**BRISBANE AIRPORT MASTER PLAN** 



VH-YIT

SUMMARY DOCUMENT



VH-OPI

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BRISBANE AIRPORT AT A GLANCE Everything you need to know about the airport voted Best in the Australia/Pacific region.



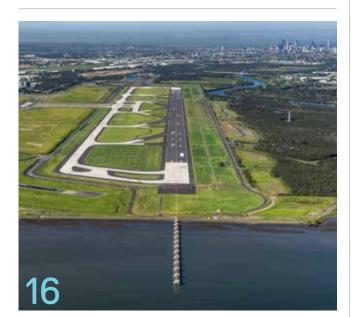
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OUR PLANS FOR GROWTH OUR KEY STRENGTHS Seven of the things that make Brisbane Airport special



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A brief explanation of the purpose of the plan and what goes in it.

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## Connect the world, create the future



## A WELCOME FROM THE CEO OF BRISBANE AIRPORT CORPORATION

Welcome to this summary version of the Brisbane Airport 2020 Master Plan. Arguably the most important document we produce, the Master Plan is an essential part of our medium and long-term planning. By planning ahead, with a 20 year horizon, we strive to ensure the continued delivery of the highest quality of secure and efficient aviation and business services.

The period since the publication of the last Master Plan in 2014 has been one of continued growth. We now serve more than 23 million passengers a year, a number forecast to double by the year 2040. International destinations served by the airport have continued to grow, with each new service representing another forward step both for the airport and for the economy of the region. th in \$ a h o d d n e e T d t t t

An independent report by PricewaterhouseCoopers estimates that each international flight arriving into Brisbane generates an estimated \$620,000 for the Australian economy, a high percentage of which is spent here in Queensland.

With a fast-growing reputation as one of the region's most desirable places to do business, more than 400 companies now call Brisbane Airport home, together employing more than 23,000 people.

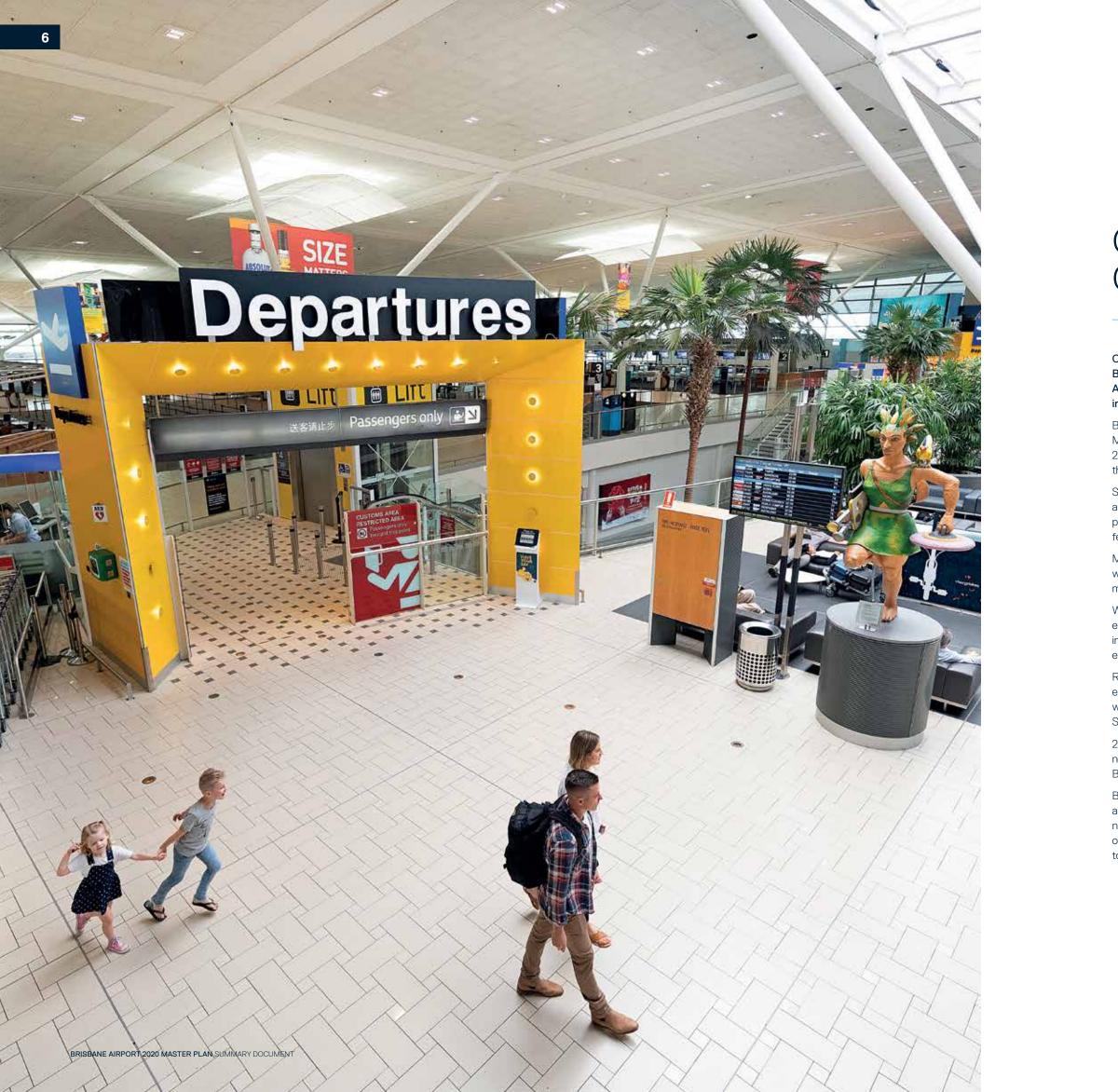
The Brisbane Airport 2020 Master Plan describes our plans for the future in detail. It outlines details of planned investments in infrastructure and increased capacity to enable the entrance of new carriers and new services, while ensuring that the highest standards of safety and security are maintained. The Ground Transport Plan lists 17 separate projects planned to ensure that traffic continues to flow smoothly and that journey times are minimised.

The Master Plan also details our continued commitment to environmental responsibility, highlighting 12 specific areas of focus for the years ahead as well as providing details of the many environmental initiatives already in place, from the installation of solar panels to sustainable water management.

It's a pleasure to be able to share the details of our future plans with you, our customers.

Mull

Gert-Jan de Graaff CEO, Brisbane Airport Corporation



## CONNECTING QUEENSLAND 24/7

Operating 24 hours a day and serving more than 23 million passengers each year, Brisbane Airport is a leading aviation hub, connecting Brisbane, Queensland and Australia overall to more than 50 Australian airports and a growing number of international destinations.

Bounded by the Brisbane River to the east, the Kedron Brook Floodway to the west, Moreton Bay to the north and the Gateway Motorway to the south and located less than 20 km from the Brisbane CBD, Brisbane Airport is one of the fastest growing airports in the country and serviced by high quality road, rail and public transport connections.

Substantial ongoing investment by Brisbane Airport Corporation has seen the airport and associated businesses become an important source of employment for the region, playing a catalytic role in tourism, business and industry growth with benefits being felt across Australia.

More than just an aviation hub, Brisbane Airport is a convenient and safe place of work for more than 23,000 people and a thriving suburb that supports and fosters more than 400 businesses in both aviation and non aviation industries.

Working closely with the local community, the last five years have seen a focus on environmental responsibility at Brisbane Airport, with new initiatives including the installation of a network of 22,000 solar panels, the introduction of an energy efficient electric bus fleet and a variety of recycling and waste management initiatives.

Recognised nationally and internationally with awards for work in the areas of environmental sustainability, accessibility and engineering excellence, Brisbane Airport was awarded the title of Best Airport (Australia/Pacific) in the prestigious 2019 Global Skytrax World Airport Awards.

2020 will be a landmark year in the modern history of Brisbane Airport with the opening of a new runway, a forward looking construction project that guarantees the continuing ability of Brisbane Airport to provide the highest quality of services to airport visitors in the future.

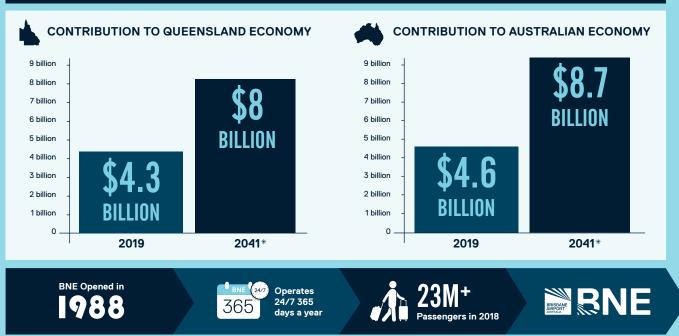
Brisbane Airport Corporation's overall vision is to create a sustainable world-class airport, a distinctive place that visitors keep coming back to, and the best possible neighbour and business partner, building collaborative relationships, exploring opportunities for sustainable growth and acting with integrity in guiding the airport towards a brighter future for all.

## **BRISBANE AIRPORT AT A GLANCE**

Brisbane Airport is managed with a strong focus on community, sustainability, education, knowledge and economic growth.



#### ECONOMY

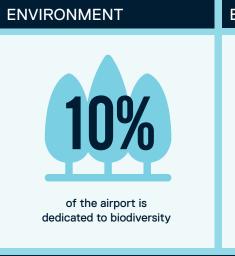


**BRISBANE'S NEW RUNWAY - OPENING 2020** 

## **BRISBANE'S NEW RUNWAY SYSTEM WILL BECOME THE MOST EFFICIENT IN AUSTRALIA**







#### LOCATION









OF SAND DREDGED

---+ BRISBANE'S NEW RUNWAY IS 3.3 KM IN LENGTH

#### **BUSINESSES AT BRISBANE AIRPORT**



23.000+

Collectively, businesses employ more than 23,000 people

46.000 +

Expected to reach more than 46,000 by 2040

#### COMMUNITY

### **OUR KEY STRENGTHS**

Brisbane Airport Corporation places the utmost importance on being a great host and providing world-class infrastructure and facilities. As the first and last experience passengers and visitors have of Brisbane, Brisbane Airport Corporation has invested significant capital in creating a unique and engaging sense of place within the terminals, a place that proudly showcases the very best of Brisbane, Queensland and Australia.

#### **GEOGRAPHY**

Being closer to both the USA and a number of major Asian ports, Brisbane Airport enjoys a strategic geographic advantage. This is of particular importance to fresh produce exporters. Further, with a high number of tourism destinations located in Queensland, Brisbane Airport is the state's primary gateway for many national and international tourists.

#### THE CAPACITY TO EXPAND

Brisbane is Australia's Airport is situated on an extensive parcel of land, covering approximately 2,700 hectares. This provides significant scope for future expansion, giving the airport capacity to continue its growth into a major international gateway, while still maintaining buffer zones that separate airport operations from surrounding communities.

#### **PROXIMITY TO THE CBD** WITH GOOD CONNECTIONS

Brisbane Airport is served by excellent road, rail and public transport connections. Recent major road infrastructure projects delivered by local and state Government have improved the airport's connectivity to the CBD with a network of underground motorways allowing swift and convenient access at even the busiest times of the day.

#### THE ABSENCE OF A NIGHT TIME CURFEW

Brisbane's curfew-free status provides a competitive advantage that facilitates the continued growth of Queensland and Australian business and tourism interests. The ability to operate 24/7 allows global carriers to effectively link Brisbane to international networks which hub from cities including Dubai, Singapore, Hong Kong and Bangkok.

The absence of a night curfew is also critical for air freight, with time-sensitive and perishable freight reliant on the airport's 24/7 operation to achieve timely delivery.

#### CAPACITY TO RESPOND TO CHANGE

With air travel experiencing a rapid pace of innovation and change, manufacturers are working hard to deliver new aircraft that respond to changing demands. Brisbane Airport is configured to service the wide variety of current and future aircraft, including the new runway, taxiways, terminal facilities and aviation support services.

In line with state and local Government planning intent, the development of an on airport network of neighbourhoods will cluster together businesses with similar needs.

#### **BRISBANE'S NEW RUNWAY**

A testament to long term planning, Brisbane's new runway will double the capacity of Brisbane Airport. First considered when the original airport plans were created, approval for the construction of the new runway was granted in 2007.

#### LARGE BUFFER ZONE

Brisbane Airport has the largest buffer zone from surrounding communities of any capital city airport in Australia, helping to minimise the impacts of aircraft noise.



### OUR PLANS FOR GROWTH

The central theme of the Master Plan is one of planning for growth and creating Brisbane Airport's future. As one of Australia's largest airports by land size, flying to more than 80 destinations, Brisbane Airport plays a critical role, not just in connecting people, but in driving the future economic prosperity of the region. Research and consultation undertaken in the preparation of the plan has highlighted the different ways in which the airport is set to grow.

#### PASSENGER GROWTH

Currently serving more than 23 million passengers a year, the aviation and passenger forecasts commissioned for this Master Plan predict an increase in passenger movements of more than double the current levels.

Aircraft movement forecasts, including general aviation movements, are forecast to increase to an estimated 380,000 annual movements by 2040.

A combination of continued population growth in Brisbane and Queensland and an unprecedented level of capital investment in the city of Brisbane and surrounding areas are both catalysts in creating a greater demand for both more frequent flights and for the addition of new international destinations.

#### ECONOMIC GROWTH

#### The theme of growth, central to this Master Plan, is underlined by the economic projections that PricewaterhouseCoopers provided as part of the planning process.

Brisbane Airport's total economic contribution to the Australian economy is forecast to grow from its current figure of \$4.7 billion per annum to an estimated \$8.7 billion by the year 2040, a real annual growth rate of 3.1 per cent.

Together, the direct and indirect economic contributions of Brisbane Airport are estimated to currently account for approximately 1.3 per cent of Queensland Gross State Product.

#### JOBS GROWTH

With more than 23,000 people working on the airport site, employment at Brisbane Airport is estimated to provide \$1.5 billion annually in employee wages to Queensland families, with a further \$818 million earned through the associated supply chains.

In line with a strong economic outlook for the region, employment at the airport is forecast to grow by 3.1 per cent per year, with direct employment at the airport forecast to reach a figure of more than 46,000 jobs by the year 2040.

#### THE GROWTH OF BRISBANE

In the five-year planning horizon of this Master Plan, the City of Brisbane looks set to be transformed by a number of major construction projects.

Together these projects represent a major step forward for the city and for its economy.

#### THE IMPORTANCE OF BRISBANE'S NEW RUNWAY

The new parallel runway effectively doubles the capacity of the airport. By providing the services and facilities that allow Brisbane to become a globally connected city, Brisbane Airport is creating the investment confidence that underpins the city's plans for future growth.

Economic forecasts estimate that the new runway will contribute an annual figure of more than \$1 billion directly to the Queensland economy, a figure set to more than double over the 20 year period of the Brisbane Airport 2020 Master Plan.

#### INTRODUCING THE BNE AUTO MALL

Also due to open in the time frame of this Master Plan is the groundbreaking new BNE Auto Mall, a unique development that will change the face of car retailing in the region.

The first of its kind, the development includes a test track and a host of associated facilities

Open 24/7 and already the subject of a great deal of enthusiastic anticipation from the automotive industry, BNE Auto Mall is certain to increase visitation to the airport, creating new jobs and greater prosperity for the region.



## MAJOR PROJECTS UNDERWAY

Through ongoing investment by Brisbane Airport Corporation, Brisbane Airport plays a catalytic role in tourism, business and industry growth with benefits being felt across Australia. Major projects underway at Brisbane Airport include the:



#### BNE AUTO MALL

Once constructed, the development will create a high-profile visitor attraction.



A \$12.6 million upgrade of check-in and bag drop facilities as part of an ongoing program of work. Four of the six check-in rows have been completed to date including the provision of 96 new self-service kiosks.





#### **MULTI STOREY CAR PARK**

Ideally located for visitors to the International Terminal, the car park will provide up to 2,800 additional parking bays and will be linked by a new intersection on Airport Drive.



#### DOMESTIC TERMINAL RETAIL UPGRADE

A major project delivering a range of improved services. Including 50 new and refurbished retail offerings, each contributing to an improved passenger experience.





#### **BRISBANE'S NEW RUNWAY**

Brisbane's new runway is the culmination of long term planning which commenced in the 1970s. Work on the site began in 2012, with the runway opened in July 2020.

## THE HISTORY OF BRISBANE'S NEW RUNWAY: **EIGHT YEARS OF CONSTRUCTION**



#### **1. PREPARING THE SITE**

The preparatory works for the construction of Brisbane's new runway commenced in 2012 with clearing of the Casuarina plantation originally placed on site in the 1980s to stabilise the soil when the airport was built.

The new runway site, located at sea level on an old estuarine delta of the Brisbane River featured deep, soft, alluvial soils, in some places more than 30 metres in depth across the areas where the new runway would be built.

Engineers at the time described the surface as having the consistency of "sticky toothpaste". In these unusual circumstances, the plan to reclaim the site became dependant on being able to identify an environmentally-sound and economical source of the sand needed to create a surface for construction.

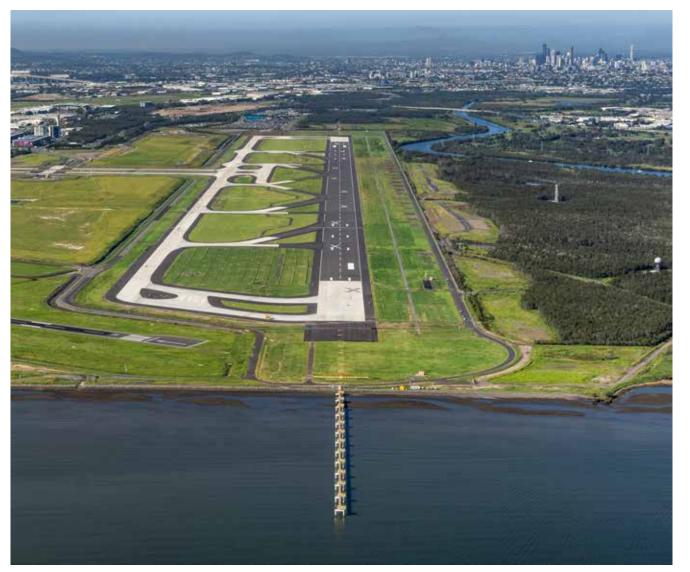
The Environmental Impact Study conducted prior to the approval of the construction plan in 2006/07 had proposed that Moreton Bay could potentially be an ideal source for the type of sand needed to surcharge the land and make it suitable for construction.

However the challenge of finding an economical way of transferring it from the bay and on to the airport again would prove to be complex and multi-layered.

The solution lay in the use of a "Jumbo Class" dredge known as the Charles Darwin. Measuring 183 metres long, and 40 metres wide, the dredge was berthed at the mouth of the Brisbane River, upwards of eight kilometres from the runway site, with a pipeline running across the Luggage Point Waste treatment plant land and the operational airfield.

To allow the pipeline to go around the main runway, as well as under the cross runway, a series of large concrete culverts were created under through which the pipeline was threaded. The three-year dredging phase saw almost 11 million cubic metres of sand transported to a greenfield site of 360 hectares, helping to create a platform fit for the construction of what was to become one of Australia's largest aviation project.

THE HISTORY OF BRISBANE'S NEW RUNWAY: **EIGHT YEARS OF CONSTRUCTION** 



#### 2. AIRFIELD PLANNING AND DESIGN

The second phase of the construction project, including the runway system as well as the necessary airfield infrastructure commenced in earnest in August 2016. An immediate priority was the construction of a four-lane underpass, to allow traffic to pass under the new taxiways linking the runway to the terminal buildings.

Work on the airfield itself commenced with the redistribution of an estimated 4.5 million cubic metres of now surplus sand to other parts of the airport site for use in future aviation related development.

The centrepiece of the project involved the construction of an entirely new parallel runway, 3.3 kilometres in length and 60 metres wide. The runway was supported by a further 12 kilometres of taxiways, taxiway pavements and airfield infrastructure including navigational aids, lighting, multiple utilities, signage, operations roads, airfield drainage and landscaping, security fencing and control systems.

A new high intensity approach lighting system has been installed at both ends of the runway, with 300 hectares of landscaping undertaken to cover all non-paved areas of the airfield.

Now open, the new parallel runway at Brisbane Airport effectively doubles the operating capacity of the airport. It is estimated that in its first year of operation, the new runway will create an additional \$1 billion in direct economic contribution to the Queensland economy. Further, indirect benefits accruing from the new runway are estimated to be worth more than \$545 million in indirect benefit.

The Brisbane Airport 2020 Master Plan includes full details of the flight path design and associated information.

OVERVIEW .1BN Total cost of project 90% OF PROJECT EMPLOYEES LIVE IN SEQ 90% OF CONSTRUCTION EQUIPMENT SOURCED FROM SEQ

#### WHAT THE RUNWAY MEANS TO THE QLD ECONOMY



## **BRISBANE'S NEW RUNWAY**



BRISBANE AIRPORT'S New Runway -Wage contribution to Queensland (\$ millions)



Source: QEAS

BRISBANE AIRPORT 2020 MASTER PLAN SUMMARY DOCUMENT

## BRISBANE AIRPORT CORPORATION'S **DEVELOPMENT OBJECTIVES**

With sustainability as a uniting theme, the Development Objectives of Brisbane Airport Corporation's 2020 Master Plan are grouped into four main areas of focus that together ensure the delivery of improved and expanded services to meet growing demand, creating economic prosperity and connecting Brisbane to the world.

### **01.** GROWING AVIATION MARKETS



#### **INCREASING CONNECTIVITY**

Brisbane Airport Corporation's focus is the creation of more frequent connections to a wider range of destinations in Australia and overseas.



#### DELIVERING CAPACITY TO MEET DEMAND

Investment in improved and extended operating capacity is essential to ensure business continuity and to sustainably meet growing demand for aviation services. In developing more frequent services and new destinations, priority will be given to ensuring that capacity is available to maintain the highest levels of services for passengers and aviation partners.

#### SECURE, SAFE AND EFFICIENT **AIRPORT OPERATION**

A secure and efficiently run airport is essential to meeting passenger needs, attracting investment from new airlines and new businesses and supporting existing partners. Investments in security initiatives and a continuous focus on safety to protect aircraft and passengers, on the ground and in the air, is a fundamental cornerstone of all development activity at Brisbane Airport.



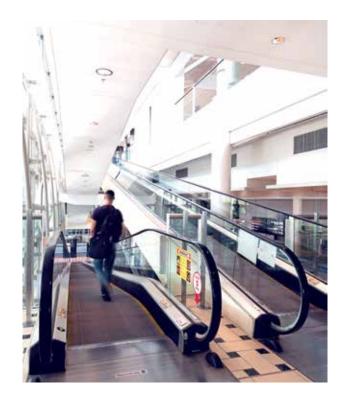
#### INVESTING IN COLLABORATIVE PARTNERSHIPS

Strong business partnerships with airlines and aviation partners underpin the continued growth of Brisbane Airport.

In an evolving aviation environment, Brisbane Airport Corporation will continue to actively engage with our partners to explore opportunities for sustainable growth in passenger and air cargo business on domestic and international routes.



### **02.** CUSTOMER SATISFACTION



#### ACCESSIBILITY FOR ALL

As a guiding principle, Brisbane Airport Corporation aims to provide facilities and services that are accessible to all members of the community, passengers, staff and visitors.

As part of ongoing collaboration with partners, accessibility needs are subject to constant review in consideration of opportunities to further improve the quality and range of assistance offered to all.



#### SMARTER JOURNEYS

Brisbane Airport Corporation will continue to embrace opportunities for the deployment of new innovations and services to improve customer experience. From improvements in terminal and airfield design to increased automation of passenger and baggage handling services, opportunities for using technology to streamline operations, passenger processing, aviation support, and landside connectivity will form an important part of all future development plans.



#### **BETTER JOURNEYS**

A passenger's journey starts at home. Brisbane Airport Corporation will continue to invest in better digital tools to help passengers enjoy simpler, faster and safer journeys to and through the airport.

Investment in more tailored and enjoyable leisure and retail experiences will ensure that time spent at the airport is stress free and rewarding.

#### **03.** SUPPORTING BUSINESS GROWTH



#### CREATING COLLABORATIVE **BUSINESS NEIGHBOURHOODS**

The growth of commercial operations at the airport, in both aviation and non aviation industries is a catalyst for the creation of vibrant business communities. The 2020 Master Plan plans to create collaborative neighbourhoods of businesses in similar industries, using similar support services.

Designed in line with Brisbane City Council's vision, the airport will become a vibrant cluster of connected business neighbourhoods, attracting further investment, creating new jobs and boosting economic prosperity for the region.



#### INVESTING IN SUSTAINABILITY

Sustainable approaches to future investment at Brisbane Airport have been a cornerstone of previous Master Plans and remain a key area of focus in the 2020 Master Plan. Airport tenants are bound by the Environmental Management Framework, requiring regular compliance audits.

The Biodiversity Zone will continue to be actively managed to protect significant species and habitats. Whilst developing the airport continual evaluation of the broader impact on the surrounding environment over time will be key. Considerations will include the amount of energy and water consumed, the amount of waste and carbon generated and the quality of the surrounding environment.



#### MAXIMISING GROUND CONNECTIVITY

Brisbane Airport's unique location, with a network of motorways providing easy access to both the Central Business District and the Port of Brisbane is perfect for business operation. Traffic flow on airport is relatively uncongested and the large land size allows multiple opportunities for easy access to airside and maintenance operations.

To further improve connectivity, this Master Plan contains details of on and off airport initiatives across multiple modes of transport designed to boost connectivity. As the airport grows, the continual involvement of connectivity will be a key consideration in the development of new or expanded businesses or services and ability to meet increased demand and changing mode share.



#### CONNECTING BUSINESS

Putting local businesses in direct connection with markets across Australia and overseas will build our economy's foundations and create new opportunities across all economic sectors.

#### 04. DRIVING ECONOMIC PROSPERITY



#### **ENABLING GROWTH IN** ECONOMIC WEALTH

This Master Plan demonstrates the extent to which Brisbane Airport is established as a key driver in the medium and longterm growth of the Queensland and Australian economies. The opening of Brisbane's new runway represents a quantum leap in providing a significant and immediate increase in long term capacity. Future development will look to demonstrate a long term and sustainable vision to further boost economic wealth not just on airport, but for the city of Brisbane, state and Australia overall.



#### CONNECTING BRISBANE TO THE WORLD

Brisbane Airport supports the city of Brisbane in the achievement of its vision of Brisbane as a "New World City" that encourages growth and innovation while protecting the city's values and lifestyle. The global connection Brisbane Airport offers is a catalyst for Brisbane and surrounding regions to create business and tourism opportunities with the fastest growing economies in Asia and beyond.



#### **PROACTIVE COMMUNITY ENGAGEMENT**

Brisbane Airport is an important member of the local community in which it operates. To ensure our neighbours are aware of our plans, a comprehensive and ongoing community engagement programme has been designed to generate informed discussions about subjects including airport development and potential impacts from increased aircraft operations. Ongoing and regular community engagement is a pivotal consideration of future planning activities.



#### **ENABLING LONG TERM** JOB CREATION

With more than 23,000 people employed on airport and a further 11,000 indirectly employed through airport business, future developments will be designed to enable additional job creation wherever possible, in particular in creating jobs for local workers. Investments in increased connectivity will make the airport an increasingly attractive place to work.



## QUEENSLAND'S AVIATION AND BUSINESS HUB

Major airports play a key role as an economic enabler, facilitating the movement of people and goods across local and global destinations and markets. An independent report quantifies the contribution that Brisbane Airport makes to the local and national economies. The report, which forecasts continued economic growth, identified five ways in which airport operations contribute to economic activity in Queensland and the rest of Australia.



#### 01. CREATING WEALTH

As Queensland's leading aviation hub and the home to more than 400 businesses, Brisbane Airport is a key driver of wealth creation across the state and Australia overall.



#### 03. JOBS

Brisbane Airport is one of Queensland's most vibrant employment locations, it is estimated that five per cent of all employment in Queensland is in some way enabled by the existence and operation of Brisbane Airport.



#### 02. CONNECTIVITY

Serving more than 50 Australian destinations and international airports in Asia Pacific, America and the Middle East, Brisbane Airport links Queensland businesses and their employees to the world, creating increased opportunities for import and export.

#### 04. BOOSTING REGIONAL ECONOMIES

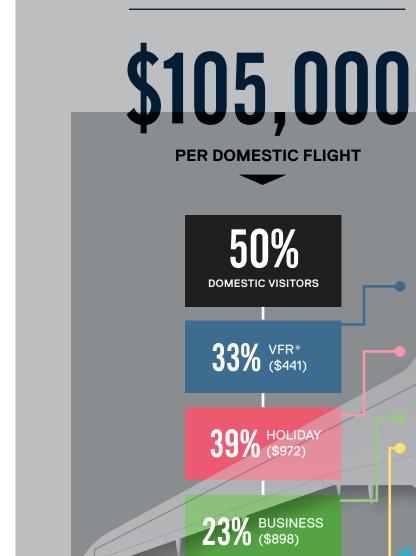
With an estimated 50 per cent of Queenslanders living outside Greater Brisbane, the airport is home to a range of vital emergency services and provides a vital link for business travel exports and regional tourism, connecting families and local communities.





#### 05. BOOSTING TOURISM

Tourism is one of Queensland's biggest and most dynamic industries. Brisbane Airport is an essential part of the continued growth of domestic and international visitation to the state and Australia overall.





50% QUEENSLAND RESIDENT

\*Visiting friends and relative

## AVERAGE PASSENGER AIRCRAFT SPEND

2018-2019

## \$620,000 PER INTERNATIONAL FLIGHT

**48%** INTERNATIONAL VISITORS **19%** CHINA (\$8.9K)

17% <sup>NZ</sup> (\$2K)

**9%** USA (\$5.1K)

**9%** (\$5K)

8% JAPAN (\$2K)

**18%** REST OF ASIA (\$4.6K)

12% REST OF EU (\$6.1K)

52%

**USTRALIAN RESIDENTS** 

5% REST OF THE WORLD (\$5K)

BRISBANE AIRPORT 2020 MASTER PLAN SUMMARY DOCUMENT



## LAND USE ZONES AND **AIRPORT NEIGHBOURHOODS**

Brisbane Airport is home to over 400 businesses large and small, together employing more than 23,000 people. Forecasts suggest that as new developments create new jobs, the number of people working at the airport will grow to more than 40,000 in the next 20 years.

#### AUTO MALL

\$300M **DEVELOPMENT AT THE HEART OF THE BNE AIRPORT PRECINCT** 

TOURISM **A BENCHMARK DESTINATION FOR QUEENSLAND AND AUSTRALIA** 

**24/7 OPERATION** THE ONLY AUTOMOTIVE PRECINCT IN AUSTRALIA OPEN 24/7

MANUFACTURER LAUNCH EVENTS · MEDIA DRIVING EVENTS · DRIVER TRAINING · VEHICLE ENGINEERING AND DEVELOPMENT · CORPORATE EVENTS · TEST DRIVING



**DFO EXPANSION** MIELE **CAR PARKS 4,950m<sup>2</sup> 5 NEW** EATERIES DFO **7,065**m<sup>2</sup> 17,000+ ,000 BAY 1.200m **CAR PARKING** WAREHOUSE, WORKSHOP **COMMERCIAL OFFICE SPACE MULTI-DECK CAR PARK** AND OFFICE FACILITY **SPACES** 



**SPECIAL PURPOSE** 

Aeronautical activities



#### **BRISBANE AIRPORT LAND USE ZONES**



#### **AIRPORT NEIGHBOURHOODS**

1	THE TERMINALS The heart of the airport and its operations
2	<b>SKYGATE</b> The airport's commercial, retail and leisure hub
3	AIRPORT CENTRAL 24-hour Service Centre and home to BNE Auto Ma
4	AIRPORT WEST Includes parking and vehicle charging facilities
5	AIRPORT NORTH The airport's logistics and aviation hub
6	EXPORT PARK Home to warehousing and distribution operations
7	DA VINCI Home to training and education centres
8	AIRPORT INDUSTRIAL PARK Includes warehouse, storage and distribution faciliti
9	AIRPORT EAST Maintenance and associated businesses

## FUTURE TERMINAL **DEVELOPMENT PLANS**

The Terminal Development Strategy is informed by previous Master Plans, interpretation of economic and socio-demographic trends and forecast changes in process improvement and technology in the aviation industry. The strategy is designed to provide quality, flexible facilities capable of meeting growth and changes in demand while maintaining the highest levels of security and service.

AUTO MALL

#### FUTURE WESTERN TERMINAL

#### FUTURE PLAN (20+ YEARS)

- Construction of large apron area.
- Construction of northern and southern concourses, servicing core terminal building.
- Connection of core terminal building to multi-level car parks and Future Northern Terminal.
- Creation of new terminal face ground transport facilities.
- Construction of remote aircraft parking and new ground servicing equipment storage areas.

 $\uparrow$   $\uparrow$   $\uparrow$   $\uparrow$   $\uparrow$   $\uparrow$   $\downarrow$   $\downarrow$   $\downarrow$   $\downarrow$   $\downarrow$   $\downarrow$   $\downarrow$   $\downarrow$   $\downarrow$ 

\*\*\*\*

# RUNWAY 01R/19L

XXXX

#### INTERNATIONAL TERMINAL

#### **MASTER PLAN 2020-2025**

- Expansion of the terminal core building.
- Upgrade and construction of apron bays.
- · Upgrade an expansion of key terminal facilities, including: conversion to automatic bag-drop: upgrade to Australian Border Force processing areas; expansion of passenger screening area; upgrade of baggage handling system.
- Construction of a new multi-level car park and enhancement of terminal face roads.

- FUTURE PLAN (20+ YEARS)
- Further expansions of the terminal core building.
- Completion of the northern concourse satellite.
- Option to develop a large southern concourse satellite.
- Expansion of the baggage handling system.
- Expansion of taxiway access to facilitate wide body aircraft parking.
- Safeguard the corridor and station locations for the Mass Transit System connections.

#### **CENTRAL TERMINAL AREA**

CENTRAL PARKING AREA

POTENTIAL AIRSIDE

BNE SERVICE CENTRE

AVIATION

SUPPORT

OAD CONNECTION

MASS TRANSIT SYSTEM CORRIDOR

#### **MASTER PLAN 2020-2025**

- Construction of remote aircraft parking and enhancement to the airside roads.
- Construction of taxiway connections to existing terminal precincts.
- Further development of existing aviation support and logistics facilities.

#### FUTURE PLAN (20+ YEARS)

 Construction of large remote parking apron and linkages to international and domestic terminal areas.

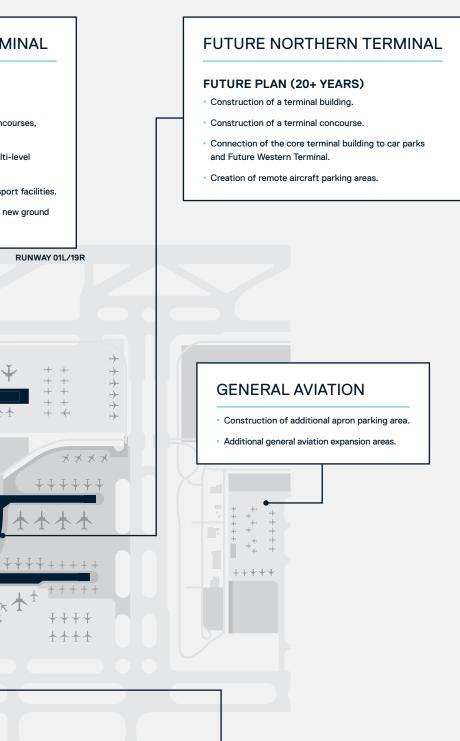
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CONTROL

TOWER

- Further development of aviation support facilities.
- Potential realignment of Airport Drive
- Potential new airside road connection to Western Terminal area.

- Expansion of terminal footprint to



#### DOMESTIC TERMINAL

#### MASTER PLAN 2020-2025

- accommodate new security measures.
- Installation of improved check-in facilities.
- Reconfiguration of baggage handling system.
- Upgrades to airline lounges and retail facilities.
- Construction of southern concourse.

#### **FUTURE PLAN (20+ YEARS)**

- Expansion of arrivals baggage reclaim area.
- Connection to Central Terminal Area
- Expansion and upgrade of food and beverage and speciality retail areas.
- Construction of a southern concourse.
- Construction of large northern concourse.
- Construction of a new multi-level short term car park.

## NOISE MANAGEMENT

#### WORKING WITH THE COMMUNITY AND THE AUTHORITIES

Brisbane Airport is committed to working closely with the community, Airservices Australia, the airlines, and Commonwealth, state and local Governments to minimise the effects of noise associated with airport operations on the community as much as possible. The Brisbane Airport 2020 Master Plan includes the latest Australian Noise Exposure Forecast (ANEF), endorsed by Airservices Australia.

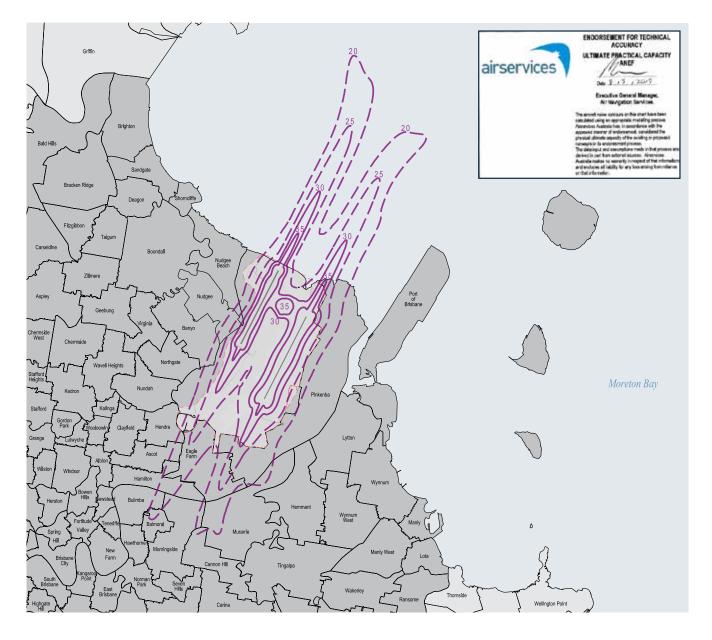
ANEF charts show contour lines in the vicinity of an airport of forecast daily average noise exposure levels from aircraft landings and take-offs. These contours are displayed as 20, 25, 30, 35 and 40 ANEF levels with higher contour levels representing higher cumulative daily aircraft noise averaged over a year.

#### **AIRCRAFT NOISE INFORMATION BOOKLET**

Brisbane Airport Corporation has prepared a Flight Path and Aircraft Noise Information Booklet to provide the community with useful information on aircraft operations at Brisbane Airport now and into the future. The booklet can be downloaded from the Brisbane Airport website.

#### FLIGHT PATH TOOL

Brisbane Airport's website also includes an innovative interactive Flight Path Tool that allows users to input an address and review current and future location of flight paths. The tool also provides details of aircraft altitudes and numbers of flights and noise levels above 70 decibels for a given time of the day and year.



#### INDUSTRY REGULATORS AND STAKEHOLDERS

Brisbane Airport works closely and pro-actively with the following industry regulators and stakeholders to minimise noise impacts associated with airport operations and to provide the community with accurate and transparent information about aircraft noise.

- The International Civil Aviation Organisatio develops global standards, rules and regulation including noise certification standards for ne
- The Civil Aviation Safety Authority is the regulator of civil aviation operations in Australia and responsible for airspace regulation and aviation safety.
- The Commonwealth Department of Infrastructure, Transport, Regional Development and **Communications** advises the Government on policy and regulatory frameworks for Australian airports and the aviation industry, including policy advice to the Minister on the management of aircraft noise. It also provides regulatory oversight of the Air Navigation (Aircraft Noise) Regulations 2018.
- Airservices Australia provides Air Traffic Control and Information Services, managing aircraft navigation, surveillance and noise monitoring and is responsible for airspace and flight path design. Airservices Australia also implements noise abatement procedures, provides information on aircraft movements, runway and flight path use and noise impacts and reviews and endorses ANEFs for technical accuracy.
- The Aircraft Noise Ombudsman conducts independent reviews of Airservices Australia's handling of noise complaints, community consultation and information on aircraft noise and makes recommendations for improvements.
- · Airlines and aircraft operators are required to meet regulatory noise certification requirements and comply with noise abatement procedures.
- State and Local Government Departments develop land use planning frameworks to prevent inappropriate developments in those areas excessively affected by aircraft noise.

#### BRISBANE SOUND LEVELS

on	
ons	
ew aircraft.	

		De	cibel R dB(A	-
EMERGENCY SIREN	130 dB(A)		T	130
TRAIN PASSING THROUGH NORTHGATE STATION ON SECOND TRACK, MEASURED AT 13m)	84 dB(A)		t	120
TYPICAL INNER CITY BAR AND RESTAURANT ON A FRIDAY NIGHT	80 dB(A)		t	110
PASSENGER CAR ON KINGSFORD SMITH DRIVE, EAGLE FARM (TRAVELING AT 60KM/H MEASURED AT 7.5m FROM THE SOURCE)	71 dB(A)		t	100
BREAKFAST AT TYPICAL CAFE, NEW FARM	68 dB(A)		+	90
ARRIVAL AIRCRAFT NOISE AT AROUND 1,200FT, 6KM FROM BNE (B737-800)	68 dB(A)		• +	80
STREETS BEACH AT SOUTHBANK (BRISBANE RIVERSISDE)	64 dB(A)		+	70
ARRIVAL AIRCRAFT NOISE AT AROUND 3,500FT, 16KM FROM BNE (B737-800)	62 dB(A)	•		60
SALISBURY RECREATION RESERVE	56 dB(A)	<b>R@</b>	+	50
CONVERSATIONAL SPEACH (MEASURED FROM 1m DISTANCE)	55 dB(A)		+	40
SUBURBAN AREAS IN ASCOT/HENDRA	55 dB(A)		+	30
NEW FARM LIBRARY	54 dB(A)		+	20
NUDGEE BEACH RESERVE (MORETON BAY ORESHORE IN MODERATE WIND CONITIONS)	53 dB(A)		+	10
TOOHEY FOREST PARK, TARRAGINDI (TALLOOWOOD TRACK)	53 dB(A)	<u>a</u> la		0

Source: Local sound measures collected by Soundin, December 2018

INCREASE OVER EXISTING NOISE LEVEL DB(A)	CHANGE IN SUBJECTIVE LOUDNESS	SIGNIFICANCE OF CHANGE
3	Nil	Insignificant
3 – 5	May be perceptible	Marginal
10	About double	Significant
15 or more	At least triple	Very significant

Source: Queensland Department of Transport and Main Roads, 2013.

## THE GROUND TRANSPORT PLAN

The map opposite shows the location of planned enhancements to ground transport operations over the next five years. The enhancements include an expansion of the network to support terminal activities and new developments, including BNE Auto Mall and the International P2 Multi-Level Car Park. The initiatives described here are all designed to meet the needs of business partners, stakeholders and passengers as the airport continues to grow.

#### **EFFECTIVE PLANNING**

As the airport continues to grow, effective planning is an ongoing and essential component of the continued delivery of safe, reliable and high-quality ground transport services. The 2020 Ground Transport Plan includes individual review of:

- The Brisbane Airport road network plan.
- Facilities for moving people and freight.
- Linkages between those facilities, the road network and public transport systems on and off airport.
- The capacity of the ground transport system to support airport operations.
- The likely effect of proposed developments on the ground transport system and traffic flows at, and surrounding, the airport.

For each option, this Ground Transport Plan outlines an overview of current usage and operations; details of initiatives proposed in the next five years and an assessment of potential issues and opportunities arising over the longer term.

#### **RESPONDING TO CUSTOMER NEEDS**

Understanding that the needs of customers may change in future, an ongoing program of review and consultation with stakeholders including state and local government, industry groups and members of the public has been established to ensure that services continue to meet requirements and also to consider and respond to identified changes in demand.

#### RESPONDING TO NEW OPPORTUNITIES

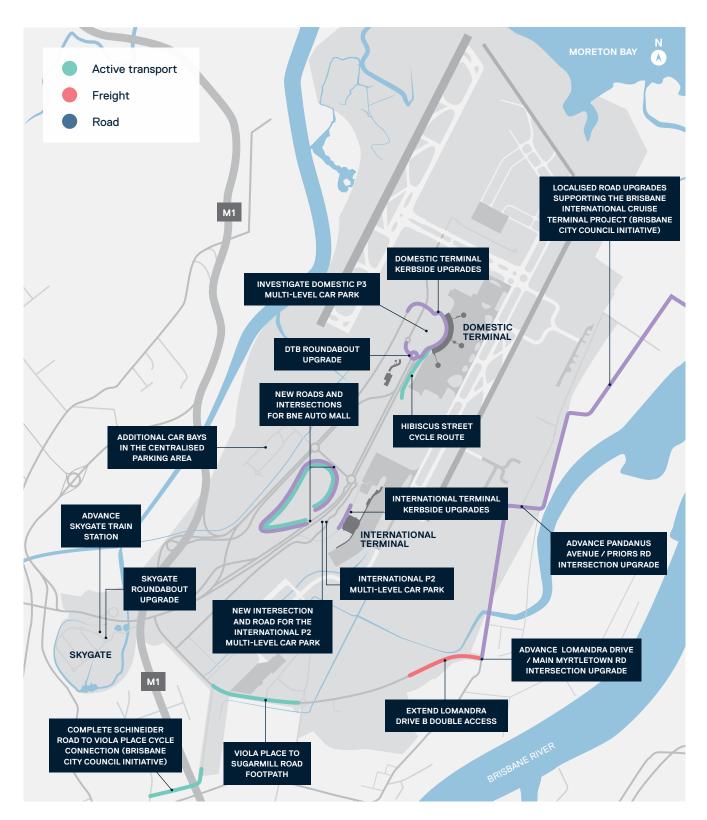
It is likely that technological advancements will continue to drive changes in passenger needs. In a changing world, Brisbane Airport Corporation monitors emerging opportunities to improve and extend the range of services offered with the goal of continuing to deliver the highest levels of customer satisfaction.

The Ground Transport Plan considers two potential longer term transport initiatives, the development of a Mass Transit System and the development of a new train station at Skygate to allow greater access by public transport. Each are covered in brief in this summary.



## IMPROVEMENTS PLANNED IN THE NEXT FIVE YEARS

Over the next five years, Brisbane Airport Corporation will expand and enhance the network to support terminal activities and new developments, such as BNE Auto Mall and the International P2 Multi-Level Car Park. Each of the planned developments are designed to ensure that Brisbane Airport continues to provide a ground transport network able to meet the needs of all stakeholders.



## FUTURE GROUND TRANSPORT OPTIONS AT BRISBANE AIRPORT

#### A TRAIN STATION FOR SKYGATE

Public transport plays a vital role in facilitating the sustainable growth of cities, and has the potential to shape urban land use patterns. Accessibility to transport links is a contributing factor influencing the location decisions of both firms and individuals.

Similarly, public transport underpins the efficient and timely movement of employees to and from their place of work, and provides accessibility to employment opportunities for many disadvantaged people who do not have or cannot use a car.

Brisbane Airport Corporation sees great potential in the establishment of a new train station at Skygate, adding to and complementing existing services, providing a wider choice of travel options for visitors, shoppers, passengers and people who work in or nearby the precinct to leave their cars at home and enjoy the benefits of the connected rail networks to reach suburbs in Brisbane and further afield.

Adding a railway station at Skygate is one of several potential opportunities under consideration in creating a future public transport corridor to further improve services to airport neighbourhoods, particularly for people working at or doing business at Skygate.

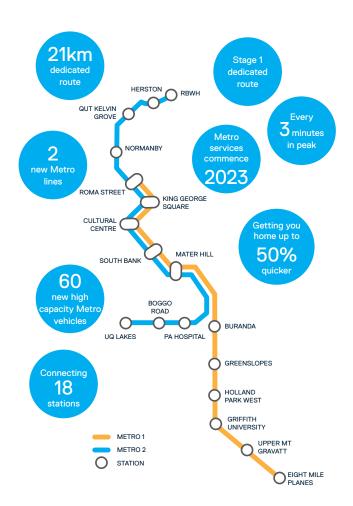
The Master Plan will allow for such corridors to enable future options to be implemented.

#### **BRISBANE METRO**

As an example of potential future corridors, a project currently under consideration is a potential extension of the Brisbane Metro along Airport Drive via either one or several neighbourhoods. Brisbane Airport Corporation is working closely with Brisbane City Council on the investigation and development of plans for a future connection that has the potential to tie in with the plans for the mass transit system connecting the terminals and developing areas across the airport.



#### THE PLAN FOR BRISBANE METRO



#### **BRISBANE METRO: NEXT STEPS**

The Brisbane Metro project is fully funded, including a contribution of \$300 million from the Australian Government and is listed as a high priority project by Infrastructure Australia.

In September 2019, the Lord Mayor of Brisbane made an announcement confirming Brisbane City Council's commitment to expanding the Brisbane Metro network to the north side of the city and that a future expansion through the Airport Link service to the airport precinct is under consideration.

This proposal has the potential to further improve the range and variety of public transport options allowing visitors and the people of Brisbane to travel to their destinations more quickly and easily.

Brisbane Airport Corporation supports all initiatives to improve transport access to the airport and has plans in place to work closely with Brisbane City Council's project team to advance the opportunity.



### A COMMITMENT TO ENVIRONMENTAL RESPONSIBILITY

In all aspects of planning, Brisbane Airport remains committed to preserving the environment and acting sustainably.

With 10 per cent of the airport site dedicated to biodiversity, long term environmental sustainability is a fundamental tenet of Brisbane Airport Corporation's operating philosophy and intrinsically linked to the successful attainment of economic, operational and social objectives.

The Brisbane Airport 2020 Master Plan Environment Strategy highlights 12 areas of focus in terms of environmental responsibility for the next five years.

Since the publication of the 2014 Master Plan, new environmental initiatives at Brisbane Airport have included the introduction of an electric bus fleet which reduced carbon emissions by 250 tonnes a year, the installation of a recycled water pipeline, the installation of a large scale solar

power system and the commencement of a food recovery programme sending unused food to the needy.

The project to construct the new runway met every obligation in its environmental plan.

The chart opposite is a representation of the structure that Brisbane Airport Corporation, its tenants and contractors follow to ensure best-practice environmental management.

CLEANER	SUSTAINABLE	WATER
AIR	DEVELOPMENT	CONSERVATION
BEST PRACTICE WATER	REDUCING GREENHOUSE	PROTECTING
QUALITY MANAGEMENT	GAS EMISSIONS	BIODIVERSITY
SOIL AND GROUNDWATER	CLIMATE CHANGE	PRESERVING AND
MANAGEMENT	ADAPTATION	PROMOTING OUR HERITAGE
MINIMISING GROUND-BASED	REDUCING	TENANT AND CONTRACTOR
NOISE	WASTE	COMPLIANCE



In all, 26 key objectives are nominated against these 12 areas of focus, with each area of focus also including detailed action plans to ensure that any investment in construction and new facilities is sustainable and meets Brisbane Airport Corporation's ongoing commitment to environmental responsibility.



- Regulations 1997

#### LEGISLATION, POLICIES AND NATIONAL GUIDELINES

- Act 1999 (Cth)
- Act 2007 (Cth)



## ENVIRONMENTAL MANAGEMENT

## ENVIRONMENTAL INITIATIVES

At Brisbane Airport, maintaining long term environmental sustainability is a fundamental tenet of operating philosophy and intrinsically linked to the successful attainment of economic, operational and social objectives. The seven initiatives featured here represent the range and diversity of activities designed to meet those goals.



Brisbane Airport Corporation's new runway project has successfully met in excess of 800 environmental approval conditions throughout the eight years of the construction program.

A range of proactive measures have seen Brisbane Airport Corporation's carbon emissions continue to decline since reaching a peak in 2013.

Projects include a combination of energy efficiency projects, onsite renewable energy generation, and carbon offsetting. As a result, airport growth has been effectively de-coupled from emissions growth.



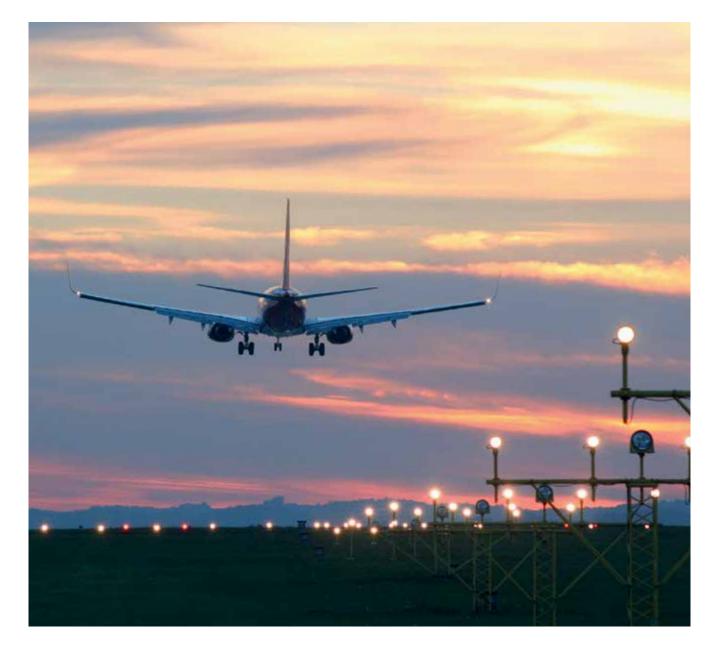
A food recovery program introduced in 2014 has resulted in more than 50 tonnes of food being redistributed to the community each year. This program is a voluntary initiative between OzHarvest, airport food catering companies and the Airport's Ambassador Program.

Brisbane Airport's electric bus fleet commenced operations in 2018, reducing airport carbon emissions by 250 tonnes a year. At the time, Brisbane Airport's fleet was Queensland's first, and Australia's largest, electric bus fleet, with 11 electric buses in operation.



More than 100 isolated archaeological finds were discovered during the construction of Brisbane's new runway and kept In Country within the protected Brisbane Airport Biodiversity Zone, in consultation with Traditional Owners.





The installation of cardboard compactors at the Domestic Terminal in 2017 saw the volumes of recycled cardboard double from 150 tonnes per year to 300 tonnes. This saves waste to landfill and reduces consumption of natural resources.





The installation of a new recycled water pipeline built during Brisbane's new runway project is estimated to have saved 1.125 gigalitres of potable water, the equivalent of 500 Olympic-sized swimming pools. This water was used in the concrete batching and landscaping of the new runway system and airfield.

## ENGAGEMENT AND CONSULTATION

Brisbane Airport Corporation recognises the contribution of strong relationships with Government, industry and the community to the continued achievement of its long term vision and the development objectives, including those outlined in this Master Plan.

Our consultation program includes a range of different forums, working groups, vision workshops and briefings, including the regular meetings with key stakeholders, business representatives and the community listed in detail on this page.

#### **GOVERNMENT PARTNERS**

From a planning perspective, Brisbane Airport Corporation works closely with Brisbane City Council, the Queensland State Government and the Australian Government. This approach promotes integration with, and understanding of, on-airport and off-airport land use planning, road networks, public transport initiatives and environmental management. Understanding the strategic goals of government partners is critical to the longterm planning of the airport.

#### PARTNERS IN MANAGING NOISE

Similarly, managing aircraft noise at Brisbane Airport is a responsibility shared by a number of organisations and bodies.

Together these groups actively research, plan and implement initiatives to achieve the optimal balance between the safe operation of the airport and minimising noise impacts on the community.

Our partners in managing noise include the International Civil Aviation Organization, Airservices Australia, the Aircraft Noise Ombudsman, the Commonwealth Department of Infrastructure and Regional Development, the Civil Aviation Safety Authority and individual airlines operating through Brisbane Airport.

#### MASTER PLAN WORKING GROUPS

Working Groups made up of representatives from the airport, Queensland Government and Brisbane Airport Corporation were created as a forum for discussion and direction on four key areas of airport operations; ground transport; land use; noise and the protection of the environment.

#### BRISBANE AIRPORT COMMUNITY AVIATION CONSULTATION GROUP

The Brisbane Airport Community Aviation Consultation Group is a consultative forum designed to bring together Government, the aviation industry, and the community to discuss a range of topics including aircraft noise, airport developments, airport operations and terminal access.

The group is independently Chaired and meets three times per year. BACACG was briefed about the Master Plan at several meetings since 2018.

#### BRISBANE AIRPORT AREA ROUND TABLE

The Brisbane Airport Area Round Table is the Planning Coordination Forum for Brisbane Airport. The forum is attended by all levels of government, Brisbane Airport, Airservices Australia and the Civil Aviation Safety Authority.

The forum provides the mechanism for the sharing of major project and infrastructure updates. Additionally, it facilitates discussions around planning initiatives, policy and regulatory changes, relevant industry innovation and emerging trends.

#### LOCAL BUSINESS ADVISORY GROUP

The Brisbane Airport Local Business Advisory Group was formed to monitor levels of project knowledge, awareness and issues of interest regarding Brisbane's new runway, as well as to get independent feedback on the communications program.

The advisory group mainly consists of small businesses not based on airport which are in the property, retail and services sectors as well as transport operators and economic development agencies.

Meeting twice a year, the advisory group was formed with input from local political representatives within Brisbane Airport's catchment.



## ABOUT THIS SUMMARY GUIDE

This summary guide accompanies the publication of the Brisbane Airport 2020 Master Plan, highlighting the important initiatives in investment in improved facilities and passenger safety as well as outlining proposed developments in aviation infrastructure and planned enhancements to ground transport services.

Also included in this summary are details of Brisbane Airport Corporation's development objectives and an outline of the key areas of focus embedded into the Brisbane Airport Environmental Strategy. A commitment to sustainability underpins the strategic focus of the airport and the strategy includes details of more than 40 separate action plans to preserve the environment, not just of the airport itself, but also of our neighbouring communities.

This summary booklet provides only a flavour of the content of the Brisbane Airport 2020 Master Plan. The full document can be read or downloaded from the Brisbane Airport website.

#### AIRPORT MASTER PLANS

Airport Master Plans provide a 20 year blueprint for development, outlining the land use planning and development intent for each airport. Under the requirements of the Airports Act 1996, all Australian airports operating on land leased from the Commonwealth are required to produce a Master Plan on a regular basis. Each Airport Master Plan considers proposed developments over a 20 year planning horizon.

An Airport Master Plan is an important planning document that reviews economic and demographic trends affecting the region alongside consideration of likely changes in the aviation industry and forecasts in passenger numbers to determine the appropriate future planning strategy for the airport. Together, the Master Plans produced by Australian airports provide direction for the future development of Australia's aviation gateways.

As passenger demand for domestic and international air travel continues to increase and as airlines offer extra services and new destinations, airport Master Plans are critical to ensure that essential aviation infrastructure is continually delivered in advance of the increased demand. Airport infrastructure requires long-term planning with construction periods often much longer than other large-scale infrastructure projects such as road building or the construction of commercial property.

With passenger and aircraft safety a critical consideration, the five and 20 year horizons of Airport Master Plans allow airport lessee companies to take a medium and long-term view on the infrastructure and services investments that will be necessary to continue to provide the highest quality of the services.

#### MASTER PLAN ENGAGEMENT

In compiling this plan, Brisbane Airport Corporation took part in more than 250 separate engagements, forums, meetings and briefings with more than 1,250 individuals including representatives of the aviation industry, government, airport tenants and visitors and the local community including:

- Qantas Airways and Virgin Australia Airlines.
- The Brisbane Airport freight and cargo community.
- Elected officials from Brisbane City Council and the Queensland Government.
- · Chamber of Commerce and Industry Queensland.
- The South East Queensland Council of Mayors Executive.
- Traditional Owners.
- Airport tenants.
- Brisbane Airport Corporation employees.
- Board of Airline Representatives.
- The Brisbane Airport Area Round Table.
- The Brisbane Airport Community Aviation Consultation Group.
- The Commonwealth Department of Infrastructure, Transport, Regional Development and Communications.
- The Commonwealth Department of the Environment and Energy.
- Airservices Australia.
- The Civil Aviation Safety Authority.
- The Ground Transport Master Plan Working Group.
- The Land Use Planning Master Plan Working Group.
- Airline operations and aviation support Master Plan workshops.
- The South East Queensland Community at EKKA
  The Royal Queensland Show.
- Local festivals and community events.
- The St. Paul's School Design Symposium.



# BNE. It all begins here.

Want to know more about what's happening at Brisbane Airport? Then simply visit our website at **www.bne.com.au** to find more information about how to get to and from the airport, our flight schedules or how to book parking. You can also explore our up to date shopping and dining guides.

You'll also find the full version of the Brisbane Airport 2020 Master Plan available to view or download as well as details of all other activity at the airport. We also invite you to sign up for our regular newsletter to stay in touch with everything that's happening as we connect Queensland, 24/7.



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