

Perth Airport 

# Master Plan 2020

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SUMMARY





## Perth Airport today



**24/7**

operation



**2,105**

hectare site



**2**

runways



**5**

terminals



**117**

aircraft parking positions



**130,115**

aircraft movements



**14.3**

million passengers



**215,000**

tonnes of domestic and international freight



**30**

airlines



**50+**

destinations



**16,700**

aviation and non-aviation full-time jobs



**\$3.5b**

to WA economy



**26,000**

car parking bays



**\$1b**

private investment in infrastructure in the past 10 years



**93%**

of visitors to the State use air transport

# Master Plan 2020 Summary



Perth Airport is Australia's Western Hub – connecting lives, businesses and communities to a world full of possibilities.

## Master Plan 2020

The Perth Airport Master Plan 2020 has been prepared to ensure that Perth Airport is planned and developed effectively and efficiently to support the growth of the State and deliver passengers a seamless and quality travel experience.

The Master Plan is the blueprint for the future development of Perth Airport. It provides transparency and facilitates public scrutiny of Perth Airport's development plans for the next 20 years and beyond. A new Master Plan is prepared every five years to comply with the Commonwealth *Airports Act 1996*.

The Perth Airport Master Plan 2020 covers a wide range of topics including:

- forecast growth in passengers, aircraft movements and freight,
- land use planning,
- ground transport planning,
- aviation developments, including a new terminal and a new runway,
- future flight paths and aircraft noise exposure,
- economic and social benefits,
- airport safeguarding,
- environment, sustainability and heritage management.

Perth Airport undertook extensive stakeholder and community consultation during the development of the Master Plan, including releasing the Preliminary Draft Master Plan 2020 for public comment over a period of 60 business days. Once all comments were received and reviewed, where possible, Perth Airport incorporated the concerns and issues raised into the Draft Master plan 2020. Minor amendments and additions were made and the Draft Master Plan 2020 was presented to the Commonwealth Minister for Infrastructure, Transport and Regional Development. The Hon. Michael McCormack MP approved the Draft Master Plan on 2 March 2020, and the Final Master Plan has been published on the Perth Airport website.

All development at Perth Airport must be consistent with the Final Master Plan.

## Who owns Perth Airport?

Perth Airport is located on 2,105 hectares of land owned by the Commonwealth of Australia.

In 1997, the operation and management of Perth Airport was transferred from the Commonwealth to Perth Airport Pty Ltd (previously called Westralia Airports Corporation) under a 50 year lease, with a 49 year extension option.

Perth Airport Pty Ltd is a wholly owned subsidiary of Perth Airport Development Group Pty Ltd (PADG). Superannuation funds, including AustralianSuper and Sunsuper, make up 70 per cent of PADG ownership and Australia's sovereign wealth fund owns 30 per cent.

As a private company, Perth Airport does not receive State or Commonwealth government funding.







**2018**



**9,900**

Full-time aviation jobs

**\$2.2b**

Contribution to GRP



**6,700**

Full-time non-aviation jobs

**\$1.27b**

Contribution to GRP

**2025**



**12,200**

Full-time aviation jobs

**\$3.08b**

Contribution to GRP



**9,000**

Full-time non-aviation jobs

**\$1.84b**

Contribution to GRP

**2040**



**18,700**

Full-time aviation jobs

**\$5.1b**

Contribution to GRP



**18,000**

Full-time non-aviation jobs

**\$3.93b**

Contribution to GRP

## Forecast growth

Planning for Perth Airport is based on future aviation growth forecasts. This ensures that terminal facilities, airfield infrastructure and ground transport requirements are determined and developed to meet demand.

Total annual passenger numbers are forecast to nearly double to 28.5 million by 2040. Annual international passengers are expected to grow from 4.37 million in 2018 to 10.20 million in 2040. In the same period, annual domestic passengers are forecast to grow from 9.92 million to 18.31 million.

## Forecast passenger growth

	2018	2025	2040
<b>Total passengers</b>	<b>14.29m</b>	<b>17.06m</b>	<b>28.51m</b>
International	4.37m	5.75m	10.2m
Interstate	5.89m	7.34m	12.36m
Intrastate	4.04m	3.97m	5.95m

Annual international aircraft movements at Perth Airport are forecast to increase 59 per cent from 23,400 in 2018 to 37,200 in 2040. In the same period, annual domestic aircraft movements are forecast to grow 53 per cent, from 106,600 to 163,000. Total annual aircraft movements are forecast to increase 56 per cent to 202,000 movements in 2040.

Domestic and international air freight could reach 383,000 tonnes by 2040. The majority of freight is carried as cargo on regular passenger flights, providing access to a wide range of regional, domestic and international destinations. Perth Airport handles a large variety of time-sensitive and perishable agricultural products including fresh fruit and vegetables, seafood products, fresh meat products and live animals for overseas and interstate markets. In 2018, nearly 34,000 tonnes of agricultural products worth over \$566 million were exported through Perth Airport.

## 2040 Forecasts



# 28.5 million

passengers



# 202,000

annual aircraft movements



# 383,000

tonnes of air freight



## Master Plan 2020 development objectives

Developments are guided by objectives which evolve from Perth Airport's vision and corporate objectives, including the following that guide Master Plan 2020:

- develop a consolidated central terminal precinct maximising efficiency for airline partners and passengers and supporting the State's significant investment in road and rail connections within the central precinct,
- deliver aviation services guided by airline partners, business enterprises and customer needs and expectations, striking a balance between amenity, cost, value and return on investment,
- ensure all facilities are safe and secure for all people who use them or live in the vicinity of the airport,
- bring land not required for long-term aviation services into productive use to support economic development and create employment in Western Australia,
- ensure the airport's development and operations respect the strong bond that exists between the Noongar people and the land of Perth Airport,
- ensure that airport development and operations minimise adverse impact on surrounding communities and the environment,
- ensure that Perth Airport achieves an adequate and sustained return on investment to support continuing investment in facilities, and
- ensure the ongoing integrity of critical infrastructure.



## Achieving consolidation

For more than 40 years the planning for Perth Airport has identified the future consolidation of terminals to a central location, supported by a parallel runway system.

Over the past ten years, Perth Airport completed the first stage of consolidation with a privately funded investment program worth more than \$1 billion, including the opening of the \$121 million Terminal 2 in March 2013, \$80 million transformation of the Terminal 1 International arrivals experience in 2014, opening of the \$338 million new Terminal 1 Domestic pier in 2015, and \$250 million invested in new taxiways, taxiway widening, enhanced lighting and navigation approach equipment as well as runway overlays.

To meet forecast growth and provide a seamless experience for all travellers, Perth Airport has now planned an investment program of up to \$2.5 billion over the next decade to achieve the consolidation of all commercial air services into the Airport Central Precinct. This includes:

- expansion of international facilities through the International Terminal Upgrade projects,
- construction of Multi-Modal Transport Interchanges (MMTI) facilities (including multi-storey car parks) within the consolidated central terminal,
- construction of a new terminal for the consolidation of Qantas Group operations to Airport Central by 2025, and
- construction of a new runway.

International Terminal Upgrades will include:

- a new international departures area,
- greatly expanded retail offering,
- new airline lounges,
- new baggage handling system,
- new aerobridge-services and aircraft parking positions for wide-bodied aircraft, and
- new taxiways to connect the terminal to the existing and future airfield systems.

The first stage of the International Terminal Upgrades is expected to be completed in 2020.

The final stage of consolidation is the relocation of the Qantas Group from its existing location in T3 and T4, on the West of the airport, to expanded terminal facilities that are proposed to be constructed in Airport Central to the East of T1 (referred to as the new terminal). Perth Airport is working with Qantas towards consolidation by 31 December 2025.

The new runway forms a key part of supporting the consolidation of operations into Airport Central. The new runway, as part of a parallel runway system, is critical to enabling the full and intended operation of all passenger operations from a centralised precinct.

The new runway will occupy 293 hectares, be 3,000 metres long and will be located parallel to the existing main runway with a two kilometre separation so that both runways can be used independently. The new runway project will also include taxiways, lighting, navigational aids, other ground-based infrastructure and emergency response facilities. The new runway is expected to be operational between 2023 and 2032, subject to demand and agreement with airlines. Further information about the project is available at [newrunway.com.au](http://newrunway.com.au)



Vision for the future - Airport Central consolidation

Source: Perth Airport

## What guides the timing of developments?

Component	Development Triggers
Runways	<ul style="list-style-type: none"><li>• Peak period aircraft movement demand</li><li>• Forecast annual aircraft movements</li><li>• Improve holding and taxiing delays, reduce fuel burn and emissions</li><li>• Maintain and improve ontime performance</li><li>• Introduction of new aircraft types</li></ul>
Taxiways	<ul style="list-style-type: none"><li>• Reduce taxiing delays, fuel burn and emissions</li><li>• Reduce runway occupancy times</li><li>• Introduction of new aircraft types</li><li>• New terminals</li><li>• Connections to new runway infrastructure</li><li>• Improved safety</li></ul>
Apron	<ul style="list-style-type: none"><li>• Busy hour demand</li><li>• New terminals</li><li>• Improved customer experience</li><li>• New or larger size aircraft</li><li>• Overnight parking demands</li><li>• Improved safety</li></ul>
Terminals	<ul style="list-style-type: none"><li>• Busy hour demand</li><li>• New terminals</li><li>• Improved customer experience</li><li>• Reduce processing delays (such as improving security screening processing times)</li><li>• New legislation (such as new security screening measures)</li><li>• Improved safety</li></ul>
Roads	<ul style="list-style-type: none"><li>• Improved customer experience</li><li>• Improved safety</li><li>• Improved delays and congestion</li><li>• Change in mode share</li><li>• Connect to new external road access points</li><li>• New terminals</li><li>• New commercial developments</li></ul>





**Project**  
**New Domestic Terminal (T2)**

T2, which opened in March 2013 next to T1, marked the first stage of consolidation when Alliance Airlines, Virgin Australia Regional Airlines (formerly Skywest) and Tigerair relocated from Terminal 3 (T3) into T2.

T2 has a gross floor area of approximately 21,500 square metres and aircraft parking for up to 36 aircraft.

**Value**  
**\$121 M**



**Project**  
**Terminal 1 (T1) International Arrivals Expansion**

Transformation of the international arrivals experience, including substantially expanded and enhanced customs, baggage reclaim, biosecurity and duty free retail areas. The first stage opened in November 2013, with full completion in late 2014.

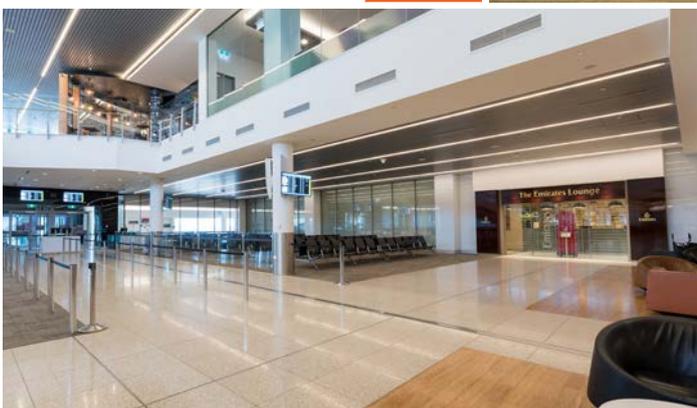
**Value**  
**\$80 M**



**Project**  
**T1 International Departures Upgrade**

Outbound immigration, passenger security screening and retail areas expanded and renewed, with the project completed in 2015.

**Value**  
**\$41 M**



Stage 1 Capital investment program for consolidation  
Source: Perth Airport



**Project**  
**T1 Domestic Pier and International Departures Expansion**

The T1 Domestic Pier and International Departures Expansion projects were completed in 2016.

These projects allowed Virgin Australia to consolidate its services into Airport Central.

**Value**  
**\$338 M**



**Project**  
**Forecourt Upgrade**

Landscaping of Terminal 1 Forecourt with native Western Australian species and materials to provide visitors with a glimpse of the unique landscape of the State.

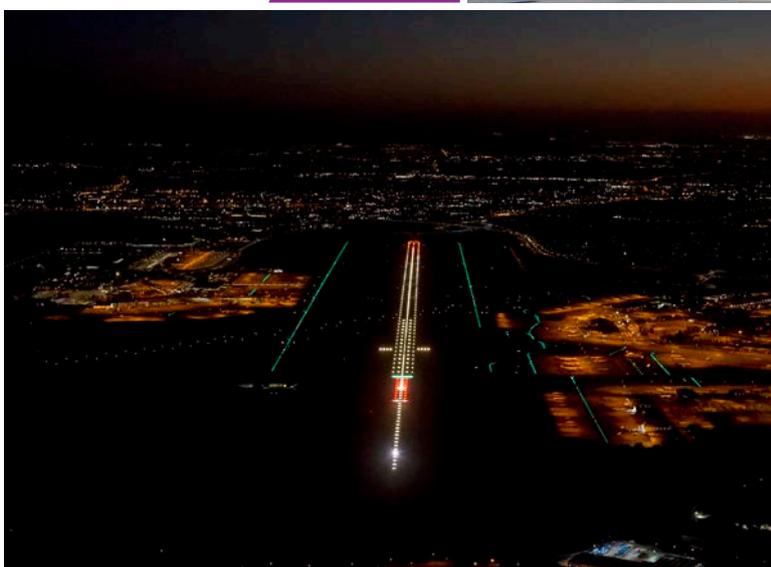
**Value**  
**\$22 M**



**Project**  
**Airfield Projects**

Upgrades to airfield infrastructure including new taxiways, to deliver increased efficiencies for aircraft moving around the airport, and lighting upgrades, allowing aircraft to land in low visibility when they would otherwise need to divert to another airport.

**Value**  
**\$250 M**





**Perth Airport Precincts**  
Source: Perth Airport

## Making the best use of Perth Airport land

Planning for the use of the 2,105 hectare airport estate balances the safeguarding of long-term airfield, terminal and aviation support operations with the development of land, including development of land for non-aviation purposes.

Master Plan 2020 divides the airport's land into five precincts. Two of these are solely aviation-related: the Airfield Precinct for aircraft operations and Airport Central Precinct for passenger facilitation. The Airport West, Airport North and Airport South precincts contain a mix of aviation and non-aviation developments.

### Airfield Precinct

The Airfield Precinct will continue to be developed to support current and future aviation activities and facilities integral to the day-to-day operations of Perth Airport, including the construction of the new parallel runway (expected to be operational between 2023 and 2032, subject to approval), taxiways, navigation aids and aviation rescue and fire-fighting services. The long-term planning includes future extensions of the main runway and the cross runway.

### Airport Central Precinct

Airport Central is home to Terminal 1 International, Terminal 1 Domestic Pier, Terminal 2 and the associated aviation support, ground transport and commercial facilities.

The next ten years will see the consolidation of all commercial air services to Airport Central, with significant development including the opening of the Forrestfield-Airport Link's Airport Central Train Station in 2021, an expansion of Terminal 1 International, a new terminal to be constructed for the relocation of Qantas Group operations, multi-storey car parks and a hotel.

### Airport South Precinct

Airport South has largely been developed to provide a range of aviation and non-aviation uses, with a focus on logistics, freight and distribution facilities and light industrial. Due to its proximity and access to Airport Central, the precinct also focuses on providing customer and aviation services with priority parking areas and car hire.

### Airport West Precinct

The Airport West Precinct is currently home to Terminals 3 and 4 and provides a range of aviation support facilities and associated ground transport, general aviation facilities and a growing retail and commercial activity centre.

Following the relocation of Qantas Group operations to Airport Central, Terminals 3 and 4 will be discontinued. The future use of the sites has not yet been determined.

The Airport West Precinct will continue to be developed with office, hospitality, well-being, retail and bulky goods developments that provide goods, services and amenity for travellers, the future increased nearby residential population, the wider growing population of Perth and the growing employee base on the estate.

The future Redcliffe Train Station, located adjacent to the airport estate boundary, is due for completion in 2021 and will provide rail access to the retail, office and commercial developments within the area. Development of the airport land located near the train station may include future complementary land uses such as medical services, and education and training.

### Airport North Precinct

The Airport North Precinct will continue to be developed as an integrated mix of industrial, commercial, aviation service and logistics land uses. Kalamunda Road is planned to be realigned through the precinct after 2020 with new internal roads constructed to support future aviation and commercial developments within the precinct.

Airport North's strategic location and potential for major road and freight rail access support plans for a future aviation fuel storage facility and intermodal development.



## Getting to and from Perth Airport

Ground transport planning is critical to the continual growth of Perth Airport and ensuring easy access for people coming to and going from the airport.

The Ground Transport Plan seeks to ensure the necessary road and public transport infrastructure is planned and provided as Perth Airport continues to grow. This is achieved through a collaborative approach with State and Local governments to ensure that the airport roads work in harmony with the surrounding road network and that public transport routes are developed and operated to a suitable level of service.

A key focus of Master Plan 2020 is ensuring that ground transport infrastructure is in place for the final stage of consolidation of commercial air services to Airport Central when Qantas Group relocates to a new terminal in 2025.

The State and Commonwealth governments have contributed significantly to fund road and rail infrastructure to improve access to the airport to support consolidation. The \$1 billion Gateway WA project, Western Australia's largest-ever road project, was completed in 2016. The \$1.86 billion Forrestfield-Airport Link is expected to be completed by 2021 and includes the Airport Central Station, which is being constructed next to the Air Traffic Control tower and will give passengers access to all terminals located in Airport Central.

Over the next five years Perth Airport is planning to construct new multi-storey car parks in Airport Central incorporating pick-up and drop-off facilities. Also, the intersection of Airport Drive and Sugarbird Lady Road will be upgraded.

The new runway project will require the re-closure of Grogan Road, which was previously closed to through traffic between 1987 and 2005. The re-closure of Grogan Road will result in a change of access to Airport Central, with alternative routes being via the Roe and Tonkin Highways.



## Safeguarding Perth Airport

As a critical element of public infrastructure that operates 24 hours a day, seven days a week, the current and future safety, viability and growth of Perth Airport operations must be safeguarded against inappropriate land development and activities in the areas surrounding the airport.

Safeguarding Perth Airport is a shared responsibility of Perth Airport and all levels of government. Perth Airport works closely with Commonwealth, State and Local governments to ensure that developments within the airport land, and in the areas surrounding the airport, protect the safe operation of aircraft at Perth Airport.

The National Airports Safeguarding Framework (NASF) guidelines were developed in 2012 by a National Airports Safeguarding Advisory Group that included high-level Commonwealth, State and Territory transport and planning officials. The key areas of focus are aircraft noise management, protecting airspace from intrusions, managing risk associated with public safety areas, distractions to pilots from lighting, building induced windshear, wildlife strikes, and protecting communication, navigation and surveillance infrastructure.

Perth Airport continues to advocate for the implementation of the safeguarding measures into the State planning framework.

Safeguarding the safety, viability and growth of aviation operations is vital today and in the future.



## Aircraft noise

Aircraft from Perth Airport – as well as Jandakot Airport and the RAAF Base Pearce – will fly over most of the Perth metropolitan region.

Noise from aircraft approaching and departing Perth Airport and from their operations on the airfield is an unavoidable consequence of providing critical and safe air services.

Perth Airport is committed to working with Airservices Australia, government and the aviation industry to actively manage aircraft noise exposure and its effect on the community while balancing the need for continued growth of air services. In addition to Airservices Australia there are a wide range of organisations which have responsibilities in relation to aircraft noise management, including:

- airlines and aircraft operators,
- Aircraft Noise Ombudsman,
- Civil Aviation Safety Authority,
- Department of Infrastructure, Transport, Cities and Regional Development,
- International Civil Aviation Organization,
- Perth Airport, and
- State and Local government.

Perth Airport has adopted the International Civil Aviation Organization's (ICAO) 'balanced approach' for aircraft noise management which considers four main elements.

Noise modelling has been undertaken for current and future operations, including a revised Australian Noise Exposure Forecast (ANEF) and Number-Above Contours.

The ANEF system is used for land use planning purposes. It has been adopted by the State Government in its land use planning policies to provide guidance on the acceptability of certain types of land use or development based on the ANEF level in the area. The intention is to restrict, or require building treatment, for noise-sensitive developments in areas forecast to be exposed to aircraft noise.

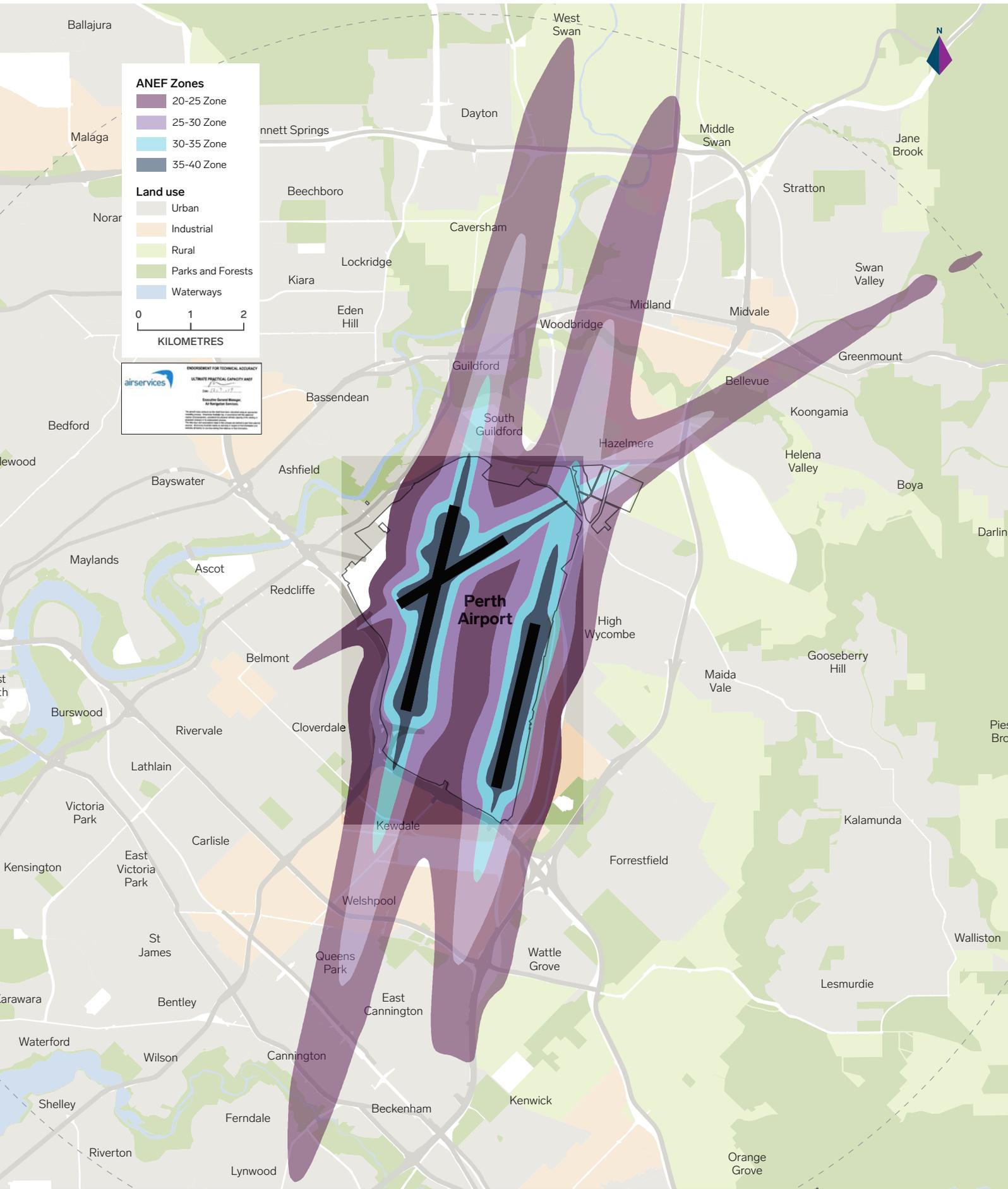
Perth Airport developed its first ANEF as part of the Master Plan 1985. Since that initial noise forecast, the overall footprint of the ANEF contours has remained relatively the same. The future new runway has been included in every ANEF for Perth Airport. The ANEF included in Master Plan 2020 is based on the airport operating at its ultimate theoretical capacity. The Ultimate Capacity ANEF has been endorsed for technical accuracy by Airservices Australia.

Number-Above noise contours illustrate the average number of events per day that exceed a certain sound level. The N65 contours represent the average number of events per day over 65 decibels dBA when the airport is operating as its ultimate theoretical capacity. A 65 decibel noise level outdoors corresponds to an indoor noise level of approximately 55 decibels, which is considered the sound level at which conversation can generally be disturbed.

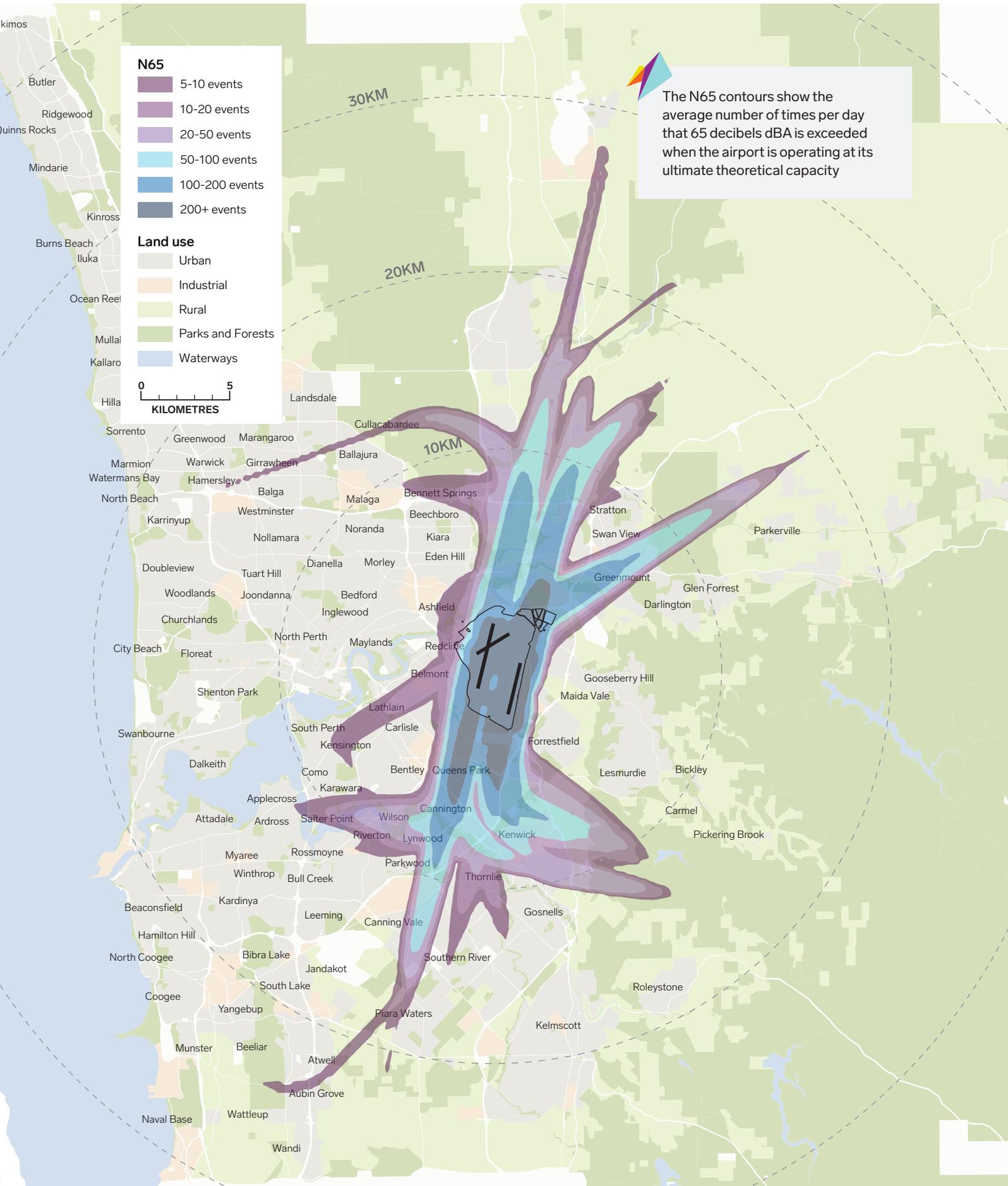
Indicative flight corridors for the future parallel runway operations were developed as part of the Major Development Plan for the New Runway Project. This plan was made available for public comment in 2018 and the final flight paths will be designed by Airservices Australia prior to opening of the new runway.

To ensure the community and stakeholders are fully informed and aware of noise exposure and flight paths, Perth Airport has developed an interactive web-based Aircraft Noise Information Portal available at [perthairport.com.au/aircraftnoise](http://perthairport.com.au/aircraftnoise). The Portal provides information about current flight paths, indicative future flight corridors, the ANEF contours and the N65 contours for each suburb.





2020 Ultimate ANEF  
Source: Perth Airport



**Ultimate N65 contour**

Source: Perth Airport

This diagram is based on Perth Airports projected movements at ultimate capacity. Based on the forecasts used in this Master Plan, it is expected Perth Airport will reach capacity around 2080.

## Environmental and Heritage management

Perth Airport is committed to effective environmental management of the airport estate. Perth Airport has a comprehensive Environmental Management System which incorporates planning, implementation, monitoring, reporting and reviewing environmental management and sustainability related issues across all aspects of the airport estate and operations.

Master Plan 2020 includes an Environmental and Heritage Strategy which outlines the areas of environmental, sustainability and heritage focus and the actions and improvements in a five-year action plan. The Strategy addresses environmental and heritage factors identified as having the potential to be impacted by airport development and operations, including:

- soil,
- groundwater and surface water,
- biodiversity, including flora, fauna and wetlands,
- carbon and energy,
- water,
- waste,
- air quality,
- ground-based noise,
- contamination and hazardous materials, and
- Aboriginal heritage.

As Perth Airport operates 24 hours per day, seven days a week, the energy efficiency of terminals and buildings along with the efficiency of aircraft and vehicle traffic are key considerations for managing environmental impacts, including greenhouse gas emissions. Through careful planning and investment, Perth Airport ensures that airport infrastructure is well designed and delivered to meet demand.

Perth Airport is committed to ensuring that our services are delivered to the community and our business partners in a sustainable manner to deliver positive outcomes for today and the future.



## Development opportunities

The proximity of Perth Airport to the Perth Central Business District and the wider metropolitan area, coupled with premium access to Perth's major arterial roads and distribution networks, high safety and security standards means that Perth Airport is a prime location for aviation and non-aviation activities.

Perth Airport plays a significant role in developing and providing land for employment, creating high-quality commercial, industrial and logistics facilities, and supporting the continued growth and development of Perth's economy.

Perth Airport's status as a 'Specialised Activity Centre' in State Government strategic plans highlights the importance of the role the airport plays to promote economic development and create employment opportunities within Western Australia.

Over the past five years, Perth Airport has experienced ongoing demand for non-aviation developments, predominantly warehouses and large format retail. This has been driven by companies wanting to establish themselves within a high-quality, highly accessible and visible location. Businesses expanding their existing presence on the airport estate have also played a role in the growth of non-aviation development at Perth Airport.

Perth Airport currently has more than 150 tenants located on the estate. The planning for Perth Airport identifies further opportunities for the development of high-quality commercial, industrial, retail, aviation support, and logistics and freight facilities.



## Working with the community

Engagement and consultation with a wide range of stakeholders and the community plays a key role in the transformation of Perth Airport.

Perth Airport is committed to building strong and enduring relationships, working with local communities to build active partnerships and contributing to a wide range of community activities which support organisations, families and not-for-profit groups.

Master Plan 2020 outlines the ongoing consultation and education mechanisms undertaken by Perth Airport to inform stakeholders and the community about on-airport land use planning, developments, potential impacts and to seek input on alternative approaches and options. Perth Airport engages through regular forums such as the:

- Perth Airport Aboriginal Partnership Agreement Group,
- Perth Airport Aircraft Noise Technical Working Group,
- Perth Airport Community Forum,
- Perth Airport Consultative Environmental and Sustainability Group,
- Perth Airport Planning Coordination Forum, and
- Perth Airports Municipalities Group.

Through regular and proactive engagement Perth Airport ensures that the diverse range of interests and needs of stakeholders – including Local, State and Commonwealth governments, airline partners, airport tenants, the Noongar people and the community - are taken into account in the planning and operation of the airport.

The public comment period for Master Plan 2020 is an important part of the approval process. Further information about Master Plan 2020 is available online at [perthairport.com.au/masterplan](http://perthairport.com.au/masterplan).

Perth Airport's relationship with the Western Australian community is an essential part of company values and plays a key role in the continued transformation of Perth Airport.





This Master Plan 2020 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 Master Plan 2020:

- 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 other 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 anyway relies on any information in this Master Plan 2020 (including making any decision about development or any other activity on or off Perth Airport).

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