

2015 Hobart Airport Master Plan



Hobart Airport
TASMANIA

This Master Plan has been prepared by
Hobart International Airport Pty Ltd (HIAPL)
(ABN 27080 919 717).

This Master Plan, and the assessments, forecasts, assumptions and strategies contained in this Master Plan, have been prepared as part of Hobart Airport's internal strategic planning processes and is in accordance with Part 5 of the *Airports Act 1996*, and should not be relied upon by any other person for any other purpose.

While all care has been taken in development of this Master Plan it is based on certain forecasts and assumptions and is subject to change. As a result the proposed development details are indicative only, there is no commitment that they will occur.

Foreword

We are pleased to present Hobart Airport's 2015 Master Plan. The 2015 Plan outlines and reflects Hobart Airport's vision for growth and the delivery of strategic infrastructure to meet demand and to better connect Tasmania with the rest of Australia and the world.

In 2016 Hobart Airport will celebrate 60 years of operations. As the Hobart and Tasmanian community continue to grow, so will the demand for air transport for both passengers and freight. Since its privatisation in 1998 Hobart Airport has grown from 856,000 to 2.1 million passengers per year. By 2020 we are expecting to welcome an additional half a million passengers per year and more than four and a half million per year by 2035.

To be able to support the growth of the Tasmanian economy and meet the expectations of our passengers and partners, Hobart Airport will undertake two transformative projects over the next five year period. These projects will significantly redefine the airport and provide new economic opportunities for the State.

The construction of a 500m runway extension will enable direct flights from Tasmania to South-East Asia for passenger and freight opportunities and allow for expansion of current Antarctic operations. The redevelopment of the airport's passenger terminal will offer an improved experience for airport visitors and cater for projected growth and enable international passenger processing.

These projects will enable operation of direct flights to Asia for tourism, the export of time sensitive products (including key produce exports) and will enable increased logistic opportunities for Antarctic operations for both Australia and other Nations operating research programs in East Antarctica.

The Master Plan also provides plans for the continued development of the airport's non-aviation activities, which underpin the long term economic viability of Hobart Airport and complement its key aviation role, and for the protection of areas of environmental significance on the airport site.

In addition, the 2015 Master Plan addresses key matters facing the airport including how it interacts with important road networks such as Tasman Highway and the need to be vigilant in ensuring the unhindered long term operation at Hobart Airport.

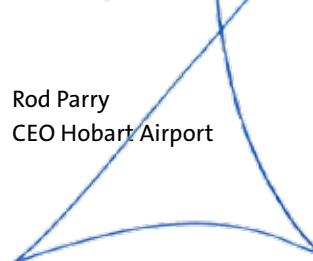
Importantly, the plans provided in the 2015 Master Plan will allow Hobart Airport to build upon the foundations it has developed over the past 60 years and reinforce the role of the airport as a critical piece of State infrastructure and an essential part of the Tasmanian community.

Hobart Airport's vision for the next 20 years is to be Tasmania's premier airport providing a boutique experience for our visitors and an economic hub that delivers opportunity and growth for the Tasmanian Community. With the support of our stakeholders and partners we will continue to grow and operate Hobart Airport in a responsible manner.

Every five years the airport develops a Master Plan; this plan is the way we clearly communicate our plans with the community and key stakeholders. We value the opportunity to seek your feedback on our plans and welcome your comments.



Rod Parry
CEO Hobart Airport



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1 Introduction



1 Introduction

1.1 Overview

Operated by Hobart International Airport Pty Ltd (HIAPL), Hobart Airport is the ninth busiest airport in Australia and the busiest airport in Tasmania. It is the principal aviation gateway to the city of Hobart and the southern Tasmanian region and a critical piece of State infrastructure.

The airport (as shown in Figure 1.a) has operated on the same site for nearly 60 years and is strategically located to serve many of the fastest growing residential areas in Tasmania and the greater Hobart area.

The airport is a key economic hub for Tasmania and a site of employment for more than 731 full time staff. During the past five years Hobart Airport has experienced one of the highest growth rates by any airport not supporting mining operations and in 2014 the Airport delivered a direct and indirect economic contribution to the State of Tasmania of \$142.5M. It is forecast that by 2035 this contribution will increase to more than 1,000 full time jobs and an economic contribution to the State in excess of \$220 million. The proposals detailed in the 2015 Master Plan will allow Hobart Airport to build upon this foundation and continue to be a strong contributor to opportunity and growth for the Tasmanian community.

Hobart is also Australia's Antarctic 'Gateway' and a global Gateway to the East Antarctic. Hobart is the location of the world's largest single concentration of Antarctic and Southern Ocean research, as well as co-located logistics operations. Hobart Airport is the base for the Australian Antarctic Division's aviation operations. The development of Hobart Airport's infrastructure to support future Antarctic operations of Australian and other Antarctic programs is essential for the growth of this important economic and nationally strategic sector.

The 2015 Master Plan reflects Hobart Airport's vision for growth and the delivery of strategic infrastructure to better connect Tasmania with the rest of Australia and the world. The forecast passenger projections presented in this Master Plan, forecast an average annual growth rate of five percent during the next 20 years to 2035. The development of facilities required to accommodate this growth, with a focus on the developments required during the next five years, are set out in this Master Plan.

During the next five years, Hobart Airport plans to undertake two transformative projects that will significantly redefine and improve the operations of the airport:

- The construction of a 500m runway extension to enable direct flights from Tasmania to South-East Asia for passenger and freight opportunities and allow for improved operational flexibility and the further development of Antarctic aviation programs; and
- Changes to the layout and size of the passenger terminal, which will offer an improved experience for airport visitors and is designed meet capacity demands through to 2023.

The Master Plan is the key planning document for the Airport under the *Airports Act 1996* (Cth) (Airports Act) and is used to guide the development of both aviation and non-aviation uses at the airport, the assessment of environmental effects of airport developments and operation, and for the provision of information to the Hobart community and airport stakeholders. This Master Plan is proposed to apply for a planning period of 20 years.

A key component of the 2015 Master Plan is the land use strategy for the airport site. Hobart Airport's land use strategy reflects the fact that Hobart Airport will need to grow and develop to meet demand as Tasmania, and in particular southern Tasmania, continues to grow. It sets out the framework to guide the airport's growth to enable it to meet increased demand for aviation, tourism and freight services. It also seeks to strike a balance between the airport's focus on and the growth in aviation related activities and the need for non-aviation development and uses to support the airport.



Figure 1.a Hobart Airport and surrounds

In addition to its core aviation business and development, non-aviation development is essential to the long term economic viability of Hobart Airport and compliments its key aviation role. Non-aviation development at Hobart Airport has occurred successfully since privatisation in 1998 and Hobart Airport currently has approximately 36 tenants that directly support aviation business and approximately 27 tenants that are not directly related to aviation. Development of non-aviation uses are led by market demand.

Another important component of the 2015 Master Plan is the environment strategy, which applies for five years. In developing its environment strategy, HIAPL has considered the importance of environmental values present at the airport and the value of the environment to the State of Tasmania. The airport site includes areas that are environmentally significant at both Commonwealth and State levels. The Master Plan, land use plan and environment strategy strives to achieve a sustainable balance between airport operations, environmentally sensitive areas and planning for the growth of Hobart Airport.

For that reason the land use plan incorporates a number of environmental precincts that consist of areas of remnant natural vegetation, designated areas of cultural significance or areas prone to flooding. Any allowable work in these areas will support the protection, enhancement and appreciation of the natural environment and the cultural values of the site.

Hobart Airport has been recognised for its importance to the State, as a port for movements of passengers and time sensitive products (such as key produce exports). In particular, it has been recognised that any negative economic impact to Hobart Airport by potential constraints to its future operations may pose a risk to the economic development of the region and the State.

Due to its location away from higher density residential areas, Hobart Airport has been fortunate to avoid conflict with surrounding land use and development, with the consequence that its curfew-free status has been maintained. However increasing residential development pressure in those areas adjacent to the airport highlights the need for local and state government to continue having regard to best practice and guidelines to assist in the assessment and approvals for land use and development on and around airports.

1.2 Vision for Hobart Airport

HIAPL's vision for Hobart Airport is to be Tasmania's premier airport providing a boutique airport experience for our visitors and an economic hub that delivers opportunity and growth for the Tasmanian community.

Since the 2009 Master Plan over 11.7 million passengers have travelled through Hobart Airport. In 2009 1.8 million passengers moved through the airport growing to 2.1 million in 2014, an annual average growth of 2.6 percent. Looking forward Hobart Airport, working with key partners is forecasting an annual growth rate of 4.2 percent. This growth has supported employment and economic growth in the community and has been a key component of the State's strongly performing tourism sector.

Over the next five years, Hobart Airport will deliver strategic infrastructure that will provide new social and economic opportunities for Tasmania to connect and do business with the world.

By working with the community and developing our business in a sustainable and responsible manner, Hobart Airport will continue to grow as a key economic hub. It will continue grow as a place of employment and provide the essential social connectivity for our island state.

1.2.1 Development Objectives

To achieve this vision Hobart Airport has the following development objectives:

- Ensure that Hobart Airport is operated and developed in a manner that is safe, secure, customer focused and sustainable, with a culture focused on excellence for quality and customer service;
- Provide a business environment with associated infrastructure that enables Hobart Airport and its partners to reach their potential;
- Enable the future growth of both the airport and the Tasmanian economy by planning and delivering infrastructure to meet demand;
- Develop Hobart Airport as a port to service international and domestic passengers travelling for tourism, business and personal reasons and in doing so improve Tasmania's connectivity and economic success;

- Develop Hobart Airport as an important freight port to service both international and domestic import and export requirements with a particular focus on the high value perishable market;
- Maximise the growth of Hobart Airport and in so doing support growth for the Tasmanian and Hobart economies;
- Develop Hobart Airport as a key Antarctic aviation hub for Australia and other nations;
- Achieve business diversification through the development of non-aeronautical land and businesses in order to provide fiscal support to future aeronautical infrastructure requirements and provide stability to the overall business;
- Continue to protect and conserve the important cultural and environmental heritage found at Hobart Airport; and
- Be an engaged and responsive member of the local community.

1.3 History of Hobart Airport

The Hobart region was served initially by nearby Cambridge Aerodrome until 1956, when Hobart Airport, at Llanherne, was commissioned as the primary Regular Passenger Transport (RPT) airport.

Hobart Airport's original domestic terminal building and runway were commissioned in 1956 and were re-developed in 1976. An international terminal was commissioned in 1983 to provide facilities for the then trans-Tasman B727 service. The airport was further upgraded in 1985 to cater for B767 aircraft, with capability for handling weight restricted B747 operations. At the same time the international terminal building was extended, additional apron and car park facilities were constructed and the runway was extended to its current length of 2,251 metres.

The Federal Airports Corporation assumed ownership and control of both Hobart Airport and Cambridge Aerodrome in January 1988, but sold Cambridge Airport in March 1993. Under the terms of sale, Cambridge Aerodrome must have been operated as an aerodrome until June 2004. This requirement has now expired though Cambridge Aerodrome, located to the north west of Hobart Airport, remains as a General Aviation (GA) facility.

Hobart Airport was privatised in June 1998, with HIAPL entering into a 99-year land lease with the Commonwealth Government (50 years plus a 49 year option). HIAPL bought the improvements and the business at that time.

The Hobart Airport has been operated by HIAPL since 1998, originally with a mix of international and local owners, but under full State ownership from 2004 as component part of Tasmanian Ports Corporation Pty Ltd (Tasports). In 2007, the State Government of Tasmania took the decision to sell HIAPL to its current owners.

Since January 2008, HIAPL has been owned by the Tasmanian Gateway Consortium - this consortium comprises Macquarie Global Infrastructure Fund III, a Macquarie-managed unlisted infrastructure fund with a 50.1 percent interest in Tasmanian Gateway Consortium, and Retirement Benefits Fund Board, a Tasmanian superannuation fund with a 49.9 percent interest in Tasmanian Gateway Consortium.

Under the terms of the land lease, HIAPL is mandated to operate the airport, to effect capital improvements in accordance with the Airport Master Plan, protect the environment and maintain the airport in good repair.

1.4 Hobart Airport Today

Enjoying one of Australia's most scenic approaches, Hobart Airport is located 17 kilometres east of Hobart, in the City of Clarence and occupies approximately 565 hectares of land (see Figure 1.b). The airport is served by arterial roads linking it to the centre of Hobart and, via the regional highway network, to other locations in the State.

The airport's location, between the waterways of Barilla Bay and Frederick Henry Bay, has served to minimise adverse community noise impacts due to water bodies at both ends, open space to the east and it is situated away from higher density residential areas.

The airport is served by Australia's four main passenger airlines: Qantas and Qantas Link, Jetstar, Virgin Australia and Tiger Airways. These airlines carried 2.1 million passengers in 2014 calendar year to and from Hobart Airport. Qantas Freight and Toll operate dedicated freight operations from Hobart Airport. It also serves as a port for the Royal Flying Doctor Service with more than 365 flights a year operating from Hobart Airport.

HIAPL's airport operations include the provision of aeronautical services and facilities, including the following core airport infrastructure:

- A single runway system, Runway 12/30 that is 2,251m long, served by two taxiways;
- Taxiways linking the runway to aprons to the east and south of the terminal - this taxiway and apron infrastructure can cater for aircraft up to the size of a 747 aircraft, with weight restrictions applied;
- Ground handling facilities including fuel storage;
- An integrated domestic and international terminal facility, with the two buildings connected by a central check in hall, a baggage hall and a checked baggage x-ray screening system;
- The Qantas Freight and Toll Air freight facilities;
- General Aviation facilities primarily to service rotary wing (helicopter), Royal Flying Doctor Service and private Jet aircraft;
- The Air Cargo freight facility leased by HIAPL to Sky Trek Pty Ltd;
- Airservices Australia facilities and infrastructure - navigation aids, aviation rescue and firefighting services, air traffic control tower; and
- Road, parking, sewerage, drainage, electrical and telecommunications reticulation.

The current airport layout is shown in Figure 1.c. The Hobart Airport site contains both land that is leased from the Commonwealth and freehold land. While the freehold land is not covered by the Airports Act, for completeness, this Master Plan identifies the proposed land uses for both the freehold land adjacent to the airport site as well as for the leasehold land subject to the Airports Act.



Figure 1.b Located 17km from Hobart city Hobart Airport occupies approximately 565 ha of land.

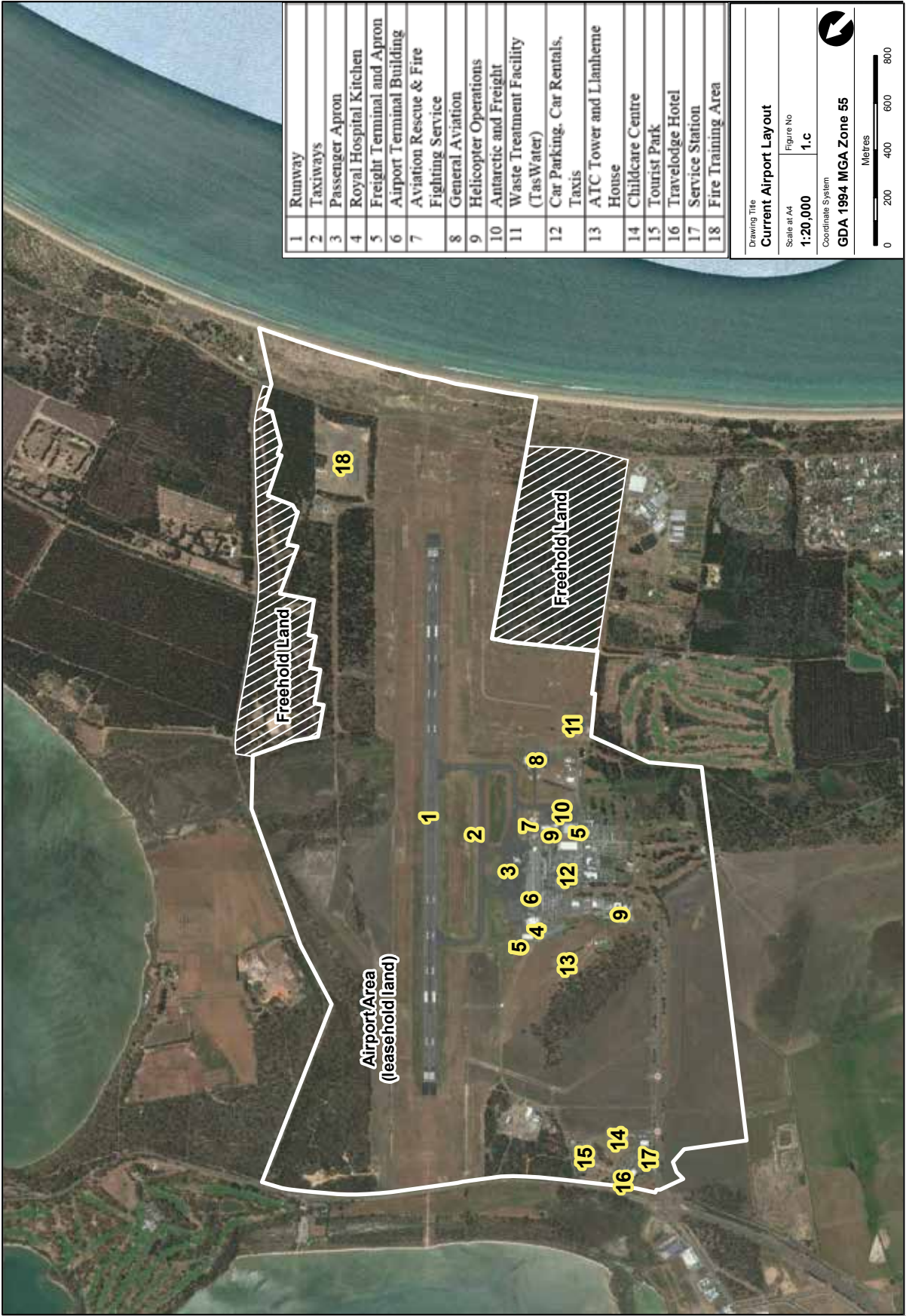


Figure 1.c Current Airport Layout

1.5 Airlines and Tenants

As at June 2015, the airport is served by four key passenger airlines: Qantas, Jetstar, Virgin Australia and Tiger Airways, with direct destinations shown in Table 1.a.

Table 1.a Hobart Airport Airline Destinations

Airline	Domestic Destinations
Qantas Link and Qantas	Melbourne, Sydney
Jetstar	Melbourne, Sydney, Brisbane
Virgin Australia	Melbourne, Sydney, Brisbane
Tiger Airways	Melbourne

In developing the airfield development parameters as set out in Chapter 7: Airfield Development, HIAPL considered the future needs of all civil aviation users at the airport.

In particular, HIAPL focused on their requirements for an efficient, safe and reliable set of infrastructure services – services we intend to provide through upgrades to the terminal and the roadways, aprons and taxiways.

Hobart Airport is also the base for the Australian Antarctic Program with international flights to Wilkins Aerodrome each summer. A key component of this Master Plan is the extension of the Hobart Airport runway, which will enable larger aircraft to service East Antarctica, opening up economic possibilities for Hobart and of strategic importance to Australia.

Other facilities and services provided by HIAPL and its tenants include car rental, freight forwarding and logistics, air traffic control, emergency, meteorological, customs, immigration, retail, helicopter operations and training, ground transport services and quarantine services. Tenants are described further in Chapter 4: Land Use and Precinct Development.



1.6 Developments since 2009

More than \$100 million dollars will be invested in infrastructure at Hobart Airport during a seven year period. This includes:

- \$40m runway and taxiway renewal and overlay and the installation of new airfield lighting.
- \$40 million runway extension.
- \$25 million terminal redevelopment projects.

Since 2009 HIAPL has invested more than \$47M in capital works. Major developments at the airport during this period are documented in Table 1.b.

Table 1.b Major developments at Hobart Airport since 2009

Calendar year	Developments
2009	<ul style="list-style-type: none"> • Planning and infrastructure plan development following sale.
2010 – 2011	<ul style="list-style-type: none"> • Extension to Britz Maui building and additional hardstand installed; • Extension to the hardstand at Tasmanian RV's site; • Refurbishment of kitchens for the Department of Health and Human Services to open the Cambridge Production Centre services DHHS meal production; and • Airside access to Qantas Club.
2012 – 2013	<ul style="list-style-type: none"> • Runway overlay; • Replacement of airfield ground lighting and associated equipment becoming the first Australian airport to install new generation LED airfield lighting system (including a new airport lighting electrical room); • Taxiway overlay project; and • Shared service centre for car rental businesses.
2013 – 2014	<ul style="list-style-type: none"> • Upgrading Loop Road, the airport's secondary access road; • Construction of the Long Term Saver car park and covered walkways through to the terminal; • Installation of new car park equipment; • Water infrastructure upgrade to Loop Road tenancies to mains water; • Airside bay 4 apron works; • Removal of underground fuel tank and replacement with above ground ones for generator housing; and • Installation of emergency staging area at Gate 5.
2014 – 2015	<ul style="list-style-type: none"> • Completion of main car park enlargement including demolition of 1950s HIAPL administration building; • Construction of new HIAPL administration building; • Terminal security screening relocation and upgrade; • Freight apron drainage; • Airport power high voltage and low voltage relocation and upgrade; • Hazard beacon upgrade; and • Commenced works on project one of the 2020 terminal redevelopment project.

1.7 Previous Master Plans

The 2015 Master Plan is based on more than 20 years of prior planning and reflects the growth and evolution of the airport since the first Master Plan for the airport, developed by the Federal Airports Corporation in 1991. This initial plan was revised and updated in 1995 and 1997.

Following privatisation of Hobart Airport in June 1998, HIAPL progressed the 1999 Airport Master Plan and this was approved by the then Minister for Transport and Regional Services. This plan was the first implemented pursuant to the *Airports Act 1996* and was in turn updated by HIAPL in 2004. The 2009 Master Plan aligned with and updated the 2004 plan, reflecting revised forecast growth in passenger, freight and general aviation.

Key differences between the 2009 Master Plan and this 2015 Master Plan are as a result of changes to the legislative requirements of the Airports Act in relation to the requirements for an Airport Master Plan, notably inclusion of the environment plan and ground transport plan in the Master Plan. Other changes relate to the proposed runway extension, changes to the long term terminal design, and small modifications to the land use plan. These are be discussed in detail in Chapter 4: Land Use and Precinct Development, Chapter 8: Landside Transport and Chapter 13: Environment.



2 Economic Benefit



2 Economic Benefit

2.1 Introduction

Hobart is the capital city and the largest population centre in the State of Tasmania. The Greater Hobart region is home to more than 216,000 persons (ABS 2012) with the airport catchment area being approximately 300,000 people. Hobart is the base for government and corporate businesses, health services and tertiary education in Tasmania. It is the State's main arrival point.

Hobart and the southern area of Tasmania have a diverse economic base including significant aquaculture and agriculture businesses, a strong base of professional scientific institutions including CSIRO, Australian Antarctic program, the Institute for Marine and Antarctic Studies (IMAS) and the Menzies institute, home to the University of Tasmania, public administration, health care, manufacturing and a strong and vibrant tourism and arts sectors.

Airports play an important and essential economic and social role in a community, particularly for an island community such as Tasmania. Strong connectivity and access is essential for Hobart and Tasmania in developing the attractiveness of Hobart as a place to live, conduct business and build industry.

The operation of a major airport involves complex relationships between the airport operator and various entities, including airlines, freight companies, private contractors and government agencies. Hobart Airport contributes to the Tasmanian economy directly through its core operations as an airport operator (direct contribution) and through housing further industries in the wider airport precinct (indirect contribution).



2.2 Hobart Airport's economic contribution

As Tasmania's major airport Hobart is a significant economic hub for the Hobart economy. In 2014 Hobart Airport and its tenants generated more than \$270M dollars of revenue into the Tasmanian economy. The Airport precinct had a direct and indirect economic contribution of \$142.5M.

The Airport precinct employs 731 Full time employee equivalents (FTEs) across a range of activities. This contribution is based on normal operations and excludes significant capital works programs.

The breakdown of economic contributions from the Airport can be found Table 2.a.

Table 2.a: Total contribution to the Tasmanian economy, FY2014

	Airport operations	Tenants	Total airport and tenant
Value added			
Direct	28.1	76.7	104.9
Indirect	4.6	33.0	37.7
Total	32.8	109.8	142.5
Employment			
Direct	40	437	477
Indirect	32	222	254
Total	72	659	731

Source: Hobart Airport (2014), Deloitte Access Economics

As Tasmania's major gateway, Hobart Airport plays a vital role in supporting numerous economic sectors including the important tourism, education and Antarctic sectors as shown in Figure 2.b.

- Hobart Airport facilitates domestic and international tourism. In the year ending March 2014, the tourism sector generated \$1.7 billion in expenditure in Tasmania;
- Hobart Airport supports Tasmania's education sector by enabling international students to travel to Tasmania. In 2013, \$133 million was spent by international students; and
- Hobart is an Antarctic Gateway city, housing the Australian Antarctic Division's aviation base and the world's largest concentration of Antarctic and Southern Ocean research. In 2011/12, the Antarctic, Sub-Antarctic and Southern Ocean Sector spent \$189 million.

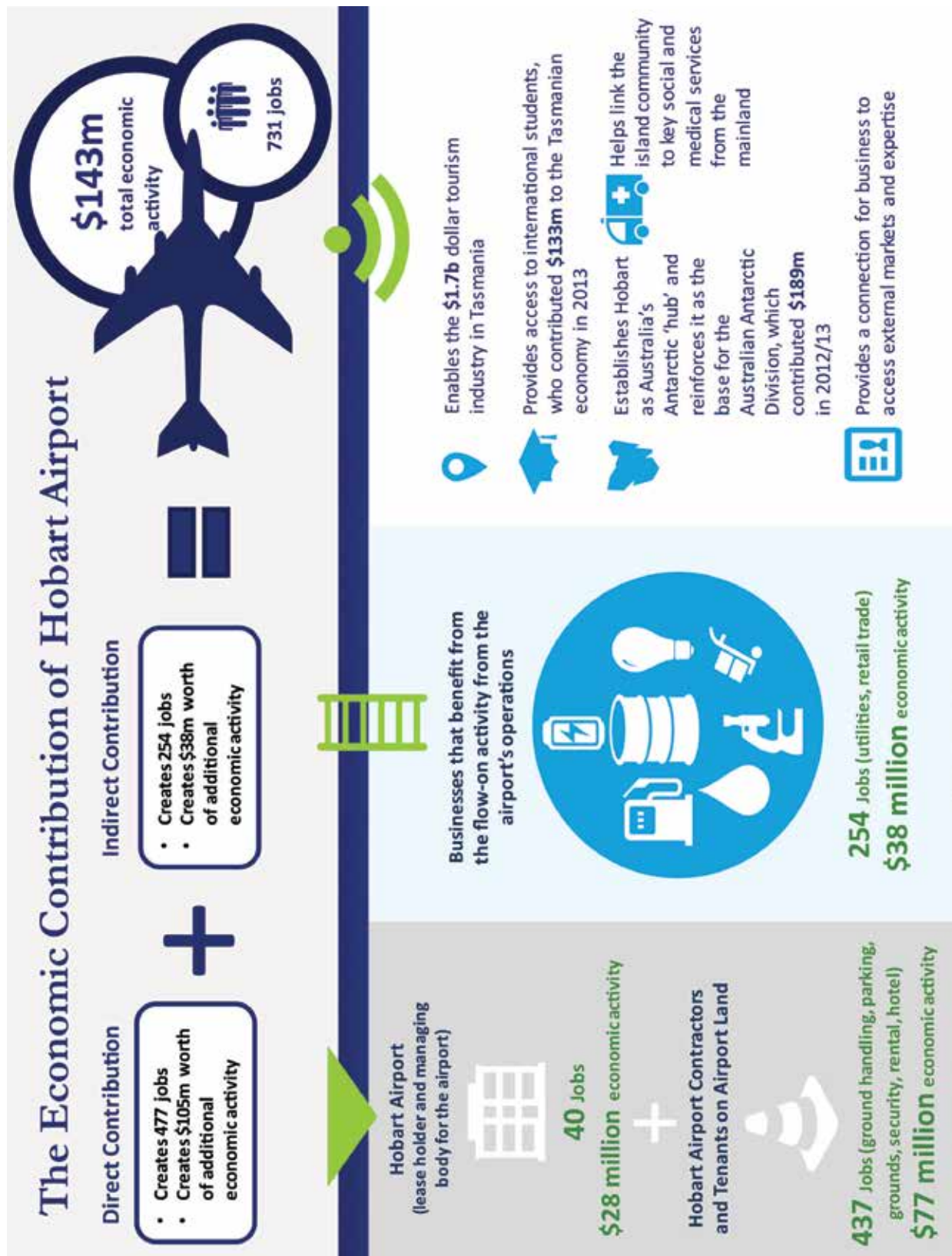


Figure 2.b Hobart Airport economic contribution

Source: Deloitte Access Economics

During the next 20 years Hobart Airport will deliver an important economic and social contribution driven by developments and growth outlined in this 2015 Master Plan. During this 20 year period and the life of this Master Plan, Hobart Airport will generate more than \$1.6 billion of revenue into the Tasmanian economy.

This contribution will be enhanced by outcomes delivered by this 2015 Master Plan, so that by 2020:

- The direct and indirect economic contribution into the Tasmanian economy in terms of Value Add will increase to \$164 million from \$143 million today (an increase of 15%);
- Direct FTEs will increase to 536 from 477 today (an increase of 12%); and
- Total jobs (direct and indirect) will increase to 849 from 731 today (an increase of 16%).

Further, by 2035;

- The direct and indirect economic contribution into the Tasmanian economy in terms of Value Add from Hobart Airport will increase to \$227 million from \$143 million today (an increase of 60 percent);
- Direct FTEs (full time employees) will increase to 663 from 477 today (an increase of 39 percent); and
- Total jobs both direct and indirect will increase to 1,031 from 731 today (an increase of 41 percent).

2.3 Social Impacts

Hobart Airport enhances the attractiveness of the region for residents by providing easy connectivity to other destinations for family, social, educational, medical and other purposes as well as providing employment and business opportunities in the region.

The creation of additional jobs as a result of the developments proposed in this Master Plan, in addition to the direct economic benefit, will also provide a social benefit to the region, where these opportunities will assist in reducing unemployment in the region and provide locally based jobs for the people of south east Tasmania.

As Tasmania's major gateway, Hobart Airport plays a vital role in supporting numerous economic sectors including the important tourism, education and Antarctic sectors. The increase in capacity and affordability of flights to and from Hobart has enhanced the ease in which Tasmanians can travel to and from the State. Regular, timely and cost effective access combined with remote working technologies enables a range of working arrangements and employment opportunities for Tasmanians allowing them to stay in, or return to, Hobart to live while undertaking work interstate. This connectivity is essential in attracting new residents to Hobart and plays an important part in population growth for the State.

Hobart Airport plays an active role in the community including its support of the Parkside Foundation. The Foundation provides a wide range of flexible leisure and recreational services for people with intellectual disabilities in the greater Hobart area. Activities such as horse riding, computer skills and art and craft are provided in a variety of settings. One of these sites is Llanherne Cottage located at Hobart Airport. Llanherne Cottage provides an ideal venue for people to develop a range of practical life skills and pre-vocational skills such as preparation of meals, personal hygiene, grooming, laundering, gardening and cleaning. Llanherne Cottage is made available to The Parkside Foundation by Hobart Airport as part of a community partnership with the assistance of Kangaroo Bay Rotary Club.

Hobart Airport is also strongly engaged with the local community through both the master planning process and regular engagement via the Community Aviation Consultation Group meetings held regularly. Hobart Airport also contributes to the State economy indirectly via its active participation in meetings of the Tasmanian Tourism Industry Council, the Tasmanian Airports Association, the Freight Logistics Network, the Tasmanian Polar Network and the State Government Tasmanian Access Group.

There are also social impacts associated with the operations of the airport and the development of the proposals in this Master Plan, in particular the extension of the runway and development of the passenger terminal. HIAPL accepts that as Hobart Airport continues to grow there will be an increase in the frequency of flights, resulting in increased aircraft noise. HIAPL is working to minimise the impacts of aircraft noise on the region by working with the Clarence City Council to ensure that only appropriate development occurs within the vicinity of the airport.

Continued growth at the airport is also expected to increase the demands on the roads network around the airport. These issues, and the strategies HIAPL has developed to mitigate and minimise any negative impacts, are detailed in Chapter 8: Landside Transport of this Master Plan.

2.4 Capital Investment

Hobart Airport will invest \$100 million in a seven year period to transform the State's busiest gateway. During the past three years, \$40 million has been invested in key infrastructure projects including the overlay of the airport's runway and taxiways, the renewal of the airfield lighting to a leading LED solution, the renewal of the airport's secondary access road Loop Rd, the development of a new saver car park, enlargement of the main car park and the construction of a new administration building.

During the coming four year period, a further \$65 million will be invested in Hobart Airport. This includes a \$40 million runway extension, enabled by funding assistance of \$38 million from the Australian Government, and an additional \$2 million from HIAPL. This project is part of the Australian Government's economic growth plan for Tasmania and provides opportunities for direct flights for passengers and cargo to South-East Asia an important market for Tasmania's primary producers and tourism industry. The project will also provide opportunity for Australia's and other countries Antarctic programs to use larger heavier lift aircraft from Hobart to the Antarctic and significantly enhances Hobart's competitiveness as the leading Gateway for the East Antarctic.

A further \$25 million will be invested in the redevelopment of the airport's passenger terminal, which will include a larger departure lounge, centralised areas for arrivals, international passenger processing areas and a range of exciting new retail and dining spaces. The first project for the terminal redevelopment is the transformation of the arrivals hall, featuring designs inspired by Tasmania's environment, an indoor/outdoor dining experience, the relocation of car rental desks and an external forecourt area, all due for completion in mid-2016. The redevelopment and expansion of the departure lounge will follow. The terminal redevelopment will showcase some of Tasmania's best food and tourism experiences. New dining options will feature Tasmanian produce and producers.

These key projects, in addition to other minor infrastructure projects, will ensure the airport continues to grow and provide relevant and essential infrastructure that provides opportunities to better service new markets and provide social, economic growth for Tasmania.

3 National Policy and Regulatory Framework



3 National Policy and Regulatory Framework

3.1 Introduction

The 2015 Master Plan is an important document for Hobart Airport, its community and for Local and State Governments.

Each federally leased airport (including Hobart), must have a final master plan. The purposes of a final master plan are:

- To establish the strategic direction for efficient and economic development at the airport during the planning period of the plan;
- To provide for the development of additional uses of the airport site;
- To indicate to the public the intended uses of the airport site;
- To reduce potential conflicts between uses of the airport site, and to ensure that uses of the airport site are compatible with the areas surrounding the airport;
- To ensure that all operations at the airport are undertaken in accordance with relevant environmental legislation and standards;
- To establish a framework for assessing compliance at the airport with relevant environmental legislation and standards; and
- To promote the continual improvement of environmental management at the airport.

3.2 The Airports Act

Hobart Airport is subject to Commonwealth legislation to regulate its own operations and those of other businesses located on the airport. The *Airports Act 1996* (Airports Act) is the primary legislative instrument and governs planning, operation and development on the Airport. The Airports Act outlines the requirements for core regulated or joint user airports.

Under the Airports Act, Hobart International Airport Pty Ltd (HIAPL) is required to prepare and publish an Airport Master Plan every five years. Permission was granted to delay the publication of the Master Plan until 2015 to allow it to better align with the Major Development Plan (MDP) for the proposed runway extension.

In accordance with requirements of the Airports Act, this 2015 Master Plan establishes long term planning objectives for Hobart Airport and provides a framework to guide appropriate aeronautical and non-aeronautical development.

The plan defines a physical layout for the airport for the next 20 years (2015 to 2035), allocating future airport land usage based on an assessment of present and forecast aviation activities, the environment, other demands and wider community expectations.

In accordance with the Airports Act, the 2015 Master Plan provides the framework for airport development for a period of 20 years up to 2035 - the forecast planning period. In this plan, reference is also made to the initial forecast period. This is a reference to the five year period from 2015 to 2020, when the plan is again due for review. The Airport Environment Strategy (Chapter 13) relates to a period of five years.

On the particular matter of aircraft noise exposure, this Master Plan goes beyond the forecast planning period, recognising that development or activity outside the airport legitimately has an outlook considerably longer than twenty years.

In order to meet the requirements of the Airports Act and associated Airports Regulations, the Master Plan must specify a number of items. Table 3.a outlines the requirements of the Airports Act and Regulations and notes where each requirement is addressed in this Master Plan.

Table 3.a Requirements of Airports Act and associated Regulations and location in this document

Section	Requirements	Location in this document
<i>Airports Act 1996 (Cth)</i>		
71(2)(a)	State its development objectives for the Airport	Sections 1.2.1, 4.1 and 8.2.2
71(2)(b)	Assess the future needs of civil aviation and other users of the Airport, for services and facilities relating to the Airport	Sections 1.5 and 4.1, Chapters 6, 7 and 8
71(2)(c)	Set out its intentions for land use and related development of the Airport site, where the proposals embrace airside, landside, surface access and land planning/zoning aspects	Chapters 4,6,7 and 8
71(2)(d)	Present an Australian Noise Exposure Forecast for the areas surrounding the Airport	Section 12.5
71(2)(da)	Identify flight paths at the Airport	Section 12.8
71(2)(e)	Present plans, developed following consultation with airlines that use the airport and local government bodies in the vicinity of the Airport, for managing noise intrusion in areas forecast to be subject to exposure above the significant ANEF levels	Chapters 12 and 14
71(2)(f)	Assessment of environmental issues that might reasonably be expected to be associated with the implementation of the plan	Chapter 13
71(2)(g)	Set out plans for dealing with such environmental issues and plans for ameliorating or preventing environmental impacts	Chapter 13
71(2)(ga)	In relation to the first 5 years of the Master Plan – set out a plan for a ground transport system on the landside of the airport that details: <ul style="list-style-type: none"> (i) A road network plan; and (ii) The facilities for moving people (employees, passengers and other airport users) and freight at the airport; and (iii) The linkages between those facilities, the road network and public transport system at the airport and the road network and public transport system outside the airport; and (iv) The arrangements for working with the State or local authorities or other bodies responsible for the road network and the public transport system; and (v) The capacity of the ground transport system at the airport to support operations and other activities at the airport; and (vi) The likely effect of the proposed developments in the master plan on the ground transport system and traffic flows at, and surrounding, the airport. 	Chapter 8
71(2)(gb)	In relation to the first 5 years of the master plan – provide detailed information on the proposed developments in the master plan that are to be used for: <ul style="list-style-type: none"> (i) Commercial, community, office or retail purposes; or (ii) For any other purpose that is not related to airport services. 	Section 4.2.2 Section 4.2.4 Section 4.2.5 Section 4.2.6 Section 15.1
71(2)(gc)	In relation to the first 5 years of the master plan – assess the likely effect of the proposed developments in the master plan on: <ul style="list-style-type: none"> (i) Employment levels at the airport; and (ii) The local and regional economy and community, including an analysis of how the proposed developments fit within the planning schemes for commercial and retail development in the area that is adjacent to the airport 	Chapters 2 and 3

71(2)(h)	<p>Provide an environment strategy that details:</p> <ul style="list-style-type: none"> (i) The airport-lessee company's objectives for the environmental management of the airport; and (ii) The areas (if any) within the airport site which the airport-lessee company, in consultation with State and Federal conservation bodies, identifies as environmentally significant; and (iii) The sources of environmental impact associated with airport operations; and (iv) The studies, reviews and monitoring to be carried out by the airport-lessee company in connection with the environmental impact associated with airport operations; and (v) The time frames for completion of those studies and reviews and for reporting on that monitoring; and (vi) The specific measures to be carried out by the airport-lessee company for the purposes of preventing, controlling or reducing the environmental impact associated with airport operations; and (vii) The time frames for completion of those specific measures; and (viii) Details of the consultations undertaken in preparing the strategy (including the outcome of the consultations); and (ix) Any other matters that are prescribed in the regulations. 	<p>Chapter 13</p> <p>Section 13.1</p> <p>Sections 13.1 and S13.2.4</p> <p>Section 13.2</p> <p>Sections 13.1 and S13.2</p> <p>Sections 13.1 and S13.2</p> <p>Sections 13.1 and S13.2</p> <p>Chapter 14</p> <p>Chapters 13 and 11</p>
71(6)	<p>In specifying a particular objective or proposal covered by section 71(2)(a), (c), (ga), (gb) or (gc), a draft or final master plan must address:</p> <ul style="list-style-type: none"> (a) the extent (if any) of consistency with planning schemes in force under a law of the State in which the airport is located; and (b) if the draft or final master plan is not consistent with those planning schemes—the justification for the inconsistencies. 	Chapters 4, 6, 7 and 8
71(8)	In developing plans referred to in paragraph (2)(e), an airport-lessee company must have regard to Australian Standard AS 2021—2000 ("Acoustics—Aircraft noise intrusion—Building siting and construction") as in force or existing at that time.	Chapter 12
71A(1)	A draft or final master plan must identify any proposed sensitive development in the plan.	Section 3.2
72(1)-(2)	The planning period must be for 20 years, however the environment strategy must relate to a period of 5 years	Chapters 3 and 13
<i>Airports Regulations 1997</i>		
5.02(1)	<p>For paragraph 71 (2) (j) of the Act, the following matters are specified:</p> <ul style="list-style-type: none"> (a) any change to the OLS or PANS-OPS surfaces for the airport concerned that is likely to result if development proceeds in accordance with the master plan; (b) for an area of an airport where a change of use of a kind described in subregulation 6.07 (2) of the Airports (Environment Protection) Regulations 1997 is proposed: <ul style="list-style-type: none"> (i) the contents of the report of any examination of the area carried out under regulation 6.09 of those Regulations; and (ii) the airport-lessee company's plans for dealing with any soil pollution referred to in the report. 	Chapter 11

5.02(2)	An airport master plan must, in relation to the landside part of the airport, where possible, describe proposals for land use and related planning, zoning or development in an amount of detail equivalent to that required by, and using terminology (including definitions) consistent with that applying in, land use planning, zoning and development legislation in force in the State or Territory in which the airport is located	Section 4.2
5.02(3)	For subsection 71 (5) of the Act, a draft or final master plan must: <ul style="list-style-type: none"> (a) address any obligation that has passed to the relevant airport-lessee company under subsection 22 (2) of the Act or subsection 26 (2) of the Transitional Act; and (b) address any interest to which the relevant airport lease is subject under subsection 22 (3) of the Act, or subsection 26 (3) of the Transitional Act. 	Section 3.3
5.02A(2)	The environment strategy must specify any areas within the airport site to which the strategy applies that the airport-lessee company for the airport has identified as being a site of indigenous significance, following consultation with: <ul style="list-style-type: none"> (a) any relevant indigenous communities and organisations; and (b) any relevant Commonwealth or State body. 	Section 13.2.5
5.02A(3)	The environment strategy must specify the airport-lessee company's strategy for environmental management of areas of the airport site that are, or could be, used for a purpose that is not connected with airport operations.	Section 13.2
5.02A(4)	The environment strategy must specify: <ul style="list-style-type: none"> (a) the training necessary for appropriate environment management by persons, or classes of persons, employed on the airport site by the airport-lessee company or by other major employers; and (b) the training programs, of which the airport-lessee company is aware, that it considers would meet the training needs of a person mentioned in paragraph (a). 	Section 13.1
5.02B(2)	In specifying its objectives for the airport under subparagraph 71 (2) (h) (i) of the Act, an airport-lessee company must address its policies and targets for: <ul style="list-style-type: none"> (a) continuous improvement in the environmental consequences of activities at the airport; and (b) progressive reduction in extant pollution at the airport; and (c) development and adoption of a comprehensive environmental management system for the airport that maintains consistency with relevant Australian and international standards; and (d) identification, and conservation, by the airport-lessee company and other operators of undertakings at the airport, of objects and matters at the airport that have natural, indigenous or heritage value; and (e) involvement of the local community and airport users in development of any future strategy; and (f) dissemination of the strategy to sub-lessees, licensees, other airport users and the local community. 	Sections 13.1 and 13.2

5.02B(3)	<p>In specifying under subparagraph 71 (2) (h) (ii) of the Act, the areas within the airport site it identifies as environmentally significant, an airport-lessee company must address:</p> <ul style="list-style-type: none"> (a) any relevant recommendation of the Australian Heritage Council; and (b) any relevant recommendation of the Department of Environment regarding biota, habitat, heritage or similar matters; and (c) any relevant recommendation of a body established in the State in which the airport is located, having responsibilities in relation to conservation of biota, habitat, heritage or similar matters. 	Sections 13.2.4 and 13.2.5
5.02B(4)	<p>In specifying the sources of environmental impact under subparagraph 71 (2) (h) (iii) of the Act, an airport-lessee company must address:</p> <ul style="list-style-type: none"> (a) the quality of air at the airport site, and in so much of the regional airshed as is reasonably likely to be affected by airport activities; and (b) water quality, including potentially affected groundwater, estuarine waters and marine waters; and (c) soil quality, including that of land known to be already contaminated; and (d) release, into the air, of substances that deplete stratospheric ozone; and (e) generation and handling of hazardous waste and any other kind of waste; and (f) usage of natural resources (whether renewable or non-renewable); and (g) usage of energy the production of which generates emissions of gases known as 'greenhouse gases'; and (h) generation of noise. 	Section 13.2
5.02B(5)	<p>In specifying under subparagraph 71 (2) (h) (iv) of the Act the studies, reviews and monitoring that it plans to carry out, an airport-lessee company must address:</p> <ul style="list-style-type: none"> (a) the matters mentioned in subregulation 5.02A (2) and subregulations 5.02B (3) and (4); and (b) the scope, identified by the airport-lessee company, for conservation of objects and matters at the airport that have natural, indigenous or heritage value; and (c) the approaches and measures identified by the airport-lessee company as its preferred conservation approaches and measures; and (d) the professional qualifications that must be held by a person carrying out the monitoring; and (e) the proposed systems of testing, measuring and sampling to be carried out for possible, or suspected, pollution or excessive noise; and (f) the proposed frequency of routine reporting of monitoring results to the airport environment officer (if any) for the airport, or to the Secretary. 	Section 13.2
5.02B(6)	<p>In specifying under subparagraph 71 (2) (h) (vi) of the Act, the measures that it plans to carry out for the purposes of preventing, controlling or reducing environmental impact, an airport-lessee company must address:</p> <ul style="list-style-type: none"> (a) the matters mentioned in subregulations (2) to (4); and (b) the means by which it proposes to achieve the cooperation of other operators of undertakings at the airport in carrying out those plans. 	Section 13.1

Two key factors which impact on development under the Act are defined 'major development' and 'sensitive development'.

Section 71A of the Act specifies that 'sensitive development' in a Master Plan must be identified. The term 'sensitive development' is defined as development that increases capacity, of the following:

- Residential dwelling;
- Community care facility;
- Pre-school;
- Primary, secondary, tertiary or other educational institution; or
- Hospital.

But excludes:

- An aviation education facility;
- Accommodation for students studying at an aviation education facility at the airport;
- A facility with the primary purpose of providing emergency medical treatment and which does not have in-patient facilities; or
- A facility with the primary purpose of providing in-house training to staff of an organisation conducting operations at the airport.

'Sensitive development' is prohibited except in exceptional circumstances, but can be approved by the Minister under the Major Development Plan process.

There are pre-existing 'sensitive uses' (as defined by the Airports Act or National Aviation White Paper and resulting changes to the Airports Act) currently on the Hobart Airport site; the waste treatment plant and childcare facility. It is not intended to add to these through this Master Plan or to undertake any additional 'sensitive developments' during the planning period.

3.2.1 2010 – 2015 Hobart Airport Environment Strategy

Hobart Airport has an Airport Environment Strategy that provides a long-term strategic vision for Hobart Airport and its interaction with the environment.

The key objectives of the Airport Environment Strategy are to summarise the airport's environmental approach to management of environmental values. The environmental values outlined within the Airport Environment Strategy are:

- Heritage – Aboriginal and Historic;
- Biodiversity – Vegetation communities and Threatened Species;

- Air Quality;
- Water Quality – Surface and Groundwater;
- Soil Quality – Contamination;
- Energy and Natural Resources – including Climate Change and Greenhouse gas emissions;
- Waste Management; and
- Noise – Ground based emissions.

The current Environment Strategy was approved July 2013. The Airport Environment Strategy has been incorporated into the 2015 Master Plan as is now required by the Airports Act.

3.3 Airport Regulation 1997

To meet the requirements of the *Airports Regulations 1997* (Airports Regulations), made under the Airports Act in relation to the preparation of the Master Plan, HIAPL is required to:

- Address any obligations passed to HIAPL by the Commonwealth in relation to leases on the airport in existence before 11 June 1998; and
- Address any interests in airport land that were in existence before 11 June 1998.

The leases on the airport in existence prior to 11 June 1998 and still current are:

- Airservices Australia facilities - Control tower, fire station and car park, radio/electrical maintenance workshop, gym/SAR store, fire training ground, DVOR/DME, localiser, glidepath, SGS, course bars and markers; and
- Bureau of Meteorology - Main building, instrument site (west), instrument site (east – anemometer).

Since the last Master Plan, HIAPL has negotiated the lease of the Qantas Domestic Terminal Lease (DTL) and aircraft waste facility. HIAPL now operate these facilities. The Master Plan fully recognises the operation of these leases, and is to no detriment to the operation of the leases.

HIAPL has agreed with the Bureau of Meteorology that development that might affect the operation of instruments in the west site (i.e. in Precinct 9) will be preceded by adequate time for new instruments to be established at the east site and a sufficient overlap of operation of the two sites to confirm continuity of climatic records.

The 2015 Master Plan creates no effect on the Airservices Australia facilities or the Bureau of Meteorology building.

To the best of HIAPL's knowledge only the following may represent interests for the purposes of the Regulations:

- Surf Road easement;
- A pipeline easement along the Tasman Highway boundary; and
- Existence of the following trunk and other services:
 - Telstra East Coast and Seven Mile Beach optic fibres;
 - Telstra incoming optic fibre to Customs Kennel;
 - Aurora optic fibre along Holyman Avenue;
 - Qantas Diversity optic fibre;
 - Water re-use inbound and outbound lines along Holyman Avenue;
 - Airservices Australia – numerous communications;
 - Incoming high voltage at airport metering point (Aurora);
 - Incoming high voltage along Pittwater Road; and
 - Numerous Aurora poles and associated assets.

The Master Plan fully recognises the existence of these interests and is no detriment to continuation of the level of accommodation provided for these interests prior to 11 June 1998, with the exception of Surf Road. A benefitting easement exists on Surf Road. A future runway extension is expected to impact access over this easement and will be the subject of an MDP and is discussed further in Chapter 8: Landside Transport.

Sinclair Creek flows across the airport. The TasWater Wastewater Treatment Plant relies on Sinclair Creek for acceptance of treated wastewater in certain circumstances under the Environment Protection Notice governing its operation. No other interests associated with this water course have been identified by title or any other searching.

Proclamation under Section 9A and 52A of the *State Roads and Jetties Act 1935*, registered 24th June 1997 has the following effects:

- Section 9A provides that the Governor may, by proclamation, declare – (a) the intended new line of a State highway or subsidiary road; or (b) the intended line of a new State highway or subsidiary road; and
- Section 52A provides that the Governor may, by proclamation, declare any State highway or subsidiary road, or part thereof to be a “limited access road”. A proclamation under this section may be combined with a proclamation under section 9A.

HIAPL recognises that any such declarations would modify any affected provisions of the Master Plan.

Public consultation, title and other searching in preparation of the Master Plan identified no other interests and so there are no other interests to the best of HIAPL's knowledge.

3.4 Airport (Environment Protection) Regulations 1997

The *Airport (Environment Protection) Regulations 1997* provide the overarching environmental legislation for airports in Australia. The objectives of the Regulations are:

- To establish a Commonwealth system of regulation and accountability for activities at airports, particularly where those activities have the potential to generate pollution or excessive noise; and
- To encourage continual improvement in environmental management practices for activities undertaken at airport sites.

The Regulations are supported and encouraged by the Commonwealth appointed Airport Environment Officer (AEO) for individual airports.

3.5 Environment Protection and Biodiversity Conservation Act 1999

Hobart Airport must comply with the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This legislation is particularly relevant to airport Master Plans due to its requirements for managing significant flora and fauna species.

3.6 National Airports Safeguarding Framework

Airports are of significant social and economic importance to local and State economies especially so for an island state such as Tasmania. Conflict with off airport activities is a growing issue for many Australian airports.

The Australian Government recognises that responsibility for land use planning rests primarily with State, Territory and Local Governments, but that a National approach can assist in improving planning outcomes on and near airports and under flight paths.

Accordingly a *National Airports Safeguarding Framework* (NASF) has been developed to provide guidance on planning requirements for development that affects aviation operations. This includes building activity around airports that might penetrate operational airspace and/or affect navigational procedures for aircraft (Commonwealth Department of Infrastructure and Regional Development (DIRD), October 2014).

NASF was developed by the National Airports Safeguarding Advisory Group, which includes representatives from Commonwealth Infrastructure and Defence departments and aviation agencies; State and Territory planning and transport departments, and the Australian Local Government Association. The Tasmanian Government is a signatory to and has officially endorsed NASF and associated guidelines.

NASF was implemented in recognition of airports importance and contribution to Australia's economy, stating the following as the context behind the Guidelines:

- *Australian airports are significant contributors to jobs, economic development, national productivity and social connectivity.*
- *Airports are important national infrastructure assets. They are essential transport hubs and contribute significantly to the national economy, as well as to the economies of the cities, regions, States and Territories where they are located.*
- *Airports support trade and tourism and help to drive growth across the economy. They support the jobs of around 50,000 people directly employed in the air transport sector and many more in the retail, hospitality and service industries on airport sites.*
- *All sectors of the Australian economy rely directly or indirectly on the efficient movement of people and freight through airports. Over 120 million passengers pass through Australian airports annually. Domestic air travel has more than trebled over the last 20 years, with over 50 million passenger movements in 2008-09 through more than 180 domestic airports.*
- *Australia's annual international freight task comprises over \$100 billion worth of air freight, over 20 per cent of the total value of Australia's international cargo trade."*

NASF consists of:

- Principles for National Airports Safeguarding Framework;
- Guideline A: *Managing Aircraft Noise*;
- Guideline B: *Managing Building-Generated Windshear*;
- Guideline C: *Managing Wildlife Strike Risk*;
- Guideline D: *Managing Wind Turbine Risk to Aircraft*;
- Guideline E: *Managing Pilot Lighting Distraction*; and
- Guideline F: *Managing Protected Airspace Intrusion*.

The aim of NASF is to:

- Enhance the current and future safety, viability and growth of aviation operations at Australian airports;
- Support and enable the implementation of best practice in relation to land use assessment and decision making in the vicinity of airports to support the safe and efficient operation of airports;
- Improve safety outcomes by ensuring aviation safety requirements are recognised in land use planning decisions;
- Improve community amenity by minimising noise sensitive developments near airports, including through the use of additional noise metrics; and
- Improve aircraft noise-disclosure mechanisms.

Out of these stated purposes, the relevant Federal, State (including Tasmania) and Territory Governments developed the following NASF Principles to be adopted in each relevant jurisdiction:

- The safety, efficiency and operational integrity of airports should be protected by all governments, recognising their economic, defence and social significance;
- Airports, governments and local communities should share responsibility to ensure that airport planning is integrated with local and regional planning;
- Governments at all levels should align land use planning and building requirements in the vicinity of airports;

- Land use planning processes should balance and protect both airport/aviation operations and community safety and amenity expectations;
- Governments will protect operational airspace around airports in the interests of both aviation and community safety; and
- Strategic and statutory planning frameworks should address aircraft noise by applying a comprehensive suite of noise measures.

NASF and the above principles are intended to be applied and incorporated into relevant planning schemes over time and provide guidance to state, local and territory governments which can in turn be used to guide assessment and approvals for land use and development on and around identified airports.

Hobart Airport has been fortunate to have avoided conflict with surrounding land use and development, with the consequence that its curfew-free status has been maintained. However increasing residential development pressure in the City of Clarence and Sorell municipality highlights the need for Local and State Government to continue having regard to NASF.

3.7 State and Local Regulations

Hobart Airport's land is owned by the Australian Commonwealth Government. Therefore, pursuant to S.112 of the Airports Act, new developments are not subject to the statutory State and Local Government planning and environmental approval process.

Any developments at the airport are controlled through the detailed requirements of the Airports Act, including specific and stringent environmental and building controls, and compliance with the Master Plan and its integrated Airport Environment Strategy.

At the same time under, S.71(6) of the Airports Act, the Master Plan is required to describe the extent of consistency of the plan with state and local government planning regimes in force where the airport is located. Therefore these regimes have been considered when developing the 2015 Master Plan. Table 3.b summarises the statutory and regulatory framework for development of both Commonwealth owned land and that owned by HIAPL, with the Master Plan clearly central to both regimes.

Hobart Airport must also comply with State legislation in the context of:

- Effects on State and Local Government land use planning and development policies;
- Environmental considerations (including aircraft noise, flora, fauna, cultural, heritage, drainage and wastewater issues);
- Airport access;
- The provision of telecommunications, water and electricity services; and
- Land acquisition.

The State and Local planning context forms the basis of the Hobart Airport Master Plan's direction and concepts have been consulted in developing the 2015 Master Plan, including the policies, schemes and plans addressed in this chapter.

Consistency of the objectives and proposals set out in this 2015 Master Plan and, where any inconsistency is identified, justification for that inconsistency, are addressed in a number of sections of this Master Plan including Chapter 4: Land Use and Precinct Development, Chapter 6: Passenger Terminal Planning, Chapter 7: Airfield Development and Chapter 8: Landside Transport (in relation to aviation and non-aviation development).

Table 3.b Statutory Regulatory Framework Overview

	Commonwealth Leased Land	Hobart International Airport Freehold Land	
Key Legislation	Airports Act 1996 Airport Regulations 1997 Airport (control of on-Airport Activities) Regulations 1997 Airports (Building Control) Regulations 1996	Land Use Planning and Approvals Act 1993	
	Airport (Environment Protection) Regulations 1997		
Other Potentially Relevant Legislation	Environment Protection and Biodiversity Conservation Act 1999 Building	Local Government (Building and Miscellaneous Provisions) Act 1993 State Policies and Projects Act 1993 Historic Cultural Heritage Act 1995 Aboriginal Relics Act 1975 Threatened Species Protection Act 1995 Nature Conservation Act 2002 Weed Management Act 1999 Forest Practices Act 1985	
Airport Policy Framework	National Airports Safeguarding Framework		
Strategic Planning	Hobart Airport Land Use Strategy 2014 2015 Hobart Airport Master Plan		
		STATE Southern Tasmania Regional Land Use Strategy 2010-2035 Southern Tasmania Regional Economic Development Plan 2012 Southern Tasmania Industrial Land Strategy 2013	COUNCIL Clarence Strategic Plan 2010-2015
Policy		STATE State Coastal Policy 1996 National Environment Protection Measures	
Local Land Use Planning	Major Development Plan approvals process in accordance with the Airports Act 1996	STATE State Planning Directives	COUNCIL Clarence Planning Scheme 2007; to be replaced in 2015 by Clarence Planning Scheme 2015

3.7.1 State Coastal Policy 1996

The *State Coastal Policy 1996* (State Coastal Policy) applies the sustainable development objectives of the Resource Management Planning System to Tasmania's coast, and is guided by three main principles:

- Natural and cultural values of the coast shall be protected;
- The coast shall be used and developed in a sustainable manner; and
- Integrated management and protection of the coastal zone is a shared responsibility.

The area to which the policy is applied is the 'Coastal Zone' which is defined under the policy as:

... State waters and to all land to a distance of one kilometre inland from the high-water mark.

The airport land is entirely within the Coastal Zone, as is the area surrounding it.

A number of principles and objectives apply to the airport and the surrounding land that reinforce the strategic importance of the airport, or raise matters that are recognised as being of importance within the coastal zone, notably:

Principles

The coast shall be used and developed in a sustainable manner.

This principle recognises:

the economic and social values of sea ports and airports, mineral and forest resources, agriculture, marine farming and fisheries to Tasmania, and the legitimate aspirations of individuals and communities for allocation of space and resources in the coastal zone for these activities; (emphasis added)

Outcomes

2. *Sustainable Development of Coastal Areas and Resources*

2.1. COASTAL USES AND DEVELOPMENT

2.1.1. The coastal zone shall be used and developed in a sustainable manner subject to the objectives, principles and outcomes of this Policy. It is acknowledged that there are conservation reserves and other areas within the coastal zone which will not be available for development (emphasis added)

2.1.6. In determining decisions on use and development in the coastal zone, priority will be given to those which are dependent on a coastal location for spatial, social, economic, cultural or environmental reasons

2.3. TOURISM

2.3.1. Tourism use and development in the coastal zone, including visitor accommodation and other facilities, will be directed to suitable locations based on the objectives, principles and outcomes of this Policy and subject to planning controls. (Emphasis added)

2.5. TRANSPORT

2.5.5. The multiple use of port areas will be encouraged but priority will be given to efficient port operations and safety requirements subject to cultural, natural and aesthetic values not being compromised (emphasis added)

2.6. PUBLIC ACCESS AND SAFETY

2.6.1. The public's common right of access to and along the coast, from both land and water, will be maintained and enhanced where it does not conflict with the protection of natural and cultural coastal values, health and safety and security requirements.

The 2015 Master Plan is consistent with the State Coastal Policy, and recognises the need to balance the strategic economic and social significance of the airport with the public access and safety outcomes of the policy. In planning for future developments including the runway extension, provision will be made for public access along the coast from both land and water, together with the protection of natural and cultural coastal values, health and safety and security requirements.

3.7.2 Southern Tasmania Regional Land Use Strategy 2010-2035

The *Southern Tasmania Regional Land Use Strategy 2010-2035* is a broad policy document that will facilitate and manage change, growth, and development within Southern Tasmania over the next 25 years. The strategy document contains a vision, strategies and policy statements to implement those strategies. The strategy is given statutory status under Division 1A of the *Land Use Planning Approvals Act 1993*. The strategy is intended to be implemented through planning schemes, and scheme amendments are required to be consistent with the strategy. The proposals in the 2015 Master Plan are consistent with this strategy.

The strategy document notes the importance of Hobart Airport to the State, noting in relation to “Strategic Direction 4 - Improving our Economic Infrastructure” that:

“Southern Tasmania is highly dependent upon the State’s three northern ports for exports and imports and Hobart airport for movements of passengers and time sensitive products. Maintaining a strong strategic approach to industrial land with efficient and cost effective intrastate road and rail linkages to and from the sea and airports are vitally important, particularly in this modern era of 24 hour 7 days a week freight logistics.”

There are no statements in the strategy document regarding protection of the operational environment of Hobart Airport. Notwithstanding this, there is a strong strategic and policy context that controls the location and density of future residential and commercial development affecting the areas around the airport.

The strategy prescribes both a settlement strategy and an urban growth boundary for the southern Tasmanian region. No lands to the east of the airport within the Seven Mile Beach Peninsula are currently identified for future settlement/ residential development. The Tasmanian Planning Commission has confirmed the exclusion of residential settlement development in this area in its decision in Draft Amendment A - 2013/1 to the *Clarence Planning Scheme 2007*. The area west of the airport in the Acton corridor, has been identified for a mix of future commercial, industrial or residential development.

3.7.3 Southern Tasmania Industrial Land Strategy 2013

The *Southern Tasmania Industrial Land Strategy 2013* provides a review of the southern region’s industrial profile, land supply and demand projections and recommends preferred sites to meet projected demand for the next 30 years.

The City of Clarence was identified in the strategy as currently having the most extensive supply of vacant industrial land at 105ha. The industrial strategy recognises the following parts of Hobart Airport as being strategically placed for new industrial uses: and

- The HIAPL owned titles at 158 Surf Road and 525 Pittwater Road for aeronautical related uses; and
- Hobart Airport Precincts 3 and 9 (4ha) are identified as regionally significant land and well suited to accommodate export-orientated industries within the next 15 years.

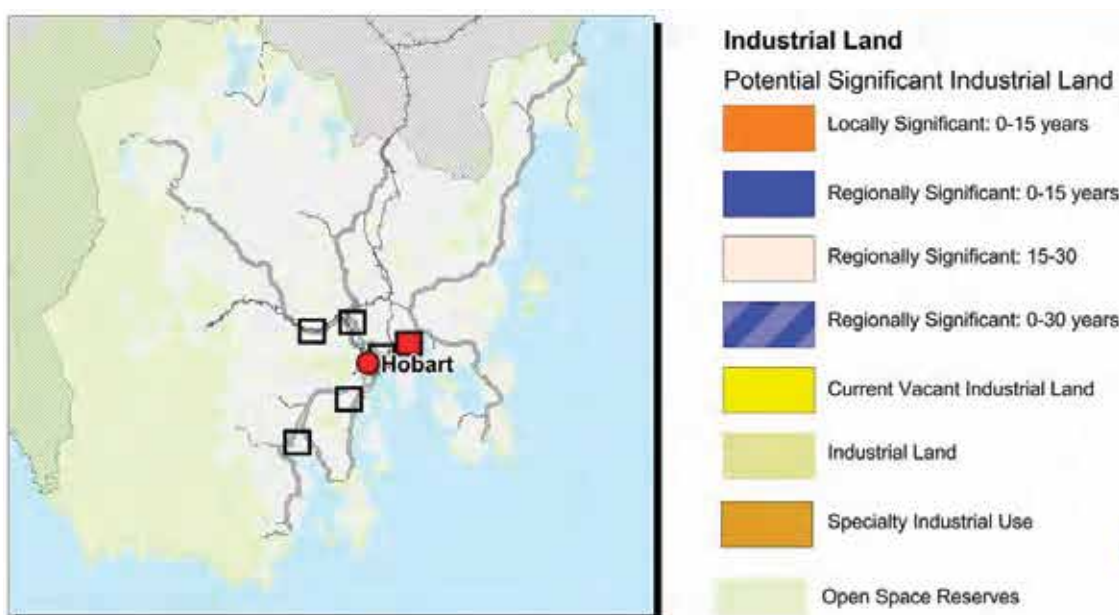


Figure 3.a Extract from *Southern Tasmania Industrial Land Strategy* – recommended sites in Clarence (p.30)

3.7.4 Clarence Planning Scheme

Although Hobart Airport sits outside the formal planning jurisdiction, the City of Clarence is a strong and active supporter of the continued development and protection of the airport. For its part HIAPL acknowledges that the continued support of the Council is important to future success.

HIAPL is of the opinion that the developments and objectives set out in this Master Plan are consistent with the Clarence City Council (CCC) draft interim planning scheme to the extent such consistency is possible.

Indeed in developing the 2015 Master Plan, HIAPL has focused on aligning proposed land uses on the airport site with the zone definitions and land uses in the Clarence City Council Interim 2014 Planning Scheme, where alignment can be achieved. The exceptions where alignment could not be achieved were for land designated for aeronautical or aviation-related use, as these uses are not contemplated in the 2007 Planning Scheme or the Clarence City Council Interim 2014 Planning Scheme. This approach mirrors that taken previously by HIAPL in developing its 2009 Master Plan.

HIAPL owns two freehold titles: 158 Surf Road and 525 Pittwater Road. These are both subject to the statutory planning controls under the Clarence Planning Scheme 2007 and are zoned recreation. It is noted that in the 2014 Interim Planning scheme that these titles have been rezoned Light Industrial with particular note to aviation related uses.

In particular, in the Interim Planning Scheme, Council provides for a development control buffer around the airport.

These controls aim to ensure that surrounding land use and development is compatible with the operation of Hobart Airport. The area covered by the overlay in the draft interim scheme is the same as that in the 2007 Planning Scheme, and consequently neither covers the balance of the Seven Mile Beach Spit, nor does it provide for changes to flight paths, noise exposure or airport operations. This buffer zone is shown in Figure 3.b Clarence Planning Scheme 2007 Airport buffer overlay (sheets 13 and 14).



Figure 3.b Clarence Planning Scheme 2007 Airport buffer overlay (sheets 13 and 14)

The scope of the Airport Buffer Overlay to the east of the main runway has been of little consequence in the past, as the recreation zoning of the land under the 2007 Planning Scheme prevented residential and commercial development that would potentially give rise to conflict with airport operations. However Draft Amendment A -2013/1 to the 2007 Planning Scheme highlighted the potential risks arising if the provisions of the recreation zone were to be relaxed, in the absence of such an overlay or other provisions that are consistent with the *National Airports Safeguarding Framework*. See Section 3.7.6 Recent Planning Decisions for further detail.

Another significant aspect of the draft interim scheme that differs from the 2007 Planning Scheme is the absence of any policy statements specifically acknowledging the State, regional and local economic and social importance of Hobart Airport. There is no specific reference to the promotion or protection of Hobart International Airport under the Planning Scheme Purpose other than an acknowledgement in the description of the “Municipal Setting” that the airport is part of the significant built infrastructure. Similarly there is no specific reference to the airport within the Planning Scheme Objectives other than Local Competitiveness Objectives 3.0.9 (a), (d) and (e) that identify the potential for economic growth associated with the airport, and recognise:

“The separate land use planning process that applies to the Hobart International Airport site under Australian Government legislation, and the objectives under the associated Airport Master Plan, such as provision of air freight storage and handling facilities and improved passenger terminals.”

Importantly it will therefore be necessary to promote the promulgation of provisions that reflect the *National Airports Safeguarding Framework* within the new planning scheme and any relevant amendments to that scheme.

In relation to the two freehold titles held by HIAPL, as noted above, under the current planning scheme, these are zoned ‘Recreation’. The interim scheme has converted both of the freehold titles to ‘Light Industrial’ zoning, as shown in Figure 3.c.

The draft zone provisions include a Local Area Objective that specifically states that the Zone is intended to facilitate industrial activity with synergies to airport functions, such as air freight handling, logistics and the servicing of the aviation sector.

3.7.5 Sorrell Draft Interim Planning Scheme 2014

The *Sorell Draft Interim Planning Scheme 2014* does not contain any provisions addressing airport operations, flight paths or noise exposure.

Accordingly it will be necessary to promote the promulgation of provisions that reflect the *National Airports Safeguarding Framework* within the new planning scheme and any relevant amendments to that scheme.



Figure 3.c Excerpt from Clarence Draft Interim Planning Scheme 2014 map showing the airport land unzoned, with the exception of the two freehold properties that are zoned Light Industrial (pink)

3.7.6 Recent Planning Decisions

Decision in relation to Amendment A-2013/1 - Clarence Planning Scheme

During 2014 the Tasmanian Planning Commission, which is responsible for the assessment and approval of amendments to the Clarence Planning Scheme, rejected draft amendment A-2013/1 to the scheme, for reasons which included concerns about the effect of the proposed amendment on Hobart Airport.

The amendment provided for a portion of the land at 300 Pittwater Road, Seven Mile Beach to be used and developed for two 18 hole golf courses, a children's golf course, conference and retail facilities, tourist accommodation, restaurants and up to 216 dwelling units. Prior to the decision by the Commission, the Clarence City Council determined, after a period of public consultation, that it did not support the draft amendment.

HIAPL provided submissions to the Council during the public consultation period and participated in the hearing by the Commission.

In rejecting the draft amendment, the Tasmanian Planning Commission Delegates accepted that:

"...Hobart Airport is of such regional and State significance that surrounding use and development must pose a very low risk to the operations of the airport. The Delegates consider that increasing residential pressure close to the airport may give rise to future complaints and any increase in the number of complaints poses an unacceptable risk to the future operations of the airport."

The Commission noted that:

"The current absence of a curfew is acknowledged as an important advantage that the Hobart Airport has over several other capital city airports."

and that

"...any negative economic impact to the Hobart Airport by potential constraints to its future operations poses a risk to the economic development of the region and the State."

The Commission also specifically acknowledged the relevance of the National Airports Safeguarding Framework, notably Guideline A, page 2, para 13, which makes the following statement about land use and development planning on land surrounding airports:

"... where there is no major existing or approved development, there is scope to plan ahead to take account of potential noise disturbance and in particular to minimise the zoning of noise exposed land for residential development".

4 Land Use and Precinct Development



4 Land Use and Precinct Development

4.1 Overview and Objectives

Hobart Airport's land use strategy (developed in part for the purposes of section 71(2)(c) of the Airports Act) reflects the fact that Hobart Airport needs to grow and develop to meet demand as Tasmania, and in particular southern Tasmania continues to grow:

- In population;
- In attractiveness as a premium tourism destination;
- As a centre of education;
- As a place producing high value fresh produce in demand both nationally and internationally;
- As a preferred place to conduct business; and
- As an important Antarctic gateway

The land use strategy identifies that a strong link with the local economy will best position Hobart Airport to benefit from economic growth. The market sectors of likely growth for the airport were identified from the various industries including:

- Passengers;
- Fresh produce (high value high perishable goods);
- Antarctic and logistics;
- Freight handling;
- Light/advanced manufacturing/industry;
- Local business servicing the community;
- Tourism supporting businesses; and
- Flight related businesses.

The 2015 Master Plan land use and precinct development sets out a framework to guide the airport's growth to enable it to meet increased demand. It also takes into consideration the transformative aviation developments proposed for Hobart Airport, including the:

- 500m extension to the runway, an important Commonwealth-funded project that will enable the airport to grow and service new markets for both passenger and freight traffic;
- Expansion and upgrade of the terminal to deliver facilities, space and an improved customer experience for passengers, visitors and users of the airport; and

- Improvement and development of infrastructure for logistics, freight services and Antarctic development infrastructure.

In reviewing the land use precincts at Hobart Airport, the Master Plan also seeks to strike a balance between the airport's focus on growth in aviation related activities and the need for non-aviation development and uses to support the airport.

Non-aviation development is essential to the long term economic viability of Hobart Airport and compliments its key aviation role. Non-aviation development and revenues support infrastructure development and diversify business risk.

Non-aviation development at Hobart Airport has occurred successfully since privatisation in 1998. Hobart Airport currently has approximately 36 tenants that directly support aviation business e.g. car rental, and approximately 27 tenants that are not directly related to aviation.

It is the intention of HIAPL to undertake non-aviation business development in line with the objectives outlined below and its land use strategy. These objectives reflect Hobart Airport's assessment of the future needs of users of the Airport, including passenger operators, charter and cargo operators, passengers, businesses and other customers.

Overall development objectives for the airport are:

- To develop Hobart Airport as a port to service international and domestic passengers travelling for tourism, business and personal reasons and in doing so improve Tasmania's connectivity and economic success;
- To seek appropriate commercial development in the context of increasing freight and export requirements, and its role as an Antarctic logistics hub;
- To ensure Hobart Airport is operated and developed in a manner that is safe, secure, customer-orientated and sustainable with a culture focused on excellence for quality and customer service;

- To develop a business environment and associated infrastructure that enables Hobart Airport and its partners to reach their potential and facilitate future growth by planning and delivering the needed infrastructure;
- To develop non-aeronautical land and businesses in order to provide fiscal support to future aeronautical infrastructure requirements and provide stability to the overall business; and
- To encourage complimentary developments.

HIAPL is not proposing any new sensitive developments at Hobart Airport in this Master Plan.

The economic impact of the Airport for Hobart and Tasmania is described in Chapter 2: Economic Benefit.

4.2 Master Plan Precincts

Hobart Airport currently has one terminal precinct, eight commercial and two industry precincts. A review of these precincts has resulted in the development of a new more descriptive land use plan, proposing seven distinct precincts.

The land use depicted in the 2015 Master Plan departs from the 2009 Master Plan in a number of ways. It caters for a potential runway extension and provisions for the future development of a logistics, freight and Antarctic hub in the southern corner of the site. It simplifies the number of precincts and extends their developable areas to make infrastructure servicing more viable. Access to the Tasman Highway is improved. Developable land adjacent to the highway is increased and there is a greater focus on local service industries, tourism and industrial land. Two adjoining freehold titles owned by HIAPL are also noted. These changes can be seen in Figure 4.a and Figure 4.b.

A number of changes at Hobart Airport since 2009 have informed land use plans documented in the 2015 Master Plan, including:

- Simplifying the precincts;
- Providing for the expansion of Terminal Precinct facilities (such as parking and car rentals) and the existing constraints to expansion to the east and west meant that land previously designated for a business park (Commercial Precinct 5) was recognised as a strategic location for expansion of terminal facilities; and
- Providing for the development of facilities to support freight and Antarctic purposes.

For the purposes of section 71(2)(j) of the Airports Act and regulation 5.02(2) of the Airports Regulations, the precinct plan has, where possible, described proposals for land use and related planning, zoning and using terminology and levels of detail consistent with the draft Clarence City Council Interim Planning Scheme. The 2015 Master Plan has used the terminology of the draft Clarence City Council Interim Planning Scheme as it is a forward looking document and it is expected that the new Scheme will be in force shortly.

The precincts identified for Hobart Airport include:

- Runway Precinct (174ha);
- Terminal Precinct (50ha);
- Aviation Precincts (71.5ha);
- Industrial Enterprise Precincts (27.4ha);
- Local Business Precincts (32.5ha);
- Tourism Mixed Use Precinct (35.9ha); and
- Environment Precincts (132.3ha).

Unless otherwise indicated, to the extent that a permissible use is defined in the draft Clarence City Council Interim Planning Scheme, the use has the same meaning as in that scheme provided in Table 4.a at the end of this chapter. All other uses are defined within this section of this Master Plan.

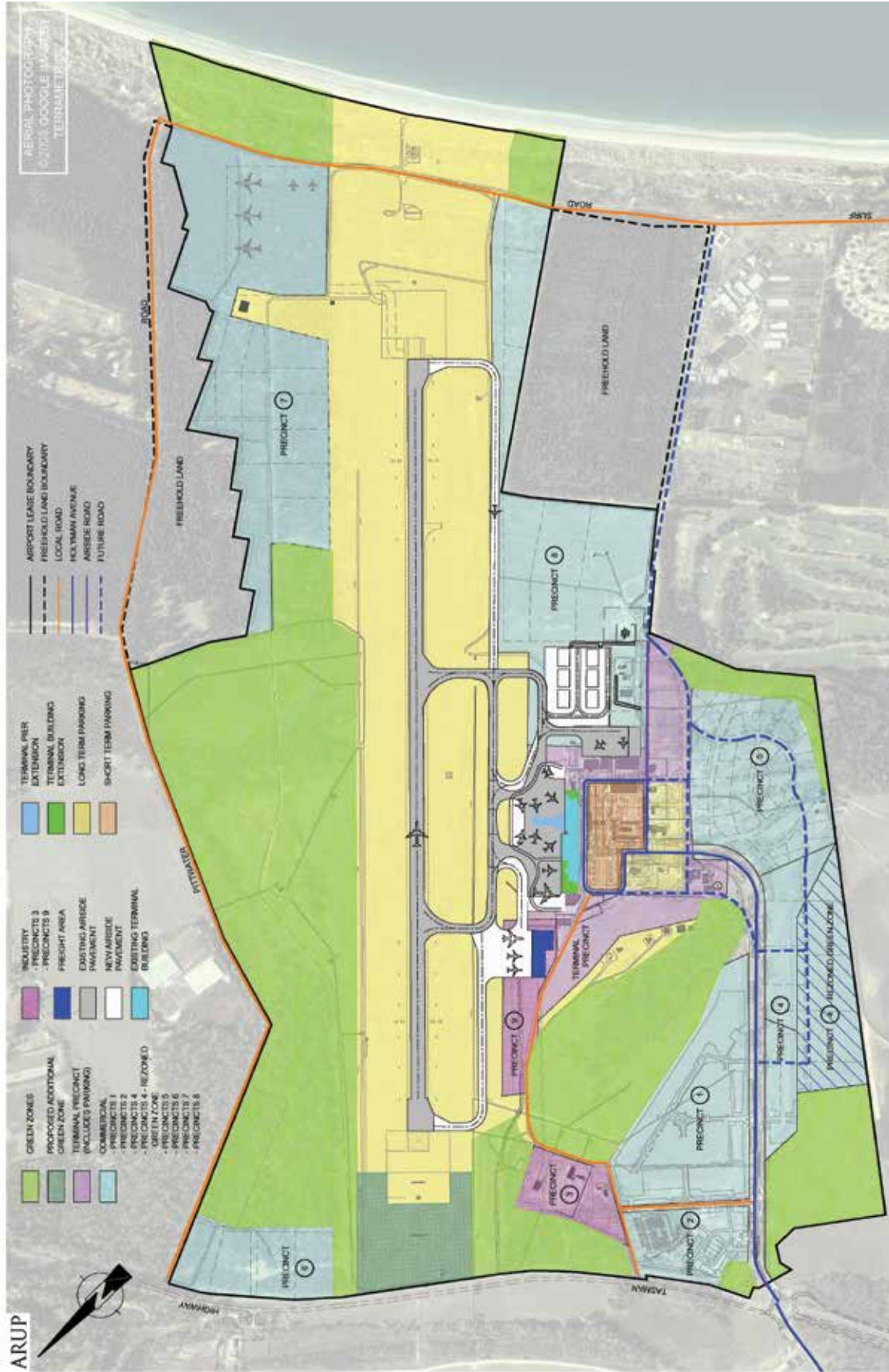


Figure 4.a 2009 Hobart Airport Master Plan

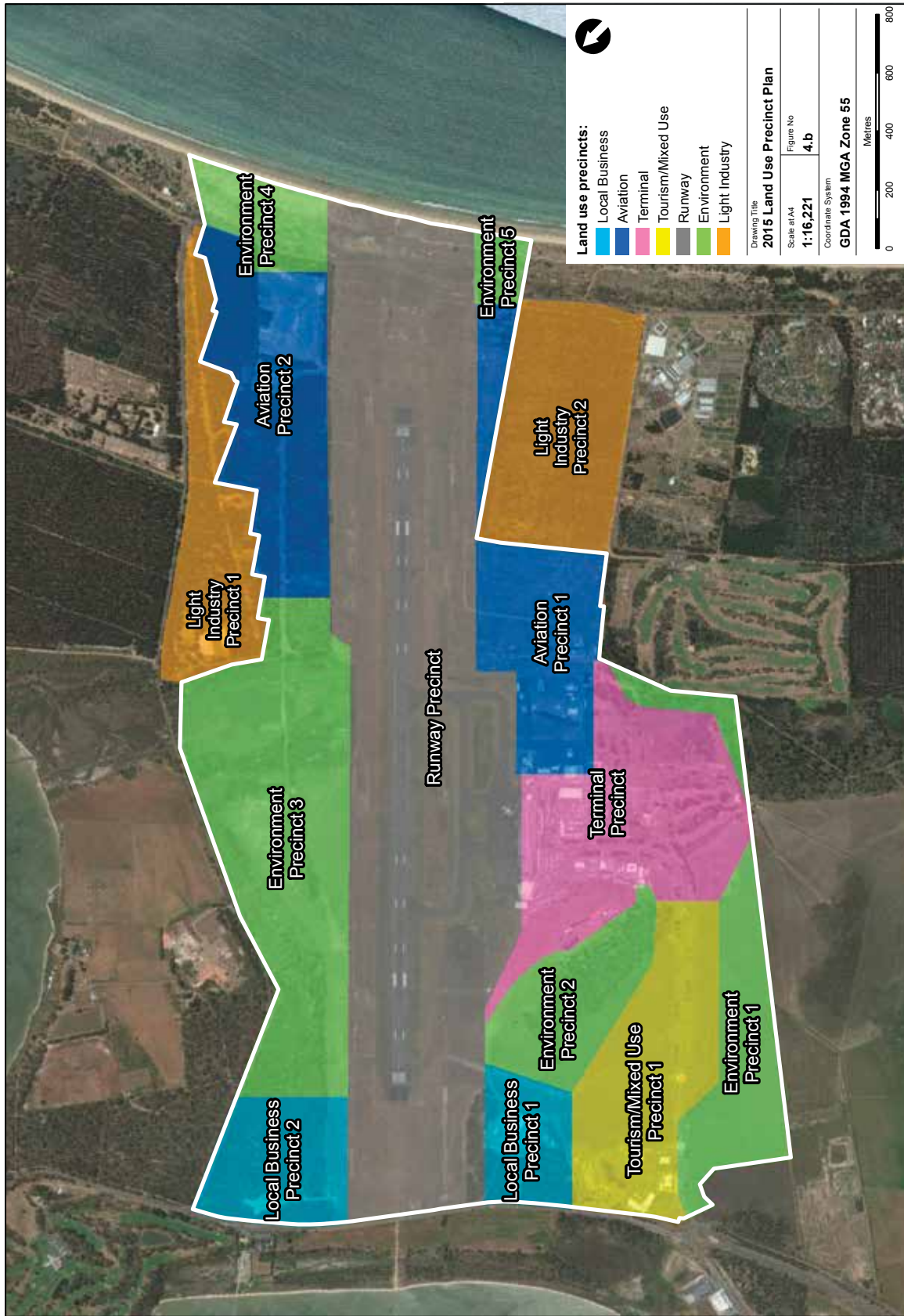


Figure 4.b 2015 Land Use Precinct Plan

4.2.1 Runway Precinct

This precinct primarily caters for the runway, taxiways and the apron. The key development objectives for the runway precinct are:

- Allowing for safe aircraft landing, take off and taxiing operations;
- Providing sufficient and for current and future core aviation functions;
- Facilitating regulatory compliance;
- Catering for aircraft navigation aids, communications equipment, aviation rescue and firefighting;
- Allowing for other facilities to ensure safe operation of aircraft; and
- Enabling growth of existing and new markets.

Development in this precinct needs to comply with all relevant National and International aviation standards and regulations.

The control tower and operational areas of Tower Hill have been removed from the Runway Precinct and placed in the Terminal Precinct to better define airside land and limit the functions of the runway precinct to aircraft movement. Fire training has been placed into the Aviation Precinct. The Runway Precinct has widened to the north-west to cater for future parallel taxiway developments.

There is no equivalent zoning under the draft Clarence City Council Interim Planning Scheme as only one use (Transport Depot and Distribution) is envisaged for this precinct.

While the land use envisaged for this precinct is not consistent with the draft Clarence Interim Planning Scheme, this is justified on the basis that the draft scheme does not provide for aviation uses, and such uses are integral to the operation of the airport.

It is intended that the Runway Precinct will be developed as follows during the Master Plan period:

- Extension of the runway by 500m (150m to the northern end and 350m to the southern end);
- Development of a new large aircraft apron to the northern end of the existing passenger apron;
- Alteration and relocation navigational equipment (in conjunction with Airservices Australia); and
- The closure of Surf Road to vehicular traffic and construction of a new road Grueber Avenue.

The above projects are subject to a Major Development Plan and will occur in the first three years of this Master Plan.

Developments that may occur within five years include taxiway and apron to a possible logistic/Antarctic hub on the southern edge of this precinct and the development of freight support facilities for the new northern apron. Both these developments are dependent on demand.

Long term developments in this precinct include the development of parallel taxiways the full length of the runway towards the end of this Master Plan's 20 year planning period.

4.2.2 Terminal Precinct

The key development objectives for the Terminal Precinct are to:

- Accommodate facilities for the safe, efficient and economic handling of aircraft, passengers and freight, and related services and support activities;
- Provide sufficient capacity for terminal facilities and related infrastructure development for airline services;
- Cater for the airport's role as a key tourist and business gateway to the region;
- Provide efficient, diverse and responsive ground transportation facilities (including car parking, hire cars, taxis, coaches); and
- Provide for aircraft navigation aids, radar and communications equipment, air traffic control, and meteorological services.

All buildings should be of a high architectural standard and be highly functional, designed in a way that will allow for future expansion, adoption of new technologies and changes in operations. The design of buildings in the precinct should take into consideration the limitation imposed by the obstacle limitation surface (OLS), wind shear considerations and glare. Landscaping species should be chosen not to attract birds.

During the coming three years the airport terminal will be redeveloped, this redevelopment is outlined fully in Chapter 6: Passenger Terminal Planning.

There is no equivalent zoning under the draft Clarence City Council Interim Planning Scheme. Again, this is justified on the basis that the draft Clarence Interim Planning Scheme does not provide for aviation uses proposed for the Terminal Precinct are more specialised than any of the available zone types within the planning scheme.

The uses for this precinct are set out below or defined when possible in the Clarence City Council Interim planning scheme definitions found in Table 4.a or as follows:

- Passenger Services (where the primary purpose is to facilitate the safe travel of passengers and other visitors, providing facilities that support the core aviation operations of Hobart Airport);
- Freight Terminal (the use of land to facilitate processing and storage of freight, where goods are loaded and unloaded from aircraft);
- Administration facilities;
- Business and professional services;
- Domestic animal boarding;
- Emergency services;
- Food services;
- Service industry;
- Tourism operation;
- Transport depot and distribution;
- Utilities;
- Vehicle fuel sales and service;
- Vehicle parking; and
- Visitor accommodation.

It is intended that the Terminal Precinct will be developed as follows during the Master Plan period. These developments are in the five year plan outlined in Chapter 6: Passenger Terminal Planning.

The major development occurring within this precinct is intended to be the redevelopment of the existing terminal as further described in Chapter 6: Passenger Terminal Planning. There will also be minor but effective road realignments and parking reconfigurations. Future car park expansion and car rental facilities will occur in this precinct as need demands. See Figure 4.c for a photograph of the current Terminal Precinct.

The terminal 2020 redevelopment, road realignments and car parking reconfiguration are expected to be undertaken within the first five years of this Master Plan (completed in 2017). Other developments consistent with the land uses may be undertaken on a case by case basis during the period of this Master Plan.

Future developments in this area may include additional transport associated facilities, freight facilities, tourism related facilities (e.g. visitor facilities), additional / upgraded roads and intersections, accommodation airside hotel/ hospitality facilities. Current interests in this area relate primarily to transport associated facilities, including car rental and the terminal building.



Figure 4.c Photograph of Runway, Terminal and Aviation Precincts

4.2.3 Aviation Precincts

Two Aviation Precincts have been identified at the southern end of the runway. The precincts accommodate aircraft hangars and maintenance facilities, ancillary aviation support activities including avionics, equipment maintenance, aviation related services, fire training areas, and commercial/light industrial and associated land uses.

The key development objectives for the Aviation Precincts are to:

- Accommodate aviation and related service and support activities;
- Provide for and maintain general aviation uses at the airport;
- Develop freight facilities;
- Provide for Antarctic aviation services;
- Provide for tourist related aviation;
- Provide for flight training schools – rotary wing, jet;
- Provide for aviation related administrative and commercial facilities;
- Provide facilities for the safe, efficient and economic handling of aircraft, passengers; freight and related services and support facilities;
- Support the development and opportunities for a range of aviation support services;
- Aviation rescue and firefighting; and
- Contribute to the commercial viability of the airport as an enterprise.

Buildings should generally be limited to a maximum of 20m in height, except in the case of particular aviation related purpose with special need for increased clearance, but in any event should not penetrate the airport's OLS.

There is an existing TasWater sewerage treatment plant within this precinct that services the wider community as well as the airport. The mid to long term future of this facility is under review by TasWater.

The Aviation Precincts house a rotor terminal and maintenance facilities, as well as general aviation (GA) hangars. GA is not a focus for Hobart Airport, Cambridge Aerodrome located approximately 2km from Hobart Airport is the designated GA facility for Hobart. Rotor operations at Hobart Airport are expected to grow at a slow rate and facilities will be developed to meet this demand.

There is no equivalent zoning under the Clarence City Council draft Interim Scheme as the uses in the precinct are more specialised than any of the available zone types. The uses are set out below as defined in the Clarence City

Council Interim planning scheme definitions found in Table 4.a or as defined below.

- Aviation activity (the use of land for the arrival, departure, movement operation of aircraft, including general aviation, helipads, runways, taxiways and aprons etc.);
- Aviation support facility (use of land for aircraft maintenance, consisting of ground-based activities necessary for the efficient operation of aviation activities;
- Freight terminal (use of land to facilitate processing and storage of freight, where goods are loaded and unloaded from aircraft);
- Export related facilities (facilities to process goods for export purposes including but not limited to quarantine, inspection and bond store purposes.)
- Liquid fuel depot and distribution facility;
- Natural and cultural values management;
- Research and development;
- Transport depot and distribution;
- Navigational aids (any aircraft surveillance equipment, including control towers, radars, visual and non-visual aids for navigation);
- Utilities; and
- Storage.

It is intended that the Aviation Precincts will be developed as follows during the Master Plan period. This proposed development includes both:

- Developments to enhance and enlarge current freight facilities in the immediate term to cater for potential demand;
- Future developments to support current Antarctic operations;
- Future developments include a possible logistic/ Antarctic hub on the southern edge of this precinct, dependant on demand; and
- Small scale alterations/developments to the GA hangar area to better facilitate demand and user requirements.

Future developments in this area include additional freight handling and storage facilities, particularly to facilitate high value, perishable freight at larger volumes. The development of Grueber Avenue will accommodate any increase in associated vehicle movements to the proposed logistic hub.

Subject to demand, it is hoped to undertake the development of freight and export facilities within the first five years of this master plan. The scale and location of these facilities will be driven by demand and operational practicality.

4.2.4 Local Business Precinct

The Local Business Precinct provides for business, professional and retail services which meet the convenience needs of both Hobart Airport and the Cambridge/Acton Park area.

The key development objectives for the Local Business Precinct are to:

- Allocate parcels to accommodate local business development which takes advantage of the location adjacent to the airport and/or assisted by visibility from and easy access to the Tasman Highway; and
- Ensure the commercial viability of the airport as an enterprise.

Buildings or structures should not exceed 20 metres in height or the airport's OLS, whichever is the lesser. Strict security fencing and access control measures must be incorporated within the precinct so as to control public access to airside sections of the airport.

Local Business Precinct 1 will be targeted for development in the first instance to make efficient use of existing infrastructure and consolidate the existing uses and developments in this area.

The Local Business Precinct aligns with the general business zone under the draft Clarence City Council Interim Planning Scheme. Uses are set out below as defined in the Clarence City Council Interim planning scheme definitions found in Table 4.a or as defined below.

- Business and professional service;
- Bulky goods;
- Domestic animal boarding and training;
- Community meeting and entertainment;
- Food services;
- General retail and hire;
- Equipment, machinery sales and hire;
- Transport depot and distribution;
- Emergency services support;
- Utilities;
- Vehicle fuel sales and service;
- Vehicle parking;
- Research and development;
- Service industry; and
- Storage.

The following uses are considered to be sensitive in nature and are not deemed appropriate for Hobart Airport:

- Custodial Facility;
- Education and Occasional Care (excluding current operations on site);
- Hospital Services; and
- Residential.

While there are no specific development proposals currently contemplated for this precinct, HIAPL will consider potential development consistent with land uses on a case by case basis and subject to demand.

Former environmental areas have been allocated for local business development. Any removal of vegetation in this area will be subject to approvals by the Tasmanian Government as per the *Nature Conservation Act 2002* and outlined in chapter 13: Environment.

4.2.5 Tourism/Mixed Use Precinct

This precinct is at the entrance to Hobart Airport is approximately 35.9ha in size, of which 8.4ha is currently developed.

The precinct provides for both businesses with either a tourism focus or of likely interest to tourists and retail services which meet the convenience needs of the Cambridge/Acton Park area. The Holyman Avenue frontage which is largely undeveloped is a great opportunity to link the design of future buildings to the tourism market of Hobart.

Current key tenants in the Tourism/Mixed Use Precinct include Travelodge Hotel, service station, campervan rental, caravan/tourism park and a child care centre.

The key development objectives for the Tourism/Mixed Use Precinct are to:

- Provide for continuation of the existing tourism accommodation facilities and allow for possible expansion of such facilities;
- Allocate parcels to accommodate an increased concentration of tourism related business development which utilise the frontage onto Holyman Avenue;
- Allocate parcels for retail and commercial development to assist with the commercial viability of the airport as an enterprise;
- Provide for possible office space and / or call centre facilities in the longer term;
- Provide for potential industrial and warehouse uses in the longer term; and
- Enable a high quality architectural frontage along Holyman Avenue.

Buildings or structures should not exceed 20m in height or the airport's OLS whichever is the lesser. Buildings should be setback to a mandatory distance of 15m from Holyman Avenue to create a consistent wall along the avenue. Facades to Holyman Avenue should be of significant design merit and should promote a high degree of visual interest.

The Tourism/Mixed Use Precinct aligns with the commercial zone in the draft Clarence City Council Interim Planning Scheme. Uses are set out below as defined in the Clarence City Council Interim planning scheme definitions found in Table 4.a or as defined below.

- Natural and cultural values and management;
- Utilities;
- Bulky good sales;
- Food services;
- General retail and hire including Direct Factory Outlet type development;
- Passive recreation;
- Emergency services
- Business and professional services;
- Community meeting and entertainment;
- Educational and occasional care – only short term child care purposes and respite care as is current operation;
- Equipment and machinery sales and hire;
- General retail and hire;
- Service industry;
- Sports and recreation;
- Tourism operation;
- Vehicle fuel sales and service; and
- Vehicle Parking.

This precinct includes the area previously identified and approved for a mixed use retail development. Hobart Airport is currently investigating the use of this site to undertake a retail, commercial, supermarket, discount department store or outlet redevelopment of up to 60,000m² and other retail uses to support key objectives.

It is intended that the precinct will be developed during the coming 3-10 years as the Hobart market strengthens and to meet demand.

4.2.6 Environment Precinct

The Environment Precinct consists of areas of remnant natural vegetation, designated areas of cultural significance or areas prone to flooding.

The key objectives for the Environment Precinct are to:

- Maintain the area for environmental or flood management;
- Actively manage and improve any threatened flora species populations; and
- Protect cultural values.

Any allowable work in these areas will support the protection, enhancement and appreciation of the natural environment and the cultural values of the site.

The Environment Precinct aligns with and is broadly consistent with the open space zoning under the draft Clarence City Council Interim Planning Scheme, but the uses are limited to passive recreation, natural and cultural values management and utilities.

Some minor changes to the Environment Precinct are reflected in Figure 4.a and Figure 4.b and allow for potential development in these fringing areas. The current environmental values of these areas are of State significance (native vegetation). Should development be proposed in these areas in the future, it will adhere to the required state legislative process. That is, any required State permits will be sought prior to any removal or disturbance of vegetation. Any recommendations provided by the State Government will be considered as part of the development application.

The same process will apply to the proposed changes to the local business precincts where former environmental areas have been allocated for local business development.

The minor change to Environment Precinct 2, reflected in the Tourism Mixed Use Precinct 1, incorporates low value grassland areas adjacent to Holyman Avenue and vegetation areas of bioregional significance. This area does not contain any listed species and is comprised of a landscaped area which is mown regularly. Any grassland that contains environmental value remains within the environmental precinct zones. Ongoing monitoring and evaluation of grassland areas ensures that environmental values are captured and managed in accordance with their significance.

Management of these precincts are addressed in Chapter 13: Environment. Apart from essential services (utilities) there are no proposals to develop these precincts at this time.

4.2.7 Light Industrial Precinct

The land in the Light Industrial Precinct is on freehold state land owned by HIAPL and is not covered by the requirements of the Airports Act.

The development objectives of these areas of land is to facilitate industrial, research and tourism activity with synergies to primary airport functions, such as air freight handling, logistics and the servicing of the aviation sector. This includes future Antarctic, logistics and freight centre (Figure 4.d) as well as to accommodating general industrial such as manufacturing, processing, repair, storage and distribution of goods and materials as allowed under the Clarence City Council Interim planning scheme.



Table 4.a Definitions

Use	Definition as per Clarence Interim Planning Scheme	Qualification for Hobart Airport
Business and professional services	Use of land for administration, clerical, technical, professional or similar activities. Examples include a bank, call centre, consulting room, funeral parlour, medical centre, office, post office, real estate agency, travel agency and veterinary centre.	Excluding funeral parlour.
Domestic animal boarding and training	Use of land for breeding, boarding or training domestic animals. Examples include an animal pound, cattery and kennel.	For the use of on airport providers, for example quarantine.
Emergency services	Use of land for police, fire, ambulance and other emergency services including storage and deployment of emergency vehicles and equipment. Examples include ambulance station, fire station and police station.	
Food services	Use of land for preparing or selling food or drink for consumption on or off the premises. Examples include a cafe, restaurant and take-away food premises.	
General retail and hire	Use of land for selling goods or services, or hiring goods. Examples include an adult sex product shop, amusement parlour, beauty salon, betting agency, commercial art gallery, department store, hairdresser, market, primary produce sales, shop, shop front dry cleaner, supermarket and video shop	Excluding adult activities Including Direct Factory Outlet type development.
Visitor accommodation	Use of land for providing short or medium term accommodation for persons away from their normal place of residence. Examples include a backpackers hostel, bed and breakfast establishment, camping and caravan park, holiday cabin, holiday unit, motel, overnight camping area, residential hotel and serviced apartment.	
Natural and cultural values management	Use of land to protect, conserve or manage ecological systems, habitat, species, cultural sites or landscapes.	All environmental management is addressed in detail in Chapter 13: Environment.
Service Industry	Use of land for cleaning, washing, servicing or repairing articles, machinery, household appliances or vehicles. Examples include a car wash, commercial laundry, electrical repairs, motor repairs and panel beating.	Notably car rental and taxi service related activities.
Transport depot and distribution	Use of land for distributing goods or passengers, or to park or garage vehicles associated with those activities, other than Port and shipping. Examples include an airport, bus terminal, council depot, heliport, mail centre, railway station, road or rail freight terminal and taxi depot.	

Use	Definition as per Clarence Interim Planning Scheme	Qualification for Hobart Airport
Utilities	<p>Use of land for utilities and infrastructure including:</p> <ul style="list-style-type: none"> (a) telecommunications; (b) electricity generation; (c) transmitting or distributing gas, oil, or power; (d) transport networks; (e) collecting, treating, transmitting, storing or distributing water; or (f) collecting, treating, or disposing of storm or floodwater, sewage, or sullage. <p>Examples include an electrical sub-station or powerline, gas, water or sewerage main, optic fibre main or distribution hub, pumping station, railway line, retarding basin, road, sewage treatment plant, storm or flood water drain, water storage dam and weir.</p>	
Vehicle parking	<p>Use of land for the parking of motor vehicles. Examples include single and multi-storey car parks.</p>	
Community meeting and entertainment	<p>Use of land for social, religious and cultural activities, entertainment and meetings. Examples include an art and craft centre, church, cinema, civic centre, function centre, library, museum, public art gallery, public hall and theatre.</p>	
Tourism operation	<p>Use of land specifically to attract tourists, other than for accommodation. Examples include a theme park, visitors centre, wildlife park and zoo.</p>	Excluding wildlife park and zoos.
Research and development	<p>Use of land for electronic technology, biotechnology, or any other research and development purposes, other than as part of an educational use.</p>	
Bulky goods sales	<p>Use of land for the sale of heavy or bulky goods which require a large area for handling, storage and display. Examples include garden and landscape suppliers, rural suppliers, timber yards, trade suppliers, showrooms for furniture, electrical goods and floor coverings, and motor vehicle, boat or caravan sales.</p>	
Equipment hire and machinery sales	<p>Use of land for displaying, selling, hiring or leasing plant, equipment or machinery, associated with, but not limited to, cargo-handling, construction, earth-moving, farming, industry and mining.</p>	
Hotel industry	<p>Use of land to sell liquor for consumption on or off the premises. If the land is so used, the use may include accommodation, food for consumption on the premises, entertainment, dancing, amusement machines and gambling. Examples include a hotel, bar, bottle shop,</p>	

Use	Definition as per Clarence Interim Planning Scheme	Qualification for Hobart Airport
Storage	Use of land for storage or wholesale of goods, and may incorporate distribution. Examples include boat and caravan storage, contractors yard, freezing and cool storage, liquid fuel depot, solid fuel depot, vehicle storage, warehouse and wood yard.	
Vehicle fuel sales and service	Use of land primarily for the sale of motor vehicle fuel and lubricants, and if the land is so used, the use may include the routine maintenance of vehicles. An example is a service station.	Including aviation fuel sales.
Educational and occasional care	Use of land for educational or short-term care purposes. Examples include a childcare centre, day respite facility, employment training centre, kindergarten, primary school, secondary school and tertiary institution.	Only as currently used – child care and day respite and educational facility for Park Side.
Sports and recreation	Use of land for organised or competitive recreation or sporting purposes including associated clubrooms. Examples include a bowling alley, fitness centre, firing range, golf course or driving range, gymnasium, outdoor recreation facility, public swimming pool, race course and sports ground.	
Manufacturing and processing	use of land for manufacturing, assembling or processing products other than Resource processing. Examples include boat building, brick making, cement works, furniture making, glass manufacturing, metal and wood fabrication, mineral processing and textile manufacturing.	

5 Air Traffic Forecasts



5 Air Traffic Forecasts

5.1 Introduction to Growth Forecasts

Hobart Airport in partnership with the Tasmanian community and airline partners has recently experienced one of the highest growth rates of an airport not supporting mining operations. This in turn has resulted in positive economic impacts and business opportunities for the Hobart region and increased social benefits with greater and more affordable access for Tasmanians to mainland Australia.

Looking forward, Hobart Airport expects to achieve an annual average passenger growth rate of 3.8 percent. This forecast is based on a number of factors including historical growth, economic forecasts for Tasmania, tourism and industry growth plans, airline strategic plans and aircraft investment plans.

5.1.1 Historical Passenger Performance

Hobart Airport has a consistent annual average growth rate of 3.8 percent during the past five years. This growth rate was impacted by the withdrawal of Tiger services in 2012 where the withdrawal of capacity from the Hobart market resulted in a decline in passenger numbers. This was rectified with 13 percent growth in passengers in 2013 due to increased capacity and continued strong growth since this.

Passenger types at Hobart Airport are relatively balanced with the mix of travel purposes splitting almost equally across business travel, holiday travel and travel to visit family and friends. This balanced mix of travel types results in Hobart Airport being relatively resistant to external market shocks as can be seen in Figure 5.a and Table 5.a.

Table 5.a Historical Annual Passengers

Annual Passengers	FY10	FY11	FY12	FY13	FY14
Arrivals	915,000	936,000	896,182	1,001,049	1,036,029
Departures	918,500	943,500	901,663	1,007,896	1,042,335
Total	1,833,500	1,879,500	1,797,845	2,008,945	2,078,364

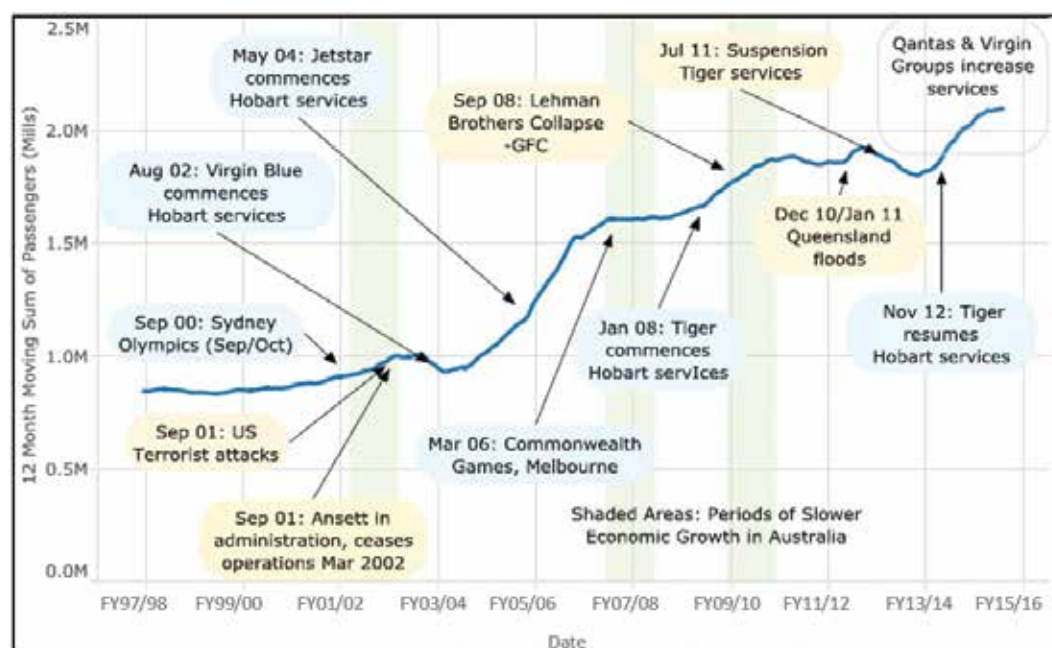


Figure 5.a Total Domestic Passenger Movements at Hobart Airport January 1996 to 2014

5.1.2 Future Passenger Growth

A large number of factors influence the growth of passenger movements at an airport. However, only some of these factors can be measured and their impacts included in forecasting models. The significant factors taken into account in preparing the passenger forecasts for the 2015 Master Plan include:

- Economic growth in Tasmania;
- Growth of the Australian economy in the context of global economic performance;
- Australian exchange rates;
- Tasmanian and Australian population growth;
- Airline capacity developments; and
- Airline costs (including oil prices), airfares and other travel costs.

During the life of the 2015 Master Plan passenger numbers are expected to increase by 2.6 million passengers (a 130 percent increase) while aircraft movements are expected to double as detailed in Table 5.b.



Table 5.b Forecast Annual Passengers and Aircraft

Annual Movements	FY13	FY15	FY20	FY35
Passengers	2,009,000	2,111,000	2,687,300	4,619,200
Aircraft	16,000	16,000	20,020	32,090

5.1.3 General Aviation and Helicopter Traffic

Hobart Airport does not experience significant General Aviation (GA) traffic. The majority of GA operates from nearby Cambridge Airport, this is not expected to change over the master planning period.

The Helicopter forecast recognises rescue helicopters based at Hobart Airport and other Hobart Airport rotary operations which include flight training. General aviation (GA) movements are assumed to recover from the reductions over recent years and to grow modestly (relative to the Tasmanian economy) over future years. GA movements are projected to increase by a compounded annual growth rate (CAGR) of 1.6% over the forecast period.

Table 5.c Helicopter and GA movements

Year end (30 June)	Helicopter	Other GA	Total GA
2010	2,424	12,743	15,167
2011	4,322	12,320	16,642
2012	3,716	8,181	11,897
2013	3,996	4,501	8,497
2014	3,774	3,967	7,741

Source: AirServices Australia

5.1.4 Freight Forecasts

The production of high value, high perishable produce in Tasmania is expected to double in key sectors (seafood and stone fruits) over the coming five years, as a result of expended irrigation schemes and demand for Tasmanian produce.

This is expected to result in an increased demand for airfreight from Hobart Airport. Much of this will be delivered through increased cargo being carried on passenger aircraft. It is forecast that an additional freighter aircraft will operate from Hobart Airport three times a week from 2016/17 in order to service non-Melbourne centric markets. These movements are incorporated in the total Aircraft Movements from Hobart Airport shown below.

Table 5.d Freight Forecasts

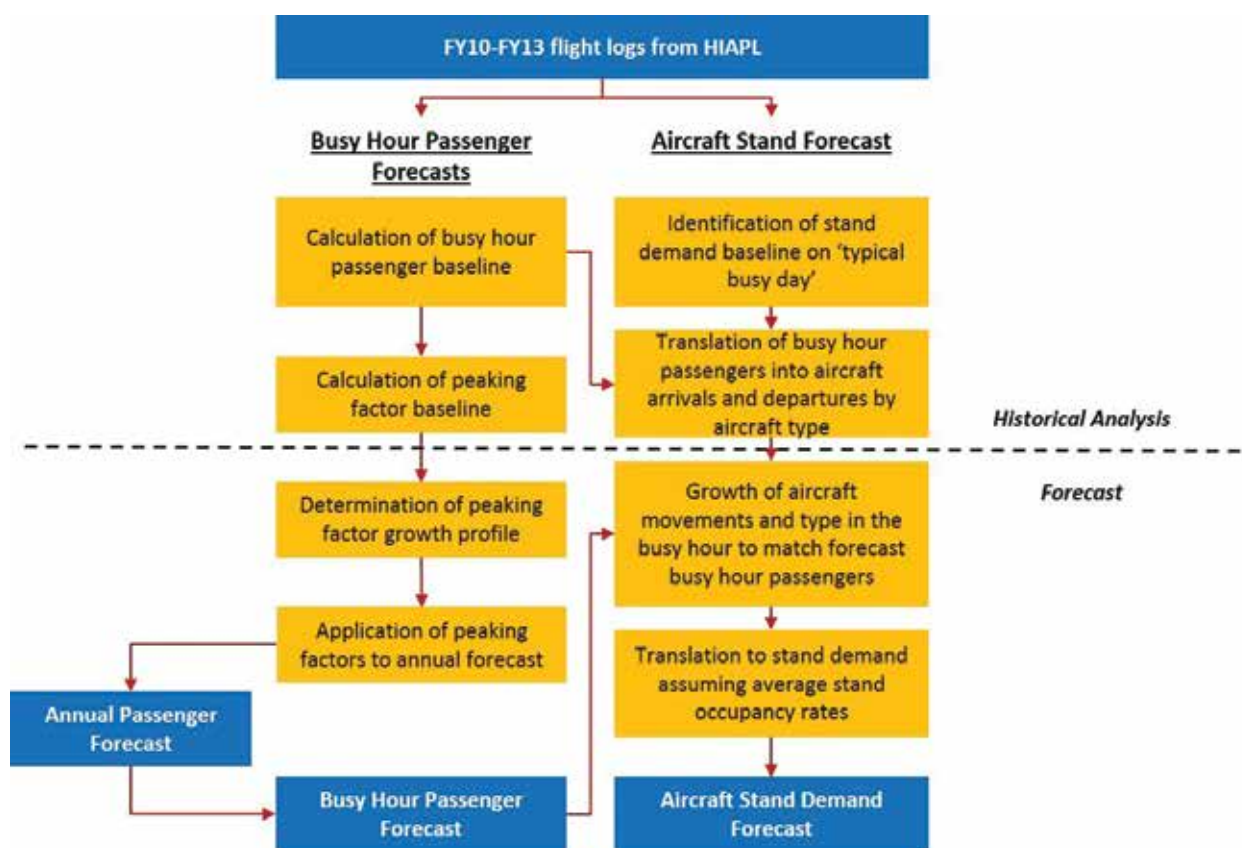
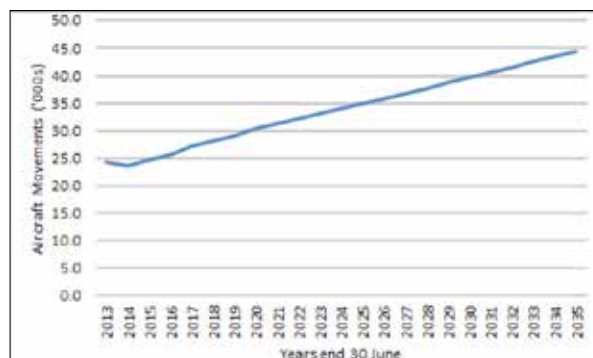


Figure 5.b Busy Hour and Stand Demand Methodology

5.2 Forecasting for Design (Annual Busy Day and Busy Hour Demand)

Infrastructure development at an airport needs to meet anticipated demand during the busiest periods or the 'busy hour'. Forecasts of busy hour passengers are required in order to inform a number of planning functions within the context of an Airport Master Plan. These forecasts are a prediction of the number of arriving and/or departing passengers expected during a typically busy hour (the 'busy hour') within a given year. These hourly passenger forecasts generally represent a volume of hourly passengers that is below the peak number of hourly passengers expected within a particular planning year. These are used to size areas, determine numbers of facilities required (i.e. security screening units, check-in desks/kiosks) amongst a variety of other planning uses within the Master Planning process.

Busy hour forecasts for this Master Plan have been derived through an assessment of existing hourly passenger volumes, factors likely to influence demand during the planning period and through an application of a peaking factor to the annual forecasts. Forecasts have been provided for the following design years:

- Domestic arrivals busy hour forecast FY15, FY20 and FY35;
- Domestic departures busy hour forecast FY15, FY20 and FY35; and
- Aircraft stand demand FY15, FY20 and FY35.

In line with the annual forecasts a scenario whereby one large or Code E International flight arrives and departs in the busy hour has also been included.

The methodology followed to determine the busy hour passenger and stand demand forecasts is illustrated in Figure 5.b.

5.2.1 Busy Hour Forecasts

The forecast busy hour and annual passengers are identified in Table 5.c.

Table 5.c

Sector			FY15	FY20	FY25	FY35
Annual Passengers	Domestic Passengers		2,111,000	2,683,000	3,287,000	4,599,000
	International Passengers		0	4,300	7,900	20,200
Annual Aircraft (AC) Movements*	Domestic AC Movements		16,000	20,000	24,000	32,000
	International Passenger AC Movements		0	20	36	90
Busy Hour Passengers	Domestic Passengers	Arrival	780	990	1,210	1,700
		Departure	720	920	1,130	1,580
	International	Arrival	0	220	220	280
		Departure	0	220	220	280
	Domestic + International Passengers	Arrival	780	1,210	1,430	1,920
		Departure	720	1,140	1,350	1,800

The forecast for the number and type of aircraft parking or stand demand is provided in Table 5.d. The key assumptions used to determine the stand demand forecasts are as follows:

- The international scenario assumes that Code E (i.e. B787 aircraft) international operations begin in the period post FY18 or at the completion of the Runway Extension.

- Domestic services are expected to continue to be serviced by Code C (i.e. 737 or A320) type aircraft.
- Contingency positions have been provided, maintained at the FY13 ratio. These stands will allow for schedule flexibility and for unscheduled aircraft maintenance.

Table 5.d Aircraft Stand Demand Forecasts

Code		FY15	FY20	FY35
E		0	1	1
C		5	6	9
Total		5	7	10
Contingency Positions	C	1	1	1
	E		1	1

5.2.2 International

The extension of the Hobart Airport runway will enable direct flight to South-East Asia, and for larger aircraft to service East Antarctica opening up economic possibilities for Hobart and Tasmania.

The forecast shows international passenger flights between Hobart and South-Asia commencing from 2019 after the completion of the runway extension. The forecast is conservative, showing steady growth for this market, with initial forecasting showing flights during the summer months. The likely aircraft used for these services would be a Code E A330-200 or B787 aircraft.

The developments proposed in this Master Plan incorporate infrastructure requirements to facilitate international passenger, freight and Antarctic operations including the development of a northern apron area for large or Code E aircraft parking and international processing facilities in the 2020 and 2035 terminal redevelopments.



6 Passenger Terminal Planning



6 Passenger Terminal Planning

6.1 Planning Approach

During the next five years, Hobart Airport will undertake two transformative projects that will significantly redefine and improve the operations of the airport:

- The construction of a 500m runway extension will enable direct flights from Tasmania to South-East Asia for passenger and freight opportunities and allow for improved operational flexibility and the further development of Antarctic aviation programs; and
- Changes to the layout and size of the passenger terminal will offer an improved experience for airport visitors. The phased redevelopment of the terminal will see works completed around 2017, 2025 and 2035 as required to meet passenger and airline demand.

As identified in Chapter 5, passenger growth at Hobart Airport is forecast to continue at an average annual growth rate of 3.8 percent. These projects will allow Hobart Airport to meet that increased demand and cater appropriately for the needs of its customers, civil aviation and other users of the airport.

Given this, the following criteria were used as the basis for terminal planning:

- 2035 design horizon;
- 2035 forecast domestic and international busy hour passenger demand;
- 2035 forecast aircraft stand demand;
- 2035 apron planning; and
- Next five year terminal development.

6.1.1 Existing Situation

The existing passenger terminal building is a single level building. Check-in is located centrally with domestic security and domestic departures to the east. International processing facilities are located to the north of check-in facilities. The most southerly extent of the building provides an arrivals area that is currently used by Jetstar and Qantas. The most northerly extent of the building provides a second arrivals area that is currently used by Tiger and Virgin. Both arrivals areas have baggage reclaim facilities with associated back of house areas. Airline office space, border agency facilities and baggage make up facilities are housed directly behind check-in. See Figure 6.a for a plan of the current Hobart Airport passenger terminal layout.



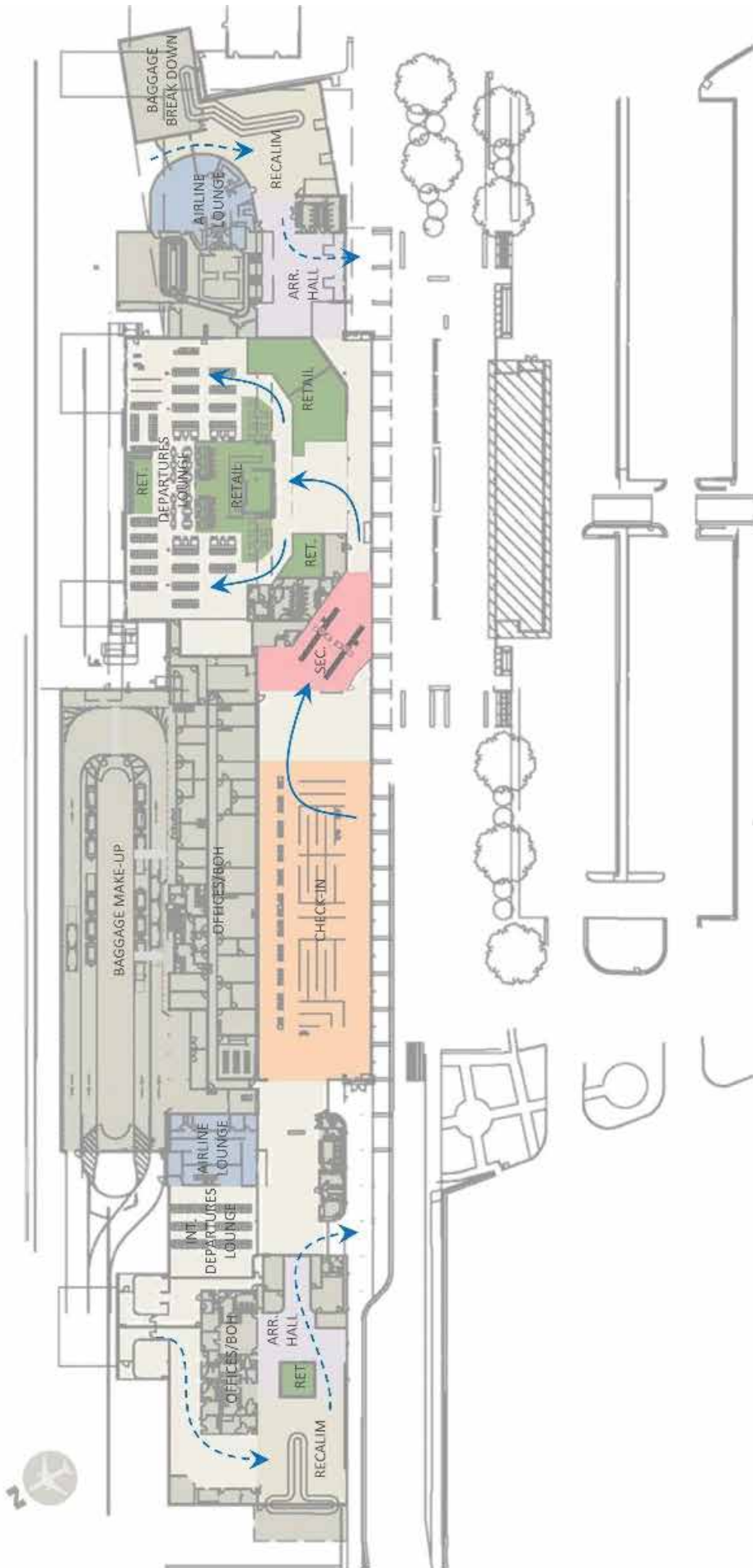


Figure 6.a Current Hobart Airport passenger terminal layout

6.1.2 2020 Terminal Design

Work on what is referred to as the 2020 terminal design commenced in 2015 and is expected to be complete in mid-2017. This redevelopment is called 2020 terminal design as this equates to the five year Master Plan planning period. It is forecast to provide sufficient capacity until 2023/2024. At the time of writing, HIAPL has commenced the redevelopment Project 1 at Hobart Airport.

Consisting of four separate projects, the 2020 terminal redevelopment is a \$25 million dollar investment in Hobart Airport. The project will provide improved and larger facilities to visitors and customers. Hobart Airport will engage with airport stakeholders, including Airservices Australia, during the planning and delivery of the upgraded terminal.

The separate terminal development projects include:

- **Project 1 – Security screening relocation**

This project was completed in March 2015. The relocation of the screening throat has greatly improved the efficiency of passenger screening at Hobart Airport.

- **Project 2 – New arrivals hall**

The arrivals hall project has commenced and is due for completion mid-2016. The new arrivals hall will be used by all arriving passengers and includes a swing gate area for international and Antarctic passenger processing.

An international 'swing gate' is a removable partition that can be closed as required to provide areas for international passengers to pass through immigration and customs. When the area is not required the swing gate folds out of the way and is used as part of the overall domestic arrivals area.

During international arrivals and the operation of the swing gate, there will be minor impact on the baggage reclaim availability for domestic passengers. However, in this initial phase of development, this is forecast to occur on minimal occasions (with only 20 international movements forecast per annum) which will have a limited impact that will be appropriately managed.

The project will also relocate car rental desks to inside the arrivals hall, deliver new sanitation facilities, a new local food and convenience outlet, and improved waiting area for customers.

- **Project 3 – Front of house road system**

To facilitate changes inside the terminal, the front of house road system will be upgraded to improve traffic flow and create a larger external plaza area for pedestrians. It is due for completion in mid-2016.

Car rental holding bays will move to the area north of the main car park to be closer to the arrivals hall and car rental desks. The taxi rank holding area will be relocated with a smaller immediate holding bay area being retained outside arrivals to facilitate the flow of taxis to the rank.

- **Project 4 - Redevelopment of the departures hall**

The development will involve expanding the departures lounge to incorporate the old Qantas arrival area, add additional boarding gates, establish new food and beverage and retail outlets and provision for the construction of two future new and larger Airline lounges.

The purpose of this development is to improve the passenger experience at Hobart Airport through the addition of more seating space and improved facilities, to provide five boarding gates to service the five current parking bays and provision for additional boarding gates to meet future parking bay requirements. It will also enable Hobart Airport to respond to requests from airlines for new or upgraded lounge facilities.

There will be the requirement for a segregated international departures lounge and gate for some international flights. The layout allows for a swing gate to facilitate international departures. There are approximately 20 international flights forecast in 2020, which will have minimal impact on the domestic operations.

Passengers will continue to be provided with direct access from the terminal to current and future aircraft via pedestrian pathways across the apron. Covered walkways on the apron side of the terminal building will be constructed as part of this project to improve passengers' experience as they walk to and from aircraft.

Aerobridges are not envisaged within this Master Plan horizon due to the current and forecast passenger numbers not being great enough to warrant aerobridges, their significant cost along with the associated development of an upper level mezzanine floor and vertical circulation to enable access for passengers to/from the future aerobridges. New developments within the Master Plan will consider the ability to introduce aerobridges is protected for the long term future.

See Figure 6.b for a plan of the 2020 terminal design for Hobart Airport's passenger terminal.

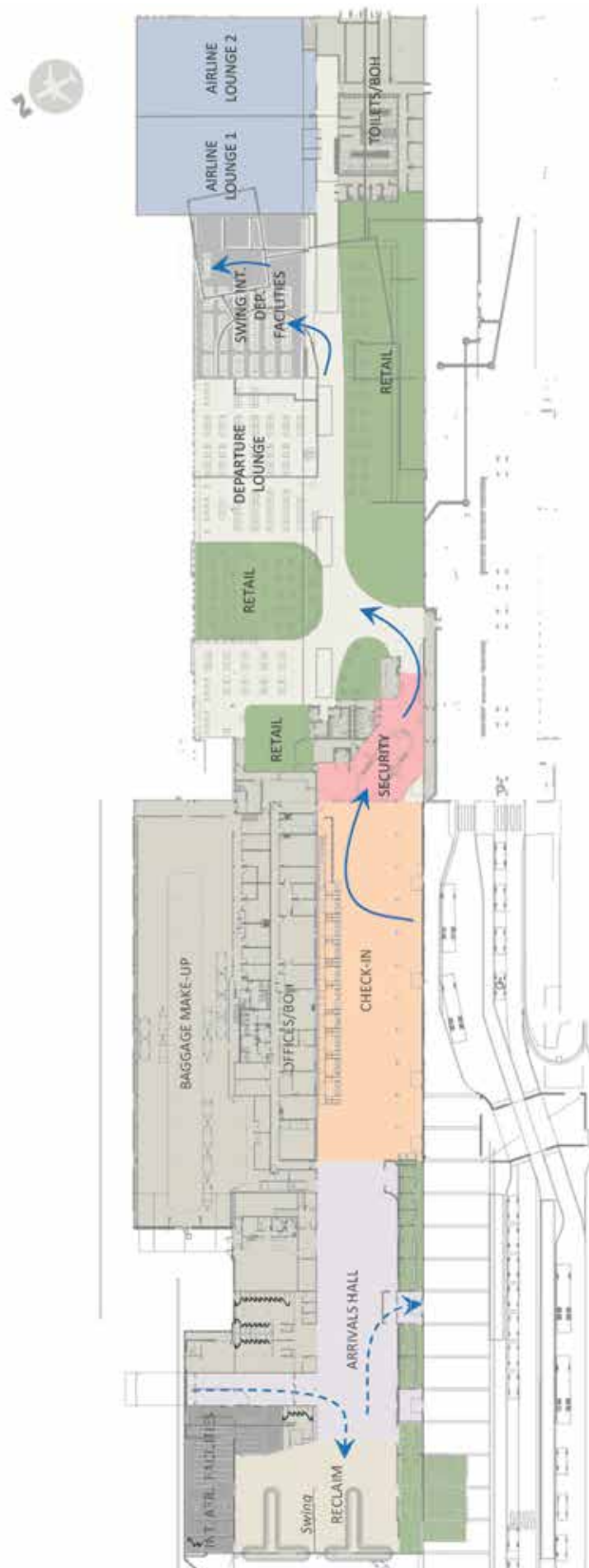


Figure 6.b 2020 terminal design for Hobart Airport's passenger terminal.

6.2 Planning Considerations

To identify an appropriate future terminal design, planning HIAPL has considered the following (see Figure 6.c for locations):

- Existing location of terminal facilities such as check-in, departures lounge, international passenger facilities, security, baggage handling etc.;
- The future uptake of fast travel initiatives such as internet/mobile check-in, check-in kiosks, bag drops etc.;
- The types of airlines and aircraft types expected to service Hobart Airport and passenger types travelling to and from Hobart in the future;
- Buildability of the design and high level cost implications;
- Apron, aircraft parking and taxiway system development;

- Aviation Rescue Fire Fighting Services (ARFFS) requirements;
- Royal hospital kitchen – lease expires 2024;
- Toll building – lease expires 2036; and
- Freight apron and hangars.

The ARFF will not be impacted by planned terminal expansions. Regular dialogue will continue to occur with ARFF around these developments.

HIAPL considers that the redevelopment of the terminal is consistent with State and Local Planning Schemes.

In particular, HIAPL considers that the expansion and redevelopment of the terminal is an essential part of achieving the development objectives of the Clarence Interim Planning Scheme, which is noted in Chapter 3: National Policy and Regulatory Framework, include achieving increased product and commodity export and increased tourism visitation through Hobart Airport.



Figure 6.c Planning Considerations

6.2.1 Passenger Terminal Plan

Hobart Airport operates a single level terminal. Hobart has domestic quarantine requirements which impact the terminal layout and design as all inbound passengers are screen by quarantine. The terminal at Hobart will accommodate passenger growth by design, expansion and technical innovation.

Key terminal facilities required at the 2035 design horizon are identified in Table 6.a. The 2035 terminal plan (see Figure 6.d) achieves these requirements and provides an integrated and stageable development solution from the existing design.

Table 6.a Terminal Design Requirements

Design Year	2035
Departures	
Check-In	
Conventional counters	5
Kiosks	17
Bag drops	14
Area (m ²)	1,440
Security	
Security x-ray units	4
Area (m ²)	660
Arrivals	
Baggage Reclaim	
Reclaim units	3 x 60m
Area (m ²)	2,380
Other facilities	
Baggage Handling	
Bag make-up	48 positions
Area (m ²)	2,870
Bag breakdown (m ²)	1,070
Lounges / Retail	
Airside	
Departure Lounge (m ²)	1,820
Retail (m ²)	2,130
Landside	
Arrivals Lounge (m ²)	1,700
Retail (m ²)	540
Airline Lounge	
Lounge (m ²)	850

To meet the 2035 forecast the following departures related developments are planned:

- **Check-in** – Check-in would be retained in its existing location with new facilities provided in an expanded footprint. The development of the check-in hall provides for an increasing share of fast travel initiatives such as self-service kiosks and internet/mobile check-in uptake amongst travellers.
- **Security** – Security would expand landside toward the carpark to provide space for additional screening facilities and to allow greater queue space to limit the impact on the check-in hall where queues form.
- **Baggage make-up** – The existing position of the baggage make-up facility is problematic. It currently occupies the centre of the passenger terminal building behind check-in. The relocation of the baggage make-up facility to the northern end of the building would remove conflicts between passengers and ground service equipment (GSE - such as stairs, tugs, baggage equipment), allowing for future growth of the facility and opening the central passenger terminal area for passenger use.
- **Departures lounge** – With the relocation of the baggage make-up facility growth of the departures lounge would generally be contained within the existing terminal footprint apart from a small area of expansion on the eastern edge of the building.

International facilities

An international departures facility would be located in its existing position at the southern end of the departures lounge.

Airline lounge

An area for airline lounge expansion has been identified in the 0-5 year period, located at the southern end of the building.

To meet the 2035 forecast the following arrivals related developments are planned:

- **International and domestic arrivals flow** – To minimise GSE and passenger conflicts and allow for the future expansion of baggage facilities both domestic and international arrivals facilities would be relocated closer to the centre of the building and apron. International arriving passengers would be processed through a central immigration facility, into a swing reclaim facility and out through customs and quarantine.
- **Baggage reclaim** – The position of the reclaim hall and back of house area optimises back of house facilities, minimises impact of landside roads, enables compact passenger terminal area and keeps arriving passengers and GSE flows separate. A third baggage reclaim belt is proposed to be added to optimise this process.
- **Aerobridges** – The existing terminal building is not designed to accommodate aerobridge operations. Aerobridges are not envisaged within this Master Plan horizon due to their significant cost along with the associated development of an upper level mezzanine floor and vertical circulation to enable access for passengers to/from the future aerobridges. New developments within the Master Plan will however consider the ability to introduce aerobridges is protected for the long term future.

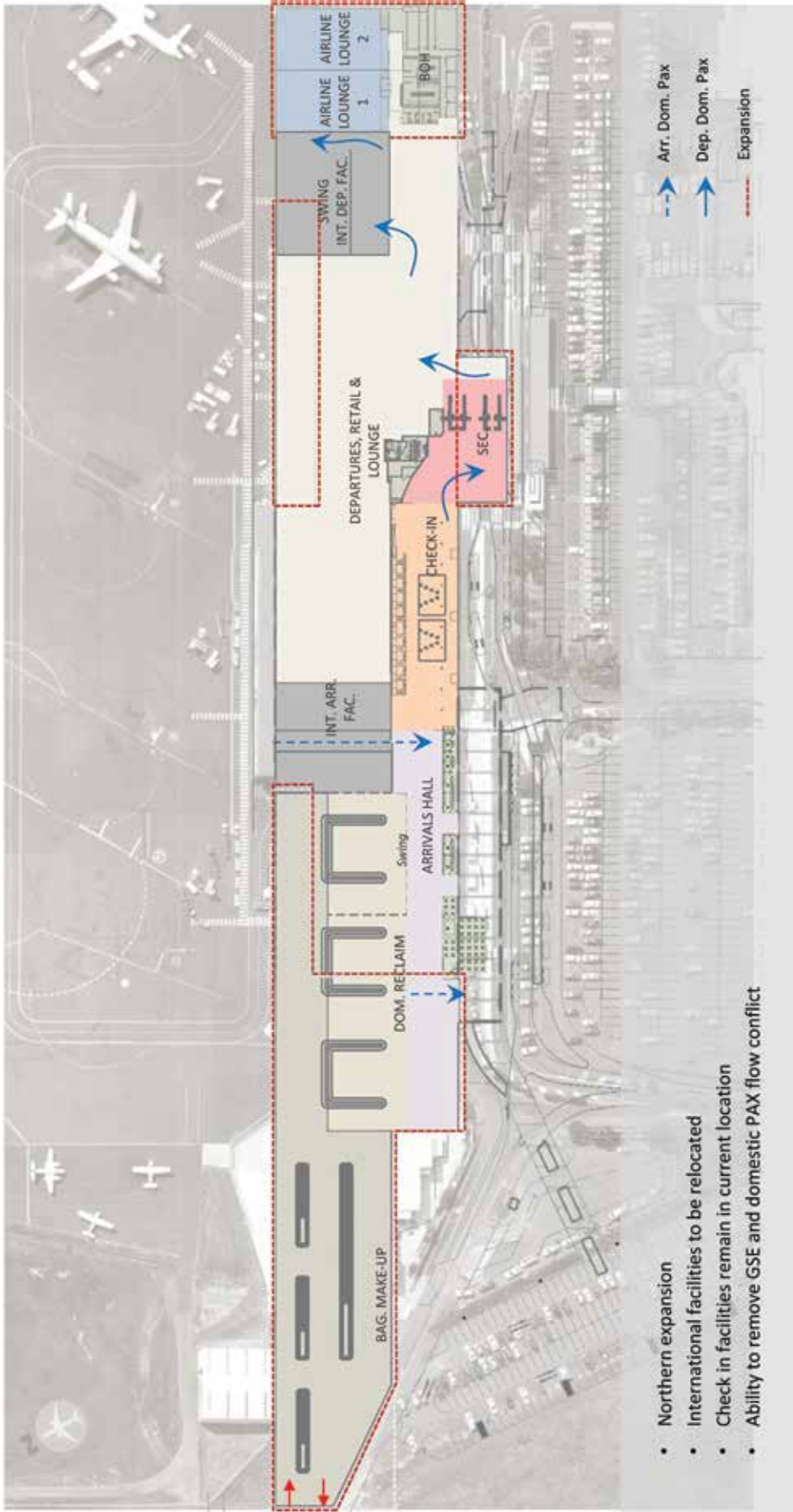


Figure 6.d Ultimate (2035) Terminal Master Plan

7 Airfield Development



7 Airfield Development

7.1 Introduction

During the next 20 years, key airfield developments will enable Hobart Airport to meet its development objectives. These developments will provide new opportunities for the Tasmanian economy namely the runway extension project and enable the continued growth the airport by providing core aviation infrastructure. This section of the 2015 Master Plan outlines the key airfield developments planned for Hobart Airport in the forecast planning period.

7.2 Existing Runway

Hobart Airport's existing runway has a paved length of 2,251m and a width of 45m. Known as Runway 12/30 (as shown in Figure 7.a) it is aligned in a north-west to south-east direction. The runway is a high strength, flexible pavement constructed with a grooved asphaltic concrete surface and has a Pavement Classification Number (PCN) of 63.

Currently the runway caters for unrestricted operations for narrow bodied aircraft, such as Code C aircraft (B737/A320) and Code D aircraft (B767). Larger aircraft, such as the Boeing B787, A330 or B777 (Code E aircraft) can operate with a weight restriction.

In assessing the future needs of civil aviation and other users at the Airport, Hobart Airport considers that Code E aircraft are the largest aircraft likely to fly future international passenger and freight operations to or from Hobart. At this time, there are no plans for the A380 (and other Code F aircraft) for Hobart Airport.

During 2012 \$20 million was invested in renewing the airport's runway. This project removed and replaced the runway surface, strengthened areas of the runway substrate and maintained its shape and integrity (see Figure 7.b). Further major interventional maintenance is not expected to be necessary on the runway and taxiway system until approximately 2027.



Figure 7.b Runway Overlay Work

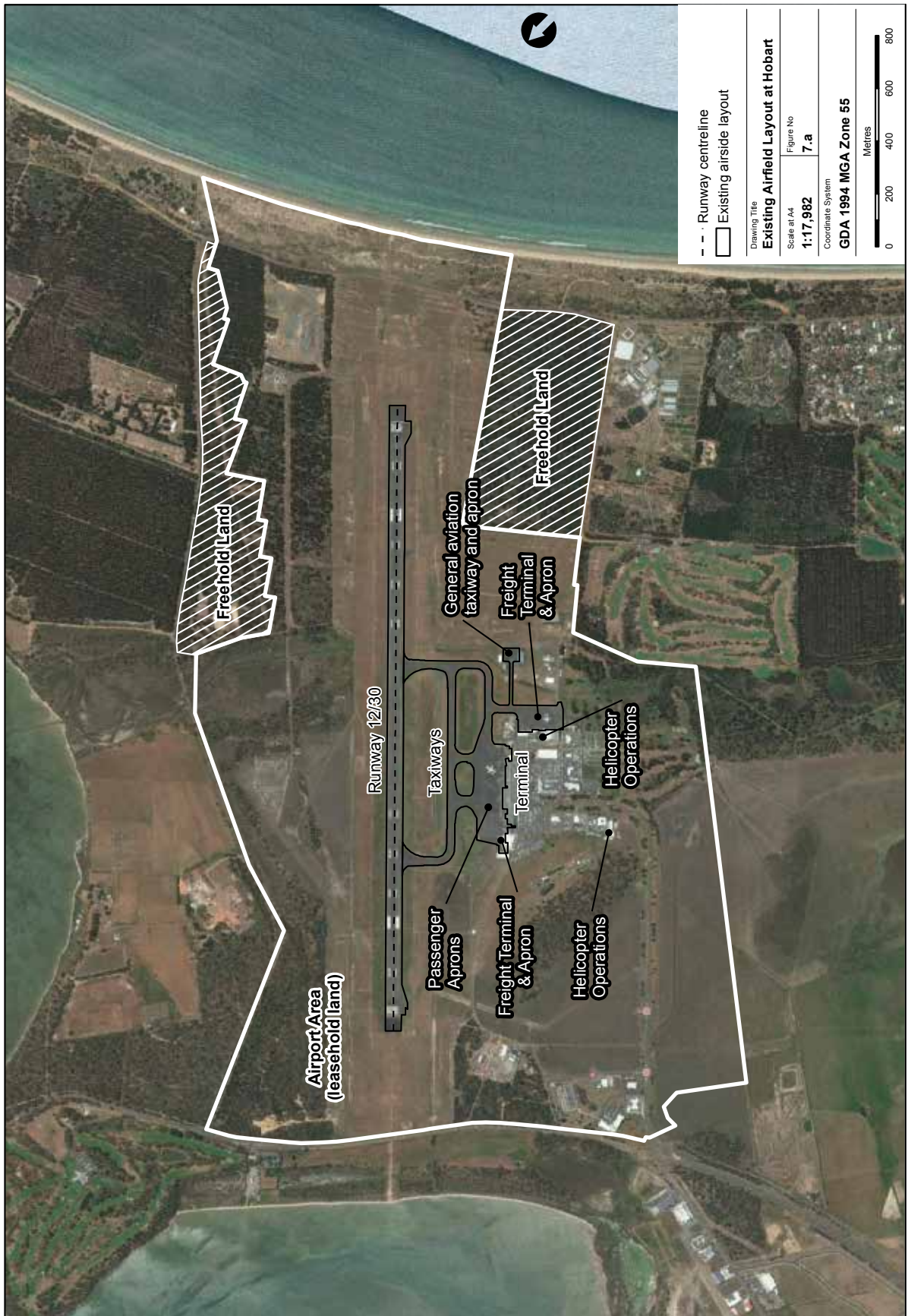


Figure 7.a Existing Airfield Layout at Hobart Airport

7.3 Existing Taxiway System

The runway is serviced by a parallel taxiway which extends along 30 percent of the runway length. The passenger apron has two entry and exit taxiways leading onto the parallel taxiway, with one providing access to Code E aircraft. The passenger apron is located directly in front of the passenger terminal.

The freight apron is linked to the parallel taxiway and the passenger apron. The general aviation (GA) area accommodates aircraft under 5,700kgs Maximum Take Off Weight (MTOW).

All taxiways (except the GA taxiway) are at least 23m wide and constructed of flexible pavement with an asphalt wearing course. Wide fillets on taxiway corners provide a route for wide-body Code E aircraft from the regular public transport (RPT) apron to the runway.

During 2013 \$10 million was invested in renewing the airport's core taxiways. This project removed and replaced the taxiway surfaces, strengthened areas of the substrate, widened areas to facilitate larger code E aircraft and maintained its shape and integrity. Further major interventional maintenance is not expected to be necessary on the taxiway system until approximately 2027.

7.4 Existing Aprons

7.4.1 Passenger Aircraft Apron

Hobart Airport has a contiguous international and domestic RPT apron, together with separate freight and GA aprons. The RPT apron has five parking positions for narrow-body Code C (B737/A320 size) aircraft. A single large wide bodied aircraft such as B777-200 or B787 can be accommodated on a secondary position that makes three of the narrow-bodied positions inoperable. Two of the Code C positions can also be occupied by the smaller wide-body Code D (B767 size) aircraft (see Figure 7.c).

All bays on both the RPT and freight aprons are currently power-in and power-out positions. A power-in, power-out operation involves an aircraft taxiing to its parking stand under its own power and on departure turning and manoeuvring out from the stand under its own engine power. These positions require considerable space for the manoeuvring the aircraft but are operationally more efficient because they require minimal labour and equipment resources in the departure process.

The current passenger apron operates under a 'grandfather' agreement, due to modern standards of grading requirements with CASA. Any modification to the Apron or its lighting impacts this agreement and would result in significant cost to Hobart Airport and Airlines.

The passengers currently board the aircraft by walking along the terminal face and then over the apron via designated walkways.

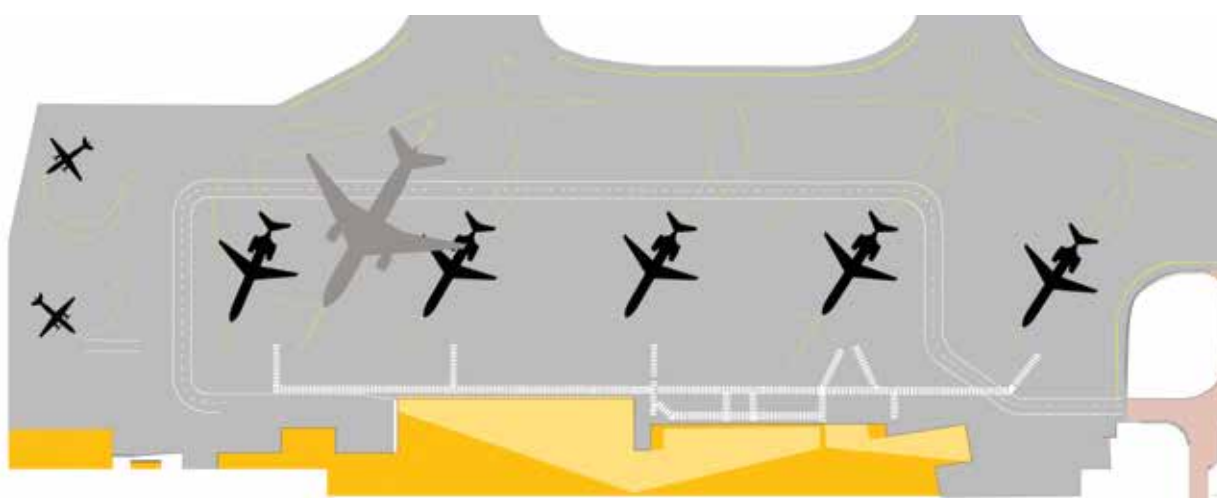


Figure 7.c Illustration indicating aircraft parking options on the passenger apron at Hobart Airport. Larger aircraft is indicative of a B777-200 aircraft.

7.4.2 Freight and GA Apron

Hobart Airport is an important air freight centre, with the major commodities handled including seafood, fruit and vegetables, flowers, 'just in time' manufactured goods, newspapers and livestock. Further horticulture upgrades such as irrigation schemes and increase in high-value, high-perishable freight is expected to expand the demand for air freight. As such, Hobart Airport is committed to the development of infrastructure to meet demand for freight operations.

Various GA aircraft parking areas have space for up to 20 fixed and rotary wing aircraft. In-ground tie down points are provided on two sectors of these areas.

7.4.3 Existing Freight Operation

Hobart Airport has two freight terminal and apron areas. A larger facility to the south caters for Code C aircraft, and a smaller facility to the north caters for smaller aircraft. The Qantas Freight and Toll Air Express facilities are located respectively to the south and north.

Freight carried on passenger aircraft is loaded and unloaded on the domestic apron and transported on trolleys to and from the freight area.

7.4.4 Existing GA Operation

The principal users of GA facilities at Hobart Airport include:

- Rotor-Lift Pty Ltd (both landside and airside rotary operations);
- Royal Flying Doctor Service;
- Small freight operators;
- Business jets; and
- Charter operators.

Nearly all recreational GA activity in the Hobart region is off airport, at either the adjacent Cambridge Airport, or at privately owned strips.

The Air Traffic Control tower controls air traffic for both Hobart Airport and Cambridge Aerodrome, and priority is given to RPT traffic. Development at Hobart Airport also prioritises RPT operations.

7.5 Future Airfield Development

During the life of the 2015 Master Plan, a number of airfield developments are planned including runway, taxiway and apron developments. These are described in the following sections and illustrated in Figure 7.d.

7.6 Proposed Runway Extension

7.6.1 Introduction

A key component of the 2015 Master Plan is the proposed runway extension and terminal expansion to cater for forecast passenger growth, facilitate direct flights from South-East Asia for passengers and freight and to service the Antarctic Sector.

An aircraft's take-off length is typically longer than landing length for runway operations, and is therefore more relevant in determining the capability of Hobart Airport to service a destination using a particular aircraft. Analysis shows that the current Hobart Airport runway length of 2,251m is adequate for take-off on direct flights to:

- The furthest domestic sectors of Darwin, Cairns and Perth by Boeing 737-800 and Airbus A320 operated by the current operators to and from Hobart; and
- International sectors such as New Zealand.

For larger Code E aircraft, such as the Boeing 787 and 777 aircraft, to operate from the existing runway, airlines have to substantially reduce their payload or fuel or make a refuelling stop, limiting the destinations that can be reached. These restrictions make the operation of flights to Hobart impractical and economically unviable.

Hobart is the hub of Australia's Antarctic Program and an important Gateway to East Antarctica. To enhance the city's competitiveness in relation to Antarctic operations, Hobart Airport needs to be able to accommodate operations of heavier lift logistic type aircraft like a Boeing C-17 Globemaster III. The C-17 aircraft requires a runway length of 2,360m for day operations and 2,316m for night operations.



Figure 7.d Future Airfield Developments

7.6.2 Runway Extension Description

To meet the demand for services, Hobart Airport's Runway 12/30 is to be extended by 500m - 150m to the northwest and 350m to the southeast. The runway extension project will relocate the Runway End Safety Area (RESA), the navigational aids (Nav aids), drainage and reconfigure lighting and associated services.

The runway extension project will require the relocation of the airside perimeter road and security fence on the south-east of the runway. Terrain obstacles infringing the airspace surfaces will require removal, and as required, provision for jet blast protection will be implemented.

As a result of the runway extension, Surf Road (an easement crossing the airport) will be closed to vehicular traffic. A pedestrian and cycleway bypass will be built adjacent to Surf Road to maintain non-vehicular access. A new road (Grueber Avenue) will be constructed to link Holyman Avenue to Surf Road providing continued access to the Tasman Highway for the Seven Mile Beach community. Further details are discussed further in Chapter 8: Landside Transport.

The runway extension will also impact Airservices equipment; this equipment will be relocated in conjunction with Airservices as part of the project. Consultation is ongoing with Airservices to ensure efficient and consistent approach to this task.

The runway extension will also necessitate changes in flight procedures at Hobart Airport. Again, this will be undertaken with ongoing consultation with the appropriate regulators.

Under the *Airports Act 1996*, the planned runway extension project will require the preparation and approval of a Major Development Plan (MDP) which will provide greater detail on the proposed development and its associated impacts.

The likely extent of the runway extension is shown in Figure 7.d.

The extended runway will increase the range of destinations that can be accessed from Hobart Airport. Figure 7.e shows the existing (yellow) and future (blue) range of a B787 with a viable payload.



Figure 7.e Range Curves for existing and future scenarios for a B787 with a viable payload

7.7 Future Taxiway System

7.7.1 Parallel Taxiway

At present arriving aircraft on Runway 12/30 land and turn 180 degrees on the runway and backtrack along the runway until they can exit the runway via the mid-field link Taxiways C and D. This turning and backtracking impacts capacity as Runway 12/30 cannot be used for any other runway operations whilst an aircraft is occupying the runway for this manoeuvre (which typically takes around three minutes).

The future provision of extended parallel taxiways at the end of the runway will allow arriving aircraft on Runway 12 to proceed to the runway end and then exit via the parallel taxiway. The extended parallel taxiway would be required in approximately in 2032 to maintain airport capacity and meet demand.

7.7.2 New Link Taxiways

The new northern apron and the future freight and Antarctic aprons will require taxiways to allow aircraft access the runway.

These new taxiways will need to accommodate Code E aircraft and will be 23m wide with large fillets to accommodate the larger turning circles of these aircraft. These link taxiways will be delivered with the aprons - the northern apron as part of the runway extension project and the southern logistic, freight and Antarctic area as demand requires.

7.8 Future Aprons

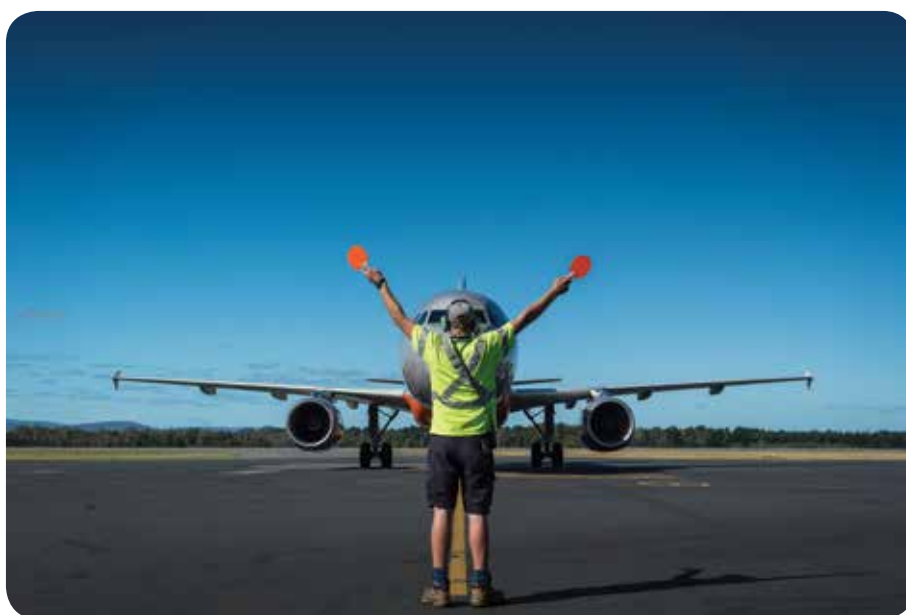
7.8.1 Passenger Aprons

To cater for forecast aircraft movements, the current passenger apron will need to accommodate up to 10 Code C (narrow body) aircraft by 2035. To increase the capacity of the passenger apron, operations will need to move from the current power in power out operation which requires significant area for aircraft manoeuvring to power in push back operations. Power in push back has the same arrival procedure but, on departure, the aircraft is pushed-back by a tug or similar motorised vehicle.

The change in operations better utilises space of the apron and enables a shorter terminal length and a better passenger experience to be achieved.

Push back operations will commence depending on demand. The cost of changing to a power in push back operation is considerable due to the 'grandfather' conditions that exist and will only occur when economically feasible for all parties.

The way that passengers embark and disembark aircraft is not expected to change significantly during the life of the 2015 Master Plan. The current single level terminal design, power in power out operations, forecast passenger numbers (which is below five million passengers - the typical level passengers normally required justify introduction of aerobridges) means that the installation of aerobridges at Hobart Airport is not practicable or economically feasible at this stage. To improve passenger amenity covered walk ways will be installed as part of the 2020 terminal redevelopment project.



7.8.2 Multiple Use Aprons

To accommodate the large 75m length, 65m wingspan and weight of a Code E aircraft used for international and Antarctic operations, a new and separate apron will be designed and purpose-built on the northern side of the existing RPT apron to accommodate these Code E aircraft (see Figure 7.d). It is anticipated this apron will facilitate any code E freight and Antarctic operations in the immediate future. This new northern apron will be supported by a new entry / exit taxiway from the parallel taxiway. These planned operational and infrastructure changes will enhance the efficiency of the aircraft movements on the new northern apron and existing apron.

The staging of changes and development of aprons will be aligned to changes to the passenger terminal to ensure efficient and safe operations. This is expected to occur within the next five years. Further details of the northern apron will be provided as part of the runway extension MDP.

7.8.3 Freight Apron

The current freight aprons are anticipated to continue operating in the next five years. Changes in operation will be as a result of operational necessity driven by demand.

The new northern apron freight facility is planned for development in the short-term to accommodate the parking of the two Code C aircraft or a single Code E aircraft for both the Antarctic flights and international operations. The concept design of the apron has taken the existing freight facility into account and it is anticipated that both facilities can co-exist for the medium-term.

To meet future demand for airfreight it is proposed that modern freight facilities be established at the southern end of the airport where land area and topography permit the development of aprons and hangars for the storage and handling of freight and aircraft.

The future freight facilities planned for Aviation Precinct 1 allow for the development of warehouses and cool stores and the expansion of both domestic and international airfreight facilities.

This area is also identified for Antarctic aviation operations as this precinct provides the space to develop separate handling and operational facilities for wide bodied aircraft to have direct access to apron areas, taxiways and the runway. The apron has also been positioned to facilitate high tailed military aircraft.

Aviation Precinct 1's buildings and aprons will be served by a proposed new a landside road (Grueber Avenue) and taxiways linking to freight aprons from the runway and facilities. The freight hangars can be located so that the control tower view of the extended approach onto Runway 30 is not obscured.

These facilities are reflected in the 2035 airport layout in Figure 7.d. Demand will determine the development for the future freight and Antarctic area,

7.8.4 Future General Aviation Development

GA refers to non-jet, non-regular passenger aircraft, mostly smaller lighter aircraft. Hobart Airport does not foresee significant future GA development. Most GA activity occurs at Cambridge Aerodrome. GA activity at Hobart Airport will remain in its current location with scope for limited development as required.

To meet the forecast demand, provision for helicopter operations and parking is expected to be expanded in the short-term (by 2020). This increase in demand has been factored into the noise modelling.

7.9 Planning considerations

HIAPL considers that the developments proposed in this Chapter are consistent with State and local planning schemes including the Southern Tasmania Regional Land Use Strategy 2010-2035 and the draft Clarence Interim Planning Scheme

In particular, HIAPL considers that these developments are essential to maintaining Hobart Airport's status as a transport hub in Tasmania to allow for increased movements of passengers and time sensitive products.

Further, as noted in Chapter 3, HIAPL is planning for the runway extension and other airfield developments to ensure continuation of existing public access rights along the coast from both land and water, together with the protection of natural and cultural coastal values, health and safety and security requirements, consistent with the principles of the State Coastal Policy.

8 Landside Transport



8 Landside Transport

8.1 Introduction

Efficient ground transport within, to and from Hobart Airport is essential for its economic development. In the coming 20 years, the airport is expected to play a significant role in the economic prosperity and growth of both Hobart and Tasmania.

Forecast growth and development demands will have a significant impact on transport access to Hobart Airport. Passenger demands are expected to grow by 150 percent during the next twenty years, which in turn drives employment and development in the terminal precinct. Land use planning has identified an ambitious development program that will drive commercial and logistic growth within the airport boundary. The demand for movement and goods is also expected to rise, with Hobart Airport providing a hub particularly for high-value high perishable goods.

In addition, traffic levels around the airport are also increasing driven by growth in nearby Cambridge Park and the growing eastern townships of Sorell and Midway Point. This growth outside the airport itself will impact on the effectiveness of the Tasman Highway to be able to cater for both airport and non-airport growth.

To ensure Hobart Airport is prepared for projected growth, and to meet the requirements of the Airports Act in relation to ground transport, this chapter provides details of the Ground Transport Plan for Hobart Airport, including:

- An overview of the existing transport infrastructure provision at Hobart Airport, including a review of the main travel modes at Hobart Airport (roads, bus, taxi and freight);
- A summary of the existing and projected transport demand. Projected transport demand estimates will inform the requirements for the future ground transport network;
- The aims for ground transport access to Hobart Airport setting out the aspiration to provide an efficient, reliable and sustainable ground transport network for all users; and
- The future ground transport network to serve the projected transport demand. This includes provisions for the improvement of all travel modes expected at Hobart Airport including roads, bus, taxi and freight.

The Ground Transport Plan identifies the opportunities for improved transport access to Hobart Airport to cater for changes at the airport and the projected transport demand.

8.2 About the Ground Transport Plan

The following sections outline the aims, objectives, issues addressed, time periods, consultation and plans and strategies considered in the preparation of the Ground Transport Plan.

8.2.1 Ground Transport Aims

HIAPL's aims in relation to ground transport are as follows:

Road: The broader road transport system will facilitate a variety of transport functions with more reliable access to the terminal forecourt and facilitate access to new development precincts.

Parking: Parking supply will be increased to accommodate new parking products and anticipated parking demands.

Bus: Bus access will be increased to provide frequent, safe and affordable services with comparable travel times to private vehicles. It will provide a more equitable transport choice for all airport users.

Taxi: The capability of the taxi system to reliably carry high number of passengers will be improved through a larger holding area and improved queuing and control facilities.

Active transport: The walking and cycling network will be connected, continuous, safe and comfortable with high amenity.

Freight: The transport network will provide efficient access for high productivity freight vehicles.

Demand management: Technology and communications will be used to improve the utilisation of the existing transport network.

In order to achieve these aims, collaboration between Hobart Airport, Federal, State and Local government as well as the private sector is required to plan and deliver transport infrastructure.

8.2.2 Objectives of the Ground Transport Plan

Hobart Airport has identified four objectives for the 2015 Hobart Airport Ground Transport Plan:

- Incorporate State and Local Government transport planning in the development of the Ground Transport Plan to ensure a holistic approach to this area;
- Provide an integrated plan to improve transport access to Hobart Airport. The Ground Transport Plan integrates with land use to provide airside, landside, business and industry precincts with an efficient, reliable and sustainable ground transport network;
- Improve ground transport access for all modes of travel for passengers, staff and commercial users. Provision of a choice of travel modes is a key outcome to provide equitable travel for users of Hobart Airport; and
- Provision of a future transport network capacity that is capable of meeting projected transport demand over the next 20 year period.

8.2.3 Consultation

To prepare the Ground Transport Plan, HIAPL consulted with a range of stakeholders including:

- Clarence City Council - responsible for local road network planning and transport provisions in the City of Clarence. Council provided input on the adjacent road network, bus planning and cycling routes; and
- Department of State Growth (DSG) - responsible for the planning and development of the freeway and arterial road network (including the Tasman Highway) in Tasmania and regulator of the taxi and hire vehicle industry in Tasmania. DSG provided input on external road development, public transport, cycling and shared path infrastructure and demand management measures.

Additional information about consultation activities can be found in Chapter 14: Consultation Program.

HIAPL has a strong relationship with the State and local authorities responsible for the road network and public transport system and has both formal and informal processes to engage and consult with key stakeholders in relation to these issues.

Transport, road and public transport issues can be and are regularly discussed at Hobart Airport's:

- Planning Coordination Forum, which meets four times per year and is attended by, amongst others, the State and local authorities responsible for the road network and public transport system; and
- bi-annual meeting with the Secretary for the Department of State Growth and relevant Ministers.

8.2.4 Plans and Strategies Considered

There are a number of plans and strategies that were considered during the preparation of the Ground Transport Plan. These plans and strategies include:

State Government

- Southern Tasmania Transport Plan 2010;
- Tasman/East Derwent Highway Upgrade;
- Variable Speed Limit System; and
- Approved Higher Mass Limit Route Network.

Local Government

- Clarence Bicycle Strategy and Action Plan 2013;
- Clarence Planning Scheme 2014;
- Clarence Activity Centre Strategy 2013; and
- Clarence City Council Strategic Plan 2010-2015.

Hobart Airport

- Hobart Airport Master Plan 2009;
- Hobart Airport Environment Strategy 2010-2015; and
- Hobart Runway Extension.

8.3 Existing Ground Transport System

There are a range of transport types that use the existing road network to access Hobart Airport. Ground transport users include passengers, employees, commercial operators and freight operators. The key travel modes that utilise the network include private vehicles, the Redline Airporter Bus, Taxis and Registered Hire Cars, Rental cars, off-airport shuttle buses, cycling, walking and freight and logistics.

The wide range of modes described above circulates through Hobart Airport in different ways. Circulation routes are largely related to the mode, function that the vehicles are performing and the location of the terminal, parking and commercial facilities at Hobart Airport. Figure 8.a shows the existing kerbside facilities at Hobart Airport.



Figure 8.a Existing kerbside facilities at Hobart Airport

8.3.1 Internal Roads

This section details the internal roads currently within Hobart Airport, both within and connecting the terminal, business and industry precincts (shown in Figure 8.b). Key internal roads are listed below in Table 8.a.

Table 8.a Internal road network descriptions

Road Name	Operation	Key Use(s)	Layout
Holyman Avenue	NW-SE road from Tasman Highway sweeping NE to the terminal building	Access to the airport precinct from Tasman Highway	2 lanes, two-way
Addison Drive	Loop road from Holyman Avenue to front of terminal, around to Long Street	Access to drop-off and pick-up area adjacent to terminal	1 lane, one way
Gatty Street	NW-SE road from Holyman Avenue to Long Street	Access to hire car drop off, saver car park, freight terminal, ARFF and heli operations	2 lane, two-way
Loop Road	Generally north-south road from Addison Drive to Back Road	Alternative access to Tasman Highway	2 lane, two-way (narrow pavement)
Back Road	NW-SE road from Tasman Highway to Loop Road	Alternative access to Tasman Highway	2 lane, two-way
Tower Road	North-south road from Loop Road to airport control tower	Access to airport control tower	2 lane, two-way
Surf Road	NE-SW road from Pittwater Road to Seven Mile Beach Road	Local access. Partially situated on easement within airport site	2 lane, two-way
Unnamed Road	NE-SW road from Holyman Avenue to Back Road/Loop Road	Access to the hotel and caravan park	2 lane, two-way

8.3.2 External Roads

The road network external to Hobart Airport consists of major roads that provide connectivity to the broader transport network (shown in Figure 8.c). The key connections between these roads and the internal road network are also detailed in Table 8.b.

Table 8.b External road network descriptions

Road Name	Declared	Access	Layout	Management
Tasman Highway	Declared Arterial (A3)	CBD, Sorell, Tasman Peninsula, East Coast and circulatory east coast to Launceston	4 lane, two-way 2 lane two-way in vicinity of Hobart Airport	State
Pittwater Road	No	Tasman Highway to Surf Road	2 lane, two-way	Council
Surf Road	No	Pittwater Road, Seven Mile Beach Road. Partially managed by HIAPL	2 lane, two-way	Council
Seven Mile Beach Road	No	Surf Road, Acton Road	2 lane, two-way	Council
Estate Drive	No	Seven Mile Beach Road, Acton Road	2 lane, two-way	Council
Acton Road	Declared Arterial (C330)	Tasman Highway, Acton	2 lane, two-way	Council

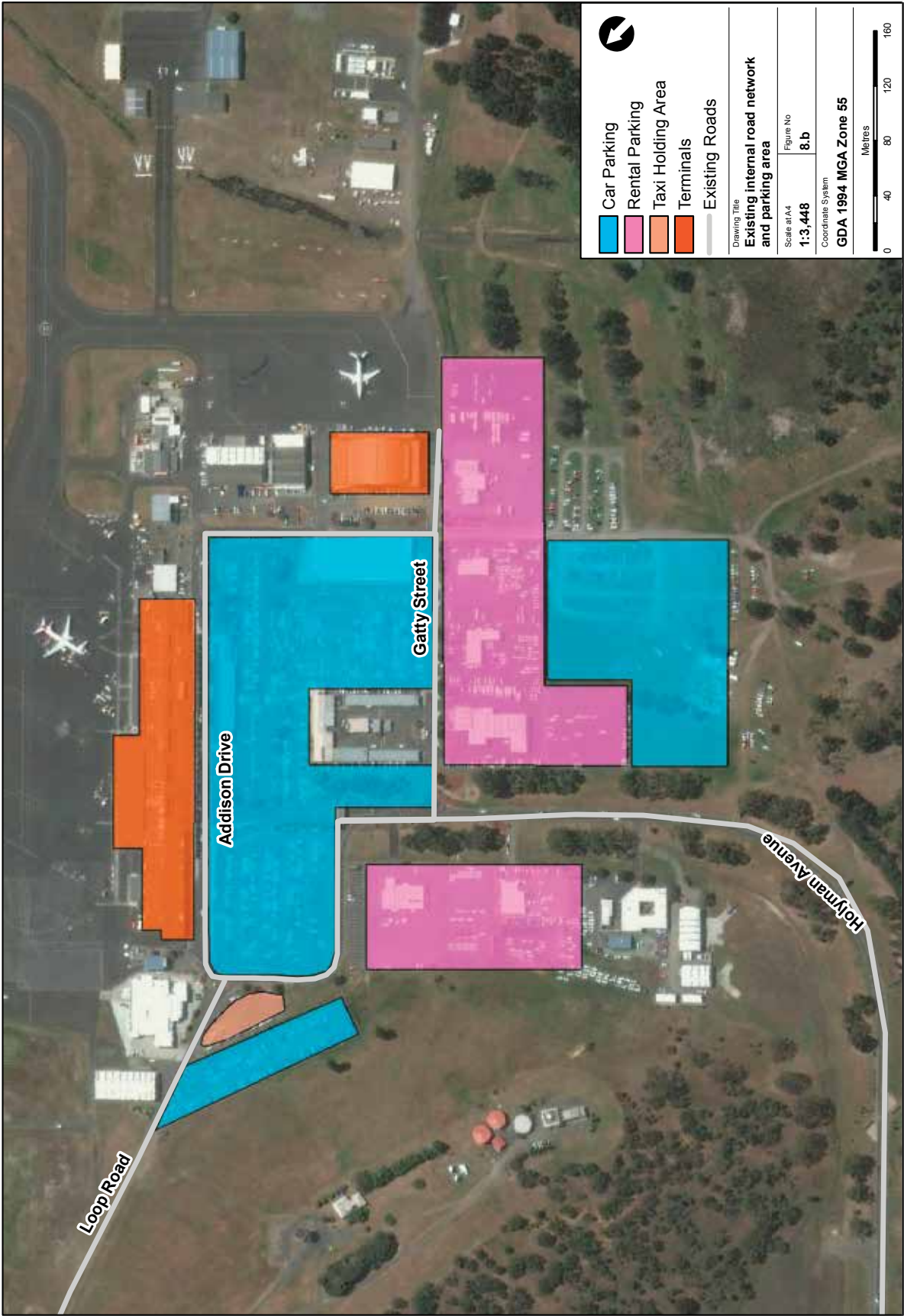


Figure 8.b Existing internal road network and parking areas



Figure 8.c Existing external road network

8.3.3 Parking

There are approximately 1,750 car spaces at Hobart Airport for passenger parking, rental, employee and other uses. An additional 150 car spaces, predominantly for long-term passenger parking, will be made available in 2015 from the demolition of the old Hobart Airport administration building and the development of new parking adjacent to Loop Road. These additional spaces are incorporated into the passenger parking area shown in Figure 8.b.

On-site car parking is generally provided for short and long-term parking and include areas of varying price ranges. Limited staff and designated car parking is provided for employee and commercial use. Off-site private car parks are also located in Kennedy Drive (off Tasman Highway/Holyman Avenue intersection).

8.3.4 Public Transport

8.3.4.1 Bus and Shuttle

Bus travel provides equitable access to the airport for those who cannot access a private vehicle. Bus services additionally provide a more sustainable mode of access than multiple private vehicles given the number of passengers each bus can accommodate.

Existing bus services (shown in Figure 8.d) that provide direct access to Hobart Airport include:

- Redline Airporter Shuttle bus which facilitates movements between Hobart CBD and Hobart Airport. The shuttle picks up and drops off passengers within Hobart CBD at the Hobart Transit Centre (230 Liverpool Street) and at various hotels, on a booking basis.
- Shuttle (off-airport car park) bus which provides access from off-site car parks for airport users who wish to access Hobart Airport. The operations of these shuttle services are dependent on passenger demand.

The terminal forecourt provides parking areas for a variety of individual shuttles and vehicles.

The regional bus services between Hobart and the East Coast run along the Tasman Highway but do not currently provide direct access to Hobart Airport.

8.3.4.2 Taxis

The key points of the taxi system are as follows:

- Taxi drop-off typically occurs in the terminal forecourt and is co-located with the passenger drop-off areas in the terminal forecourt;
- Recirculation involves taxis circulating through the terminal forecourt and accessing a partially



Figure 8.d Bus routes in the vicinity of Hobart Airport

controlled holding area around positioned off Addison Drive. Taxis will queue in the holding area and then access a secondary controlled queue for access to the forecourt; and

- A taxi pick-up rank is located in the terminal forecourt for passenger access.

8.3.5 Rental Car

Rental car is a popular mode of ground transport access from Hobart Airport. A number of rental car companies are permanently located at Hobart Airport, each at separate locations within the terminal precinct.

Rental vehicles generally access the terminal precinct via Holyman Avenue and Gatty Street. Passengers are able to book a vehicle through a range of companies at a rental facility located adjacent to the terminal forecourt.

Rental car companies generally have their own cleaning and parking facilities, which minimises vehicle shuttling between parking areas and the number of trips through the terminal precinct.

8.3.6 Active Transport Network

Active transport is a mode of access that involves physical activity, and typically focuses on walking and cycling networks. In terms of Hobart Airport, the active

transport network includes existing bicycle links to the airport, and the pedestrian environment to and within the airport boundary.

Where structures practical walkways will be covered. It is intended that carparks will be linked to the terminal via covered pedestrian access.

8.3.6.1 Cycling

Cycling access depends primarily on the provision of safe and convenient bicycle routes and access to quality end of trip facilities (which include showers, change facilities, and secure bicycle parking).

In 2013, the Clarence City Council released the Clarence Bicycle Strategy. The bicycle strategy provides a network of existing and proposed on-street and off-street bicycle networks.

The Tasman Highway has been designated as a principal bicycle route as part of the Council's strategy. A shared use path is located along the Tasman Bridge between Sorrell and Cambridge. There are no dedicated on- or off-road bicycle facilities within Hobart Airport or on adjacent roadways. Figure 8.e outlines the cycle routes close to the airport.



Figure 8.e Proposed Clarence Cycle Network (Bicycle Network Tasmania)

8.3.6.2 Walking

The pedestrian environment at Hobart Airport is a critical component of interchange between modes. Consideration of the pedestrian journey is critical as both employees and passengers are pedestrians for at least part of their complete trip length from origin to terminal processing and airline gate access.

Due to the size and location of the airport precinct and the presence of major roads and airside operations, walking to the airport from surrounding suburbs is considered difficult. As a result, the major concern of the pedestrian realm is facilitating appropriate movements within the airport site.

Significant pedestrian circulation occurs at the terminal frontage. This area is a major source of vehicle activity on Addison Drive with multiple pedestrian zebra crossings connecting the terminal to the forecourt and parking areas.

8.3.7 Freight and Logistics

Both airside and landside freight form a key component of the ground transport network, both in terms of existing operations and future planning.

Freight vehicles require high quality road infrastructure to safely transport cargo. The freight operation requires clear routes to major arterial roads such as the Tasman Highway.

Air freight is generally managed from the freight terminal. Current operations service 5,000 tonnes of air freight per annum.

8.4 Ground Transport Demand

This section considers existing (2014) and future (2020 and 2035) passenger, employment, commercial and freight demand. The information for use in the analysis has been taken from the following data sources:

- Passenger forecasts provided from HIAPL;
- Transactional data (ground transport) from HIAPL; and
- Traffic surveys undertaken in October 2014.

8.4.1 Existing transport demand by mode

Passenger demand currently comprises the majority of the traffic demand at Hobart Airport as follows:

- Passenger demand – 85 percent;
- Employee demand – 11 percent; and
- Commercial / freight and logistics demand – 4 percent.

Existing passenger vehicle mode share (2014) is estimated to be comprised of:

- Private vehicle (kerbside) – 55 percent;
- Private vehicle (parking) – 27 percent;
- Taxi – 8 percent; and
- Rental – 10 percent.

The vehicle mode share above does not detail bus and shuttle modes such as the Redline Airporter and off-airport shuttle services. Bus and shuttle movements are incorporated into the kerbside vehicle mode share.

8.4.2 Current Daily Vehicle Demand

Based on existing data, Hobart Airport currently attracts approximately two million passengers per year. Current vehicle demand at Hobart Airport for all vehicle types is estimated at an average of approximately 8,400 vehicles trips per day in 2014. Of these, the majority (7,100 daily vehicle trips) are attributed to travelling passengers, 950 daily vehicle trips are attributed to airport employees and there are around 330 vehicle trips each day related to freight and logistics.

8.4.3 Future Daily Vehicle Demand

Growth in passenger, employee, commercial and freight and logistics trips are projected to increase daily vehicle trips to and from Hobart Airport to around 27,300 per day in 2035. Projected increases in total trip volumes are shown in Figure 8.f.

In 2035 it is projected that 16,100 daily vehicle trips will be related to passengers, 2,900 daily vehicle trips will be related to airport employees, 7,800 daily vehicle trips will be related to commercial development on the airport and 530 daily vehicle trips would be related to freight and logistics.

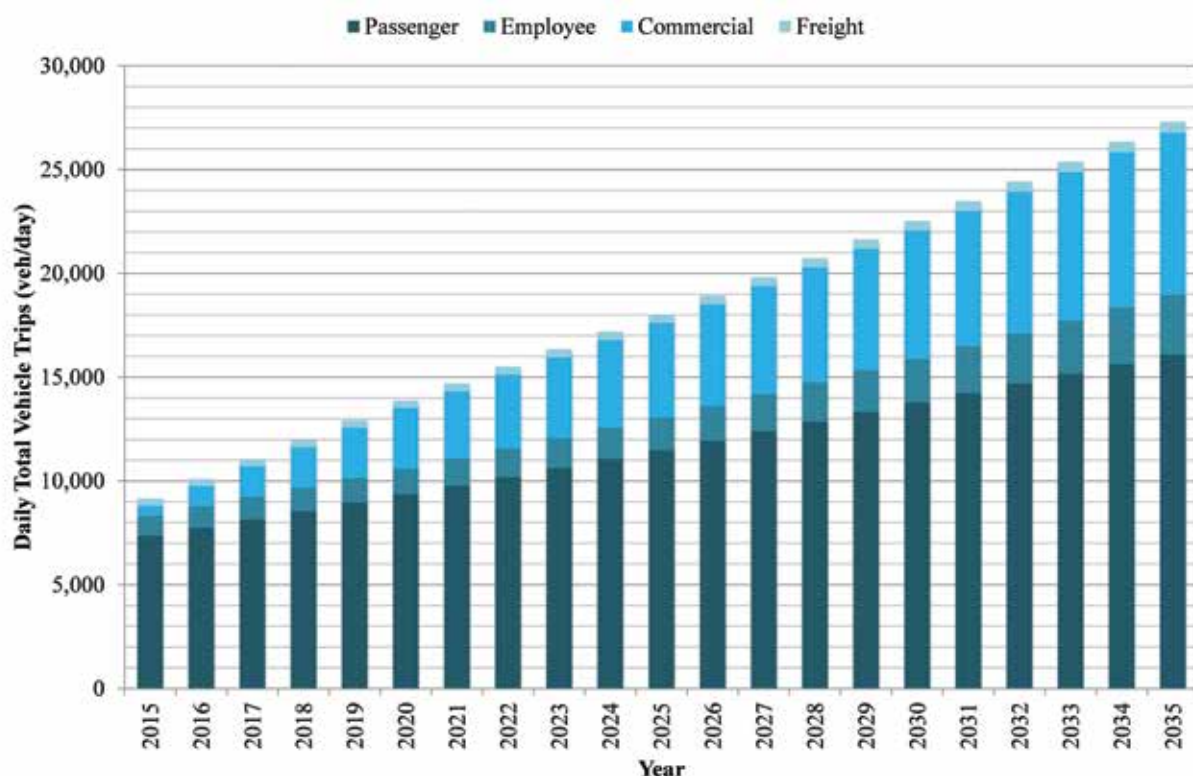


Figure 8.f Total project daily vehicle trips (2015 – 2035) b

8.5 Proposed Ground Transport System

In order to ensure that the growth at the airport can continue without constraints caused by the ground transport system, it will be necessary to upgrade components of the transport network as demand requires. To achieve this, a number of required upgrades have been identified. These upgrades will provide seamless linkages between airport facilities the external road network and public transport system and will reduce congestion and ensure the airport increases its operational efficiency. This ground transport system has been designed to meet capacity and demand requirements set out in Section 8.4.3, and as a result, to support the proposed developments contemplated in this Master Plan. That is this ground transport plan has been developed to deal with the effects of implementing this Master Plan. The following sections provide an overview of these upgrades along with an implementation timeframe and the responsible authority.

The future transport network for the coming five year period is shown in Figure 8.g. An overview of these proposed network upgrades for the coming 20 year period is shown in Figure 8.h. Key transport network changes on and around the airport site are discussed in the following sections.

These plans will continue to involve consultation with State and local authorities responsible for the road and transport network. HIAPL will continue to meet regularly with these groups.

Where appropriate, development proposed in this Master Plan will be staged so as to reduce the impact on traffic flows at, and surrounding, the airport.

8.5.1 External Roads

The external road network includes a number of key upgrades to cater for the anticipated growth in traffic demand to Hobart Airport. These upgrades are generally concerned with providing additional capacity for airport related access.

- Upgrade the Tasman Hwy and Holyman Avenue intersection:
The Tasman Highway, running along the northern edge of the airport, provides the only link into the airport from Hobart and is one of the primary routes out of Hobart to the north east coast of the State. The intersection of Holyman Avenue and Tasman Highway will need to be upgraded to provide road network capacity from the forecast airport related traffic demand and through traffic.
- Tasman / East Derwent Highway upgrade:
DSG is currently undertaking a major upgrade to the intersection of the Tasman Highway and East Derwent Highway which will ensure that traffic coming from the East Derwent Highway will be able to access the Tasman highway through a dedicated lane, improving access to Hobart Airport.

Capacity improvements on the Tasman Highway could include, but are not limited to the following measures:

- Duplicate the Tasman Highway adjacent to Hobart Airport;
- Signalisation of the Tasman Highway and Holyman Avenue intersection; and
- Intersection upgrades at Tasman Highway.

HIAPL will engage with DSG as the responsible authority for these roads.

8.5.2 Internal Roads

Connections to the terminal precinct will be strengthened with additional capacity provided as well as new connections to the planned commercial precincts. Upgrades to the terminal precinct will include a revised forecourt to match the terminal development and new the commercial areas listed below.

- Service access road(s) to the Local Business 2 and Industrial Enterprise 1 precincts off Pittwater Road;
- Service access road(s) to the General Aviation 1 and Industrial Enterprise 2 precincts off Pittwater Road;
- Service access road(s) to the General Aviation 1 precinct off Greuber Avenue; and
- Service access road(s) to the Local Business 1 and Tourism Mixed Use precincts from Holyman Avenue.

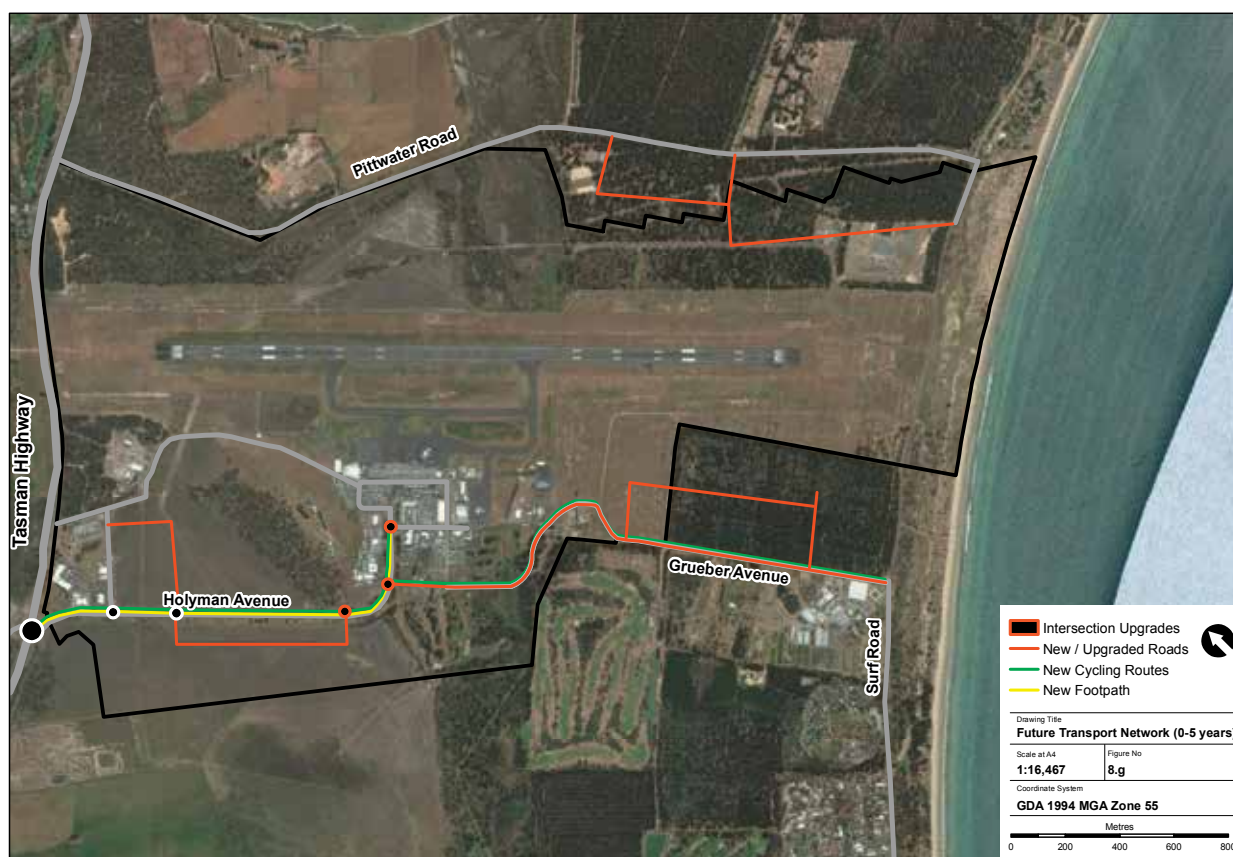


Figure 8.g Future Transport Network (0-5 years)

Major internal road upgrades are discussed below:

Closure of Surf Road

Surf Road is an easement on Airport land at the southern end of the runway. The extension of the runway will bring aircraft closer to Surf Road as they land and take off. A vehicle travelling on Surf Road would breach the required regulated separation distance between an aircraft and an obstacle; as such the section of Surf Road along the southern end of the runway will need to close.

The southern end of Surf Road adjacent to the runway will be permanently closed to vehicles. This section of roadway – which currently lies between two gates – is part of Hobart Airport.

No other part of Surf Road will be affected. Pittwater Road will also be unaffected. Pedestrian, cyclist and non-vehicle access will be maintained through the construction of a new sealed path along the airport's southern boundary.

Existing traffic from Seven Mile Beach using Surf Road to access Pittwater Road and the Tasman Highway will be able to use Grueber Avenue to gain access via the Tasman Highway round-about. This is not a significant

traffic movement and the additional traffic at the Tasman Highway round-about intersection will be accommodated in identified future upgrades.

There will also be additional aviation related development on the new section of Grueber Avenue. It is anticipated that traffic volumes associated with the aviation development will predominantly access the site from the Tasman Highway and should have negligible impact on Surf Road.

Grueber Avenue

Grueber Avenue is a new road that will be constructed to run from Surf Road through to the Tasman Highway along the western side of the Airport. Grueber Avenue will provide Seven Mile Beach with continued access to the Tasman Highway. Its exact alignment will be established in consultation with Clarence City Council. It will also provide access to the proposed Clarence City recreational grounds when developed, reducing additional traffic going through the Seven Mile Beach community.



Figure 8.h Future Transport Network (5-20 years)

8.5.3 Parking

The future of vehicle parking at Hobart Airport considers the provision of appropriate capacity and facilities to meet the demand of passenger, employees and visitors.

Parking supply at Hobart Airport is expected to increase to accommodate the future passenger demand.

Additional car parking to be provided in the near term to accommodate an additional 300 car spaces will be completed part of the 2020 terminal redevelopment. Consideration will be given in the medium and long term to the provision of additional long-term and staff parking requirements as well as upgrades to parking management and parking products available.

8.5.4 Taxi and Rentals

Taxi infrastructure is planned to be improved to provide passengers with a reliable access to taxis through improved queuing and control management. A new taxi holding area is to be provided allowing for additional storage capacity. The need of the taxi driver is also considered through the provision of driver facilities in the taxi holding areas.

Rentals will continue to provide a flexible choice to customers with a variety of rental options accommodated within Hobart Airport. Passengers will be able to book and retrieve vehicles within the terminal and access their rental vehicle from consolidated parking areas.

8.5.5 Active Transport

Active transport is considered an important mode of travel particularly for short and medium length trips. In order to encourage a greater uptake in cycling usage and a safe pedestrian environment, suitable facilities, both on and off road will be provided.

In the short term, upgrades to end-of-trip facilities for cycling and the incorporation of a shared use path along Grueber Avenue will promote cycling within the airport precinct. Provision of clear pedestrian connections through the terminal and parking areas with appropriate wayfinding will improve amenity for pedestrians.

8.5.6 Public Transport

The provision of an improved bus service is considered the future of public transport at Hobart Airport. The implementation of a regularly scheduled direct and local bus services would improve equitable access and mode shift to more sustainable modes of travel. A dedicated bus waiting area will minimise bus parking in the forecourt area and provide more capacity for other modes.

8.6 Five Year Plan

The five year plan identifies transport upgrades and initiatives that are planned for implementation within five years (see Table 8.c) to ensure that the strategic growth objectives of the airport can be met. Figure 8.i highlights the implementation plan within the terminal precinct.

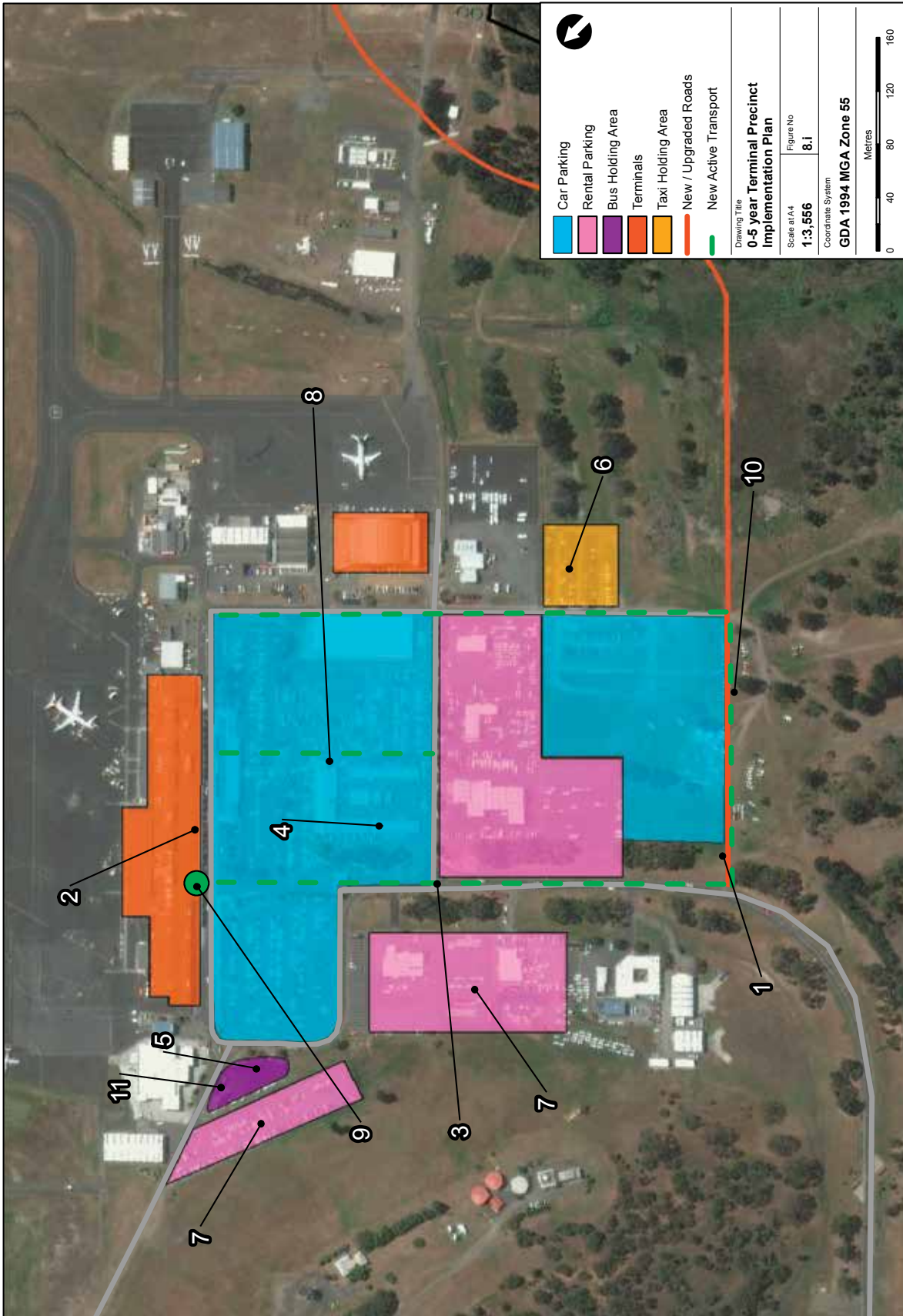


Figure 8.i 0-5 year terminal precinct implementation plan

Table 8.c Projects for 0-5 Year Implementation

Recommendation	Responsibility	Figure 8.i Reference (where relevant)
External Road		
Commence discussions on the Tasman Hwy and Holyman Ave intersection improvements.	HIAPL / CCC/ DSG	
Complete the Tasman / East Derwent Highway upgrade	DSG	
Internal Road		
Close Surf Road easement and construct Grueber Avenue/Hinkler Rd	HIAPL	1
Construct new forecourt as part of 2020 terminal development	HIAPL	2
Possible upgrade of the intersection of Holyman Avenue and Gatty Street	HIAPL	3
Plan and construct new terminal precinct road infrastructure	HIAPL	
Parking		
Provide additional parking spaces within the terminal precinct	HIAPL	4
Taxi		
Upgrade operational and queuing arrangements for taxi pick-up	HIAPL	5
Relocate taxi holding area	HIAPL / DSG	6
Rental		
Car rental parking bays and holding areas	HIAPL	7
Active Transport		
Develop pedestrian connections to new parking areas	HIAPL	8
Upgrade wayfinding infrastructure to parking and rental areas	HIAPL	
Provide cycling facilities	HIAPL / DSG	9
Provide shared use path adjacent to Grueber / Hinkler and Surf Rd	HIAPL	10
Public Transport		
Provide bus holding area	HIAPL / DSG	11

8.7 20 Year Plan

The 20 year plan identifies transport projects and initiatives that should be implemented within 20 years (see Table 8.d) to ensure that the strategic growth objectives of the airport can be met. Figure 8.j highlights the implementation plan within the terminal precinct.

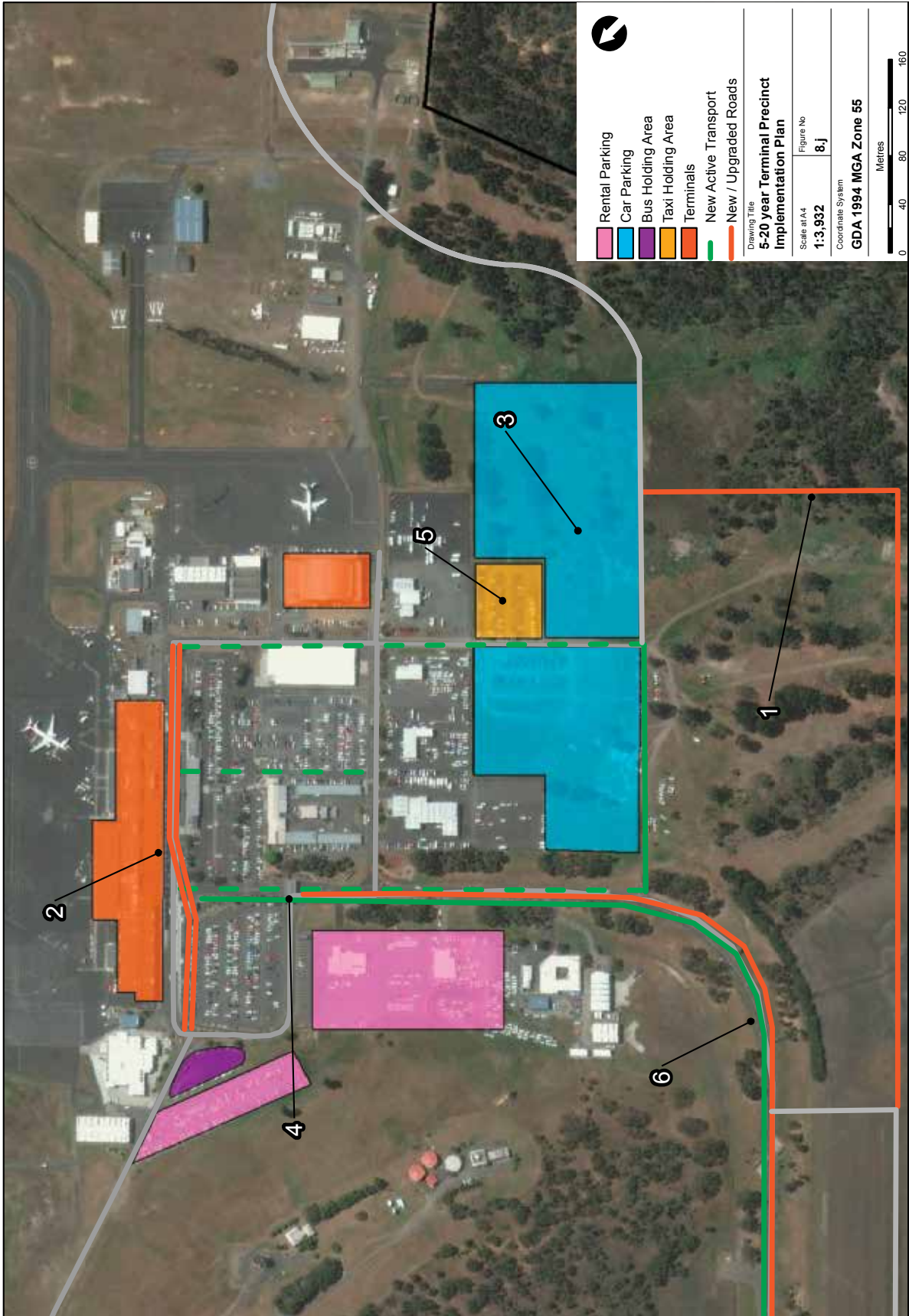


Figure 8.j 5-20 year terminal precinct implementation plan

Table 8.d Projects for 5-20 Year Implementation

Recommendation	Responsibility	Figure 8.j Reference (where relevant)
External Road		
Upgrade the Tasman Hwy and Holyman Avenue intersection	DSG	
Internal Road		
Plan and construct new precinct road infrastructure	HIAPL	
Plan and construct new terminal road infrastructure	HIAPL	1
Construct new forecourt as part of future terminal upgrade	HIAPL	2
Holyman Avenue upgraded to accommodate traffic increases	HIAPL	
Parking		
Provide additional parking spaces within the terminal precinct	HIAPL	3
Upgrade long-term and staff parking areas	HIAPL	
Upgrade parking management arrangements	HIAPL	4
Taxi		
Expand the taxi holding area	HIAPL	5
Active Transport		
Provide a cycling lane along Holyman Avenue to connect with future cycle lanes along the Tasman Hwy	HIAPL	6
Develop local cycling connections with stakeholders	HIAPL / DSG / CCC	

9 Other Aviation Uses



9 Other Aviation Uses

9.1 Air Services Australia

9.1.1 Air Traffic Control

A number of other aviation related activities take place at Hobart Airport. These relate to air traffic control, navigation aids, fire and rescue services, aviation related signage, runway and apron lighting and airline support facilities. This section of the 2015 Master Plan describes these services and outlines development plans for these uses.



Figure 9.a Air Traffic Control Tower and Llanherne House

Existing Situation

The airport's control tower is operated by Airservices Australia on land leased from HIAPL. The tower is 12.5m high and was constructed in 1953 on the peak of the hill to the west of the terminal as shown in Figure 9.a. The elevated location and extra height of the control tower provide the tower with an excellent view of the whole airfield, the aprons and particularly the approaches to the runway. The air traffic controllers within the tower are responsible for directing all aircraft landings, take-offs, and all movements on the runway and taxiways at the airport, as well as activity at Cambridge Aerodrome. The two airfields are managed together as a runway system for aircraft operations. Cambridge Aerodrome has seen significant growth in recent years as a result of increased tourism operations and flight training.

Airservices Australia manages the air traffic in the Hobart region in a manner that maximises capacity and optimises the utility of the airport facilities during the tower's opening hours within the requirements of legislation including the *Air Services Act 1995*.

Future Development

It is anticipated that during the forecast planning period, the control tower instruments may need to be replaced with modern facilities. Airservices Australia has commissioned a site study under the National Towers Program which concluded that the current tower was situated in the best location. The study concluded that if a new tower were to be provided, it would be best situated adjacent to the existing tower in the same position or as-close-as-possible adjacent location on top of the hill. Alternatively, the current tower could be replaced or refurbished to allow for new technology and/or additional air traffic control management, training and extended equipment room accommodation within a secure compound. It is not envisaged that this will occur in the next five years.

The development plans for the terminal, regular public transport (RPT) apron expansion, runway extensions and taxiway alterations have considered the sight lines of the tower in the positioning of the development. HIAPL recognises that further development, including that of the freight area and Antarctic apron and facility, must consider lines of sight from the tower. Airservices Australia will be consulted during the design phase of the airport development.

9.1.2 Aviation Rescue and Fire Fight Services (ARFFS)

Existing Situation

The Aviation Rescue and Fire Fighting Service (ARFFS) operated by Airservices Australia has the primary responsibility of firefighting and rescue operations associated with the airside runway and aircraft movement areas. Where relevant, the ARFFS would be assisted by the Tasmanian Fire Service in firefighting operations that involve airport emergencies.

The Tasmanian Fire Service is the responsible authority for landside, non-aircraft related firefighting services and is assisted by ARFFS as relevant to respond to calls for assistance.

Opened in 1956, the ARFFS fire station is located to the south of the terminal building and is one of the oldest airport fire stations in Australia. Due to its central location with good access to the aprons, taxiways and runway system, it is ideally suited to respond quickly to potential airside emergencies. The ARFFS station is also well positioned to respond to fires and rescue on the landside areas of the airport.

Future Development

In planning the development of aviation-related facilities including apron and terminal expansion, the impact on the existing fire station has been considered and avoided. The current siting of the station complies with ARFFS response times which are usually determined on an optimised location with respect to the runway or runways. Airservices Australia has set operational objectives of:

- A two minute response time to the end of each runway; and
- A response time not exceeding three minutes to any part of the movement area.

The extension of the runway does not impact compliance with these objectives.

The category of ARFFS required at an airport is dependent on the largest design aircraft using that airport and the frequency that aircraft uses the airport. As current operations are Code C, primarily B737-800s and A320s, the ARFFS provision is Category 7 cover.

The largest critical design aircraft at Hobart in 2035 will be Code E aircraft such as the B787 and A330. These aircraft require Category 9 cover but as movements are forecast to be below 700 in the busiest three months of the year, airport lessees are permitted to reduce the scale



ARFFS vehicles

of ARFFS facilities to one category below. Accordingly, at the onset of regular Code E passenger services in the future there is a requirement to upgrade from the current Category 7 to Category 8.

The upgrade from Category 7 to Category 8 requires an extra 40 percent on the mandatory discharge rate of foam extinguishing agents and 100 percent increase of the complimentary agent (a dry chemical powder) due to the increased width and length of aircraft potential involved in an incident. During the period of the 2015 Master Plan, the ARFFS may need to increase its availability of fire tenders and crews to adhere with these requirements when the operations of the larger Code E aircraft becomes a regular occurrence.

9.2 Airport Operational Services

9.2.1 Navigational and Land Aids

Existing Situation

The following ground based navigational and landing aids are provided at Hobart Airport:

- VOR - VHF omni-directional radio range, providing radial tracks to the beacon through 360° of the magnetic compass;
- DME - distance measuring equipment, which provides the air distance between the aircraft and ground installation;
- ILS - an instrument landing system, which provides track (via the localiser) and approach slope guidance (via the glidepath) for landings on Runway 12;
- PAPI - precision approach slope indicator systems, providing visual slope guidance for approaches to runways 12 and 30; and
- High-intensity approach lighting for a category 1 precision approach for Runway 12.

Future Development

Airservices Australia will identify the need for the introduction or relocation of navigation aids. Planning for this will be developed in collaboration with Airservices Australia. All future navigational and land aid development would occur within the runway precinct.

9.2.2 Ground Based Augmentation System (GBAS)

Ground Based Augmentation Systems (GBAS) provide guidance for aircraft during the landing phase of flight and have been used at some Australian Airport for up to ten years. GBAS offers advantages in terms of improved airport capacity and flexibility of location.

HIAPL acknowledges this emerging technology and its potential for improved operational accuracy at Hobart Airport and favours its implementation upon further consultations with Airservices Australia.

9.3 Airport Lighting

Existing Situation

Hobart Airport upgraded its lighting system in 2012 as part of the runway and 2013 taxiway overlay projects. The airfield ground lighting (AGL) comprises:

- Runway, taxiway and apron directional lighting;
- Apron flood lighting; and
- Obstacle lighting.

Specifically, the airport runway lighting system consists of:

- Both a high intensity and low intensity runway edge lighting;
- Runway 12 and Runway 30 PAPI Systems; and
- Runway 12 High Intensity Approach Lighting System.

The runway, taxiway and apron directional light is sourced through and controlled by equipment in the Airfield Lighting Equipment Room (ALER) which was also recently upgraded. Sufficient capacity exists within this upgraded ALER for the runway extension works. HIAPL maintains an onsite emergency power supply to maintain essential lighting in the event of a power outage.

9.3.1 Future Development

The next lighting facility that is scheduled for maintenance is the masts for the approach lighting on Runway 12. The maintenance is a result of corrosion from salt in the sea water and the northern runway extension. Additional masts will be installed as part of the runway extension project. The installation of these masts will be subject to the runway extension Major Development Plan and an EPBC referral as part of the Runway Extension project.

Within the next five years, the runway approach lighting, remaining taxiway lighting and apron floodlighting will be augmented, upgraded and relocated for the various runway and taxiway extensions and existing apron upgrade provisions proposed in the Master Plan.

9.4 Airside Signage

Airside movement area signage which assists in reducing safety risk in busy movement areas (for example in low visibility operations) is not currently required at Hobart Airport due to current traffic levels and conditions.

When this is required, HIAPL will provide cost-effective movement area guidance and signage suited to traffic types and frequencies at Hobart Airport.

9.5 Airline Support Facilities

9.5.1 Airline Catering

Existing Situation

Currently, all catering for flights departing from Hobart is carried on the incoming flights with no preparation of airline food at Hobart Airport.

Future Development

Hobart Airport has not been approached by the airlines or a catering company for space to accommodate a new catering facility. Due to the economies of scale, the current arrangement is likely to continue.

9.5.2 Aircraft Refuelling

Existing Situation

Refuelling at Hobart is provided through tankers transporting fuel supplied from the BP Air depot in the southern precinct of the airport. Air BP currently makes 40 refuelling trips per day to the apron area using refuelling vehicles.

Future Development

It is anticipated that BP's existing facilities will provide for the airport's needs during the forecast planning period.

9.5.3 Ground Service Support

Existing Situation

HIAPL provides an area to the south of the terminal for storage of equipment. Future requirements will be established with operators when required in areas leased from HIAPL.

Future Development

With a shift to power-in push-back operation, a tug would be employed by the airlines for pushback operations. Storage for these facilities will be provided in consultation with airline partners.



10 Utilities and Services Infrastructure



10 Utilities and Services Infrastructure

10.1 Existing Services and Future Planning

The objectives of the utilities and services infrastructure section is to provide information on existing services, highlight future developments and identify any deficiencies. These are shown in Table 10.a.

Development of individual precincts in line with Chapter 4: Land Use, will drive the timing of proposed infrastructure upgrades.

Table 10.a Existing and future services at Hobart Airport

Services	Existing	Future
Electricity	<p>Airport supplied by TasNetworks infrastructure as dual 11 kV.</p> <p>11 kV ring main feeds via a mix of overhead line and underground cable via Holyman Drive, to the terminal precinct and around the Loop Road.</p> <p>The primary substation for the terminal precinct is located adjacent the administration building. This substation comprises a single 2MVA transformer, and as such provides no redundancy. It is less than 50 percent loaded, and so there is spare capacity for significant expansion of the terminal facility.</p>	<p>The high voltage ring main provides capacity and flexibility for future development of key areas across the site with upgraded or new substations.</p> <p>New power supplies could be taken direct from Cambridge Road and Pittwater and remain separate from the existing HV ring main.</p>
Telecommunications	<p>Optical fibre services installed by Telstra run through the site, north to south, and connect to the main distribution frame room at the administration block.</p> <p>More recently, TasNetworks has installed optical fibre into the site, via Holyman Drive, which currently services only the RHH Kitchen.</p>	<p>It is likely that new telecommunications infrastructure will be required to provide NBN or other services to any future substantial development, outside the terminal precinct.</p>
Water Supply	<p>A bulk water main connects into reticulated water supply within the Tasman Highway and runs along Holyman Avenue.</p> <p>Secondary connection on Back Road to the bulk water supply within the Tasman Highway however this is currently turned off.</p> <p>Water for fire suppression currently comes from the same mains as the domestic supply. Storage tanks for firefighting are located on Tower Hill. TasWater has adopted a policy that water supply for domestic and fire-fighting purposes are to be separate rather than combined.</p>	<p>Providing future developments with their own separate fire and domestic water from the existing Holyman Avenue main is seen as the preferred approach to development.</p>

Services	Existing	Future
Sewerage	<p>The site is currently serviced with a rising main that runs from the Tasman Highway, along Holyman Avenue and connects to an existing TasWater sewerage treatment plant on the site.</p> <p>The freehold titles are not serviced at present.</p>	<p>TasWater has a policy of allowing a maximum of one connection per lot to sewer mains, this means future developments would need to connect to the existing connections.</p> <p>TasWater's standard policy requires that any new pump stations be contained within their own lot and transferred to their ownership. This is impossible on the Commonwealth lease area, so suitable agreements would have to be negotiated if TasWater are to take over any pump stations on the Commonwealth lease area. Alternatively any new pump station and mains may remain as private assets maintained by HIAPL.</p>

10.2 Future Development

Hobart Airport does not foresee major significant utility requirements during the coming five year period. On airport utilities and services infrastructure will be expanded and renewed as required through demand or lifecycle.

11 Airspace Protection



11 Airspace Protection

11.1 OLS and PANS-OPS

Obstacles in the vicinity of an airport can have safety implications for the operation of aircraft in flight. Airspace at leased Commonwealth airports is therefore protected under Part 12 of the Airports Act 1996, together with the Airports (Protection of Airspace) Regulations (APAR). Protection is provided in the form of Obstacle Limitation Surfaces (OLS), used for flying by sight, and Procedures for Air Navigation Services Airport Operations (PANS-OPS) surfaces, used when flying by instrument without external visual reference to the ground.

These surfaces are used to make sure aircraft arriving or departing from an airport are not adversely affected by high terrain, natural obstacles such as trees, or the building of structures or other land use activities. New structures should be designed, or other activities controlled, to ensure that they do not intrude into the present and future prescribed airspace surfaces.

To protect these surfaces off the airport site, the OLS and PANSOPS are reflected in the Clarence City Council 2007 Planning Scheme and current draft Clarence City Council Interim Planning Scheme. The planning schemes recognise that the airport flight paths should be protected from 'inappropriate development' to allow 'safe air navigation for aircraft approaching and departing the airfield'.

The OLS and PANS-OPS are created in accordance with regulations contained within Civil Aviation Safety Regulations Parts 139 and 173, respectively. As the intent of the regulations is to protect aircraft operations in the vicinity of aerodromes, the physical layout of the aerodrome and, in particular, its runways determines the associated airspace volumes.

As described in Chapter 7: Airfield Development, a runway extension is planned within the forecast planning period. Changes airport's OLS and PANS-OPS due to the runway extension are described in the following section.

The 500m pavement extension provides Runway 30 with an operational length of 2,751m and Runway 12 an operational length of 2,680m. The turning area at the north-west runway end utilises a section of pavement, resulting in the slightly shorter operational length on Runway 12.

HIAPL will undertake a separate approval process, under the Airports (Protection of Airspace) Regulations, to formally declare its future airspace as a result of the proposed runway extension.

11.2 Proposed changes to OLS and PANS-OPS

Proposed changes to Hobart Airport involve lengthening the runway infrastructure and the consequent re-positioning of the runway threshold. The Runway 30 threshold position moves 350m to the south-east, while the Runway 12 threshold extends 79m to the north-west. The position of the Departure End of Runway (DER) for Runway 30 is unaffected as the north-west extension uses an area already set aside for departures. The DER for Runway 12 will extend 350m to the south-east in line with the approach threshold. There is no re-definition of the Aerodrome position via the Aerodrome Reference Point (ARP), Reference Elevation Datum (RED) or the runway alignment.

Because the protection surfaces move relative to the runway threshold or DER, splays which widen as they move away from the current threshold/DER will narrow compared to the original. This is due to base widths being set at threshold/DER and thence angular splay boundaries are generated. A narrower splay implies the maximum difference between the splays and does not mean a change to base width (see Figure 11.a).

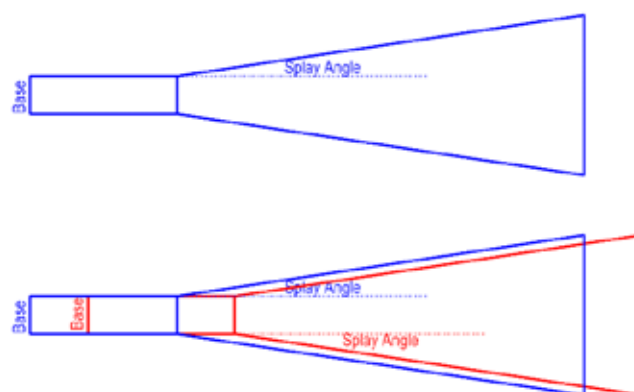


Figure 11.a Splay angles

The Obstacle Limitation Surfaces Outer Horizontal is based on the ARP, hence is unaffected. All other surfaces are dependent on the runway position, and will extend by the amount of the threshold displacement or DER location. No lateral change to the OLS occurs.

The departure OLS to the north-west remains unchanged while the approach OLS at this end moves 79m. In comparison to the existing OLS, the approach splay is narrower by 23.7m, but lower by 1.58m. To the south-east the 350m displacement makes the approach narrower by 105m but lower by 7m compared to the existing, and the departure narrower by 87.5m and lower by 7m.

The PANS-OPS procedures provide guidance to a runway threshold for all approaches except those to radio navigation aids, and from a DER for departures. The navigation aids at Hobart Airport are, for all intents and purposes, aligned with the runway centreline. Thus, the protected flight paths associated with those nav aids do not change laterally, or in any step altitudes. This includes the VOR procedures to Runway 12 and Runway 30 and the NDB on Runway 30.

The Visual Segment Surface (VSS) for non-precision approaches moves with the approach thresholds. Compared to the existing the VSS for the north-west end is narrower by 23.7m but lower by 2.6m. For the south east end the VSS is narrower by 105m and lower by 11.5m. Note that VSS for both ends at Hobart Airport are wholly contained within the approach OLS.

For all Instrument Flight Approach Procedures using position fixes to a runway (ILS, RNAV (GNSS) and RNAV (RNP)) position fixes need not change and hence the longitudinal position, and the consequent protection splay boundary, does not change. The vertical path will change and be at a lower level to ensure that aircraft touch down consistent with the new runway thresholds.

For the Runway 12 ILS, compared to existing, the splay boundary will be slightly narrower along the flight path, but slightly wider at the 300m above airport level. The protection height will be 2.25m lower along its length.

The two RNAV (GNSS) procedures protection boundaries need not change at all with such a small change in runway position and only the nominal flight altitude will.

For RNAV (RNP), the protection boundaries are not affected by the change and only the height of the surface will change. For Runway 12 (north-west) there is a height change is 3.95m while runway 30 (south east) difference is 17.5m lower.

Departures include an assumption that aircraft cross the DER at a height of 5m and then protection surfaces climb at a grade 0.8 percent less than the aircraft climb gradient. The standard protection gradient is 2.5 percent. As the DER at the north western end does not change, there is no change to the protection surfaces for departures in this direction. For departures to the south east, the displacement makes the protection area laterally narrower than the existing by up to 105m and vertically 8.75m lower.

The revised OLS and PANS-OPS for Hobart Airport have been developed taking the extended runway into consideration. HIAPL updated the OLS for Hobart Airport in 2013 (see Figure 11.c). This revised OLS update has been included in the draft Clarence City Council Interim Planning Scheme. The updated OLS addressed the runway extension at that time and remains current. See Figure 11.b for a comparison between the 2009 and new OLS.

Changes between the 2009 PANS-OPS and the 2015 PANS-OPS are shown in Figure 11.e. The 2015 PANS-OPS are shown in Figure 11.f.



Figure 11.b OLS for Hobart Airport.

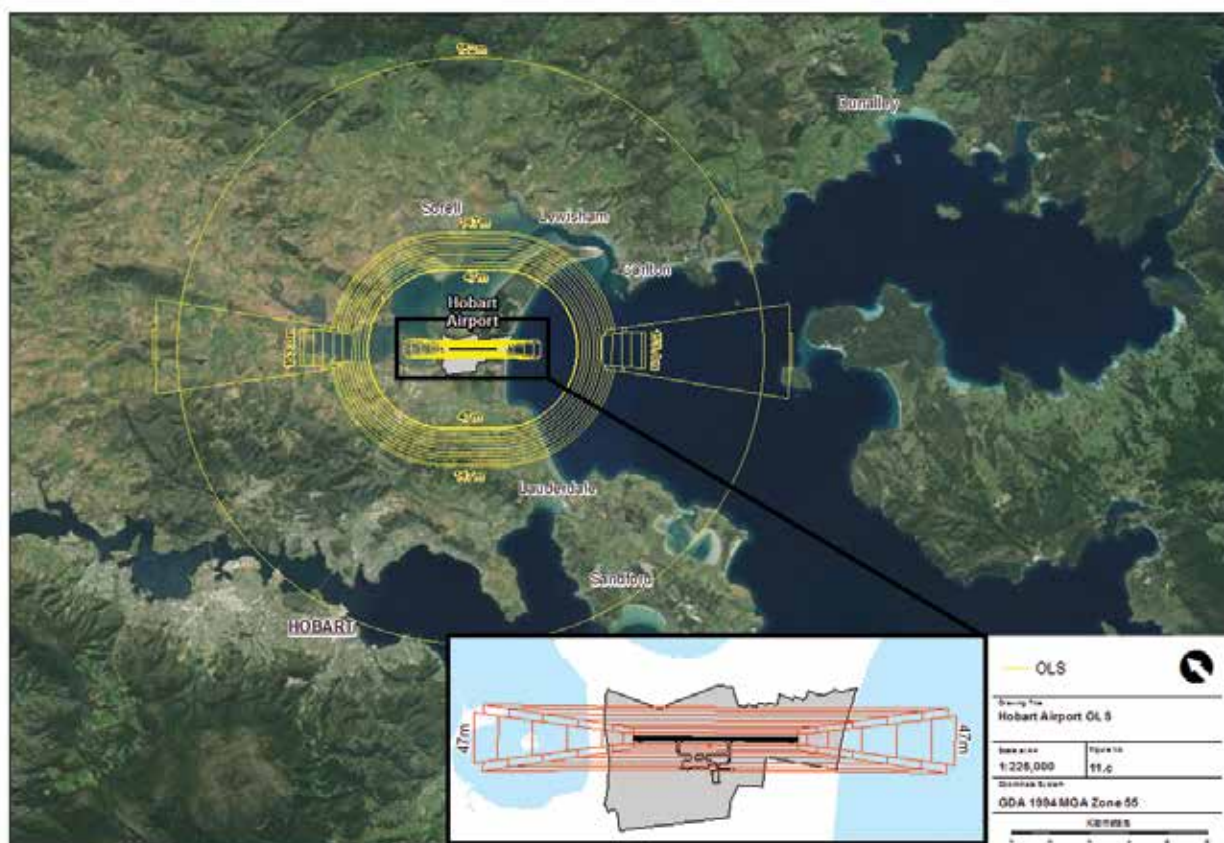


Figure 11.c PANS-OPS changes 2009 and 2015

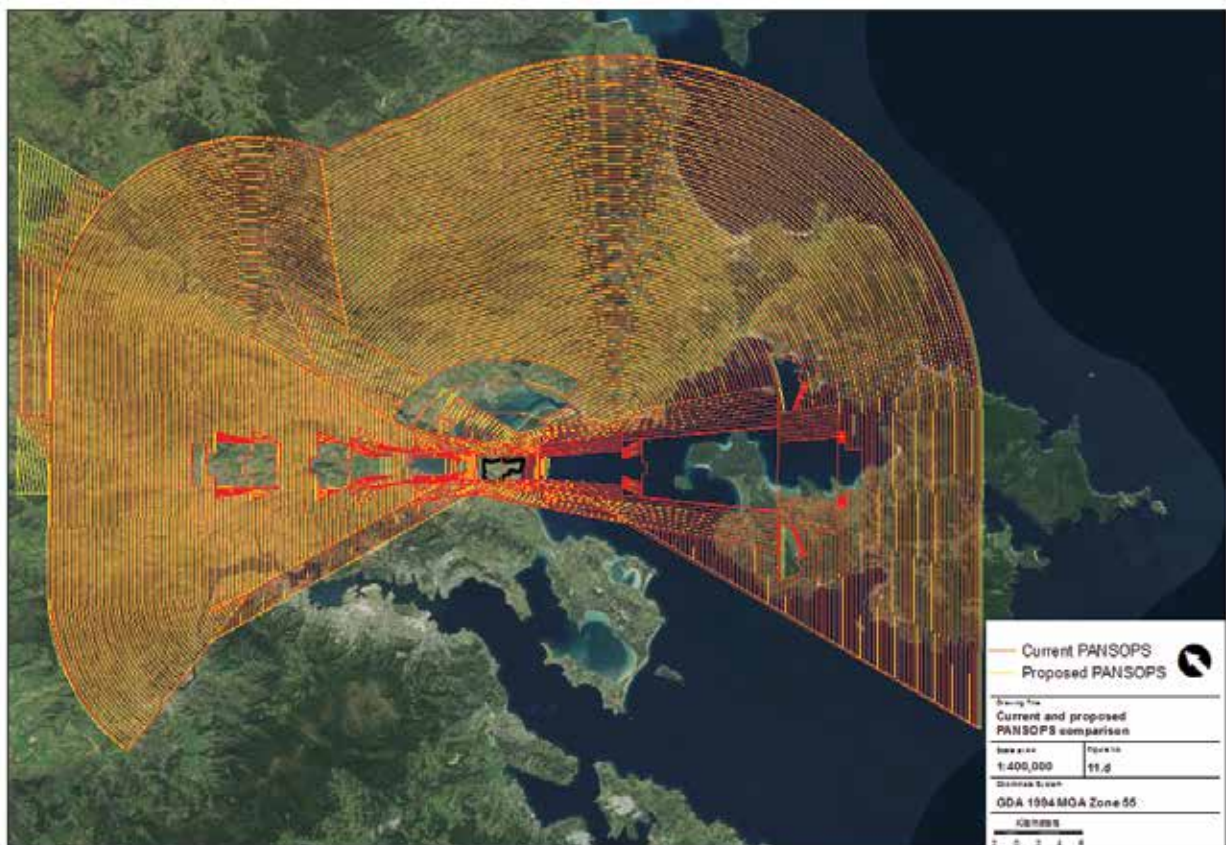


Figure 11.d Revised PANS-OPS for Hobart Airport

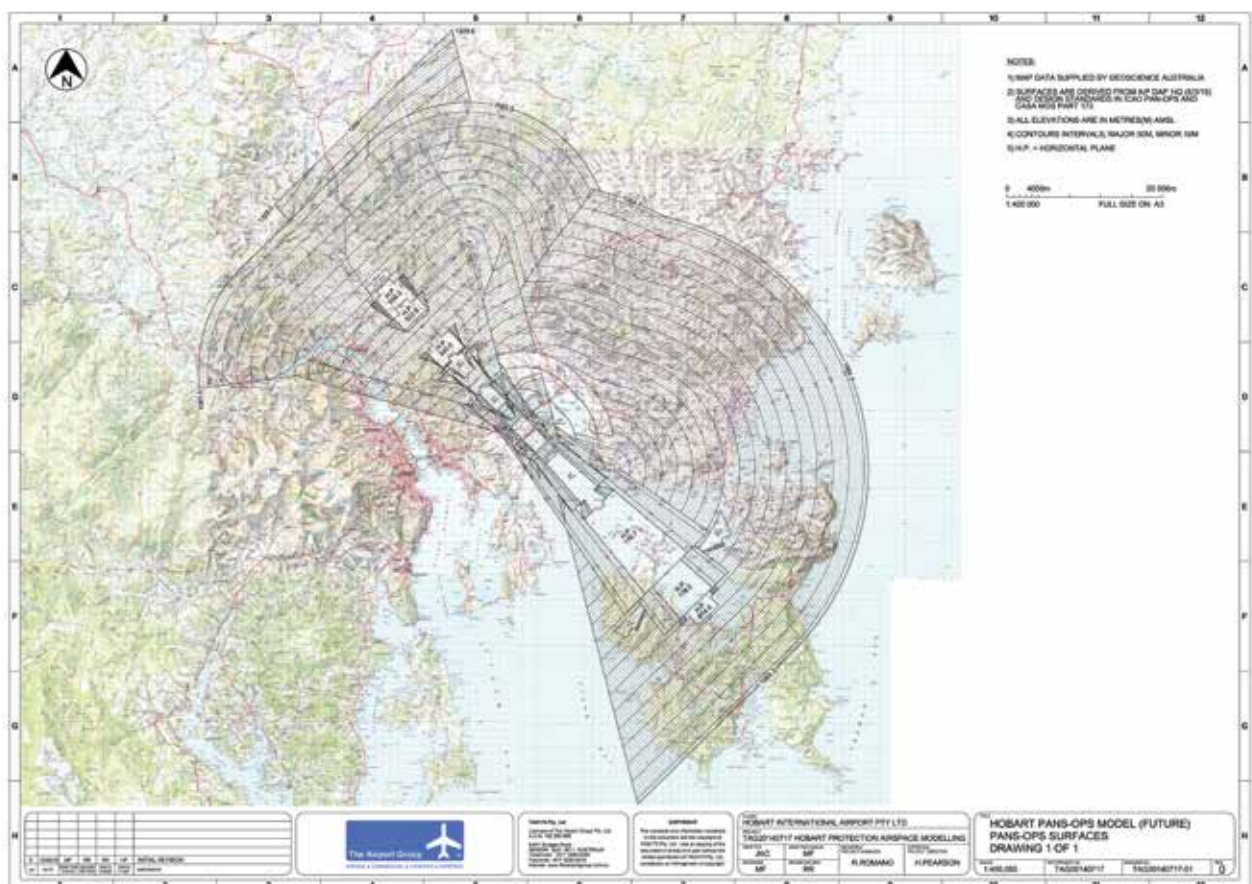


Figure 11.e Hobart Airport PANS-OPS

12 Aircraft Noise



12 Aircraft Noise

12.1 Introduction

This section of the 2015 Master Plan provides an overview of the issues relating to aircraft noise at Hobart Airport. It provides a discussion of the noise modelling undertaken based on the current Master Plan, compares the existing noise environment against the potential noise impact of the runway extension and presents the forecast ultimate capacity Australian Noise Exposure Forecast (ANEF) contours for the airport.

As required under the *Airports Act 1996*, the ANEF was endorsed for technical accuracy by Airservices Australia (AsA) in the approved manner on [to be endorsed AsA].

12.2 Background

According to the International Civil Aviation Organization (ICAO), and as noted in the *National Airports Safeguarding Framework* (NASF):

“...aircraft noise is the most significant cause of adverse community reaction to the operation and growth of airports. Noise can impact adversely on residents, workers and visitors in the vicinity of airports.”

Aircraft noise complaints can cause significant limitations on the operations, and potential for development, of airports, including leading to calls for curfews to be imposed.

Hobart Airport, has to date, been fortunate in that the operation of aircraft has caused little conflict with the local community. This is aided by the geographical location of Hobart Airport – with bodies of water at each end of the airport’s runway and a large tract of vacant Crown recreational land to the east under the airport’s key approach path.

One of the objectives of this Master Plan is to ensure as much as possible that the airport’s operations continue to have minimal impact on the surrounding community. To help achieve this, the 2015 Master Plan uses additional noise forecasting tools to demonstrate future noise impacts to inform local planning authorities and the wider community.

Hobart Airport does not have a curfew, it can operate 24 hours a day 7 days a week. Maintaining this is critical for the wider Hobart economy and the airport itself and is a key priority for HIAPL. The Meehan Range to the west of

the airfield necessitates that all passenger aircraft flight paths be to the east of the airfield.

HIAPL is responsible for working with the community in planning for potential noise impacts from the airport’s operation, particularly from flight operations. However HIAPL is not responsible for, and does not have ultimate control over, aircraft operation or airspace management, since these are the responsibility of the aircraft operators and Airservices Australia.

Noise from aircraft operations impacting noise sensitive receivers is recognised as a critical future issue for the operation of Hobart Airport.

It should be noted that Cambridge Aerodrome is not part of Hobart Airport and thus the noise modelling in this Hobart Airport Master Plan does not include Cambridge Aerodrome operations. Cambridge Aerodrome is an important asset for southern Tasmania catering for recreational aircraft, smaller passenger aircraft for tourism operations and is the home to a growing flight training school. Hobart Airport encourages planning in the local area to cater for the current and future growth of Cambridge Aerodrome.

12.3 Noise Forecasting

The Australian Noise Exposure Forecast (ANEF) is the *primary* noise metric used in Australia for land use planning around airports. The Airports Act requires the calculation of ANEF contours for use in assessing future noise exposure patterns around Australian airports.

The use of ANEF contours for reporting of noise impacts to non-noise experts and in community consultation has come under scrutiny since the 1995 Senate Enquiry into the third runway expansion at Sydney Airport.

Additional, *secondary* noise metrics, were proposed by the Commonwealth Government to assist non-experts in understanding the extent of potential noise impacts from aircraft operations in simpler terms. In particular, the use of the N_{70} and N_{60} metrics are proposed.

12.4 ANEF / ANEC

The ANEF contours represent an annual ‘average day’ noise exposure at locations near an airport. They are a cumulative noise descriptor of a full year, meaning that seasonal impacts and weather are considered. An ANEF contour shows a 12 month period divided by 365 days to give an average day.

A description of the ANEF system and associated compatible land uses can be found in the Australian Standard *AS2021-2000 Acoustics – Aircraft Noise Intrusion – Building Siting and Construction*.

Two types of Australian Noise Exposure calculations have been used in this master plan:

- ANEF (Australian Noise Exposure Forecast) based on forecast or predicted flight volumes and tracks and is endorsed by Airservices Australia
- ANEC (Australian Noise Exposure Concept) which is calculated using an identical methodology as the ANEF

The ANEF is for an Ultimate Capacity scenario, which considers the maximum practical capacity of the airport. The proposed runway extension has been included. ANEC contours are generally used for benchmarking or informational purposes. The ultimate capacity for Hobart Airport is not expected to be reached within 40 years, and probably would not be achieved until past 50 years.

12.4.1 Limitations of ANEF

The ANEF system has been incorporated into AS2021 as a way for determining the acceptability developments in noise affected areas. However, the fact that a development undertaken in area outside of an ANEF contour does not mean that that development will not be affected by noise or that any new development outside the ANEF contour should be approved.

In this regard it needs to be remembered that:

- AS2021 was not developed solely as a land use planning tool - it was developed as a way to assess the insulation required in a house where a decision had already been made to build in an area affected by noise;
- AS2021 and the ANEF do not adequately take into account greenfield development where there is little other ambient noise to hide or obscure the aircraft noise; and

- The ANEF contours are averages, based on a complex formula. ANEF contours do not provide an indication of the level or frequency of aircraft noise at particular times of day or year, the frequency of occasional loud noise events or the full impact arising from the frequency or volume of night-time or early morning noise.

It is also noted that Stage Governments that endorsed the National Aviation Safeguarding Framework (NASF), including Tasmania, have agreed to approach Standards Australia to undertake a review of AS2021-2000 to update the standard to more accurately reflect community expectations. In particular, it is proposed to update the standard to reflect alternative noise measurement metrics such as those covering the frequency of noise events above certain specified decibel levels.

12.4.2 Preferred approach to planning decisions and noise exposure

Hobart Airport is currently in a fortunate position when compared to some other major metropolitan airports, in respect of its proximity to residential developments and the risk of being exposed to complaints about aircraft noise.

For this reason, the airport considers it extremely important that planners take appropriate care to:

- Consider the potential for noise disturbance at any new potential residential site; and
- Where possible, protect the well planned position of Hobart Airport with respect to residential development.

NASF Guideline A recommends with respect to future development that:

“There is a need to treat future development and existing development differently. Where there is no major existing or approved development, there is scope to plan ahead to take account of potential noise disturbance and in particular to minimise the zoning of noiseDexposed land for residential development.”

This statement appears to endorse the “precautionary principle” with respect to developments around airports. Therefore any proposed development in the vicinity of Hobart Airport should consider:

- The NASF guidelines;
- The location of flight paths (which are set out in figures 12b,c,d and e);
- Types of aircraft activity;
- The application of alternative noise metrics, including the N_{60} and N_{70} contours; and
- The findings of any review into AS2021.

12.4.3 N_{70} / N_{60}

Given the above constraints with the ANEF system, a supplementary method of communicating noise impacts has been developed by the Australian Government and includes the N_{70} and N_{60} contour. In particular, Attachment 1 to NASF Guideline A notes that:

“There is evidence to suggest that an approach to measuring aircraft noise based on the number of aircraft movements has become more appropriate over time as individual aircraft events have become quieter, but the frequency of movements has increased.”

The N_{70} and N_{60} noise metrics are a complementary noise descriptor to present aircraft noise. The contours show the potential number of noise ‘events’ that are more than 70 dB(A) and 60 dB(A) respectively.

N_{70} and N_{60} contours have a number of distinctions than an ANEF, notably:

- It reports noise by the number of events;
- The presented contours can be specific e.g. number of events at night or sensitive times;
- It provides noise information in a manner that is easier for the layperson to understand.

It should also be noted that, as with the ANEF contour, being outside the N_{70} and N_{60} contour does not mean that an area will not be subject to some aircraft noise.

A N_{70} event is described as an overflight that generates noise at more than 70 dB(A). This may disturb conversation, television viewing or using the telephone inside a house with open windows during the day.

A N_{60} event is described as an overflight that generates noise at more than 60 dB(A). This metric is generally used to describe noise levels in the evening and night time periods. A maximum noise level of 60 dB(A) approximately corresponds to a noise event which may cause sleep disturbance.

Example noise levels are shown in Figure 12.a.

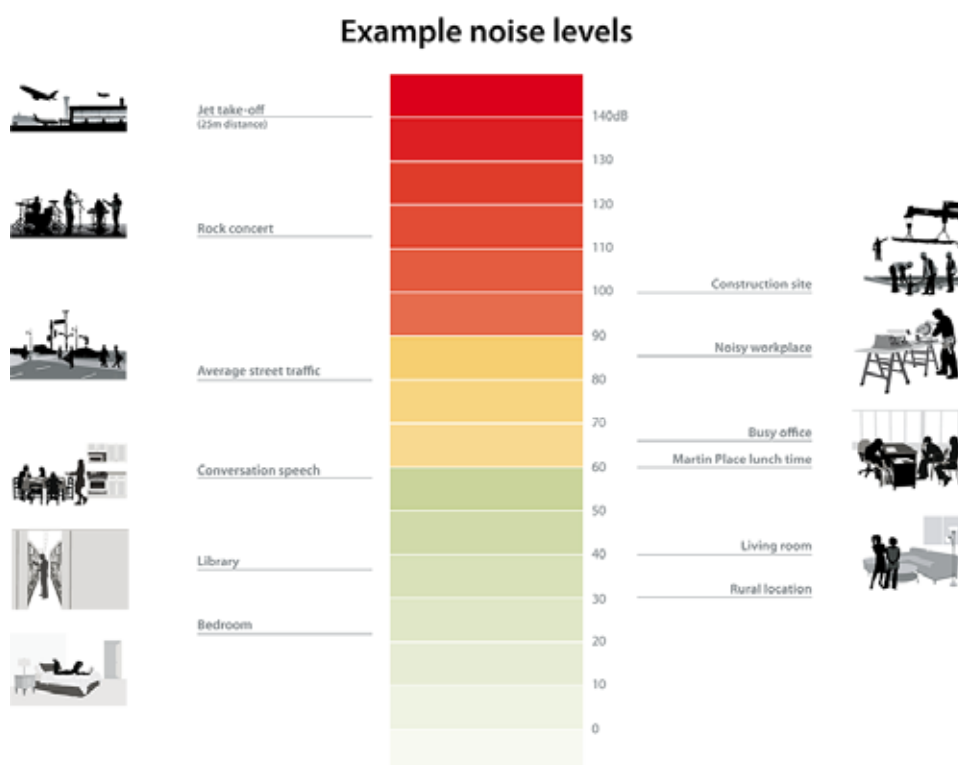


Figure 12.a Example Noise Levels (Source: www.aircraftnoise.com.au, Airservices Australia and Australian Airports Association)

For the Hobart Airport forecast, N_{70} has been determined for the day time period (7:00am – 7:00pm) and the N_{60} has been determined for both the day time period and the night time period (7:00pm – 7:00am).

In this respect, it is noted that, N_{60} rather than N_{70} is ordinarily used for measuring noise at night in highly developed urban settings, to account for the typically higher sensitivity to aircraft noise during the evening and night time period. However, given the relatively low levels of urban development around Hobart Airport, it is expected that a similarly higher level of sensitivity to aircraft noise would be expected in these areas. Therefore, this Master Plan sets out N_{60} has been determined for both the day time period and the night time period.

12.4.4 Scenarios

Noise modelling has been undertaken for the following scenarios:

ANEF:

- Ultimate Capacity.

ANEC, N_{70} , N_{60} :

- Existing 2014; and
- 2035 with runway extension.

To inform noise modelling four future schedules were produced which are summarised in Table 12.a.

To provide the community and local planners with the long term noise impact of operations at Hobart Airport an ultimate capacity forecast was developed for the ANEF. This provides the number of aircraft movements when the airport is at capacity.

12.5 Noise Modelling Methodology

The modelling has taken into consideration the following aspects:

- Flight tracks for both existing runway and proposed runway extension;
- Approximate altitude of aircraft operating on flight tracks;
- Type of aircraft;
- Number of aircraft per *average* day and per *average* evening;
- Number of aircraft per *peak* day (estimated worst case);
- Number of aircraft per *peak* evening (estimated worst case); and
- Typical weather conditions (retrieved from long term averaged Bureau of Meteorology data).

Existing flight tracks were identified and agreed with local air traffic control based on historical radar tracks, the standard departure and arrival procedures and discussions with the air traffic controller.

The new flight tracks based on the extended runway were created by adjusting the existing tracks to consider both the new runway ends and associated navigation thresholds (such as altitude thresholds and electronic navigational aids).

The noise modelling software considers aircraft altitude when aircraft movements are allocated to tracks.

The existing flight tracks are generally similar to the flight tracks included in the 2009 noise model for areas near to the airport that influence the ANEF contour. The 2014 flight tracks were developed to a greater level of detail than the flight tracks used in 2009 because additional details were required for the creation of N_{70} / N_{60} contours.

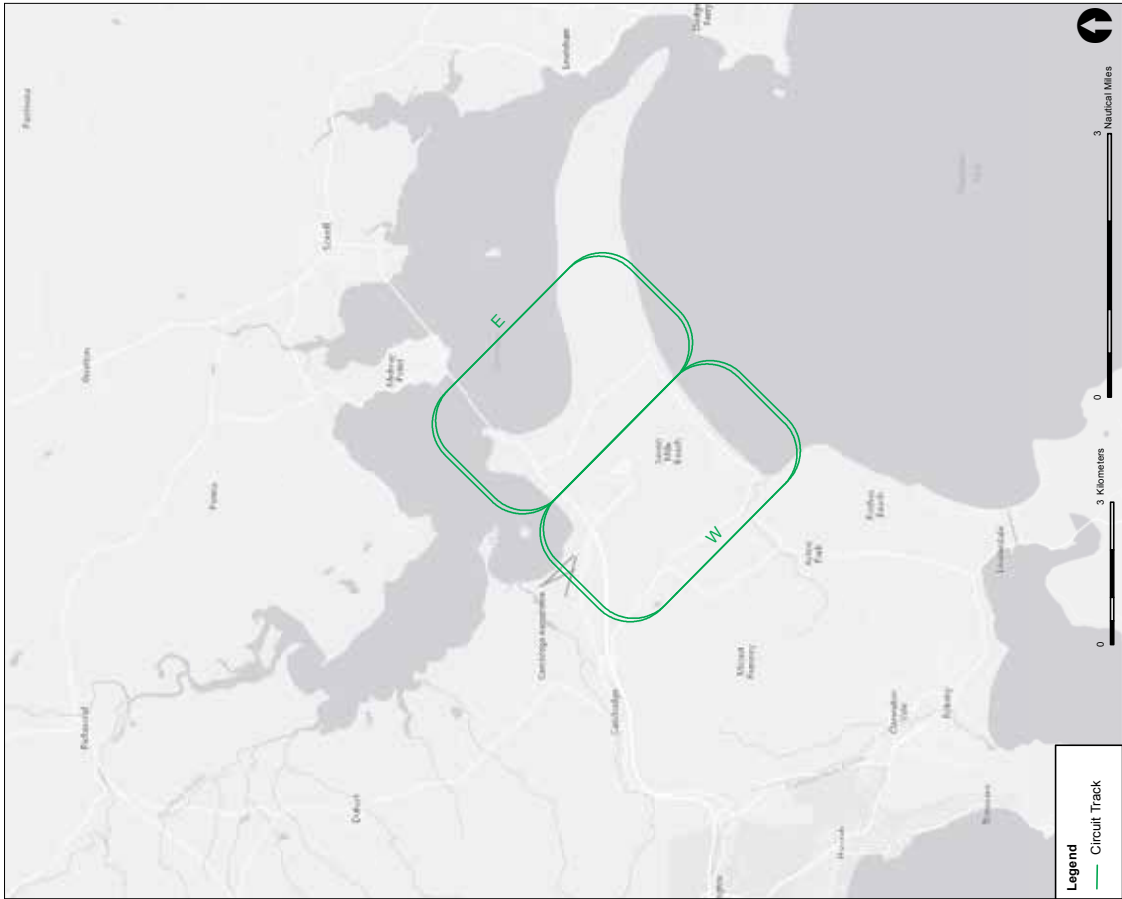
The modelled aircraft types and forecast schedules were based forecasts provided in Chapter 5: Aircraft Forecasts.

The flight tracks adopted for the noise model are shown in Figure 12.b, Figure 12.c, Figure 12.d and Figure 12.e and include circuit and helicopter tracks.

Table 12.a Modelled future noise scenarios

Scenario	Total Peak Day Aircraft Movements	Total Average Day Aircraft Movements
2014 Peak Day and Average Day Schedules	82	65
2035 Peak Day and Average Day Schedules	156	123
Ultimate Capacity Average Day Schedule	-	293





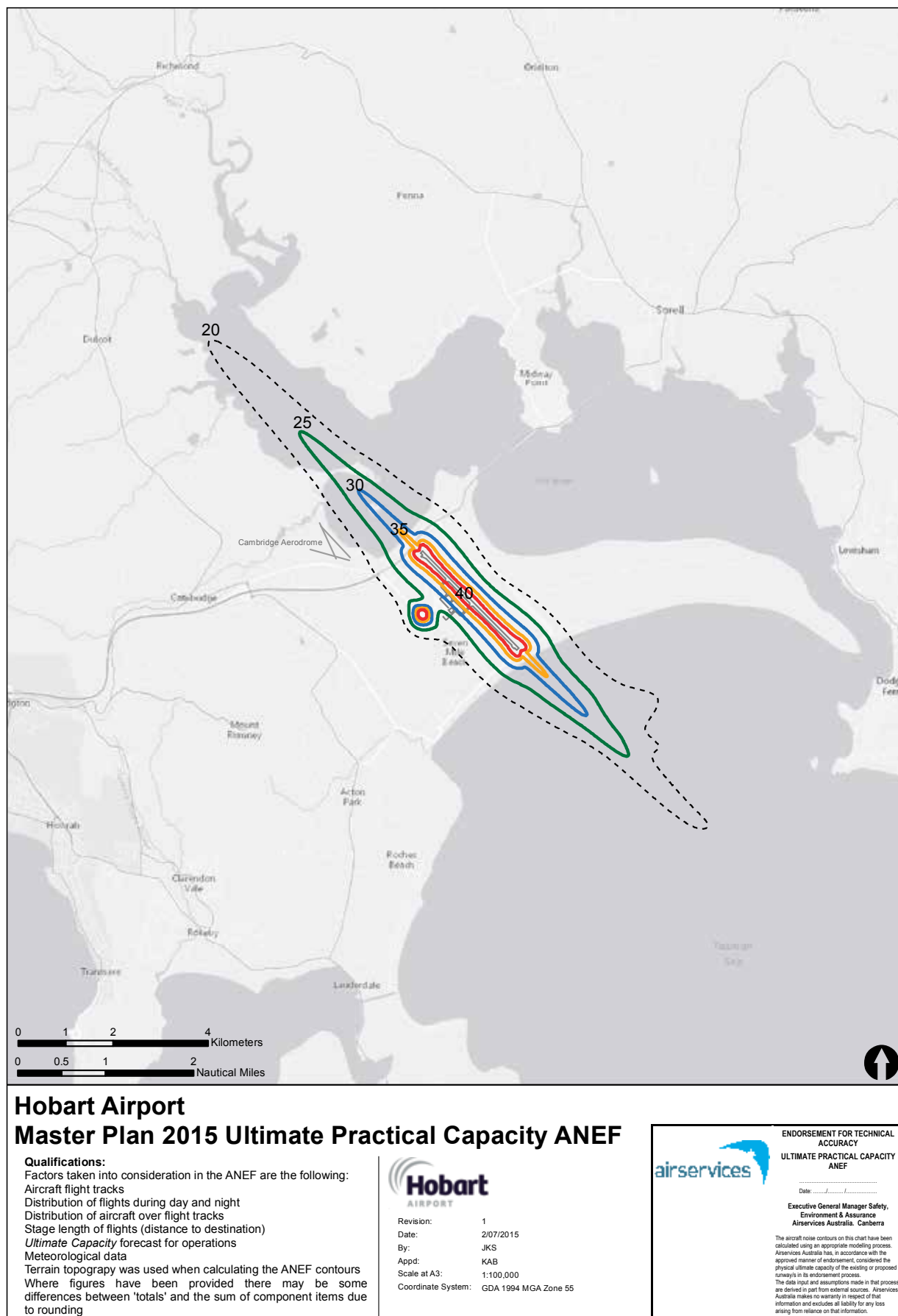


Figure 12.f Draft ultimate capacity ANEF

Runway 12											
Aircraft		Arrival			Departure			Touch & Go			Total
		Day	Night	Total	Day	Night	Total	Day	Night	Total	Movements
RPT	Embraer E-190	0.82	0.96	1.78	0.91	1.07	1.98				3.75
	Boeing 737-800	16.41	2.27	18.68	18.23	2.52	20.75				39.43
	Airbus A320	9.22	3.86	13.07	10.24	4.28	14.53				27.60
	Airbus A321	3.84	0.44	4.28	4.26	0.49	4.75				9.03
	Boeing 787-8	12.66	3.09	15.75	14.07	3.43	17.50				33.25
GA	Beechcraft Super King Air 200	1.55	1.08	2.63	2.43	1.68	4.11	0.82		0.82	6.74
	Cessna 172 Skyhawk	0.39	0.02	0.41	0.60	0.03	0.63				1.86
	Beechcraft Model 50 Twin Bonanza	0.47	0.11	0.58	0.73	0.17	0.90				1.48
	Boeing 737-300	0.07	0.35	0.42	0.11	0.55	0.66				1.08
	BAe 146-300	0.05	0.31	0.36	0.08	0.49	0.57				0.93
	Cessna Citation	0.15	0.01	0.16	0.24	0.02	0.26				0.42
	Canadair CL-610	0.10	0.03	0.13	0.16	0.04	0.20				0.33
	Gulfstream GV	0.05	0.01	0.06	0.07	0.02	0.09				0.15
	BAe 125-800	0.04	0.01	0.05	0.07	0.01	0.08				0.14
	Boeing 767-300	0.04		0.04	0.07		0.07				0.11
	Bombardier DASH-8	0.03	0.00	0.03	0.05	0.00	0.05				0.08
Antarctic	Airbus A319	0.04	0.03	0.07	0.06	0.05	0.11				0.18
	Boeing C-17	0.02	0.01	0.03	0.03	0.01	0.03				0.06
	Lockheed C-130E	0.03	0.02	0.04	0.03	0.02	0.05				0.09

Runway 30											
Aircraft		Arrival			Departure			Touch & Go			Total Movements
		Day	Night	Total	Day	Night	Total	Day	Night	Total	
RPT	Embraer E-190	1.00	1.18	2.17	0.91	1.07	1.98				4.15
	Boeing 737-800	20.05	2.77	22.83	18.23	2.52	20.75				43.58
	Airbus A320	11.26	4.71	15.98	10.24	4.28	14.53				30.50
	Airbus A321	4.69	0.54	5.23	4.26	0.49	4.75				9.98
	Boeing 787-8	15.47	3.78	19.25	14.07	3.43	17.50				36.75
GA	Beechcraft Super King Air 200	3.30	2.29	5.59	2.43	1.68	4.11	0.82		0.82	9.69
	Cessna 172 Skyhawk	0.82	0.04	0.86	0.60	0.03	0.63				2.32
	Beechcraft Model 50 Twin Bonanza	0.99	0.24	1.23	0.73	0.17	0.90				2.13
	Boeing 737-300	0.14	0.75	0.90	0.11	0.55	0.66				1.55
	BAe 146-300	0.11	0.66	0.77	0.08	0.49	0.57				1.34
	Cessna Citation	0.32	0.03	0.35	0.24	0.02	0.26				0.60
	Canadair CL-610	0.21	0.06	0.27	0.16	0.04	0.20				0.47
	Gulfstream GV	0.10	0.03	0.13	0.07	0.02	0.09				0.22
	BAe 125-800	0.09	0.02	0.11	0.07	0.01	0.08				0.19
	Boeing 767-300	0.09		0.09	0.07		0.07				0.16
	Bombardier DASH-8	0.06	0.00	0.07	0.05	0.00	0.05				0.11
Antarctic	Airbus A319	0.08	0.06	0.14	0.06	0.05	0.11				0.25
	Boeing C-17	0.03	0.01	0.04	0.03	0.01	0.03				0.07
	Lockheed C-130E	0.03	0.02	0.05	0.03	0.02	0.05				0.09

Helipad										
	Aircraft	Arrival			Departure				Total Movements	
		Day	Night	Total	Day	Night	Total			
Helicopter	Sikorsky S-76 Spirit	2.49	0.94	3.43	2.49	0.94	3.43		6.86	
	Euro 355A Twin Squirrel	3.08	0.56	3.64	3.08	0.56	3.64		7.28	
	Bell 206L Long Ranger	3.25	0.65	3.90	3.25	0.65	3.90		7.80	

Building Type	ANEC Zone of Site		
	Acceptable	Conditionally Acceptable	Unacceptable
House, home unit, flat, caravan park	Less than 20 ANEF (Note 1)	20 to 25 ANEF (Note 2)	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 (Note 1)	20 to 25 ANEF (Note 2)	Greater than 25 ANEF
Hospital, nursing home	Less than 20 ANEF (Note 1)	20 to 25 ANEF	Greater than 25 ANEF
Public building	Less than 20 ANEF (Note 1)	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		

Source: Table 2.1, AS2021:2015 Acoustics – Aircraft noise intrusion – Building siting and construction

NOTES:

- The actual location of the 20 ANEF contour is difficult to define accurately, mainly because of variation in aircraft flight paths. Because of this, the procedure of AS2021 Clause 2.3.2 may be followed for building sites outside but near to the 20 ANEF contour.
- Within 20 ANEF to 25 ANEF, some people may find that the land is not compatible with residential or educational uses. Land use authorities may consider that the incorporation of noise control features in the construction of residences or schools is appropriate (see also AS2021 Figure A1 of Appendix A).
- There will be cases where a building of a particular type will contain spaces used for activities which would generally be found in a different type of building (e.g. an office in an industrial building). In these cases AS2021 Table 2.1 should be used to determine site acceptability, but internal design noise levels within the specific spaces should be determined by AS2021 Table 3.3.
- This Standard does not recommend development in unacceptable areas. However, where the relevant planning authority determines that any development may be necessary within existing built-up areas designated as unacceptable, it is recommended that such development should achieve the required ANR determined according to AS2021 Clause 3.2. For residences, schools, etc., the effect of aircraft noise on outdoor areas associated with the buildings should be considered.
- In no case should new development take place in greenfield sites deemed unacceptable because such development may impact airport operations.

Figure 12.g Ultimate Practical Capacity ANEF – flight movement schedule and AS2012 Table 2.1

12.6 Noise Modelling Results

12.6.1 Ultimate ANEF

The ultimate capacity ANEF contours for Hobart Airport are shown in Figure 12.f. The ANEF was endorsed for technical accuracy by AsA in the approved manner on [to be endorsed].

The ultimate capacity ANEF does not represent current aircraft noise exposure around the airport but it provides appropriate guidance for long-term planning considerations.

12.6.2 ANECs and N_{60} / N_{70}

The ANEC, N_{70} and N_{60} contours used to investigate the impact of the runway extension are provided in Figure 12.g, Figure 12.h, Figure 12.i, Figure 12.j, Figure 12.k and Figure 12.l. They will also appear in the runway extension MDP. It should be noted that noise from aircraft and airport operations can be experienced outside of these contours.

12.6.3 Comparison between 2009 and 2015 ANEF

The 2009 and 2015 are not directly comparable as the 2009 ANEF was produced as a projected Long Range 2038 ANEF opposed to the 2015 Ultimate Capacity ANEF.

However, noting this difference, the overall footprint of the two ANEF contours are broadly similar in size and location. The variations between the noise contours are generally due to a different forecast methodology and improved flight track identification and the runway extension. The aircraft model mix is generally consistent.

The most significant difference in contours are the 'spurs' located north-east of the contour. The 2015 arrival and departure tracks generally have a longer initial departure and final approach straight than the 2009 model, shifting the noise impact to Pitt Water or Frederick Henry Bay. The spike south of the spit is mostly due to updated tracks for aircraft approaching from the north-west.

12.7 Approach to managing aircraft noise intrusion

As noted above, Hobart Airport has to date been fortunate in that the operation of aircraft has caused little conflict with the local community. This is aided by the geographical nature of Hobart Airport – with bodies of water at each end of the airport's runway and a large tract of vacant recreational land to the east under the Airport's key approach path, and with good planning from Clarence City Council.

As such, there are no sensitive use areas forecast to be subject to exposure above the significant ANEF levels and Hobart Airport has not been required to develop any plans for the management of aircraft noise intrusion over existing residences. If any such plans were required HIAPL would have regard to AS2021, the view of airlines and relevant government bodies.

However, notwithstanding the above, Hobart Airport is mindful of the potential impacts of aircraft noise and therefore continues to work with planning authorities and community in relation to potential noise impacts from the airport's operation, to ensure as much as possible that the airport's operations continue to have minimal impact on the surrounding community.

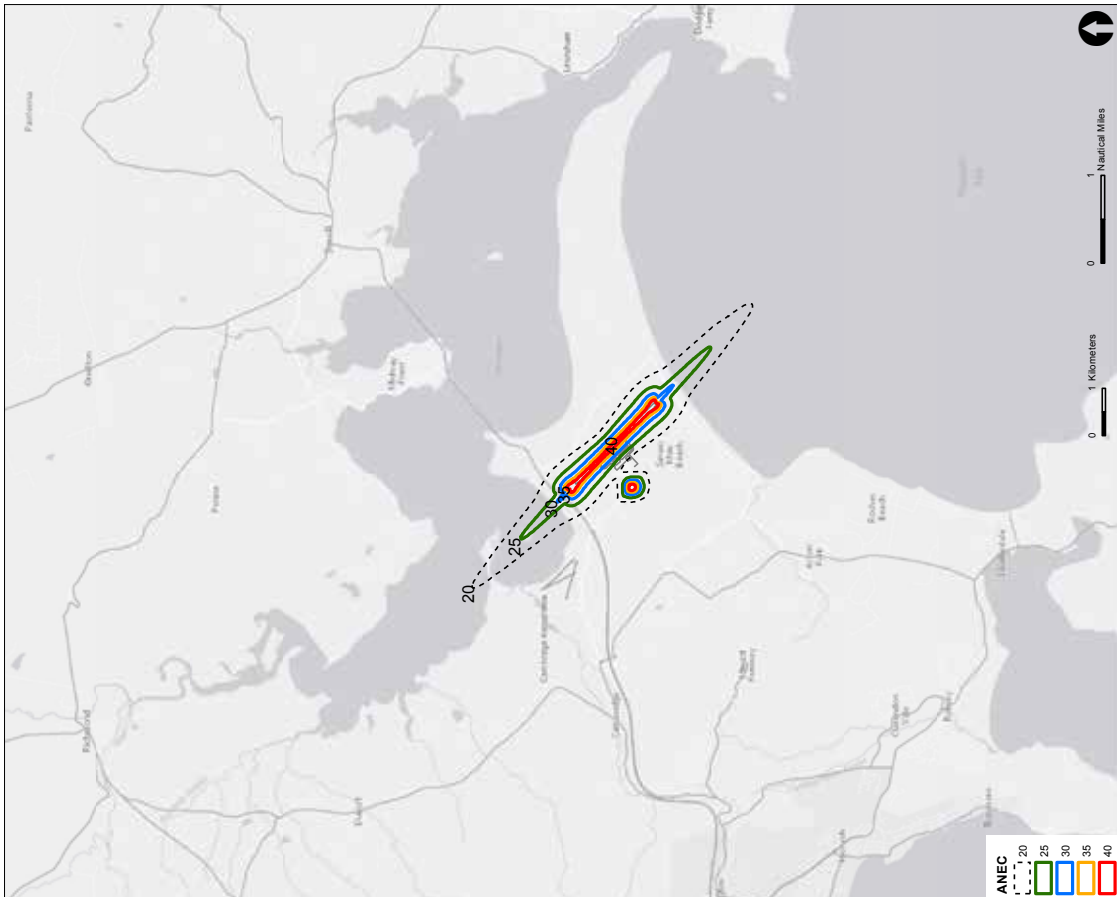


Figure 12.h 2014 (current runway) ANEC contour

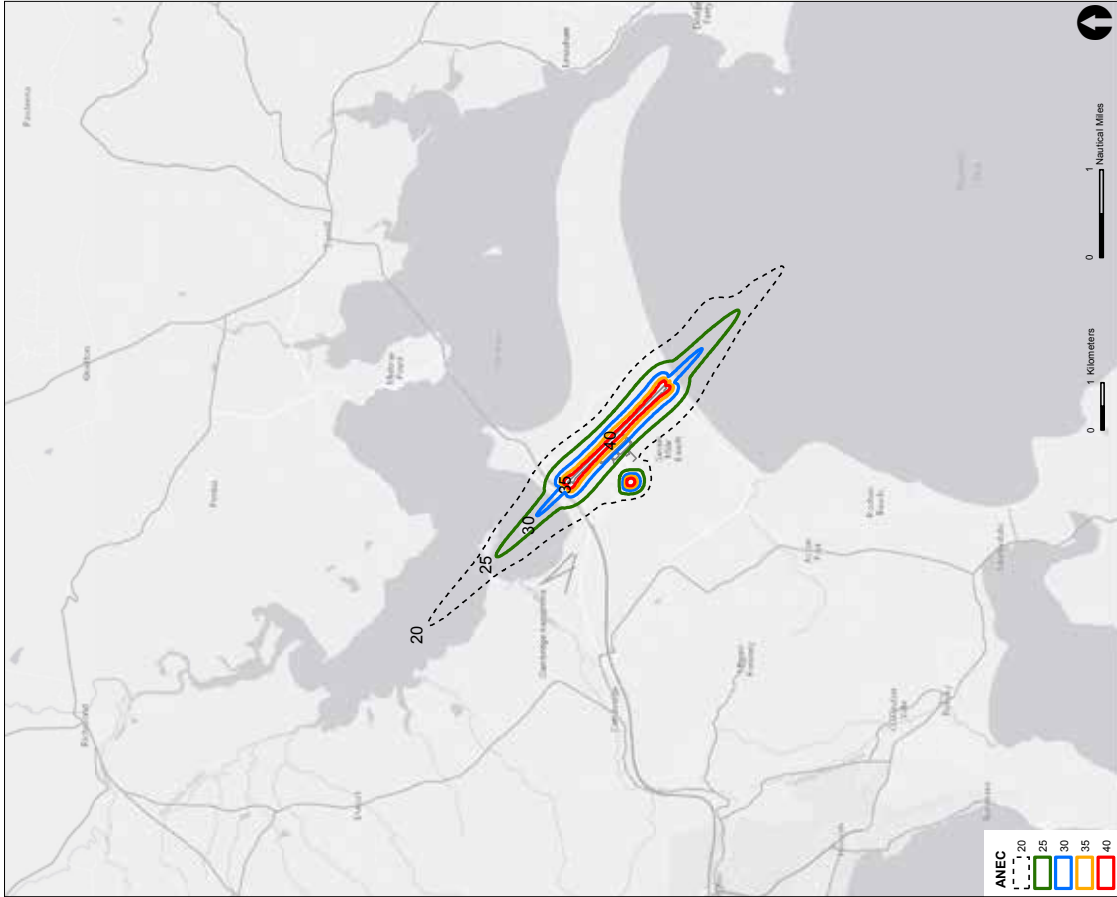


Figure 12.i 2035 (with extended runway) ANEC contour



Figure 12.j 2014 (current runway) N_{70} contour for the day time period (07:00am – 7:00pm)

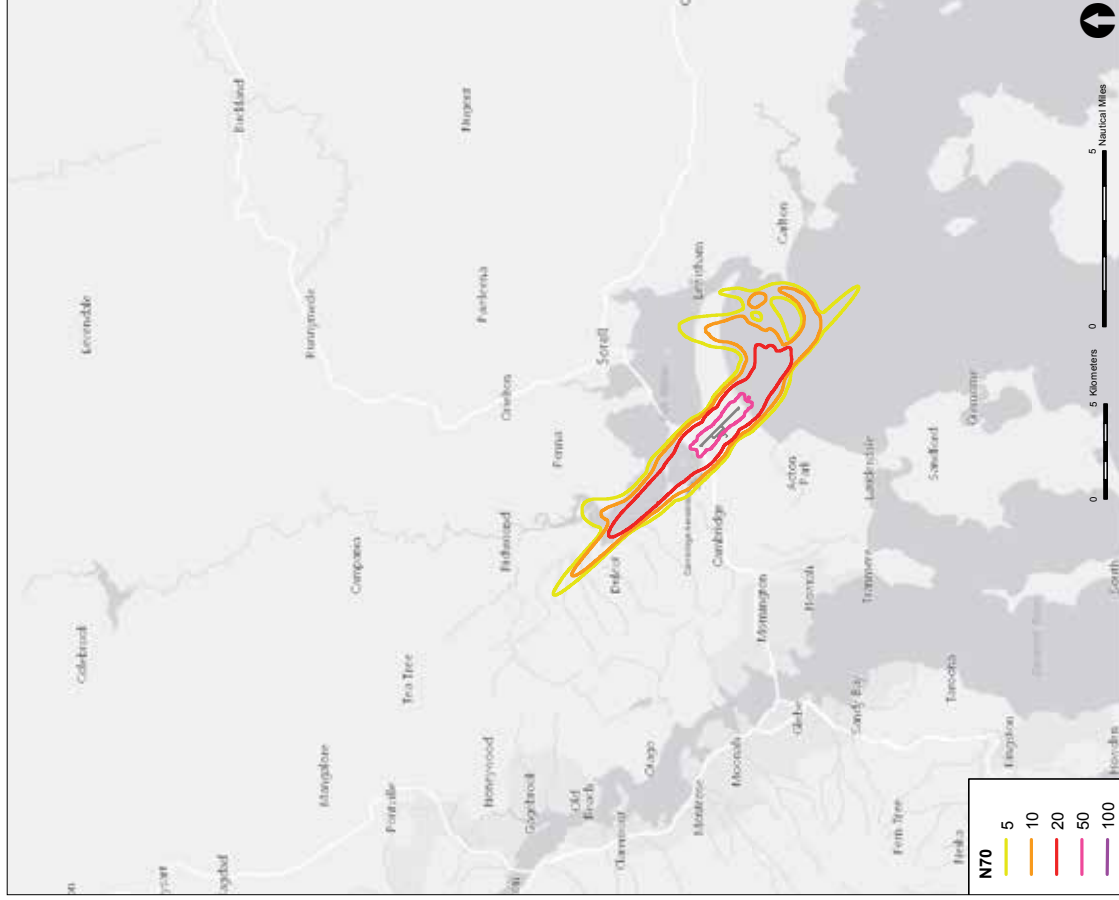


Figure 12.k 2035 (extended runway) N_{70} contour for the 12day time period (07:00am – 7:00pm)

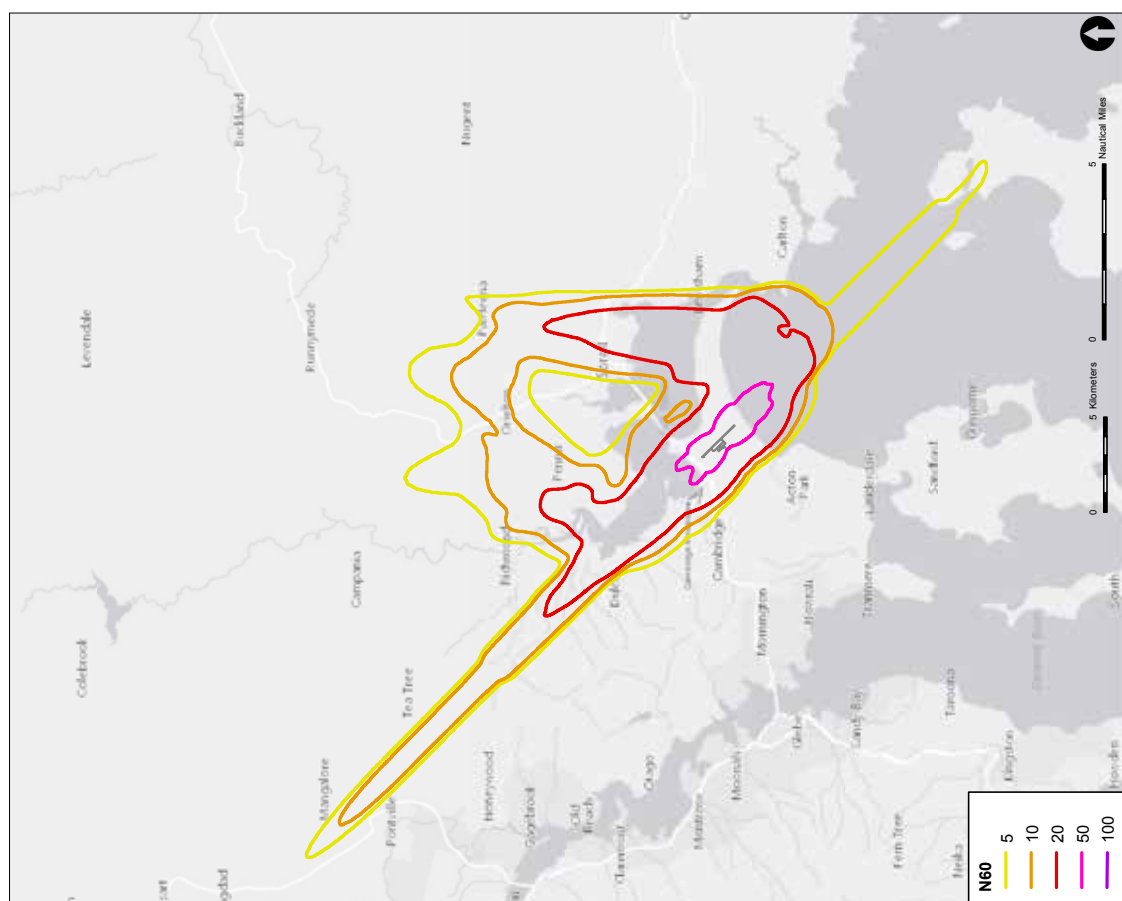


Figure 12.1 2014 (current runway) N_{60} contour for the day time period (7:00pm to 7:00am)

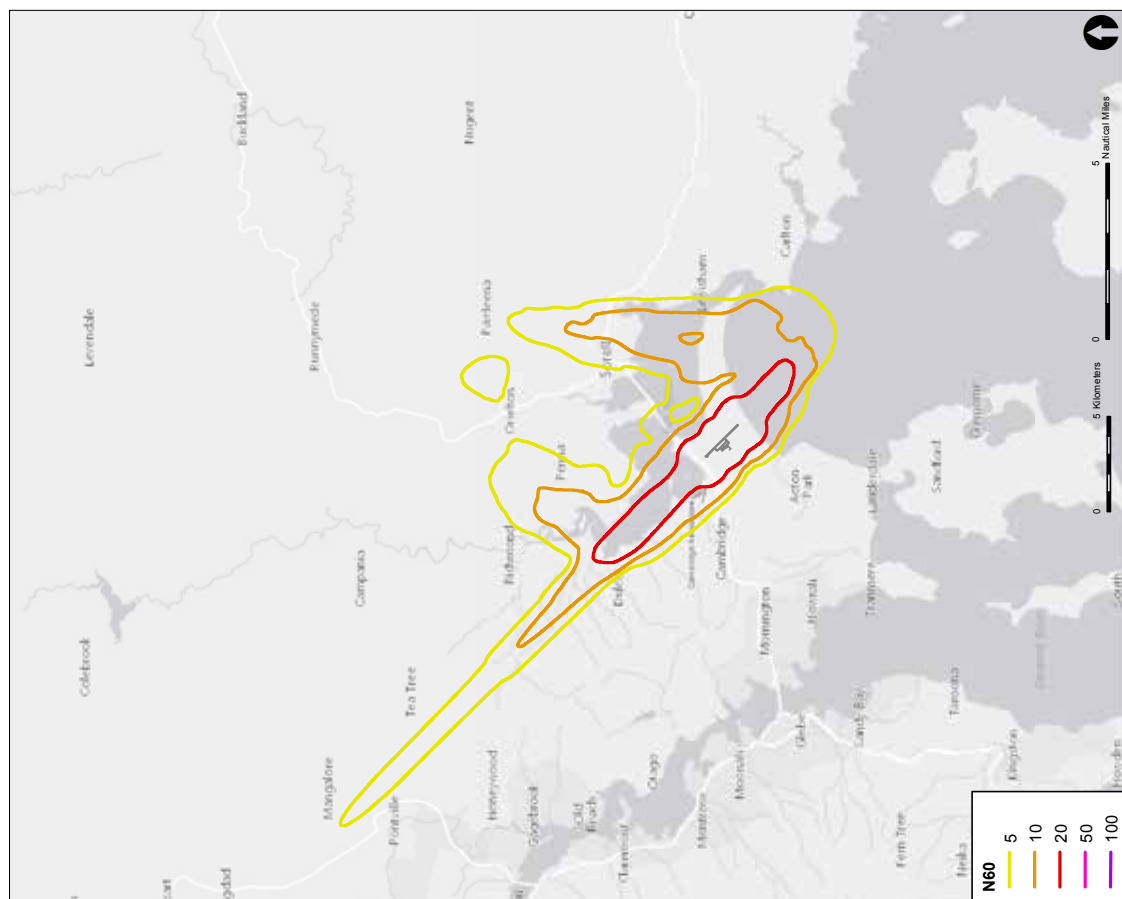


Figure 12.2 2035 (extended runway) N_{60} contour for the day time period (07:00am - 7:00pm)

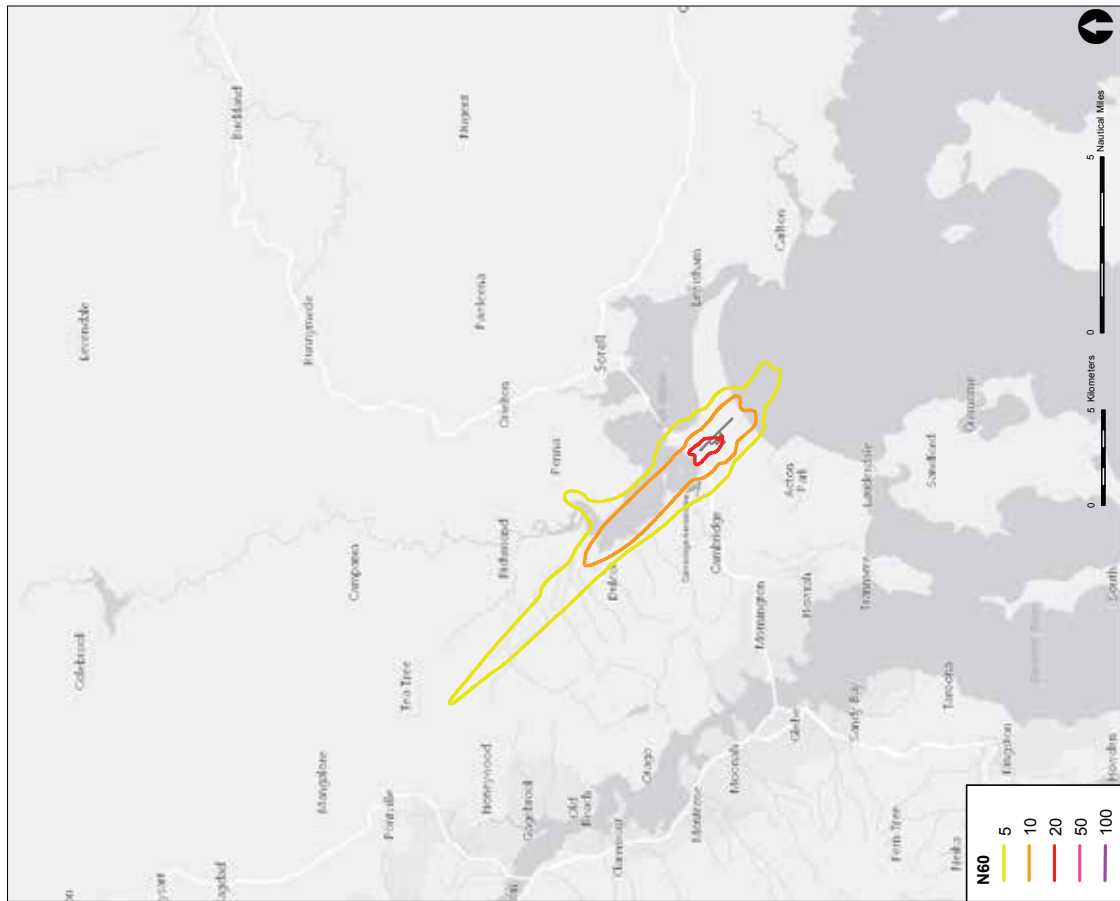


Figure 12.n 2014 (current runway) N_{60} contour for the night time period (7:00pm to 7:00am)

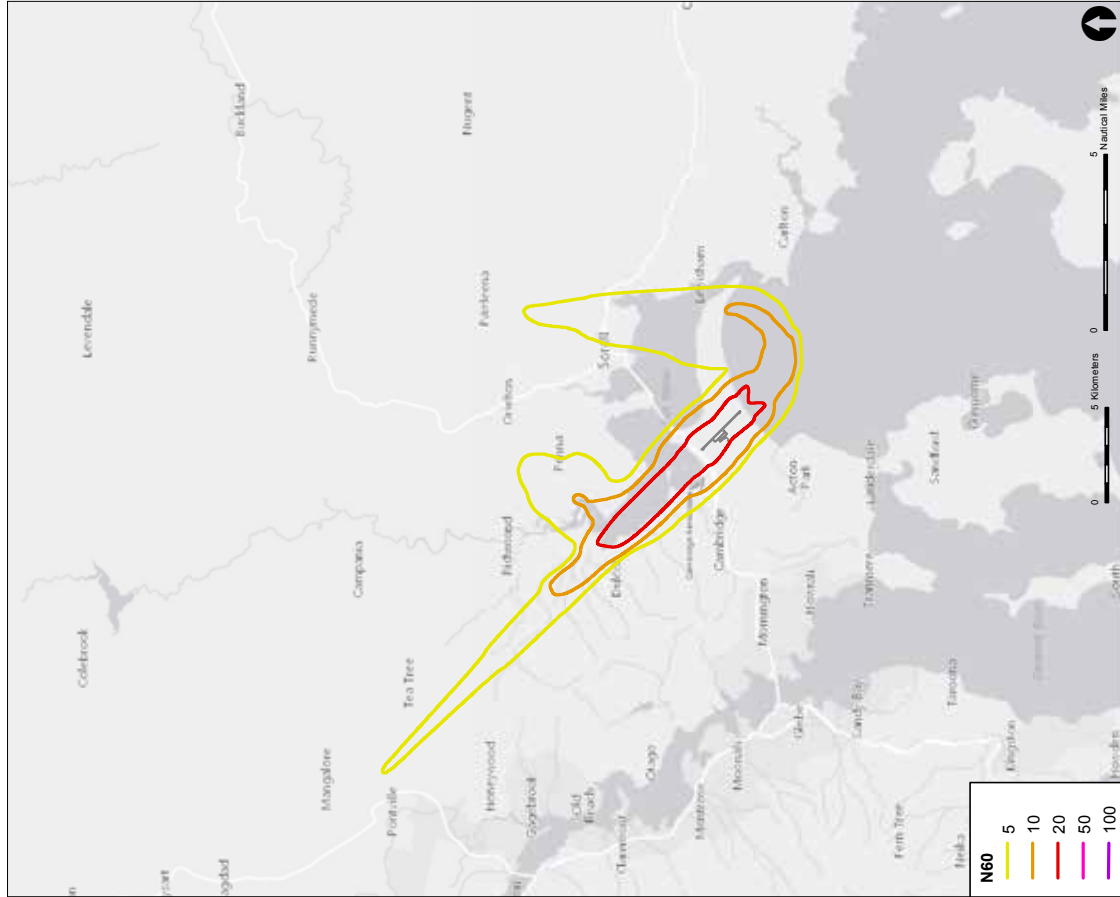


Figure 12.o 2035 with Runway Extension N_{60} Contour - night time period (7:00pm - 7:00am)

13 Environment



13 Environment

HIAPL recognises the importance of environmental values present at the airport and strives to achieve a sustainable balance between airport operations, environmentally sensitive areas and planning for the growth of Hobart Airport.

The airport site includes areas that are environmentally significant at both Commonwealth and State levels. The legislative mechanisms for managing the environment at Hobart Airport is largely influenced by Commonwealth legislation, primarily the *Airports (Environment Protection) Regulations 1997*, however State legislation also plays a role in areas where Commonwealth legislation does not apply.

A part time Airport Environment Officer (AEO) is employed by the Department of Infrastructure and Regional Development (DIRD) to assist with the administration of the Regulations at Hobart Airport. The AEO has a number of specific statutory functions under the Airports Act and Regulations. HIAPL works with the AEO to ensure best practice environmental management at Hobart Airport.

Under the Airports Act (Division 3 Section 70 (2)) in relation to environmental management, an Airport Master Plan details the airport lessee's plans to:

- Ensure all operations at the airport are undertaken in accordance with relevant environmental legislation and standards;
- Establish a framework for assessing legislative compliance in relation to environmental matters; and
- Promote the continual improvement of environmental management at the airport.

This chapter has considers:

- The potential environmental issues resulting from the implementation of the airport development plan for a 5 and 20 year period and HIAPL's plans for dealing with these environmental issues during this period; and
- Environmental impacts associated with airport operations and the environment strategy to address them.

In the past Hobart Airport has produced a standalone Airport Environment Strategy (AES) to address these matters. Due to a change in the Airports Act in recent years, the Airport Environment Strategy has now been incorporated into the 2015 Master Plan to more closely align environmental management actions with the airport's development plan. This chapter updates and replaces the previous AES. This chapter of the 2015 Master Plan meets the requirements set out in the Airports Act in relation to the provision of an environment strategy for the master plan period.

13.1 Environmental Management

HIAPL's overall objectives for environmental management is to promote continuous improvement in environmental management and minimise potential adverse environment impacts as a result of airport activities.

Integrated Management System

HIAPL is currently implementing an Integrated Management System (IMS) which incorporates the management of quality, environment, aerodrome safety, security and health and safety. Key environmental objectives and targets have been developed for the airport, and combined with defined approaches, are key features of the IMS that facilitate the ongoing improvement of environmental management practices at the airport. HIAPL's IMS has been developed and is reviewed to ensure it maintains consistency with all relevant Australian and international standards.

Supporting the environmental aspects of the IMS are the HIAPL Site Management Procedures (SMPs). SMPs are an additional tool in which HIAPL approaches the management of environmental aspects and are addressed within the AES. The SMPs are embedded within the IMS and are reported on and reviewed on an annual basis in order to capture changes and lessons learnt. This ensures continual improvement in managing the environment.

HIAPL has implemented an electronic management system (SERA) through which the majority requirements of the IMS can be undertaken. The system can be accessed online and is an effective tool in which to log and monitor incidents and audits via a reporting system and identifies opportunities for improvement and risk management across all levels of the organisation. Key environmental achievements from the previous five years are detailed in Table 13.a.

Table 13.a Key Environmental Achievements 2010 – 2015

Environmental Management System	Development of the IMS which incorporates the environmental management strategies, auditing and review processes Implementation of environmental awareness and risk assessment workshops for airport tenants
Continuous Improvement	Inclusion of a more comprehensive breakdown of environmental values and individual environmental responsibilities in the online HIAPL induction program
Continuous Improvement	Appointment of an Environment Manager to provide immediate assistance and advice to HIAPL staff, tenants and contractors on matters relating to the environment

Environmental Policy

Hobart Airport's environment policy is defined within the Integrated Policy and outlines HIAPL's approach to minimising environmental risks and that all stakeholders are responsible for working together to minimise environmental and other risks at Hobart Airport (see Figure 13.a).

MANAGING OUR AIRPORT RESPONSIBLY
Our commitment to Safety, Security & the Environment

Airport safety, security and the wellbeing of our environment requires the commitment of Hobart Airport, our staff and partners.

Hobart Airport is committed to making the Airport a prosperous centre for aviation, business and society while maintaining a safe, secure and environmentally responsible work site for our staff, partners, customers and community.

Hobart Airport is committed to minimising our safety, security and environmental risks by ensuring that:

- The safe and efficient operation of the Airport is our core focus
- Our people and partners fully understand how their actions contribute to the safety, security and environment of the Airport.
- We develop and implement responsible and achievable management objectives that are regularly measured.
- We establish, maintain and monitor progress towards measurable objectives and targets aimed at minimising work-related illness and injury.
- We foster and maintain a culture of safety and security, recognising that these elements are applicable to all users of the Airport.
- We recognise our responsibility to the Airport's environment and actively manage this in order to minimise impacts from our operations.
- We nurture a 'work safe—home safe' ethos.
- We provide our people with the necessary training, resources and support to ensure they have the knowledge, skills and competence to undertake their roles.
- We undertake to implement a continual learning/improvement environment throughout the organisation.

Our people and partners directly contribute to ensuring Hobart Airport is safe, secure and environmentally responsible by:

- Making the safe, secure and efficient operation of Hobart Airport their number one priority.
- Working Together to assist in building collaborative relationships, being proactive and innovative, acting with integrity and commitment, and providing service excellence.
- Working responsibly to achieve compliance with relevant legislation and other standards and conformance to our business policies, processes and procedures.
- Being responsible and reporting all incidents and near misses relating to safety, security and environment for the purposes of identifying learning/improvement opportunities.

Rod Parry
Chief Executive Officer

June 2015

Figure 13.a Hobart Airport's Safety, Security and Environment Policy

Monitoring and Research

Ongoing environmental monitoring and reporting occurs at the airport on issues relating to environmental values. As a result the airport has a comprehensive understanding of existing values and potential impacts associated with airport operations and resulting from the proposed developments in this Master Plan. All environmental values are considered for proposed projects with the appropriate investigations undertaken as required, specific to the site and the nature of the proposed development. Any mitigation and environmental management measures are prescribed following site specific investigations. A number of environmental assessments have been undertaken for large projects such as the runway extension and surrounding road networks. The findings of these reports will be provided as part of the Major Development Plan process.

Routine environmental monitoring is undertaken at Hobart Airport for a number of reasons, including:

- Meeting the requirements of legislation and demonstrate compliance;
- Identifying trends;
- Detecting anomalies that may cause environmental harm and require changes in management; and
- Fostering an awareness and understanding of the immediate environment in which the airport operates.

Hobart Airport's regular monitoring and reporting programs are summarised in Table 13.b and take into account results from the strategies outlined in section 13.2 of this Master Plan. The timeframes for monitoring and frequency of reporting are influenced by regulatory requirements and/or the environmental aspects that are being studied. As such, the frequency of monitoring is subject to change in response to environmental conditions or results. All monitoring results are interpreted by HIAPL and submitted to and AEO and (where relevant) DIRD in reports.

Table 13.b Hobart Airport monitoring program

Environmental Aspect	Frequency
Tenant Audits	Annually
Water usage	Quarterly
Electricity usage	Quarterly
Soil contamination	As required on specific projects
Interceptor traps	Bi-annual or quarterly – responsibility of the operator
Surface water	Monthly – 1 site Quarterly – all other sites
Groundwater	Annually
Threatened flora species populations	Annually
Weeds	Annually
Noise	As required
Air quality	As required

All HIAPL staff and/or consultants who undertake environmental monitoring or research have the relevant professional and/or scientific qualifications required. Where monitoring includes the collection of samples requiring analysis, these are submitted to a National Association of Testing Authorities (NATA) accredited laboratory for analysis. Interpretation of results is undertaken by qualified environmental staff.

Should a non-conformance occur or there is evidence of adverse trends from analytical results, corrective actions are implemented with the aim to improve the existing environmental condition and to achieve improvements in environmental performance. All testing, measuring and sampling is undertaken in accordance with the AEPR and National sampling protocols and standards.

Further detail regarding studies, reviews and monitoring is set out in section 13.2.

Training

HIAPL ensures that personnel who interact with the airport environment have the required training that facilitates awareness of the potential environmental impacts that activities may cause. This includes information and/or training for general environmental awareness, training for appropriate responses to environmental issues such as accidental spills and an awareness of individual responsibilities from a regulatory/legislative perspective.

HIAPL have internal procedures in place to ensure project managers address environmental risks on projects and implement the appropriate mitigation measures to reduce and/or eliminate the potential environmental impact. Permission to undertake work or activities at the airport cannot proceed until this information is provided.

Tenants and Contractors

HIAPL requires tenants and contractors to be legally responsible for their activities and to minimise potential impacts to the receiving environment. In addition tenants and are not permitted to discharge to the environment without appropriate management procedures in place and notifying HIAPL of the intended discharge. HIAPL undertakes annual environmental audits on tenants where airport environmental values are reiterated and information provided on how to identify potential risks as a result of activities. HIAPL may update and communicate environmental requirements to maintain compliance or as part of internal review processes, which the tenant or contractor will also be subject to.

In addition to tenants' annual environmental auditing, spot checks on contractors and tenants are undertaken on a monthly basis. The outcomes of each spot check are documented and recorded, with any required action to be undertaken by the responsible party. Contractors are also required to undertake the HIAPL online induction course which provides background information on the general environmental values at Hobart Airport and contractor responsibilities.

Where construction activities interact with the environment, tenants and/or contractors will be required to prepare a Construction Environmental Management Plan (CEMP) prior to any works commencing. The CEMP must highlight potential environmental risks from activities and mitigation measures to ameliorate those risks. All CEMPs will be reviewed by the Airport to ensure that known environmental values are not impacted on as a result of the activity. Routine environmental spot checks will be undertaken on projects to ensure CEMPs

are being implemented effectively. Specific requirements for CEMPs and further details for each environmental aspect are provided in the targets and timeframes tables within this chapter.

Cultural Heritage Sites

A key site of historic heritage significance identified on the airport site is Llanherne House. The site is used for office based tenant activities. A Cultural Heritage Management Plan (CHMP) was prepared for Llanherne House in 2013 by HIAPL, in consultation with Heritage Tasmania, and outlines the maintenance requirements for the building for annual, long term and reactive timeframes.

Environmentally Significant Areas (ESAs)

The airport's environmentally significant areas (ESAs), which have been identified by HIAPL in consultation with relevant Tasmanian and Federal conservation bodies, have remained largely unchanged since the development of the previous environment strategy, with the exception of the EPBC listed grasslands. As a precautionary action, HIAPL increased areas of environmental significance in the 2009 Airport Master Plan to cover areas that may have contained the critically endangered Tasmanian Lowland Native Grasslands. In 2011 a comprehensive survey of these areas was undertaken by ecologists to qualify these areas. The survey confirmed areas of grassland that qualified for EPBC listing and areas that did not meet the qualification criteria.

HIAPL notes that there have been no relevant recommendations from the Commonwealth Department of Environment or State bodies regarding biodata, habitat, heritage or similar matters in relation to the ESAs within the airport site.

The ESAs and Llanherne House are shown in Figure 13.b.

A more detailed map of the significance of the vegetation areas within the ESAs is illustrated in Figure 13.c. The vegetation is defined by vegetation of national, bioregional and state significance. The EPBC listed grass land vegetation community comprises the areas of national significance.



Figure 13.b Hobart Airport ESAs and Llanherne House

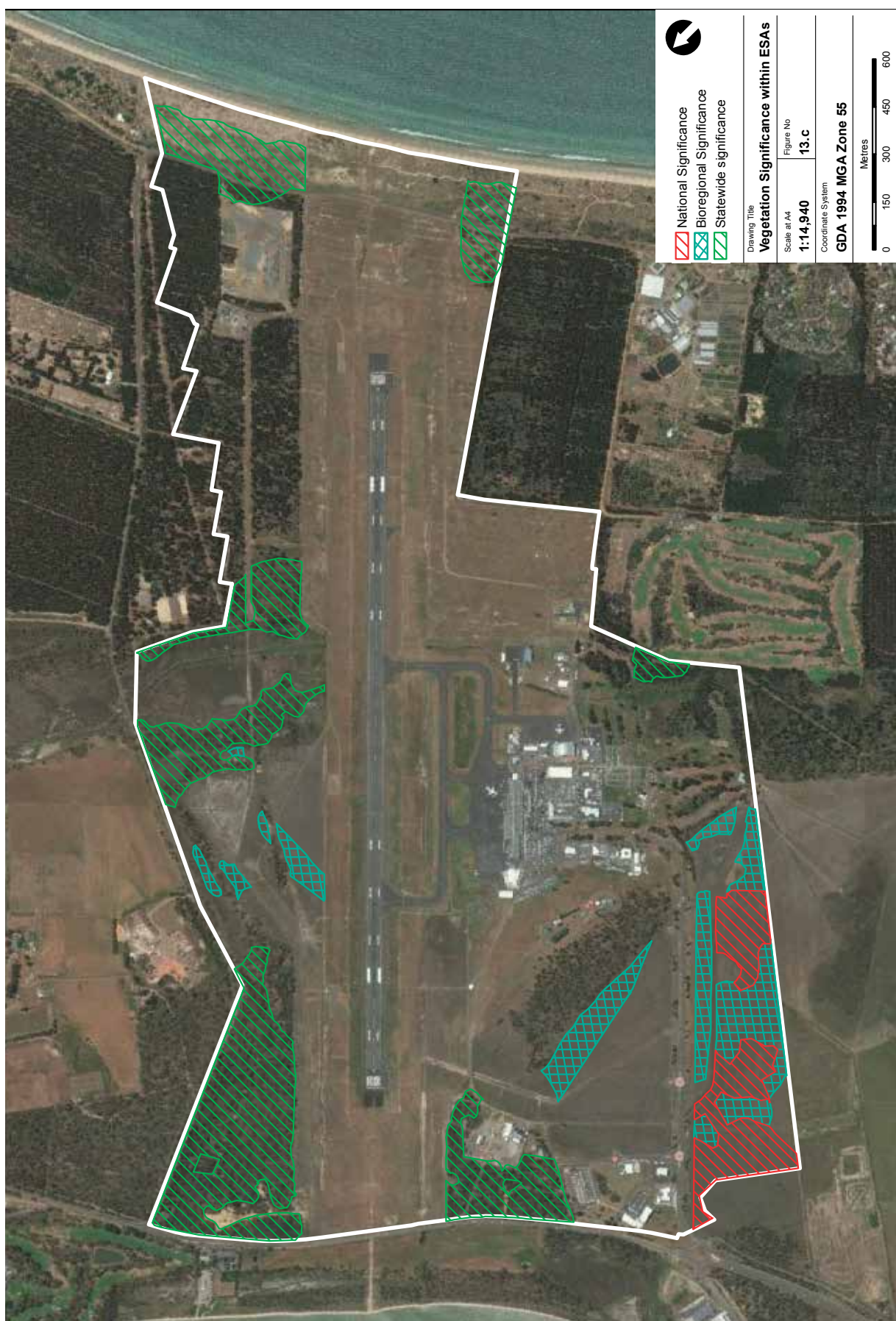


Figure 13.c Vegetation significance within ESA areas

13.2 Environment Strategy

HIAPL's strategic approach to environmental management is outlined in the following sections. This includes the context, prior achievements, HIAPL's preferred environmental management approach and targets for 2015-2020.

The environment strategy that has been developed and that is referred to in this chapter also applies to, and will be implemented in, areas of the airport site that are, or could be, used for a purpose that is not connected with airport operations.

HIAPL will continue to develop its environment strategy through ongoing consultations with the community and airport users (including via the Community Aviation Consultation Group) and will make the strategy available (as part of this Master Plan) on its website once finalised.

HIAPL also intends to provide briefings to relevant industry participants on the plans in the environment strategy in order to attempt to ensure they are aware of the strategy and how it applies to their operations and to achieve their cooperation with respect to the plans. Further, as noted in section 13.1, HIAPL requires in its leases and contracts that tenants and contractors to be responsible for their activities and to minimise potential impacts to the receiving environment.

13.2.1 Resource Use

HIAPL's environmental objective in relation to resource use is to:

- Seek ways in which to reduce resource use and the generation of waste and 'greenhouse gases' as a result of activities and operations at Hobart Airport.

The effective management and minimisation of resource use and the production of 'greenhouse gases' is a key objective for Hobart Airport. Activities at the airport (including those activities arising from the implementation of this Master Plan) that use natural resources include:

- General airport operations including activities within buildings;
- Tenant activities;
- Vehicle and ground based aircraft activities;
- Operation of plant and equipment;
- Grounds maintenance and landscaping; and
- Construction activities relating to specific projects.

Achievements in relation to resource use at Hobart Airport in the past five years are identified in Table 13.c.

Table 13.c Resource use achievements 2010-2015

Energy and Fuel	<ul style="list-style-type: none"> • Use of LED lighting on projects and replacement programs e.g. taxi way approach lights, emergency and exit lighting • Installation of energy efficient hand dryers in terminal facilities • Use of solar powered generated Obstacle Beacon Lights • Incorporation of energy efficient measures on new developments • Review of electricity use in the Annual Environment Reports (AER)
Water	<ul style="list-style-type: none"> • Development of a Shared Service Centre for car rental agencies • Adoption of the new Australian Fire Service Maintenance Standard AS1851:2012 • Improving water use efficiency with replacement of water supply fixtures • Review of water use in the AER
Waste	<ul style="list-style-type: none"> • Introduction of designated recycling bins for beverage containers within the terminal building • Recycling of material where practical for other construction projects e.g. reuse of crushed bitumen for Loop Road emergency vehicle muster area • Introduction of recycling for HIAPL Administration • Review and update of the HIAPL Waste Management Procedure (SMP04) • Contractors are required to identify waste management measures/strategies within project specific Construction Environmental Management Plans (CEMPs)

Targets – Resource Use

The following targets (Table 13.d) have been set in relation to resource use for the period 2015 – 2020. These will be integrated into the IMS and used for assessment and reporting targets in order to deal with the possible environmental impacts associated with the operation of the airport and the implementation of the Master Plan.

Table 13.d Resource use targets and timeframes

Target	Timeframe
Development and implementation of energy efficient strategies using information provided from reputable sources and adopt recommended actions where applicable	As required
Incorporate energy efficient measures for new developments	As required
Continue to identify opportunities to improve natural resource use during annual tenant audits and review HIAPL resource use for the AER	2015-2020
Continue to investigate and promote recycling initiatives for tenants	2015-2020
Ensure Contractor CEMPs include measures to reduce generation of waste	2015-2020
Promote water reuse from the WWTP when water quality is suitable for reuse	2015-2020

13.2.2 Land

HIAPL's environmental objective in relation to land is to:

- To minimise adverse impacts to land and soil as a result of Hobart Airport activities and to manage and rehabilitate sites of known contamination in accordance with relevant standards and regulations.

The Hobart Airport site is a key asset that needs to be carefully managed to ensure environmental risks do not impact the health of lands both on and off the airport. Airport activities (including those activities arising from the implementation of this Master Plan) that may impact land include:

- Storage, handling, use and disposal of fuels, oils, chemicals and hazardous substances;
- Above ground and underground storage systems for these items;
- Inappropriate disposal of waste generated from activities and construction projects;
- Vehicle and aircraft maintenance and washing;
- Car parking and potential for contaminated runoff from hardstand areas;
- Firefighting training;
- Disturbance of acid sulfate soils or contaminated soils from excavation activities;
- Disturbance of former waste disposal sites and asbestos materials;
- Importation of fill; and
- Landscaping and vegetation removal that may cause erosion.

In addition to the Commonwealth land area, the HIAPL manages two areas of freehold land. Any proposed development in these areas is subject to state legislative requirements such as the *Threatened Species Protection Act 1995* and the *Nature Conservation Act 2002*. The HIAPL is committed to following the required state approval processes under state legislation for any proposed project on freehold land. The HIAPL has prepared Forest Practices Plans for both freehold land titles which addresses any environmental values and mitigation measures required.

Both Freehold titles have historical land use relating to pine plantation. Forest Practices Plans have been developed for each site where any environmental values are defined. Each site will be surveyed prior to any proposed development for emerging environmental values and managed according to state legislative requirements.

Achievements in relation to the land at Hobart Airport in the past five years are identified in Table 13.e.

Table 13.e Land achievements 2010-2015

UPSS	<ul style="list-style-type: none"> Removal of three underground Petroleum Storage Systems (UPSS) from eastern boundary of the Budget Rent a Car site, including soil analysis and validation assessment Removal of UPSS from Approach Lights Power House, including soil analysis and validation assessment Removal of UPSS from HIAPL compound, including soil analysis and validation assessment
Contaminated Sites	<ul style="list-style-type: none"> Development of a contaminated sites register Documentation of potential contaminants captured in annual tenant audits Remediation of former HIAPL vehicle wash down area (airside) including soil analytical testing prior to disposal Preparation of work plan for the remediation of the disused landfill site (airside) Soil contamination investigation for land associated with the Taxiway Alpha extension project Soil contamination investigation of the former TasAir hangar site and design of an interceptor trap for the site A soil contamination investigation and risk assessment on soil that was excavated for the redeveloped Tas Campers site A soil contamination investigation and interceptor efficiency assessment for Clarks Maintenance shed and operations Provision of an Emergency Spill Response trailer to use airside
Waste	<ul style="list-style-type: none"> Stockpiles of soil, asphalt and some concrete stored onsite for reuse on projects requiring fill or material in non-environmentally sensitive areas Introduction of designated recycling bins for beverage containers within the terminal building and HIAPL administration building

Any new development that has the potential to impact on the airport's environmental values during construction or operation will be assessed for each proposed project in accordance with any Commonwealth or state approval requirements.

Targets – Land

The following targets (Table 13.f) have been set in relation to land for the period 2015 – 2020. These will be integrated into the IMS and used for assessment and reporting targets in order to deal with the possible environmental impacts associated with the operation of the airport and the implementation of the Master Plan.

Table 13.f Land targets and timeframes

Target	Timeframe
Continued investigations into PFOS and PFOA and remediation measures and liaison with Airservices	Ongoing
Annual review and update of contaminated sites and UPSS register	Annual
Investigations into the remediation of disused landfill site (airside)	2016
Incorporation of mitigation measures to land in CEMPs	As required
Site investigations of potential contaminated sites prior to disturbance or development projects, including analytical testing	As required
Incorporation of the Air Services Australia <i>Managing PFC Contamination at Airports Interim Contamination Management Strategy and Decision Framework</i> in the management of PFC impacted soil and water	As required
Assessment and clearance of sites where UPSS are removed by a qualified consultant	As required
Appropriate mitigation measures in place where the potential for disturbance of acid sulfate soils exist	As required

13.2.3 Surface Water and Groundwater

HIAPL's environmental objective in relation to water is to:

- To minimise adverse environmental impacts to surface water and groundwater as a result of airport activities.

The airport has an extensive internal network of piped and open lined and unlined drains which provide for the majority of stormwater drainage throughout the site. Sinclair Creek receives a substantial amount of this drainage, discharging offsite into Frederick Henry Bay.

Airport related activities (including those activities arising from the implementation of this Master Plan) that have the potential to impact surface and/or ground water quality include:

- Above ground storage tanks generally for fuel and oil;
- Underground storage tanks (a decommissioning and removal program is in place, where applicable);
- Known contaminated sites;
- Disturbance of Potential Acid Sulfate Soils (PASS);
- Car parking and operational areas;
- Vehicle workshops and wash down bays;
- Disused landfill sites;
- Wastewater treatment plant discharges;
- Refuelling activities;
- Firefighting training;
- General litter; and
- Construction related activities.

Achievements in relation to surface and ground water at Hobart Airport in the past five years are identified in Table 13.g.

Table 13.g Surface water and groundwater achievements 2010 -2015

HIAPL	<ul style="list-style-type: none"> • Routine monthly and quarterly surface water quality monitoring and reporting to the AEO • Routine annual groundwater quality monitoring and reporting to the AEO • Preparation of a 6 monthly trend analysis on water quality results for the AEO • Ongoing liaison with TasWater regarding discharge results and annual reporting • Improvement of drainage network function and efficiency through the development of a routine maintenance program e.g. removal of Cumbungi and sedimentation, erosion improvement measures • Additional surface water quality testing of open stormwater drains to determine contaminant extent and distribution • Installation of a dedicated Shared Service Centre for car rental companies to clean and detail car fleets • Routine inspection and servicing of oil/water separators and interceptor traps • Review of CEMPs on projects to ensure that potential risks to stormwater, surface water and groundwater are addressed and mitigation measures identified
Airservices	<ul style="list-style-type: none"> • Development and implementation of a stormwater monitoring program for the fire station building • Routine annual groundwater quality monitoring and reporting to the AEO • Continued investigation at a National level into PFOS/PFOA contamination of groundwater at the firefighting training ground and Airservices building and effective remediation/disposal techniques
TasWater	<ul style="list-style-type: none"> • Investigation into options to improve discharge water quality and meet existing Environmental Protection Notice (EPN) conditions issued by the State Government
Tenants	<ul style="list-style-type: none"> • Independent assessment of water quality discharge from SALCO Seafoods to ensure minimal adverse impacts to the water quality within swale drains • Routine servicing and maintenance of oil/water separators and triple interceptor traps • Routine stormwater quality testing and groundwater monitoring by Air BP at the bulk fuel storage and refuelling area • Routine groundwater monitoring by BP Service station and tank integrity testing

Targets – Surface Water and Groundwater

The following targets (Table 13.h) have been set in relation to water for the period 2015 – 2020. These will be integrated into the IMS and used for assessment and reporting targets in order to deal with the possible environmental impacts associated with the operation of the airport and the implementation of the Master Plan.

Table 13.h Surface water and groundwater targets and timeframes

Target	Timeframe
Continuation of surface water quality monitoring and annual groundwater monitoring	Ongoing
Water quality monitoring reports to be provided to AEO and review program periodically based on results	Ongoing
Communication with TasWater regarding wastewater discharges and potential impacts or complaints	Ongoing
Communication with tenants on stormwater control devices (servicing and maintenance) and effectiveness of mitigation measures	Annual
Annual review of SMPs relevant to water quality, update as required and include within the IMS	Annual
Review and update of SMPs 05 and 06	2014 - 2015
Ensure all CEMPs on projects identify environmental risks to water quality and the appropriate mitigation measures are in place to prevent/minimise environmental harm	As required

13.2.4 Biodiversity

HIAPL's environmental objective in relation to biodiversity is to:

- To identify, understand and conserve biodiversity values at the Hobart Airport while considering the operational aspects of wildlife management.

Hobart Airport has a number of biodiversity values that require careful management. Airport related activities (including those activities arising from the implementation of this Master Plan) that have the potential to impact biodiversity include:

- Mowing and landscaping which may result in habitat loss or destruction and reduce biodiversity and increase opportunities for weed invasion;
- Pest and weed control which may impact on non-target species;
- Tree removal which may impact on habitat or species values;
- Planned burning of vegetation;
- Land clearance for construction projects e.g. roads, car parks, new developments;
- Construction activities that have the potential to generate dust, noise and changes to surface water and groundwater conditions; and
- Construction and operational activities that have the potential to impact on adjacent Ramsar listed wetland values.

Achievements in relation to biodiversity at Hobart Airport in the past five years are identified in Table 13.i.

Table 13.i Biodiversity achievements 2010 – 2015

Biodiversity	<ul style="list-style-type: none"> ● Review and update of Wildlife Hazard Management Plan and integration of monitoring and management recommendations ● Assessment and mapping of native grasslands that qualify for EPBC Commonwealth listing as Tasmanian Lowland Native Grasslands (Critically Endangered) ● Development of recommendations to improve areas of native grassland to EPBC qualification condition ● Protection measures installed and communicated to preserve population of <i>Carex tasmanica</i> (Curly sedge) in the Loop Road swale drain ● Mapping of threatened flora species populations, vegetation communities and weed species throughout the site ● Site specific investigation for listed flora species on the taxiway extension project ● Site specific investigation for the removal of trees to improve safety for helicopter approach ● Desktop assessment of potential fauna values for the airport ● Targeted terrestrial assessment to verify fauna habitat and values throughout the site ● Demarcation of and communication to contractors regarding airside conservation areas ● Assessment of biodiversity values on individual project sites prior to work commencing ● Review of contractor CEMPs to determine whether mitigation measures are appropriate ● Review and removal of the Vegetation Management Agreement (VMA) following consultation with the state and commonwealth governments, due to changes in proposed developments
Weeds	<ul style="list-style-type: none"> ● Annual weed mapping of significant weed species ● Development of a supporting material for contractors to manage and monitor weed infestations ● Annual review of weed monitoring and management actions to determine effectiveness of control measures over time ● Removal of pine trees from within the grassland conservation areas

Targets – Biodiversity

The following targets (Table 13.j) have been set in relation to biodiversity for the period 2015 – 2020. These will be integrated into the IMS and used for assessment and reporting targets in order to deal with the possible environmental impacts associated with the operation of the airport and the implementation of the Master Plan.

Table 13.j Biodiversity targets and timeframes

Target	Timeframe
Continued liaison with relevant departments at the state and Commonwealth level regarding biodiversity issues as they arise	As required
Continue to ensure that all CEMPs incorporate measures to minimise potential adverse impacts to biodiversity values	As required
Annual review of site management procedures relevant to biodiversity, update as required and include within the IMS	Annual
Annual assessment of targeted threatened species populations during optimal flowering periods and updated mapping	Annual
Continue to raise awareness of airport biodiversity values through annual tenant auditing	Annual
Continued monitoring and management of pest and weeds throughout the site	Annual
Development and implementation of management actions to improve selected areas of grassland to EPBC qualification level and monitoring of success	2015-2020
Undertake targeted fauna survey for the Tussock skink in grassland areas	2015
Ensure construction activities incorporate mitigation measures to minimise impacts to adjacent wetlands e.g. silt traps, detention facilities, run-off control	As required
Review operational activities and procedures to ensure potential impacts to adjacent Ramsar listed wetlands are minimised	Annual

13.2.5 Cultural Heritage

HIAPL's environmental objective in relation to cultural heritage is to:

- To understand, preserve and manage sites of cultural heritage value (historic and Aboriginal) in accordance with legislative requirements and in consultation with the relevant departments, community groups and organisations.

Airport related activities (including those activities arising from the implementation of this Master Plan) that have the potential to impact cultural heritage include:

- Accidental damage to heritage buildings;
- Wear and tear and deterioration of heritage buildings; and
- Land disturbance resulting from development, maintenance or remediation works including landscaping activities impacting Aboriginal heritage.

Achievements in relation to cultural heritage at Hobart Airport in the past five years are identified in Table 13.k.

Table 13.k Cultural heritage achievements 2010 – 2015

Llanherne House	<ul style="list-style-type: none"> • Development of a CHMP for the immediate, long term and reactive maintenance of Llanherne House in accordance with Heritage Tasmania recommendations • Development of the Llanherne House Site Management Procedure (SMP14) • Development of the Llanherne House Five Year Maintenance Plan
Aboriginal Heritage	<ul style="list-style-type: none"> • Consultation with Aboriginal Heritage Tasmania (AHT) , which coordinates the consultation process with indigenous communities, and approval of the delisting of two TASI sites located on airport land • Review and update of the HIAPL Aboriginal sites register • Review of contractor CEMPs to determine whether mitigation measures are appropriate and/or relevant to Aboriginal heritage sites at the airport • Increased awareness of Aboriginal heritage sites and values on airport land with tenants during annual environmental auditing

Aboriginal Heritage

There are 13 recognised Aboriginal heritage sites located at Hobart Airport which are largely comprised of isolated stone artefacts and artefact scatters, with one having an association of midden shell.

This location of Aboriginal heritage values is not available for general viewing due to cultural sensitivities and it has been formally requested by the State government that this information remain confidential.

Historic Heritage

Llanherne House (Figure 13.d) is a heritage listed property located at the airport. The house is a small stone cottage currently used as office space by Airservices, While Llanherne House is not currently listed on the Australian Heritage database, it is permanently listed on the Tasmanian Heritage Register (THR).



Figure 13.d Llanherne House

HIAPL notes that there have been no relevant recommendations from the Australian Heritage Council, Department of Environment or State body regarding heritage or similar matters.

Targets – Cultural Heritage

The following targets (Table 13.I) have been set in relation to cultural heritage for the period 2015 – 2020. These will be integrated into the IMS and used for assessment and reporting targets in order to deal with the possible environmental impacts associated with the operation of the airport and the implementation of the Master Plan that are outlined above.

Table 13.I Cultural heritage targets and timeframes

Target	Timeframe
Continued liaison with relevant departments at the state and Commonwealth level and community organisations regarding heritage issues as they arise	As required
Continue to ensure that all contractor CEMPs incorporate measures to minimise potential adverse impacts to heritage values	As required
Implementation of the CHMP and recommendations	Annual
Annual review of site management procedures relevant to heritage values, update as required and include within IMS	Annual
Continue to raise awareness of airport heritage values through annual tenant auditing	Annual

13.2.6 Air Quality

HIAPL's environmental objective in relation to air quality is to:

- To minimise impacts to air quality as a result of activities at the airport and to strive for continual improvement in the management of ozone depleting substances by reducing, substituting or eliminating their use.

Airport related activities (including those activities arising from the implementation of this Master Plan) that have the potential to impact air quality in those areas of the regional airshed as is reasonably likely to be affected by airport activities including:

- Vehicle emissions from airport operators, passengers and visitors to the airport contributing to airborne pollution;
- Dark smoke emissions from the firefighting training ground and use of firefighting extinguishers during training exercises;
- Cambridge Wastewater Treatment Plant which can generate offensive odours;
- Refuelling activities;
- Construction and development activities which can lead to dust generation and reduced visibility for aircraft;
- Removal or damage to asbestos containing material resulting in the release of asbestos fibres;
- The use of air conditioners and refrigerators that use ozone depleting substances; and
- Vegetation burn offs resulting in a public nuisance.

Achievements in relation to air quality at Hobart Airport in the past five years are identified in Table 13.m.

Table 13.m Air quality achievements 2010 – 2015

HIAPL	<ul style="list-style-type: none"> • Development of the HIAPL asbestos register • Development of HIAPL ozone depleting substances register • Review of CEMPs on projects to ensure that appropriate mitigation measures are in place to minimise impacts to air quality e.g. dust generation, noise pollution • Routine servicing and maintenance of HIAPL's equipment • Inclusion of potential air quality related impacts within the environmental risk register which forms part of the IMS • Review of the Commonwealth Airservices Dark Smoke Agreement • Development of an Environmental Management Plan for planned vegetation burning (if required) and provision to the AEO
Tenants	<ul style="list-style-type: none"> • Replacement of TOLL Air Express refrigerator which contained ozone depleting substances to a new refrigerated container (May 2013) • Replacement of Virgin auxiliary power unit to a ground power unit which has reduced the amount of ground based noise emissions that are generated • Provision of Airservices hot fire reports and notifications prior to and after firefighting training • Documentation of complaints received regarding odour from the WWTP

Targets – Air Quality

The following targets (Table 13.n) have been set in relation to air quality for the period 2015 – 2020. These will be integrated into the IMS and used for assessment and reporting targets in order to deal with the possible environmental impacts associated with the operation of the airport and the implementation of the Master Plan.

Table 13.n Air quality targets and timeframes

Target	Timeframe
Document and respond to air quality related complaints raised as a result of activities at the airport	Ongoing
Review of ARFF firefighting training reports and notifications and liaison as required	Ongoing
Review of contractor CEMPs to ensure potential air quality impacts are addressed	As required
Liaise with Government Departments regarding air quality initiatives/requirements where relevant to airport operations	As required
Review and update of the environmental risk register within the IMS	Annual
Review and update of the HIAPL asbestos and ozone depleting substances register	Annual

13.2.7 Ground-Based noise

HIAPL's environmental objective in relation to ground-based noise is to:

- Ensure that appropriate management and mitigation measures are in place to reduce ground based noise emissions from activities at the airport, and/or ensure that emissions produced meet legislative and regulatory requirements.

Airport related activities (including those activities arising from the implementation of this Master Plan) that have the potential to generate ground-based noise at the airport include:

- Ground running of aircraft;
- General vehicle use;
- Tenant activities;
- Operation of stand by generators;
- Maintenance activities; and
- Construction and demolition projects.

Achievements in relation to ground-based noise at Hobart Airport in the past five years are identified in Table 13.o.

Table 13.o Ground-based noise achievements 2010 – 2015

Noise	<ul style="list-style-type: none"> • Documentation of any noise related complaints received from stakeholders or the general public • Review of contractor CEMPs to ensure that ground based emissions meet legislative and regulatory compliance • Inclusion of activities with potential ground based noise emissions within the environmental risk register which forms part of the IMS • Discussion of potential noise related issues on quarterly basis with CACG • Review of mitigation measures implemented by tenants and effectiveness for ground based noise during annual audits
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Targets – Ground-Based Noise

The following targets (Table 13.p) have been set in relation to ground-based noise for the period 2015 – 2020. These will be integrated into the IMS and used for assessment and reporting targets in order to deal with the possible environmental impacts associated with the operation of the airport and the implementation of the Master Plan.

Table 13.p Ground-based noise targets and timeframe

Target	Timeframe
Continuation of discussions with CACG on potential noise related issues	Quarterly
Review and update ground based noise management procedures and implement accordingly	Bi-annually
Continue to liaise with tenants on mitigation measures for ground based noise	Annual
Review of contractor CEMPs to ensure potential ground based noise impacts are addressed	As required
Update complaints register regarding ground based noise issues	As required
Undertake noise quality assessments where impacts persist and remain unresolved	As required
Participate in Government programs or initiatives on noise mitigation schemes	As required

13.2.8 Hazardous Materials

HIAPL's environmental objective in relation to hazardous materials is:

- To ensure hazardous materials are stored, handled and used in accordance with applicable requirements and managed to reduce potential adverse environmental impacts as a result of activities.

Hazardous materials that are currently produced, collected, stored or used at the airport (and which are expected to continue to be produced, collected, stored or used at the airport following the implementation of this Master Plan) include:

- Pesticides and herbicides;
- Cleaning agents;
- Aviation and automotive fuel;
- Sludge from sumps, triple interceptors and wastewater treatment (biosolids);
- Removed asbestos;
- Paints and solvents;
- Batteries;
- Fire extinguishing and de-icing chemicals;
- Quarantine waste; and
- Potentially contaminated water from firefighting activities.

Achievements in relation to hazardous waste at Hobart Airport in the past five years are identified in Table 13.q.

Table 13.q Hazardous waste achievements 2010 – 2015

Hazardous Waste	<ul style="list-style-type: none"> ● Review and update of SMP01 and SMP04 ● Development of Spill Response Procedure – Information Sheet (July 2013) ● Review of contractor CEMPs to ensure that storage and use of hazardous substances meet legislative and regulatory compliance ● Review of mitigation measures implemented by tenants for storage and use of hazardous substances during annual audits, including MSDS information ● Annual review and update of asbestos register ● Documentation of safety incidents using SERA program and implementation of response/ action required ● Development of a work plan for the remediation of former landfill site east of the runway ● Testing and analysis of potentially contaminated soil stockpiles prior to disposal to ensure classification level, in accordance with the EPA Bulletin 105 - <i>Classification and Management of Contaminated Soil for Disposal</i> ● Refer to achievements under “Land” Section for specific projects that addressed hazardous waste issues
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Targets – Hazardous Materials

The following targets (Table 13.r) have been set in relation to hazardous materials for the period 2015 – 2020. These will be integrated into the IMS and used for assessment and reporting targets in order to deal with the possible environmental impacts associated with the operation of the airport and the implementation of the Master Plan.

Table 13.r Hazardous materials targets and timeframes

Target	Timeframe
Review of legislative changes in waste management and implement any changes as required, including internal SMPs e.g. disposal of controlled waste and update IMS accordingly	Annual
Continue to liaise with tenants on mitigation measures for the handling and storage of contaminating substances during annual audits	Annual
Ensure all potentially hazardous waste is classified and disposed of by a licensed contractor to an appropriate receiving facility	As required
Review of contractor CEMPs to ensure the storage and handling of contaminating substances are addressed appropriately	As required

14 Consultation Program



14 Consultation Program

During the past 12 months, HIAPL has worked with a range of stakeholders to develop the 2015 Master Plan (including the Environment Strategy). As outlined in section 4.7, the Airports Act sets out a number of requirements in relation to stakeholder and community consultation in relation to a Master Plan. The consultation program for the Master Plan aimed to:

- Provide information about the 2015 Master Plan to relevant stakeholders and community members during the preparation of the document;
- Provide opportunities for HIAPL to consult with people and groups to better understand the real and perceived impacts and benefits of the development plans;
- Provide opportunities for interested people and groups to learn about the Master Plan as they progress so they can make informed comments during the public comment period; and
- Address the consultation requirement of the *Airports Act 1996* for the Master Plan.

Table 14.a outlines HIAPL's approach to meet the legislated consultation requirements, and the additional consultation actions undertaken, during the preparation of this Master Plan and Environment Strategy.

Table 14.a Legislated and non-legislation engagement activities

	Informal consultation (Mid 2014 – April 2015)	Formal pre-release consultation (April - May 2015)	Formal public comment period consultation (Late June – mid Sept 2015)
Legislated consultation requirements – Master Plan	<ul style="list-style-type: none"> • Informal discussions with airlines, local government authorities and State Government representatives to discuss planned airport development. 	<ul style="list-style-type: none"> • Consultation with the State government, an authority of a State, a local government body, an airline or other user of the airport concerned or any other person. • Airlines and local government bodies in the vicinity of the airport regarding noise 	<ul style="list-style-type: none"> • Letter to State Minister and authority responsible for Town Planning and relevant local government authorities advising the release of the Master Plan for public comment • Advertisement in relevant newspapers • Information on HIAPL website • Copies of the master Plan available in hard and soft copy for review
Additional consultation activities undertaken / planned	<ul style="list-style-type: none"> • Informal discussions with stakeholders on a range of Master Plan related topics to inform the content of the document. • Business as usual briefings with airport stakeholders that address the Master Plan process. 	<ul style="list-style-type: none"> • Additional stakeholder meetings • Business as usual briefings with airport stakeholders that address the Master Plan process. 	<ul style="list-style-type: none"> • Additional stakeholder meetings • Community briefing • Business as usual briefings with airport stakeholders that address the Master Plan process.

14.1 Informal Consultation

HIAPL started discussing the Master Plan with stakeholders in mid-2014 as a topic in a range of 'business as usual' meetings and as well as more focused airport planning discussions. Stakeholders who participated in these discussions included:

- Hobart Airport's Community Aviation Consultation Group (CACG);
- Hobart Airport's Planning Coordination Forum (PCF);
- Clarence City Council;
- Hobart City Council;
- Sorell Council;
- Airlines – Virgin and Qantas Group;
- Cambridge Airport;
- Airport tenants;
- Department of State Growth;
- Tourism Tasmania;
- Department of Planning and Local Government; and
- Department of Infrastructure and Regional Development (including Air Services, Australia).

From these meetings and discussions HIAPL gathered information to inform the preparation of the Airport Master Plan.

14.2 Formal pre-release consultation

In April and May 2015 HIAPL carried out more formal pre-release consultation activities with a range of stakeholders to discuss the content of the 2015 Master Plan and Environment Strategy. These meetings and discussions aimed to gain required approvals for specific items, such as the ANEF, and discuss and refine content documented in the Master Plan and Environment Strategy. Stakeholders who participated in these discussions included:

- Airservices Australia – formal approval of the ANEF was sought prior to publishing the preliminary draft Master Plan as well as discussions regarding the location of navigation equipment as a result of the runway extension project;
- Clarence City Council - formal engagement was undertaken with Clarence City Council to discuss the ANEF and its impact on land use planning in the local government area. Other Airport Master Plan topics were also discussed at this time;

- Hobart City Council - formal engagement was undertaken with Hobart City Council to discuss the ANEF and its impact on land use planning in the local government area. Other Airport Master Plan topics were also discussed at this time;
- Sorell Council – formal engagement was undertaken with Sorell Council to discuss the ANEF and its impact on land use planning in the local government area. Other Airport Master Plan topics were also discussed at this time;
- Southern Tasmanian Councils – formal engagement was undertaken with the councils of Southern Tasmania to discuss ANEF and its impact on land use planning in the local government. Other Airport Master Plan topics were also discussed at this time;
- Department of Planning and Local Government – formal engagement to discuss the Airport Master Plan;
- Department of State Growth – formal engagement to discuss the Airport Master Plan;
- Airlines – Formal engagement with Virgin and Qantas Group to discuss the Airport Master Plan;
- Hobart Airport's Community Aviation Consultation Group (CACG);
- Hobart Airport's Planning Coordination Forum (PCF);
- State elected members;
- Federal elected members;
- Airlines - Virgin and Qantas Group;
- Tourism Industry Council Tasmania;
- Tourism Tasmania;
- Australian Antarctic Division;
- Tasmania Chamber of Commerce;
- Airport tenants;
- TasWater;
- Tasmanian Polar Network; and
- Cambridge Airport.

14.3 Formal public comment period consultation

To meet the requirements of the Airports Act in relation to consultation HIAPL has undertaken the following actions:

- Peter Gutwein, Treasurer and Minister for Planning and Local Government, has been advised in writing that the Hobart Airport Master Plan has been released for public comment;
- Officers from the Department of State Growth have been advised in writing that the Hobart Airport Master Plan has been released for public comment;
- Clarence City Council has been advised in writing that the Hobart Airport Master Plan has been released for public comment;
- Sorell City Council has been advised in writing that the Hobart Airport Master Plan has been released for public comment;
- Hobart City Council has been advised in writing that the Hobart Airport Master Plan has been released for public comment;
- An advertisement has been placed in The Mercury advising that the Hobart Airport Master Plan has been released for public comment;
- HIAPL's website has been updated to provide information about the release of the Airport Master Plan for public comment. This includes links to an electronic (soft) copy of the Airport Master Plan;
- Printed copies of the Airport Master Plan have been made available for viewing at required locations including Sorell, Clarence and Hobart City council offices and other locations as outlined under the requirements of the Act.

Hobart Airport will continue to use a range of communication channels including its website, media releases, community meeting opportunities, other stakeholder forums to provide timely information about the airport operations and plans.

14.4 Submission to the Minister

After the completion of the consultation process and HIAPL's review and consideration of the comments received, the preliminary draft Master Plan will be amended and submitted to the Commonwealth Minister for Infrastructure and Regional Development for approval under the Airports Act.

The draft submitted will be accompanied by additional documentation including copies of all comments received during a consultation process, a list of the names of all people who submitted comments and a summary of those comments.

14.5 Publication of Final Master Plan

On approval by the Minister, the draft Master Plan becomes a final Master Plan, and will come into force at the time of the approval.

Upon approval, HIAPL will:

- Place an advertisement in The Mercury advising that the Hobart Airport Master Plan has been approved;
- Updated HIAPL's website to include a links to an electronic (soft) copy of the final approved Airport Master Plan; and
- Make printed copies of the Airport Master Plan available for inspection and purchase at those locations as outlined in the advertisement.

15 Implementation



15 Implementation

15.1 Phasing of the Development

HIAPL is committed to the aeronautical and commercial development of land at the airport in a planned and sensibly managed manner, in accordance with the development guidelines prepared for each of the precincts and the Airport Environment Strategy. When appropriate, HIAPL will facilitate the establishment and growth of other businesses on the airport, by providing land, support and assistance in a manner that maximises the opportunity for those businesses to operate in a sustainable and profitable manner.

The timing of infrastructure development is subject to demand which is driven by actual traffic (passenger and aircraft) growth and/or commercial imperatives depending on the nature of the demand. HIAPL will actively pursue growth opportunities although these are subject to a range of fluctuating market and external conditions. Close monitoring of actual growth is therefore necessary to assess current trends and the potential need to adjust implementation plans and programs.

The following sections represent development expectations, in a series of stages, based on the forecasting in Chapter 5: Air Traffic Forecasts. The staged development endeavours to provide the airport infrastructure in a timeframe consistent with demand and proposed operations, and to suit available funding.

During the initial planning period, it is anticipated that development of land at Hobart Airport will primarily occur on the western side of the runway. When appropriate, development will be staged to allow for the orderly provision of new infrastructure to meet demand for services in a financially and environmentally responsible manner.

The on airport aspects of the implementation program are mapped in Figure 15.a. The indicative implementation program for development of the Hobart Airport property is shown in Table 15.a and Table 15.b.

HIAPL appreciates that in implementing the 2015 Master Plan potential effects on the environment will need to be considered. Many of these matters are dealt with in Chapter 13: Environment. However in implementing the plan HIAPL has also assessed the following environmental matters and requirements as needing particular attention;

- Impacts on surrounding water bodies;
- Impacts on surrounding wetlands;
- The need to take into account protected species;
- An overall need to mitigate environment damage; and
- A need to monitor ground water and air quality.



Figure 15.a Hobart Airport implementation program (mapped activities)

Table 15.a Projects for 0-5 Year Implementation

Fig	Recommendation	Master Plan Section Reference
1	Runway 12/30 will be extended by 350m to the south-east and 150m to the north-west and associated lighting and navigation infrastructure.	S.7.5
3	Conversion of the passenger apron to power-in /push-back operations, raising and overlay of the existing passenger apron to achieve the forecast demand.	S.7.8 Future Aprons
6	Terminal renovation work to optimise use of existing terminal building to meet forecast demand and provide for processing of international passengers.	S.6.1.2
6	Development of new departure area including expansion to cater for airline lounges.	S.6.1.2
8	Minor infrastructural works, as demand requires.	S.7.8.4
9	Minor infrastructural works, notably for helicopters, as demand requires.	S.7.8.4
9	Development of current and new taxiways to support access to Code E apron (19).	S.7.3 and 7.7
10	Development of freight and Antarctic facilities to accommodate additional demand is expected to occur towards the end of this planning period.	S.7.8
12	Development and realignment of ground transport and parking in the terminal precinct to align with passenger terminal works and meet demand.	S.8.5
	Ongoing development of active transport facilities.	S.8.3.6
	Possible upgrade of the intersection of Holyman Avenue and Gatty Street.	S.8.3.3
18	Support the relocation of AsA Fire Training Area.	S.4.2.3
19	Development of a new apron to the north of the existing RPT apron for Code E aircraft to support international and Antarctic flights.	S.7.7.2
20	Construction of Grueber Avenue to Surf Road and development of associated pedestrian, cycle and equestrian paths.	S.8.5.2
	Closure of Surf Road easement to vehicles. Provision of alternative pedestrian, cycle and equestrian paths.	
	Non-aeronautical development	
	Growth of Non-Aviation Development as per Land Use Chapter.	Chapter 4
	Plan and construct new precinct road infrastructure.	S.8.5
	Consult with State, Local and Commonwealth Governments to ensure adequate capacity at key roads and intersections notably Tasman Hwy and Holyman Ave intersection.	S.8.5
	Consult with appropriate organisations to ensure adequate utility services to meet demand of the airport business (e.g. electricity, telecommunications, water, sewerage).	Chapter 10; Chapter 14

Table 15.b Projects for 5-20 Year Implementation

ID	Recommendation	Master Plan Section Reference
2	Widening of existing taxiways, extended parallel taxiway to meet demand.	S.7.6
3	Possible further apron extension towards end of planning period to meet demand.	S.7.7.1
5	Development of this area as airport usage and customer and freight demand requires.	S.7.8
6	Terminal expansion to meet demand.	S.6.2.1
7	Development of ARFFS capability to meet requirements for aircraft type and passenger demand.	S.9.1.2
8	Development to be undertaken as demand requires.	S.7.7
9	Development to be undertaken as demand requires.	S.7.7
10	Continued development of Antarctic and freight facilities as demand requires.	S.7.7.8
11	Waste treatment facility operated by TasWater may be relocated off-site during this time period.	S.4.2.3
12	Development of new road infrastructure to meet demand and terminal development program. Development of parking and other transportation facilities to meet demand. Development of active transport both within and accessing the airport.	S.8.5
13	Support Airservices Australia requirements to accommodate future operations.	S.9.1
	Non-aeronautical development	
	Growth of Non-Aviation Development as per Land Use Chapter.	S.4
	Consult with State, Local and Commonwealth Governments to ensure adequate capacity at key roads and intersections notably Tasman Hwy and Holyman Ave intersection.	S.8.5; Chapter 14
	Develop precinct terminal and major internal road infrastructure to meet demand.	S.8.5
	Consult with appropriate organisations to ensure adequate utility services to meet demand of the Airport business (e.g. electricity, telecommunications, water, sewerage).	Chapter 10 Chapter 14
14	Parallel taxiway development to meet capacity demand.	S.7.6.1
21	Development of logistic, freight and Antarctic Hub.	7.6.1 7.6.1



16 References

Reference list

- Air Services Act 1995.*
- Airports (Environment Protection) Regulations 1997(Cth) (Australia).*
- Airports (Protection of Airspace) Regulations (Cth) (Australia).*
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- Australian Bureau of Statistics (2011) Census of Population and Housing, Australia: Australian Bureau of Statistics.*
- Civil Aviation Safety Authority (1998) Manual of Standards, Canberra: Civil Aviation Safety Authority.*
- Clarence City Council (2007) Clarence Planning Scheme 2007, Tasmania: Clarence City Council.*
- Clarence City Council (2010) Strategic Plan 2010-2015, Tasmania: Clarence City Council.*
- Clarence City Council (2013) Activity Centre Strategy 2013, Tasmania: Clarence City Council.*
- Clarence City Council (2013) Clarence Bicycle Strategy and Action Plan 2013, Tasmania: Clarence City Council.*
- Clarence City Council (2014) Clarence City Council Interim 2014 Planning Scheme, Tasmania: Clarence City Council.*
- Environment Protection and Biodiversity Conservation Act 1999 (Cth) (Australia).*
- Hobart International Airport Pty Ltd (2009) Hobart Airport Master Plan 2009, Tasmania: Hobart International Airport Pty Ltd.*
- Hobart International Airport Pty Ltd (2013) Cultural Heritage Management Plan - Llanherne House, Tasmania: Hobart International Airport Pty Ltd.*
- National Airports Safeguarding Advisory Group (2012) National Airports Safeguarding Framework, Australia: Department of Infrastructure and Regional Development.*
- Nature Conservation Act 2002 (Tas) (Tasmania).*
- SGS Planning (2011) Southern Tasmania Industrial Land Strategy 2013, Tasmania: Southern Tasmanian Councils Authority.*
- Sorell Council (2014) Sorrell Draft Interim Planning Scheme 2014, Tasmania: Sorell Council.*
- Southern Tasmanian Councils Authority (2010) Southern Integrated Transport Plan 2010, Tasmania: Southern Tasmanian Councils Authority.*
- Standards Australia (2015) Acoustics – Aircraft Noise Intrusion – Building Siting and Construction (AS AS2021-2015).*
- State Coastal Policy 1996 (Tas) (Tasmania).*
- Threatened Species Protection Act 1995 (Tas) (Tasmania).*

Public Consultation Period – Submissions and Responses

Date Received	From	Key Topic	Consideration Raised	HIAPL Response	Location in Master Plan
26/06/2015	Roger Isaac	Taxiway	Will there be a full length taxiway at the end of the runway extension?	Section 7.7 of the Preliminary Draft Master Plan outlines the plans for the future parallel taxiway system. Based on the current traffic forecasts, a parallel taxiway would be required in approximately 2032. The parallel taxiway is not part of the runway extension project.	Section 7.7
		Aerobridges	Aerobridges are vital.	In Section 6.2, the Preliminary Draft Master Plan outlines the terminal planning considerations. Section 6.2.1 specifically notes that the current terminal building, being a single storey structure, is not readily able to accommodate aerobridges without the associated development of an upper level. Due to the nature and age of the current structure, this would effectively involve the construction of a new terminal building. This would be cost-prohibitive when looked at in association with total passenger numbers for the Master Planning period. Covered walkways between the aircraft and terminal are being developed in the current terminal project.	Section 6.2 Section 6.2.1
13/07/2015	Andrew Wilkie MP, Member for Denison	Aerobridges	A number of constituents have raised concerns re inclusion of an aerobridge	In Section 6.2, the Preliminary Draft Master Plan outlines the terminal planning considerations. Section 6.2.1 specifically notes that the current terminal building being a single storey structure, is not readily able to accommodate aerobridges without the associated development of an upper level. Due to the nature and age of the current structure, this would effectively involve the construction of a new terminal building. This would be cost-prohibitive when looked at in association with total passenger numbers for the Master Planning period. Covered walkways between the aircraft and terminal are being developed in the current terminal project.	Section 6.2 Section 6.2.1
15/07/2015	Roger Isaac	Taxiway	Full parallel taxiway appears not to be included in current \$38M extension plans - if this is correct then there will be even more inefficiencies than currently occur.	Section 7.7 of the Preliminary Draft Master Plan outlines the plans for the future parallel taxiway system. Based on the current traffic forecasts, a full parallel taxiway would be required in approximately 2032. The parallel taxiway is not part of the runway extension project.	Section 7.7

15/07/2015	Helma Stevenson	General conditions	<p>Not happy with conditions at Hobart – it is too dark, there are tunnels of ropes, the departures and arrivals board is illegible, there are too few staff, security too slow. Hobart should copy Rockhampton Airport.</p> <p>Hobart bring back the upper level, and have aerobridges.</p>	<p>In Section 6.2, the Preliminary Draft Master Plan outlines the terminal planning considerations. Section 6.2.1 specifically notes that the current terminal building being a single storey structure, is not readily able to accommodate aerobridges without the associated development of an upper level. Due to the nature and age of the current structure, this would effectively involve the construction of a new terminal building. This would be cost-prohibitive when looked at in association with total passenger numbers for the Master Planning period. Covered walkways between the aircraft and terminal are being developed in the current terminal project.</p> <p>Section 6.2.1 also notes that security would expand landside to provide space for additional screening facilities. This is in addition to recent improvements customer security operations at Hobart Airport.</p>	Section 6.2
15/07/2015	Albert Ogilvie	Aerobridges	<p>Feels an aerobridge is essential in terminal upgrade and suggests redoing the whole design to include an upper floor if necessary.</p>	<p>In Section 6.2, the Preliminary Draft Master Plan outlines the terminal planning considerations. Section 6.2.1 specifically notes that the current terminal building being a single storey structure, is not readily able to accommodate aerobridges without the associated development of an upper level. Due to the nature and age of the current structure, this would effectively involve the construction of a new terminal building. This would be cost-prohibitive when looked at in association with total passenger numbers for the Master Planning period. Covered walkways between the aircraft and terminal are being developed in the current terminal project.</p>	Section 6.2
27/07/2015	Jenny Turner	Aerobridges	<p>Hobart will soon be the busiest airport in Australia without aerobridges. If there are not to be aerobridges, then walking distances should be minimised. Departure and arrival access should be aligned with aircraft. The departure gate should be as close as possible to plane. Common ingress / egress point to the building reduces walking distance but also leaves an easy upgrade path for future installations.</p>	<p>In Section 6.2, the Preliminary Draft Master Plan outlines the terminal planning considerations. Section 6.2.1 specifically notes that the current terminal building being a single storey structure, is not readily able to accommodate aerobridges without the associated development of an upper level. Due to the nature and age of the current structure, this would effectively involve the construction of a new terminal building. This would be cost-prohibitive when looked at in association with total passenger numbers for the Master Planning period. Covered walkways between the aircraft and terminal are being developed in the current terminal project. The recent changes to security screening (as shown in this master plan) at Hobart airport has resulted in a highly efficient service for customers.</p>	Section 6.2

9/08/2015	Robert Moore	Taxiway	The redevelopment plan does not indicate taxiway extension to either end of runway.	Section 7.7 of the Preliminary Draft Master Plan outlines the plans for the future parallel taxiway system. Based on the current traffic forecasts, a parallel taxiway would be required in approximately 2032. The parallel taxiway is not part of the runway extension project.	Section 7.7
25/08/2015	Ben McCulloch	Virgin Lounge	The lack of a Virgin Lounge is likely to be contributing to inflating the cost of Qantas airfares.	The development of a lounge is a commercial decision for the airlines rather than the Airport. Hobart Airport will continue to work with our Airline partners to develop customer facilities. The future layouts depicted in Section 6.2 accommodate potential lounge expansion areas.	Section 6.2
25/08/2015	Andrew Wilkie MP, Member for Denison	Future plans	Hopes that a sealed cycle / walkway will be provided along the closed Surf Road, notably for triathletes. Closing Surf Road cuts off eastern access to change and toilet facilities, recommend building a new one at Pittwater / Surf Road junction.	Non-vehicle access (such as pedestrians and cyclist) will be maintained along Surf Road through the provision of a new sealed path along the southern boundary of the airport. Events, such as the triathlon, that currently use this portion of Surf Road as part of their course will need to utilise the new sealed pathway. The public toilets located in Lewis Park at Seven Mile Beach will still be accessible via the sealed pathway.	
27/08/2015	Andrew Sparrow – Airservices Australia	Approval of document and request for early consultation	The PANSOPS are considered fit for purpose.	Noted	
			Please consult with AsA early to discuss: Runway 12 ILS glidepath relocation before the amended procedures can be published for the ILS; Wide Area Multilateration (WAM) Reference Units (RU) 1,3&4 which will be affected by proposal Relocation of anemometer and DVOR Potential impacts on the ARFF station and future capacity. Consideration of plant and crane operations etc.	Noted	
			Require line of sight diagrams to determine the extent of any impacts with the construction of freight hangers in Aviation Precinct 1 between ATC tower and Rwy 30 approach.	The construction of future freight facilities in Aviation Precinct 1 will be undertaken in consultation with Air services Australia to address any line of sight issues that may arise.	

7/09/2015	Jessica Browne	Virgin Lounge	Providing strong support for the upgrade. Would like a Virgin lounge included as the lack of these facilities means she is less likely to fly to Hobart for business.	The development of a lounge is a commercial decision for the airlines rather than the Airport. Hobart Airport will continue to work with our Airline partners to develop customer facilities. The future layouts depicted in Section 6.2 accommodate potential lounge expansion areas.	Section 6.2
7/09/2015	Julie Collins, Federal Labor Member for Franklin	Surf Road	A number of constituents have raised concerns regarding the closure of Surf Road, and the impact on local events.	Non-vehicle access (such as pedestrians and cyclist) will be maintained along Surf Road through the provision of a new sealed path along the southern boundary of the airport. Events, such as the triathlon, that currently use this portion of Surf Road as part of their course will need to utilise the new sealed pathway.	
14/09/2015	Shane Lord – Virgin	Support	Writing to express that he is generally supportive of the development concept, airfield plan and ground transport plan, although notes that the works are driven by international & Antarctic services rather than domestic RPT. As such, any future recovery costs should be directed appropriately. Would also like to ensure that HIAPL adopts a least cost approach to ground transport, with costs recovered from users and beneficiaries (not just airlines).	Hobart Airport acknowledges the ongoing support from Virgin Australia. The Airport also recognises that charges for future development, as with all developments on Airport, will be negotiated with and allocated to relevant users.	
29/09/2015	Gillian Geeves	Aerobridge	Request reconsideration of not including aerobridges. Understands that building a mezzanine floor would involve considerable expense, however the ingenuity and experience of Australian engineers should be able to find a solution with a standalone construction which could be used to access aircraft in a more dignified and comfortable manner.	In Section 6.2, the Preliminary Draft Master Plan outlines the terminal planning considerations. Section 6.2.1 specifically notes that the current terminal building being a single storey structure, is not readily able to accommodate aerobridges without the associated development of an upper level. Due to the nature and age of the current structure, this would effectively involve the construction of a new terminal building. This would be cost-prohibitive when looked at in association with total passenger numbers for the Master Planning period. Covered walkways between the aircraft and terminal are being developed in the current terminal project.	Section 7.7

1/10/2015	Chris Kirkpatrick	Disappointed in existing conditions	Current airport reminded him of a truck-stop in outback Queensland, was ashamed.	<p>The 2015 Master Plan reflects Hobart Airport's vision for growth and the delivery strategic infrastructure to better connect Tasmania with the rest of Australia and the world.</p> <p>Since 2009 Hobart Airport has been on a rolling program for works to upgrade facilities which has resulted in ongoing construction and upgrade projects. Work is currently underway on the \$25 million 2020 terminal redevelopment project.</p>	
1/10/2015	Roger Isaac	Timing of construction	Would like know when the extension is to commence and become operational.	<p>The planned timing of construction of the runway extension is 2017/18. This date is dependent on the letting of contracts and the relocation of Air services Australia equipment. The Major Development Plan (MDP) for the Hobart Airport runway extension will cover the runway project in greater detail.</p>	
7/10/2015	Nick Heath – Hobart City Council	Support and concerns regarding retail precinct	<p>Letter of support, with concerns about the investigation into a mixed use retail development. Particular reference to the mixed use retail development has concerned them.</p> <p>In 2006, HCC opposed the development of a 73,000 m² of retail - as the effect on retail in the greater Hobart area was a 10% decline.</p>	Hobart Airport appreciates the ongoing support from Hobart City Council. HIAPL will continue to consult and discuss their operations and developments with a range of stakeholders, including Hobart City Council.	

7/10/2015	Andrew Paul – Clarence City Council	Support and requests for consultation	Supportive of the runway extension, ongoing development, Grueber Avenue etc. Requests ongoing engagement with Council and landowners to discuss Grueber Avenue alignment, management and opportunities to improve access to future developments.	Hobart Airport appreciates the ongoing support from Clarence City Council. Consultation between Hobart Airport and Council and the landowners has resulted in a refinement of the alignment of Grueber Avenue as it crosses Airport land. This is shown in this appendix and will be presented in full as part of the Major Development Plan for the Runway Extension project which includes Grueber Avenue. The alignment proposed offers a more direct route to Surf Road and is considered superior from a road safety perspective. Consultation with the effected landowners is ongoing.	
			Request inclusion of a future road connection between Holyman Ave and the Cranston Pde specific area (Light Industrial Zone).	This is not considered as part of the current Master Plan Ground Use Plan, as it is not required for the Airport's operations. Hobart Airport will continue to consult with Council on all roadway matters.	
			Council considers stormwater management, planning and retention infrastructure to be an issue of importance.	Noted.	
			Request a minor correction of page 75 of draft Masterplan which states Acton Rd is under management of State, rather than CCC	Thank you, updated.	
			The draft MP notes HIAPL support for Clarence Interim Planning Scheme Airport Buffer Code (Overlay). However the current Airport buffer does not equate to the ANEF shown in the plan. In due course, this inconsistency needs to be addressed to update the mapping and ensure development / use controls are consistent with implications of ANEF.	Hobart Airport acknowledges the need for ongoing discussions relating to noise. Hobart Airport notes it has made a separate submission to the CCC planning scheme to expand the buffer overlay to better align with Airport noise impacts as per the ANEF and Noise contours (n countours).	Chapter 12
			Regarding road transport matters generally, the integrated approach incorporating State and Local Government transport planning is essential, particularly regarding the upgrade of the Tasman Highway / Holyman Drive roundabout and establishment of improved bus services.	Hobart Airport, through the Planning Co-ordination Forum and other means, will work with Local and State Governments to facilitate timely planning for the Tasman Highway roundabout.	

9/10/2015	Sarah Tink – Department of Infrastructure and Regional Development	Aircraft numbers, freight forecasts and car park terminals.	Please include the breakdown of RPT / GA / Rotary aircraft?	Section 5.13 has been added to address these comments.	Section 5.13
			Please include details of freight forecasts over the planning period.	Section 5.13 has been added to address these comments.	Section 5.13
			Would like to know details of the linkages between car parks and terminals.	Covered walkways on the apron side of the terminal building will be constructed as part of this project to improve passengers' experience as they walk to and from aircraft. There is also a covered walkway between the long term car park and the terminal building. Additional covered walkways will be constructed where appropriate in high traffic areas.	

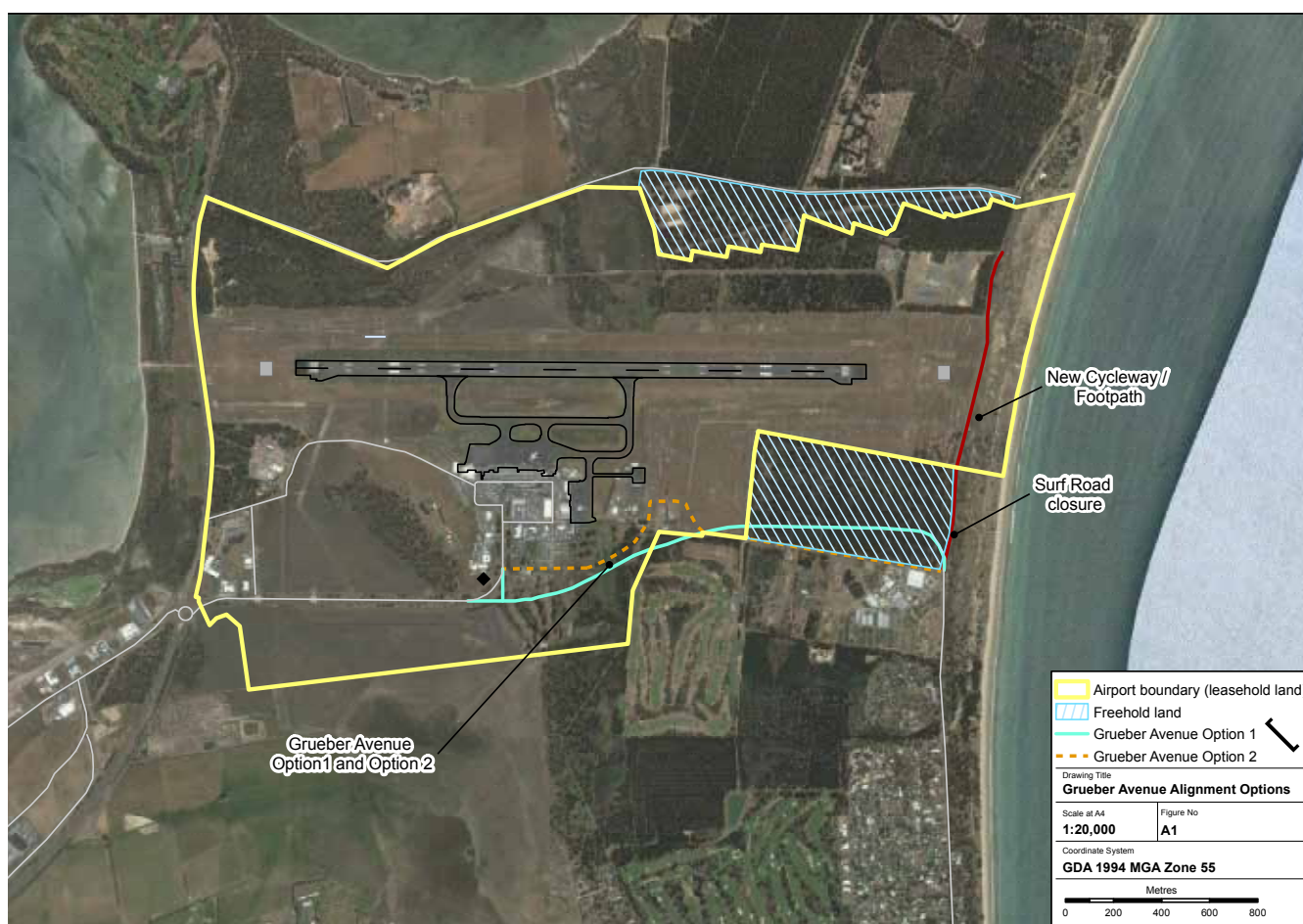


Figure Appendix a. Grueber Avenue alignment options 1 and 2.



