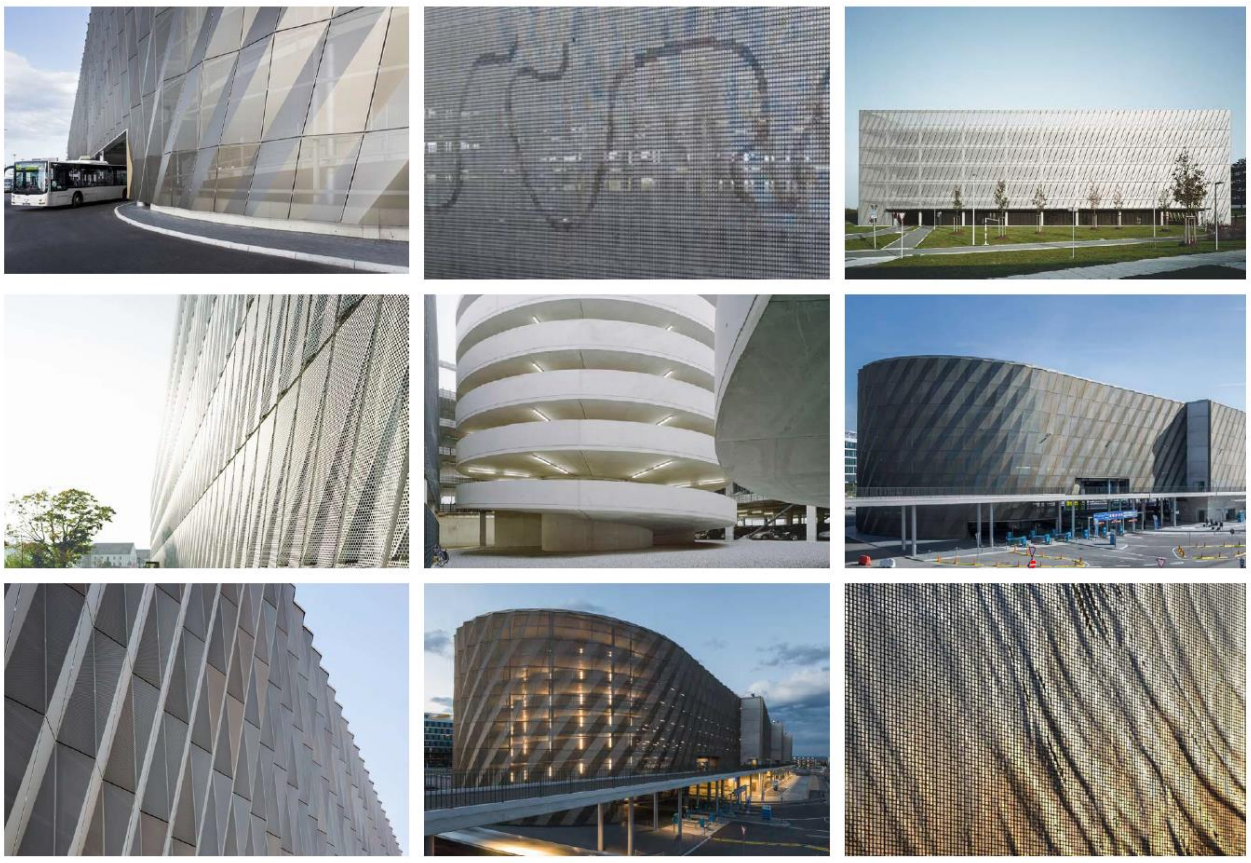

Figure 4-5 MMTI Façade Options for Consideration (indicative)

Source: Hassell

Environmentally Sustainable Design

The proposed carpark developments will consider and, where feasible, incorporate sustainability initiatives into the final infrastructure design, consistent with Perth Airports' Sustainability Strategy, and, Environment, Social, People and Governance (ESPG) Framework across the following themes:

- Energy – source, use, efficiency,
- Waste – reduction during construction, efficiency in operations,
- Water – source and efficient use,
- Materials – reduction, source, recycled content,

- Transport – efficient and effective road transport design, and
- Emissions – reduction where possible in embedded, operational and transport emissions.

The below opportunities will be incorporated where possible into the project for improved sustainability outcomes:

- Forecourt Management Systems deployed to reduce congestion
- EV charging infrastructure
- Intelligent Transport Systems including parking bay occupancy indicators
- Route Safeguarding for Potential Automated People Movement Service
- Mobility Equity
- Space proofing for EVs and Autonomous Vehicles
- Natural ventilation of car park
- Roof mounted PV
- Integrated daylight and natural lighting
- Embodied carbon review
- Use of recycled materials
- Water Sensitive Urban Design
- Inclusion targets for construction
- Alignment with Modern-day slavery policy
- Energy / water consumption smart metering

To assist with the consideration and inclusion of environmentally sustainable design elements, Perth Airport will seek independent advice from a suitably qualified expert early in the design stage to:

- Investigate sustainability opportunities related to energy, waste, water, materials, transport and emissions,
- Quantify the potential net benefits both to the environment and financially across the 'whole of life' of the asset, and
- Assess the opportunities relative to each another and the overall environmental footprint of the proposed development.

In addition, Perth Airport will align to and integrate the criteria of an applicable sustainability rating scheme, such as Infrastructure Sustainability Council of Australia (ISCA), in addressing environmental sustainability through design. Perth Airport will consider formal rating or accreditation of these works during the detailed design phase.

Landscaping

The development of the MMTIs will require the provision of new landscaping to complement the final design.

The new landscaping proposed in conjunction with the MMTIs will meet Perth Airport's objective of maximising the number of local native flora or other appropriate water-wise species, while recognising aircraft safety by planting species that do not attract birds. Where possible and appropriate, Perth Airport may investigate the option of using native flora and vegetation from within the Perth Airport estate to supplement landscaping for this project.

Perth Airport notes that landscaping and canopy cover can reduce the urban heat island effect. It offers a sustainable, high degree of amenity to airport visitors in the context of a changing climate.

Security

The design of the MMTI structures will consider safety and security objectives for both users and the airport, and both physical and electronic security will service all elements of the developments proposed under the MDP. Fixed and operable surveillance cameras and a security system will provide security coverage, and this information will be fed back to the central airport security and operations control room (Airport Control Centre).

Construction of the MMTIs will improve security management in the precinct. CCTV and security patrols will occur in a smaller and confined footprint meaning easier monitoring and quicker response times, when compared to monitoring and responding to incidents in the current at grade car parks. There will be a reduced number of entry and exit points, all with access control, minimising the chance for theft and allowing for faster identification of abandoned vehicles and those cars not being in an approved location. Additionally, the access control and Licence Plate Recognition enables banning of vehicles where necessary, to identify repeat offenders.

The Perth Airport Transport Security Program, as required by the Department of Home Affairs, will be updated to incorporate the expanded facilities.

Fire Services

The MMTI structures will be designed such that fire service requirements meet all relevant statutory and Perth Airport standards. Firefighting access provisions will remain fundamentally unaltered from the existing provisions. Access for fire vehicles will be via Airport Drive.

The Contractor will also be required to consider access for the ARFFS fire tender as part of the Construction Management Plan

4.6 Services

In addition to the measures described in the following sub-sections, opportunities for incorporating sustainability measures will be considered and developed further through detailed design.

Water Supply

Water will be supplied from the existing 300mm main supply pipe to the Airport Central Precinct, with a new supply point provided to the development from the existing main supply pipe.

The proposed development may require existing 150mm water mains to be realigned, subject to final design.

Power

Power will be provided from the existing airport supply, through an upgraded feed from the Kendal substation.

Sustainability measures will be considered and incorporated into the building design and fit out to reduce the overall power demand; refer Section 4.5 ‘Environmentally Sustainable Design’.

An independent emergency power backup system will be provided to ensure uninterrupted operation of the facility, through a dedicated generator.

Gas

Gas supply, if required, will be provided through a connection to the existing gas supply servicing the Airport Central Precinct.

Sewerage

The proposed development may require existing 200mm and 100mm sewerage pumping mains and a 225mm gravity sewer to be realigned, subject to the final design.

Any wastewater generated within the development, such as from Level 6 amenities, will discharge to the realigned gravity sewer.

Stormwater

The concept for Perth Airport's stormwater design criteria relating to aeronautical infrastructure is to protect all runways, taxiways and terminals from a one per cent annual exceedance probability storm event. Access roads to car parks and terminals are designed for a two per cent exceedance probability storm event because the main off-airport arterial roads feeding traffic to the airport are also designed to that criteria.

The northern project area for this MDP is an existing paved car park with a piped drainage network conveying stormwater to the Northern Main Drain, which ultimately flows into the Swan River. The 'Perth Airport – Non-Aviation Development Design Guidelines' document will be utilised to help inform the detailed drainage design for the MMTIs. This document specifies design objectives such as considering an integrated water cycle approach, minimising water pollution and environmental water balance as two examples from the drainage section of the document, plus having acceptable design criteria such as utilisation of water sensitive design elements.

Rainfall runoff from Airport Drive in the road upgrade southern area currently drains off into vegetated swales that help to provide improved water quality. This will continue to occur with the road upgrades. There will be a relatively small loss of detention volume which will have to be replaced in line with the Perth Airport Master Drainage Strategy (MDS), which has a whole of airport approach to managing stormwater on the estate.

The roundabout at the intersection of Sugarbird Lady Road and Airport Drive currently sits in the middle of a vegetated stormwater detention area and the rainfall runoff from the road pavement in that area drains into that detention area. The outflow from the basin drains into an open swale on the east side of Horrie Miller Drive where it is exposed to more vegetation prior to the MMTI area. This will continue to occur.

The stormwater design for the whole project will be integrated with the MDS design concepts so that the project's stormwater outflows are integrated with the whole of airport strategy which includes limiting peak outflows from the estate in order to manage the risk of personal harm, environmental harm, physical damage to infrastructure and impacts to aviation and non-aviation operations. Additional details can be found in the Perth Airport 2020 Master Plan.

The whole of airport approach includes upgrading the Northern Main Drain (not part of this project) with the open channel sections and proposed detention storages being vegetated to help improve water quality prior to discharge from the estate.

Telecommunications

The MMTIs are both located above existing Airservices Australia communications infrastructure and common use ducts for communications, currently in use by Telstra and Vocus. Through discussion with Airservices Australia and other user groups, the MTTIs will be designed so that the communications ducts can remain in situ, with minor modifications subject to final design.

Required telecommunications for development proposed under this MDP will be connected to the existing telecommunications system servicing the Airport Central Precinct.

Excavation

Prior to any excavation or surface penetrating activities, an excavation permit is required (applied for and issued by Perth Airport). The excavation permit process details the location, extent and method of the proposed excavation or surface penetrating activities, and reviews these against the location of all existing subterranean services, including the FAL tunnels and station, communications cabling and infrastructure, to ensure they will not be disrupted by the proposed works. This requirement will be a contractual obligation for the main contractor.

Waste Management

Waste management and disposal for the proposed development may initially be provided through the existing logistics facility, which centralises the collection and storage of waste prior to disposal. The management of this facility will be undertaken by Perth Airport to minimise operational impacts and coordinate vehicle movements within the Airport Central Precinct.

The premise for waste collection is to reduce possible conflict between heavy vehicles, pedestrians and passenger ground transport. Source separation of recyclable material will be provided where practical.

Occupational Health and Safety

Occupational health and safety requirements within and adjacent to the proposed development site will be in accordance with all relevant Perth Airport, Commonwealth and State legislation and associated regulations and policy.

4.7 Equity of Access

Provisions for people with reduced mobility accessing the MMTIs will comply, as a minimum, with the applicable codes, including the Premises Standards and Disability Access provisions of the *Disability Discrimination Act 1992* and the National Construction Code 2016.

Perth Airport strives to ensure all facilities, information and services are inclusive and accessible to all members of the community, with commitment to a range of initiatives, developed under an overarching corporate Disability Access and Inclusion Framework.

4.8 Construction Activities (Timeframes)

Construction works will need to be scheduled to ensure that passenger access to the terminals is not unnecessarily restricted and the maximum number of short term parking bays close to the terminals remain available to the public. It is anticipated that the first MMTI will commence construction in 2022 and all access roads and other related road network upgrades required for this MMTI will be completed by mid-2024, at which time ground transport functions servicing the terminals within the existing at grade short term carpark and adjacent can be relocated into the development. Work on the second MMTI may then commence. It is anticipated that the grade separation of Airport Drive/Sugarbird Lady Road intersection and the upgraded Airport Drive/Paltridge Road intersection will be completed prior to Airport Central consolidation.

4.9 Forrestfield-Airport Link (FAL)

The MMTIs and their associated ramps and access roads will require construction within the zone of influence of the Public Transport Authority (PTA) infrastructure constructed for the FAL. The acceptable ground loadings for the Airport Central Train Station and tunnels have been developed on the understanding that structures such as car parks and roads would be built in the area to service the terminals. The design and construction of

the MMTIs will be carried out in accordance with the requirements of the PTA Protection Zone Limitations for FAL – Perth Airport Estate.

The FAL line operates with its own separate High Voltage power supply. All power infrastructure relating to this project will be designed and located to meet the required offset.

All ongoing issues resulting from the presence of the FAL on the airport estate will be addressed in a jointly agreed Operating Agreement. This will address management of all factors that may impact the other party, such as emergency response procedures and work methods for carrying out scheduled and unscheduled maintenance.

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 Central Ground Transport Upgrade MDP is consistent with the applicable legislation and the associated Perth Airport Master Plan 2020, approved Land Use Plan and executed lease, as follows.

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 and 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 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).

As outlined in Master Plan 2020, Perth Airport has undertaken significant investment towards the consolidation of all RPT passenger services into the Airport Central Precinct since the release of its 'Vision for the Future' in May 2008. As previously detailed, the proposed development outlined within this MDP is a critical component in facilitating the planned consolidation.

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 Airport Central Precinct. The development of Airport Drive, connecting to the Leach Highway/Tonkin Highway interchange was implemented to provide a primary access for all commercial passenger terminal related traffic to Perth Airport following consolidation, with planned upgrades to align with delivery of terminal developments. The Ground Transport Plan within Master Plan 2020 also outlines the intent for the progressive replacement of existing at grade car parks with multi-storey carparks to meet demand, and to provide facilities for ground transport services and functions (that is, MMTIs).

Specifically outlined in Master Plan 2020, planning for the precinct includes the following future facilities:

- International terminal expansion and new terminal,
- New aprons for aircraft parking,
- Terminal forecourt roads for passenger drop off/pick up and associated access roads,
- Multi-storey car parks, incorporating drop off and pick up areas on multiple levels,
- Ground transport systems including:
  - The planned provision of the Forrestfield-Airport Link rail project and Airport Central Train Station,
  - A future automated mass transit system,
- Additional commercial development including offices, retail and hotel accommodation,
- Office accommodation for airline partners, airport administration, international air freight operations, and
- Fuel storage facilities.

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

Perth Airport Land Use Plan

Section 3 of the 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.

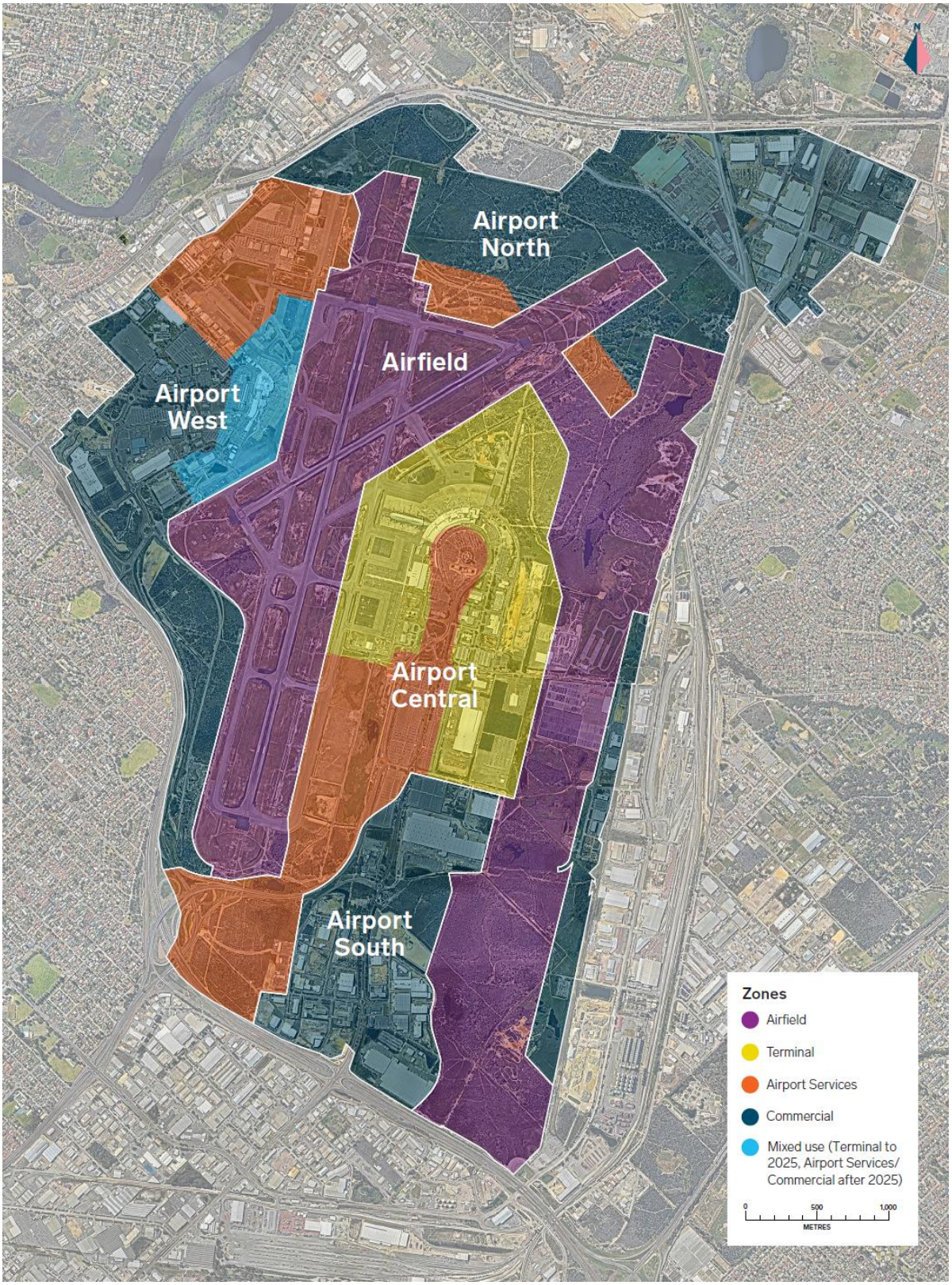

Figure 5-1 Perth Airport Precincts and Zones

Source: Perth Airport Master Plan 2020

The proposed development is located within the Airport Central Precinct and falls within the 'Airport Services' zone, except for a small portion of the proposed Sugarbird Lady Drive upgrade which falls within the 'Terminal' zone. As shown in Table 5-1, the objectives of the Airport Services zone include the provision of integrated car parking and ground transport facilities that support efficient access to the airport and terminals. The proposed development, consisting of the two MMTI structures, partial grade separation and road network upgrades, is consistent with these zone objectives on the basis it will provide integrated car parking and ground transport facilities to support the effective operation of upgraded terminals and fulfils the overarching objective of Master Plan 2020 towards consolidation at Airport Central. The proposed land use of 'car park' can be approved within the Airport Services zone as shown in Table 5-1.

OBJECTIVES

To provide a range of aviation support activities, services and facilities for use by airline partners, passengers, government agencies, freight businesses and transport providers
To provide integrated car parking, hotel accommodation, commercial and retail uses that support the airport
To provide attractive and functional gateway to the airport
To provide freight and logistics land use opportunities in appropriate locations
To provide ground transport facilities and services for efficient access to the airport and terminals

DISCRETIONAL USE

Animal establishment	General aviation and support facilities	
Automotive charging station	Health centre	Passenger terminal
Aviation activity	Hostel	Service station
Aviation support facilities	Hotel	Serviced apartments
Car park	Industry	Shop
Child care premises	Medical centre	Small bar
Consulting rooms	Motel	Telecommunications
Convenience store	Motor vehicle repair	Tourist development
Corrective institution	Motor vehicle, boat or caravan sales/hire	Transport depot
Education establishment (training)	Motor vehicle wash	Utilities and infrastructure
Fast food/takeaway	Navigational aids	Warehouse
Fuel depot	Office	

Table 5-1 Airport Services Zone, Permissible Land Uses Table

Source: Perth Airport Master Plan 2020

The relevant 'Terminal' zone objective from Master Plan 2020 is "to provide for the operation, use and development of land for passenger and baggage processing and aircraft aprons, terminal and ground transport

interfaces, enabling the airport facilities to operate safely, securely, efficiently and cost-effectively." This MDP is consistent with the Terminal zone objectives in that it provides for ground transport facilities which will improve safety and efficiency for passenger movements.

5.4 Major Development Plan

Section 89(1)(h) of the Airports Act requires Perth Airport to seek approval, via an MDP, for a development which involves constructing a new road or new vehicular access facility, where the construction significantly increases the capacity of the airport to handle movements of passengers, freight or aircraft; and the cost of construction exceeds the $25 million threshold amount.

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 B 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 30 April and 24 July 2020.

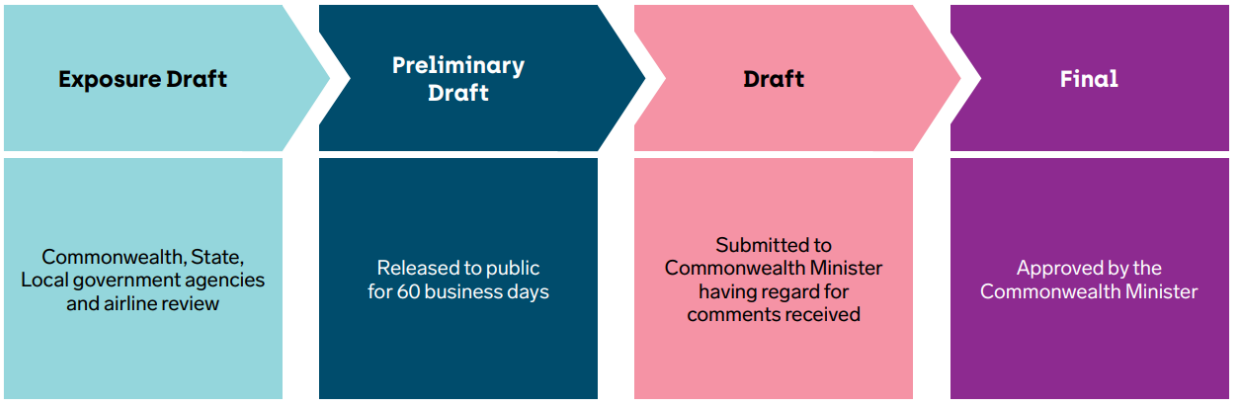

Figure 5-2 Major Development Plan Process

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*.

Perth Airport's substantial program of investment in aviation infrastructure is consistent with the company's obligations under the lease to develop the airport, and in doing so, have regard to:

- The actual and anticipated future growth in, and pattern of, traffic demand for the airport site,
- The quality standards reasonably expected of such an airport in Australia, and
- Good business practice.

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, as the proposed works provide capacity for the anticipated future growth in passenger numbers and supports the continuation of the use of the site as an airport.

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 Master Plan 2020, exist on the proposed development site.

Pre-Existing Sub-Leases

The proposed development will impact the Car Rental Operating Licences and Airport Security Parking lease that are located within the existing T1 short term carpark. The Ground Transport licences are currently on holdover and will be under negotiation to relocate the car rental ready bays, booths and Airport Security Parking bays and booths to a mutually agreed location that may be within the MMTI developments, or at another location suitable for their operations.

Furthermore, the PTA sub-lease is located within the vicinity of this MDP boundary. Consultation with PTA is undertaken on a regular basis and will continue throughout the design development and construction phases of the project (refer also Sections 4.9 and 8.2).

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 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 is working with the WAPC to pursue rezoning to be consistent with the remainder of the estate. Perth Airport has been advised the rezoning request will likely be considered as part of an omnibus amendment in 2021. Although the land zoned 'Urban' under the MRS has a different classification than the land reserved for 'Public Purposes', its use and intent is consistent with that of the reserve. The MRS does not place any limitations on permissible land uses for reserved land and this anomaly does not have any real impact on planning or development on the estate. The MRS, and the Perth Airport estate in the context of the MRS, are shown in Figure 6-1 and Figure 6-2.

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.

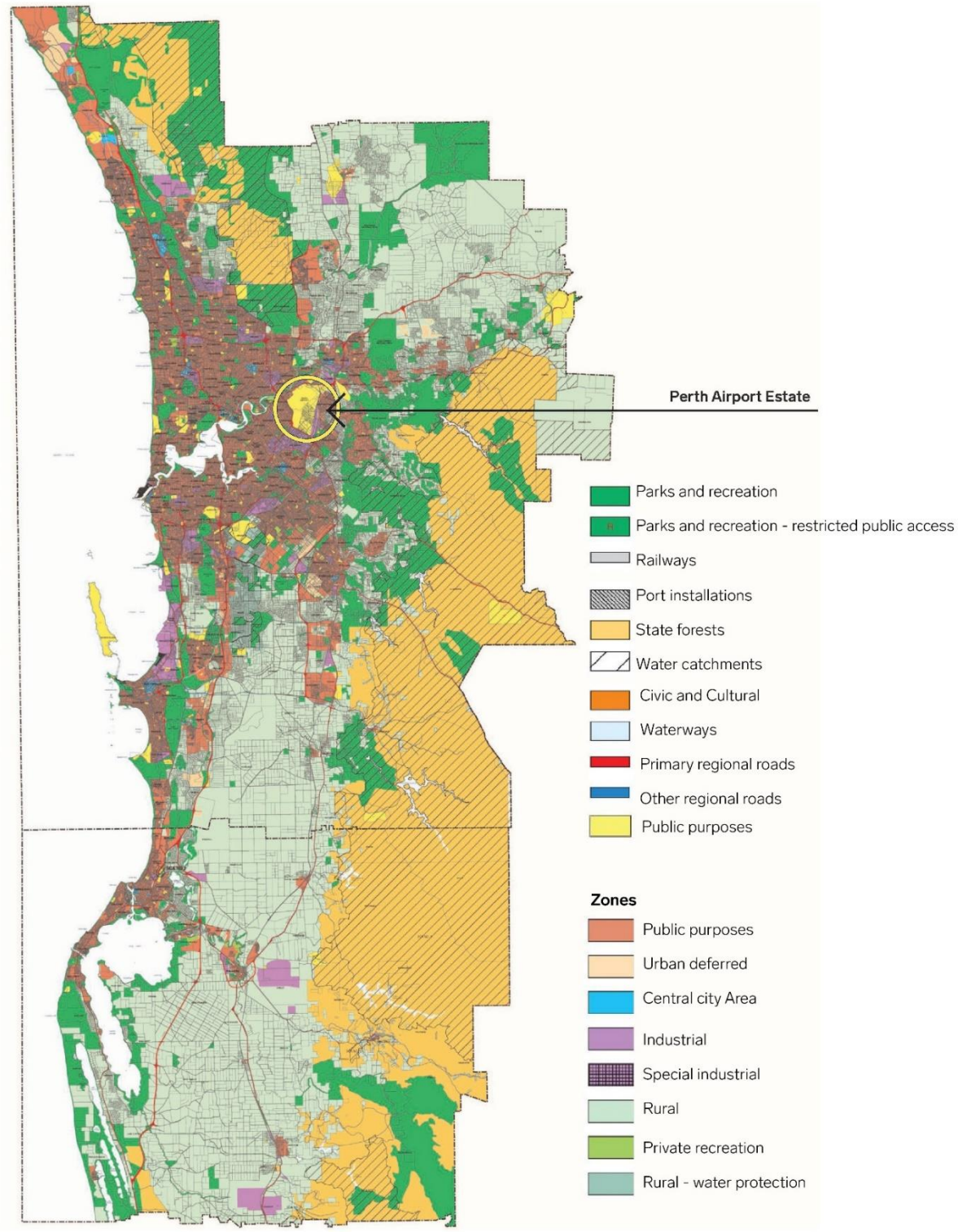

Figure 6-1 Metropolitan Region Scheme Map

Source: Western Australian Planning Commission

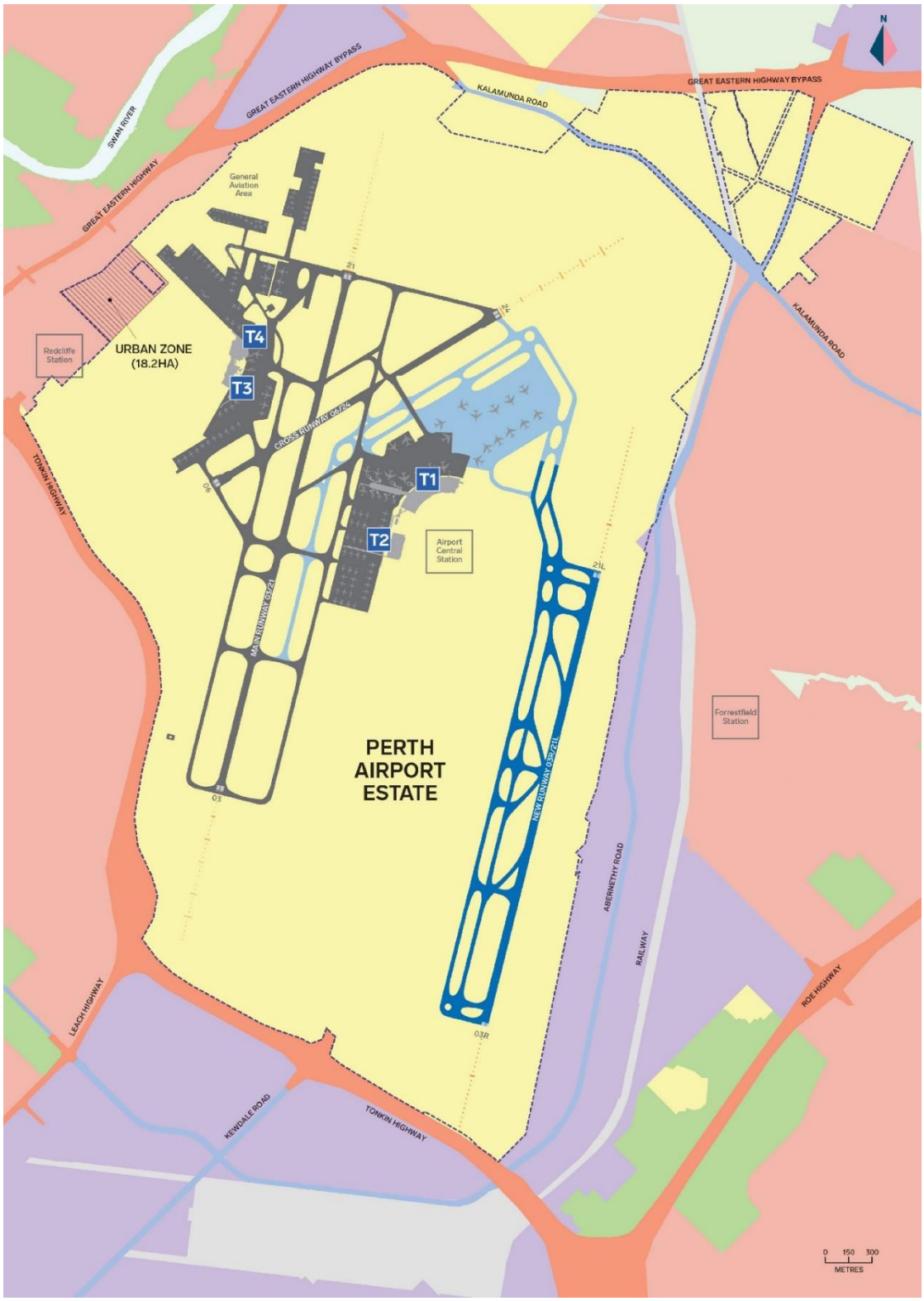

Figure 6-2 Perth Airport in the Context of the MRS

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 detailed within this MDP is consistent with the intent of the State Aviation Strategy through ensuring sufficient infrastructure is available to meet the needs of Western Australia with regards to air travel.

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.

The proposed development is consistent with and supports the intent of the State Government through the State Planning Strategy 2050, given the project will provide the infrastructure required for passengers to support the growth of tourism and 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 to make the best use of existing and proposed infrastructure.

Perth Airport is referenced in the Central, North-East, North-West and South 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.

The proposed development outlined within this MDP is consistent with the intent of the Perth and Peel @ 3.5 Million plan, which supports the growth of the airport and will generate additional employment through construction. Employment will also be supported during operations via improved access to ridesharing services, upgraded facilities for hire car operators and improved access to terminals.

Perth and Peel @ 3.5 Million includes the long-term planning for transport infrastructure for the Perth metropolitan region. A central principle of Perth and Peel @3.5million is the Government's METRONET project and the objective of shifting the modal split away from private vehicles to public transport. The Forrestfield-Airport Link, which interacts with the MDP area (refer Sections 1.4 and 5.5), forms part of the rail network upgrades that are proposed to cater for Perth's population as it approaches 3.5 million. The Forrestfield-Airport Link, and therefore Perth and Peel @3.5million, is consistent with, and complements the proposed works in the MDP (in particular the road upgrades) through encouraging the use of public transport to access the Airport Central Precinct. This is anticipated to reduce pressure on the road network, which will experience increased numbers of vehicles when consolidation occurs, and organically over time as the airport grows.

6.1.5 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 airport. 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 proposed MDP is consistent with the intent of SPP 5.1 given that the development will not impact on the existing ANEF, as endorsed under Master Plan 2020 and as referenced within the policy.

6.1.6 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 tourism, primary industries and the resource sectors. The proposed MDP is consistent with and supports the delivery of the vision outlined in Diversify WA, through providing increased capacity for growth and economic development opportunities.

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.
- 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.

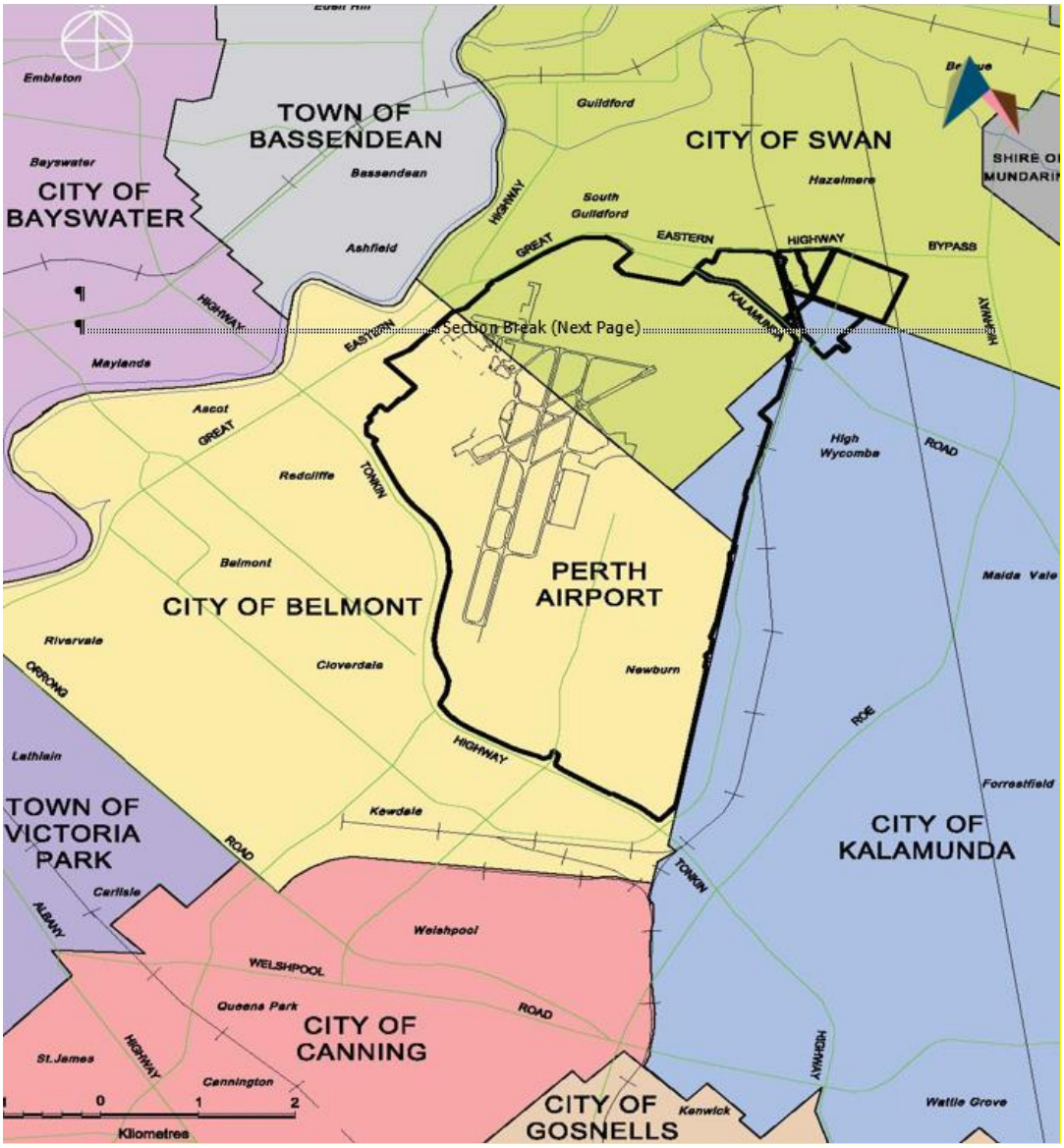

Figure 6-3 Location of Perth Airport – Local Government Areas

Source: Perth Airport

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

The proposed development is located entirely within the City of Belmont Local Government area. Notwithstanding this, the planning schemes for all three Local Governments surrounding the airport estate have been considered in relation to the proposed development as follows.

6.2.1 City of Belmont

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).

Under LPS 15, approximately 33 per cent of the City of Belmont is reserved for 'Public Purposes', which predominantly covers the airport estate, 22 per cent is zoned 'Residential' and seven per cent zoned 'Industrial'. LPS 15 incorporates provisions relating to land located within the ANEF to ensure referral to Perth Airport in line with State Policy, and to ensure the planning and design of new developments within the City considers, amongst other things, aircraft noise exposure and protected airspace.

The proposed development will be located within the existing Airport Central Precinct, bounded by the Airport West, Airport South and Airport North precincts of the estate with no direct interface to the surrounding residential or industrial developments in the City of Belmont. In this regard, the proposed development is consistent with the City of Belmont LPS No. 15.

6.2.2 City of Swan

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', '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.

The proposed development will be located within the existing Airport Central Precinct, bounded by the Airport West, Airport South and Airport North precincts of the estate with no direct interface to the surrounding residential or industrial developments in the City of Swan. In this regard, the proposed development is consistent with the City of Swan LPS No. 17.

6.2.3 City of Kalamunda

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.

The proposed development will be located within the existing Airport Central Precinct, bounded by the Airport West, Airport South and Airport North precincts of the estate with no direct interface to the surrounding residential or industrial developments in the City of Kalamunda. In this regard, the proposed development is consistent with the City of Kalamunda LPS No. 3.

6.2.4 Eastern Metropolitan Regional Council Economic Development Strategy 2017-2021

The Eastern Metropolitan Regional Council (EMRC) represents six member Councils located in Perth's Eastern Region and encompasses the land upon which Perth Airport is situated.

The EMRC economic development strategy has identified four priority areas. A priority area relevant to the development of the MDP is included below:

Priority Area 2: Education and Employment Opportunities

The Strategy identifies a goal to develop a skilled and confident workforce aligned with current and future job opportunities within the region. In order to achieve this, the Strategy indicates the importance of maximising the employment of local people by local businesses and providing enhanced job opportunities for Eastern Region residents. The construction and subsequent operation of the MMTIs as outlined in this MDP will generate these enhanced employment opportunities for local residents, who will also benefit from shorter travel times to high quality employment opportunities.

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 the airport estate.

7 Socio-Economic Assessment

Perth Airport conducted an assessment which analysed the benefits of developing the land for the purpose identified within this MDP. The benefits were analysed for information to enable community and Stakeholder consideration. The assessment considered the economic (output and employment) and social (tourism and civil aviation user) benefits which could be created. The assessment focussed on the ultimate scenario of both MMTIs being constructed and operational.

7.1 Civil Aviation Users Benefit

The distance between major Australian national population centres, and its proximity to Southeast Asia makes 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 both the primary airport in Western Australia and the hub through which nearly all regional aviation is serviced.

Perth residents rely on air transport more than most other Australians in that they travel by air more frequently and over longer distances for work, education, recreation, health and to visit friends and relatives. The bulk of the State's high-level services, including health, education, retail and recreational services, are located within the Perth metropolitan area. The scale of the metropolitan population and the services in Perth, in comparison to the low and scattered regional population, have resulted in the city becoming the primary source of regional workers for FIFO operations. Additionally, the lack of services in regional and remote areas of the State mean that these residents at various times need to access Perth for services, often via air travel.

There are currently more than 50 intrastate, interstate and international destinations served by Perth Airport which link communities in regional Western Australia to the rest of Australia and the world and, to the largest extent possible, enables them to enjoy the same opportunities as Perth residents to engage with the rest of Australia and the world.

State Government planning anticipates that the number of people living in the Perth region will increase from just under 2.4 million today to between 3.5-4.6 million by 2050. Perth Airport's capacity to support the increasing demand for air travel is crucial to the growth of the State's population.

With total domestic, international and general aviation passengers using Perth Airport forecast to grow from 14.29 million annually in 2018 to 26.88 million in 2038, the number of aircraft movements is expected to increase from 128,309 in 2018 to 192,926 movements in 2038 (TFI, April 2019).

The construction of the development proposed under this MDP will support a future upgrade to terminal services that will provide civil aviation users access to facilities that are of a global standard by enhancing the passenger experience for customers as well as assisting airline partners with efficiency of passenger movements, namely access to the terminals.

In particular, the construction and operation of the development proposed under this MDP, as a component of the overall capital works plan, will result in improved parking facilities and travel efficiency for users and indirectly, airlines.

The development will provide an increased number of new, covered parking facilities in close proximity to the terminal forecourt. This improved user experience will extend to airline passengers, rental cars, buses and ride-share. This supports airline partners in providing their customers arriving and departing from the airport, with quality and conveniently located facilities for easy access to the terminals.

7.2 Tourism Benefit

Air services are the lifeblood of the State's tourism industry and the employment it supports. Tourism Research Australia data shows that 95 per cent of visitors that travelled to Western Australia used air transport.

Data collected by the International Visitor Survey show that there were 719,000 international visitors to Perth and 967,000 international visitors to Western Australia in the year ended 31 March 2018. During this time, these visitors spent a total of $2.28 billion in the state, of which $2.11 billion was spent in Perth.

Furthermore, interstate and intrastate overnight visitors spent a total of $3.06 billion in Perth and $3.64 billion in regional Western Australia (including airfares). Day visitors spent a total of $1.17 billion in Perth and $802 million in regional Western Australia.

This information is supported by data published by Tourism Research Australia which showed that in 2016, international visitors to Perth spent an average of $2,288 and international visitors to regional Western Australia spent an average of $1,338. Domestic visitors to Perth spent an average of $804.

Based on this spending and the requirements for all passengers to access terminals (both incoming and outgoing passengers), it can be concluded that the proposed development within this MDP will enable tourism expenditure through improved quality and efficiency of access and enhanced customer experience.

7.3 Employment

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 State's gross regional product (GRP). The number of non-aviation related full-time employees is estimated at 6,770 and they contribute approximately $1.274 billion to 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).

The works contained within this MDP are estimated to cost $368 million, which will be injected into the local economy. This will lead to an estimated $1.171 billion in total output for the broader economy. This large multiplying effect on total output describes the significant amount of industry-to-industry inputs within the construction sector, such as purchasing of materials that must be manufactured within Australia.

The project is expected to create 255 full-time employment opportunities in the local area, each year. In addition to indirect employment of 516, the total impact of the construction phase of the project is estimated to be 771 full-time equivalents each year in the broader economy, as shown in Table 7-1 below.

	Direct	Indirect	Total
Construction Employment (full-time equivalents, yearly, for a 3-year period)	255	516	771

Table 7-1 Construction Employment from Airport Central Ground Transport (for three years)

Source: Pracsys,. 2020

As the final design of the MMTIs has not been confirmed, to estimate the operational employment the project will generate throughout its life, three benchmarks were chosen to model the difference in technology, staffing levels and amenities. These local benchmark developments are outlined in Table 7-2 and were chosen as they represent a diverse mix of business models.

Benchmark (car park development located in Perth)	Staff per 1,000 car bays
High Employment	7.1
Medium Employment	2.1
Low Employment	0.26

Table 7-2 Benchmark data used for Operational Employment for Airport Central Ground Transport MDP

Source: Pracsys, 2020

The impact of the operation of the proposed MMTIs were analysed using the above ratios. As shown in Table 7-3, the project is estimated to generate significant economic output and between two and 47 direct full-time equivalent opportunities. When these employment data are combined with the estimated two to 58 indirect full time equivalent employment opportunities, the proposed operation of the two MMTIs equate to a total of between 4 to 105 full-time employment opportunities (Pracsys, 2020).

Benchmark	Direct Employment	Total Employment	Direct Output	Total Output
High Employment	47	105	$9,768,000	$27,235,000
Medium Employment	14	31	$2,854,000	$7,959,000
Low Employment	2	4	$358,000	$998,000

Table 7-3 Operational Benefits from Airport Central Ground Transport (for three years)

Source: Pracsys, 2020

The level at which operational employment levels are set for this project will depend on the final mix of technology, staffing, security, and additional amenities (such as valet) chosen by Perth Airport.

It should also be noted that the effectiveness and success of the Western Australian resource sector (which represents 55 per cent of Australian Annual National Income), is dependent on the FIFO system of employment. The proposed development outlined within this MDP will support FIFO workers through improved access to their essential flights required to access their place of employment.

The Chamber of Minerals and Energy of Western Australia (CMEWA) estimates that the number of direct employees in the Western Australian resource sector was approximately 141,000 in 2020. CMEWA also estimates that FIFO workers account for 50 per cent of the resource sector workforce in Western Australia, with the majority of these workers residing in the Perth and Peel regions. Perth Airport estimates (developed by TFI) indicate that FIFO accounts for approximately 70 per cent of all intrastate passengers, the majority of these being regular FIFO employees.

The additional ground transport capacity provided by the development proposed under this MDP, as a component of the overall capital works plan for Perth Airport, is critical to supporting future growth of the fly-in fly-out workforce, both domestically and internationally. The proposed upgrades to the ground transport network will improve access to terminals, alleviate potential bottlenecks caused by the forecast demand for aviation services and meet the additional capacity expected from the FIFO employment sector.

7.4 Economic Contribution

Perth Airport's direct contribution of economic activity to the Western Australian economy is about 1.4 per cent of gross state product (GSP). The construction of the developments described in this MDP will support the broader economic contribution of Perth Airport to Western Australia's economy and will assist in enabling the airport to achieve its desired function under State policy as the airport for Perth (see also Table 7-3).

7.5 Conclusion

The development proposed within this MDP for Airport Central ground transport upgrades will provide a number of benefits including civil aviation user benefits, improved access for tourists, significant employment opportunities, and airline partner benefits such as improved access and facilities to meet the expectations of customers and contribute to the on time performance (OTP) of their services. The proposed works are not only essential to facilitating final consolidation of all RPT services into Airport Central, but will also strongly contribute to the Western Australian economy both directly through construction and immediate job creation, and indirectly in maintaining sufficient airport capacity to meet forecast growth to support industry.

8 Traffic Assessment and Ground Transport Infrastructure

Section 91 (ga)(i) of the Airports Act requires that an MDP address the likely effect that a proposed development will have on traffic flows at the airport. 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.

Airport Drive and the connections to the external regional road network were designed to accommodate both consolidation of all RPT operations to Airport Central and the growth in terminal traffic as predicted by the TFI passenger forecasts in Master Plan 2020. The FAL project and the Gateway road upgrade project have also both been designed to support the consolidation of all RPT services, demonstrating the significant State and Commonwealth investment already made towards delivering Perth Airport's vision.

The works proposed in this MDP are intended to accommodate existing traffic users within the airport. They will allow for planned growth and the changes as a result of consolidation of all RPT services into the Airport Central precinct as identified in the Perth Airport Masterplan 2020. Once operational, the ground transport upgrades will not generate additional traffic.

8.1 Internal Airport Roads

The consolidation of all RPT services from T3 and T4 into Airport Central will increase the traffic in the precinct by approximately 75% and will require upgrades of Airport Drive and its intersections with Paltridge Road and Sugarbird Lady Road to accommodate the additional traffic. Both intersections are roundabout controlled and will require upgrading as shown in Figure 8-1 and Figure 8-2. Sugarbird Lady Road will require grade separation for T2 traffic, and possibly other airport traffic, whilst traffic modelling has demonstrated that Paltridge Road can be signalised to meet anticipated traffic volumes until at least 2030. Additional lanes will also be required on sections of Airport Drive to provide adequate road capacity and intuitive wayfinding for passengers accessing airport facilities. As detailed in Section 4.8 Construction Activities, the construction of these works will be scheduled to ensure that access to the terminals is maintained at all times and the road infrastructure, traffic management measures and wayfinding are adequate for the volume of traffic using it to ensure passenger access to terminals is not impacted during construction.

8.1.1 Airport Drive / Paltridge Road Intersection

The intersection of Airport Drive and Paltridge Road will be upgraded with additional lanes and signal control to balance and increase the throughput of traffic. An additional lane will also be provided on Airport Drive between the Paltridge Road and Sugarbird Lady Road intersections. The roundabout will continue to serve as access to the car parking on Paltridge Road and as a link to Horrie Miller Drive.

In the longer term, the intersection will require full grade separation, with traffic heading to and from the terminals along Airport Drive being elevated over the roundabout, which will remain at grade.

Figure 8-1 Airport Drive / Paltridge Road Intersection

Source: Perth Airport

8.1.2 Airport Drive / Sugarbird Lady Road Intersection

To accommodate the projected growth in traffic accessing the Airport Central Precinct, it will be necessary to grade separate the traffic at the Airport Drive / Sugarbird Lady Road roundabout. To achieve this, it is the intent that the exiting traffic from T2 will be elevated over the Airport Drive roundabout, before departing via Airport Drive or Horrie Miller Drive.

The traffic flows in the T2 forecourt will be converted to a one-way (southbound) flow which will complement the grade separation. This will not impact the availability of pick up and drop off spaces in the forecourt, but will improve the efficiency and operation of the area for those accessing T2. Access into and out of the T2 short term car park will also be modified to match this traffic flow.

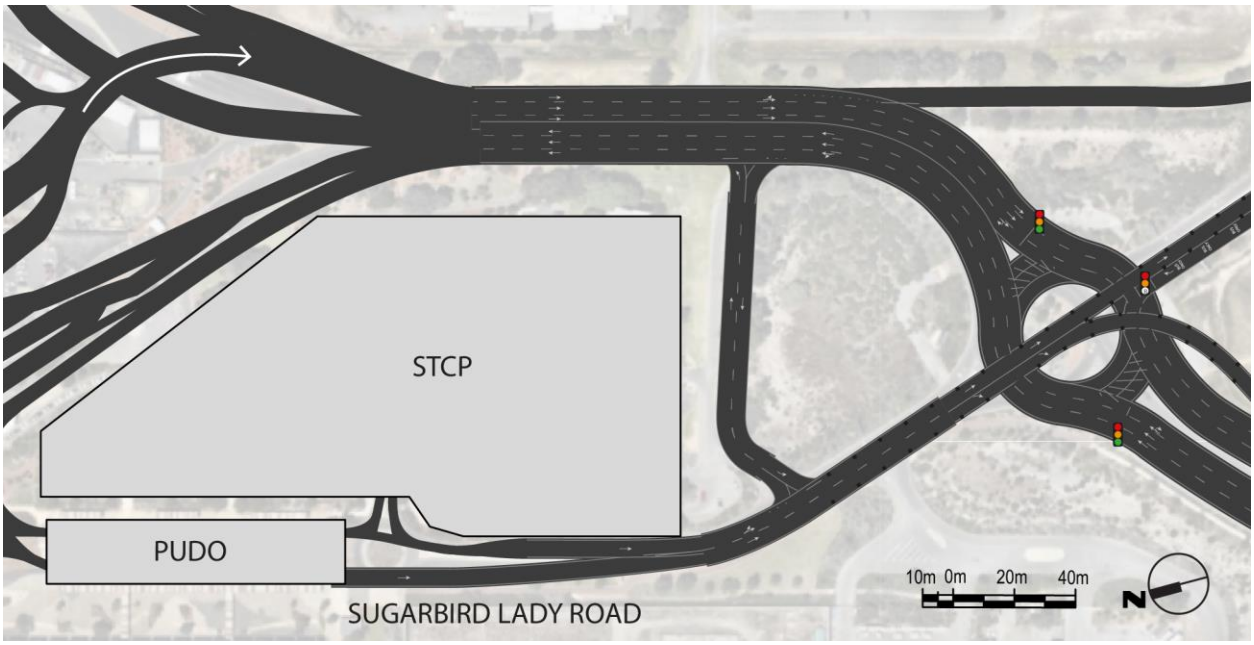

Figure 8-2 Airport Drive Sugarbird Lady Road Grade Separation

(STCP = short term car park, PUDO = pick up and drop off)

Source: Perth Airport

8.2 Ground Transport Hubs - MMTIs

Due to space and operational constraints on the existing forecourt road, the MMTIs (refer Figure 8-3) will both operate as ground transport hubs, with domestic (pick up and drop off) and international (drop off) passengers transferred from the forecourt road into dedicated bays on the ground floor of the MMTI. Passenger pick up will also be possible from the other floors of the MMTIs, through the use of any parking space as a pick up point.

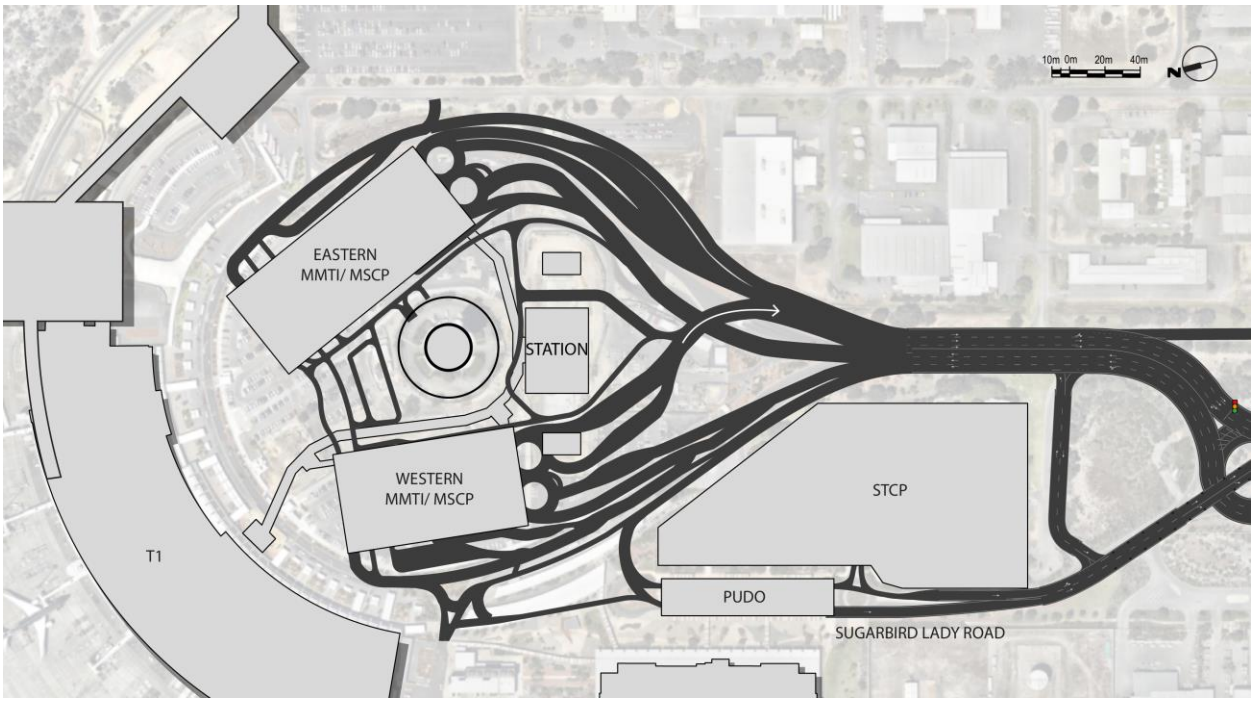

Figure 8-3 Multi Modal Transport Interchanges

(MMTI = multi modal transport interchange, STCP = short term car park, PUDO = pick up and drop off, MSCP = Multi-storey carpark)

Source: Perth Airport

Other ground transport functions, such as car rentals, taxis, buses and rideshare may also be catered for within the MMTIs, with ability for the specific locations for each mode within the structures to be flexibly reallocated in line with changing demand between modes into the future. The northernmost section of the MMTI will be constructed with an increased roof height to permit access by the PAPL Long Term car park bus.

Following construction of the MMTIs, the forecourt road will be closed and converted into a pedestrianised plaza, which will only be accessible to emergency and service vehicles.

8.2.1 Parking Demand

The calculated demand for parking and other ground transport uses in each MMTI, based on the projected passenger numbers, is approximated in Table 8-1. It is anticipated that the demand for the eastern MMTI will be higher (60%) than the western MMTI (40%), as it will be closer to international arrivals and future terminal infrastructure.

MMTI – Other Floors	PEAK BAY DEMAND MMTI (WEST)		PEAK BAY DEMAND MMTI (EAST)	
Design Year	2025	2035	2025	2035
Capacity (max)	3200		3400	
Hourly Parking	620	850	930	1274
Public Pick-up	48	64	72	96
SCV Pick-up	68	77	102	115
ASP Pick-up Area	34	42	50	62
Valet Pick-up Area	40	40	60	60
Premium Parking Area	165	206	247	308
Overnight Parking	306	418	458	628
Car Rental	282	363	424	545
Total Peak Demand	1,562	2,059	2,344	3,089

Table 8-1 Projected MMTI Peak Demand and Supply (approx.)

Source: Perth Airport

8.2.2 MMTI Access and Egress

A separate road system will provide access and egress to the MMTIs and ground transport facilities proposed under this MDP. Access to the parking areas on floors one and above of the structures will be through an entry plaza to a separate connecting ramp system. To ensure the maximum flexibility in floor usage, the MMTIs will include an additional speed ramp direct to the first floor.

The design of the road system is consistent with the planning for the road network detailed in the Perth Airport Master Plan 2020, which identified that to avoid congestion and to ensure free flow to terminals, upgrades in Airport Central will be required. While the actual layout and access design of the MMTIs will depend on the system selected, potential layouts are illustrated in Figure 8-4 for context.

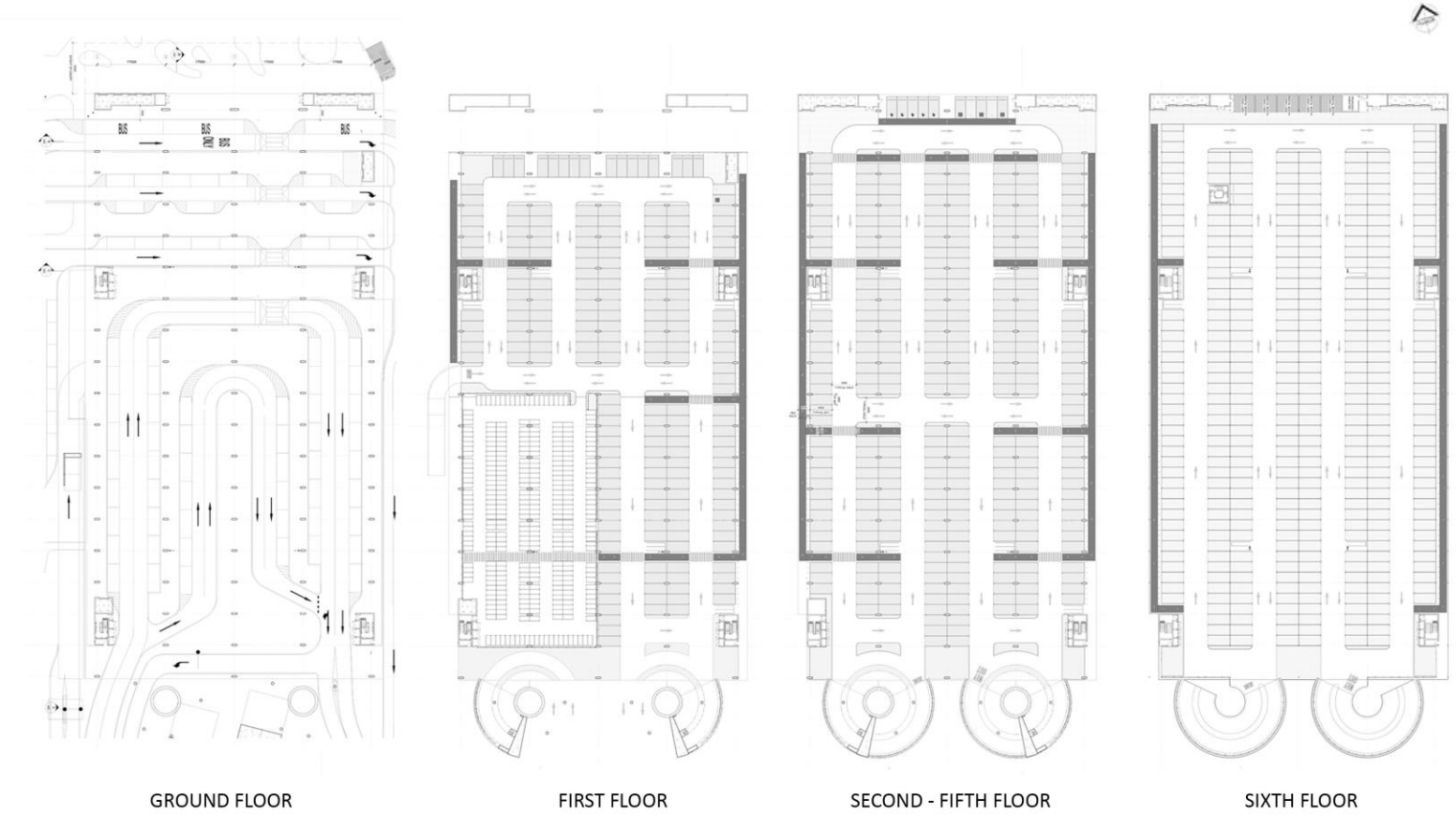

Figure 8-4 Potential MMTI Floor Layouts

Source: AECOM

8.2.3 Pedestrian Access

Access to the terminals for passengers using the pick up and drop off lanes will likely be provided at ground level, with a safe route provided for passengers to cross the forecourt, to and from the terminals. Those using the upper floors of the MMTI will likely use lifts and stairs to access the ground level, from where they can also walk across the forecourt to the terminals. Consideration will be given to provision of sheltered pedestrian routes or shelters provided at points along the routes into the terminals, to improve passenger amenity in unfavourable climatic conditions.

Figure 8-5 shows indicative pedestrian connections between the MMTIs, the Skybridge and the Airport Central Train Station to demonstrate how passengers may use the structures to travel between the terminals and the station. Opportunities for the western MMTI to be connected at the second-floor level to the adjacent Skybridge elevated walkway running from the Airport Central Train Station into the T1 Forecourt will be considered through detailed design of the development, to provide passengers using the MMTI an alternative to access the terminals from the ground level route. An elevated connection may also be considered from the Skybridge to the eastern MMTI.

As part of the future design of road upgrades, minimising impact to pedestrians and cyclists and the shared path specifically will be considered. Further, as part of the future design, the shared path crossing on the Airport Drive/Paltridge Road intersection and the Airport Drive/Sugarbird Lady Road intersection will be reviewed/upgraded to consider the safety of shared path users.

Rail passengers may also be able to access T2 through the western MMTI at level 2, with potential links to the Skybridge at either end of the structure providing connections to the existing at grade routes. Lifts and stairs will be provided within the MMTIs to allow an at grade access to all terminals.

PTA buses will be provided with facilities to the east of the Airport Central Train Station. These will be for the bus services providing access to the airport from areas that are not directly served by the FAL and also for the train replacement buses which will operate at the times when the FAL is not running.

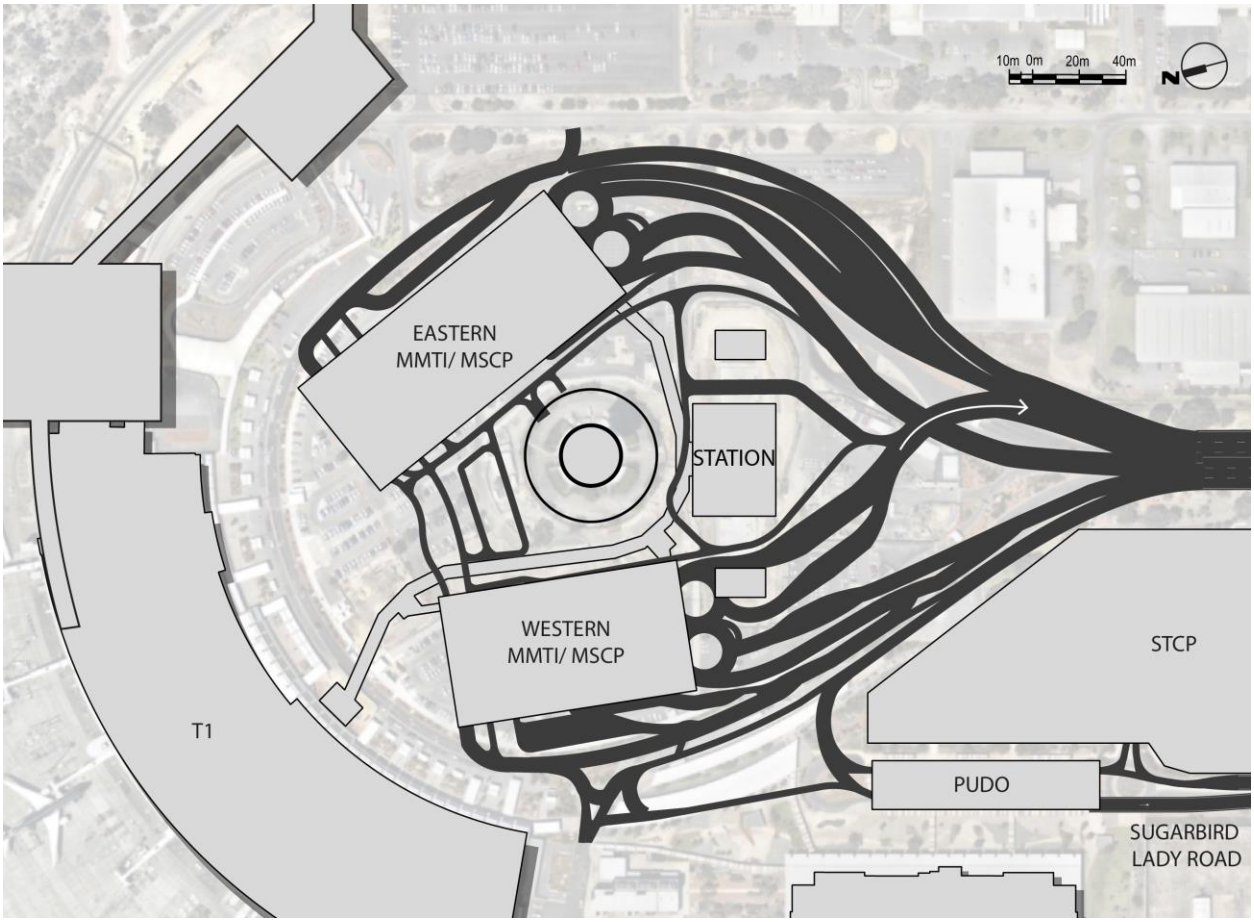

Figure 8-5 Skybridge Pedestrian Connections (indicative)

Source: Perth Airport

8.3 External Road Network

The changes in traffic flows as a result of airport consolidation have been included in the Main Roads WA ROM traffic model for the 2021 regional road network. The Gateway WA Project, upgrading Tonkin, Leach and Roe Highways in the vicinity of the airport, also included this traffic in the modelling and design.

Airport Drive and the connections to the external regional road network were designed to accommodate consolidation of all RPT operations to Airport Central and the anticipated growth in terminal traffic as predicted by the TFI passenger forecasts in Master Plan 2020, with the move in passenger traffic included in the Main Roads modelling. The development of the internal airport roads and ground transport infrastructure are intended to service the growth of the airport and will not in themselves generate any additional traffic.

8.4 Construction Impacts

It is likely that other construction activity within Airport Central and Perth's New Runway will coincide with the construction of the MMTIs. Perth Airport will ensure that planned projects and their traffic implications are coordinated, to ensure construction does not impact timely terminal access for passengers, and that construction traffic is routed along Horrie Miller Drive and Affleck Road, with deliveries and delivery routes coordinated between projects.

To maintain passenger access to the terminals and a supply of short term parking for passengers, construction of the MMTIs and road upgrades will be staged. Continued operation of the PTA Airport Central Train Station must also be considered. 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.

While construction staging options may be refined through detailed design, the current preferred option entails firstly constructing the western MMTI, with as many at grade parking bays as possible to the east of Skybridge remaining in use. Once the western MMTI is operating, parking, car rental and other ground transport functions would then be transferred into the MMTI to allow the eastern MMTI to be constructed, with all works planned to be completed before final airport consolidation into the Airport Central Precinct.

Similarly, the modifications to the T2 forecourt and short term carpark, the upgrade of Airport Drive and the upgrade and grade separation of the intersections will be staged and coordinated with the MMTI construction to ensure access into the precinct is not impacted. While the final programme will be determined by Perth Airport in conjunction with the selected contractor(s), it is anticipated that these works will also be completed prior to final Airport Central consolidation expected in December 2025.

9 Environment and Heritage Assessment

The project area for the works defined within this MDP is cleared of vegetation and includes existing car parks, roads and other hard surfaces. As such, the proposed MMTIs, grade separation and supporting road network adjustments will have no impact to any wetland, fauna habitat, flora or vegetation, conservation or special use areas or heritage sites. This is largely due to the extensive clearing and construction works within the precinct prior to privatisation of the airport, when the airport was operated by the Commonwealth.

The methodology and assessment undertaken for the environmental and heritage assessment for this MDP is defined in the following sections.

9.1 Purpose

A review of the baseline environmental and heritage conditions was undertaken based on desktop assessment and field studies, along with an examination of potential impacts associated with the construction and operation of the project. This assessment is the foundation of this section of the MDP, which outlines:

- 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 and therefore require further discussion and assessment,
- An assessment for each environmental factor to determine relevance to the project:
  - Soils and geology,
  - Water (surface water and groundwater),
  - Flora and vegetation,
  - Fauna,
  - Construction dust,
  - Noise and vibration,
  - Conservation and special use areas,
  - Heritage places and items, and
- A summary of mitigation measures.

9.2 Approval Process

Section 91 of the Airports Act requires an MDP to include an assessment of the environmental impacts that might reasonably be expected to be associated with the development and the plans for ameliorating, preventing and dealing with the environmental impacts. Section 160 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) requires the Minister administrating the Airports Act (Federal Minister for Infrastructure, Transport and Regional Development) to obtain advice from the Minister responsible for the EPBC Act (Federal Minister for the Environment) for the adoption or implementation of an airport's MDP.

The EPBC Act provides the Commonwealth framework for, amongst other things, protecting and managing nationally important flora, fauna, ecological communities and heritage places that are defined in the EPBC Act as Matters of National Environmental Significance (MNES). The EPBC Act also confers jurisdiction over actions

that have the potential to make a significant impact on the environment where the actions affect, or are taken on, Commonwealth land or are carried out by a Commonwealth agency.

In terms of heritage, under the EPBC Act, the Minister is responsible for the National Heritage List. The provisions in the EPBC Act and Environment Protection and Biodiversity Conservation Regulations govern the National Heritage Listing process. For a place to be included in the National Heritage List the Minister must be satisfied that the place meets one or more of the National Heritage Criteria.

Based on the above, the environmental considerations within this MDP have been prepared in accordance with the EPBC Act and the following associated guidelines:

- *Significant Impact Guidelines 1.1 - Matters of National Environmental Significance* (Guideline 1.1). Guideline 1.1 provides guidance on determining whether an action is likely to have a significant impact on a matter protected under national environmental law and whether assessment and approval is required under the EPBC Act. The MNES protected under national environmental law include the following, which do not apply to the current MDP project area:

    - World heritage properties,
    - National heritage places,
    - Wetlands of international importance (often called 'Ramsar' wetlands after the international treaty under which such wetlands are listed),
    - Nationally threatened species and ecological communities,
    - Migratory species,
    - Commonwealth marine areas,
    - The Great Barrier Reef Marine Park.
    - Nuclear actions, and
    - A water resource, in relation to coal seam gas development and large coal mining development.

- *Significant Impact Guidelines 1.2 - Actions on, or impacting upon, Commonwealth land and Actions by Commonwealth Agencies* (Guideline 1.2).

    Guideline 1.2 provides guidance for any person who proposes to take an action which is situated on or may have an impact on Commonwealth land, or for representatives of Commonwealth agencies who propose to take an action that may impact on the environment anywhere in the world. It requires a "Whole of Environment" assessment for projects undertaken on Commonwealth Land.

9.3 Impact Assessment Process

General

The following process has been applied to assess the potential environmental and heritage impacts of the project as per the scope defined within this MDP. This meets the self-assessment requirements of Guideline 1.2 (refer Figure 9-1), through the following process:

1. Baseline environmental studies.
2. Define the Environmental Context for the project. This includes identification of environmental and heritage components and features that may be impacted, either directly or indirectly. For the purposes of this document, the term "environmental and heritage components and features" is referred to as "Factors" in this assessment.

3. Identify and assess potential impacts for each environmental and heritage factor. This includes potential indirect and offsite impacts.
4. Identification of appropriate mitigation and management of potential impacts.
5. Determine significance of potential impacts. This can be based on guidelines and policies relevant to the environmental and/or heritage factor. For example, the significance criteria in Guideline 1.1 is applied in this document to determine significance of potential environmental impacts to flora and fauna.

Figure 9-1 Impact Assessment Process

Source: EPBC Significant Impact Guidelines 1.2

Based on this process, the following sections detail the assessment undertaken for environmental and heritage considerations.

Impact Assessment for the Project Area

This section defines the environmental context of the project area, in accordance with the definition of "Whole of Environment" required by Guideline 1.2. It identifies:

- The environmental and heritage matters/features in the area where the action will take place,
- The environmental or heritage factors which are likely to be impacted by the action and which therefore require assessing,

- Any sensitive and vulnerable areas,
- Any rare, endemic, unusual, important or otherwise valuable factors of the environment, and
- The history, current use and condition of the environment.

9.4 Soils and Geology

A number of soil and contamination studies have been conducted within the project area and give confidence that the area displays low risk for contaminants of potential concern including PFAS, hydrocarbons, metals and acid sulphate soils. These studies include:

- The Perth Airport PFAS Detailed Site Investigation,
- Soil sampling as part of the PTA FAL project,
- Extensive sampling of excavated materials taken from the FAL Airport Central Train Station box located immediately south of the control tower, and
- Soil sampling as part of the Perth Airport Skybridge project.

The Perth Airport PFAS Detailed Site Investigation (Senversa, 2019) conducted across the airport estate does not identify this MDP project area as an area of concern for PFAS. Soil concentration maps in the DSI predict the project area as displaying soil PFAS concentration values below 0.005 mg/kg (refer Figure 9-2).

Figure 9-2 Perth Airport DSI PFAS Soil Concentrations

Source: Senversa, 2019

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Significant sampling of soil excavated from the FAL Airport Central Train Station project area, located immediately south of the control tower and at the centre of this MDP area, reveals soil contamination to be low or non-existent for PFAS, metals, hydrocarbons and acid sulphate soils (Western Environmental, 2019). PFAS (sum of PFOS + PFHxS) concentrations in soil (353 samples) were recorded at below Limit of Reporting (LOR) for the majority of samples, up to 0.0004mg/kg for a limited number of samples. Similarly, PFAS leachability for all 353 samples was recorded at below PFAS NEMP drinking water guideline levels (0.07ug/L).

Soil sampling from the Skybridge project, located from the FAL Airport Central Train Station area north towards T1 also reveals soil contamination to be low for PFAS, metals, hydrocarbons and acid sulphate soils. PFAS concentration in soil (sum of PFOS + PFHxS) ranged from below LOR to 0.045 gm/kg (21 samples). Leachability was predominantly shown to be below 0.07 ug/L (across 21 samples), ranging from below LOR up to 0.56ug/L in one sample.

Perth Airport is currently developing a *Whole of Estate PFAS Management Plan* in accordance with the requirements of the PFAS National Environmental Management Plan (NEMP). This plan is being presented to the Department of Agriculture, Water and the Environment in a staged manner for review and consideration, with the resultant plan approved by DITRDC to be used for the management of PFAS within the MDP project area. The Whole of Estate PFAS Management Plan will be the basis for site specific management within the Airport Central Ground Transport Upgrade project area. Should the timing for completion of the PFAS Management Plan be later than required for works associated with this MDP, then PFAS will be managed in accordance with the regulatory framework in place and in line with the stages of the PFAS Management Plan already complete.

The project site is located within predominantly low to moderate acid sulphate soil risk areas. Where the project extends across high-risk areas, the proposed works are primarily roads, with little below water table disturbance expected, and therefore is low risk. An acid sulphate soil investigation will be conducted for the project area and if required, an acid sulphate soil and dewatering management plan will be developed and implemented.

The project Environmental Management Plan (EMP) will have a section on contaminated land management (including PFAS) and will include the need for additional investigation to allow appropriate soil handling such that any identified contamination will either be remediated on/off site or disposed of as per regulatory requirements. This management plan will address specific soil extraction and storage methods as well as outline what action/reuse is appropriate in accordance with the PFAS NEMP requirements.

Accordingly, given the extensive sampling and low soil contamination results, management in accordance with the PFAS NEMP, and with adoption of standard Perth Airport internal environmental and soil movement controls, the project is considered low risk with regard to soil contamination in the MDP project area.

9.5 Water (Surface Water and Groundwater)

The Perth Airport estate is located on the Swan Coastal Plain near the base of the Darling Scarp and is within 500 meters of the Swan River. Groundwater beneath the estate sits at a shallow depth (surface to four metres below ground level) as an unconfined water table within the highly permeable sands of the Bassendean Dunes and as a semi-confined aquifer in the Guildford Formation. Groundwater flow direction ranges from a westerly to north-westerly direction across the airport estate.

The key hydrological features within the airport estate are:

- Munday Swamp in the north-east corner of the estate, and
- The drainage network within the airport estate (Northern Main Drain and Southern Main Drain).

Surface water flows through the airport estate via these two main drains. These drains generally flow east to west and have been constructed as extensions and modifications to naturally occurring watercourses. The Northern

Main Drain receives surface flow from Poison Gully (located to the east of the airport estate) and Munday Swamp. Both drains discharge into the Swan River.

The Airport Central Ground Transport Upgrade project is not adjacent to any wetland areas. As such, no impacts to wetlands, surface water or ground water are expected to occur as a result of the project.

A number of groundwater and contamination studies have been conducted within the project area and give confidence that the area displays low risk for contaminants of potential concern including PFAS, hydrocarbons, metals and acid sulphate soils. These studies include:

- The Perth Airport PFAS Detailed Site Investigation,
- Groundwater sampling as part of the PTA FAL Project, and
- Perth Airport groundwater monitoring.

Groundwater monitoring in the vicinity of the MDP area identifies low risk of contamination from PFAS, metals, hydrocarbons and acid sulphate soil. Perth Airport operates a series of landscaping reticulation bores (Figure 9-3) in the vicinity of the project area and monitoring results from these bores since 2016 indicate a mean groundwater PFAS (PFOS + PFHxS) concentration of 0.0355 ug/l across 13 samples. Only one sample was recorded above 0.07 ug/L (IPC035, 0.087 ug/L, Nov 2017).

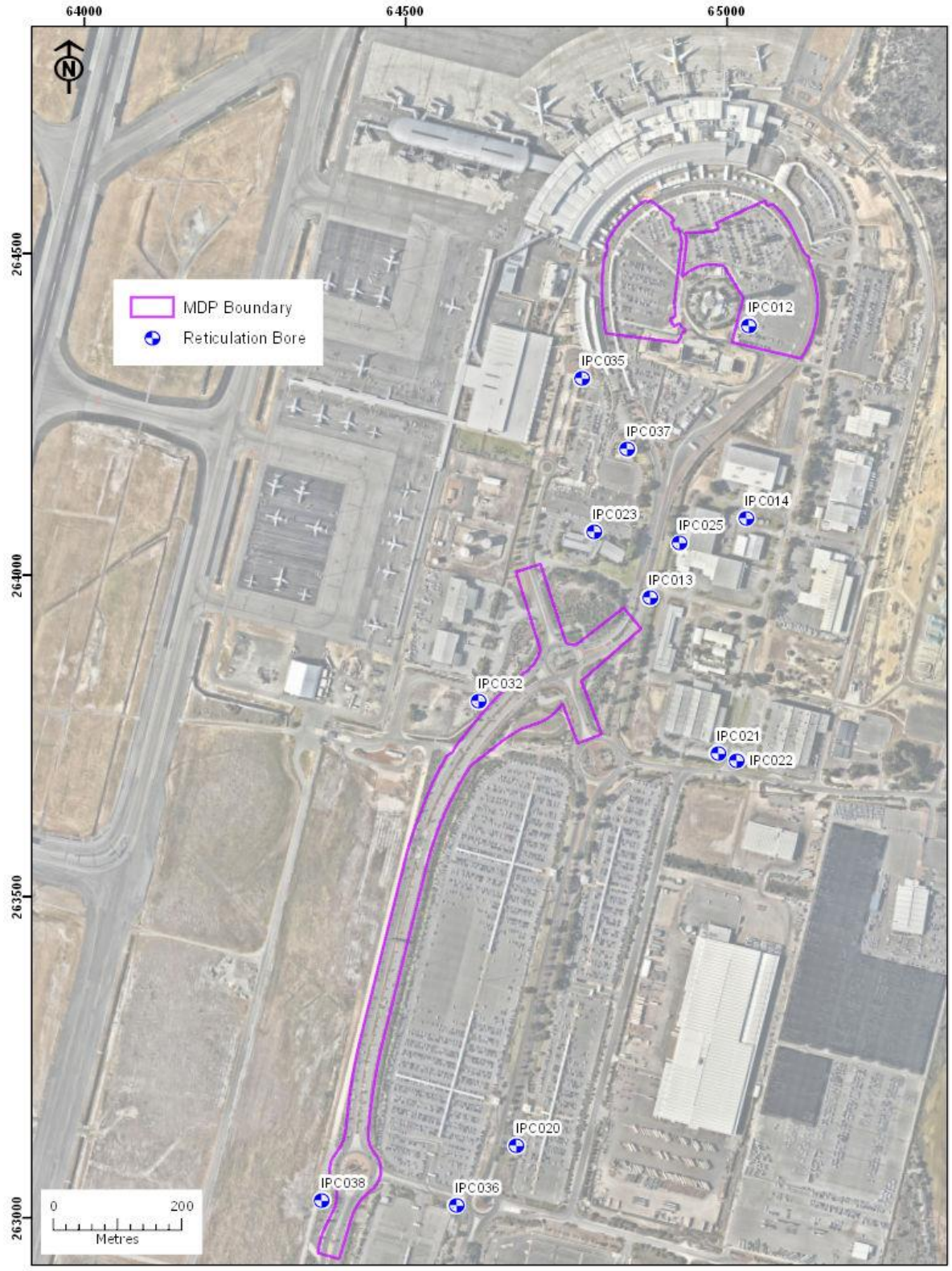

Figure 9-3 Perth Airport Landscape Reticulation Locations and Groundwater Monitoring Locations

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In addition to Perth Airport groundwater monitoring noted above, the recent Perth Airport PFAS Detailed Site Investigation evaluated PFAS groundwater concentrations across the entire Perth Airport estate, including within the project area. The MDP project area can be seen to be low risk for PFAS contamination, with most areas exhibiting PFOS + PFHxS concentrations below 0.07 ug/L (see Figure 9-4).

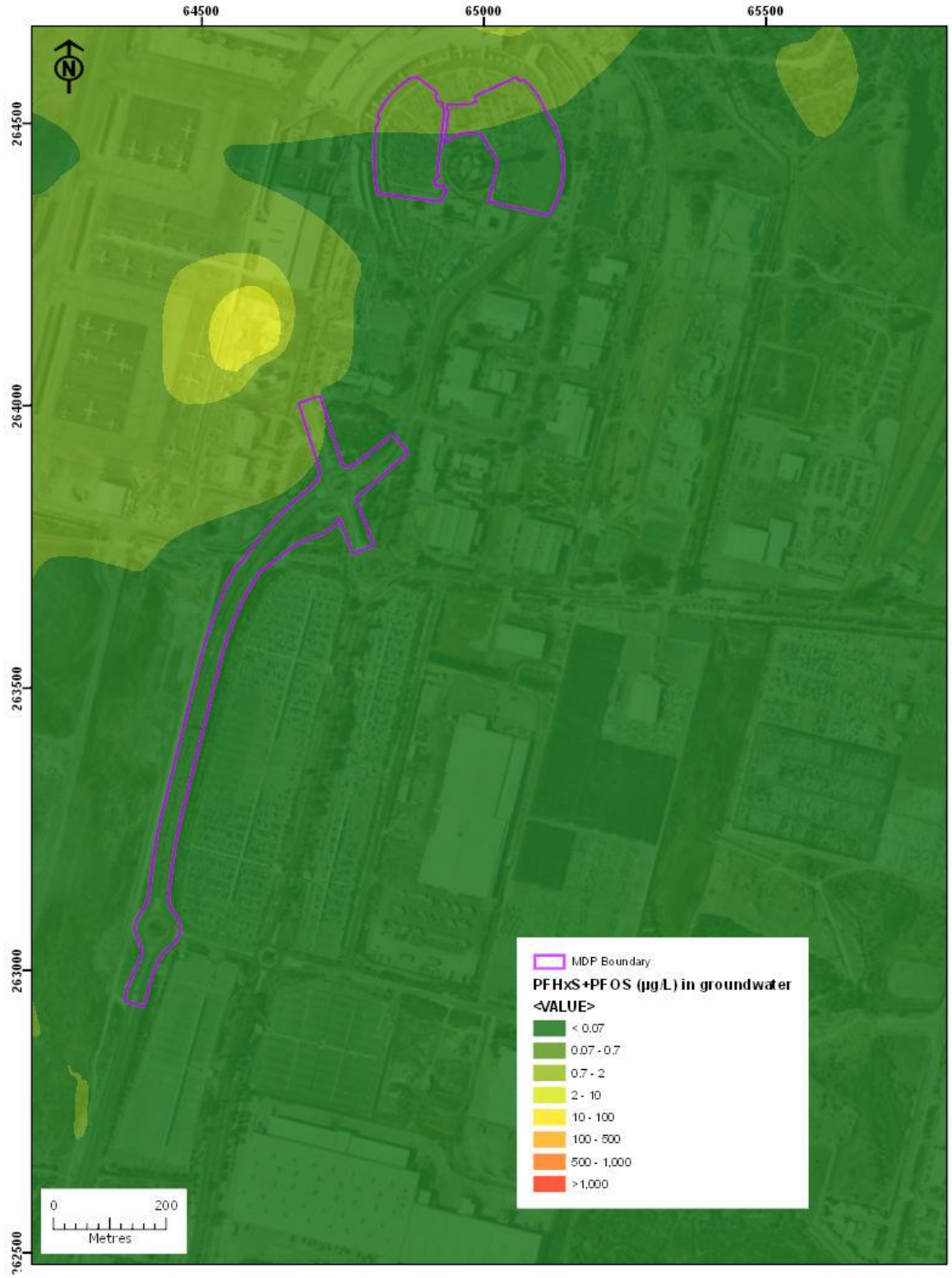

Figure 9-4 Perth Airport PFAS DSI Groundwater Concentrations

Source: Senversa, 2019

Significant dewatering works were completed immediately south of the Control Tower location as part of the PTA FAL Airport Central Train Station works. Over the course of approximately six months of dewatering works, PFAS levels were recorded in monitoring wells near the MDP area. Sum of PFOS + PFHxS levels were below 0.7 ug/L in all but one well and in dewatering reinjection waters for the duration of the works.

One shallow observation well immediately adjacent to the control tower recorded sum of PFOS + PFHxS values ranging from 1.66 to 6.33 ug/L, however this bore is located outside of the current MDP area and contrasts with all other recorded values in the vicinity which displayed lower levels making it a low risk for the project. Applying the precautionary principle, despite the low risk, Perth Airport will monitor dewatering waters for PFAS for the duration of any dewatering program associated with this MDP and have a contingency plan in accordance with the PFAS management plan to be developed.

As mentioned previously in the Soils and Geology assessment, the project site is located within predominantly low to moderate acid sulphate soil risk areas. Where the project extends across high-risk areas the proposed works are primarily roads, with little below water table disturbance expected, and therefore is considered low risk. An acid sulphate soil investigation will be conducted for the project area and if required, an acid sulphate soil management and dewatering management plan will be developed and implemented.

Where dewatering is required, it is proposed that water is handled through re-infiltration or direct recharge into the aquifer from which it was taken. Handling of this dewatering water will be as outlined in the NEMP and state (DWER) dewatering (managed aquifer recharge) guidance, and whilst a number of usage options are provided for in the NEMP, PAPL proposes to reinfiltrate or re-inject waters only, thereby returning extracted water in the same condition into the same location and aquifer from which it was taken.

Through this, and through adoption of an appropriate dewatering management plan, contamination (including potential PFAS contamination) will not be spread or exacerbated by this project. Additionally, no dewatering waters will be released to surface drains, reducing the risk of off-site impacts from these works. Where required, appropriate acid sulphate soil treatments will be employed in accordance with WA DWER dewatering and acid sulphate soil guidelines. As PFAS levels are low in this area, management will include monitoring and control of all dewatering activities, however no treatment of dewatering water is proposed for this project.

As mentioned in Section 9.4, Perth Airport is developing a Whole of Estate PFAS Management Plan in accordance with the PFAS NEMP. This plan (subject to DAWE consideration and DITRDC approval) will be the basis for the management of PFAS within the MDP project area and will outline management measures specific to dewatering.

Accordingly, given the extensive sampling and low groundwater contamination results, conformance with the PFAS NEMP, and with adoption of standard Perth Airport internal environmental and groundwater controls, the project is considered low risk with regard to groundwater contamination in the MDP project area.

9.6 Flora and Vegetation

A Vegetation and Flora Survey was conducted in Spring 2018 across the Perth Airport estate (WEC, 2020). Key findings relating to flora and vegetation across the project area noted that the entire project area is comprised of cleared and/or completely degraded areas (see Figure 9-5). As such, it has been concluded that for the works proposed as part of this MDP:

- No native vegetation will be removed,
- No Commonwealth-listed threatened flora species will be impacted,
- No Banksia Woodlands of the Swan Coastal Plain TEC will require removal,
- *Phytophthora cinnamomi* (dieback) is not a concern as no native vegetation will be impacted, and
- No WA priority listed species are likely to be impacted.

None of the flora or vegetation factors were identified to be relevant to the project and therefore no further assessment of flora and vegetation is warranted.

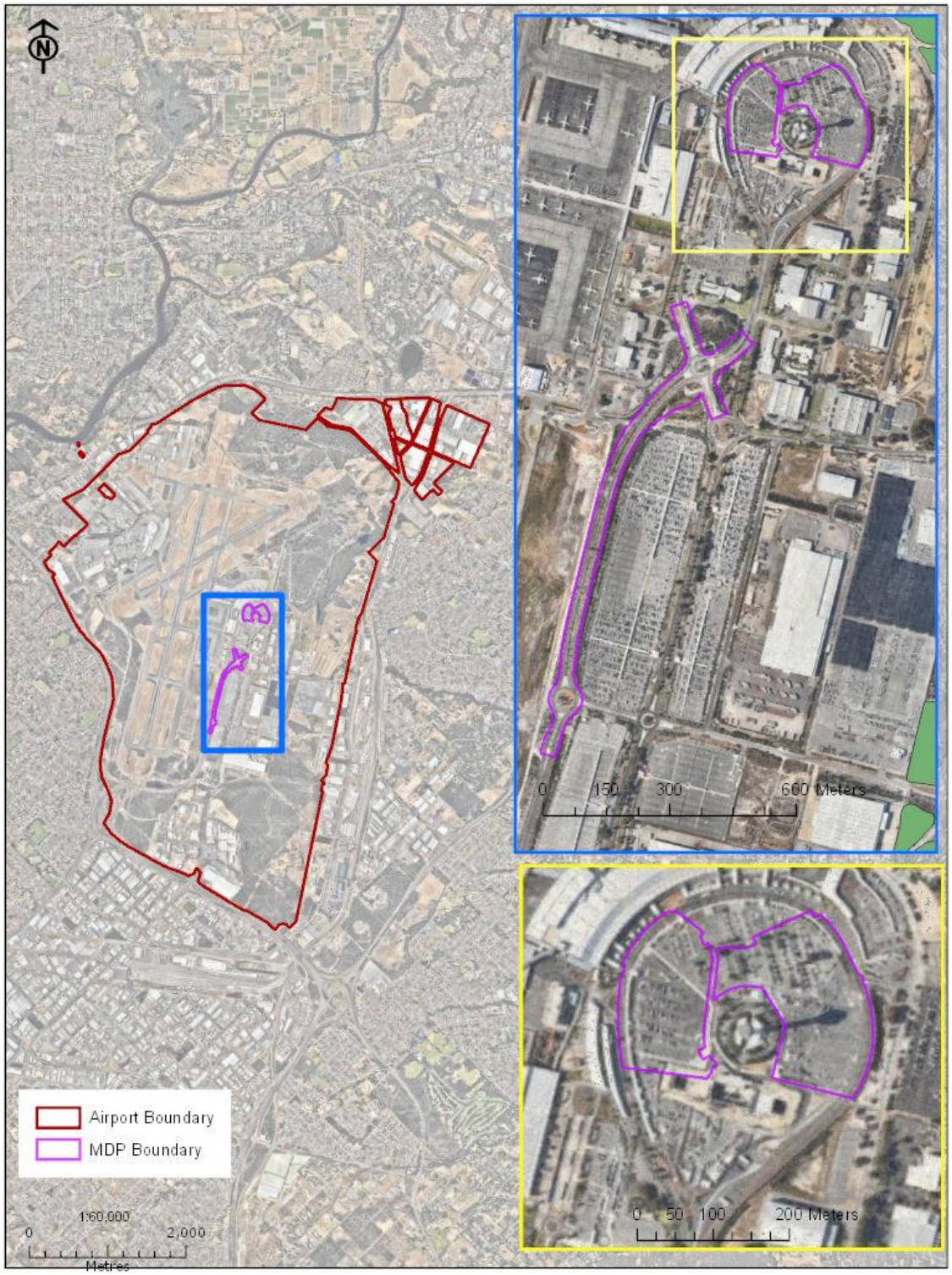

Figure 9-5 Native Vegetation within Ground Transport MDP Area

Source: Perth Airport

9.7 Fauna

Key findings from investigations for fauna within the project area include:

- No fauna habitat areas will be impacted, and
- No fauna has been identified to be regularly present within the project area.

No fauna factors were identified to be relevant to the project and therefore no further assessment is warranted.

9.8 Construction Dust

Construction activities identified as those likely to generate the most significant amount of dust emissions during construction are as follows:

- Excavators/shovels/front-end loaders/bulldozers moving soil,
- Large trucks using unpaved roads,
- Scrapers removing topsoil,
- Wind erosion from exposed areas, and
- Grading of roads.

Based on studies and modelling undertaken for Perth's New Runway (which are also applicable to this MDP), it is likely that sensitive receptors could be impacted by dust. As such, the project EMP will include standard measures for the management of dust during construction, including watering where required. Potential mitigation measures to reduce construction dust impacts include:

- Water carts/spraying on exposed soil and stockpiles,
- Wind breaks on stockpiles and exposed areas, and/or
- Total enclosure of stockpiles.

The implementation of these management measures will ensure sensitive receptors are not impacted. As such, with mitigation measures implemented, there will be negligible impacts to sensitive receptors.

9.9 Noise and Vibration

Noise emissions and vibration during construction will predominately arise from demolition, earthworks, building equipment (e.g. compressed air-driven tools), heavy vehicles working on site and the delivery of materials.

Based on modelling undertaken for Perth's New Runway which is closer to sensitive receptors than the current scope of proposed works, it is unlikely that noise and vibration emissions arising from construction will have a significant impact on receptors. Furthermore, the impact of construction noise and vibration are likely to be negligible compared to existing operational noise and vibration associated with aircraft and local traffic movements.

The project area is located immediately adjacent to the existing terminal and therefore has the potential to impact on commercial amenity during construction.

A range of possible approaches to reducing the impact of construction noise and vibration will be considered and implemented where reasonable and practicable. A project EMP, developed prior to construction, will address the following issues relating to construction noise and vibration impact management including:

- Construction hours (having regard to the day of the week, work locations and distance to sensitive and commercial receptors),
- Best practice noise and vibration levels for equipment (including use of noise-compliant equipment, periodic compliance audit of equipment, use of clackers instead of reversing beepers etc),
- Training of equipment operators,
- Noise and vibration monitoring and reporting,
- Regular communication with potentially affected terminal users/businesses, and
- Complaints management and response.

The impacts from construction ground-based noise and vibrations are mostly benign and naturally mitigated by the distance between operations on the airport and the nearest sensitive receptors.

9.10 Conservation and Special Use Areas

Figure 9-6 shows Conservation and Special Use Areas within a 15km radius of the Perth Airport. No Conservation or Special Use Areas will be impacted by the proposed Airport Central Ground Transport Upgrade project.

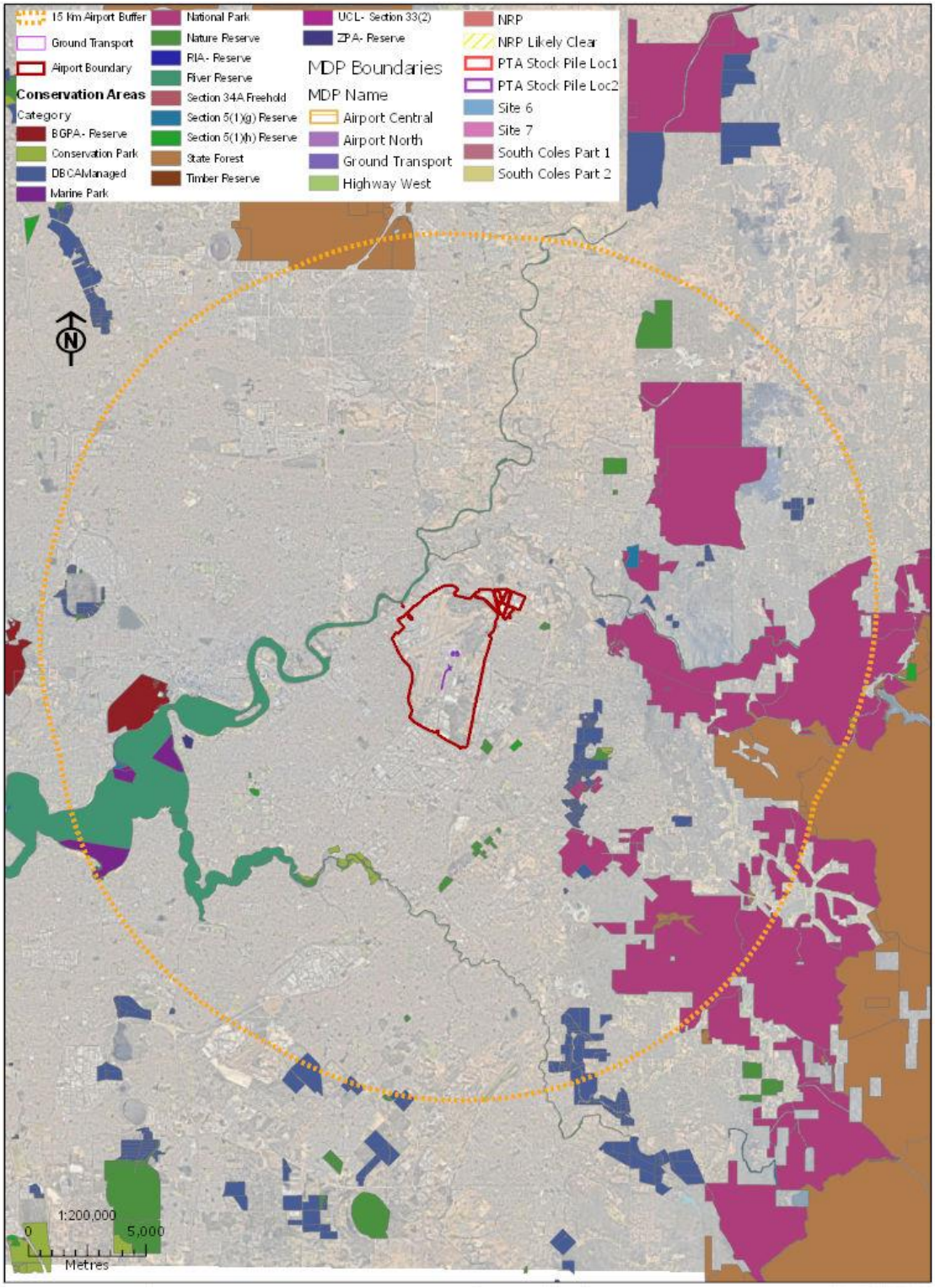

Figure 9-6 Conservation and Special Use Areas within 15km Radius of Perth Airport

Source: Perth Airport

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9.11 Heritage Places and Items

The land on which Perth Airport 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.

Heritage is protected and assessed under both State and Commonwealth legislation (refer Section 5 and Appendix C).

The construction and operation of the Airport Central Ground Transport Upgrade project will not impact areas with either known Aboriginal or historical heritage values. This conclusion has been based on the requirements under the *Aboriginal Heritage Act 1972* (AH Act) and the criteria for assessment as set out in the Environmental Protection and Biodiversity Conservation (EPBC) Regulations 10.01A (2) (refer Appendix C).

Methodology

A desktop assessment of the project area focused on the identification of any places and/or registered Aboriginal sites and/or historical heritage places within the development footprint, which need to be considered within this MDP. The desktop research relies largely on:

- Previous archaeological and ethnographic surveys and assessments of the area,
- Aboriginal Heritage Inquiry System (AHIS) Register of Sites and specific surveys search, maintained by the Department of Planning, Lands and Heritage (DPLH),
- Commonwealth Heritage List, maintained by the Department of Agriculture, Water and the Environment, and
- The inHerit portal, maintained by the State Heritage Office, which provides an indication of the presence and nature of any heritage values previously recorded and registered within the area.

A search of State and Commonwealth registers identified two 'Other Heritage Places' (OHP) as occurring in the project area (see Table 9-1 and Figure 9-7).

NAME AND ID	TYPE	STATUS	COMMENT
3885 Airport: Clayden Road A-F	Artefacts / Scatter, Arch Deposit	OHP Stored Data / Not a Site	No gender restrictions
4002 Airport: Lucerne Street	Artefacts / Scatter, Arch Deposit	OHP Stored Data / Not a Site	No gender restrictions

Table 9-1 Other Heritage Places Identified in the Project Area

Source: AHIS

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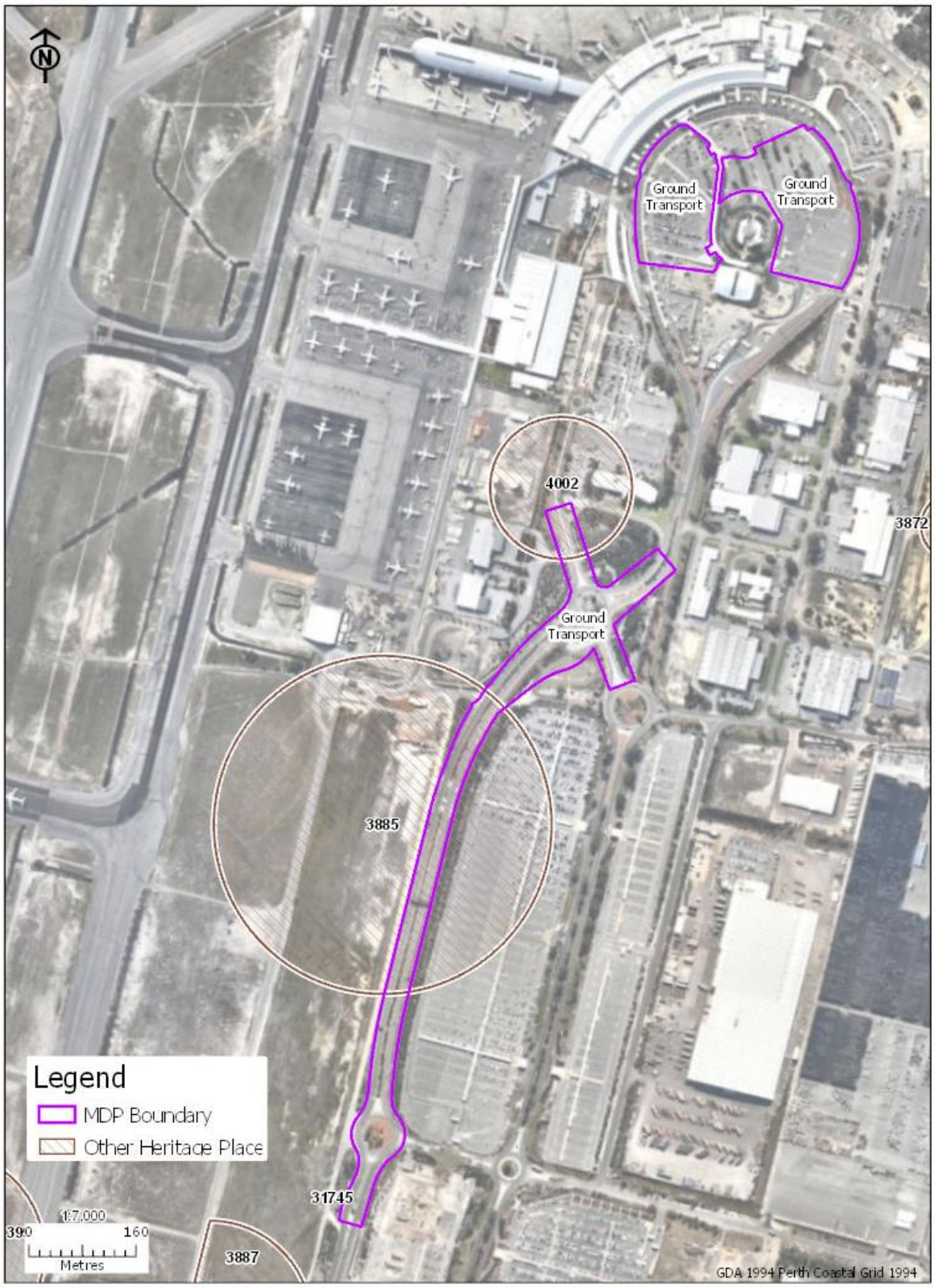

Figure 9-7 Location of Other Heritage Places that Intercept the Boundary of the Ground Transport MDP project

Source: Perth Airport

The process for assessment of these OHPs has been considered in the context of the AH Act, which notes that OHPs are areas that demonstrate heritage values but do not fulfil the definition of Section 5 and are afforded no protection under the AH Act (refer to Appendix C). In some instances, OHPs were previously registered Aboriginal sites, but they no longer meet the definition of a site as outlined under Section 5 of the AH Act due to:

- The condition of the site is poor, and the heritage values had previously been heavily impacted by activities such as development, complete surface salvage, clearing of land and vehicle activity,
- No cultural material was observed within the boundary of the then registered site,
- There is a low likelihood for temporal context to be defined as a result of the absence of heritage objects and a low likelihood of an intact subsurface deposit to exist within the site area due to the disturbance sustained, or
- Traditional Custodians consider the area to possess a metaphysical relationship with other artefact scatters previously identified within the region. Though this relationship offers insight into a broader cultural landscape which reflects where past Aboriginal people have occupied, the relationship between objects and place, and this place with other places, has now been tangibly removed.

Using the legislative context outlined in Appendix C, the following assessments have been undertaken for the identified OHPs.

OHP 3885 Airport: Clayden Road A-F

OHP 3885 was previously a Registered Aboriginal site, however, the place no longer meets the criteria for an Aboriginal site as outlined under Section 5 of the AH Act.

The existing boundary of OHP 3885 was established in 1979 on the edge of the sand quarry. The assessment formed part of the University of Western Australia's extensive investigation of the region (Hallam, 1983 and Larkin and Bergin, 2013). The area was noted as being severely disturbed at the time (Hallam, 1983) and total surface collections were made in 1983 (Anderson, 1983b).

In 2008, an attempt was made to locate OHP 3885 (Bergin and Mattner, 2009). It was noted the land has been severely disturbed by extensive and deep sand quarrying, by the creation of a drainage ditch, clearing and levelling for the construction of the international terminal and associated infrastructure. The 2008 audit concluded the site was possibly destroyed as a result of the above mentioned land uses. No cultural material was identified within the place.

OHP 4002 Airport: Lucerne Street

OHP 4002 was previously a Registered Aboriginal site, however it no longer meets the criteria for an Aboriginal site as outlined under Section 5 of the AH Act.

The boundary of OHP 4002 Airport: Lucerne Street was first identified in 1973 on disturbed ground in a sand quarry and adjacent to a market garden. A collection of all surface artefacts was made at that time.

The site was revisited in 1983 as part of the Perth Airport Extension project. This assessment formed part of a much wider study of a large area of the coastal plain, which was coordinated by the University of Western Australia (Hallam, 1983). The archaeological assessment included a test pit excavation. An additional scatter was located and collected at that time (Hallam, 1983 and Anderson, 1983a).

An archaeological assessment for a previously proposed security fence in the area did not locate any archaeological material (Dortch, 2009). At a subsequent ethnographic assessment, Aboriginal representatives

enquired about OHP 4002. The group was informed the site was completely destroyed during the development of the international terminal (Wright and Mulcock, 2019).

A 2008 audit of OHP 4002 concluded the land has been dramatically altered since the site was last recorded in 1983 (Bergin and Mattner, 2009). The place was noted as being severely disturbed as a result of complete surface collections, construction of roads, clearing for and levelling of land for buildings and extensive development.

OHP 31745 PA Isolated Finds

In addition to the above, OHP 31745 has been considered, but was found to be outside of the boundary for this MDP area and as such, no further assessment of the place is warranted. Refer to Figure 9-8 for the location.

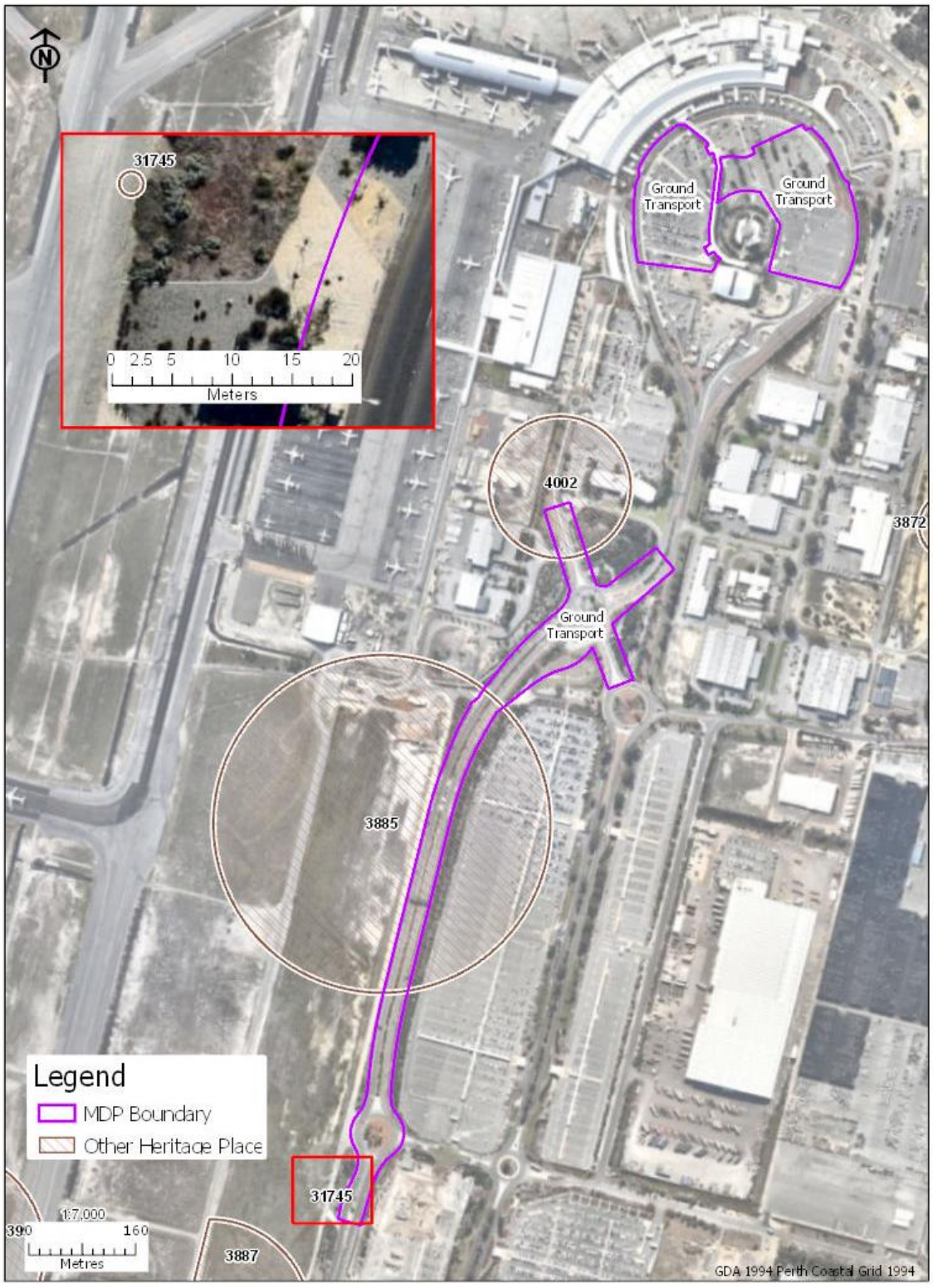

Figure 9-8 Detail of OHP 37145 in Relation to the Ground Transport MDP

Source: Perth Airport

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Impacts and Associated Mitigation Measures

As per above, the construction and operation of the Airport Central Ground Transport Upgrade project will not impact areas with known Aboriginal and historical heritage values for the following reasons:

- Prior to the privatisation of Perth Airport, the area was severely disturbed by deep sand quarrying and the construction of the Perth Airport International terminal, roads and airfield and landside infrastructure,
- Both Other Heritage Places are classified as "Stored Data - not a site", meaning they do not meet the evaluation criteria for a registered site therefore they are afforded no protection under the AH Act, and
- The area does not meet any National Heritage criteria or criteria of Section 5 of the AH Act.

Perth Airport consults the Partnership Agreement Group (PAG) quarterly on heritage matters. As part of the ongoing consultations with the PAG, Perth Airport will provide an overview of the Airport Central Ground Transport Upgrade project. The PAG is a partnership between Perth Airport and seven families who have a longstanding interest in heritage issues in the Perth metropolitan region. The Partnership Agreement was signed in 2009 and recognises the willingness of the signatories, representing Perth Airport, the Traditional Custodians and other Aboriginal Elders, to engage in good faith for the ongoing development of the airport and Aboriginal heritage.

Should any cultural material be uncovered during the proposed works contained within this MDP, Perth Airport's Cultural Heritage Site Land Management Plan (CHSLMP) provides a framework to protect and manage Aboriginal and historical cultural heritage on the estate. The CHSLMP:

- Applies to all heritage areas, whether they are known or unknown,
- Acknowledges and respects Traditional Custodian's connection to the land and waters on which Perth Airport operates,
- Ensures compliance with relevant State and Commonwealth legislation, regulation, policy and guidelines,
- Outlines measures to be taken before, during and after an activity in order to protect cultural heritage in an activity area, and
- Strengthen the relationships with the local Noongar community.

In terms of future heritage considerations, the South West Native Title Settlement (the Settlement) may commence during or after the approval process of this MDP. Perth Airport acknowledges the Whadjuk Regional Corporation will be established following the commencement of the Settlement. Ensuing establishment, Perth Airport will consider engagement with the Whadjuk Regional Corporation.

9.12 Environmental Management Plan

Perth Airport will incorporate the principles of the Environmental and Sustainability Management Framework into an Airport Central Ground Transport Upgrade project EMP. The EMP will address the design and construction phases of the project and include the management measures outlined in this MDP, input from key technical specialists and conditions of approval. The EMP will be approved by DITRDC and will address potential impacts and management measures for the following environmental factors as required:

- Fauna – standard fauna management measures as no impacts to fauna will result from the project,
- Contaminated land/PFAS,
- Water resources – standard spill management,

- Heritage, and
- Construction dust, noise and vibration.

The EMP will also include the following, where required:

- Roles and responsibilities,
- Reporting requirements,
- Environmental training,
- Emergency contacts and procedures,
- A risk assessment,
- Environmental management activities, controls and performance targets,
- Environmental management maps and diagrams,
- Environmental monitoring,
- Acid Sulfate Soil-management measures during ground disturbance activities,
- Spill and emergency response measures, e.g. for chemical spills such as fuel,
- Dewatering management measures for drainage realignment and groundwater dewatering,
- Air-quality management measures to include dust suppression strategies,
- Vehicle movement management,
- Corrective actions, and
- Audit and review.

10 Relationship to Aviation

A review of the impacts of aviation activity associated with the construction and operation of the Airport Central Ground Transport Upgrade project 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: NASF Guidelines

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 Noise

The Airports Act requires that an MDP identifies whether the proposed development will affect noise exposure levels and 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 on, or off-estate as the development is not aeronautical in nature.

Australian Standard 2021:2015 (AS2021:2015) provides guidelines for:

- Determining the acceptability of aircraft noise intrusion in buildings within Australian Noise Exposure Forecast (ANEF) contours of a given aerodrome (see Figure 10-1),
- 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.

As shown in Figure 10-1, the development sits within the 20 to 25 ANEF contour and when determining aircraft noise attenuation requirements, the buildings are most appropriately classified as commercial, given the nature of their use and operation. Therefore, regarding AS2021:2015, the facilities are deemed to be an acceptable land use for the level of aircraft noise intrusion and no special measures are required, beyond the requirements of the Building Code of Australia (BCA) (refer Table 10-2).

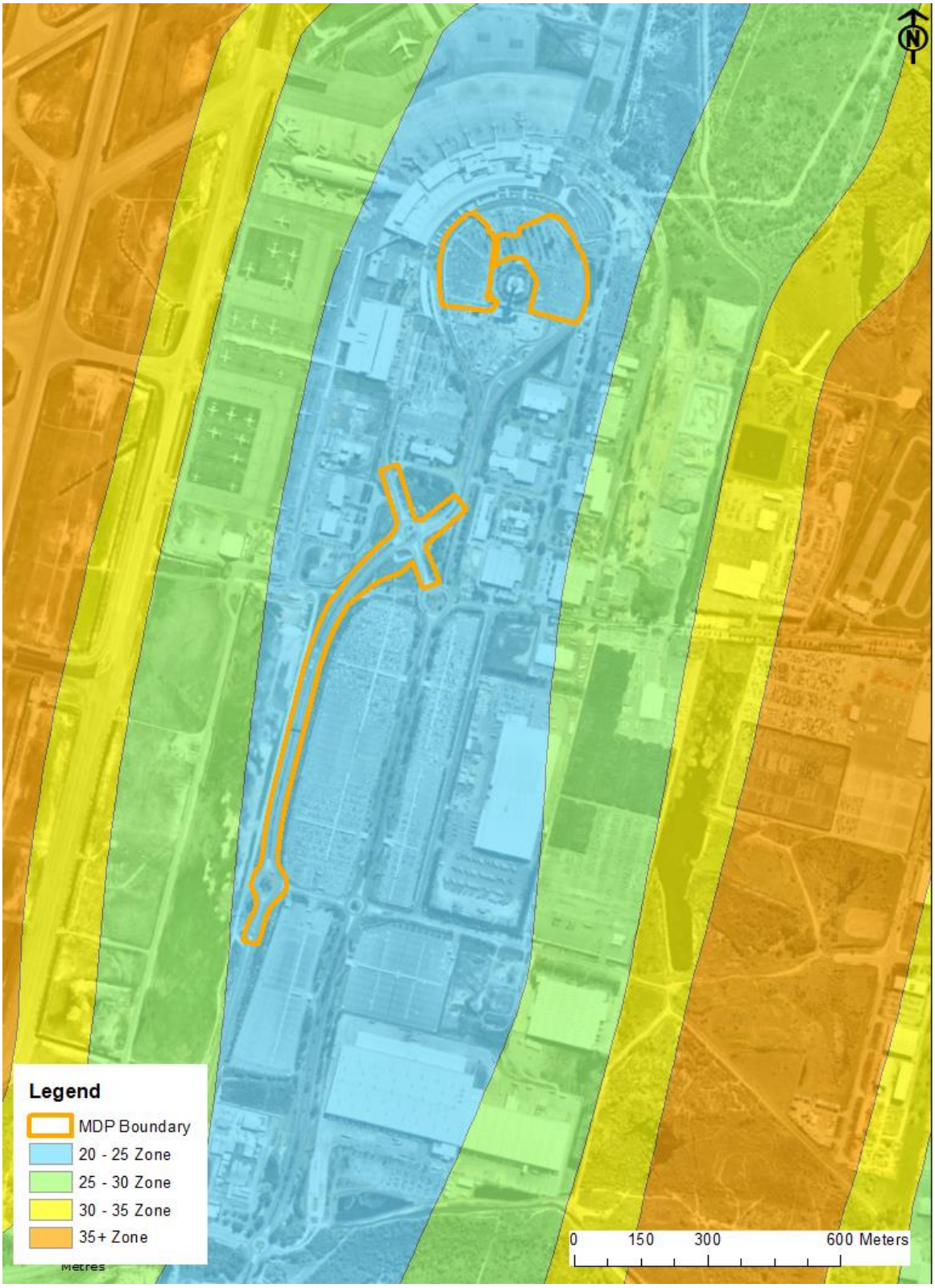

Figure 10-1 ANEF Contours

Source: Perth Airport

BUILDING TYPE	FORECAST NOISE EXPOSURE LEVEL (ANEF)		
	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

10.1.2 Ground-based Noise

Although not mandated by the Airports Act, Perth Airport commissioned modelling to determine the impact of ground-based noise on surrounding communities as part of the New Runway Project MDP, and this modelling is also relevant to the current MDP. Ground-based noise sources include:

- Engine ground running (for testing purposes),
- Aircraft taxiing on both the existing and future taxiway layout, and
- Aircraft use of Auxiliary Power Unit (APU) whilst on existing and future bays.

As this development will not lead to additional ground-based airside noise, the impact of this MDP is nil for this factor.

10.2 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 trigger assessment 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. Preliminary assessment indicates that the buildings proposed within this MDP could reach a height 24m above ground level before penetrating the 1:35 surface. The portions of this MDP development which are road network grade separations, fall just within the assessment trigger areas, though are unlikely to penetrate the 1:35 surface.

The height of the building and grade separations will become clearer during the detailed design of the development proposed within this MDP. Should those parts of the development within the assessment trigger areas be found to penetrate the 1:35 surface, aerodynamic modelling will be undertaken in line with the revised Guideline B of the NASF. This modelling will be undertaken as a "Whole of Airport Central" assessment to

ensure the cumulative impacts arising from all relevant planned developments and existing buildings within the area are determined. Perth Airport will consult with airline partners and Airservices Australia regarding the results of this modelling to explore what, if any, implications there would be on operations.

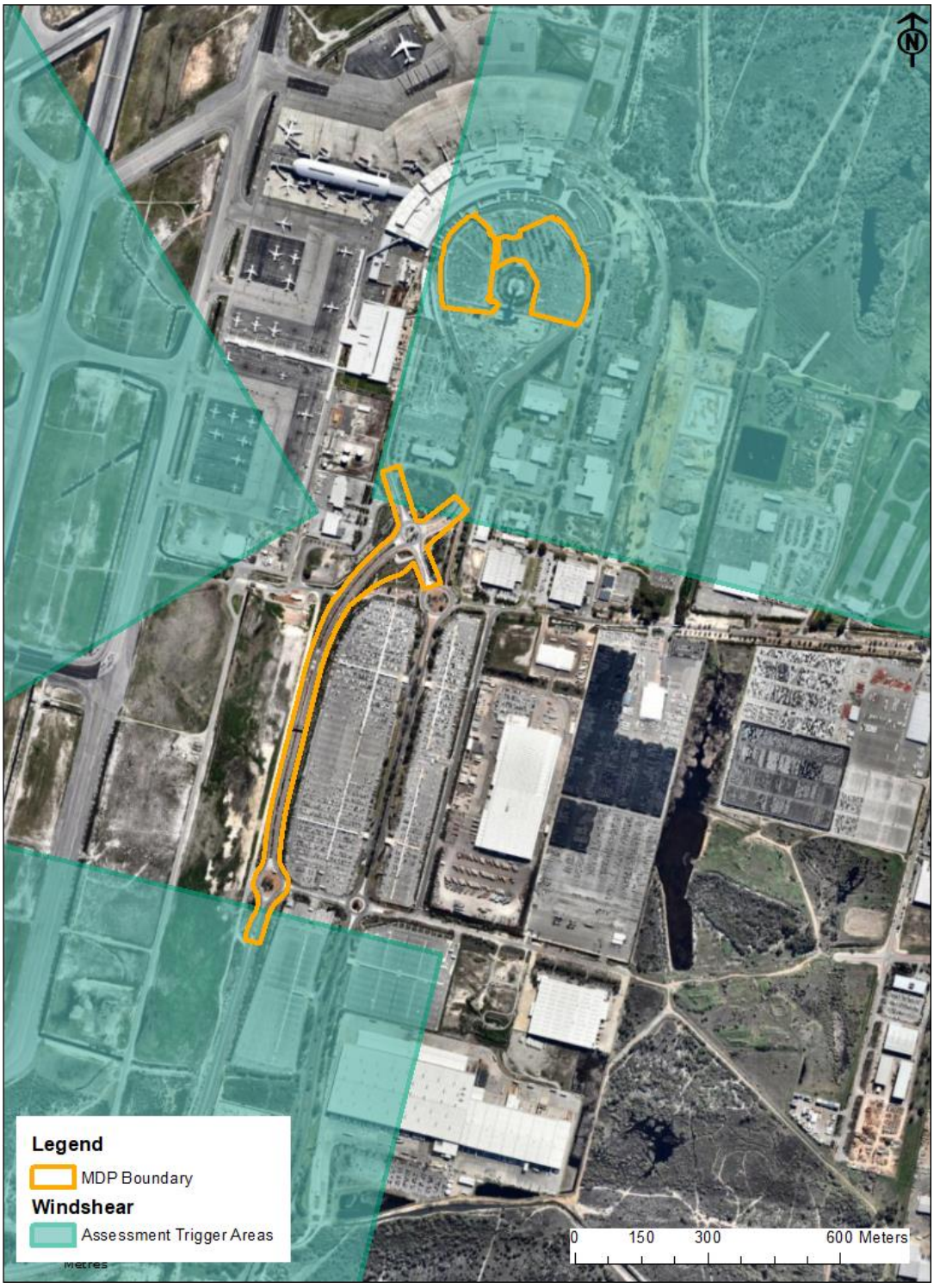

Figure 10-2 Windshear Assessment Trigger Areas

Source: Perth Airport

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10.3 Bird and Animal Hazard Management

Perth Airport is required to monitor and control the presence of birds and other animals on, or in the vicinity of the airport in accordance with Civil Aviation Safety Authority (CASA) requirements. Perth Airport maintains a stringent Bird and Animal Hazard Management System to remove and reduce potential high-risk bird and animal species. The development will be subject to the Bird and Animal Hazard Management system; this includes consultation with members of the Bird and Animal Hazard Management Committee (BAHMAC) in relation to the design and operation of the facilities. The landscaping for this development will have regard for aviation safety and not introduce any bird attracting plant species. The overall design of the facility will consider best practice techniques of minimising access for birds and animals; this will include the use of bird spikes and netting where appropriate. Particular attention will also be given to the roof designs, lighting and waste management on the site during construction and operation.

10.4 Lighting in the Vicinity of the Aerodrome

The development will be located outside of the Lighting Intensity Control Zones as specified in the CASA Manual of Standards (MOS) Part 139 and illustrated in Figure 10-3. Even so, as some portions of the road upgrades are on stretches parallel to the main runway, consideration will be given to the intensity of light exceeding the horizontal from any new or replaced streetlights.

During the detailed design phase, the risk of pilot distraction from reflective glare arising from the development will be considered in the selection of building materials.

Solar panels may be installed within the project area on the top level of the MMTIs. The panels will be selected and oriented to ensure they do not create glare for either pilots or the Control Tower, with the final design assessed in consultation with CASA and Airservices Australia.

Figure 10-3 Lighting Control Zones Effect on Flight Paths

Source: Perth Airport

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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 the development is ground transport based, the proposed development will not affect any flight paths.

10.6 Airspace Requirements

Protection of airspace required for Perth Airport's current and future needs is essential to provide a safe and 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 Surface

As shown in Figure 10-4, the lowest level of the OLS over the sites is 61 metres above AHD. This is the height of a horizontal plane under which the building footprint of the development is entirely contained.

Any structures above ground will be managed and assessed in accordance with the Airport (Protection of Airspace) Regulations 1996 and Civil Aviation Regulations 1994, ensuring the protection of airspace as demonstrated in Figure 10-4. As the maximum height is expected to be 55m AHD, it is not expected that there will be any permanent airspace impacts.

Figure 10-4 Obstacle Limitation Surfaces

Source: Perth Airport

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10.6.2 Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS surfaces)

The critical surface for the subject area is the OLS. At this stage it is not envisaged that the construction of the proposed development, or the development itself will have an impact on the PANS-OPS. If a temporary PANS-OPS infringement is required for construction, Perth Airport will liaise with the necessary authorities to minimise impacts. The nearest PANS-OPS surfaces are shown in Figure 10-5.

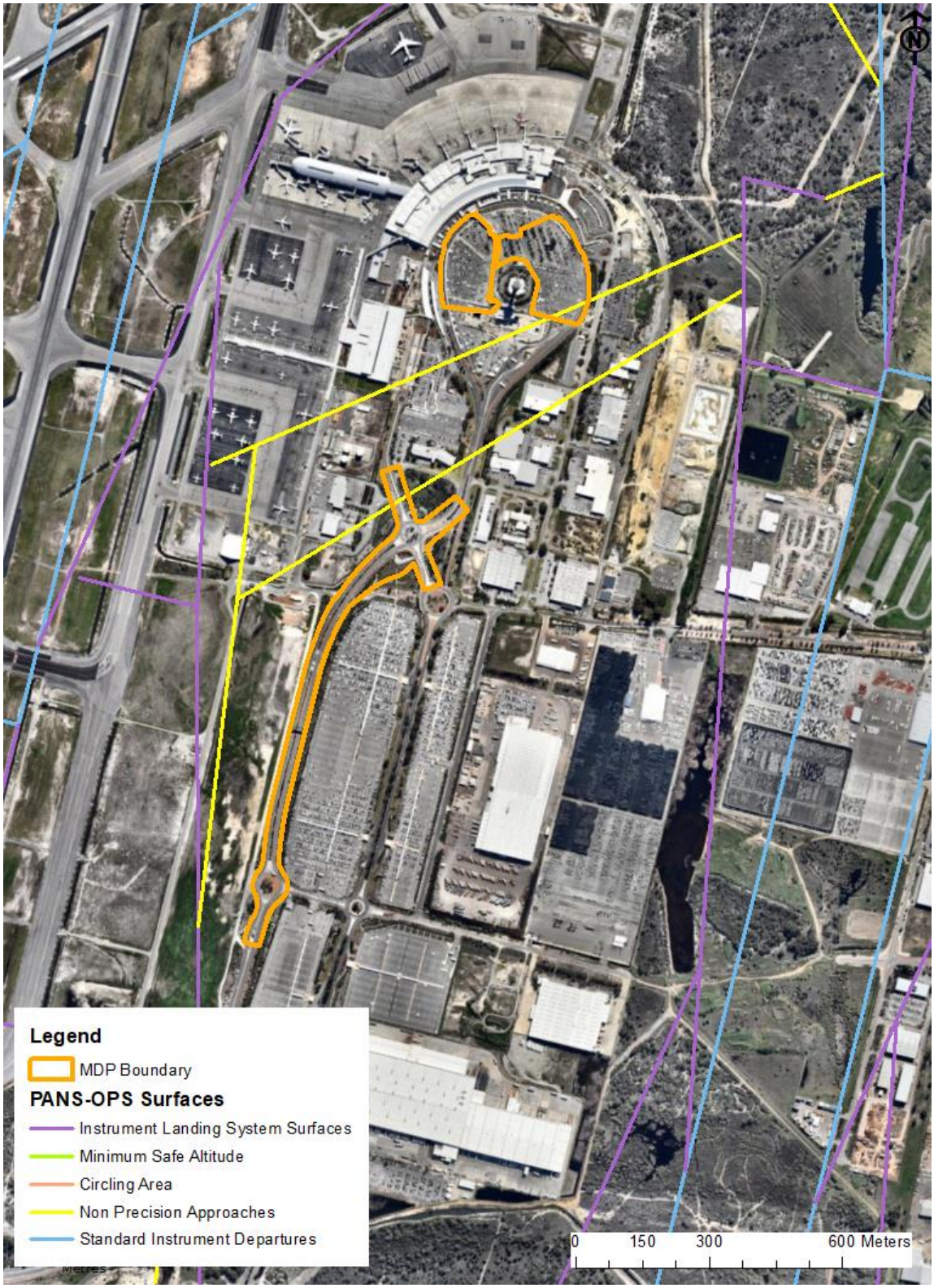

Figure 10-5 PANS-OPS

Source: Perth Airport

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10.6.3 Cranes During Construction

During the construction of the proposed development, plant or cranes may be operated. The construction phases will therefore require the assessment of plant or crane operation to ensure they do not impact the prescribed airspace. Perth Airport engages early with construction contractors to make them aware of the constraints posed by airspace and the controls and monitoring that could be required if various surfaces are infringed. This allows contractors to design construction methodologies that minimise, if not avoid, airspace impacts altogether. 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 below to minimise any operational impact.

Construction contractors will lodge their application with Perth Airport's Protected Airspace Assessment Tool (PAAT). It is at this point that the location and height of the equipment are stipulated by the construction contractor. Any 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.

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.

Once controlled activities have been properly assessed, Perth Airport issues a permit to the contractor with any mitigations recommended included as conditions of that approval. The exception is when the approval must be issued by the Department rather than Perth Airport. Contractors are made aware of their responsibilities under these approvals at the various project planning meetings that take place. Perth Airport's safety officers monitor the airport's airspace continuously for infringements and are involved in the management and mitigation measures required for some controlled activities.

10.7 Protection of Communication, Navigation 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 System (ASMGCS) and Instrument Landing Systems (ILS) (glide path and localiser), Terminal Area Radar (TAR) as well as various radio and microwave communications systems. 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 detailed design phase of this development to ensure there is no negative impact on the navigational equipment used.

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 approach to PSAs, as referenced in NASF Guideline I, to assist with assessing appropriate developments.

Under the UK model, the PSA is generally broken 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.

The development detailed within this MDP is located far enough from the ends of any current or future runways to be clear of these public safety areas.

10.9 Air Traffic Control Tower Visibility

Although the Perth Airport Air Traffic Control (ATC) Tower is not subject to the visibility requirements as set out in Section 3.1.2.1 of MOS Part 172, as it was commissioned before 1 July 2000, Perth Airport seeks to comply with the standard wherever possible. A review of ATC Tower height in relation to the developments described within this MDP has been undertaken and it has been concluded that structures up to 55m AHD within the portion of the MDP boundary adjacent the tower will not impact visibility from the ATC tower to existing aircraft movement areas. Assessment of planned future movement areas suggests visibility from the ATC tower is also not expected to be impacted. Should this change during detailed design, Perth Airport will engage with ATC to work through any possible safety implications.

The impact of cranage and other construction equipment on ATC visibility will be carefully assessed by Perth Airport and raised early with construction contractors. If any detected infringement cannot be addressed through the design process and/or construction methodology, Perth Airport will carefully manage the impact in close consultation with Airservices Australia to eliminate or minimise any operational impact.

10.10 Consultation on Operational Risks and Mitigation Measures

Perth Airport is committed to effective engagement and consultation with aviation stakeholders that may be impacted by the development proposed within this MDP. Perth Airport will continue to work with Airservices Australia to ensure that their assets and infrastructure are not detrimentally impacted. The design of the elements included within this ground transport 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 outlined within this approved Final MDP.

11.1 Development Approval

A Development Approval is required for all major works within the airport estate. The Development Approval 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 Master Plan and 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. Under this process, all proposed activities are assessed with regards to:

- Occupational Safety and Heath,
- 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 requires 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 also consider any conditions of approval arising from the Perth Airport Consent.

12 Consultation

12.1 Introduction

One of the objectives of the Airports Act is to ensure an appropriate level of vigilance, transparency and scrutiny of airport planning, so that 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 the proposed development detailed within this MDP.

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.

12.2 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 this MDP. All members of these groups were also able to discuss the MDP with Perth Airport staff via telephone to mitigate any restrictions arising from Covid-19 protocols.

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, Chamber 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 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 this 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 the current MDP.

The forum's 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 Consultative Environment and Sustainability Group

The Airport Consultative Environment and Sustainability Group (ACES) currently 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 environment, 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.

12.3 Exposure Draft Consultation

In addition to consultation with the above groups, an Exposure Draft version of the MDP was circulated to Government and airline 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 the nominated other organisations being airline representatives, with comments received and included within the Preliminary Draft MDP where appropriate.

- Commonwealth Government agencies, via Department of Infrastructure, Transport, Regional Development and Communications
  - Airservices Australia,
  - Civil Aviation Safety Authority, and
  - Department of Agriculture, Water and the Environment,
- State Government agencies via Department of Premier and Cabinet
  - 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 Jobs, Tourism, Science and Innovation,
  - Environmental Protection Authority,
  - Western Australian Planning Commission,
- Local Government authorities
  - City of Belmont,
  - City of Swan,
  - City of Kalamunda,
- Other organisations
  - Board of Airline Representatives Australia,
  - Qantas, and
  - Virgin.

12.4 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. The consultation period commenced on 30 April 2020 and concluded on 24 July 2020.

12.5 Additional Consultation

Since the public consultation undertaken for the Preliminary Draft MDP, the project design progressed to finalise the footprints of the MMTIs, resulting in the overall MDP project area slightly reducing. Noting this minor change, Perth Airport undertook a second short consultation period for the community, above the requirements stipulated in the Airports Act. This was centred around two drop-in information sessions at the Perth Airport Experience Centre where an opportunity to discuss face-to-face with the Perth Airport team was provided. The Airport Experience Centre was open on 23 June 2021 between 1pm and 4pm, and 24 June 2021 between 9am and 11.30am. Notice of these information sessions was advertised on the Perth Airport website, through the publication of a notice in The West Australian newspaper and promoted on targeted Facebook ads.

12.6 Draft Major Development Plan

Following public consultation, all submissions received were given 'due regard' with changes incorporated into the Draft MDP as appropriate. A Supplementary Report was also prepared as per Section 79 of 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 such other 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 Airports Act.

12.7 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 for the purpose of seeking Commonwealth approval for the construction of two Multi Modal Transport Interchanges (including drop off and pick up facilities and multi storey car parks), an upgraded road network and other associated road network adjustments.

The Airport Central Ground Transport Upgrade will ensure that Perth Airport provides the necessary infrastructure to cater for predicted passenger growth and contribute to achieving the vision for consolidation, while maintaining optimum levels of service for passengers. In particular, the proposed development will accommodate both future forecast incremental traffic growth as a result of final airport consolidation of services to Airport Central, deliver a high quality customer experience, maintain quality access and parking facilities and provide efficient access to terminal facilities for taxi and rideshare vehicles, public transport and coaches.

A number of benefits will arise during both the construction of the proposed infrastructure and through its ultimate operation. These benefits include not only job creation and direct economic growth, but also increased efficiency for airline partners and businesses, and improved access to facilities of a global standard, thereby enhancing the passenger experience. These improvements will result in a more positive experience for international and domestic passengers and other airport users through quality parking facilities and seamless connections between travel modes, culminating in an improved journey. The works are also critical in supporting Perth Airport's broader strategy to become Australia's Western Hub airport, through enabling airport consolidation.

These works are broadly consistent with both long-term State Planning objectives for Western Australia, the planning for the localities adjacent to the airport estate and are consistent with the Perth Airport Master Plan 2020.

The project area is cleared of vegetation and includes existing car parks, roads and other developed hard surfaces. The impacts to aviation activity have been assessed and Perth Airport is committed to effective engagement and consultation with stakeholders where there may be aviation impacts resulting from the proposed development.

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 2 September 2021.

14 References

Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth)

Aboriginal Heritage Due Diligence Guidelines (2013) Department of Aboriginal Affairs and the Premier and Cabinet

Aboriginal Heritage Act 1972 (WA) (AH Act)

Anderson, J (1983a) Test pits and supplementary survey at Perth Airport, Western Australia

Anderson, J (1983b) Survey for Aboriginal sites in the proposed International Terminal Complex area, Perth Airport, Western Australia

Airports (Environment Protection) Regulations (AEPR) 1997

Airports Council International (2018) Comprehensive Insights Report for Perth Airport

AECOM (2018) Preliminary Site Investigation and Limited Sample, Perth Airport, October 2018 (AECOM, 2018)

Bergin, T and Mattner, J (2009) Audit of known Aboriginal heritage at Perth Airport

Biosecurity and Agriculture Management Act 2007 (WA) (BAM Act)

Biodiversity Conservation Act 2016 (WA) (BC Act)

Department of Environment Regulation (2017) Interim Guideline on Assessment and Management of Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) January 2017

Department of the Environment (2013) Significant Impact Guidelines 1.1 - Matters of National Environmental Significance (Guideline 1.1)

Department of the Environment (2013) Significant Impact Guidelines 1.2 – Actions on, or impacting upon, Commonwealth Land and Actions by Commonwealth Agencies (Guideline 1.2)

Dortch, J (2009) Report of an archaeological survey of a proposed security fence, Perth Airport, Western Australia. Dortch and Cuthbert Pty Ltd

Department of Infrastructure and Regional Development, Management Actions Advice (Guideline for Environmental Management - GEM-002)

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

Hallam, S J (1983) The Perth Airport extension, 1983: Preliminary report on prehistoric Aboriginal sites. The University of Western Australia

Heads of the Environmental Protection Authority (HEPA) (2018) *PFAS National Management Plan* (NEMP)

Heritage Act 2018 (WA)

Larkin, E and Bergin, T (2013) Desktop Aboriginal heritage review for the proposed airport rail link. Prepared for GHD Pty Ltd

National Environmental Protection Council (NEPC) 2013, National Environment Protection (Assessment of Site Contamination) Measure (ASC NEPM) (No.1) 1999 as amended

Perth Airport Master Drainage Strategy 2017

Perth Airport Cultural Heritage Site Land Management Plan 2019

Pracsys (2020) MMTI Employment Estimation Briefing Note, Perth WA.

Senversa (2019) Perth Airport PFAS Detailed Site Investigation

Western Australian Planning Commission (no date provided) *State Planning Bulletin 64 – Acid Sulfate Soils*

Woodman Environmental Consultants (2020) (WEC Survey Report)

Wright, G and Mulcock, J (2009) Indigenous heritage survey with metropolitan area Indigenous groups for Westralia Airports, Perth Airport perimeter security project, Big Island Research Pty Ltd

WSP (2013) Tank Pit Validation Report (International Terminal), Perth International Airport Vehicle Refuelling Point, Qantas Airways Limited

15 Glossary and Acronyms

Airports Act	*Airports Act 1996* (Cth)
ABC	Airport Building Controller
ACES	Airport Consultative Environment and Sustainability Group
ACI	Airports Council International
AEO	Airport Environment Officer
AH Act	*Aboriginal Heritage Act 1972* (WA)
AHD	Australian Height Datum
AHIS	Aboriginal Heritage Inquiry System
ANEF	Australian Noise Exposure Forecast
APU	Auxiliary Power Unit
ARFFS	Aviation Rescue and Fire Fighting Services
AS2021:2015	Australian Standard 2021:2015
ASQ	Airport Service Quality
ATC	Air Traffic Control
ATSIHP Act	*Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth)
BCA	Building Code of Australia
CASA	Civil Aviation Safety Authority
CBD	Perth's Central Business District
CHSLMP	Cultural Heritage Site Land Management Plan
CMEWA	The Chamber of Minerals and Energy Western Australia
CNS	Communications, Navigation and Surveillance
Dieback	Phytophthora cinnamomi
DME	Distance Measuring Equipment
DPLH	Department of Planning, Land and Heritage
DSI	Detailed Site Investigation
EMP	Environmental Management Plan
EPBC	Environmental Protection and Biodiversity Conservation
EPBC Act	*Environmental Protection and Biodiversity Conservation Act 1999* (Cth)
FAC	Federal Airports Corporation
FAL	Forrestfield-Airport Rail Link
FFBG	The Future Fund Board of Guardians
FFIC3	Future Fund Investment Company No.3 Pty Ltd

FIFO	Fly-in fly-out
GSP	Gross State Product
Guideline 1.1	Significant Impact Guidelines 1.1 - Matters of National Environmental Significance
Guideline 1.2	Significant Impact Guidelines 1.2 - Actions on, or impacting upon, Commonwealth land and Actions by Commonwealth Agencies
Heritage Act	*Heritage Act 2018* (WA)
ILS	Instrument Landing Systems
LPS 3	Local Planning Scheme No. 3
LPS 15	Local Planning Scheme No. 15
LPS 17	Local Planning Scheme No. 17
MDP	Major Development Plan
MMTI	Multi Modal Transport Interchange
MNES	Matters of National Significance
MOS	Manual of Standards
MPPA	Million passengers per annum
MRS	Metropolitan Region Scheme
NASF	National Airports Safeguarding Framework
OHP	Other Heritage Place
OLS	Obstacle Limitation Surfaces
PACF	Perth Airport Community Forum
PAG	Partnership Agreement Group
PAMG	Perth Airports Municipalities Group
PAPF	Utilities of Australia Pty Ltd ATF Perth Airport Property Fund
PAPL	Perth Airport Proprietary Limited
PANS-OPS	Procedures for Air Navigation Services – Aircraft Operations
PCF	Perth Airport Planning Coordination Forum
PADG	Perth Airport Development Group Pty Ltd
PSA	Public Safety Areas
PTA	Public Transport Authority
PUDO	pick up and drop off
Qantas	Queensland and Northern Territory Aerial Services Ltd
RPT	Regular Passenger Transport
SCV	Special Charter Vehicles
Settlement	South West Native Title Settlement
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
STCP	Short term car park
T1	Terminal 1
T2	Terminal 2
T3	Terminal 3
T4	Terminal 4
TFI	Tourism Futures International
TNTC	The Northern Trust Company
UK	United Kingdom
UTA	Utilities of Australia Pty Ltd ATF Utilities Trust of Australia
VOR	VHF omnidirectional range radio
WAPC	Western Australian Planning Commission
WELS	Water Efficiency Labelling and Standards

Appendix A: History of Perth Airport

There is a long and rich history of activity on the Perth Airport estate, which provides a foundation to 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, 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, but none are current within the footprint of the Airport Central Ground Transport Upgrade project area. This is further discussed in Section 9 – 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 11/19), 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: Consistency with Airports Act 1996

	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 2 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 3
(c) a detailed outline of the development; and	Section 2 Section 4
(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 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 10
(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
(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

		SECTION
(j)	the airport-lessee company's plans for dealing with the environmental impacts mentioned in paragraph (h) (including plans for ameliorating or preventing environmental impacts); and	Section 9
(k)	if the plan relates to a sensitive development – the exceptional circumstances that the airport-lessee company claims will justify the development of the sensitive development at the airport; and	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: 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 C: Heritage Legislative Context

Aboriginal and State heritage is an important part of Australia's heritage and history. Heritage is protected and assessed under both State and Commonwealth legislation as follows.

Aboriginal Heritage Act 1972 (WA)

The *Aboriginal Heritage Act 1972* (AH Act) is the main legislative framework for Aboriginal heritage in Western Australia. Aboriginal sites and objects are protected under the AH Act and consent is required from the Minister for Aboriginal Affairs for any activity which will negatively impact Aboriginal sites. An Aboriginal site is an area that meets the definition under Section 5 of the AH Act:

a) *any place of importance and significance where persons of Aboriginal descent have, or appear to have, left any object, natural or artificial, used for, or made or adapted for use for, any purpose connected with the traditional cultural life of the Aboriginal people, past or present;*
b) *any sacred, ritual or ceremonial site, which is of importance and special significance to persons of Aboriginal descent;*
c) *any place which, in the opinion of the Committee, or was associated with the Aboriginal people and which is of historical, archaeological or ethnographical interest and should be preserved because of its significance to the cultural heritage to the State;*
d) *any place where objects to which* [the AH Act] *applies are traditionally stored, or to which, under the provisions of* [the AH Act]*, such objects have been taken or removed.*

Under Section 17 of the AH Act it is an offence to disturb an Aboriginal site without prior written permission from the Minister, granted under Section 18 or 16 of the AH Act. Importantly, the AH Act protects all Aboriginal heritage which can be determined to meet the definition of Section 5, irrespective of a site being either known, or assessed, and/or on the Aboriginal Heritage Inquiry System (AHIS) Register of Sites.

The Department of Planning, Lands and Heritage (DPLH) has developed Cultural Heritage Due Diligence Guidelines to assist proponents in meeting their statutory obligations under the AH Act. The Cultural Heritage Due Diligence Guidelines advocates the application of a precautionary approach to the assessment of risk to Aboriginal heritage to ensure all aspects of potential risk are considered and appropriate steps are applied to avoid or minimise damage to Aboriginal sites. Perth Airport has adopted the precautionary approach to the assessment of risk to Aboriginal heritage and, where practical, applies appropriate steps to avoid or minimise damage to heritage.

Environment Protection and Biodiversity Conservation Act 1999 (Cth)

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) establishes the National Heritage List, which includes natural, Indigenous and historic places that are of outstanding heritage value to the nation. Under the EPBC Act, the Minister is responsible for the National Heritage List. National Heritage values are defined by the EPBC Act.

The criteria for the assessment of National Heritage values are set out in the EPBC Regulation 10.01A(2). For a place to be included on the National Heritage List, the Minister must be satisfied that the place meets one or more of the following criteria:

a) the place has outstanding heritage value to the nation because of the place's importance in the course, or pattern, of Australia's natural or cultural history;

b) the place has outstanding heritage value to the nation because of the place's possession of uncommon, rare or endangered aspects of Australia's natural or cultural history;

c) the place has outstanding heritage value to the nation because of the place's potential to yield information that will contribute to an understanding of Australia's natural or cultural history;

d) the place has outstanding heritage value to the nation because of the place's importance in demonstrating the principal characteristics of:

   i. a class of Australia's natural or cultural places; or

   ii. a class of Australia's natural or cultural environments;

e) the place has outstanding heritage value to the nation because of the place's importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;

f) the place has outstanding heritage value to the nation because of the place's importance in demonstrating a high degree of creative or technical achievement at a particular period;

g) the place has outstanding heritage value to the nation because of the place's strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;

h) the place has outstanding heritage value to the nation because of the place's special association with the life or works of a person, or group of persons, of importance in Australia's natural or cultural history;

i) the place has outstanding heritage value to the nation because of the place's importance as part of indigenous tradition.

The EPBC Act protects heritage on Commonwealth land and from actions undertaken by the Commonwealth. The heritage assessment contained within this MDP therefore follows the criteria assessment set out in the EPBC Regulations.

Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth)

The Commonwealth *Aboriginal and Torres Strait Islander Heritage Protection* Act 1984 (the ATSIHP Act) generally applies where State or Territory laws and processes prove ineffective. Under the ATSIHP Act, the responsible Minister can make temporary or long-term declarations to protect areas and objects of significance under threat of injury or desecration. The ATSIHP Act also encourages heritage protection through mediated negotiation and agreement between land users, developers and Aboriginal people.

Heritage Act 2018 (WA)

The *Heritage Act 2018* (the Heritage Act) provides for and encourages the conservation of places which have significance to the cultural heritage in the State. The Heritage Council of Western Australia is the State advisory body on heritage matters and is vested with functions and powers under the Heritage Act. The Heritage Council determines the organisation's strategy and policies and makes key decisions on places to be entered into the State Register of Heritage Places and development referrals.

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