# Table of Contents

I TABLE OF CONTENTS .............................................................. 1
II FOREWORD ........................................................................ 5
III EXECUTIVE SUMMARY ....................................................... 6
   Key Features of the 2015 Master Plan .................................. 6
   Development Objectives .................................................... 6
   Social, Economic and Regional Significance ......................... 7
   Aviation Activity Forecasts ............................................... 7
   Airport Land Use ............................................................. 7
   Airfield Development ...................................................... 7
   Protection of Aircraft Operations ....................................... 7
   Aircraft Noise Management ............................................. 7
   Terminal Development .................................................. 8
   Commercial Development .............................................. 8
   Land Access ................................................................. 8
   Environmental Strategy .................................................. 8
   Consultation .................................................................. 8
1. INTRODUCTION ................................................................. 13
   2015 Master Plan ............................................................ 14
2. BACKGROUND ..................................................................... 17
   History ........................................................................... 18
   1921–1968 Town Site Aerodrome Operations .................... 18
   1939 Seven-Mile Site ...................................................... 18
   World War II Operations ............................................... 18
   Post-War Development .................................................. 18
   Changing Ownership .................................................... 19
   Significant Developments on Airport ............................... 19
   Apron, Taxiway and Runway Works .................................. 19
   Terminal ......................................................................... 19
   Ground Transport and Car Parks ..................................... 19
   Commercial Developments ............................................ 19
   Infrastructure and Equipment ........................................ 20
3. AIRPORTS ACT FRAMEWORK ........................................... 21
   Airports Act 1996 (as amended) and Associated Regulations ... 22
   Airport Master Plan Requirements .................................... 22
   Airport Master Plan Assessment Process .......................... 22
4. STAKEHOLDER AND COMMUNITY CONSULTATION .. 25
   Communication and Consultation Approach ....................... 26
5. DEVELOPMENT OBJECTIVES ............................................ 27
6. SOCIAL, ECONOMIC AND REGIONAL SIGNIFICANCE .... 29
   Social Impact of Alice Springs Airport ............................... 30
   Connecting communities in the Territory ........................... 30
   Medical services .......................................................... 30
   Mail Planes and Remote Policing ..................................... 30
   Current and 2020 Economic Impact of Alice Springs Airport ........................................ 30
   Economic Impact of Alice Springs Airport in 2020 ............ 31
   Future Economic Impact of Alice Springs Airport ............... 32
   Airport Business Impact in 2035 ..................................... 32
   Tourism Impacts in 2035 ................................................. 32
   Other Related Activities .................................................. 32
   Joint Defence Facility Pine Gap ....................................... 32
   Hot weather testing facility ............................................ 32
7. AVIATION ACTIVITY FORECASTS .................................. 33
   Industry Outlook and Traffic Performance ......................... 34
   Traffic Performance ....................................................... 34
   Freight ......................................................................... 34
   General Aviation .......................................................... 34
   United States Military Operations ................................... 34
   Forecast Approach ....................................................... 35
   Traffic Forecasts .......................................................... 35
   Passenger Movements ................................................... 35
   International Charter Operations .................................... 35
   Freight ......................................................................... 35
   Aircraft Movements ...................................................... 35
8. AIRPORT LAND USE ......................................................... 37
   Development Potential of Airport Land ............................ 38
   Future Development Zone .............................................. 38
   Approved Residential Use in 1999 and 2004 ....................... 38
   Master Plans ................................................................. 38
   Approval of Residential Use in 2009 Master Plan ................ 38
   Regulatory Context and Land Lease .................................. 39
   Action on Exclusion of Future Development Zone from Airport Lease .................................. 39
   Future Development Zone Included in Northern Territory Planning Scheme ......................... 39
   Kilgariff Development to Date ......................................... 39
   Pre-Existing Interests ..................................................... 39
   Airports Act 1996 and Associated Regulations .................... 39
   Airports Act 1996 .......................................................... 39
   Consistency with the Northern Territory Planning Scheme .... 39
   Planning Scheme .......................................................... 39
   Land Use Zones ........................................................... 39
   Northern Territory Planning Scheme – Kilgariff Area Plan .................................................. 42
   Aviation and Aviation Related Uses ................................ 46
   Aviation Activities Zone .................................................. 46
   Terminal and Facilities Zone .......................................... 46
I am pleased to present the Alice Springs Airport 2015 Master Plan which includes the Airport Environment Strategy.

As the gateway to Central Australia, Alice Springs Airport welcomes more than 500,000 passengers a year. The airport supports and sustains the region by working with the tourism industry, connecting Territory communities, and providing essential facilities for the aviation and defence industries.

The 2015 Master Plan retains the fundamental concepts of the previous three Master Plans developed since privatisation of the airport in 1998. The changes that have been made largely reflect the modest growth projections, the evolving airport business, and the needs of our business partners. The five year Airport Environment Strategy continues the strong environmental management regime established by the preceding three Environment Strategies.

This 20 year Master Plan provides a 2035 development concept for the 3550 hectare airport site with aeronautical and commercial uses.

The Master Plan, including the Airport Environment Strategy, provides a comprehensive framework for sustainable growth.

Yours sincerely

IAN KEW
Chief Executive Officer
Alice Springs Airport
Executive Summary

Alice Springs Airport Pty Ltd (ASA) holds a 50-year lease, plus 49-year option, over the Alice Springs Airport site from the Commonwealth of Australia under the Airports Act 1996.

The Airports Act 1996 (the Act) and other regulations under the Act (the Regulations) stipulate the requirements for the management and operation of the airport. The Act requires that ASA prepares a 20-year Master Plan, including the Airport Environment Strategy, with the Master Plan renewed every five years.

The previous 2009 Final Master Plan and the Airport Environment Strategy (AES) are valid until 5 August 2015. These documents provide details of the airport’s future aeronautical development, the development strategy for the airport’s property portfolio, establish a framework for assessing compliance with the relevant environment standards and legislation, and provide for continual improvement of environmental management at the airport.

In line with previous Master Plans and Environment Strategies a wide range of developments and initiatives have been or are being implemented, including:

- Apron, Taxiway and Runway works
  - Pavement rejuvenation and resurfacing of the runways, aprons and taxiways.
  - Replacement of airfield lighting.

- Terminal
  - Building management system upgrade.
  - Ongoing security system enhancements.

- Infrastructure
  - Stage 1, Stage 2 and Stage 3 solar projects which now supply almost 100% of airport peak day demand power requirement.
  - Electrical distribution system upgrades.

- Ground Transport and Car Parks
  - Development of additional short term and long term car parking facilities.

Commercial Developments
- Development of the NT Police aviation facility.

Environmental and Heritage Initiatives
- Management and maintenance of Seven-Mile Heritage Zone in accordance with the Conservation and Management Plan.
- Installed solar power capacity to generate 50% of the airport peak power requirement.

The 2015 Master Plan retains the fundamental concepts of previous Master Plans. The changes that have been made largely reflect:
- the modest growth projections of aviation activity
- the evolving airport business, the needs of business partners and impact on the community
- the potential to diversify airport income by expanding the property portfolio.

The 2015 Master Plan provides 2035 development concept plans for long-term development as an airport with an optimal mix of aeronautical and non-aeronautical uses. It also includes the AES. While the 2015 Master Plan provides a framework for future development until 2035, ASA is conscious the Master Plan must also incorporate the necessary flexibility to meet changing conditions.

KEY FEATURES OF THE 2015 MASTER PLAN

The current Alice Springs Airport layout is shown in Figure 1. The 2035 Development Concept, shown in Figure 2, is based on comprehensive technical studies, wide consultation and confidence in the future of the airport business.

This Master Plan demonstrates that ASA can accommodate forecast growth in aircraft movements and passenger activity, aviation support facilities, and commercial developments.

Development Objectives
ASA has established the following development objectives to guide its planning and development of aeronautical and non-aeronautical facilities and services:
- Ensure that planning supports long-term development as an airport with an optimal mix of aeronautical uses.
- Provide a safe, secure, reliable and sustainable airport-operating environment.
• Enhance the airport’s contribution to Northern Territory (NT) economic growth through developing the airport’s aviation and property business and by facilitating the success of our business partners.
• Integrate environmental considerations into the development of facilities and services and seek to minimise their impact on the natural environment.
• Engage with key community, business and government stakeholders on airport related economic, social and environmental issues and be mindful of surrounding community interests.
• Provide airport infrastructure and facilities that are timely, cost-effective, flexible in use and provide a good customer experience.
• Undertake developments which enhance value to our shareholders and the broader economic community.

Social, Economic and Regional Significance
Alice Springs Airport is the major Central Australian airport. The airport’s direct and indirect contribution to the NT economy is 664 jobs and $129M to NT Gross State Product (GSP).

In 2035, the equivalent figures are estimated to be 889 jobs and $175M.

Alice Springs Airport’s general aviation (GA) sector, comprising some 45 aircraft, is essential for the provision of services to Central Australia’s remote communities.

Aviation Activity Forecasts
It is projected that:
• Passenger movements, including transit and transferring passengers, will increase from around 580,000 passengers to approximately 750,000 passengers by the end of the planning period.
• Domestic airlines will continue to carry freight predominantly in the cargo hold of passenger services. As domestic airfreight movements increase, this will generate additional capacity for domestic freight uplift.
• Combined airline and GA aircraft movements at ASA will grow from 19,000 movements currently to some 22,700 movements per year by the end of the planning period.

Airport Land Use
Land use planning (see Land Use Zone Plan, Figure 3), is fundamental to an Airport Master Plan and is specifically highlighted in the Act. Land use planning in the 2015 Master Plan:
• Ensures there is adequate land for expansion of aviation activity.
• Clearly separates aeronautical and non-aeronautical uses.
• Has been developed using terminology and definitions consistent with that of the Northern Territory Planning Scheme where possible, with any variations being highlighted.

• Reflects the large land holding and the significant long-term development potential of the airport.

As with the 2009 Master Plan, residential continues as a land use, and the Future Development Zone provides a long term residential land bank for the Alice Springs region. It makes sense for there to be integrated planning for the Kilgariff (AZRI) development and the airport residential land.

The Future Development Zone will need to be excised from the Airport lease and converted to freehold tenure as residential is a sensitive development under the Airports Act 1996.

Airfield Development
No runway extensions are needed within the planning period. The existing runway system is adequate to cater for future-projected traffic and is proposed to be retained in its existing configuration. A runway turning loop to improve runway usability is planned. Taxiway enhancements are needed to support the increase in regular public transport (RPT) and GA traffic and support new apron areas.

The RPT Apron will continue to effectively use the space and infrastructure available and expand in a linear manner. When the aircraft apron is reconfigured the opportunity will be taken to move aircraft parking positions closer to the terminal to remove current obstacle limitation surfaces (OLS) infringements.

Additional GA facilities will be developed on a commercial basis. Aircraft storage facilities will develop in line with demand.

Protection of Aircraft Operations
Obstacle Limitation Surfaces (OLS) and Procedures for Air Navigation Services – Aircraft Operations (PANS–OPS) surfaces are prepared for ASA to assist with the protection of airspace required for airport operations around the airport (refer to Figure 8 and Figure 9).

Airfield Noise Management
ASA as the airport operator has little direct control over noise produced by aircraft operations other than ground running.

The most important noise metric at an airport is the Australian Noise Exposure Forecast (ANEF). The ANEF is a set of contours showing future forecasted levels of exposure to noise for building control purposes. The ANEF is the only noise metric which has status under the:
• Northern Territory Planning Scheme for land use planning and development consent off airport
• Airports Act 1996 of the Commonwealth for land use planning and development consent on airport.

This Master Plan incorporates a 2055 ANEF in order to provide a longer term view of aircraft noise than the standard 20-year ANEF required.
Terminal Development
Terminal growth will be accommodated by expanding the existing terminal within the Terminal and Facilities Zone. Key areas that will drive the expansion of the overall footprint of the terminal will be baggage reclaim and baggage make-up. Future expansion of the terminal is illustrated in Figure 24.

Commercial Development
Of the 3550 hectares in the airport lease area, some 1930 hectares of the land are available for commercial use. Possible commercial developments include offices, showrooms, warehousing, large format and speciality retail, hotel and other short-stay accommodation, and cafes.

The Future Development Zone will need to be excised from the airport lease.

Commercial development opportunities exist in the Seven-Mile Heritage Zone. Developments will be compatible with the heritage value and character of the area.

Land Access
Both the existing external and internal road systems may need enhancing during the 20-year planning period. Access to Roger Vale Drive and Santa Teresa Road from the airport complex may need upgrading during the planning period. Any upgrading of the airport’s access to the external road network will be undertaken in consultation with the Northern Territory Government.

The approach to development of the internal road network will be to:
• maximise the use of existing road capacity
• enhance progressively the road system capacity in line with demand.

Car parking capacity will be expanded in line with demand.

Environmental Strategy
The Airport Environment Strategy (AES) is at Appendix 1 to the Master Plan.

The AES establishes a framework for assessing environmental compliance with the relevant standards and legislation. The AES also guides continual improvement of environmental management at the airport.

ASA strives to integrate environmental considerations into the development of facilities and services, and seeks to minimise their impact on the natural environment.

All proposed developments will take into consideration the procedures and requirements contained in the AES as well as the associated action plans and environmental management plans.

ASA has established the following key objectives to guide environmental management of the airport site:
• Maintain an Environmental Management System (EMS) that is consistent with the international standard ISO 14001:2004 (Environmental Management).
• Ongoing identification of environmental and heritage values of the site.
• Commitment to continual improvement in minimising environmental consequences of activities.
• Continue to define clear responsibilities and conduct training for staff and contractors to achieve the objective of the EMS as well as ensuring that appropriate authority and resources are provided to effectively meet environmental targets.
• Inform all new and existing staff and contractors working within the airport environs of their environmental responsibilities.
• Maintain systems that identify legal and other requirements that apply to environmental management and keep ASA informed of change to existing and/or new legislation and regulations.
• Ensure periodic review and auditing of the EMS to ensure its continuing suitability, effectiveness and compliance with objectives.

The environmental management attributes addressed in the AES include:
• water
• land
• biodiversity
• air quality and emissions
• noise
• hazardous materials
• waste
• resource use and climate change
• cultural heritage
• development
• tenants
• community.

ASA is committed to conservation best practice and creating an environmentally sustainable airport operation. The airport is proud of its environmental performance and will continue to work closely with its partners to incorporate environmental considerations into every aspect of its business.

Consultation
This Master Plan was prepared by ASA following consultation with a range of stakeholders.
FIGURE 1: CURRENT ALICE SPRINGS AIRPORT LAYOUT (2015)
SECTION 1

Introduction

- Alice Springs Airport is the gateway to Central Australia.
- The *Airports Act 1996* specifies that the Airport Master Plan be reviewed every 5 years.
- The 2015 Master Plan has been prepared following comprehensive technical studies and consultation with stakeholders.
Alice Springs Airport is located approximately 14 km south-east of the town of Alice Springs in the Northern Territory. The airport covers a total site of approximately 3550 hectares, which makes it the largest Australian airport in terms of area. The ASA lease boundary is shown in Figure 4.

Alice Springs has long served as the tourist gateway to Central Australia, with the airport also serving the community, businesses and government. There is also a sizeable General Aviation sector servicing the surrounding region and remote communities.

Alice Springs Airport Pty Ltd holds a 50-year lease, plus 49-year option, over the Alice Springs Airport from the Commonwealth of Australia under the Airports Act 1996.

The Airports Act 1996 (the Act) and other regulations under the Act (the Regulations) stipulate the requirements for the management and operation of the airport. The specific provisions of the Act applying to airports, other than joint-user airports, apply to the ASA Master Plan. The Act requires that ASA prepares a Master Plan to guide development of existing and proposed airport land uses and facilities. The previous 2009 Final Master Plan was approved by the Federal Minister on 6 August 2010. The 2009 Final Master Plan provided details of the airport’s future aeronautical development as well as the development strategy for the airport’s large holding of undeveloped property.

2015 MASTER PLAN
While the 2015 Master Plan provides a framework for future development to 2035, ASA is conscious the Master Plan must also incorporate the necessary flexibility to meet changing conditions.

This Master Plan has been prepared by ASA with the assistance of a consultant team. The consultants and their technical work area are outlined in Table 1.

<table>
<thead>
<tr>
<th>CONSULTANT TECHNICAL AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONSULTANT</strong></td>
</tr>
<tr>
<td>Airbiz Aviation Strategies Pty Ltd</td>
</tr>
<tr>
<td>ACIL Allen</td>
</tr>
<tr>
<td>Tourism Futures International (TFI)</td>
</tr>
<tr>
<td>The Aviation Group (TAG)</td>
</tr>
</tbody>
</table>

SECTION 1
Introduction
SECTION 2

Background

- The Seven-Mile aerodrome became a civil airport in 1945.
- Alice Springs Airport Pty Ltd (ASA) has a 50-year lease plus 49-year option on the Alice Springs Airport site.
- ASA has spent more than $40M improving airport facilities since 1998.
HISTORY

1921–1968 Town Site Aerodrome Operations

The original town site was cleared and prepared to receive the first aircraft which landed on 5 October 1921. The aircraft, a DH4 bi-plane, was chartered by the writer and explorer Francis Birtles and was crewed by L.L. Briggs, pilot, and George Bailey, mechanic. Facilities at the airfield were non-existent and before the aircraft could resume its return flight it had to await the arrival of a camel-train laden with the necessary fuel.

In August 1935, the first commercial air service began, and the airfield was used by famous aviators, such as Hitchcock, Anderson, Ulm and Kingsford Smith. The air service, operated between Adelaide and Darwin by Australian Transcontinental Airways, took two days with an overnight stopover in Alice Springs. Guinea Airways commenced charter service in 1936 and a year later provided a scheduled service between Adelaide and Darwin.

E.J. Connellan, on his 40,000-mile survey of the Northern Territory, landed here in 1938. Later he established Connellan Airways and flew the trial mail run on 10 July 1939. Connair, as the company was to become, spent its first 29 years operating from the airfield. It became known as ‘The Biggest Little Airline in the World’.

The only jet aircraft to land at the town aerodrome was a Royal Australian Air Force (RAAF) Canberra bomber in April 1958, which mistakenly took the old town site strip for the modern and larger Seven-Mile Aerodrome.

1939 Seven-Mile Site

Like many of the aerodromes in the Northern Territory, the Seven-Mile Aerodrome owes its origins to the military build-up of the north during the late 1930s and to the commencement of the Pacific war during World War II. With the increase in defences came the requirements for airfield capable of use by the heavier, faster aircraft of the time.

Originally a part of the E. and A.J. Hayes lease 116A, the Seven-Mile Site was taken over by the Department of Defence in 1939 and development work commenced in early 1940, with the facility partially complete by mid-year, including three runways: 06/24, 17/35 and 12/30.

World War II Operations

In July 1940, the Lockheed Hudson bombers of the RAAF’s Number 1 Squadron, staged through the new aerodrome during their deployment to Malaya to help bolster the RAAF commitment both there and in Singapore. A major defence exercise in Darwin that year saw a number of aircraft pass through the facility during the trans-continental flight to the newly developed RAAF station in Darwin. By 1941, civilian airlines were using the site, though much of the activity remained with the ‘Town Site Drome’ adjacent to the Araluen homestead. With the entry of Japan into the war, the ‘Seven-Mile Drome’ was utilised increasingly by the military and, in particular, the USAAF units transiting north.

The Seven-Mile facility was made a RAAF station on 28 May 1942, with No. 57 Operational Base Unit taking over the administrative control. By 1944, however, the site was effectively little more than a transit base for RAAF aircraft and more an airport facility for civilian airline operations. Some new works were undertaken, however, and by 23 March 1944 some $46,000 in United States funding had been utilised by the Allied Works Council in the aerodrome development project.

While 1945 saw the last of the RAAF units to be permanently based at the Seven-Mile site, a revitalisation of sorts occurred following the cessation of hostilities. The Seven-Mile site was used extensively during the flights of aircraft and personnel to southern depots and demobilisation centres, and the facility was utilised into the 1960s as a major transit base by the RAAF’s newer aircraft, the jet-propelled Meteor, Vampire, Sabre and Canberra, during the deployments to Darwin on major air-defence exercises.

Three buildings associated with the Seven-Mile Aerodrome are now on the Northern Territory Heritage Register.

Post-War Development

The post-war development of Alice Springs saw the old Town Site Aerodrome used less and less, with Eddie Connellan remaining the major user. Civilian airliners became heavier and faster, and these factors combined to become the catalyst for a building program at the Seven-Mile Site. Bellman hangars from Gorrie airfield were re-erected at the site, while new airport buildings were constructed. The Shell Company installed underground fuel tanks and a fuel storage area in 1946, and a
Very High Frequency (VHF) Radio Range facility was formalised in 1948. A Meteorological Aids site was established three years later in mid-1951.

In 1956, the airport featured in the film adapted from Neville Shute’s *A Town Like Alice*, and in 1958 the name changed officially to ‘Alice Springs Airport’.

The main runway 12/30 was extended to 2438m in 1961. In 1965, a new terminal and fire station were opened to handle the increase in airline traffic. The buildings remained in situ and were controlled by the Commonwealth Department of Civil Aviation. Over the years they have continued to be used primarily by aviation-oriented groups such as Alice Springs Aero Club and the Parachute Club. Others have utilised the site as well, and overall integrity of the structures has been assured accordingly. Finally, in 1968, Conellan Airways relocated entirely from the town aerodrome.

During the 1960s surrounding land was progressively acquired to prevent grazing which was thought to contribute to airport dust storms. As a consequence Alice Springs Airport land holding increased to 35 square kilometres, the largest airport site in Australia.

The airport continued to grow with the location of the Royal Flying Doctor Service, Aboriginal Aircraft Maintenance and others.

**Changing Ownership**

On 1 April 1989, control of Alice Springs Airport passed from Commonwealth Government to the Federal Airports Corporation (FAC). It immediately commenced the construction of a new terminal building, which was commissioned in 1991.

This terminal was designed mainly around the requirements of Australian Airlines (now Qantas) and Ansett. The airport continued to experience a significant growth in passengers, supporting infrastructure and tenants, but in 1992 airport traffic was adversely impacted by the commencement of direct interstate B737-400 flights into Ayers Rock. All interstate traffic to Ayers Rock was lost, with some Alice Springs - Ayers Rock flights returning later.

In 1998, Airport Development Group (ADG) acquired a 50-year lease, with a further 49-year option for the three FAC controlled Northern Territory airports. ADG owns 100% of Northern Territory Airlines Pty Ltd (NTAAL), Northern Territory Airlines Pty Ltd (NTAAL) and Tennant Creek Airport PL. TCAAL in turn owns 100% of Darwin International Airport Pty Ltd (DIA) and Alice Springs Airport Pty Ltd (ASA). ASA is the airport operator.

**SIGNIFICANT DEVELOPMENTS ON AIRPORT**

Since ADG acquired Alice Springs Airport there has been development in both infrastructure and facilities at the airport.

### Apron, Taxiway and Runway Works

**2009**
- $10 million resurfacing of the main runway 12/30 to extend the runway life by 15 years
- $250,000 general aviation apron expansion

**2010**
- $265,000 regular public transport (RPT) and general aviation (GA) apron works

**2011**
- $270,000 taxiway upgrade
- $360,000 apron Code E parking

**2012**
- $8 million apron overlay

**2014**
- $1.6 million replacement of airfield lighting

### Terminal

**2006**
- $6 million checked bag screening system
- $300,000 check-in and car rental counter development

**2007**
- $205,000 enhancement to baggage makeup capacity

**2009**
- Building management system upgrade to improve the energy efficiency of the air-conditioning system

**2010**
- $200,000 terminal security improvements

**2013**
- $105,000 security equipment enhancement

### Ground Transport and Car Parks

**2006**
- $520,000 long-term car park development
- $247,000 development of wash bay facilities

**2010**
- $1.25 million short-term car park expansion

**2011**
- $410,000 short-term car park upgrade

**2013**
- $130,000 upgrading of internal roads

### Commercial Developments

**2007**
- $120,000 expansion of old terminal freight facility
2013
  • $1.8 million NT Police hangar and associated apron works

Infrastructure and Equipment
2008
  • $1.4 million upgrade of the high voltage system from a single radial feed to a ring main configuration, giving flexibility and redundancy of power supply to the airport

2010
  • $1.5 million Stage 1 solar power project
  • $150,000 HV ring main variation
  • $130,000 purchase of mobile plant equipment

2011
  • $320,000 electrical system upgrade

2014
  • $1.8 million Stage 2 solar power project

2015
  • $1.9 million Stage 3 solar power project
  • $1 million airfield lighting
SECTION 3

Airports Act Framework

• The Airports Act 1996 specifies the content of an Airport Master Plan, which covers aviation, commercial and environment planning and management requirements.
• Consultation with government, business, and community is a prominent part of the Master Plan development process.
• The Master Plan must be submitted to the Minister for Infrastructure and Regional Development for approval.
• The Final (approved) Master Plan is valid for five years.
In 1996, the Federal Parliament passed the **Airports Act 1996** to govern the development and operations of federal airports, leased to the private sector. The Act and the Regulations are the statutory controls for the ongoing regulation of activities on airport land for both aeronautical and non-aeronautical development.

Part 5 of the **Airports Act 1996** directs that an airport-lessee company (ALC) must develop a Master Plan. In accordance with the Act, the Master Plan must provide strategic direction for the development of the airport, and an environment strategy.

**AIRPORT MASTER PLAN REQUIREMENTS**

Section 70 of the Act states that there is to be a final Master Plan. The specific provisions of the Act applying to airports, other than joint-user airports, apply to the Alice Springs Airport Master Plan.

The Act specifies that an Airport Master Plan must set out:
- development objectives
- an assessment of the future needs of civil aviation users and other uses of the airport
- intention for land use and related development of the area embracing landside, surface access and land planning/zoning aspects as well as airside aspects including runways or taxiways
- an Australian Noise Exposure Forecast in relation to the airport for land surrounding the airport
- flight paths at the airport
- plans for managing aircraft noise within the area
- an assessment of environmental issues associated with the implementation of the plan
- management of the environmental impacts including plans for ameliorating or preventing environmental impacts
- in relation to the first five years of the master plan – a plan for a ground transport system on the landside of the airport
- in relation to the first five years of the master plan – detailed information on the proposed development that are to be used for commercial, community, office, or retail purposes; or for any other purpose that is not related to airport services
- in relation to the first five years of the master plan – the likely effect of the proposed development on employment levels at the airport, and the local and regional economy and community
- an environment strategy.

Part 5 Division 3 Section 72 of the Act also states that the plan must cover a 20-year planning period. The Master Plan remains in force for a five year period, and thus will be reviewed every five years.

**AIRPORT MASTER PLAN ASSESSMENT PROCESS**

When a Master Plan is prepared, consultation must be undertaken to ensure compatibility and acceptability of the plan. The stakeholders that were directly consulted included:
- Department of Infrastructure and Regional Development (DIRD)
- Northern Territory Government
- authorities of the Northern Territory Government
- local government
- airlines and other users of the airport
- aviation agencies
- Community Consultation Group and selected Planning Co-ordination Forum members.

Furthermore, pursuant to Section 79(1) of the Act, the Preliminary Draft Master Plan was advertised for public comment for a period of 60 business days.

Prior to the public comment period, ASA advised in writing the following persons and provided evidence, by way of a copy of the advice and a signed written certificate to the Minister, of distributing the Preliminary Draft Master Plan to:
- Northern Territory Minister for Lands and Planning
- Department of Lands, Planning and the Environment
- Alice Springs Town Council
- MacDonnell Regional Council.

When the public comment period closed, ASA submitted to the Minister a summary of comments received together with the Draft Master Plan. This summary contained the following:
- The names of persons or organisations that made comments.
- A summary of the comments.
- A statement declaring that ASA has taken due regard of the comments.
- Any other information relating to the comments that may be required by the Regulations.
Once ASA submitted the Draft Master Plan the Minister had 50 business days to decide whether to approve or refuse to approve the plan.

The Master Plan was approved by the Minister on 1 October 2015 and is therefore the Final Master Plan for the airport.

**FIGURE 5: MASTER PLAN PROCESS OUTLINE**

- **EXPOSURE DRAFT MASTER PLAN 2015**
  prepared for initial stakeholder consultation.

- **PRELIMINARY DRAFT MASTER PLAN 2015**
  prepared and released for public comment (60 business days).

- **DRAFT MASTER PLAN 2015**
  submitted to the Minister for approval including details on consultation. (50 business days).

- **FINAL MASTER PLAN 2015**
  APPROVED FOR A 5 YEAR PERIOD.
SECTION 4
Stakeholder and Community Consultation

- Alice Springs Airport (ASA) is committed to genuine consultation with all stakeholders.
- During preparation of the Master Plan, ASA undertook consultation with government agencies, airlines, general aviation operators, airport businesses, ASA Community Consultation Group and selected Planning Co-ordination Forum members to scope the major issues.
Alice Springs Airport is committed to effective and genuine consultation with all key stakeholders. ASA endeavours to provide a considered and clearly articulated approach to ensure that accurate information is disseminated and that feedback is encouraged in regard to development of Alice Springs Airport.

COMMUNICATION AND CONSULTATION APPROACH
During preparation of the Master Plan, ASA has undertaken consultation with government agencies, airlines, general aviation operators and airport businesses, to scope the major issues.

As part of the public consultation process, ASA:
- Made copies of the Preliminary Draft Master Plan (PDMP) available from the Alice Springs Airport Management Centre and on www.alicespringsairport.com.au.
- Undertook various discussions with NT Government representatives and key stakeholders.

Stakeholders consulted during the preparation for or during the public comment period of the PDMP included:
- Airservices Australia
- Civil Aviation Safety Authority (CASA)
- Alice Springs Airport staff
- Department of Infrastructure and Regional Development (DIRD)
- Airlines
- Northern Territory Department of Lands, Planning and the Environment
- Other Northern Territory Government agencies
- General Aviation operators
- Alice Springs Town Council
- MacDonnell Regional Council
- ASA Community Consultation Group and selected Planning Coordination Forum members.

In accordance with the Act, prior to the commencement of the public comment period, ASA advised in writing the following personas:
- Northern Territory Minister for Lands and Planning
- Department of Lands, Planning and the Environment
- Alice Springs Town Council
- MacDonnell Regional Council.
Alice Springs Airport has established Development Objectives to guide its planning and development of aeronautical and non-aeronautical facilities and services.
Alice Springs Airport has established the following development objectives to guide its planning and development of aeronautical and non-aeronautical facilities and services:

1. Ensure that planning supports long term development as an airport with an optimal mix of aeronautical uses.
2. Provide a safe, secure, reliable and sustainable airport operating environment.
3. Enhance the airport’s contribution to Northern Territory economic growth through developing the airport’s aviation and property business and by facilitating the success of our business partners.
4. Integrate environmental considerations into the development of facilities and services and seek to minimise their impact on the natural environment.
5. Engage with key community, business and government stakeholders on airport related economic, social and environmental issues and be mindful of surrounding community interests.
6. Provide airport infrastructure and facilities that are timely, cost effective, flexible in use and provide a good customer experience.
7. Undertake developments that enhance value to our shareholders and the broader economic community.

SECTION 6

Social, Economic and Regional Significance

- Aviation-related activity at Alice Springs Airport directly employs 328 people with an additional indirect employment effect of 336 people.
- The net tourism sector impact of the airport creates about 2,100 jobs in the tourism industry.
- The large GA sector at the airport is critical to delivery of services to Northern Territory and interstate remote communities.
SOCIAL IMPACT OF ALICE SPRINGS AIRPORT
Connecting communities in the Territory

Alice Springs Airport is critical to the provision of many services to the Central Australian region, which includes parts of the Northern Territory, Queensland, South Australia and Western Australia. Three examples are the Royal Flying Doctor Service (RFDS), Remote Air Services Subsidy (RASS) Scheme (the ‘Mail Plane’) and Northern Territory Police Air Section.

Medical services
Aircraft-based medical services play a key role in Central Australia. Prior to the introduction of such services, the needs of many emergency or critical cases simply could not be met, as land based transportation often meant impossible time delays in accessing medical services.

As such, ASA plays a critical role in enabling timely access of emergency medical care in remote areas, transport of critically ill persons to Alice Springs Hospital and larger medical centres elsewhere in Australia, and in the provision of preventative health care services within the remote areas of Central Australia.

The RFDS has four Pilatus PC-12 aircraft based at ASA which service an area of approximately 1.25 million square kilometres. These aircraft fly some 5700 hours per annum providing clinical and medical retrieval services to the Central Australian population.

Mail Planes and Remote Policing

Chartair, on behalf of the Department of Infrastructure and Regional Development (DIRD), delivers RASS Scheme services to remote communities and cattle stations hundreds of kilometres from Alice Springs. Around fifty remote locations receive ‘Mail Plane’ services from Alice Springs, providing an essential service to many remote Australians.

The Northern Territory Police Air Section has a Pilatus PC-12 aircraft based at Alice Springs Airport. This air capability is essential to delivering policing in central Australia.

CURRENT AND 2020 ECONOMIC IMPACT OF ALICE SPRINGS AIRPORT

ASA is the major Central Australian airport. It provides facilities used by residents, tourists and other visitors to central Australia, air services for remote communities (for which Alice Springs serves as the regional centre), the Joint Defence Facility at Pine Gap, general aviation and helicopter traffic, and other recreational activities.

Input-output analysis has been used to estimate the economic impact of the airport, using data obtained from survey of airport businesses and airport financial information. Input-output multipliers are a means of estimating the total economic impacts that arise after some initial stimulus to an economy. Total impacts include the initial (or direct) effect of the stimulus and the indirect effects that arise as a result of the linkages between industries in an economy.

The current total annual impact of the airport on the Central Australian economy is significant, with annual direct and indirect value-added GSP/GDP of $129 million and 328 direct jobs plus a further indirect employment effect of 336 jobs (see Table 2).

Included in the 2015 and 2020 economic impact projections is the relatively new aircraft storage business, Asia Pacific Aircraft Storage (APAS). APAS received its first aircraft for storage in late 2014 and has seen substantially increased business since then.

In addition to the economic activities taking place at the airport, ASA makes a contribution to the wider Northern Territory economy by facilitating the air travel of domestic and international visitors into the region.

The net direct and indirect tourism impact of the airport in 2015 is also considerable, with $254 million in value-added GSP/GDP and 2100 jobs. These numbers are net of the tourism impact due to visitor spending at the airport, as these are already included in figures shown in Table 3.
Economic Impact of Alice Springs Airport in 2020

In 2020 the total direct and indirect annual impact is $143 million in value added GSP/GDP and 730 jobs (see Table 4).

The net direct and indirect tourism annual impact in 2020 is $293 million in value added GSP/GDP and 2460 jobs (refer Table 5).

---

**TABLE 2: ANNUAL AIRPORT-RELATED BUSINESS IMPACTS 2015**

<table>
<thead>
<tr>
<th></th>
<th>AVIATION BUSINESS IMPACTS</th>
<th>NON-AVIATION BUSINESS IMPACTS</th>
<th>TOTAL BUSINESS IMPACTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EMPLOYMENT (FTES)</td>
<td>VALUE ADDED GSP/GDP ($/M)</td>
<td>EMPLOYMENT (FTES)</td>
</tr>
<tr>
<td>Direct Contribution</td>
<td>203</td>
<td>40.6</td>
<td>125</td>
</tr>
<tr>
<td>Indirect Contribution</td>
<td>218</td>
<td>47.1</td>
<td>118</td>
</tr>
<tr>
<td>Total</td>
<td>421</td>
<td>87.7</td>
<td>243</td>
</tr>
</tbody>
</table>

Data source: ACIL Allen

**TABLE 3: ANNUAL AIRPORT-ENABLED TOURISM IMPACTS ON THE NT ECONOMY 2015**

<table>
<thead>
<tr>
<th></th>
<th>DOMESTIC VISITORS</th>
<th>INTERNATIONAL VISITORS</th>
<th>ALL VISITORS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EMPLOYMENT (FTES)</td>
<td>VALUE ADDED GSP/GDP ($/M)</td>
<td>EMPLOYMENT (FTES)</td>
</tr>
<tr>
<td>Direct Contribution</td>
<td>910</td>
<td>89.2</td>
<td>433</td>
</tr>
<tr>
<td>Indirect Contribution</td>
<td>536</td>
<td>82.7</td>
<td>255</td>
</tr>
<tr>
<td>Total</td>
<td>1446</td>
<td>171.9</td>
<td>688</td>
</tr>
</tbody>
</table>

Data source: ACIL Allen

**TABLE 4: ESTIMATED ANNUAL AIRPORT-RELATED BUSINESS IMPACTS 2020**

<table>
<thead>
<tr>
<th></th>
<th>AVIATION BUSINESS IMPACTS</th>
<th>NON-AVIATION BUSINESS IMPACTS</th>
<th>TOTAL BUSINESS IMPACTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EMPLOYMENT (FTES)</td>
<td>VALUE ADDED GSP/GDP ($/M)</td>
<td>EMPLOYMENT (FTES)</td>
</tr>
<tr>
<td>Direct Contribution</td>
<td>225</td>
<td>45.5</td>
<td>136</td>
</tr>
<tr>
<td>Indirect Contribution</td>
<td>239</td>
<td>52.0</td>
<td>130</td>
</tr>
<tr>
<td>Total</td>
<td>464</td>
<td>97.5</td>
<td>266</td>
</tr>
</tbody>
</table>

Data source: ACIL Allen

**TABLE 5: ESTIMATED ANNUAL AIRPORT-ENABLED TOURISM IMPACTS ON THE NT ECONOMY 2020**

<table>
<thead>
<tr>
<th></th>
<th>DOMESTIC VISITORS</th>
<th>INTERNATIONAL VISITORS</th>
<th>ALL VISITORS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EMPLOYMENT (FTES)</td>
<td>VALUE ADDED GSP/GDP ($/M)</td>
<td>EMPLOYMENT (FTES)</td>
</tr>
<tr>
<td>Direct Contribution</td>
<td>999</td>
<td>97.1</td>
<td>559</td>
</tr>
<tr>
<td>Indirect Contribution</td>
<td>574</td>
<td>90.0</td>
<td>329</td>
</tr>
<tr>
<td>Total</td>
<td>1573</td>
<td>187.1</td>
<td>888</td>
</tr>
</tbody>
</table>

Data source: ACIL Allen
**FUTURE ECONOMIC IMPACT OF ALICE SPRINGS AIRPORT**

**Airport Business Impact in 2035**

Based on projected passenger numbers, the estimated direct and indirect annual impact of airport-related activities on the Central Australian economy is significant. It is projected that ASA and on-airport businesses will support some 890 jobs in 2035 (see Table 6). In 2035, the annual direct and indirect value added (or contribution to GSP) will be $175 million (both in current dollar values).

**Tourism Impacts in 2035**

The estimated direct and indirect airport-enabled tourism impact shows that over 3600 jobs will be due to tourists arriving by air while they will add approximately $437 million of value added GSP/GDP in current dollar terms to the NT economy (see Table 7).

**OTHER RELATED ACTIVITIES**

There are a number of activities at Alice Springs Airport whose value to Alice Springs and the wider community has not been quantified in the above analysis.

**Joint Defence Facility Pine Gap**

The airport enables weekly supply flights that service the Joint Defence Facility at Pine Gap. It serves as a freight transfer base for United States Air Force cargo aircraft taking equipment in and out of the nearby facility.

**Hot weather testing facility**

The airport also serves as a testbed for Boeing conducting hot weather trials relating to new in service aircraft as the summer temperatures are frequently in excess of 40 degrees Celsius (104 Fahrenheit).

**Australian Balloon Launching Station**

Since 1975 over 130 high-altitude scientific research balloons have been launched from the Australian Balloon Launching Station located at the Seven-Mile Aerodrome.

---

**TABLE 6: ESTIMATED ANNUAL AIRPORT-RELATED BUSINESS IMPACTS 2035**

<table>
<thead>
<tr>
<th></th>
<th>AVIATION BUSINESS IMPACTS</th>
<th>NON-AVIATION BUSINESS IMPACTS</th>
<th>TOTAL BUSINESS IMPACTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EMPLOYMENT (FTES)</td>
<td>VALUE ADDED GSP/GDP ($/M)</td>
<td>EMPLOYMENT (FTES)</td>
</tr>
<tr>
<td>Direct Contribution</td>
<td>262</td>
<td>53.9</td>
<td>173</td>
</tr>
<tr>
<td>Indirect Contribution</td>
<td>277</td>
<td>60.4</td>
<td>177</td>
</tr>
<tr>
<td>Total</td>
<td>539</td>
<td>114.3</td>
<td>350</td>
</tr>
</tbody>
</table>

Note: The above effects are in current dollar values  
Data source: ACIL Allen

**TABLE 7: ESTIMATED ANNUAL AIRPORT-ENABLED TOURISM IMPACTS ON THE NT ECONOMY 2035**

<table>
<thead>
<tr>
<th></th>
<th>DOMESTIC VISITORS</th>
<th>INTERNATIONAL VISITORS</th>
<th>ALL VISITORS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EMPLOYMENT (FTES)</td>
<td>VALUE ADDED GSP/GDP ($/M)</td>
<td>EMPLOYMENT (FTES)</td>
</tr>
<tr>
<td>Direct Contribution</td>
<td>1178</td>
<td>115.5</td>
<td>1134</td>
</tr>
<tr>
<td>Indirect Contribution</td>
<td>694</td>
<td>107.1</td>
<td>668</td>
</tr>
<tr>
<td>Total</td>
<td>1872</td>
<td>222.6</td>
<td>1802</td>
</tr>
</tbody>
</table>

Note: The above effects are in current dollar values  
Data source: ACIL Allen
SECTION 7

Aviation Activity Forecasts

- Passenger traffic will grow moderately over the next 20 years, increasing to some 750,000 in 2035.
- Aircraft movements will increase from 17,800 currently to around 22,700 aircraft movements over the 20-year planning period.
INDUSTRY OUTLOOK AND TRAFFIC PERFORMANCE
The Australian airline industry continues to evolve with the Qantas Group (Qantas, Jetstar and Qantaslink) and Virgin Group (Virgin Australia, Tigerair and Virgin Australia Regional Airlines) dominating the sector.

Qantas continues to provide most domestic capacity to Alice Springs with Virgin Australia entering the market in March 2015.

The Alice Springs passenger market is dominated by leisure traffic which means it is more impacted by economic cycles than markets with a significant business traffic component. Alice Springs has struggled to sustain long term growth in passenger numbers in the past decade due to economic conditions and arrival and departure of low cost carriers (LCCs).

The GA sector continues to experience entry and exit of industry participants.

Traffic Performance
Over the 10-year period to 2013-14 the number of domestic airline passenger movements arriving or departing at ASA increased marginally from 608,000 to 678,000 (11.5% in 10 years). The departure of Tigerair in July 2014 essentially removed a decade of growth.

Freight
Domestic freight has continued to be carried in the cargo hold of scheduled passenger flight aircraft. There is no central source of domestic freight data.

General Aviation
In recent times, GA activities have been variable with growth differing amongst the various categories of general aviation flying. From 2001 to 2011, annual flying hours for Northern Territory GA activities grew from 121,000 to 131,400 flying hours.

The main general aviation operators at ASA include Chartair, Royal Flying Doctor Service, Alice Springs Aero Club and Northern Territory Police Air Section. None of these operators have plans for expansion in the foreseeable future.

United States Military Operations
There is an average of some 200 Military movements per annum at ASA. It serves as a freight transfer base for United States Air Force military cargo planes, taking equipment in and out of the nearby Joint Defence Facility with C-17 and occasionally KC-10 aircraft types. In the past the airport has catered for C-5 Galaxy aircraft.

<table>
<thead>
<tr>
<th>TABLE 8: FORECAST PASSENGER MOVEMENTS</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FORECAST PASSENGER MOVEMENTS (ooo’s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>500</td>
</tr>
<tr>
<td>2015</td>
<td>550</td>
</tr>
<tr>
<td>2016</td>
<td>600</td>
</tr>
<tr>
<td>2017</td>
<td>650</td>
</tr>
<tr>
<td>2018</td>
<td>700</td>
</tr>
<tr>
<td>2019</td>
<td>750</td>
</tr>
<tr>
<td>2020</td>
<td>800</td>
</tr>
<tr>
<td>2021</td>
<td>850</td>
</tr>
<tr>
<td>2022</td>
<td>900</td>
</tr>
<tr>
<td>2023</td>
<td>950</td>
</tr>
<tr>
<td>2024</td>
<td>1000</td>
</tr>
<tr>
<td>2025</td>
<td>1050</td>
</tr>
<tr>
<td>2026</td>
<td>1100</td>
</tr>
<tr>
<td>2027</td>
<td>1150</td>
</tr>
<tr>
<td>2028</td>
<td>1200</td>
</tr>
<tr>
<td>2029</td>
<td>1250</td>
</tr>
<tr>
<td>2030</td>
<td>1300</td>
</tr>
<tr>
<td>2031</td>
<td>1350</td>
</tr>
<tr>
<td>2032</td>
<td>1400</td>
</tr>
<tr>
<td>2033</td>
<td>1450</td>
</tr>
<tr>
<td>2034</td>
<td>1500</td>
</tr>
<tr>
<td>2035</td>
<td>1550</td>
</tr>
</tbody>
</table>
FORECAST APPROACH
The forecasts outlined below are produced by Tourism Futures International (TFI) in consultation with ASA. The forecasts are driven by the 2014 reduction in capacity and incremental growth over the 20 year planning period.

Low, base, and high forecasts have been developed for both passengers and aircraft movements. The low and high figures represent the likely lower and upper bands of growth to 2035. The base forecasts represent the most likely growth scenarios and provide the basis for the planning throughout this document.

TRAFFIC FORECASTS

Passenger Movements
It is projected that annual passenger movements, including transit, will increase from 583,000 passengers in 2015 to approximately 750,000 passengers by the end of the planning period (refer to Table 8: Forecast Passenger Movements).

The early years of the passenger forecasts are driven by the loss of capacity due to the departure of Tigerair in July 2014, and subsequent incremental growth in passenger numbers.

The forecasts have been based on the following assumptions:
• Most capacity will continue to be operated by Qantas.
• Some additional domestic services over time that offer improved connectivity from key inbound tourist markets.

International Charter Operations
Expectations are that charter programs for Alice Springs are likely to be resumed in the longer term (the last international charter program was in 2006).

Freight
Domestic freight will continue to be carried predominantly in the cargo hold of passenger services. As domestic airline movements increase, this will generate additional capacity for domestic freight uplift.

Aircraft Movements
It is projected that combined aircraft movements at the airport will grow incrementally from 17,800 in 2015 to 22,700 movements per year by the end of the planning period. RPT aircraft movements are forecast to grow in line with passenger volumes. It is anticipated that RPT aircraft movements will continue to be narrow body operations. General Aviation forecasts are generated using an assumption that the underlying growth represents one-quarter of the growth rate in NT GSP per capita (refer to Table 9: Forecast Aircraft Movements).

It is expected that airlines will fully utilise existing Alice Springs capacity, and also will tend to upgauge aircraft rather than schedule additional services.

| TABLE 9: FORECAST AIRCRAFT MOVEMENTS |
|-------------------------|-------------------------|
| **FORECAST AIRCRAFT MOVEMENTS (ooo’s)** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** | **2022** | **2023** | **2024** | **2025** | **2026** | **2027** | **2028** | **2029** | **2030** | **2031** | **2032** | **2033** | **2034** | **2035** |
| General Aviation | 25 | 20 | 15 | 10 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| RPT | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 | 31 | 33 | 35 | 37 | 39 | 41 | 43 | 45 | 47 |
This page has intentionally been left blank
SECTION 8

Airport Land Use

• Land use planning is fundamental to an Airport Master Plan and is specifically highlighted in the Act.
• Land use planning in the 2015 Master Plan:
  – Ensures there is adequate land for expansion of aviation activity.
  – Clearly separates aeronautical and non-aeronautical uses.
  – Has been developed using terminology and definitions consistent with that used in the Northern Territory Planning Scheme where possible, with any variations being highlighted.
  – Reflects the large land holding and the significant long-term development potential of the airport.
• The Future Development Zone has residential as the major land use.
Alice Springs Airport incorporates approximately 3550 hectares, which is a large area for an airport (Australia’s largest airport site). Fewer than 800 hectares are utilised for the airport operation. The reason for this very large area is the acquisition of land in the 1960s for dust suppression purposes.

DEVELOPMENT POTENTIAL OF AIRPORT LAND

Alice Springs and Alice Springs Airport have many development strengths. These include:

- Vibrant lifestyle and attractive tourist destination.
- The major population and services centre in Central Australia.
- High quality infrastructure.
- Large airport land area available for development.

Given these opportunities, ASA has identified development opportunities which include:

- High technology industry, especially those industries relevant to Alice Springs as a solar city.
- Industries that rely on logistical support (e.g. mining).
- Residential development.
- Air, road, and other transport-based industries.

ASA has a largely undeveloped and mainly flat site in close proximity to the existing Alice Springs township. It has no development constraints from potential native title or topography issues in an area where these issues loom large. The airport land is valuable for Alice Springs’ development, providing a long term reserve of residential land.

Development envisaged in airport land use includes horticulture in the Horticulture Zone, aircraft storage in the Aviation Reservation and Dust Suppression Zones, GA expansion in the Aviation Activities Zone, warehousing in the Light Industry Zone and a restaurant in the Heritage Zone. The Future Development Zone is described below.

FUTURE DEVELOPMENT ZONE

The Future Development Zone in the Airport Land Use Zone Plan (Figure 3) has residential and ancillary commercial and community uses as its primary purpose.

Approved Residential Use in 1999 and 2004 Master Plans

Rural Residential use was approved in the 1999 and 2004 Master Plans for the same land which the Future Development Zone now occupies.

Approval of Residential Use in 2009 Master Plan

The periodic shortage of land for new housing in the Alice Springs area is well documented. Existing urban development is concentrated north of The Gap and local topography, soil types, native title factors and land servicing costs together result in high cost of new residential land north of The Gap. Hence the Northern Territory Government has focused its attention south of The Gap for release of new housing land.

A June 2008 public forum in Alice Springs and subsequent public submissions gave rise to the published Alice Springs Planning for the Future Forum – Outcomes Report and Action Plan (March 2009). It identified that part of the Arid Zone Research Institute (AZRI) site, as government land, was suitable for rezoning to provide around 1,400 housing lots. Also identified was that a combined AZRI – Alice Springs Airport residential development could provide up to 4,000 housing lots and provide a long term residential land bank for Alice Springs.

Widespread support existed for an integrated development of the AZRI residential area and abutting proposed Airport urban residential land with both land holdings to be part of the suburb of Kilgariff. The Northern Territory Government, Alice Springs Town Council and Northern Territory Chamber of Commerce all formally expressed support for the government owned AZRI site and the airport residential land to be a long term integrated residential development.

Under Part 5 Division 3 of the Airports Act 1996 residential is a sensitive development. In Part 5 Division 4 which covers Major Development Plans residential is listed as a sensitive development that will only be approved if the Minister under the Airports Act 1996 is satisfied that exceptional circumstances exist.

In submitting a Draft Master Plan with residential land use to the Minister in 2009 ASA needed to demonstrate that:

- Exceptional circumstances existed to allow the land use to be approved.
- Long term aviation operations at ASA would not be affected.
Exceptional circumstances were demonstrated in 2009 with the grounds for exceptional circumstances including:

- The shortage of reasonably priced residential land and widespread support expressed for including the nominated ASA land into the suburb of Kilgariff.
- The Northern Territory Government agreed to integrated planning of the Crown land and ASA components of Kilgariff.
- Anticipated planning features of the ASA component of Kilgariff included:
  - a buffer of at least one kilometre between housing and both the airport terminal and main runway to minimise aircraft noise impact on future residents and residential development well outside the 2049 20 ANEF contour
  - open space buffers between residential and the Stuart Highway and existing rural residential development
  - water sensitive urban design (WSUD) principles will be incorporated and natural water courses preserved as much as possible
  - transport links will include cycle/pedestrian corridors
  - planned commercial and community facilities.

It was also demonstrated that long term aviation operations would not be affected by excision of the Future Development Zone which is located to the north of Roger Vale Drive. Existing and future aeronautical assets will be located to the south of Roger Vale Drive. Excision of the Future Development Zone would still leave ASA as the largest airport site in Australia.

Regulatory Context and Land Tenure
As noted above it was recognised in the 2009 Final Master Plan that residential is a sensitive development under the Airports Act 1996. Additionally residential development in the Northern Territory occurs on a freehold tenure basis. Hence it was also anticipated in the 2009 Final Master Plan that the residential land (Future Development Zone in the 2009 Final Master Plan) would need to be excised from the ASA lease under the Airports Act 1996 and converted to freehold tenure.

It was noted in the 2009 Final Master Plan that excision of the Future Development Zone from the lease would occur in accordance with the Commonwealth Property Disposal Policy. If the excision of the land from the lease involves a concessional sale under the Commonwealth Property Disposal Policy the transaction will be primarily a matter between the Commonwealth and the Northern Territory Government.

Action on Excision of Future Development Zone from Airport Lease
While preliminary work on excision of the Future Development Zone has occurred no formal steps on the excision have yet been undertaken. It is anticipated that excision will occur in the next three years.

Future Development Zone included in Northern Territory Planning Scheme
The suburb of Kilgariff, which includes Crown land and ASA land, was included as an Area Plan in the Northern Territory Planning Scheme in 2012. The Area Plan and associated Planning Principles are included at the rear of this section. The Crown land is above Colonel Rose Drive and ASA land is below Colonel Rose Drive.

Kilgariff Development to Date
The Northern Territory Land Development Corporation has undertaken development of Stage 1A of Kilgariff. Headworks have been installed which will cater for further stages.

Pre-Existing Interests
Part 5.02(3)(b) of the Airport Regulations 1997 requires that any obligations or interests at Alice Springs Airport are addressed. Existing interests are listed below:

- Electronic communications Easement to Telstra Corporation Limited.
- Electricity supply Easement to Power and Water Authority.
- Electronic communications Easement to Northern Territory of Australia.

AIRPORTS ACT 1996 AND ASSOCIATED REGULATIONS
Airports Act 1996
The Airports Act 1996 requires the Master Plan to specify ASA's intentions for its land use and related development of the leased area of the airport site where uses and developments embrace airside, landside, surface access and land planning/zoning aspects. The following Land Use Zones have been developed observing this.

Consistency with the Northern Territory Planning Scheme
Part 5.02(2) of the Airport Regulations 1997 states: ‘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.’

Consequently, where possible, the Land Use Zones have been developed in an amount of detail and using terminology and definitions consistent with that of the Northern Territory Planning Scheme.

Definitions of intended land uses are contained in Section 20.

Land Use Zones
Land Use Zones for the airport land apply to areas on the Land Use Plan as shown in Figure 3. These are based on known airport land use needs and current market trends. The zoning regime aims to assist and encourage progressive and
orderly development of the airport land. The zones have been categorised into:

- aviation and aviation-related uses
- interim uses
- non-aviation uses.

Where possible, the zones and associated uses of the Northern Territory Planning Scheme have been adopted as zones and intended uses.

Potential land uses can proceed through the normal environmental and building control (and major development plan if necessary) processes, except where a specific potential use is denoted as a ‘sensitive development’ in which case the process at Section 89A of the Airports Act 1996 applies.

Where there are inconsistencies between existing land uses and land uses proposed in the zone, the existing uses may continue. Expansion and/or replacement of the existing uses may be consented to by ASA and be regarded as an additional permissible form of the existing use.

Development in any land use zone will have regard to AS2021 – 2015 (Acoustics – Aircraft noise intrusions – building siting and construction).

Several of the following land use zones, including the Future Development Zone, have land uses which are sensitive developments under the Airports Act 1996. These land uses include residential, education facilities and nursing homes. These uses could not proceed without exceptional circumstances being demonstrated and the Major Development Plan process followed (where such a land use was to occur on the airport lease). However, it is the intention that the Future Development Zone be excised from the Airports Act 1996 lease.
FIGURE 6: LAND USE PLAN WITH ANEF CONTOURS

Note: The Stuart Highway, Roger Vale Drive and Santa Teresa Road are Northern Territory Government roads.
14.4.7 Kilgariff Area Plan

**Design to minimise the impacts of development on the landscape and natural environment.**

1. Kilgariff will respond to and preserve the key natural and cultural features of the site especially St Mary's Creek and associated areas of native vegetation, and will be developed in accordance with prescribed environmental management plans. Site responsive stormwater management will be achieved through the application of water sensitive urban design principles. The flat landform with soils susceptible to erosion will require innovative site-specific drainage solutions. Future Development is to:

2. Demonstrate a site planning response to Kilgariff’s landform, drainage and soil types by:
   
   (a) providing a network of local roads, urban drainage and open space that response to and is integrated with the landform and natural drainage;
   
   (b) maintaining the arid zone hydrology of St Mary’s Creek and associated natural drainage features;
   
   (c) preserving natural ground cover wherever possible, and avoiding disturbance of land which is not directly required for construction, excavation or filling;
   
   (d) avoiding drainage channel erosion by controlling the magnitude and duration of sediment-transporting stormwater flows; and by
   
   (e) controlling sediment and erosion during construction.

3. Minimise adverse impacts on natural stormwater drainage flows and quality by:

   (a) managing stormwater at source to reduce run-off from impervious areas;
   
   (b) incorporating stormwater detention and infiltration; and
   
   (c) applying Australian best practice standards to the quality of stormwater run-off into the natural drainage system.

4. Retain natural features and native vegetation with environmental or cultural value by:

   (a) identifying and mapping natural features and native vegetation which are valuable for their cultural significance, species, habitat, stature, or natural amenity;

   (b) integrating identified natural features and native vegetation into open space, road reserves and drainage corridors; and

   (c) protecting all identified area of native vegetation during construction.
Creating a resilient residential environment

5. Kilgariff shall be structured around compact neighbourhoods that are safe, efficient, and adaptable to change. Housing will be diverse and climate responsive. Higher residential densities shall be located in areas of high amenity close to neighbourhood centres and public transport stops. Road networks shall be interconnected rather than hierarchical to distribute rather than concentrate traffic flow, and shall especially support pedestrians, cyclists, and those dependant on public transport. Future Development is to:

6. Provide compact, safe and walkable neighbourhoods by:
   (a) locating neighbourhood centres to maximise opportunities for the direct access via cycle and pedestrian corridors;
   (b) providing an interconnected street network supporting access, route choice and designed with priority for safe and convenient walking and cycling;
   (c) providing direct main roads between neighbourhood centres, designed to support efficient public transport, the pedestrian/cycleway network, and with street trees to provide shade and visual amenity; and
   (d) providing direct access to St Mary’s Creek and other open space.

7. Provide community focused neighbourhood centres by:
   (a) accommodating commercial and business activities within the centre with a focus on local community needs and opportunities for employment without competing with Alice Springs town centre as the principle focus for higher order services; and
   (b) providing community services such as child and elderly persons care.

8. Provide housing choice in appropriate locations by:
   (a) creating a mix of lot sizes for single, multiple and medium density dwellings, supporting a mix of housing types including small-lot single dwellings; and
   (b) locating multiple and medium density housing, including accommodation for aged persons and people requiring assistance, close to a neighbourhood centre and overlooking open space wherever possible.
9. Provide a community purpose site to meet the needs of Kilgariff into the future by:

(a) locating the community purpose site in accordance with the Area Plan or in a similar location on the primary movement corridors to maximise opportunities for safe access via public transport, pedestrian and cycle corridors;

(b) locating the site without impacting on the walkability and population capacity of adjacent neighbourhoods; and

(c) providing sufficient community purpose land to allow collocation and integration of a school with other community and active recreation facilities for the Kilgariff area.

Building a community

10. Kilgariff shall be developed in response to the social needs of the community, including the timely and coordinated delivery of human services, community facilities, and local employment opportunities. Planning and development shall identify opportunities to tell the story of the site and hence develop a community identity and sense of place.

Future Development is to:

11. Create neighbourhoods with focal spaces able to support place making initiatives by:

(a) designing neighbourhood centres that provide active interfaces to public space and create opportunities for casual surveillance;

(b) incorporating urban spaces for community interaction and to assist in establishing a sense of place;

(c) creating locations for public art to interpret the narrative of Kilgariff; and

(d) designing community facilities that will accommodate a variety of uses and be adaptable to changing neighbourhood requirements over time.
9. Provide a community purpose site to meet the needs of Kilgariff into the future by:

(a) locating the community purpose site in accordance with the Area Plan or in a similar location on the primary movement corridors to maximise opportunities for safe access via public transport, pedestrian and cycle corridors;

(b) locating the site without impacting on the walkability and population capacity of adjacent neighbourhoods; and

(c) providing sufficient community purpose land to allow collocation and integration of a school with other community and active recreation facilities for the Kilgariff area.

10. Kilgariff shall be developed in response to the social needs of the community, including the timely and coordinated delivery of human services, community facilities, and local employment opportunities. Planning and development shall identify opportunities to tell the story of the site and hence develop a community identity and sense of place.

Future Development is to:

11. Create neighbourhoods with focal spaces able to support place making initiatives by:

(a) designing neighbourhood centres that provide active interfaces to public space and create opportunities for casual surveillance;

(b) incorporating urban spaces for community interaction and to assist in establishing a sense of place;

(c) creating locations for public art to interpret the narrative of Kilgariff; and

(d) designing community facilities that will accommodate a variety of uses and be adaptable to changing neighbourhood requirements over time.
AVIATION AND AVIATION RELATED USES

Aviation Activities Zone  
(This zone is shown as beige on the Land Use Plan)

**Primary Purpose**
To provide for the future and current aviation operations and requirements of the airport and the airline passenger terminal.

**Intended Principal Land Uses**
- Aviation activities including General Aviation

<table>
<thead>
<tr>
<th>TABLE 10: AVIATION ACTIVITIES ZONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEVELOPMENT SHOULD</td>
</tr>
<tr>
<td>Provide areas that are essential for aircraft operations and requirements.</td>
</tr>
<tr>
<td>Promote the safe and orderly operation of aircraft operations and the airport facilities in general.</td>
</tr>
<tr>
<td>Facilitate compatible and ancillary uses within the zone that do not conflict with aviation activities or facilities.</td>
</tr>
</tbody>
</table>

Terminal and Facilities Zone  
(This zone is shown as yellow on the Land Use Plan)

**Primary Purpose**
To provide for a variety of goods, services and facilities to meet the needs of travelling passengers, airport visitors, the airport workforce and the airlines. This zone includes the main terminal building, public car parking, airport and government offices, and associated land.

**Intended Principal Land Uses**
- Airline passenger terminal
- Car parking
- Offices

<table>
<thead>
<tr>
<th>TABLE 11: TERMINAL AND FACILITIES ZONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEVELOPMENT SHOULD</td>
</tr>
<tr>
<td>Provide for an airport terminal and passenger facilities that meet the needs of travellers, airport visitors, the airport workforce and airlines.</td>
</tr>
<tr>
<td>Not prejudice the safety or efficiency of the airport.</td>
</tr>
<tr>
<td>Provide for buffer zones to accommodate existing and future infrastructure, pedestrian and cycle links, signs, lighting and landscaping.</td>
</tr>
<tr>
<td>Promote community safety in building design, having regard to adjacent and nearby uses.</td>
</tr>
<tr>
<td>Ensure that adequate car parking is provided.</td>
</tr>
</tbody>
</table>
INTERIM USES
Aviation Reservation Zone
(This zone is shown as mint green on the Land Use Plan)

Primary Purpose
To provide for the potential future expansion of aviation and aviation-related uses.

Intended Principal Land Uses
- Interim uses that do not conflict with future aviation and aviation-related uses

### TABLE 12: AIRPORT RESERVATION ZONE

<table>
<thead>
<tr>
<th>DEVELOPMENT SHOULD</th>
<th>POTENTIAL LAND USES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitate compatible and ancillary uses within the zone that do not conflict with aviation and aviation-related uses or render the land unfit for aviation and aviation-related uses when it is required for this use.</td>
<td></td>
</tr>
<tr>
<td>Not prejudice the safety or efficiency of the airport.</td>
<td></td>
</tr>
<tr>
<td>Provide for buffer zones to accommodate existing and future infrastructure, pedestrian and cycle links, signs, lighting and landscaping.</td>
<td></td>
</tr>
<tr>
<td>Promote community safety in building design, having regard to adjacent and nearby uses.</td>
<td></td>
</tr>
<tr>
<td>Ensure that adequate car parking is provided.</td>
<td></td>
</tr>
<tr>
<td>Have regard for ecological and hydrology value during the design stage.</td>
<td></td>
</tr>
<tr>
<td>Animal boarding</td>
<td></td>
</tr>
<tr>
<td>Aviation activity</td>
<td></td>
</tr>
<tr>
<td>Aviation support facility</td>
<td></td>
</tr>
<tr>
<td>Business sign</td>
<td></td>
</tr>
<tr>
<td>Car park</td>
<td></td>
</tr>
<tr>
<td>Community centre</td>
<td></td>
</tr>
<tr>
<td>Education establishment*</td>
<td></td>
</tr>
<tr>
<td>Fuel depot</td>
<td></td>
</tr>
<tr>
<td>General aviation and support facilities</td>
<td></td>
</tr>
<tr>
<td>Helipad</td>
<td></td>
</tr>
<tr>
<td>Heliport</td>
<td></td>
</tr>
<tr>
<td>Hostel</td>
<td></td>
</tr>
<tr>
<td>Hotel</td>
<td></td>
</tr>
<tr>
<td>Leisure and recreation</td>
<td></td>
</tr>
<tr>
<td>Licensed club</td>
<td></td>
</tr>
<tr>
<td>Light industry</td>
<td></td>
</tr>
<tr>
<td>Medical clinic</td>
<td></td>
</tr>
<tr>
<td>Motel</td>
<td></td>
</tr>
<tr>
<td>Motor body works</td>
<td></td>
</tr>
<tr>
<td>Motor repair station</td>
<td></td>
</tr>
<tr>
<td>Navigational aids</td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td></td>
</tr>
<tr>
<td>Passenger terminal</td>
<td></td>
</tr>
<tr>
<td>Place of worship</td>
<td></td>
</tr>
<tr>
<td>Plant nursery</td>
<td></td>
</tr>
<tr>
<td>Promotion sign</td>
<td></td>
</tr>
<tr>
<td>Restaurant</td>
<td></td>
</tr>
<tr>
<td>Service station</td>
<td></td>
</tr>
<tr>
<td>Shop</td>
<td></td>
</tr>
<tr>
<td>Short-stay accommodation</td>
<td></td>
</tr>
<tr>
<td>Showroom sales</td>
<td></td>
</tr>
<tr>
<td>Transport terminal</td>
<td></td>
</tr>
<tr>
<td>Utilities and infrastructure</td>
<td></td>
</tr>
<tr>
<td>Vehicle sales and hire</td>
<td></td>
</tr>
<tr>
<td>Veterinary clinic</td>
<td></td>
</tr>
<tr>
<td>Warehouse</td>
<td></td>
</tr>
</tbody>
</table>

### NON-AVIATION RELATED USES
Commercial Zone
(This zone is shown as grey on the Land Use Plan)

Primary Purpose
To provide for a range of business, office, and retail activities as well as community uses.

Intended Principal Land Uses
- Office
- Retail (shops)

### TABLE 13: COMMERCIAL ZONE

<table>
<thead>
<tr>
<th>DEVELOPMENT SHOULD</th>
<th>POTENTIAL LAND USES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encourage a range of activities that would benefit from a location in close proximity to the airport and its terminal area.</td>
<td></td>
</tr>
<tr>
<td>Not prejudice the safety or efficiency of the airport.</td>
<td></td>
</tr>
<tr>
<td>Respect the amenity of the adjacent and nearby uses.</td>
<td></td>
</tr>
<tr>
<td>Promote community safety in building design, having regard to adjacent and nearby uses.</td>
<td></td>
</tr>
<tr>
<td>Provide for buffer zones to accommodate existing and future infrastructure, pedestrian and cycle links, signs, lighting and landscaping.</td>
<td></td>
</tr>
<tr>
<td>Ensure that adequate car parking is provided.</td>
<td></td>
</tr>
<tr>
<td>Have regard for ecological and hydrology value during the design stage.</td>
<td></td>
</tr>
<tr>
<td>Business sign</td>
<td></td>
</tr>
<tr>
<td>Caretaker’s residence*</td>
<td></td>
</tr>
<tr>
<td>Car park</td>
<td></td>
</tr>
<tr>
<td>Child care centre</td>
<td></td>
</tr>
<tr>
<td>Community centre</td>
<td></td>
</tr>
<tr>
<td>Education establishment*</td>
<td></td>
</tr>
<tr>
<td>Hostel</td>
<td></td>
</tr>
<tr>
<td>Hotel</td>
<td></td>
</tr>
<tr>
<td>Leisure and recreation</td>
<td></td>
</tr>
<tr>
<td>Licensed club</td>
<td></td>
</tr>
<tr>
<td>Medical clinic</td>
<td></td>
</tr>
<tr>
<td>Motel</td>
<td></td>
</tr>
<tr>
<td>Motor repair station</td>
<td></td>
</tr>
<tr>
<td>Navigational aids</td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td></td>
</tr>
<tr>
<td>Place of worship</td>
<td></td>
</tr>
<tr>
<td>Plant nursery</td>
<td></td>
</tr>
<tr>
<td>Promotion sign</td>
<td></td>
</tr>
<tr>
<td>Restaurant</td>
<td></td>
</tr>
<tr>
<td>Service station</td>
<td></td>
</tr>
<tr>
<td>Shop</td>
<td></td>
</tr>
<tr>
<td>Showroom sales</td>
<td></td>
</tr>
<tr>
<td>Supporting accommodation*</td>
<td></td>
</tr>
<tr>
<td>Utilities and infrastructure</td>
<td></td>
</tr>
<tr>
<td>Vehicle sales and hire</td>
<td></td>
</tr>
<tr>
<td>Veterinary clinic</td>
<td></td>
</tr>
</tbody>
</table>

* Denotes a ‘sensitive development’ as defined by Section 71A of the Airports Act 1996.
Service Commercial Zone
(This zone is shown as light orange on the Land Use Plan)

Primary Purpose
To provide commercial activities, which because of the nature of the business or size of the population catchment, require large sites.

Intended Principal Land Uses
• Office
• Retail (shops)
• Showroom sales
• Warehouse

<table>
<thead>
<tr>
<th>DEVELOPMENT SHOULD</th>
<th>POTENTIAL LAND USES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow for a range of land uses including showroom sales and warehouse but will not, by the nature of its operations, detrimentally affect the amenity of the adjoining or nearby land developments.</td>
<td>Agriculture Business sign Car park Child care centre Community centre Education establishment* Hostel Hotel Leisure and recreation Licensed club Light industry Medical clinic Motel Motor body works Motor repair station Navigational aids Office Passenger terminal Place of worship Plant nursery Promotion sign Restaurant Service station Shop Short-stay accommodation Showroom sales Transport terminal Utilities and infrastructure Vehicle sales and hire Veterinary clinic Warehouse</td>
</tr>
</tbody>
</table>

Not prejudice the safety or efficiency of the airport.

Promote community safety in building design, having regard to adjacent and nearby uses.

Provide for buffer zones to accommodate existing and future infrastructure, pedestrian and cycle links, signs, lighting and landscaping.

Ensure that adequate car parking is provided.

Tourist Commercial Zone
(This zone is shown as light blue on the Land Use Plan)

Primary Purpose
To provide for uses or development servicing tourism, including commercial activities.

Intended Principal Land Uses
• Hostel
• Hotel
• Motel
• Short-stay accommodation

<table>
<thead>
<tr>
<th>DEVELOPMENT SHOULD</th>
<th>POTENTIAL LAND USES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Be of a scale and character compatible with uses of development nearby.</td>
<td>Agriculture Business sign Caravan park Caretaker’s residence* Car park Community centre Hostel Hotel Leisure and recreation Licensed club Medical clinic Motel Navigational aids Office Passenger terminal Place of worship Plant nursery Promotion sign Restaurant Service station Shop Short-stay accommodation Showroom sales Transport terminal Utilities and infrastructure Vehicle sales and hire</td>
</tr>
</tbody>
</table>

Not prejudice the safety or efficiency of the airport.

Encourage a range of viable tourist/visitor activities which would benefit from a location in close proximity to the airport and its terminal area.

Promote community safety in building design, having regard to adjacent and nearby uses.

Have regard to the portion of the Todd River Flood Plain located within this zone.

Provide for buffer zones to accommodate existing and future infrastructure, pedestrian and cycle links, signs, lighting and landscaping.

Ensure that adequate car parking is provided.
**Future Development Zone**  
*(This zone is shown as light pink on the Land Use Plan)*

**Primary Purpose**  
To provide for future residential and ancillary commercial and community uses.

This zone is an interim zone identifying an area that is intended for future rezoning and development in accordance with a MDP or similar, prepared having regard to future requirements for land uses within the airport and on adjacent land.

**Intended Principal Land Uses**
- Single dwelling on individual lots
- Short-stay accommodation
- Affordable housing, including multiple dwellings
- Ancillary commercial uses including local shopping
- Ancillary community uses including child care and education

---

**TABLE 16: FUTURE DEVELOPMENT ZONE**

<table>
<thead>
<tr>
<th>DEVELOPMENT SHOULD</th>
<th>POTENTIAL LAND USES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Be of a scale and character compatible with uses or development nearby.</td>
<td>Agriculture</td>
</tr>
<tr>
<td>Not prejudice the safety or efficiency of the airport.</td>
<td>Business sign</td>
</tr>
<tr>
<td>Demonstrate the relationship of the proposal to existing and proposed future land uses, identifying potential impacts on facilities and services and the amenity of the locality.</td>
<td>Community centre</td>
</tr>
<tr>
<td>Encourage a range of residential types and designs, including a focus on the provision of affordable houses.</td>
<td>Domestic livestock</td>
</tr>
<tr>
<td>Provide for the disposal of effluent on-site so that the effluent does not pollute ground or surface waters, where the lots are unsewered.</td>
<td>Group home*</td>
</tr>
<tr>
<td>Encourage a range of commercial and community uses to support the residential uses within the airport and the proposed AZRI development on the adjacent land.</td>
<td>Home based child care centre*</td>
</tr>
<tr>
<td>Encourage a range of viable tourist/visitor activities that would benefit from a location in close proximity to the airport and its terminal area.</td>
<td>Home occupation*</td>
</tr>
<tr>
<td>Promote community safety in building design, having regard to adjacent and nearby uses.</td>
<td>Independent unit*</td>
</tr>
<tr>
<td>Provide for buffer zones to accommodate existing and future infrastructure, pedestrian and cycle links, signs, lighting and landscaping.</td>
<td>Multiple dwellings*</td>
</tr>
<tr>
<td>Ensure that adequate car parking is provided.</td>
<td>Navigational aids</td>
</tr>
<tr>
<td>Have regard for ecological and hydrology value during the design stage.</td>
<td>Place of worship</td>
</tr>
</tbody>
</table>

---

**Light Industry Zone**  
*(This zone is shown as coral pink on the Land Use Plan)*

**Primary Purpose**  
To provide for light industry uses or development activities that will not, by the nature of their operations, detrimentally affect adjoining or nearby land.

**Intended Principal Land Uses**
- Showroom and showroom sales
- Warehouse
- Light industry

---

**TABLE 17: LIGHT INDUSTRY ZONE**

<table>
<thead>
<tr>
<th>DEVELOPMENT SHOULD</th>
<th>POTENTIAL LAND USES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow for a range of land uses including showroom sales and warehouse but will not by the nature of their operations detrimentally affect the amenity of the adjoining or nearby land developments.</td>
<td>Agriculture</td>
</tr>
<tr>
<td>Not prejudice the safety or efficiency of the airport.</td>
<td>Animal boarding</td>
</tr>
<tr>
<td>Promote community safety in building design, having regard to adjacent and nearby uses.</td>
<td>Aviation activity</td>
</tr>
<tr>
<td>Be designed in such a way to protect the amenity of the adjacent heritage properties.</td>
<td>Aviation support facility</td>
</tr>
<tr>
<td>Ensure that adequate car parking is provided.</td>
<td>Business sign</td>
</tr>
<tr>
<td></td>
<td>Caretaker’s residence*</td>
</tr>
<tr>
<td></td>
<td>Car park</td>
</tr>
<tr>
<td></td>
<td>Community centre</td>
</tr>
<tr>
<td></td>
<td>Education establishment*</td>
</tr>
<tr>
<td></td>
<td>General aviation and support facilities</td>
</tr>
<tr>
<td></td>
<td>Helipad</td>
</tr>
<tr>
<td></td>
<td>Heliport</td>
</tr>
<tr>
<td></td>
<td>Hostel</td>
</tr>
<tr>
<td></td>
<td>Hotel</td>
</tr>
<tr>
<td></td>
<td>Leisure and recreation</td>
</tr>
<tr>
<td></td>
<td>Licensed club</td>
</tr>
<tr>
<td></td>
<td>Light industry</td>
</tr>
<tr>
<td></td>
<td>Medical clinic</td>
</tr>
<tr>
<td></td>
<td>Motor body works</td>
</tr>
<tr>
<td></td>
<td>Motor repair station</td>
</tr>
<tr>
<td></td>
<td>Navigational aids</td>
</tr>
<tr>
<td></td>
<td>Office</td>
</tr>
<tr>
<td></td>
<td>Passenger terminal</td>
</tr>
<tr>
<td></td>
<td>Place of worship</td>
</tr>
<tr>
<td></td>
<td>Plant nursery</td>
</tr>
<tr>
<td></td>
<td>Promotion sign</td>
</tr>
<tr>
<td></td>
<td>Recycling depot</td>
</tr>
<tr>
<td></td>
<td>Restaurant</td>
</tr>
<tr>
<td></td>
<td>Rural industry</td>
</tr>
<tr>
<td></td>
<td>Service station</td>
</tr>
<tr>
<td></td>
<td>Shop</td>
</tr>
<tr>
<td></td>
<td>Showroom sales</td>
</tr>
<tr>
<td></td>
<td>Transport terminal</td>
</tr>
<tr>
<td></td>
<td>Utilities and infrastructure</td>
</tr>
<tr>
<td></td>
<td>Vehicle sales and hire</td>
</tr>
<tr>
<td></td>
<td>Veterinary clinic</td>
</tr>
<tr>
<td></td>
<td>Warehouse</td>
</tr>
</tbody>
</table>
**General Industry Zone**  
*(This zone is shown as purple on the Land Use Plan)*

**Primary Purpose**
To provide for general industry.

**Intended Principal Land Uses**
- Warehouse
- General industry

**TABLE 18: GENERAL INDUSTRY ZONE**

<table>
<thead>
<tr>
<th>DEVELOPMENT SHOULD</th>
<th>POTENTIAL LAND USES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow for a range of land uses including showroom sales and warehouse.</td>
<td>Agriculture</td>
</tr>
<tr>
<td>Not prejudice the safety or efficiency of the airport.</td>
<td>Animal boarding</td>
</tr>
<tr>
<td>Promote community safety in building design, having regard to adjacent and nearby uses.</td>
<td>Aviation activity</td>
</tr>
<tr>
<td>Ensure that adequate car parking is provided.</td>
<td>Aviation support facility</td>
</tr>
</tbody>
</table>

**TABLE 19: HERITAGE ZONE**

<table>
<thead>
<tr>
<th>DEVELOPMENT SHOULD</th>
<th>POTENTIAL LAND USES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Be compatible with the heritage value and character of the area, and in particular the military build-up of the north.</td>
<td>Be in accordance with the current Conservation and Management Plan for the 1939 Seven-Mile Site.</td>
</tr>
<tr>
<td>Not prejudice the safety or efficiency of the airport.</td>
<td>Be in accordance with the current Conservation and Management Plan for the 1939 Seven-Mile Site.</td>
</tr>
<tr>
<td>Respect the amenity of the adjacent and nearby uses.</td>
<td>Promote community safety in building design, having regard to adjacent and nearby uses.</td>
</tr>
<tr>
<td>Provide for buffer zones to accommodate existing and future infrastructure, pedestrian and cycle links, signs, lighting and landscaping.</td>
<td>Ensure that adequate car parking is provided.</td>
</tr>
</tbody>
</table>

---
Horticulture Zone
(This zone is shown as light green on the Land Use Plan)

Primary Purpose
To provide suitable land for horticulture.

Intended Principal Land Uses
- Agriculture
- Intensive animal husbandry
- Rural industry

<table>
<thead>
<tr>
<th>DEVELOPMENT SHOULD</th>
<th>POTENTIAL LAND USES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encourage a range of horticultural activities that would benefit from a location in close proximity to the airport and its terminal area.</td>
<td>Agriculture</td>
</tr>
<tr>
<td>Intensive animal husbandry</td>
<td>Animal boarding</td>
</tr>
<tr>
<td>Navigational aids</td>
<td>Domestic livestock</td>
</tr>
<tr>
<td>Horticulture</td>
<td>Business sign</td>
</tr>
<tr>
<td>Intensive animal husbandry</td>
<td>Promotional sign</td>
</tr>
<tr>
<td>Navigational aids</td>
<td>Retail agricultural stall</td>
</tr>
<tr>
<td>Horticulture</td>
<td>Rural industry</td>
</tr>
<tr>
<td>Intensive animal husbandry</td>
<td>Stables</td>
</tr>
<tr>
<td>Rural industry</td>
<td>Transport terminal</td>
</tr>
<tr>
<td>Utilities and infrastructure</td>
<td></td>
</tr>
<tr>
<td>Not prejudice the safety or efficiency of the airport.</td>
<td></td>
</tr>
<tr>
<td>Respect the amenity of the adjacent and nearby uses.</td>
<td></td>
</tr>
<tr>
<td>Promote community safety in building design, having regard to adjacent and nearby uses.</td>
<td></td>
</tr>
<tr>
<td>Have regard to the portion of the Todd River Flood Plain located within this zone.</td>
<td></td>
</tr>
<tr>
<td>Provide for buffer zones to accommodate existing and future infrastructure.</td>
<td></td>
</tr>
<tr>
<td>Ensure that adequate car parking is provided.</td>
<td></td>
</tr>
<tr>
<td>Have regard for ecological and hydrology value during the design stage.</td>
<td></td>
</tr>
</tbody>
</table>

Dust Suppression
(This zone is shown as hatched brown on the Land Use Plan)

Primary Purpose
To provide excess land as a buffer zone to eliminate dust hazard to aircraft operations.

Intended Principal Land Uses
- Any land use not inconsistent with the objectives of minimising dust hazard within the airport lease area and including aviation activity support facilities, suitable livestock grazing and light and general industry.

<table>
<thead>
<tr>
<th>DEVELOPMENT SHOULD</th>
<th>POTENTIAL LAND USES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assist in the reduction of dust hazard to aircraft operations.</td>
<td>Agriculture</td>
</tr>
<tr>
<td>Aviation activity</td>
<td>Animal boarding</td>
</tr>
<tr>
<td>Aviation support facility</td>
<td>Business sign</td>
</tr>
<tr>
<td>Car park</td>
<td>Domestic livestock</td>
</tr>
<tr>
<td>Education establishment*</td>
<td>General aviation and support facilities</td>
</tr>
<tr>
<td>Helipad</td>
<td>Heliport</td>
</tr>
<tr>
<td>Horticulture</td>
<td>Hostel</td>
</tr>
<tr>
<td>Leisure and recreation</td>
<td>Hotel</td>
</tr>
<tr>
<td>Licensed club</td>
<td>Medical clinic</td>
</tr>
<tr>
<td>Light industry</td>
<td>Motel</td>
</tr>
<tr>
<td>Medical clinic</td>
<td>Navigational aids</td>
</tr>
<tr>
<td>Office</td>
<td>Place of worship</td>
</tr>
<tr>
<td>Place of worship</td>
<td>Plant nursery</td>
</tr>
<tr>
<td>Plant nursery</td>
<td>Promotion sign</td>
</tr>
<tr>
<td>Promotion sign</td>
<td>Restaurant</td>
</tr>
<tr>
<td>Restaurant</td>
<td>Rural industry</td>
</tr>
<tr>
<td>Rural industry</td>
<td>Service station</td>
</tr>
<tr>
<td>Service station</td>
<td>Shop</td>
</tr>
<tr>
<td>Shop</td>
<td>Showroom sales</td>
</tr>
<tr>
<td>Showroom sales</td>
<td>Transport terminal</td>
</tr>
<tr>
<td>Transport terminal</td>
<td>Utilities and infrastructure</td>
</tr>
<tr>
<td>Utilities and infrastructure</td>
<td>Vehicle sales and hire</td>
</tr>
<tr>
<td>Vehicle sales and hire</td>
<td>Veterinary clinic</td>
</tr>
<tr>
<td>Veterinary clinic</td>
<td>Warehouse</td>
</tr>
</tbody>
</table>

*Education establishment: includes organisations such as schools, universities and other educational establishments.
Water Management Zone  
(This zone is shown as blue on the Land Use Plan)

Primary Purpose
To restrict development within a water catchment area or other area providing surface or ground water for public or private water supplies.

Intended Principal Land Uses
- Any land use not inconsistent with the objectives of maintaining the quality and condition of the water catchment area and including suitable livestock grazing and horticulture.

<table>
<thead>
<tr>
<th>DEVELOPMENT SHOULD</th>
<th>POTENTIAL LAND USES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restrict activities that would impact on the catchment area.</td>
<td>Agriculture</td>
</tr>
<tr>
<td>Be generally in accordance with the principles and guidelines for water management of the authority responsible for managing the public water supply.</td>
<td>Business sign</td>
</tr>
<tr>
<td></td>
<td>Car park</td>
</tr>
<tr>
<td></td>
<td>Domestic livestock</td>
</tr>
<tr>
<td></td>
<td>Navigational aids</td>
</tr>
<tr>
<td></td>
<td>Place of worship</td>
</tr>
<tr>
<td></td>
<td>Plant nursery</td>
</tr>
<tr>
<td></td>
<td>Promotion sign</td>
</tr>
<tr>
<td></td>
<td>Stables</td>
</tr>
<tr>
<td></td>
<td>Utilities and infrastructure</td>
</tr>
<tr>
<td>Not prejudice the safety or efficiency of the airport.</td>
<td></td>
</tr>
<tr>
<td>Respect the amenity of the adjacent and nearby uses.</td>
<td></td>
</tr>
<tr>
<td>Have regard for ecological and hydrology value during the design stage.</td>
<td></td>
</tr>
</tbody>
</table>

Public Safety Zones
With exception of the Restricted Development Zone in the Northern Territory Planning Scheme, no legislation or guidelines exist at a Commonwealth or Territory level governing permissible land use with respect to aircraft crash risk. Off airport, land use zoning falls within the jurisdiction of the Northern Territory Government. On airport, issues related to crash risk are considered by ASA in the approval process when assessing a proposed development. The proposed on airport land uses contained within this Master Plan are considered to be appropriate.
SECTION 9
Airfield Development Concept

• No runway extensions are needed within the planning period.
• The existing runway system is adequate to cater for future-projected traffic and is proposed to be retained in its existing configuration.
• The RPT Apron will continue to effectively use the space and infrastructure available and expand in a linear manner.
INTRODUCTION
The airfield consists of runways, taxiways and aircraft aprons. The Master Plan provides for further development of the airfield to ensure efficient handling of the forecast aircraft traffic.

Planning standards
Civil aerodrome planning for Alice Springs Airport adheres to Civil Aviation Safety Regulation 139 (CASR 139) and CASA Manual of Standards Part 139 (MOS 139). This standard follows accepted International Civil Aviation Organisation (ICAO) methodology of using a code system, known as the Aerodrome Reference Code. The code is composed of two elements: a code number and a code letter.

The code number indicates the runway type and is related to the length of the runway (see Table 23 below).

The code letter is related to the aeroplane wing span and outer main gear wheel span. The planning of aprons and taxiways is largely based on this element (see Table 24 below).

Design Aircraft
The airport can accept Code E aircraft (e.g. Boeing 777 and 747) and is an important alternate for the vast majority of traffic over flying the centre of Australia. It is also capable of handling the A380 in limited circumstances.

The design aircraft for Alice Springs Airport Master Plan is different for each runway.

Runway 12/30 - the design aircraft for the main runway is a Code 4E aircraft. This allows for B747, B777 aircraft types.

Runway 17/35 - the design aircraft for the secondary runway is a Code 1B aircraft. This allows for various aircraft types.

<table>
<thead>
<tr>
<th>TABLE 23: CODE NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>CODE NUMBER</td>
</tr>
<tr>
<td>Aeroplane reference field length</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE 24: CODE LETTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>CODE LETTER</td>
</tr>
<tr>
<td>Wingspan</td>
</tr>
<tr>
<td>Outer main gear wheel span</td>
</tr>
</tbody>
</table>
MOVEMENT AREAS

The existing airfield layout is shown in Figure 1.

Runways

ASA has two runways. The dimensions and declared distances of these runways are given in Table 25 below.

12/30

The main runway, with an orientation of 12/30, is 2438 metres long and 45 metres in width. It is an instrument runway with precision instrument approach on runway 12. It has a flexible construction and is grooved in its entirety. This runway can accept Code 4E aircraft.

Runway 12 is equipped with a 6-stage High Intensity Approach Lighting (HIAL) System–CAT I, which is designed to smooth the transition from instrument to visual flight on a precision instrument approach in conditions of low cloud or reduced visibility.

The main runway 12/30 is fitted with a 3-stage medium and 3-stage high intensity runway edge and threshold lighting system. A T-Visual Approach Slope Indicator System (T-VASIS) also services both ends.

Turning nodes are provided at both ends of the runway. The current node configurations allow for B747/B777/A380/A340 to conduct 180° starboard turns.

Runway 12/30 requires a 300m runway strip in accordance with CASR MOS 139. The Obstacle Limitation Surfaces (OLS) for a 300m runway strip are infringed when Code C and above aircraft occupy the aircraft apron.

17/35

The crosswind runway has an orientation of 17/35, with a length of 1133 metres and width of 18 metres. This runway is a non-precision instrument runway. Runway 17/35 takes less than 10% of the total traffic and the use is limited due to sequencing of heavy aircraft traffic on the main runway. Otherwise the runway is used predominantly by GA aircraft due to its aircraft size limitations and proximity to the GA area.

Helicopters

A helicopter aiming point is located north of Taxiway B1.

---

<table>
<thead>
<tr>
<th>TABLE 25: RUNWAY DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RUNWAY DIRECTION</strong></td>
</tr>
<tr>
<td>-----------------------</td>
</tr>
<tr>
<td>12</td>
</tr>
<tr>
<td>30</td>
</tr>
<tr>
<td>17</td>
</tr>
<tr>
<td>35</td>
</tr>
</tbody>
</table>
TAXWAYS
Runways are supported by a comprehensive taxiway system designed to facilitate the efficient movement of aircraft between the runways and apron areas. ASA has a taxiway system, linking runway 12/30 with the main passenger apron, and also providing access to the general aviation and commuter aprons. Refer to Table 26: Taxiway Data below.

In 2012, a new taxiway was constructed linking the runway 12/30 and the new aircraft storage area.

APRONS
Aprons are areas provided for aircraft parking. Aircraft apron areas also support activities associated with the servicing of aircraft such as baggage, freight, refuelling and flight catering and utilise a variety of ground support equipment (GSE) operated by third parties.

The parking position is known as an aircraft stand (or bay). Existing aprons at ASA accommodate a full range of aircraft types and operations.

Terminal Apron
The regular public transport (RPT) apron can accommodate up to nine large aircraft in various combinations. A diversion bay allows for Code F aircraft to park on the apron. All parking bays on the RPT apron are common user.

A split fuel hydrant system is available on the RPT apron, with Shell feeding the eastern bays and Air BP feeding the western bays.

General Aviation Aprons
General aviation (GA) includes all parts of the aviation industry that engage in activity other than scheduled commercial airline activity. This may include charter operations, aeromedical operations, agricultural aviation businesses, aviation-based fire-fighting services, training and aerial work such as aerial photography and surveying. It also includes private, business, recreational and sports aviation activity and supporting businesses such as maintenance providers.

Currently there are three designated GA areas providing around 25,000m² of hangar space and 36,500m² of aircraft parking space. An estimated 45 GA aircraft are currently based in these areas. Around 12 businesses operate from these facilities.

GA operations are clustered into three distinct areas:
- An area to the north-west of the passenger terminal – known locally as the general aviation (GA) apron.
- An area to the south-east of the passenger terminal – known locally as the commuter apron.
- An area to the western edge of the airport boundary – known locally as the Seven-Mile apron.

General Aviation Apron
The GA apron provides parking for approximately 20 aircraft, the wingspan of which must be less than 16.6m (Code A and B aircraft). The apron is flexible pavement and the taxiway access limits the size of aircraft using the facilities to 5700kg (e.g. Code A and B aircraft). Additional aircraft are parked in hangars and leased areas along the frontage of leased hangar sites. There is also a natural surface aircraft parking area that can accommodate a further 20 aircraft.

Itinerant aircraft parking is on an opportunity basis in this area.

Operations from the GA apron include charter, aerial work, aircraft maintenance, flight training, private flying, aeromedical services and scenic flights.

Commuter Apron
The commuter apron provides parking for approximately five code A and B aircraft in a free moving arrangement as the configuration of this area restricts where aircraft can be parked without interfering with the movement of others. Additional

### TABLE 26: TAXIWAY DATA

<table>
<thead>
<tr>
<th>TAXIWAY</th>
<th>DESCRIPTION</th>
<th>WIDTH/AIRCRAFT CODE</th>
<th>PAVEMENT CLASSIFICATION NUMBER (PCN) / RESTRICTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>C and D</td>
<td>Connect runway 12/30 with the RPT apron</td>
<td>23m</td>
<td>Simultaneous use of taxiway C and D not available to aircraft above 52m wingspan.</td>
</tr>
<tr>
<td>E1-2</td>
<td>Connects runway 12/30 to eastern end of RPT apron and the commuter apron</td>
<td>15m</td>
<td>E1 – PCN 45 E2 – PCN 60 Max wingspan 36m</td>
</tr>
<tr>
<td>A</td>
<td>Back of RPT apron and continues west to link the GA apron</td>
<td>10.5m</td>
<td>A2 restricted to 16.6m when Bay 9 occupied by Code C and above aircraft.</td>
</tr>
<tr>
<td>W</td>
<td>Joins Seven-Mile apron to runway 17/35</td>
<td>10.5m</td>
<td>Pavement rating 5700 kg /413 kPa (60PSI) sealed.</td>
</tr>
<tr>
<td>B</td>
<td>Converted from the old runway 06/24 and links the RPT and GA apron to runway 17/35.</td>
<td>15m</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>Continues from runway 12 end and joins taxiway B.</td>
<td>18m</td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>Connects runway 12/30 with the new aircraft storage area</td>
<td></td>
<td>Note: Not used for live taxiing, only used for towing aircraft to the storage area.</td>
</tr>
</tbody>
</table>
a aircraft are parked in hangars and leased areas along the frontage of leased hangar sites.

Operations from the commuter apron include charter and aircraft maintenance. On airport catering, located well to the rear of this area, accesses the RPT apron via a designated airside road which transverses the commuter apron.

**Seven-Mile Apron**
The Seven-Mile apron provides parking for several helicopters and fixed wing aircraft. This apron is nearing the end of its economic life.

Operations from the Seven-Mile apron can include locally based helicopter activity, aircraft maintenance and private flying.

**Aircraft Storage Area**
Stage 1 of an aircraft storage area which provides the full range of aircraft storage and aircraft end-of-life services has been developed to the south-west of Runway 12/30.

The desert climate of Alice Springs and large airport land holding provides the capabilities for long term storage of surplus aircraft, similar to the Mojave Desert.

All aircraft are either maintained for re-entry into service, or are parked with a view to complete disassembly.

**EXISTING SUPPORT SYSTEMS**

**Airservices Australia Facilities**

Air Traffic Control (ATC) services at ASA are provided by Airservices Australia. The current control tower was constructed in 1967 and became operational in 1968. The tower is located to the west of the passenger terminal. The tower is operational between 0800 and 1800 local time every day. Outside these tower hours a Common Traffic Advisory Frequency (CTAF) operates. The primary role of ATC is the processing and separation of air traffic in both the initial and final stages of flight. ATC also provides surface movement control to aircraft and vehicles on the runways and taxiways.

Airservices Australia is also responsible for the provision and maintenance of numerous radio navigation aids and systems located on or near the airport, including:
- Distance Measuring Equipment (DME)
- Very High Frequency Omnidirectional Range (VOR)
- Non-Directional Beacon (NDB)
- Instrument Landing System (ILS) (Glide path and localiser).

Fire and rescue services are provided by Airservices Australia from a facility located to the west of the main RPT apron. Aviation Rescue and Fire Fighting Service (ARFFS) currently provides up to ICAO Category 6 standard during hours as required for flight operations, however, a capability to operate at Category 8 is possible for emergencies and/or diversions. A fire training area is located east of the passenger terminal.

**2035 DEVELOPMENT CONCEPT**
The 2035 Airfield Development Concept Plan is shown in Figure 7.

**Runway**
The annual capacity of the runway system at ASA is approximately 80,300 movements per year. It is estimated that in 2035 there will be a total of around 23,000 movements. The existing runway system is adequate to cater for future projected traffic movements.

The critical aircraft for runway length at ASA is considered to be the A330 or B787. Under hot conditions some payload sacrifices would be required but commercial loads can still be carried.

It is therefore envisaged that no runway extension is required within the planning period. A future runway extension is safeguarded, so that runway 12/30 could be extended to 3100m beyond the planning period.

Lengthening of runway 17/35 is not required.

**Runway 30 Threshold Turning Loop**
Aircraft departing on runway 30 currently have to taxi approximately 1200m from taxiway E to the runway end to take off. This can result in delays particularly if more than one aircraft is departing simultaneously.

A full length parallel taxiway could solve this problem however the current peak demand for activity on the main runway 12/30 is approximately six movements per hour. A parallel taxiway is usually only required when peak hour demand exceeds 20-jet RPT movements per hour, or approximately three times the current rate. This level of hourly demand will not be experienced in the 20 year planning period.

Instead, during the planning period a turning loop near the runway 30 threshold (south-eastern end of runway 12/30) would allow two aircraft to taxi to the start of runway 30 and one aircraft to hold on the loop while the other takes off. It would also allow an aircraft to hold on the loop while another aircraft lands.

**Taxiways**
The Master Plan concept proposes a number of taxiway enhancements by 2035 to support the increase in traffic and support new apron areas.
Apron
It is estimated that by 2035 the RPT apron will need to accommodate a mix of seven aircraft parking positions as indicated in Table 27.

### TABLE 27: TERMINAL APRON AIRCRAFT PARKING DEMAND

<table>
<thead>
<tr>
<th>AIRCRAFT</th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code C</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Code E</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>

The RPT apron will continue to effectively use the space and infrastructure available and expand in a linear manner. Current standards require a 300m flight strip. The OLS for a 300m flight strip is infringed when the apron is occupied by Code C and above aircraft. When the aircraft apron is reconfigured in the future the opportunity will be taken to move aircraft parking positions closer to the terminal to remove these infringements.

Early engagement with the Civil Aviation Safety Authority and Airservices Australia will occur prior to any future apron redevelopment or expansion.

Freight
It is envisaged that a dedicated freight apron is not required during the planning period. Freight on passenger aircraft or adhoc freight services will continue to be facilitated on the main RPT apron.

General Aviation
Additional GA facilities will be developed on a commercial basis. These facilities will cater for all new and existing aircraft operators including current Seven-Mile operators.

The concept allows for Code A and B aircraft to continue to be facilitated in the GA area and aircraft larger than Code B to be facilitated in the commuter apron area. However, the commuter apron area will progressively be located further east when the demand for RPT aircraft facilities requires and where commercially viable. Key areas that will drive the further expansion include economies of scale, demand for services and demand for facilities.

Helicopter growth will be accommodated within the GA area, however, the desired separation of fixed wing and rotary aircraft will guide developments.

The Seven-Mile apron will remain operational while commercially viable.

Aircraft Storage
Further stages of aircraft storage facilities, including further apron and taxiways, would be constructed in the Aviation Activities and Aviation Reserve Zones.

In the longer term the facilities could expand into the Dust Suppression Zone.
FIGURE 7: 2035 AIRFIELD DEVELOPMENT CONCEPT
SECTION 10

Protection of Aircraft Operations

- Obstacle Limitation Surface (OLS) and Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS) are prepared for Alice Springs Airport to assist with the protection of airspace required for airport operations around the airport.
SECTION 10
Protection of Aircraft Operations

Buildings and activities in the vicinity of an airport have the potential to create air safety hazards and to seriously limit the viability of aircraft operations in and out of the airport.

AIRSPACE PROTECTION

Part 12 of the Airports Act 1996 and the Airport (Protection of Airspace) Regulations 1996 provide for the declaration of prescribed airspace and give statutory protection from intrusion into this airspace. For the immediate and long-term operation of the airport new structures should be designed, or other activities controlled, to ensure that they do not intrude into the present or future protected airspace.

There are Australian Standards for airport design, including Civil Aviation Safety Regulations (CASR) and Civil Aviation Safety Authority (CASA) Manual of Standards (MOS) Part 139.

Under these Standards airspace is prescribed for protection in two categories:

- Obstacle Limitation Surfaces (OLS)

Obstacle Limitation Surfaces (current and future)

The OLS are a series of surfaces in the airspace surrounding an airport and referenced to each runway.

The broad purpose of the OLS is to define the volume of airspace that should ideally be kept free from obstacles in order to minimise the danger to aircraft during an entirely visual approach or during the final visual segment of an instrument approach procedure. Infringements of these surfaces may be approved subject to a safety analysis and assessments by stakeholders and subject to any conditions imposed.

Figure 8 depicts the OLS associated with Alice Springs Airport for current and future requirements based on the long-term retention of the existing runway geometry.

Procedures for Air Navigation Services – Aircraft Operations (PANS –OPS) Surfaces

A PANS-OPS surface for an airport is a surface ascertained in accordance with the procedures in ICAO Procedures for Air Navigation Services – Aircraft Operations (Doc 8168, PANS-OPS).

The PANS-OPS surfaces are intended to safeguard an aircraft from collision with obstacles when the pilot is flying with reference to instruments. The designer of an instrument procedure determines the lateral extent of areas needed for an aircraft to execute a particular manoeuvre. The designer then applies minimum obstacle clearances to structures, terrain or other natural features within that area to determine the limiting altitude at which the manoeuvre can be safely executed. As a result, PANS-OPS surfaces cannot be infringed in any circumstances.

Figure 9 depicts the PANS-OPS associated with ASA for current and future requirements based on the long-term retention of the existing runway geometry.

Airspace Protection Planning Control

Any activity (on or off airport) that infringes an airport’s protected airspace is called a controlled activity, and requires approval before it can be carried out. Controlled activities include the following:

- Permanent structures, such as buildings, intruding into the protected airspace.
- Temporary structures such as cranes intruding into the protected airspace.
- Any activities causing intrusion into the protected airspace through glare from artificial light or reflected sunlight, air turbulence from stacks or vents, smoke, dust, steam or other gases or particulate matter.

The Airports (Protection of Airspace) Regulations 1996 stipulate that controlled activities need specific approval from the Department of Infrastructure and Regional Development (DIRD).

The Regulations require that proponents of controlled activities must provide ASA with the details of the proposal which are then assessed in relation to OLS/PANS-OPS by ASA and government safety agencies before ASA provides all information to DIRD for consideration. Where it will affect the safety, efficiency or regularity of air transport at Alice Springs Airport, ASA will indicate to DIRD its opposition to the proposal.
NAVIGATION AIDS AND RADAR-RESTRICTED SURFACES

At ASA there are a number of radio navigation aids and communication installations that provide precision and other guidance to aircraft, including the NDB, DME, VOR and ILS (glide path and localiser). These are operated by Airservices Australia.

Aircraft utilise airport-based navigational aids for en-route navigation or to make an instrument approach to the airport. Unplanned interruptions to, or degradation of the ground signal, are to be avoided in the interests of safety. Therefore it is necessary to ensure there will be no interference caused to the operation of navigational aids by the erection of structures, or work activities within the vicinity of a navigational aid or its associated cables.

To meet the necessary performance requirements, airspace restrictions are established for each item of equipment and procedures. It may be possible under some circumstances to permit infringements of the protective surfaces, without degradation in system performance. Protection of the navigation aids and radar-restricted surfaces is managed cooperatively between the airport and Airservices Australia.

Australia will progressively move to satellite based navigation from 2016 and some existing navigation aids may be decommissioned.

RESTRICTIONS TO BUILDING STRUCTURE AND MATERIAL

The Civil Aviation Safety Authority (CASA) has the power under the Civil Aviation Regulations 1988 (CAR 94 – Dangerous Lights) to control ground lights where they have the potential to cause confusion or distraction from glare to pilots in the air. To assist lighting designers and installation contractors in the vicinity of the airport, CASA has established guidelines on the location and permitted intensities of ground lights within a six-kilometre radius of airports. External advertising, sport field floodlighting and street lighting are some of the more likely lighting sources requiring consideration.

ASA will make documentation available indicating the zones around the airport which have maximum permissible lighting intensities.

BIRD HAZARD

Surrounding land use can have the potential to attract problem bird species to the airport. ASA is required to monitor and control the presence of birds on or in the vicinity of the airport in accordance with CASA regulations.

ASA maintains a vigilant Bird and Animal Hazard Management System to remove and reduce potential high risk bird species. Bird hazard management considerations are also taken into account when planning potential airside or landside developments.

NATIONAL AIRPORTS SAFEGUARDING FRAMEWORK

The National Airports Safeguarding Framework (NASF) was developed by the National Airports Safeguarding Advisory Group. It was released in July 2012, providing a national regime for land use planning around airports in Australia and aims to:

- Improve community amenity by minimising aircraft noise-sensitive developments near airports.
- Improve safety outcomes by ensuring aviation safety requirements are recognised in land use planning decisions through guidelines being adopted by jurisdictions on various safety-related issues.

The NASF is comprised of a key set of Principles and Guidelines.

NASF Principles

Principle 1: The safety, efficiency and operational integrity of airports should be protected by all governments, recognising their economic, defence and social significance.

Principle 2: Airports, governments and local communities should share responsibility to ensure that airport planning is integrated with local and regional planning.

Principle 3: Governments at all levels should align land use planning and building requirements in the vicinity of airports.

Principle 4: Land use planning processes should balance and protect both airport/aviation operations and community safety and amenity expectations.

Principle 5: Governments will protect operational airspace around airports in the interests of both aviation and community safety.

Principle 6: Strategic and statutory planning frameworks should address aircraft noise by applying a comprehensive suite of noise measures.

Principle 7: Airports should work with governments to provide comprehensive and understandable information to local communities on their operations concerning noise impacts and airspace requirements.
<table>
<thead>
<tr>
<th>Guideline A:</th>
<th>Measures for Managing Impacts of Aircraft Noise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guideline B:</td>
<td>Managing the Risk of Building Generated Windshear and Turbulence at Airports</td>
</tr>
<tr>
<td>Guideline C:</td>
<td>Managing the Risk of Wildlife Strikes in the Vicinity of Airports</td>
</tr>
<tr>
<td>Guideline D:</td>
<td>Managing the Risk of Wind Turbine Farms as Physical Obstacles to Air Navigation</td>
</tr>
<tr>
<td>Guideline E:</td>
<td>Managing the Risk of Distractions to Pilots from Lighting in the Vicinity of Airports</td>
</tr>
<tr>
<td>Guideline F:</td>
<td>Managing the Risk of Intrusions into the Protected Airspace of Airports</td>
</tr>
</tbody>
</table>
SECTION 11

Aircraft Noise Management

- The noise metric used for land use planning and building control is the Australian Noise Exposure Forecast (ANEF).
- This Master Plan incorporates a 2055 ANEF rather than the standard required 2035 ANEF in order to provide a longer term view of aircraft noise and its impact on surrounding land uses.
- The 2055 ANEF contours do not extend far beyond the physical aeronautical complex.
Alice Springs Airport as the civil airport operator has little direct control over noise produced by aircraft operations other than civil ground running. Airspace management is controlled by Airservices Australia.

The International Civil Aviation Organisation (ICAO) has developed standards and guidelines which address civil aircraft noise, referred to as Annex 16. Australian Government aircraft noise legislation reflects the standards developed by ICAO and the obligations placed on Australia as a member of ICAO.

ICAO has set standards for aircraft noise in Chapter 3 (Volume I, Annex 16). Aircraft that comply with these standards are commonly referred to as ‘Chapter 3 aircraft.’ Few civil aircraft that are not Chapter 3 compliant operate into Alice Springs.

Building approvals external to the airport are the responsibility of the Northern Territory Government. On airport development is subject to final approval of the Airport Building Controller (ABC) under the Airports Act 1996.

AUSTRALIAN NOISE EXPOSURE FORECAST (ANEF)
The Australian Noise Exposure Forecast (ANEF) is a set of contours showing future forecasted levels of exposure to noise for building control purposes.

The ANEF is an important noise metric because it is the only noise metric which has status under the:
- Northern Territory Planning Scheme for land use planning and development consent off airport.
- Airports Act 1996 of the Commonwealth for land use planning and development consent on airport.

The ANEF is used in accordance with Australian Standard AS2021-2015 to guide land use planning and development decisions by the relevant authority.

The ANEF is subject to technical review and endorsement by Airservices Australia.

ANEF in Land Use Planning and Development Consent
The following table from Australian Standard AS2021-2015 provides guidance for new construction in relation to ANEF contours. ‘Conditional’ means that approval may be given if appropriate noise control features can be incorporated in the construction.

<table>
<thead>
<tr>
<th>BUILDING TYPE</th>
<th>ACCEPTABLE</th>
<th>CONDITIONAL</th>
<th>UNACCEPTABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>House, home unit, flat, caravan park</td>
<td>Less than 20 ANEF</td>
<td>20 to 25 ANEF</td>
<td>Greater than 25 ANEF</td>
</tr>
<tr>
<td>Hotel, motel, hostel</td>
<td>Less than 25 ANEF</td>
<td>25 to 30 ANEF</td>
<td>Greater than 30 ANEF</td>
</tr>
<tr>
<td>School, university</td>
<td>Less than 20 ANEF</td>
<td>20 to 25 ANEF</td>
<td>Greater than 25 ANEF</td>
</tr>
<tr>
<td>Hospital, nursing home</td>
<td>Less than 20 ANEF</td>
<td>20 to 25 ANEF</td>
<td>Greater than 25 ANEF</td>
</tr>
<tr>
<td>Public building</td>
<td>Less than 20 ANEF</td>
<td>20 to 30 ANEF</td>
<td>Greater than 30 ANEF</td>
</tr>
<tr>
<td>Commercial building</td>
<td>Less than 25 ANEF</td>
<td>25 to 35 ANEF</td>
<td>Greater than 35 ANEF</td>
</tr>
<tr>
<td>Light industrial</td>
<td>Less than 30 ANEF</td>
<td>30 to 40 ANEF</td>
<td>Greater than 40 ANEF</td>
</tr>
<tr>
<td>Other industrial</td>
<td>Acceptable in all ANEF zones</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ENDORSED ANEF
The Airports Act 1996 requires that a standard 20-year ANEF be provided, i.e. a 2035 ANEF for this Master Plan. Long-term (more than 20 years) or ultimate capacity ANEFs can also be incorporated in a Master Plan. This Master Plan presents a 2055 ANEF in order to provide a longer term view of aircraft noise than the minimum required period.

Methodology
An ANEF is a set of noise contours at some point in the future (in this case 2055). The contours were prepared in accordance with the Airservices Australia document ‘Guidelines for the Production of Noise Contours for Australian Airports’ and comply with the ‘manner of endorsement’ approved by the Minister for Infrastructure and Regional Development.

ANEF inputs include aircraft movement forecasts, runway and flight path usage, time of day and fleet mix. The ANEF process ensures that forecast traffic is within the aircraft movement capacity of the airport. The ANEF for ASA takes into consideration that there are to be no major changes to the airfield layout, any runway extensions or changes to the current flight patterns within the planning period. The current
procedures for aircraft arriving and departing the airport were
defined in close consultation with local air traffic control.

In developing the 2055 ANEF, the following inputs,
methodology and assumptions were used:

• All Regular Public Transport (RPT) activity at ASA currently
occurs within the period of 8:00am to 6:00pm daily, which
mirrors the aerodrome control service provided by Alice
Springs air traffic control (ATC). The majority of military and
General Aviation (GA) movements also occur during this
time period. It is forecast that this period of activity will be
unchanged in 2055.

• There is no expectation of change in the fleet mix servicing
ASA. The airport will continue to be mainly serviced by
narrowbody and regional jets, with no expectation of
upgauging to widebody jets.

• The current origin/destinations are expected to remain
unchanged.

• It is assumed that there will be four international charter
movements per year by 2055, originating from Asian ports
but expected to fly via Darwin.

• The current 158 military movements per year to ASA has
been used for 2055.

• Growth in helicopter operations are assumed to grow at
the same rate as the overall average annual growth rates of
fixed wing aircraft movements.

• Asia Pacific Aircraft Storage has also been accounted for
in the 2055 ANEF, assuming 30 aircraft movements will
be operated per year in 2055, comprised of widebody jets,
narrowbody jets, and turboprops.

Above’ contours, which are contour maps combining
information on single event noise levels with aircraft movement
numbers above the specified noise level. The N70 chart shows
the number of aircraft noise events greater than 70 dB(A) that
occur in a typical day.

Flight paths illustrate the broad spread of flight paths that an
aircraft may fly when arriving at or departing from an airport.
The approved arrival and departure flight tracks for all runways
are contained in Figures 12 to 21. While aircraft follow ‘flight
tracks’ these are not as precise as a train on a railway line or
a car on the highway, with aircraft approaching or departing
the runway within a flight path ‘envelope’ (or ‘corridor’). The
envelope may vary with aircraft configuration and weather.
When presented this information is referred to as Swoosh Tracks.

The 2055 N70 and Swoosh Tracks are shown in Figure 22 and
Figure 23.

MANAGING NOISE INTRUSION
Ground running of aircraft engines is a significant part of aircraft
maintenance. The majority of aircraft maintenance is conducted
by GA operators. ASA is largely a daylight hours airport and is
currently remote from any residential development. Therefore
there are minimal engine ground running issues.

Similarly, no aircraft noise abatement procedures are currently
required, but may be required in the future.

Approval Process
Prior to seeking endorsement by Airservices Australia of the
ANEF, the airport provided the local planning authorities with a
copy of a draft ANEF and the opportunity to comment. In the
case of ASA the relevant authorities are the Northern Territory
Department of Lands, Planning and the Environment, Alice

The 2055 ANEF endorsed by Airservices Australia is in Figure 10.

NOISE COMPARISONS OVER TIME
The ANEF from the 2009 Master Plan (the 2049 ANEF)
compared to the ANEF from the 2015 Master Plan (the 2055
ANEF) is in Figure 11. As can be seen, the contours vary with
projected aircraft activity. All 2055 contours are located within
the airport boundary.

Alice Springs Airport aircraft traffic does not pose noise issues
for the Alice Springs community in the future, including any
residential development in the northern part of the airport site.

N70 CONTOUR AND FLIGHT TRACKS
A guide to aircraft noise, which is more explanatory than an
ANEF, is a N70 chart. The N70 chart is based on ‘Number
Qualification Factors taken into account in the ANEF calculation are the following:
- the numbers and types of aircraft forecast to operate on the average day, their distribution on the various runways and flight paths and their destinations.
- the noise characteristics of each aircraft type at each phase of its operation (landing or take-off).
- whether the operation was in daytime (7am - 7pm) or night-time (7pm - 7am).
- terrain was used in the modeling of this study.

Contours are plotted at steps of 5 ANEF over the range 20 to 35 ANEF - the higher the ANEF value the greater the noise exposure. Aircraft noise does not stop at the 20 ANEF contour, but outside 20 ANEF, noise from sources other than aircraft may predominate over aircraft noise.

Coordinate system used is WGS 84

Northern Territory Airports Pty Ltd neither assumes nor accepts responsibility for the accuracy of the contours or any reliance placed upon them.

(Note 1) Less than 20 ANEF
- House, home unit, flat, caravan park
- Building type
- Commercial building
- Light industrial
- Nursing home
- Hospital, School, university

Notes:
- To be used in conjunction with (AS2021-2015) Table 3.3
- Consider that the incorporation of noise control features in the construction of residences or schools is appropriate (see also (AS2021-2015) 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 the above table should be used to determine site acceptability, but internal design noise levels within the specific building function should achieve the required ANR determined according to (AS2021-2015) Clause 3.2.
- For residences, schools, etc., the effect of aircraft noise on outdoor areas associated with the buildings should be considered.
- Because of this, the procedure of (AS2021-2015) Clause 2.3.2 may be followed for building sites outside but near to the 20 ANEF contour.

In no case should new development take place in greenfield sites deemed unacceptable because such development may impact airport operations.

4. This standard does not recommend development in unacceptable areas. However, where the relevant planning authority considers development outside existing built-up areas designated as unacceptable, it is recommended that such development should achieve the required ANR determined according to (AS2021-2015) Clause 3.2.

An ANEF Table 1.1. was prepared using the Integrated Noise Model package (INM 7.0d).

Annual Aircraft Movements for ANEF configurations

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Location</th>
<th>2055 Long-Range ANEF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Annual Aircraft Movements</td>
</tr>
<tr>
<td></td>
<td></td>
<td>34,303</td>
</tr>
</tbody>
</table>

Note: Where figures have been rounded, discrepancies may occur between totals and the sums of component items. Coordinates are in Australian Geodetic Datum 1994 (AGD94).
FIGURE 11: 2049 ANEF VS 2055 ANEF

Legend

2055 ANEF 20 CONTOUR
2055 ANEF 25 CONTOUR
2055 ANEF 30 CONTOUR
2055 ANEF 35 CONTOUR

2049 ANEF 20 CONTOUR
2049 ANEF 25 CONTOUR
2049 ANEF 30 CONTOUR
2049 ANEF 35 CONTOUR
FIGURE 13: 2055 FLIGHT PATHS RUNWAY 12 DEPARTURES
FIGURE 17: 2055 FLIGHT PATHS RUNWAY 17/35 CIRCUITS
FIGURE 18: 2055 FLIGHT PATHS RUNWAY 17 ARRIVALS AND DEPARTURES
FIGURE 19: 2055 FLIGHT PATHS RUNWAY 35 ARRIVALS AND DEPARTURES
FIGURE 21: 2055 FLIGHT PATHS HELICOPTER

Stuart Hwy
FIGURE 22: N70 AND SWOOSH PATHS RUNWAY 30

Contour Key
Number of events 70dBA and above
10 events and above
20 events and above
50 events and above

Altitude Key
Number of events 70dBA and above
10 events and above
20 events and above
50 events and above
FIGURE 23: N70 AND SWOOSH PATHS RUNWAY 12

www.alicespringsairport.com.au

Contour Key

Number of events 70dBA and above
10 events and above
20 events and above
50 events and above

Altitude Key

Mean Altitude
4,500 FT
0 FT

ARRIVALS

MEAN ALTITUDE
4,500 FT
0 FT

DEPARTURES
SECTION 12

Terminal Development Concept

• Alice Springs Airport aims to provide passengers with a safe, secure, and efficient terminal that meets the needs of our airline partners.
• Any future terminal growth will be accommodated by expanding the existing terminal within the Terminal and Facilities Zone.
• Key areas that will drive the expansion of the overall footprint of the terminal will be baggage reclaim and baggage make-up.
INTRODUCTION

The terminal is the face of the airport business and serves as the public interface between landside and airside activities. Alice Springs Airport aims to provide passengers with an efficient and effective terminal that meets the capacity and flexibility requirements of its airline partners while delivering a Centralian experience to the travelling public.

Critical to the efficiency of the passenger terminal is the underlying planning of the facilities and the efficiency of the terminal function, including road access and vehicle parking. ASA aims to provide safe, secure and efficient passenger systems that enhance the experience for visitors and the travelling public.

Two ground handlers currently operate from the facility. All facilities located in the terminal are common use and there are various tour operators, shuttle bus and taxi services operating from the building.

Planning Principles

The International Air Transport Association (IATA) Guidelines for airport capacity management provide a level of service framework that permits comparison between subsystems within the airport environment. The framework ranges from levels of service category A, which provides an excellent level of comfort, to category F, which provides unacceptable levels of service, delays and an unacceptable level of comfort.

Future terminal and passenger facility planning for the airport has been based on IATA level of service Category C, which provides good levels of service and comfort at a reasonable cost.

Disability Access


ASA has developed and published a Disability Access Facilitation Plan for the airport, which is available on the ASA website. This plan provides detailed information on the availability and access of services at ASA for passengers with disability.

CURRENT TERMINAL FACILITIES

The existing terminal, a single level 9100m² passenger terminal building, is the service centre for the transfer of passengers and their baggage between vehicle and aircraft, or from aircraft to aircraft for interconnecting or transfer passengers.

In the airport terminal, passengers expect to find comfortable, attractive surroundings and to be serviced in an efficient, pleasant and expeditious manner. Check-in, baggage make-up and reclaim, security screening facilities, passenger lounges together with small scale concessionaires, including restaurant, ticket sales, and newsagent, are located in the terminal building.

Support facilities, including airline and airport offices, plant rooms, services and staff facilities as well as rental car, tourism and accommodation desks are located in the terminal.

The terminal facilities can be configured to cater for international arrivals and departures.

FUTURE DEMAND

The projected annual passenger demand for the terminal is approximately 750,000 passengers by 2035. Annual passenger demands do not provide a true representation of the impact on terminal capacity; therefore hourly passenger flows for that year are used to determine development requirements.

TRIGGER FOR FUTURE REDEVELOPMENT

The current terminal was designed for more than 1.2 million passengers per annum at IATA level of service Category C. A trigger point for considering expansion of terminal capacity would be passenger numbers nearing 1.2 million per annum.

2035 DEVELOPMENT CONCEPT

Any future terminal growth will be accommodated by expanding the existing terminal in the Terminal Expansion Zone as illustrated in Figure 24. Key areas that will drive the expansion of the overall footprint of the terminal will be baggage reclaim and baggage make-up.
The extension of the passenger terminal in the Terminal Expansion Zone for any required terminal expansion will include:

- Expansion of domestic processing areas, including check in and departure lounges.
- Enhanced baggage reclaim facilities.
- Expanded baggage make-up facilities.
- Expanded retail facilities.
- Flexible international processing facilities.
SECTION 13

Aviation Support Facilities and Utilities

- Expansion of fuel supply, aircraft maintenance, freight handling, ground service equipment, flight catering and utilities capacity is provided for.
There are a range of support activities at Alice Springs Airport that support the core aviation business of transporting passengers and freight. Facilities to support these activities include supply, storage and distribution of fuel, aircraft maintenance, ground support equipment storage, and flight catering. Support utilities include water supply, sewerage, stormwater drainage, electricity supply and communications.

ASA is responsible for internal electricity, water, sewage and stormwater infrastructure.

**AVIATION FUEL**
The safe and continuous supply of fuel is critical to on-time performance of all aircraft operators at the airport. Any disruptions to the supply of fuel will impact aircraft movements and passengers.

**Existing Facilities**
There is no fuel pipeline delivery to the airport. Fuel is supplied to the airport by road train to a shared (Shell and BP) storage facility located immediately to the west of the terminal building. The Avtur fuel is dispensed by mobile tankers and via an in-ground hydrant system on the RPT apron.

GA aircraft are serviced from a fuel bowser located in the GA area. Access to this facility is restricted to 12.5m wingspan aircraft. Airport fuel tankers, carrying up to 16,000 litres, deliver this fuel to other locations on the airport.

**2035 Development Concept**
The forecast increase in aircraft movements will result in increased fuel consumption over time. This may necessitate expanded fuel facilities. Adequate land has been reserved in the Aviation Activities Zone for this purpose. The land required for expansion has taken into consideration additional storage capabilities, increased number of refuelling vehicles and their associated parking and maintenance, as well as the associated increase in fuel deliveries required for the airport.

The existing hydrant system will be extended incrementally to serve the RPT apron peak demands, if commercially viable, or the level of tanker refuelling will be expanded.

**AIRCRAFT MAINTENANCE**
There are three main types of aircraft maintenance activities:

- **Line maintenance** occurs during transit and turnaround and can be performed at the aircraft parking position.
- **Base Maintenance** requires ground-time in a hangar with simple access docking, or at a parking position away from the terminal. Ground time periods can range between 20 and 36 hours.
- **Heavy maintenance** requires significant ground-time in a hangar with extensive docking capabilities. Ground-time periods can range between 6 to 50 days depending on the type of heavy maintenance being performed.

In addition to hangars, there is a need for support functions such as workshops, component stores and engine run facilities.

**Existing Facilities**
There is GA maintenance activity covering line, base, and heavy maintenance throughout the GA areas. Currently airlines conduct line maintenance on the RPT apron.

**2035 Development Concept**
GA aircraft maintenance capacity will expand in line with GA facilities expansion. Line maintenance will continue to be completed on the RPT apron.

**GROUND SERVICE EQUIPMENT (GSE)**
GSE includes a range of vehicles and equipment used to service aircraft between flights. GSE is used to perform a variety of functions, including starting aircraft, aircraft maintenance, aircraft refuelling, transporting freight to and from the aircraft, loading freight, transporting passengers to and from the aircraft, baggage handling, aircraft waste disposal services and food services. Provision of adequate areas adjacent to the apron for storage of GSE is necessary for efficient operations.

**Existing Facilities**
The existing GSE storage area lies to the north of the RPT apron and comprises an area of approximately 4380m².

**2035 Development Concept**
The area required for GSE storage is dependent on a number of key factors, including peak demand, aircraft configuration, number of ground handling agents and types of equipment. Provision is made for adequate GSE facilities adjacent to the RPT apron.
FLIGHT CATERING
Uplift-catering for RPT aircraft is prepared on airport.

Existing Facilities
Currently there is only one on airport flight catering facility located at the airport. Unlike many aviation-related activities, there is no specific need for flight catering facilities to be located on airport.

2035 Development Concept
Provision is made for flight catering to continue on airport if required.

UTILITIES
To ensure that ASA operates effectively into the future, appropriate infrastructure and utility services must be able to meet future demands.

Water Supply
Existing Services
Potable and firefighting town water are supplied by the NT Power and Water Corporation (PWC) to the airport by underground pipes. The domestic and fire hydrant mains share the same system with pressure booster pumps activated on demand for fire requirements.

Future Extensions
Decisions regarding future water supply must depend upon PWC. In the interim, holding tanks may be required to ensure adequate holding capacity and pressure at the airport. ASA is investigating the separation of the water reticulation system from the firefighting system. It is expected that the non-aeronautical development areas, such as the land to the north and east of the terminal building, will require a dedicated combined fire hydrant and sprinkler boosted service. The most likely design is for two fire pump stations with two storage tanks, together with a series of ring mains reticulating throughout the precinct.

Sewerage
Existing Services
The terminal and the majority of buildings within the leased area discharge into a piped sewerage system which generally uses 100mm PVC piping. This system reticulates into an on airport sewage treatment facility for the terminal with septic provision for users outside the terminal.

Future Extensions
The existing septic tank system is considered adequate for the foreseeable future of the airport. In due course, the existing system will be upgraded and its capacity increased to meet loads at higher demand periods.

Additional pumping stations will be required within the non-aeronautical areas to meet demand resulting from the staged development of this precinct. Several new gravity sewer mains will be required to cater for future growth.

Stormwater Drainage
Existing Services
Most drainage is via underground pipes from the terminal area into unlined drains and then into soakways. This well-established system has the potential for environmental impact involving inappropriate materials run-off and possible scouring. ASA has already established extensive monitoring and implemented a variety of controls to minimise the impact of the airport.

Future Extensions
This system is considered adequate to meet future demand.

Electricity Supply
Existing Services
The electrical supply is provided by PWC. The major supply is by two 22 kV mains, one of which can become redundant at any time. An additional 11 kV supply serves the north-west (Seven-Mile) side of the airport. For reasons of operational safety, the mains electricity supply is augmented by an onsite standby power generator which operates within the standards set by the CASA.

ASA has three solar power facilities. The first is a conventional 235kW solar power station, which was completed in 2010. In 2014, ASA constructed a second solar power facility, in the form of solar panels comprising the roof structure of a covered car park, supplying 320kW. The third solar facility was constructed in late 2015, involving the significant extension of solar panels to the second facility. In total, the three solar projects provide almost 100% of peak airport day demand power requirement.

Future Extensions
It is likely that the incoming supply will be adequate in the longer term. The present system enables some redundancy if necessary. Future developments within the airport area, particularly to the north and west of the terminal, may require an upgraded or separate feed.

Communications
Existing Services
As with all other airports there is a range of communications available to airport tenants. Radio, mobile phone and land line communications are largely the responsibility of other authorities.

Future Extensions
ASA will investigate the provision of additional services to provide redundancy for the terminal and to provide ‘state of the art’ information technology and communication technology for future occupants. It is anticipated that demand for additional capacity can be met.

**AVIATION RESCUE FIRE FIGHTING (ARFF) SERVICE**

ASA currently has a Category 6 ARFF service. As the B737-800 is the most common aircraft now operating into Alice Springs, it may be that an upgrade to a Category 7 ARFF service is considered by Airservices Australia during the planning period.
SECTION 14

Commercial Development Concept

- Of the 3550 hectares in the airport lease area, some 2000 hectares of the land are available for commercial use.
- Possible commercial developments include offices, showrooms, warehousing, large format and speciality retail, hotel and other short-stay accommodation, and cafes.
Aeronautical activities require the use of a minor portion of the airport land. However, aeronautical activities will always remain the priority for Alice Springs Airport and there is a continuing need to eliminate the dust hazard to aircraft operations. There is land that will never be required for aeronautical purposes. In addition there is land that will not be required for aeronautical purposes for many years to come. Both categories can be considered for commercial (non-aviation) opportunities and developed for highest and best use on short, medium and long term bases.

The large land holding by ASA that will never be required for aeronautical purposes is strategic to the future development of both the Alice Springs economy and community. The northern part of the airport land holding comprises some 1500 hectares and lies on the logical southern growth corridor for future Alice Springs development.

In considering commercial development opportunities on airport land there are six primary considerations:

- Contributing to Northern Territory economic growth through developing the property business and by facilitating both the success of our business partners and the objectives of the Northern Territory Government.
- Enhancing value to our shareholders.
- Contributing to the broader economic community.
- Further opportunities for solar power generation in line with Alice Springs’ designation as a solar city.
- Introducing appropriate heritage and commercial uses to the 1939 Seven-Mile Heritage Zone.
- Underpinning infrastructure for further aeronautical development.

RECENT COMMERCIAL DEVELOPMENTS

The most significant commercial project in the period of the last Master Plan has been the early development of the aircraft storage facility to the south of the main runway.

2035 DEVELOPMENT CONCEPT

Of the 3550 hectares in the airport lease area, some 2000 hectares (over 50 percent) of the land is available for non-aeronautical use.

The 1000 hectares in the Commercial and Tourist Commercial Zones will be developed as commercial opportunities arise, refer Figure 3. Possible developments include commercial offices, showrooms, warehousing, large format and speciality retail, hotel and other short-stay accommodation, and cafes.

Service Commercial and Industrial Zones are located on the western boundary of the airport site and abut the Stuart Highway and Maryvale Road. This area will be developed to take advantage of the prominent commercial exposure. Road access will be developed in conjunction with the NT Department of Transport and approved by them.

As detailed in Section 8, the Future Development Zone needs to be excised from the airport lease.

Commercial development opportunities exist in the Seven-Mile Heritage Zone. Developments will be compatible with the heritage value and character of the area.

Horticultural potential exists in the eastern land holding of the airport.

COMMERCIAL DEVELOPMENTS IN FIRST FIVE YEARS OF MASTER PLAN

There are no identifiable significant commercial, community, office, or retail developments that are anticipated to occur in the first five years of this Master Plan. There is potential for a roadhouse and/or fuel distribution facility abutting the Stuart Highway.

There is potential for an aviation museum in the Seven-Mile Heritage Zone.
Progressive expansion of the aircraft storage facility is expected. The employment and economic impact of the aircraft storage facility in 2020 are included in Table 4: Estimated Annual Airport-related Business Impacts 2020.
SECTION 15

Ground Transport Plan

- Access to Roger Vale Drive and Santa Teresa Road from the airport complex may need upgrading during the planning period.
- The approach to development of the internal road network will be to:
  - maximise the use of existing road capacity
  - progressively enhance the road system capacity in line with demand.
EXISTING ROAD AND GROUND TRANSPORT SYSTEM
External Access and Internal Road System
Alice Springs Airport is located 14 kilometres to the south of the Alice Springs township. Roger Vale Drive (which becomes Santa Teresa Road at the airport roundabout) accesses the airport off the Stuart Highway. The Stuart Highway, Roger Vale Drive, and Santa Teresa Road are Northern Territory Government roads.

The internal road system primarily comprises the following roads:

- Halsey Drive to the passenger terminal
- Terminal forecourt road
- Briggs Drive to the commuter/general aviation area
- Miller Drive and Davis Drive to the main general aviation area.

The large undeveloped area bounded by Colonel Rose Drive, Stuart Highway, and Roger Vale Drive (northern area) is accessed by internal tracks.

The existing external and internal road system was largely developed by the early 1990s (refer to Figure 1).

Existing Ground Transport and Parking
All airport customers and staff arrive by private vehicle, taxi, private hire car, shuttle bus or tourist coach. There are no public bus services to ASA. Taxis and private hire cars rank in the passenger terminal forecourt.

The short term car park provides 160 public car park spaces, as well as 107 car rental car park spaces. The long term car park provides 195 car park spaces. Other car parking capacity is scattered throughout the airport precinct, including 133 car park spaces dedicated to staff.

GROUND TRANSPORT SYSTEM DEVELOPMENTS BY 2020
There are no planned road system or ground transport service developments that will occur by 2020. The existing road system and ground transport services are adequate for the foreseeable future.

There may be minor changes to traffic flow design to meet security requirements or airport traffic objectives.

The 2020 road network plan is at Figure 25.
2035 DEVELOPMENT CONCEPT

Background

Current ASA passenger traffic is approximately the same as ten years ago and incremental annual growth is forecast for both airline passenger and general aviation traffic for the planning period.

Both the existing external and internal road systems may need enhancing during the 20 year planning period if current growth forecasts are significantly exceeded.

The long term and short term car parks have sufficient capacity to meet current demand but may need further expansion during the 20 year planning period. Recent changes to include solar PV generating capacity to carports erected in the long term car park will see the need to provide additional uncovered capacity to cater for high vehicles and long vehicles with trailers at some stage beyond 2020.

External Road Access

Access to Roger Vale Drive and Santa Teresa Road from the airport complex may need upgrading during the planning period to cater for developments. Any upgrading of airport access to the external road network will be undertaken in consultation with the Northern Territory Government.

A potential new intersection with Roger Vale Drive to enhance access to the main general aviation area is indicated in Figure 26.

Development of any future access from the northern area to the external road network would occur in consultation with the Northern Territory Government.

The Stuart Highway – Adelaide Road intersection is in the process of being redeveloped by the Northern Territory Government. ASA land spans both sides of this intersection.

Airport land abutting both the Stuart Highway and Roger Vale Drive is needed to widen road reserves.

Internal Road Network

The approach to development of the internal road network will be to:

- maximise the use of existing road capacity
- progressively enhance the road system capacity in line with demand.

Expansion or upgrading of the internal road network will be dictated by aviation and commercial development growth. In particular, expansion of the general aviation area to the west and development of the northern area would lead to new road construction.

Any development of the northern area, including subdivision design, will occur in consultation with the Northern Territory Government.

Ground Transport and Parking

Minor changes are anticipated in the ground transport arrangements for the planning period to meet changing security demands and any need for increased capacity. This may also include the possible extension of the public bus service to the airport.

Car parking capacity will be expanded in line with demand.
FIGURE 26: POTENTIAL NEW INTERSECTION WITH ROGER VALE DRIVE
SECTION 16

Environmental Management

- Alice Springs Airport strives to integrate environmental considerations into the development of facilities and services and seeks to minimise their impact on the natural environment.
- The Airport Environment Strategy establishes a framework for assessing compliance against the relevant standards and legislation.
Airport Environment Strategy (AES)
The Act and the Regulations require that an Airport Environment Strategy (AES) be produced as part of the Master Plan. The AES is a five-year strategic environmental plan for the management of Alice Springs Airport operations. Its purpose is to ensure relevant environmental standards and legislation are adhered to, and establish a framework for assessing compliance with the standards and legislation. The AES also guides continual improvement of environmental management on the airport.

The AES is relevant to all operations on airport, including both aviation and non-aviation related activities. It has been developed as part of the Alice Springs Airport Master Plan. The AES is a key document for ensuring that the forecast growth and development of ASA envisaged in the Master Plan is undertaken in an environmentally responsible manner.

The AES is relevant to all operations on airport, including both aviation and non-aviation related activities. It has been developed as part of the Alice Springs Airport Master Plan. The AES is a key document for ensuring that the forecast growth and development of ASA envisaged in the Master Plan is undertaken in an environmentally responsible manner.

The Act specifies in Section 71 that an Airport Environmental Strategy must set out:

- Objectives for the environmental management.
- The areas if any within the airport site which are identified as environmentally significant.
- The sources of environmental impact associated with airport operations.
- The studies, reviews and monitoring to be carried out by the in connection with the environmental.
- Impact associated with airport operations.
- The time frames for completion of those studies and reviews and for reporting on that monitoring.
- The specific measures to be carried out for the purposes of preventing, controlling or reducing the environmental impact associated with airport operations.
- The timeframes for completion of these specific measures.
- Details of the consultations undertaken in preparing the strategy (including the outcome of the consultations).
- Any areas within the airport site identified as being a site of indigenous significance.
- The environmental management of areas of the airport site that are, or could be, used for a purpose that is not connected with airport operations.
- The training and programs necessary for appropriate environment management.

Airport Environmental Management
ASA maintains an Environmental Management System (EMS) that is consistent with ISO 14001. The EMS provides the system by which long-term and daily environmental management can be planned, implemented and reviewed, in a cycle of continuous improvement. The EMS also guides environmental response to any future airport developments.

The AES is the cornerstone of the EMS. The AES provides strategic policies, objectives and targets for environmental management of the airport within the EMS framework. This includes monitoring progress, reviewing performance and implementing corrective action for the strategic actions outlined in the AES.

The AES is at Appendix 1 to this Master Plan.
SECTION 17

Implementation

• The approval of the Final Master Plan does not automatically confer approval on subsequent major developments. Major developments must undergo the Major Development Plan (MDP) process which is the development consent process under the *Airports Act*. The MDP requires Ministerial approval under the *Airports Act 1996*.

• Smaller developments are assessed by the DIRD appointed Airport Building Controller and Airport Environment Officer.
Implementation Framework

This Master Plan represents current views of developments expected to be realised in a staged manner, largely as a result of increased aircraft movements, passenger demand and commercial development.

Planning, by its nature, is a dynamic activity requiring continuous monitoring of changing conditions, standards and practices, and technology. Therefore, implementation of the Final Master Plan will require flexibility that takes into account fluctuations in economic activity and factors that affect air travel and commercial demand.

The Approval of the Final Master Plan does not automatically confer approval on subsequent major developments. The Airports Act 1996 requires that certain developments must undergo a Major Development Plan (MDP) process which is subject to ministerial approval. Prior to ministerial approval, proposals are subject to further detailed assessment including community consultation, environmental studies, traffic effects and aviation impact.

Other smaller developments, that do not trigger a Major Development Plan, are subjected to Alice Springs Airport’s internal development review process. The Department of Infrastructure and Regional Development (DIRD) also has a role in most airport developments through its statutory office holders – the Airport Building Controller (ABC) and Airport Environment Officer (AEO). The role of the ABC is to administer the Airports (Building Control) Regulations 1996 and the AEO oversees adherence to the approved AES and administers the Airports (Environmental Protection) Regulations 1997. Hence, a regulatory and development consent process is still applied.

Review Process

The Airports Act provides for a Final Master Plan to remain in force for five years. The Act includes additional provisions for minor amendments to the Master Plan, and for the Minister to direct another Master Plan to be prepared.
SECTION 18

Assessment of Consistency with the *Airports Act 1996*

- Alice Springs Airport 2015 Master Plan is consistent with the requirements of the *Airports Act 1996*. 
## SECTION 18
### Assessment of Consistency with the *Airports Act 1996*

**TABLE 29: ASSESSMENT OF THE CONSISTENCY WITH THE *AIRPORTS ACT 1996* AND ASSOCIATED REGULATIONS**

<table>
<thead>
<tr>
<th>LEGISLATION</th>
<th>FINAL DETAILS IN SECTION OF THE MASTER PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AIRPORTS ACT 1996</strong></td>
<td></td>
</tr>
<tr>
<td>70 Final Master Plan</td>
<td></td>
</tr>
<tr>
<td>(1) For each airport, there is to be a final master plan.</td>
<td>Section 3</td>
</tr>
<tr>
<td>(2) The purpose of a final master plan for an airport are:</td>
<td></td>
</tr>
<tr>
<td>(a) to establish the strategic direction for efficient and economic development at the airport over the planning period of the plan; and</td>
<td>Section 5, 8, 12, 13, 14 and 15</td>
</tr>
<tr>
<td>(b) to provide for the development of additional uses of the airport site; and</td>
<td>Section 8, 9, 13, 14 and 15</td>
</tr>
<tr>
<td>(c) to indicate to the public the intended uses of the airport site; and</td>
<td>Section 8, 9, 12, 13, 14 and 15</td>
</tr>
<tr>
<td>(d) 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; and</td>
<td>Section 8, 10 and 11</td>
</tr>
<tr>
<td>(e) to ensure that all operations at the airport are undertaken in accordance with relevant environmental legislation and standards; and</td>
<td>Section 16 and Appendix 1</td>
</tr>
<tr>
<td>(f) to establish a framework for assessing compliance at the airport with relevant environmental legislation and standards; and</td>
<td>Section 16 and Appendix 1</td>
</tr>
<tr>
<td>(g) to promote the continual improvement of environmental management at the airport.</td>
<td>Section 16 and Appendix 1</td>
</tr>
<tr>
<td>71 Contents of draft or final master plan</td>
<td></td>
</tr>
<tr>
<td>(2) In the case of an airport other than joint-user airport, a draft or final master plan must specify:</td>
<td></td>
</tr>
<tr>
<td>(a) the airport-lessee company’s development objectives for the airport; and</td>
<td>Section 5</td>
</tr>
<tr>
<td>(b) the airport-lessee company’s assessment of the future needs of civil aviation users of the airport, and other users of the airport, for services and facilities relating to the airport; and</td>
<td>Section 7, 8, 9, 12, 13, 14 and 15</td>
</tr>
<tr>
<td>(c) the airport-lessee company’s intentions for land use and related development of the airport site, where the uses and developments embrace airside, landside, surface access and land planning/zoning aspects; and</td>
<td>Section 8, 9, 12, 13, 14 and 15</td>
</tr>
<tr>
<td>(d) an Australian Noise Exposure Forecast (in accordance with regulations, if any, made for the purpose of this paragraph) for the areas surrounding the airport; and</td>
<td>Section 11</td>
</tr>
<tr>
<td>(da) flight paths (in accordance with regulations, if any, made for the purpose of this paragraph) at the airport; and</td>
<td>Section 11</td>
</tr>
<tr>
<td>(e) the airport-lessee company’s plans, developed following consultations with the airlines that use the airport and local government bodies in the vicinity of the airport for managing aircraft noise intrusion in areas forecast to be subject to exposure above the significant ANEF levels; and</td>
<td>Section 11</td>
</tr>
<tr>
<td>(f) the airport-lessee company’s assessment of environmental issues that might reasonably be expected to be associated with the implementation of the plan; and</td>
<td>Section 16 and Appendix 1</td>
</tr>
<tr>
<td>(g) the airport-lessee company’s plans for dealing with the environmental issues mentioned in paragraph (f) (including plans for ameliorating or preventing environmental impacts); and</td>
<td>Section 16 and Appendix 1</td>
</tr>
<tr>
<td>(ga) in relation to the first 5 years of the master plan – a plan for a ground transport system on the landside of the airport that details:</td>
<td></td>
</tr>
<tr>
<td>(i) a road network plan; and</td>
<td>Section 15</td>
</tr>
</tbody>
</table>
(ii) the facilities for moving people (employees, passengers and other airport users) and freight at the airport; and

Section 15

(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

Section 15

(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

Section 15

(v) the capacity of the ground transport system at the airport to support operations and other activities at the airport; and

Section 15

(vi) the likely effect on the proposed developments in the master plan on the ground transport system and traffic flows at, and surrounding, the airport; and

Section 15

(gb) in relation to the first 5 years of the master plan – detailed information on the proposed developments in the master plan that are to be used for:

- commercial, community, office or retail purposes; or

Section 14

- for any other purpose that is not related to airport services; and

Section 8 and 15

(gc) in relation to the first 5 years of the master plan – the likely effect of the proposed developments in the master plan on:

- employment levels at the airport; and

Section 6

- 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; and

Section 6, 8 and 15

(h) an environment strategy that details:

- the airport-lessee company’s objectives for the environmental management of the airport; and

Appendix 1

- 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

Appendix 1 – Section 3

- the sources of environmental impact associated with airport operations; and

Appendix 1

- 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

Appendix 1 – Section 3, 5 to 15

- the time frames for completion of those studies and review and for reporting on that monitoring; and

Appendix 1 – Section 3, 5 to 15

- 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

Appendix 1 – Section 3, 5 to 15

- the time frames for completion of those specific measures; and

Appendix 1 – Section 3, 5 to 15

- details of the consultations undertaken in preparing the strategy (including the outcome of the consultations); and

Section 4

- any other matters that are prescribed in the regulations; and

Appendix 1

- such other matters (if any) as are specified in the regulations.

See below

**Matters provided by regulations**

(6) In specifying a particular objective or proposal covered by paragraph (2)(a), (c), (ga), (gb) or (gc) or (3) (a), (c), (ga), (gb) or (gc), a draft or final master plan must address:

Section 8 and 20

(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

Section 8 and 20

(b) if the draft or final master plan is not consistent with those planning schemes – the justification for the inconsistencies.

Section 8 and 20

(7) Subsection (6) does not, by implication, limit subsection (5).

**Company to have regard to Australian standard**

(8) In developing plans referred to in paragraph (2)(e) and (3)(e), an airport-lessee company must have regard to Australian Standard AS2021–2015 (“Acoustics–Aircraft noise intrusion–Building siting and construction”) as in force or existing at that time

Section 11

(9) Subsection (8) does not, by implication, limit the matters to which regard may be had.

(10) In this section:

airport service means a service provided at an airport, if the service is necessary for the purposes of operating or maintaining civil aviation services at the airport, and includes the use of facilities at the airport for those purposes.
**71A Draft or final master plan must identify proposed sensitive developments**

- A draft or final master plan must identify any proposed sensitive development in the plan.  
  
**AIRPORTS REGULATIONS 1997 – REG 5.02**

**5.02 Contents of draft or final master plan – general**

- For paragraphs 71(2)(j) and (3)(j) of the Act, the following matters are specified:

  1. any changes 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;  
  2. 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:

- The airport-lessee company’s plans for dealing with any soil pollution referred to in the report.

**Section 8 and 20**

**5.02A Contents of draft or final master plan – matters to be specified in environment strategy**

- For subparagraphs 71 (2)(h)(ix) and (3)(h)(ix) of the Act, the matters in this regulation must be specified in an environment strategy.

**Appendix 1**

**5.02B Contents of draft or final master plan – things to be addressed in environment strategy**

- For subsection 71(5) of the Act, a draft or final master plan must:

  1. 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  
  2. 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.

**Appendix 1 – Section 3 and 15**

---

**page 110**
<table>
<thead>
<tr>
<th>(e) involvement of the local community and airport users in development of any future strategy; and</th>
<th>Master Plan including Appendix 1 (esp. Section 4 of Master Plan) (esp. Section 3 of Appendix)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(f) dissemination of the strategy to sub-lessees, licensees, other airport users and the local community.</td>
<td>Master Plan including Appendix 1 (esp. Section 4 of Master Plan) (esp. Section 3 of Appendix)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(3) In specifying under subparagraph 71(2)(h)(ii) or (3)(h)(ii) of the Act, the areas within the airport site it identifies as environmentally significant, an airport-lessee company must address:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) any relevant recommendation of the Australian Heritage Council; and</td>
<td>Noted</td>
</tr>
<tr>
<td>(b) any relevant recommendation of the Department of Environment regarding biota, habitat, heritage or similar matters; and</td>
<td>Noted</td>
</tr>
<tr>
<td>(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.</td>
<td>Noted – Section 13</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(4) In specifying the sources of environmental impact under subparagraph 71(2)(h)(iii) or (3)(h)(iii) of the Act, an airport-lessee company must address:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) the quality of the air at the airport site, and in so much of the regional airshed as is reasonably likely to be affect by airport activities; and</td>
<td>Appendix 1 – Section 8</td>
</tr>
<tr>
<td>(b) water quality, including potentially affected groundwater, estuarine waters and marine waters; and</td>
<td>Appendix 1 – Section 5</td>
</tr>
<tr>
<td>(c) soil quality, including that of land known to be already contaminated; and</td>
<td>Appendix 1 – Section 6</td>
</tr>
<tr>
<td>(d) release, into the air, of substances that deplete stratospheric ozone; and</td>
<td>Appendix 1 – Section 8</td>
</tr>
<tr>
<td>(e) generation and handling of hazardous waste and any other kind or waste; and</td>
<td>Appendix 1 – Section 10</td>
</tr>
<tr>
<td>(f) usage of natural resources (whether renewable or non-renewable); and</td>
<td>Appendix 1 – Section 12</td>
</tr>
<tr>
<td>(g) usage of energy the production of which generates emissions of gases known as ‘greenhouse gases’; and</td>
<td>Appendix 1 – Section 8 and 12</td>
</tr>
<tr>
<td>(h) generation of noise.</td>
<td>Appendix 1 – Section 9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(5) In specifying under subparagraph 71(2)(h)(iv) or (3)(h)(iv) of the Act the studies, reviews and monitoring that it plans to carry out, an airport-lessee company must address:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) the matters mentioned in subregulation 5.02A(2) and subregulations 5.02B(3) and (4); and</td>
<td>Appendix 1 – Section 3 and 13</td>
</tr>
<tr>
<td>(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</td>
<td>Appendix 1 – Section 3, 6, 7 and 13</td>
</tr>
<tr>
<td>(c) the approaches and measures identified by the airport-lessee company as its preferred conservation approaches and measures; and</td>
<td>Appendix 1 – Section 3, 13 and 14</td>
</tr>
<tr>
<td>(d) the professional qualifications that must be held by a person carrying out the monitoring; and</td>
<td>Appendix 1 – Section 3</td>
</tr>
<tr>
<td>(e) the proposed systems of testing, measuring and sampling to be carried out for possible, or suspected, pollution or excessive noise; and</td>
<td>Appendix 1 – Section 3, 5, 6, 8 and 9</td>
</tr>
<tr>
<td>(f) the proposed frequency of routine reporting of monitoring results to the airport environment officer (if any) for the airport, or to the Secretary.</td>
<td>Appendix 1 – Section 3, 4 and 15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(6) In specifying under subparagraph 71(2)(h)(vi) or (3)(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:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) the matters mentioned in subregulations (2) to (4); and Master Plan including Appendix 1 (esp. Sections 3 to 15 of Appendix)</td>
<td></td>
</tr>
<tr>
<td>(b) the means by which it proposes to achieve the cooperation of other operators of undertakings at the airport in carrying out those plans.</td>
<td>Appendix 1 – Section 15</td>
</tr>
<tr>
<td>(7) An airport-lessee company, in specifying the company’s strategy for environmental management under subregulation 5.02A(3), must address the matters in subregulations (2) to (6).</td>
<td>Appendix 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(8) In this regulation:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Environment means the Department administered by the Minister responsible for administering the Environment Protection and Biodiversity Conservation Act 1999.</td>
<td></td>
</tr>
</tbody>
</table>
This page has intentionally been left blank
SECTION 19
Acronyms
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAPA</td>
<td>Aboriginal Areas Protection Authority</td>
</tr>
<tr>
<td>ABC</td>
<td>Airport Building Controller</td>
</tr>
<tr>
<td>ADG</td>
<td>Airport Development Group</td>
</tr>
<tr>
<td>AEO</td>
<td>Airport Environment Officer</td>
</tr>
<tr>
<td>AES</td>
<td>Airport Environment Strategy</td>
</tr>
<tr>
<td>ALC</td>
<td>Airport-Lessee Company</td>
</tr>
<tr>
<td>ANEC</td>
<td>Aircraft Noise Exposure Concept</td>
</tr>
<tr>
<td>ANEF</td>
<td>Australian Noise Exposure Forecast</td>
</tr>
<tr>
<td>ARFFS</td>
<td>Aviation Rescue and Fire Fighting Service</td>
</tr>
<tr>
<td>ASA</td>
<td>Alice Springs Airport Pty Ltd</td>
</tr>
<tr>
<td>ATC</td>
<td>Air Traffic Control</td>
</tr>
<tr>
<td>AZRI</td>
<td>Arid Zone Research Institute</td>
</tr>
<tr>
<td>CASA</td>
<td>Civil Aviation Safety Authority</td>
</tr>
<tr>
<td>CASR</td>
<td>Civil Aviation Safety Regulations</td>
</tr>
<tr>
<td>CAT</td>
<td>Category</td>
</tr>
<tr>
<td>CBD</td>
<td>Central Business District</td>
</tr>
<tr>
<td>CCTV</td>
<td>Closed Circuit Television</td>
</tr>
<tr>
<td>CTAF</td>
<td>Common Traffic Advisory Frequency</td>
</tr>
<tr>
<td>CTFR</td>
<td>Counter Terrorism First Response</td>
</tr>
<tr>
<td>DIA</td>
<td>Darwin International Airport Pty Ltd</td>
</tr>
<tr>
<td>DIRD</td>
<td>Department of Infrastructure and Regional Development</td>
</tr>
<tr>
<td>DLPE</td>
<td>Department of Lands, Planning and the Environment</td>
</tr>
<tr>
<td>DME</td>
<td>Distance Measuring Equipment</td>
</tr>
<tr>
<td>EDMP</td>
<td>Exposure Draft Master Plan</td>
</tr>
<tr>
<td>EMS</td>
<td>Environmental Management System</td>
</tr>
<tr>
<td>ERSA</td>
<td>EnRoute Supplement Australia</td>
</tr>
<tr>
<td>ESR</td>
<td>Environmental Sites Register</td>
</tr>
<tr>
<td>FAC</td>
<td>Federal Airports Corporation</td>
</tr>
<tr>
<td>FATO</td>
<td>Final Approach and Take Off</td>
</tr>
<tr>
<td>FID</td>
<td>Flight Information Displays</td>
</tr>
<tr>
<td>FSC</td>
<td>Full Service Carriers</td>
</tr>
<tr>
<td>FTE</td>
<td>Full-time Equivalent</td>
</tr>
<tr>
<td>GA</td>
<td>General Aviation</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GSE</td>
<td>Ground Service Equipment</td>
</tr>
<tr>
<td>GSP</td>
<td>Gross State Product</td>
</tr>
<tr>
<td>HIAL</td>
<td>High Intensity Approach Lighting</td>
</tr>
<tr>
<td>HV</td>
<td>High Voltage</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organisation</td>
</tr>
<tr>
<td>ILS</td>
<td>Instrument Landing System</td>
</tr>
<tr>
<td>ITC</td>
<td>Information Technology and Communications</td>
</tr>
<tr>
<td>JDSRF</td>
<td>Joint Defence Research Facility</td>
</tr>
<tr>
<td>LCC</td>
<td>Low Cost Carrier</td>
</tr>
<tr>
<td>MAX</td>
<td>Maximum</td>
</tr>
<tr>
<td>MDP</td>
<td>Major Development Plan</td>
</tr>
<tr>
<td>MOS</td>
<td>Manual of Standards</td>
</tr>
<tr>
<td>MP</td>
<td>Master Plan</td>
</tr>
<tr>
<td>MTOW</td>
<td>Maximum Take Off Weight</td>
</tr>
<tr>
<td>N70</td>
<td>Noise Events Louder than 70dB(A)</td>
</tr>
<tr>
<td>NASA</td>
<td>National Aeronautical and Space Administration</td>
</tr>
<tr>
<td>NTAFL</td>
<td>Northern Territory Airports Pty Ltd</td>
</tr>
<tr>
<td>NDB</td>
<td>Non-Directional Beacon</td>
</tr>
<tr>
<td>NT</td>
<td>Northern Territory</td>
</tr>
<tr>
<td>NTG</td>
<td>Northern Territory Government</td>
</tr>
<tr>
<td>OLS</td>
<td>Obstacle Limitation Surfaces</td>
</tr>
<tr>
<td>PANS-OPS</td>
<td>Procedures for Air Navigation Services – Aircraft Operations</td>
</tr>
<tr>
<td>PAPI</td>
<td>Precision Approach Path Indicator</td>
</tr>
<tr>
<td>PCN</td>
<td>Pavement Classification Number</td>
</tr>
<tr>
<td>PDMP</td>
<td>Preliminary Draft Master Plan</td>
</tr>
<tr>
<td>PWC</td>
<td>Power and Water Corporation</td>
</tr>
<tr>
<td>RPT</td>
<td>Regular Public Transport</td>
</tr>
<tr>
<td>RAAF</td>
<td>Royal Australian Air Force</td>
</tr>
<tr>
<td>SRA</td>
<td>Security Restricted Area</td>
</tr>
<tr>
<td>TFI</td>
<td>Tourism Futures International</td>
</tr>
<tr>
<td>TSP</td>
<td>Transport Security Program</td>
</tr>
<tr>
<td>TWY</td>
<td>Taxiway</td>
</tr>
<tr>
<td>T-VASIS</td>
<td>T-Visual Approach Slope Indicator System</td>
</tr>
<tr>
<td>US</td>
<td>United States</td>
</tr>
<tr>
<td>USAF</td>
<td>United States Air Force</td>
</tr>
<tr>
<td>VHF</td>
<td>Very High Frequency</td>
</tr>
<tr>
<td>VOR</td>
<td>Very High Frequency Omnidirectional Range</td>
</tr>
<tr>
<td>WSUD</td>
<td>Water Sensitive Urban Design</td>
</tr>
</tbody>
</table>
SECTION 20
Definitions of Land Uses
## Definitions of Land Uses

Note:
- **Black** denotes those Zones and Land Uses identical to the NT Planning Scheme
- **Red** denotes those Zones and Land Uses that have been amended from those in the NT Planning Scheme to appropriately reflect on-site aviation and non-aviation land uses and activities
- **Blue** denotes independent definitions for aviation zones and land uses

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
</table>
| **agriculture**                           | means, as a commercial enterprise:  
(a) the growing of crops, pasture, timber trees and the like, but does not include a plant nursery or horticulture;  
(b) the keeping and breeding of livestock;  
but does not include intensive animal husbandry or stables. |
| **animal boarding**                       | means premises used as a commercial enterprise for the accommodation or breeding of domestic animals.                                                                                                       |
| **aviation activity**                     | means any activity for the arrival, departure, movement or operation of aircraft and includes aircraft aprons, helipads, heliports, runways, taxiways, areas set aside for the parking and or storage of aircraft either short or long term, and the like. |
| **aviation support facility**             | means any aircraft maintenance facility, engine-run area, ground support equipment, transport depot and associated ground base activities necessary for the orderly and efficient operation of aviation activity. |
| **business sign**                         | means a device using words, letters or images exhibited for the purpose of advertising, announcement or display restricted to the name of the business carried on and the nature of the services or goods available, on the land on which the sign is erected, and includes, where a number of persons are carrying on different businesses on that land, a sign identifying the place. |
| **caravan park**                          | means land used for the parking of caravans or the erection or placement and use of tents or cabins for the purpose of providing accommodation.                                                             |
| **caretaker’s residence**                 | means a dwelling which is ancillary to the lawful use of the land on which it is erected and which is used by the caretaker of the land.                                                                         |
| **car park**                              | means the parking of motor vehicles, including buses and trucks, otherwise than as an ancillary use of land.                                                                                               |
| **child care centre**                     | means premises used for the caring for 17 or more children.                                                                                                                                                |
| **community centre**                      | means a building or part of a building designed or adapted primarily to provide facilities for social, sporting or cultural purposes but does not include premises licensed under the Liquor Act. |
| **dwelling**                              | means a building, or part of a building, designed, constructed or adapted as a self-contained residence.                                                                                                  |
| **domestic livestock**                    | means the keeping, exercising or training, other than as a commercial enterprise, of any of the following:  
- Horses or other equine animals;  
- Ox, buffalo or other bovine animals;  
- Camels;  
- Pigs.                                  |
<p>| <strong>education establishment</strong>               | means an academy, college, kindergarten, lecture hall, technical college or university, but does not include a place of worship.                                                                          |
| <strong>fuel depot</strong>                            | means a depot for the storage or sale of solid, liquid or gaseous fuel, but does not include a service station.                                                                                             |
| <strong>general aviation and support facilities</strong> | means any aviation and aviation related use of the land. General aviation commonly refers to that part of the aviation industry that engages in activity other than scheduled commercial airline activity. This may include charter operations, aeromedical operations, agricultural aviation businesses, aviation-based firefighting services, training and aerial work such as aerial photography and surveying. It also includes private, business, recreational and sports aviation activity and supporting businesses such as maintenance providers. |
| <strong>general industry</strong>                      | means an industry other than a light industry or a rural industry.                                                                                                                                       |</p>
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
</table>
| group home                   | means a dwelling:  
(a) occupied by persons who are not necessarily related and who live together as a single household, with or without paid supervision or care;  
(b) where management of the household is assisted by a community organisation, education establishment, or recognised religious or charitable organisation, or a department or institutional establishment of the Crown, but does not include supporting accommodation. |
| helipad                       | means a place not open to the public, used for take-off and landing of helicopters.                                                       |
| heliport                      | means a place not open to the public, used for the take-off and landing of helicopters whether or not it includes:  
(a) a terminal building;  
(b) facilities for parking, storage or repair of helicopters. |
| home based child care centre  | means the caring in a dwelling for six to a maximum of 16 children including children who reside in the dwelling, by a person who resides in the dwelling. |
| home based contracting        | means the storage on the site of a dwelling of materials and/or vehicles associated with a business operated by a person resident in the dwelling, but which business does not operate on the site of the dwelling. |
| home based visitor accommodation| means temporary accommodation provided on the premises of a dwelling by the resident of that dwelling, as a commercial enterprise for persons away from their normal place of residence but does not include a hostel. |
| hotel                         | means premises which require a licence under the Liquor Act and where, as a principal part of the business, alcoholic beverages are ordinarily sold to the public for consumption on the premises whether or not accommodation is provided for members of the public and whether or not meals are served, but does not include a licensed club, motel or restaurant. |
| independent unit              | means an ancillary dwelling constructed on the same site as a single dwelling.                                                           |
| industry                      | includes the following operations:  
(a) the carrying out of a process of manufacture whether or not to produce a finished article;  
(b) the dismantling of an article, machinery or vehicle;  
(c) the treatment of waste materials;  
(d) the packaging of goods or machinery;  
(e) the process of testing or analysis of an article, goods or materials;  
(f) the storage of goods, equipment or vehicles not in association with any other activity on the site, but not including transport terminal, vehicle sales and hire or warehouse; and if on the same land as any of the operations referred to in paragraphs (a) to (f) above:  
(g) the storage of goods used in conjunction with or resulting from any of the above operations;  
(h) the provision of amenities for persons engaged in the operations;  
(i) the sale of goods resulting from the operations;  
(j) any work of administration or accounting in connection with an operation;  
(k) an industry or class of industry particularly described in this Scheme, but does not include motor body works, motor repair station or a home occupation. |
| intensive animal husbandry    | means:  
(a) the keeping and feeding of animals, including poultry and pigs, in sheds, stalls, ponds, compounds or stockyards;  
(b) aquaculture;  
as a commercial enterprise. |
<p>| leisure and recreation        | means the provision indoors or outdoors of recreation, leisure or sporting activities and includes cinemas, theatres, sporting facilities and the like as a commercial enterprise but does not include a licensed club or community centre. |
| licensed club                 | means premises used as club rooms which require a licence under the Liquor Act.                                                          |
| light industry                | means an industry in which the process carried on, the machinery used and the goods and commodities carried to and from the premises on which the industry is sited are not of such a kind as are likely to adversely affect the amenity of the surrounding locality by reason of the emission of noise, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit, oil or otherwise. |
| medical clinic                | means a building or place used by one or more medical practitioners, physiotherapists, dentists or persons ordinarily associated with health care, or their employees, but does not include a hospital. |
| medical consulting rooms      | means a room or suite of rooms on the site of a single dwelling used by a resident of that dwelling for the purposes of his or her work as a medical practitioner, dentist or person ordinarily associated with health care. |
| motel                         | means premises wholly or principally used for the accommodation of travellers and the vehicles used by them, whether or not the building is also used to provide meals to the travellers or to members of the general public and whether or not the premises are licensed under the Liquor Act, but does not include bed and breakfast accommodation. |
| motor body works              | means premises for repairing the body work of motor vehicles and includes body building, panel beating or spray painting of motor vehicles. |</p>
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>motor repair station</td>
<td>means premises used for carrying out repairs to motor vehicles but does not include a motor body works or a transport terminal.</td>
</tr>
<tr>
<td>multiple dwellings</td>
<td>means a building or a group of buildings on a site which individually or collectively contain more than one dwelling (including service apartments) but does not include an independent unit.</td>
</tr>
<tr>
<td>navigational aids</td>
<td>means any aircraft surveillance equipment, control towers, radars, visual and non-visual navigation aids and the like.</td>
</tr>
<tr>
<td>office</td>
<td>means a building or part of a building used for the conduct of administration whether public or otherwise, the practice of a profession, or the carrying on of mercantile, banking, insurance, legal, clerical or similar services, but does not include a home occupation.</td>
</tr>
<tr>
<td>passenger terminal</td>
<td>means premises used as a railway or bus station, shipping passenger terminal, airline passenger terminal, hoverport or heliport.</td>
</tr>
<tr>
<td>place of worship</td>
<td>means premises used as a church, chapel, mosque, temple, synagogue or place of religious instruction or worship or for the purpose of religious training.</td>
</tr>
<tr>
<td>plant nursery</td>
<td>means premises principally used for the growing and/or display of plants for sale, whether or not seeds, equipment, soil, sand, rocks, railway sleepers or other associated products are displayed or sold, but does not include the use of land for agriculture or horticulture.</td>
</tr>
</tbody>
</table>
| promotion sign                    | means a device using words, letters or images exhibited for the purpose of advertising, announcement or display which contains information relating to:  
  | (a) goods, services or products not provided, produced or sold;  
  | (b) events or activities which are not carried on;  
  | (c) on the land or in the building on which the sign is constructed or erected.                                                                                                                       |
| recycling depot                   | means premises used for the collection, storage or sale of scrap metals, waste paper, rags, bottles or other scrap material or goods, or used for dismantling, storage or salvaging of machinery whether or not parts of them are for sale. |
| restaurant                        | means premises (other than a shop, or part of a hotel or a motel) in which meals are served to the public whether or not the premises provides a drive-through service or requires a licence under the Liquor Act.        |
| retail agricultural stall          | means a building used for the display and retail sale of agricultural, market garden or horticultural produce grown on the land on which the building is erected.                                               |
| rural industry                    | means an industry which involves the treatment, processing or packing of primary products transported to the site where the goods and commodities carried to or from the premises on which the industry is sited, are not of such a kind as are likely to adversely affect the amenity of the surrounding locality. |
| service station                    | means premises used for the sale by retail of fuels, oils and other products for use in connection with the operation of motor vehicles, whether or not it includes convenience shopping, but does not include a fuel depot, motor repair station or motor body works. |
| shop                              | means premises used for the display and sale by retail or for hire of goods or services but does not include a restaurant, retail agricultural stall, service station, showroom sales or vehicle sales and hire. |
| short-stay accommodation          | means hotel and/or motel style accommodation which has been specifically designed for short stay business or tourist accommodation and which is not subject to a residential lease.                         |
| showroom sales                    | means the sale or hire in premises of goods of a bulky nature including:  
  | (a) furniture, floor coverings, furnishings, household appliances or camping gear;  
  | (b) materials, tools, equipment or machinery for use in industry, commerce, the trades, primary production, medical purposes or party hire.                                                               |
| single dwelling                   | means a building containing one dwelling only.                                                                                                                                                             |
| stables                           | means premises used for the keeping, exercising or training of horses or other animals of burden but does not include domestic livestock or intensive animal husbandry.                                         |
| supporting accommodation          | means:  
  | (a) a convalescent or nursing home, an orphanage, a children’s home, an institution for poor or disadvantaged persons or a home for the care of aged persons;  
  | (b) premises used by people moving from their homes or an institution and living for a short time in shared, supporting or rehabilitating accommodation, but does not include a group home. |
| transport terminal                | means premises used for the:  
  | (a) loading, discharge or storage of goods in the course of the transport of those goods by air, road, rail or ship;  
  | (b) garaging and basic maintenance of fleet vehicles;  
<p>| (c) servicing, repair and garaging of buses.                                                                                                                                                    |
| utilities and infrastructure      | means a road, traffic lights, stormwater drains, disposal of sewage and waste water, facilities for the reticulation of services, telecommunications facilities, electricity substations and electricity transmission facilities, including sustainable generation systems, and the like. |
| vehicle sales and hire            | means premises used wholly or principally for the display for sale by retail or for rental of motor vehicles, caravans, trailers, farm machinery or boats but does not include motor body works, motor repair station, a shop or showroom sales. |</p>
<table>
<thead>
<tr>
<th><strong>veterinary clinic</strong></th>
<th>means premises used for the medical treatment of animals, whether or not the animals are boarded there as part of the treatment.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>warehouse</strong></td>
<td>means premises used for the bulk storage of goods, or the display and sale of goods by wholesale.</td>
</tr>
</tbody>
</table>
This page has intentionally been left blank
SECTION 21
Glossary and Aviation Terminology
SECTION 21
Glossary and Aviation Terminology

AIRCRAFT NOISE TERMS

Aircraft Noise Exposure Concept (ANEC)
A set of contours based on hypothetical aircraft operations at an airport in the future. As ANEC maps are based on hypothetical assumptions and may not be subject to review or endorsement, they have no official status and cannot be used for land use planning purposes. An ANEC, however, can be turned into an ANEF.

Australian Noise Exposure Forecast (ANEF)
A set of contours showing future forecasted levels of exposure to noise. The ANEF is the only type of noise map intended to be used to assist land-use planning decisions. ANEF maps are subject to technical review and endorsement by Airservices Australia.

Flight path
These maps provide an indication of where aircraft fly and how many overflights there are over a particular period.

N70 Chart
N70 Chart provides a guide to aircraft noise which is more explanatory than an ANEF. N70 refers to the number of noise events louder than 70 dBA over a particular period. The level of 70 dBA has been chosen because it is equivalent to the single event level of 60dBA specified in the Australian Standards AS2021 as the indoor design sound level for normal domestic areas in dwellings.

AIRFIELD TERMS

Aerodrome/Airport
A defined area of land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.

Aircraft Operator
A person, organisation or enterprise engaged in, or offering to engage, in aircraft operation.

Airport Operator
Any owner, licensee, authority or corporation, or any other body which has legal responsibility for a particular aerodrome (e.g. Alice Springs Airport Pty Ltd).

Airside
The movement area of an airport, adjacent terrain and buildings or portions thereof, access to which is controlled.

Aprons
An apron is a defined area for aircraft parking. An apron area enables passengers to board or disembark from an aircraft, the loading of freight onto or unloading freight from an aircraft, the refuelling, parking or carrying out of maintenance on aircraft in between flights.

General Aviation
General aviation commonly refers to that part of the aviation industry that engages in activity other than scheduled commercial airline activity. This may include charter operations, aero medical operations, agricultural aviation businesses, aviation-based fire-fighting services, training and aerial work such as aerial photography and surveying. It also includes private, business, recreational and sports aviation activity and supporting businesses such as maintenance providers.

Gate
Physical location where passengers depart/arrive at the terminal to access aircraft either directly from contact stands or by walking from remote stands.

Landside
Those parts of an aerodrome not considered airside, that is, areas normally accessible to the general public.

Manoeuvring areas
Those parts of an aerodrome used for the take-off, landing and taxiing of aircraft, excluding aprons.

Movement areas
Those parts of an aerodrome used for the take-off, landing taxiing and parking of aircraft (i.e. the manoeuvring area plus the aprons).
Runways
Defined area provided for the landing and take-off of aircraft. Alice Springs Airport has two runways, which are identified by international convention by a two-part designator derived from the direction in which the aircraft is flying:
- Runway 12/30 is the main east-west runway
- Runway 17/35 is the secondary north-south runway.

Runway strips
Defined area surrounding a runway, provided to reduce the risk of damage to aircraft running off runways and also to provide obstacle-free airspace for aircraft flying over the area during take-off and landing operations.

Stand/Bay
Physical location where an aircraft parks, also referred to as an aircraft parking position.

Taxiways
Taxiways are defined paths providing safe and expeditious surface movement of aircraft between the runway and aprons.

Thresholds
Thresholds are the points on the runway for which the landing distance available to an aircraft is measured. A threshold is determined with reference to obstacle-free approach gradient required for the particular category of runway. Where there is no obstacle infringement, the threshold and runway end normally coincide. Where obstacles infringe the approach surface it is necessary to displace the threshold to achieve the required obstacle free gradient.
This page has intentionally been left blank
SECTION 22

Figures and Tables
FIGURES
Figure 1: Current Alice Springs Airport Layout (2015).
Figure 2: 2035 Alice Springs Airport Development Concept
Figure 3: Airport Land Use Zone Plan.
Figure 4: Airport Lease Boundary.
Figure 5: Master Plan Process Outline.
Figure 6: Land Use Plan with ANEF Contours
Figure 7: 2035 Airfield Development Concept
Figure 8: OLS Current and Future
Figure 9: PANS-OPS Current and Future
Figure 10: Endorsed 2055 ANEF
Figure 11: 2049 ANEF vs 2055 ANEF
Figure 12: 2055 Flight Paths Runway 12 Arrivals
Figure 13: 2055 Flight Paths Runway 12 Departures
Figure 14: 2055 Flight Paths Runway 30 Arrivals
Figure 15: 2055 Flight Paths Runway 30 Departures
Figure 16: 2055 Flight Paths Runway 12/30 Circuits
Figure 17: 2055 Flight Paths Runway 17/35 Circuits
Figure 18: 2055 Flight Paths Runway 17 Arrivals and Departures
Figure 19: 2055 Flight Paths Runway 35 Arrivals and Departures
Figure 20: 2055 Flight Paths Helicopter Circuits
Figure 21: 2055 Flight Paths Helicopter
Figure 22: N70 and Swoosh Paths Runway 30
Figure 23: N70 and Swoosh Paths Runway 12
Figure 24: 2035 Terminal Expansion Concept
Figure 25: 2020 Road Network Plan
Figure 26: Potential New Intersection with Roger Vale Drive

TABLES
Table 1: Consultation Team
Table 2: Annual Airport-related Business Impacts 2015
Table 3: Annual Airport-enabled Tourism Impacts on the NT Economy 2015
Table 4: Estimated Annual Airport-related Business Impacts in 2020
Table 5: Estimated Annual Airport-enabled Tourism Impacts on the NT Economy 2020
Table 6: Estimated Annual Airport-related Business Impacts in 2035
Table 7: Estimated Annual Airport-enabled Tourism Impacts on the NT Economy 2035
Table 8: Forecast Passenger Movements
Table 9: Forecast Aircraft Movements
Table 10: Aviation Activities Zone
Table 11: Terminal and Facilities Zone
Table 12: Aviation Reservation Zone
Table 13: Commercial Zone
Table 14: Service Commercial Zone
Table 15: Tourist Commercial Zone
Table 16: Future Development Zone
Table 17: Light Industry Zone
Table 18: General Industry Zone
Table 19: Heritage Zone
Table 20: Horticultural Zone
Table 21: Dust Suppression Zone
Table 22: Water Management Zone
Table 23: Code Number
Table 24: Code Letter
Table 25: Runway Data
Table 26: Taxiway Data
Table 27: Terminal Apron Aircraft Parking Demand
Table 28: Building Site Acceptability based on ANEF Zones
Table 29: Assessment of the consistency with the Airports Act 1996 and associated Regulations
References

- ACIL Allen Consulting (November 2014), Alice Springs Airport: Economic and Social Impact Analysis
- Airbiz (December 2014), Alice Springs Airport Master Plan 2015: Long Range ANEF 2055
- Airbiz (April 2009), Master Plan – Terminal and Airside Report
- Airports Act 1996 (Cth)
- Airports Regulations J997 (Cth)
- Alice Springs Airport (2009), Alice Springs Airport Final Environment Strategy 2009
- Alice Springs Airport (2009), Alice Springs Airport Final Master Plan 2009
- Civil Aviation Safety Authority (November 2014), Manual of Standards Part 139 – Aerodromes
- Demeyne Aviation (March 2009), Alice Springs Airport General Aviation Area Master Plan
- Department of Infrastructure and Transport (November 2014), National Airports Safeguarding Framework Principles and Guidelines
- Department of Infrastructure and Transport (October 2012), Airport Development Consultation Guidelines
- Department of Lands, Planning and the Environment (2015), NT Planning Scheme
- EcOz Environmental Services (2014), Coolabah and Ironwood Tree Health Assessment Alice Springs Airport June 2014, unpublished report prepared by EcOz Environmental Services for Northern Territory Airports Pty Ltd
- EcOz Environmental Services (2013), Groundwater Management Plan Alice Springs Airport, unpublished report prepared by EcOz Environmental Services for Northern Territory Airports Pty Ltd
- International Civil Aviation Organisation (2008), Annex 16 to the Convention on International Civil Aviation – Environmental Protection Volume 1 – Aircraft Noise
- Sinclair Knight Merz (1999), Alice Springs Airport Final Master Plan
- Sinclair Knight Merz (1999), Alice Springs Airport Final Environmental Strategy
- Tourism Futures International (2014), Darwin Airport and Alice Springs Airport 20 Year Forecast Report
Appendix 1
AIRPORT ENVIRONMENT STRATEGY
1. **INTRODUCTION** ................................................... 133
   - Background .................................................................. 134
   - Location ....................................................................... 134
   - Climate ......................................................................... 134
   - Surrounding land use .................................................. 134

2. **AIRPORT LEGISLATION FRAMEWORK** ............. 137
   - Airport Legislation .................................................. 138
     - Department of Infrastructure and Regional Development ........................................ 138

3. **ENVIRONMENTAL MANAGEMENT FRAMEWORK** .... 139
   - Environmental Management Objectives ........................ 140
   - Corporate Sustainability ............................................ 140
   - Corporate Environmental Management ................. 140
   - Environment Policy .................................................. 141
     - Our Belief .................................................................. 141
     - Our Commitment ..................................................... 141
     - Our Actions ................................................................ 141
     - Training ...................................................................... 142
   - Environmental Management System ...................... 142
   - Environmental Site Register .................................. 142
   - Sites of Significance ................................................. 143
   - Studies, Reviews and Monitoring ............................ 143

4. **ENVIRONMENTAL ATTRIBUTES** .................. 145
   - Section Structure ..................................................... 146
     - Background ............................................................ 146
     - Legislative Requirements and Guidelines ........................ 146
     - Potential Sources of Environmental Impact ............ 146
     - Environmental Management and Monitoring ........ 146
     - Recent Actions and Achievements ......................... 146
   - Action Plan ............................................................ 146

5. **WATER** ............................................................ 147
   - Background ............................................................ 148
   - Legislative Requirements and Guidelines .................. 149
   - Potential Sources of Environmental Impact ............ 149
   - Environmental Management and Monitoring ........ 149
     - Stormwater Drain Monitoring Program ................. 149
     - Groundwater Monitoring ...................................... 149
   - Recent Actions and Achievements ......................... 150
   - Action Plan ............................................................ 150

6. **LAND** ............................................................... 153
   - Background ............................................................ 154
   - Legislative Requirements and Guidelines .................. 154
   - Potential Sources of Environmental Impact ............ 154
   - Environmental Management and Monitoring ........ 154
     - Soil Erosion .......................................................... 154

7. **BIODIVERSITY** .................................................... 157
   - Background ............................................................ 158
   - Legislative Requirements and Guidelines .................. 159
   - Potential Sources of Environmental Impact ............ 159
   - Environmental Management and Monitoring ........ 159
   - Vegetation Management .......................................... 159
   - Coolabah and Ironwood Vegetation Type ............... 159
   - Threatened Species ................................................ 159
   - Weeds ....................................................................... 159
   - Pest Fauna ............................................................. 159
   - Fire Fuel Load ......................................................... 159
   - Wildlife Strike ......................................................... 159
   - Monitoring Programs .............................................. 160
   - Recent Actions and Achievements ......................... 160
   - Action Plan ............................................................ 160

8. **AIR QUALITY AND EMISSIONS** ...................... 163
   - Background ............................................................ 164
   - Legislative Requirements and Guidelines .................. 164
   - Potential Sources of Environmental Impact ............ 164
   - Environment Management and Monitoring ........ 164
   - Recent Actions and Achievements ......................... 165
   - Action Plan ............................................................ 165

9. **NOISE** ............................................................. 167
   - Background ............................................................ 168
   - Legislative Requirements and Guidelines .................. 168
   - Potential Sources of Environmental Impact ............ 168
   - Environmental Management and Monitoring ........ 168
   - Completed Actions and Achievements .................... 168
   - Action Plan ............................................................ 168

10. **HAZARDOUS MATERIALS** ............................... 169
    - Background .......................................................... 170
    - Legislative Requirements and Guidelines .................. 170
    - Potential Sources of Environmental Impact ............ 170
    - Environment Management and Monitoring ........ 170
    - Completed Actions and Achievements .................... 170
    - Action Plan .......................................................... 170

11. **WASTE** ............................................................ 171
    - Background .......................................................... 172
    - Legislative Requirements and Guidelines .................. 172
    - Potential Sources of Environmental Impact ............ 172
    - Environmental Management and Monitoring ........ 172
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. RESOURCE USE AND CLIMATE CHANGE</td>
<td>175</td>
</tr>
<tr>
<td>Background</td>
<td>176</td>
</tr>
<tr>
<td>Legislative Requirements and Guidelines</td>
<td>176</td>
</tr>
<tr>
<td>Potential Sources of Environmental Impact</td>
<td>176</td>
</tr>
<tr>
<td>Environment Management and Monitoring</td>
<td>177</td>
</tr>
<tr>
<td>Completed Actions and Achievements</td>
<td>177</td>
</tr>
<tr>
<td>Action Plan</td>
<td>177</td>
</tr>
<tr>
<td>13. CULTURAL HERITAGE</td>
<td>179</td>
</tr>
<tr>
<td>Background</td>
<td>180</td>
</tr>
<tr>
<td>Legislative Requirements and Guidelines</td>
<td>180</td>
</tr>
<tr>
<td>Potential Sources of Environmental Impact</td>
<td>180</td>
</tr>
<tr>
<td>Environmental Management and Monitoring</td>
<td>180</td>
</tr>
<tr>
<td>Completed Actions and Achievements</td>
<td>180</td>
</tr>
<tr>
<td>Action Plan</td>
<td>180</td>
</tr>
<tr>
<td>14. DEVELOPMENT</td>
<td>183</td>
</tr>
<tr>
<td>Background</td>
<td>184</td>
</tr>
<tr>
<td>Legislative Requirements and Guidelines</td>
<td>184</td>
</tr>
<tr>
<td>Potential Sources of Environmental Impact</td>
<td>184</td>
</tr>
<tr>
<td>Environmental Management and Monitoring</td>
<td>184</td>
</tr>
<tr>
<td>Completed Actions and Achievements</td>
<td>184</td>
</tr>
<tr>
<td>Action Plan</td>
<td>185</td>
</tr>
<tr>
<td>15. TENANTS</td>
<td>187</td>
</tr>
<tr>
<td>Background</td>
<td>188</td>
</tr>
<tr>
<td>Legislative Requirements and Guidelines</td>
<td>188</td>
</tr>
<tr>
<td>Potential Sources of Environmental Impact</td>
<td>188</td>
</tr>
<tr>
<td>Environmental Management and Monitoring</td>
<td>188</td>
</tr>
<tr>
<td>Completed Actions and Achievements</td>
<td>188</td>
</tr>
<tr>
<td>Action Plan</td>
<td>188</td>
</tr>
<tr>
<td>16. COMMUNITY</td>
<td>189</td>
</tr>
<tr>
<td>Background</td>
<td>190</td>
</tr>
<tr>
<td>Environmental Management and Monitoring</td>
<td>190</td>
</tr>
<tr>
<td>Completed Actions and Achievements</td>
<td>190</td>
</tr>
<tr>
<td>Action Plan</td>
<td>190</td>
</tr>
<tr>
<td>17. FIGURES AND TABLES</td>
<td>191</td>
</tr>
</tbody>
</table>
SECTION 1

Introduction

- This Airport Environment Strategy (AES) is a five year strategic plan for the environmental management of Alice Springs Airport.
- The AES is relevant to all aviation and non-aviation activities on airport undertaken by staff, tenants and contractors.
BACKGROUND
This Airport Environment Strategy (AES) is a five year strategic plan for the environmental management of Alice Springs Airport (ASA) operations. Its purpose is to ensure relevant environmental standards and legislation are adhered to and guide continual improvement in environmental management across the airport.

This is the fourth AES, developed as a requirement of the Airports Act 1996. It replaces the previous AES documents, which covered the periods 1999-2004, 2004-2009, and 2009-2015 and will remain in force until development of the next Master Plan.

The AES is relevant to all operations on airport, including both aviation and non-aviation related activities carried out by ASA staff, tenants and contractors. It has been developed as part of the Alice Springs Airport 2015 Master Plan providing direction for the management of the airport site.

ASA is committed to building on the environmental initiatives and improvements achieved over the previous AES periods.

LOCATION
ASA is located approximately 14 km south-east of the town of Alice Springs in the Northern Territory. The airport covers a total site of approximately 3550 hectares, which makes it the largest Australian airport in terms of area.

Alice Springs Airport is bounded by:
- The Arid Zone Research Institute (AZRI) site, new Kilgariff development, and rural residential to the north.
- The Todd River to the north-east.
- The Amoonguna aboriginal community north-east of the Todd River.
- Undoolya Cattle Station to the east, south-east and south.
- Northern Territory Government land that includes the Stuart Highway, Finke Desert Race Track, the old Ghan Railway, a drag strip and the Roe Creek Borefield to the west.

CLIMATE
A Bureau of Meteorology weather station is located at Alice Springs Airport (Station 015590). The region experiences an arid to semi-arid climate, which is characterised by hot dry summers and cool dry winters with a low average annual rainfall and high evaporation rates.

Mean temperature and rainfall data are summarised in Figure 1. Average maximum temperatures range from 19.7°C in July to 36.4°C in January, and average minimum temperatures range from 4°C in July to 21.5°C in January. Average annual rainfall is 283.6 mm, however the amount of rainfall in the region has a history of being highly variable. For example, 2009 experienced 76.8 mm of rain while 2010 experienced 769.6 mm of rain.

These climatic conditions, combined with the geographic isolation of the airport, pose a range of significant environmental management issues, predominantly water supply and management, dust storms, high fire danger and cultural heritage management.

FIGURE 1: AVERAGE TEMPERATURES AND RAINFALL AT ALICE SPRINGS AIRPORT

SURROUNDING LAND USE
Rural and urban residential use occurs to the north of the airport, where the Arid Zone Research Institute site (AZRI) is also located. Indigenous communities lie to the east of the airport, however the Todd River lies between these land uses. Farming, recreational, tourism and transport uses are situated to the south and west of ASA. Amoonguna (aboriginal community) is to the north-east and Undoolya Station is on both the north and south sides of the Todd River (Figure 2).
SECTION 2

Airport Legislation Framework

- The *Airports Act 1996* and subsidiary regulations specify the content of an Airport Environment Strategy.
- Consultation with government, business and community is a prominent part of the Environment Strategy development process.
- The Environment Strategy, as part of the Airport Master Plan, must be submitted to the Federal Minister for Infrastructure and Regional Development for approval.
- The Final (approved) Master Plan, including the Environment Strategy, is valid for five years.
SECTION 2  
Airport Legislative Framework

AIRPORT LEGISLATION  
The Airports Act 1996 and subsidiary regulations were enacted by the Commonwealth to provide a regulatory framework for the operation and development of federal airports in Australia leased to non-governmental enterprises.

Airports Act 1996 (the Act) – establishes the system by which airport operators/other users are required to abide. Part 5 directs the airport lessee company to develop an AES as part of the airport Master Plan.

Airports (Environment Protection) Regulations 1997 (the Regulations) – outline standards and impose requirements for the management of environmental impacts and they also provide for monitoring, reporting and remedial action.

Also significant in the airport regulatory framework is the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), which provides for the management and protection of Australian and internationally significant species of flora, fauna, ecosystems and their constituent parts, natural and physical resources and the heritage value of places.

Under Section 26(1) of the EPBC Act, Alice Springs Airport is Commonwealth land, and is therefore a matter of National Environmental Significance (NES). Any proposed development which will have, or is likely to have, a significant impact on a matter of National Environmental Significance, must be referred to the Department of the Environment for assessment and approval. Not all actions affecting matters protected by the EPBC Act will have a significant impact and guidance material is provided via the Department of Environment’s website.

In the event federal legislation does not address an environmental issue or standard, NT legislation is applicable. NT legislation applies to such issues as motor vehicle pollution, occupational health and safety, emissions that deplete stratospheric ozone and pesticide use.

Pollution or noise generated by aircraft during flight, landing, taking off or taxiing is regulated under the Air Navigation (Aircraft Engine Emissions) Regulations 1998 and the Air Navigation (Aircraft Noise) Regulations 1984 and are not the responsibility of the airport lessee company.

DEPARTMENT OF INFRASTRUCTURE AND REGIONAL DEVELOPMENT  
The Department of Infrastructure and Regional Development (DIRD) manages the administration of the Government’s interests in privatised airports under the Act.

Under the Act, DIRD appoints the Airport Environment Officer (AEO) and the Airport Building Controller (ABC) to administer elements of the Act and relevant regulations at the airport.

The AEO oversees adherence to the approved AES and administers the Regulations. The role of the ABC is to administer elements of the Airports (Building Control) Regulations 1996.

ASA submits an Annual Environment Report (AER) to DIRD as required under the Regulations. The AER details:
- the results of any monitoring undertaken
- any pollution events or environmental issues, accompanied by any subsequent remediation plan
- ASA’s progress in achieving the objectives and targets of the AES.
SECTION 3

Environmental Management Framework

• Alice Springs Airport has established key objectives to guide environmental management at the airport.
• ASA is guided by a corporate framework that emphasises continual improvement in all airport management policies and programs.
• ASA is committed to the continual implementation and improvement of a comprehensive Environmental Management System and maintains an Environmental Site Register.
SECTION 3
Environmental Management Framework

ENVIRONMENTAL MANAGEMENT OBJECTIVES
Alice Springs Airport has established key objectives to guide environmental management at the airport:
- Maintain an Environmental Management System (EMS) that is consistent with the international standard ISO 14001:2004 (Environmental Management).
- Ongoing identification of environmental and heritage values of the site.
- Commitment to continual improvement in minimising environmental consequences of activities.
- Continue to define clear responsibilities and conduct training for staff and contractors to achieve the objective of the EMS as well as ensuring that appropriate authority and resources are provided to effectively meet environmental targets.
- Inform all new and existing staff and contractors working within the airport environs of their environmental responsibilities.
- Maintain systems that identify legal and other requirements that apply to environmental management and keep ASA informed of change to existing and/or new legislation and regulations.
- Ensure periodic review and auditing of the EMS to ensure its continuing suitability, effectiveness and compliance with objectives.

Objectives for each environmental management attribute of the airport are identified within attribute specific sections (5 – 16).

CORPORATE ENVIRONMENTAL MANAGEMENT
Environmental management is the responsibility of all staff, tenants and contractors at the airport. The Environment Policy undergoes consultation and is communicated, implemented and maintained across all areas of the organisation. All employees and agents are responsible for compliance with the Environment Policy. This policy will be subject to change from time to time.

CORPORATE SUSTAINABILITY
ASA’s intention is to operate an airport business that is world class in achieving and maintaining financial and environmental sustainability, customer service, safety and security, and is recognised as a key contributor and participant in the economic growth of the NT. ASA is guided by a corporate framework that emphasises continual improvement in all airport management policies and programs. The Airport Development Group (the owner of ASA) has a Corporate Sustainability Policy that is referred to when setting and reviewing environmental objectives and targets for ASA. This policy will be subject to change from time to time.
ENVIRONMENT POLICY

Our Belief
Northern Territory Airports Pty Ltd (NTAPL) recognises the importance of maintaining and enhancing the quality of the environment for the benefit of all Australians, present and future. We seek to incorporate sustainability principles in all that we do.

We strive to be valued corporate citizens in our communities. We respect the values and cultural heritage of the local people.

Our Commitment
We are committed to the highest standards in our environmental management and will strive for continual improvement in our environmental performance.

Our Actions
In order to meet our commitments, we will:
• Strive to minimise impacts on the environment including pollution of soil, air, water and protect biodiversity.
• Operate Management Systems that strive for best practice in environment and sustainability.
• Develop and review measurable objectives, and targets that promote continual improvement of our environment performance.
• Seek to reduce the consumption of natural resources and the generation of waste.
• Ensure we comply with all our legislative obligations.
• Ensure environment roles and responsibilities are documented, clearly communicated, understood and accepted by all staff.
• Work in consultation with our business partners, regulators and our local communities.
• Ensure personnel and contractors have the necessary information, skills and supervision to meet regulatory and corporate requirements.
• Empower our people with quality training and resources, ensuring they are environment leaders within our business.
• Lead and encourage stakeholders to improve the environment, resources and communities in the regions in which we operate.
• Ensure that all staff and other people working for, or on behalf of the Northern Territory Airports, are aware of this policy.
• Make this policy publicly available.

We are all responsible for working towards achieving a sustainable environment. By embedding a comprehensive and responsible culture throughout our business, we will meet our environmental goals.

To ensure the fulfilment of these commitments, we will develop, implement and maintain management systems consistent with the Australian and International Standards (AS/NZS ISO 14001: 2004 and AS/NZS ISO 9001: 2008). We will review this policy statement regularly.
TRAINING
ASA has documented procedures to ensure that operators and tenants, where appropriate, receive environmental management training. Educating individuals on environmental awareness is vital to the successful implementation of environmental management initiatives.

In particular personnel are made aware of:
- The importance of compliance with the Sustainability and Environmental Policies and objectives, the AES and EMS, and their roles and responsibilities.
- The significant environmental impacts of their operations, whether actual or potential.
- The environmental and economic benefits of improved performance.
- The potential consequences of deviating from acceptable procedures.

Role specific training may include:
- airport induction
- spill response and management
- bird and animal hazard management
- chemical hazard management.

Training may be conducted by appropriate external organisations or internally.

Achievements, with regard to training, in the 2009-2015 AES period include:
- Reviewed and updated Staff Induction Package, including specific environmental elements.
- Reviewed and updated ASA Environment Management – An Information Handbook for Operations at the Airport.
- Reviewed and further developed Contractor Induction Program.

The majority of ASA’s training is available online. Further to this, information booklets and flyers relating to educational and training material are also available via the ASA website.

ENVIRONMENTAL MANAGEMENT SYSTEM
ASA is committed to the continual implementation and improvement of a comprehensive Environmental Management System (EMS). In accordance with the Regulations the EMS is required to maintain consistency with relevant Australian and International standards. The EMS for ASA was developed in 2000 and continues to be updated and enhanced to ensure it is compliant with ISO 14001:2004.

All activities at the airport with the potential to impact on the environment are analysed and managed in the ASA EMS. The EMS applies to those environmental aspects that the organisation can control and over which it can be expected to have an influence. The EMS takes account of pertinent regulations, codes of practice and standards which relate to ASA’s operational activities.

Each operator/tenant at the airport is encouraged to develop and implement an individual EMS or Environmental Management Plan (EMP), to address the specific activities undertaken by each business and their potential environmental impacts. ASA has established a system of compliance for individual operators, based on the level of environmental risk posed by their activities. This helps to ensure that environmental standards are met.

ENVIRONMENTAL SITE REGISTER
In accordance with the Regulations, ASA has developed and maintains an Environmental Site Register (ESR), which is a written record of the environmental condition of the airport, environmental site assessment details, remedial plans, monitoring undertaken and general environmental management at the airport.
Details are included within the ESR of the nature, date, and place of any occurrence of environmental significance (detrimental or beneficial) at the airport. Should a remedial plan be required to address any pollution issues, this is also available via the site register. Any monitoring programs conducted by tenants are also detailed within the ESR.

SITES OF SIGNIFICANCE

Management of sites of significance is carried out in accordance with recommendations from relevant agencies, traditional owners and/or heritage organisations. All sites of significance are included on ASA’s Environmental Site Register.

Comprehensive wildlife surveys by local ecologists have identified there are no environmentally significant areas protected under legislation within ASA. These surveys have identified one threatened, six near threatened, and four migratory species within ASA (refer to Section 7 – Biodiversity). Following previous extensive consultation with indigenous traditional owners, the Arrernte people, and the NT Government, one sacred site has been identified on the airport (refer Figure 4 and Section 13 – Cultural Heritage).

There is one heritage site at the airport, which is known as the Seven-Mile Aerodrome, and consists of a complex of buildings, the first of which was constructed in 1940. The aerodrome was used for military and civilian operations throughout the 1940s, and continues to be used by ASA and tenants. The aerodrome is one of the most well preserved airfields from the World War II period in Australia, and therefore has significant heritage value (refer to Section 13 – Cultural Heritage).

STUDIES, REVIEWS AND MONITORING

Under the Regulations, ASA is required to monitor the quality of air, water, soil, and noise levels to ensure that airport operations do not lead to pollution.

Monitoring and measurement processes provide information to airport operators and tenants in relation to environmental performance. ASA’s monitoring addresses the following areas:

- Environmental objectives and targets.
- Operations and activities that can have significant environmental impact.
- Compliance with applicable environmental legislation and regulations.
- Environment management measures employed by airport operators and tenants to ensure they are appropriate.

Data is collected and analysed by appropriately qualified staff or contractors. All data forms part of the ESR. Monitoring locations, frequencies, procedures and parameters are reviewed annually and may change in response to local conditions or monitoring program reviews (refer Table 1). Any change is undertaken in consultation with the AEO.

<table>
<thead>
<tr>
<th>ATTRIBUTE</th>
<th>PARAMETER/S MONITORED</th>
<th>FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potable water</td>
<td>Analytes against the Australian Drinking Water Guidelines and Schedule 2 of the Regulations</td>
<td>Annual Comprehensive Water Sampling, Six-monthly chlorine and field parameters.</td>
</tr>
<tr>
<td>Stormwater Drains</td>
<td>Heavy metals and analytes against Schedule 2 of the Regulations</td>
<td>Six-monthly</td>
</tr>
<tr>
<td>Erosion Monitoring</td>
<td>Soil stability transects and photopoints</td>
<td>Six-monthly</td>
</tr>
<tr>
<td>Pollution Control Devices</td>
<td>Functioning and integrity</td>
<td>As required</td>
</tr>
<tr>
<td>Contaminated Sites</td>
<td>Soil requirements outlined in the Regulations</td>
<td>As required</td>
</tr>
<tr>
<td>Ground Noise</td>
<td>Audit and reporting of ground running activities and noise measurements</td>
<td>As required</td>
</tr>
<tr>
<td>Chemicals</td>
<td>Use, type stored and storage facilities</td>
<td>Annually for ASA operations</td>
</tr>
<tr>
<td>Underground Storage Tanks</td>
<td>Product loss, integrity</td>
<td>Weekly dip testing, 5/10 year integrity tests</td>
</tr>
<tr>
<td>Asbestos</td>
<td>‘Asbestos Code of Practice and Guidance Notes’, Worksafe Australia or requirements under NT legislation</td>
<td>As per NT Worksafe and at least every five years</td>
</tr>
<tr>
<td>Waste</td>
<td>Quantity of recycled material, waste to landfill and total waste generated</td>
<td>Monthly</td>
</tr>
<tr>
<td>Resources</td>
<td>Energy and water consumed</td>
<td>Monthly</td>
</tr>
<tr>
<td>Emissions</td>
<td>Production of carbon and carbon equivalent emissions</td>
<td>Monthly</td>
</tr>
<tr>
<td>Coolabah tree health monitoring</td>
<td>Determine health of trees (i.e. canopy cover, dead branches, epicormic growth, fire threat).</td>
<td>Six-monthly</td>
</tr>
<tr>
<td>Weed monitoring</td>
<td>Inspect all selected sites for weed species. Also conduct general check around airport for potential new sites.</td>
<td>Six-monthly</td>
</tr>
<tr>
<td>Flora and fauna surveys</td>
<td>Conduct a standard survey for general biodiversity at monitoring sites.</td>
<td>Five-yearly</td>
</tr>
</tbody>
</table>
FIGURE 4: CULTURAL AND HERITAGE SIGNIFICANT SITES
SECTION 4

Environmental Attributes

- The environmental management attributes addressed in this AES include:
  - Water
  - Land
  - Biodiversity
  - Air quality and emissions
  - Noise
  - Hazardous materials
  - Waste
  - Resource use and climate change
  - Cultural heritage
  - Development
  - Tenants
  - Community
This section describes how the current strategy is structured with respect to individual environmental attributes relevant to ASA.

### Key Objectives

Key objectives will be identified to guide the management of each specific environmental attribute over the five year strategy period. Achievement towards each objective will be measured and reported to DIRD within the Annual Environment Report.

Objectives have been developed to facilitate continuous improvement in environmental management, as well to reduce extant pollution at Alice Springs Airport.

Goals of this AES were developed and prioritised based on a risk assessment approach using the ASA’s EMS Risk Management Matrix based on the AS/NZS ISO 31000:2009. The Matrix was used to classify targets as having a high or lower priority. High priority targets will generally be completed within the first two years of the AES period (before December 2017). Lower priority targets will be completed before the end of this AES period in 2020. Ongoing actions, such as monitoring programs and register updates, will be given priority each year.

Where possible the timeframes for actions have been spread out over the coming five years to avoid creating unrealistic workloads at any one time that could otherwise hamper achieving goals on schedule.

### Section Structure

Each of the environment attribute sections has the following structure.

**Background**

This section provides a contextual summary for each environmental attribute.

**Legislative Requirements and Guidelines**

This section lists legislation or guidelines applicable for each environmental attribute.

---

### Potential Sources of Environmental Impact

This section outlines potential and actual environmental impacts that have been identified, including current significant sources of impact and prioritising sources of potential environmental impacts that may become prominent in the future. Both on and off site impacts resulting from airport activities are identified.

### Environmental Management and Monitoring

This section includes details on any current monitoring program, reporting, initiatives, training and management approaches to minimise the risk and occurrence of environmental impacts.

### Recent Actions and Achievements

Actions and achievements that have progressed environmental management at the airport during the period of the 2009 AES are listed in this section.

### Action Plan

For each attribute, an action plan has been developed with the specific intention of ensuring the objective is achieved within identified timelines. Each action plan contains targets for proposed studies, reviews and monitoring proposed measures for preventing, controlling or reducing identified environmental impacts.

**Example Table**

<table>
<thead>
<tr>
<th>HIGH LEVEL ACTION</th>
<th>SPECIFIC TARGET TO BE ACHIEVED</th>
<th>WHEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface and Groundwater Protection</td>
<td>Undertake Stormwater Drain Monitoring</td>
<td>Six monthly</td>
</tr>
</tbody>
</table>
SECTION 5

Water

OBJECTIVE

- Ensure minimal impact on surface and groundwater quality as a result of Alice Springs Airport operations.
- Maintain airport water quality within acceptable limits as defined by legislative standards.
BACKGROUND

Groundwater beneath ASA exists within a number of separate but linked aquifer systems. One is a shallow alluvial aquifer at around 12m to 60m depth known as the Outer Farm Basin. The others are deeper aquifers all within the underlying porous rock units of the Amadeus Basin.

ASA falls within three broad policy zones for water management in the Alice Springs Water Control District (Alice Springs Water Resource Strategy 2006 – 2015 [ASWRS]). These are the Lower Catchment Zone (Surface Water), Outer Farm Basin Zone (Alluvial Groundwater Aquifers) and Roe Creek Zones (Amadeus Basin Groundwater Aquifers). The specified ‘beneficial use’ declarations for each Management Zone determine the allowed uses within each zone and the values to be protected. ASA is zoned for aquifer protection under the ASWRS. These are described in Table 2 below and in Figure 5.

Alice Springs is entirely dependent on groundwater for its water supply. Town water is currently drawn from Roe Creek Borefield, which is located approximately 8km from the airport operational area. The borefield predominantly extracts water from the Mereenie Aquifer System, which occurs under the south western corner of the airport (with an approximate depth of 125m). The NT Government has also earmarked a future water source (Rocky Hill) approximately 20km to the south east of the terminal which is linked to aquifers beneath ASA. Figure 5 shows the location of the aquifers, NT Government bores, and Roe Creek Borefield in relation to ASA.

There are no permanent, naturally occurring waterbodies within the airport boundary and surface water drainage after rain mostly infiltrates or evaporates on-site. In fact, there are virtually no permanent surface water bodies existing within the Alice Springs region – all are ephemeral and only flow immediately after rain. Two such ephemeral waterways located close to the airport boundary are the Todd River and Roe Creek (see Figure 5). The Todd River lies to the north east, approximately five kilometres from the terminal. The river drains to the south east and is not linked to surface drainage channels that may be impacted on by aviation related use. The south easterly flowing Roe Creek is located to the south west of the airport on the western side of the Old South Road.

Surface drainage from the terminal building, associated car parking areas, roads and runway areas, flows into earthen or paved drains, which drain eastward. The water mostly infiltrates or evaporates on-site before reaching any downstream river or creek channels. The south easterly flowing Roe Creek floods out south of the airport and under extreme floods may reach the Todd River east of the airport. Drainage depressions from St Marys Creek cross the airport site with historic connections to the Todd River east of the airport.

| TABLE 2: WATER MANAGEMENT ZONES RELEVANT TO ASA (ADAPTED FROM NRETA 2007) |
|-------------------------------|-------------------------------------------------|----------------|------------------|-----------------|
| **BROAD POLICY ZONE** | **MANAGEMENT ZONES** | **BENEFICIAL USES** | **DEPTH** (M) | **AIRPORT (%)** |
| Surface Water | Lower Catchment | Environmental, Cultural, Rural, Stock and Domestic | 0 | 100% |
| Groundwater (Alluvial) | Outer Farm Basin | Environmental, Cultural, Agricultural, Industrial, Rural, Stock and Domestic | 12 - 60 | 100% |
| Groundwater (Amadeus Basin) | Roe Creek - Goyder & Shannon Formations (low yielding aquifers) | Public Water Supply, Rural, Stock and Domestic | <125 | 35% |
| | Roe Creek - Pacoota Sandstone (high to moderate yielding aquifer) | | <125 | 15% |
| | Roe Creek - Mereenie Aquifer System (high yielding aquifer) | | 125 | 15% |
**LEGISLATIVE REQUIREMENTS AND GUIDELINES**

Applicable Acts and guidelines include:

- **Airports Act 1996**
- **Airports (Environmental Protection) Regulations 1997**
- **Water Act (NT)**
- **NT Worksafe Guideline – Fuel Storage Tanks (NT)**
- **Australian and New Zealand Environment Conservation Council Guidelines for Fresh and Marine Water Quality**
- **Australian Drinking Water Guidelines NHMRC, NRMMC 2011**
- **Waste Management and Pollution Control Act (NT).**

**POTENTIAL SOURCES OF ENVIRONMENTAL IMPACT**

Potential sources of surface and groundwater contamination at ASA include:

- re-fuelling facilities, fuel storage tanks (underground and above-ground)
- waste oil and chemical storage areas in and around workshops and aircraft hangers
- fuel or chemical spills that may occur
- firefighting training facilities
- Butchers Paddock septic treatment facility, plus other septic tanks servicing individual buildings
- waste water run-off into stormwater drains from airport operational areas, hangers etc. such as from aircraft and vehicle wash down and paint stripping
- illegal dumping
- litter and sediment.

Types of hazardous and toxic materials with the potential to contaminate surface water and groundwater stored by ASA operations and tenants include:

- fuels, oils, and lubricants
- pesticides and herbicides
- batteries and battery electrolytes
- paint and paint stripping products
- cleaning chemicals including acids and solvents
- waste water containing acid and heavy metals from paint stripping and aircraft maintenance
- Aqueous Fire Fighting Foam (AFFF)
- waste water released to sewer – all of which goes to either Butchers Paddock sewage treatment facility or small-scale individual septic systems
- fertilisers.

**ENVIRONMENTAL MANAGEMENT AND MONITORING**

A number of current management practices are in place to ensure that significant and/or long-term groundwater contamination does not occur. These practices include:

- all fuel storage tanks and hydrant systems are regularly inspected for leaks to ensure compliance with NT Worksafe standards
- the majority of underground storage tanks at ASA have integrity monitoring systems installed to immediately detect leaks
- ‘Report All Spills’ Policy
- spills at ASA are managed through Spill Response Procedures
- Spill Management Handbook and Environmental Management Handbook
- spill response training provided for all tenants and ASA staff
- maintaining a Contaminated Sites Register
- maintaining a Hazardous Materials Register (Chemalert)
- ASA conducts Environmental Audits of its tenants on a regular basis
- pollution control devices to prevent flow of contaminated stormwater run-off into stormwater drains
- interceptors to treat tradewaste prior to entry into the airport’s on-site septic facility and evapotranspiration beds
- Stormwater drain soil monitoring for hydrocarbons and heavy metals and assessed against the Airports (Environment Protection) Regulations 1997 accepted limits for soil pollution.

**Stormwater Drain Monitoring Program**

ASA undertakes six-monthly monitoring of stormwater drains where airport operations present a potential risk to the environment (i.e. hydrocarbon contamination from fuel spills). Sediment is collected rather than water as the drains do not consistently contain adequate volumes of water required for analysis. However, whenever water is present within the drains a visual assessment for hydrocarbon contamination is conducted. Levels of nutrients and contaminants found within the sediment samples are compared against Schedule 3 of the Airports (Environment Protection) Regulations 1997. To date, results from the monitoring program indicate that there are no contamination issues within the stormwater drains. If analysis of the samples indicates a breach of the Airport Regulation limits, the site is investigated to determine the appropriate response measure and associated impact on the receiving environment.

**Groundwater Monitoring**

ASA has a Groundwater Management Plan which stipulates risks to groundwater aquifers at the site, and how those risks are managed and monitored. As mentioned above, the main risk to groundwater is fuel storage; in particular, underground storage tanks. Therefore, the highest priority for monitoring and management is to keep good records of tank integrity, dip testing and any long-term fuel loss (indicating leaks). Therefore, ASA ensures that all ASA-managed and tenant-managed fuel tanks are monitored and maintained to prevent spillage or leakage of fuel into the soil. The overall low risk of groundwater contamination, combined with the significant amount of time it would take for contamination to reach a sensitive receptor, means that regular sampling and analysis of groundwater bores within the ASA lease area is not considered necessary.
Monitoring bores exist within and adjacent to the airport, and these are managed and maintained by NT Government. Given that ASA lies within the cone of depression surrounding the Roe Creek borefield, it would be expected that any contamination of the underlying Amadeus Basin aquifers would flow west toward the borefield. Therefore, such contamination may be detected at an early stage via the monitoring bores managed and maintained by the NT Government.

RECENT ACTIONS AND ACHIEVEMENTS
Actions and achievements which have progressed water management at ASA during the period of the 2009 AES are:
- development of the Operator Handbook - Spill Management Preventing Stormwater Pollution
- maintained Contaminated Sites Register
- reviewed and updated ASA Environment Management – An Information Handbook for Operators at the Airport
- completion of a Groundwater Management Plan
- continuation of the Stormwater Drain Monitoring program
- completion of airport wide tenant Environmental Audits.

ACTION PLAN
Table 3 contains the high level actions for water quality management at ASA and the specific targets that will be implemented to prevent, control or reduce environmental impacts of airport activities on water quality.

**TABLE 3 – WATER FIVE YEAR ACTION PLAN**

<table>
<thead>
<tr>
<th>HIGH LEVEL ACTION</th>
<th>MANAGEMENT ZONES</th>
<th>BENEFICIAL USES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface and Groundwater Protection</td>
<td>Continue to undertake Stormwater Drain Monitoring</td>
<td>Six monthly</td>
</tr>
<tr>
<td></td>
<td>Review and where necessary expand stormwater interceptor and pollution control infrastructure</td>
<td>As required</td>
</tr>
<tr>
<td></td>
<td>Investigate/Implement regular monitoring of discharges into the ASA septic facility and evapotranspiration beds</td>
<td>2019</td>
</tr>
<tr>
<td></td>
<td>Continue potable water monitoring program to ensure that water supply at the airport meets drinking water guidelines</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
SECTION 6
Land

OBJECTIVE

- Employ land management practices which facilitate
  safe and sustainable ASA operations, whilst
  minimising detrimental effects on the airport site,
  neighbouring land and the atmosphere.
- Ensure that existing contaminated sites are
  monitored and remediated where necessary.
SECTION 6

Land

BACKGROUND

Land management at Alice Springs Airport is targeted towards preventing/minimising soil erosion, sedimentation, contamination, and airborne dust. Airborne dust may compromise the safety of aircraft, personnel and may also degrade the quality of the natural environment.

The airport is situated on the Todd River floodplain, an alluvial basin filled by the deposition of materials eroded from the MacDonnell Range. Broad soil types at the airport consist of red sandy clay, clayey sands or sandy clay loam. Land forms present at the airport include floodouts, broad alluvial plains, creeks, drainage depressions, claypans, and an isolated low sandy rise. The nature of the soil and land types at the airport mean the site is at risk of erosion, sheet flooding and inundation, especially during low rainfall periods when vegetation cover across the site is reduced.

Previous land uses at the airport included cattle grazing, market gardens, a piggery and cattle yards. Upon acquisition of the site by airport authorities in 1940, pastoral operations were ceased and the airport boundary was fenced to allow vegetation to regenerate without disturbance.

In the 1960s, the NT Administration conducted revegetation trials within the current airport boundary (and surrounds) in attempt to stabilise soils and reduce dust hazard at the airport and Alice Springs township. These works were conducted in response to extreme dust issues at the time, due to an extended drought period. Buffel grass (Cenchrus ciliaris) was a key species used in these trials and was successful in rapidly reducing dust hazard in the local area and has continued to do so (however there have also been negative impacts on biodiversity values, discussed in Section 7 – Biodiversity).

Today, ASA falls within a gazetted land portion for dust suppression under the Soil Conservation and Land Utilisation Act (NT). As such, 1036ha of the airport site is zoned as a dust suppression buffer and historically under the Airport Master Plan it has been designated as an area that cannot be used for any purpose that may affect soil stability. The remainder of undeveloped land, approximately 1990ha, is zoned for various uses under the Master Plan, including residential, commercial, tourist, and horticultural developments (refer to Figure 3 of Master Plan).

LEGISLATIVE REQUIREMENTS AND GUIDELINES

Applicable Acts and guidelines include:

- Airports (Environmental Protection) Regulations 1997 (Commonwealth)
- Soil Conservation and Land Utilisation Act (NT)
- Bushfire Act (NT)
- Bushfire Regulations (NT)
- Assessment of Site Contamination National Environment Protection Measure (NEPM) 1999

POTENTIAL SOURCES OF ENVIRONMENTAL IMPACT

Potential sources that may lead to an environmental impact on land at the airport include:

- Soil erosion, caused by wind or water or water and associated dust production.
- Fire (natural and prescribed regimes) creating bare soil more susceptible to erosion.
- Contamination through accidental spills or leaks, leaks of hazardous substances, use of unapproved fill, and septic tank leaks.
- Incorrect disposal of waste materials.
- Land clearing activities for development, weed control or landscaping.
- Construction activities.

ENVIRONMENTAL MANAGEMENT AND MONITORING

Soil Erosion

A range of measures are implemented to manage soil erosion, these include:

- Natural regeneration of native vegetation is encouraged in undeveloped areas of the airport site.
- Airport boundary is fenced to exclude cattle and recreational vehicles.
- Exposed airside topsoil is overlain with crushed rock for dust suppression.
- Land clearing activities are subject to approval from the AEO and ABC, in accordance with relevant legislation.
- Incorporation of dust control measures into requirements for the development approval process.
- In flood prone areas, fire breaks are slashed and not graded to prevent erosion.
- Implementation of a long term Soil Erosion Monitoring Program.
Fire Management
ASA implements a Fire Management Plan which is updated on an annual basis to inform on-ground management practices. Initially, this plan was developed in conjunction with the NT Bush Fires Council in 2006. The most recent review was completed in June 2014. The annual review of the plan is reviewed by the ASA AEO. Fire management strategies include:

• Slashing fire breaks to fragment dense fuel load areas and provide access for emergency fire crews. Disc ploughing or shallow grading occurs in areas that are not erosion prone.
• Controlled burns to decrease fuel loads in fire prone portions of the airport.
• Only native plants that have low flammability are used for revegetation/landscaping.

Contaminated Land
All known details of potentially contaminated sites such as historic landfills, areas where fuels or chemicals have spilled/leaked etc. are recorded in the ASA Contaminated Sites Register. All sites presently recorded in this register have been assessed as having been cleaned up, contained, listed for ongoing monitoring, or addressed. Any new contaminated sites previously unrecognised or arising from new fuel/chemical spills or new contamination will be recorded in the register along with the subsequent clean-up, containment and investigation measures undertaken to prevent environmental impacts.

Role specific training for ASA operators and tenants has been implemented to assist in the minimisation and management of contamination. This includes Spill Response and Management, and Chemical Hazard Management training.

RECENT ACTIONS AND ACHIEVEMENTS
Actions and achievements that have progressed land management at ASA during the period of the 2009 AES are:

• Developed Operator Handbook - Spill Management Preventing Stormwater Pollution.
• Reviewed and updated ASA Environment Management – An Information Handbook for Operators at the Airport.
• Developed a standard operating procedure for controlled/prescribed burns.
• Continued the Soil Erosion Monitoring Program.
• Ensured appropriate sediment and erosion control measures are implemented during any development.
• Developed an Asbestos Management Plan and Register.
• Completion of the Alice Springs Airport Landscaping Strategy for Reducing the Risk of Fire.
• Completion of the Alice Springs Airport Landscaping Guidelines Prohibited and Restricted Plant Species.
• Maintained Contaminated Sites Register.

ACTION PLAN
Table 5 contains the high level actions for land management at ASA and the specific targets that will be implemented to prevent, control or reduce environmental impacts of airport activities on the land.

<table>
<thead>
<tr>
<th>TABLE 5 – LAND MANAGEMENT FIVE YEAR ACTION PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HIGH LEVEL ACTION</strong></td>
</tr>
<tr>
<td>Minimise soil erosion across the airport</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Implement best practice fire management</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Maintain Contaminated Sites Register</td>
</tr>
<tr>
<td>Continue asbestos inspections and updating of ASA Asbestos Register</td>
</tr>
</tbody>
</table>
SECTION 7

Biodiversity

OBJECTIVE

• In accordance with relevant legislation, protect threatened species, native habitats, flora and fauna wherever practicable, through sustainable management practices.

• Minimise the rate and risk of bird and other animal aircraft strikes whilst also minimising negative impacts on wildlife.

• Comply with animal ethics legislation and guidelines when undertaking wildlife management activities.
BACKGROUND
In general, Alice Springs Airport supports a Low Open Woodland community dominated by mixed patches of Acacia and Hakea vegetation communities common to the Alice Springs area. The upper stratum is generally sparse and dominated by Ironwood (Acacia estrophiolata), Mulga (Acacia aneura) and Corkwood (Hakea divaricata). Coolabah (Eucalyptus coolabah) trees occur within a network of drainage depressions that are positioned diagonally across the property from the northwest corner to the southeast corner. The low tree and shrub layer across the site includes juvenile trees of canopy species and Witchetty Bush (Acacia kempeana), Wattle (Acacia murrayana), Berrigan (Eremophila longifolia), Whitewood (Atalaya hemiglaucus), and Dead Finish (Acacia tetragonophylla). Buffel grass (Cenchrus ciliaris), an introduced species, makes up the majority of the lower stratum. Vegetation types within ASA are mapped in Figure 6.

Numerous wildlife surveys have been undertaken within the airport boundary since 1999, with the most recent survey occurring in April 2014. Species identified during these surveys are typical of the Alice Springs region. In total, 179 fauna species and 126 flora species have been identified within the property.

One threatened species and six near threatened species (as listed under the Territory Parks and Wildlife Conservation Act) have been recorded at ASA (Table 5). These species were not recorded during the recent survey (April 2014).

Although not as yet recorded on the ASA site, under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) nationally threatened species that are known to, likely to or may occur in the vicinity of the airport are Desert Sand-skipper (Croitana aestiva) listed as Endangered and likely to occur; and Greater Bilby (Macrotis lagotis) listed as Vulnerable and known to occur.

One declared weed species is known to currently occur within the airport in small isolated populations – Mexican Poppy (Argemone ochroleuca) – which is listed as a Class B species under the NT Weeds Management Act.

Buffel grass, which is an introduced tussock grass species, is also of management concern at ASA however it is not a declared weed in the NT. Its establishment across the site has led to better soil stabilisation (i.e. reduced dust hazard for airport operations), however it has also increased fire intensities and frequencies which has degraded biodiversity values.

Feral cats and European Rabbits (introduced fauna that can have adverse biodiversity impacts) are known to occur on the airport and surrounds, and ASA periodically carries out control measures for these species.

<table>
<thead>
<tr>
<th>GROUPING</th>
<th>SCIENTIFIC NAME</th>
<th>COMMON NAME</th>
<th>STATUS (TPWC ACT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reptile</td>
<td><em>Pseudechis australis</em></td>
<td>King Brown Snake</td>
<td>Near Threatened</td>
</tr>
<tr>
<td>Bird</td>
<td><em>Pyrholaemus brunneus</em></td>
<td>Redthroat</td>
<td>Near Threatened</td>
</tr>
<tr>
<td>Bird</td>
<td><em>Lophoictinia isura</em></td>
<td>Square-tailed Kite</td>
<td>Near Threatened</td>
</tr>
<tr>
<td>Bird</td>
<td><em>Calyptorhynchus banksii samueli</em></td>
<td>Red-tailed Black-cockatoo</td>
<td>Near Threatened</td>
</tr>
<tr>
<td>Bird</td>
<td><em>Falco hypoleucos</em></td>
<td>Grey Falcon</td>
<td>Vulnerable</td>
</tr>
<tr>
<td>Bird</td>
<td><em>Ardeotis australis</em></td>
<td>Australian Bustard</td>
<td>Near Threatened</td>
</tr>
<tr>
<td>Mammal</td>
<td><em>Antechinomys laniger</em></td>
<td>Kultarr</td>
<td>Near Threatened</td>
</tr>
</tbody>
</table>
LEGISLATIVE REQUIREMENTS AND GUIDELINES

Applicable Acts and guidelines include:

- Airports Act 1996 (Commonwealth)
- Airports (Environmental Protection) Regulations 1997 (Commonwealth)
- Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)
- Territory Parks and Wildlife Conservation Act (NT)
- Weeds Management Act (NT)
- Weeds Management Regulations (NT)

POTENTIAL SOURCES OF ENVIRONMENTAL IMPACT

Airport activities which may impact upon flora and fauna include:

- Clearing of vegetation for development and to comply with obstacle limitation surface restrictions and air traffic control line of sight.
- Fire, including wildfire and prescribed burns.
- Fuel or chemical spills.
- Weed control activities (including patch burning and herbicide use).
- Aircraft noise and accidents.

Flora and fauna which may pose an environmental, health, or safety risk include:

- Birds and other animal strikes.
- Pest animals including feral cats, rabbits, and mosquitoes.
- Invasive weeds.

ENVIRONMENTAL MANAGEMENT AND MONITORING

Vegetation Management

Vegetation management measures for development proposals or land clearing activities implemented at ASA include:

- Compliance with relevant NT and Commonwealth legislation in all land clearing/development proposals.
- Requirement of Construction Environment Management Plans (CEMPs) for development projects where appropriate.
- Implementation of ASA Landscaping Guidelines requiring the use of native species for revegetation and landscaping works.
- Implementation of surveys and management plans if potentially significant disturbance to flora and fauna is identified.

ASA previously developed an educational garden experience at the airport – the Anetyke Garden – to raise awareness about Central Australian ecological communities and associated ecological processes.

Coolabah and Ironwood Vegetation Type

The Coolabah and Ironwood community that occurs within the airport has been earmarked by local ecologists to have biodiversity values worthy of protection. This vegetation type is not protected under legislation, however it is known to provide a variety of habitat refuges for a range of native flora and fauna – some species being fairly scarce in the surrounding vegetation types.

Therefore, land management activities conducted at the airport are undertaken in a way that aims to reduce impacts to areas that have Coolabah trees or large Ironwoods (i.e. reduce occurrence of intense Buffel grass fuelled fires). A tree health monitoring program is conducted on an annual basis which looks at the general condition of Coolabah and Ironwood across the property, and also includes an assessment of fire risk to the community (in addition to the fuel load assessment mentioned below).

Threatened Species

There are no populations of threatened species known to occur within ASA. Ongoing fauna surveys across the site inspect trees for potential Grey Falcon nests, however no nests have been confirmed to date.

Weeds

Weed management and monitoring programs are implemented across the site and are conducted in conjunction with other environmental programs such as fire management and regeneration works to achieve an integrated approach.

Pest Fauna

A range of measures are implemented to control pest animals at ASA:

- Rabbits: mapping of active and inactive warrens, fumigation of active warrens and monitoring of populations to assess the efficacy of control measures.
- Mosquitoes: potential breeding sites are mapped, removed if possible and monitored when necessary, in accordance with climatic conditions. Stormwater drains are maintained to minimise ponding and vegetation known to harbour mosquitoes is not used for landscaping. The NT Department of Health provides assistance with trapping and monitoring where necessary.

Fire Fuel Load

As discussed in Section 6 (Land), fuel load within the airport boundary is managed using a variety of techniques, such as slashing/grading firebreaks and prescribed burns. An annual assessment of the fuel load across the property is conducted by ecologists to inform ASA where fire management activities need to be prioritised. The fuel load assessment is used to update the Fire Management Plan for the airport.

Wildlife Strike

The risk of bird and animal strike at the airport is managed through implementation of the Bird and Animal Hazard Management System (BAHMS). The main objective of the BAHMS is to reduce bird and animal strike incidences, using both active and passive management to discourage birds and animals from utilising airside areas.
ASA recognises that bird and animal hazard management requires a systematic approach, rather than focussing individually on problem bird species. Bird presence is influenced by available habitat, predators, water, food sources, inter/intra-species behaviour and human interaction.

Ongoing bird and animal management activities undertaken by ASA include:

- Bird observations and incident of strikes, subsequently entered into a database.
- Bird and habitat identification training for Airport Operations Officers.
- Dispersal activities including, pyrotechnic bird frite, sirens, gunshot.
- Habitat modification, including maintaining optimal grass height adjacent to runways.
- Ongoing reporting and stakeholder meetings to review the implementation of the program
- Program auditing.

Monitoring Programs
A variety of monitoring programs are undertaken to assess the condition of biodiversity and its threats within ASA. These are listed in Table 6.

<p>| TABLE 6: ECOLOGICAL MONITORING PROGRAMS AT ASA |</p>
<table>
<thead>
<tr>
<th>MONITORING PROGRAM</th>
<th>FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weed Monitoring Program</td>
<td>6-monthly</td>
</tr>
<tr>
<td>Rabbit Control and Monitoring Program</td>
<td>As required</td>
</tr>
<tr>
<td>Feral Cat Control Program</td>
<td>As required</td>
</tr>
<tr>
<td>Fuel Load Assessment</td>
<td>Annual</td>
</tr>
<tr>
<td>Flora and fauna surveys</td>
<td>5-yearly, or incident based</td>
</tr>
<tr>
<td>Mosquito control, trapping and monitoring</td>
<td>As required</td>
</tr>
<tr>
<td>Coolabah tree health monitoring</td>
<td>Annual</td>
</tr>
<tr>
<td>Bird and Animal Hazard Monitoring (airside)</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

RECENT ACTIONS AND ACHIEVEMENTS
Actions and achievements associated with biodiversity during the period of the ASA 2009 AES are:

- Updated ASA Landscaping Guidelines Prohibited and Restricted Plant Species.
- Improved ASA Bird Identification Guide.
- Development of the ASA Wildlife Species Strike Risk Calendar (for when high, moderate, and potential wildlife risk species are present on airfield).
- Reviewed and updated BAHMS.
- Implementation of the annual Coolabah and Ironwood tree health monitoring program.
- Implementation of the six-monthly weed monitoring program.
- Continued weed management as informed by the weed monitoring program.
- Continued annual assessment of fuel loads (and implementation of recommendations).
- Completion of five-yearly flora and fauna survey.
- Land for Wildlife partner program.

ACTION PLAN
Table 7 contains the high level actions and targets for biodiversity management at ASA

<p>| TABLE 7: BIODIVERSITY FIVE YEAR ACTION PLAN |</p>
<table>
<thead>
<tr>
<th>HIGH LEVEL ACTION</th>
<th>SPECIFIC TARGET TO BE ACHIEVED</th>
<th>TIMELINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Habitat protection</td>
<td>Continue annual fuel load assessment in the context of the Fire Management Plan</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Continue annual Coolabah and Ironwood tree health monitoring program</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Continue six monthly weed monitoring program</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Continue five yearly flora and fauna surveys, aligned to AES review, to determine the current environmental status of the airport and update the Flora and Fauna Register</td>
<td>Five yearly / AES aligned</td>
</tr>
<tr>
<td></td>
<td>Investigate, and where appropriate, trial introduction of grazing animals within selected areas for control of Buffel grass fuel loads</td>
<td>Commence by 2016</td>
</tr>
<tr>
<td>Pest management</td>
<td>Investigate feasibility of Athel pine removal within the Seven-Mile (heritage listed) aerodrome, and replacement with local native species</td>
<td>2018</td>
</tr>
<tr>
<td>Removal of Weeds of National Significance (WONS)</td>
<td>Continue management of invertebrate pest species</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
SECTION 8
Air Quality and Emissions

OBJECTIVE

• Compliance with air quality standards as defined by Commonwealth and Northern Territory Regulations.
• Minimise air emissions from Alice Springs Airport particularly greenhouse gases and ozone depleting substances.
SECTION 8
Air Quality and Emissions

BACKGROUND
Alice Springs Airport experiences few issues with air quality or air pollution. Complaints relating to air pollution from airport operations are rare and are typically associated with one-off events such as bush fires, prescribed burns or as a result of dust generated during firebreak maintenance.

The principal source of emissions at the airport is carbon dioxide related to energy use in buildings, transport, and fixed plant.

Previously, ASA has developed and implemented an Air Emissions Inventory as a reporting tool under the National Greenhouse and Energy Reporting Act 2007. As such, emissions monitoring was undertaken by ASA and annual emissions reports were submitted. However, to-date total air emissions produced have not exceeded the National Pollution Inventory trigger levels, for any individual operation on airport, nor for the airport as a whole. In fact, data for all facilities combined was lower than the reporting threshold for individual facilities.

LEGISLATIVE REQUIREMENTS AND GUIDELINES
Applicable Acts and guidelines include:
• Airports Act 1996 (Commonwealth)
• National Greenhouse and Energy Reporting Act 2007 (Commonwealth)
• Ambient Air Quality National Environment Protection Measures (NEPM) 1998

POTENTIAL SOURCES OF ENVIRONMENTAL IMPACT
Under the Regulations, air pollution may be from a stationary or other source.

Stationary sources include:
• Emissions generated by auxiliary and ground power units.
• Boilers, turbines, electrical generators and incinerators.
• Fuel burning equipment.
• Evaporation of Volatile Organic Compounds (VOCs) from large storage tanks.
• Oil or gas fired plant equipment.
• Construction activities.

Other sources include:
• Ground based operations generating dust or smoke (including black smoke emissions from fire training).
• Ground based aircraft movements.
• Refuelling, de-fuelling and evaporation of VOCs from spillage.
• Painting and paint stripping operations.
• Cleaning operations using solvents.

Airborne dust generated from erodible soils within the landside area is also an ongoing issue and potential hazard at ASA; however soil erosion related dust hazard is covered in Section 6.

ENVIRONMENT MANAGEMENT AND MONITORING
A number of actions have been implemented across ASA with the aim of reducing energy consumption and greenhouse gas production, including a review of airfield lighting and plant equipment operation. More broadly, three large scale solar power projects have been undertaken at ASA since 2010 resulting in significant energy efficiencies. The details of these achievements are discussed in Section 12 – Resource Use and Climate Change.

Air quality monitoring is conducted by qualified consultants periodically and when required.

Dark smoke emissions are a result of necessary fire training undertaken by Aviation Rescue and Fire Fighting. The impact is managed by limiting fire training exercises to outside the hours of major aircraft activity and informing the AEO before fires are lit, through the Control Burn Notification Process.

Dust generation is managed through operational systems aimed at minimising ground disturbance during construction or other activities. This is done through such measures as Construction Environmental Management Plans (CEMP) for development projects which address dust suppression.
RECENT ACTIONS AND ACHIEVEMENTS
Actions and achievements that have progressed air quality and emissions management at ASA during the period of the 2009 AES are:
- Developed National Greenhouse and Energy Reporting System for corporate greenhouse emissions monitoring.
- Completed Greenhouse Challenge Plus Program.
- Continued to undertake air quality monitoring and reporting as required.
- Developed an Asbestos Management Plan and Register.

ACTION PLAN
Table 8 contains the high level actions for air quality and emissions management at ASA and the specific targets that will be implemented to prevent, control, or reduce environmental impacts of airport activities on air quality and emissions.

<table>
<thead>
<tr>
<th>HIGH LEVEL ACTION</th>
<th>SPECIFIC TARGET TO BE ACHIEVED</th>
<th>TIMELINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage and reduce emissions where practicable</td>
<td>Review energy production, energy use, or greenhouse gas emissions against threshold triggers under the National Greenhouse and Energy Reporting System. Undertake reporting if/where necessary against specified thresholds.</td>
<td>2018</td>
</tr>
<tr>
<td></td>
<td>Continue to maintain the Asbestos Register for the airport</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Consider further renewable energy opportunities for power generation on airport</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
This page has intentionally been left blank
SECTION 9
Noise

OBJECTIVE

• Ensure noise and vibration levels from ground running aircraft and other Alice Springs Airport operations are compliant with relevant noise exposure standards.
SECTION 9
Noise

BACKGROUND
Since Alice Springs Airport took over the lease of the airport site in 1998, there have been few noise complaints. This is largely due to the significant amount of undeveloped buffer zone surrounding the airport and flight paths that generally avoid the urban centre of Alice Springs. An Australian Noise Exposure Forecast study that took into consideration current and future noise levels predicted that noise is most unlikely to become a significant issue within the medium term future of ASA.

LEGISLATIVE REQUIREMENTS AND GUIDELINES
Applicable Acts and guidelines include:
• Airports Act 1996 (Commonwealth)
• Airport (Environmental Protection ) Regulations 1997 (Commonwealth)

Pollution or noise generated by aircraft during flight, landing, taking off or taxiing is regulated under the Air Navigation (Aircraft Engine Emissions) Regulations 1998 and the Air Navigation (Aircraft Noise) Regulations 1984 and is not the responsibility of the airport lessee company.

POTENTIAL SOURCES OF ENVIRONMENTAL IMPACT
Ground based aviation noise sources include:
• aircraft ground-running
• aircraft maintenance and testing
• aircraft auxiliary power units
• aircraft refuelling and operational activities
• pavement maintenance.

Ground based non-aviation noise sources include:
• tenant activities
• road traffic
• construction and demolition activities.

ENVIRONMENTAL MANAGEMENT AND MONITORING
Any noise complaints that are made to ASA are investigated, and if required, noise monitoring is undertaken. Complaints will be responded to promptly. All noise complaints made are reported to the AEO, as soon as practicable after the complaint is made and are included in the AER.

In the event of major changes to airport operations or unprecedented increases in air traffic volume, noise monitoring is undertaken to ensure noise levels remain at non-nuisance levels. ASA also evaluates the potential for noise generated by airport operators to impact upon the sustainable running of new developments, particularly residential developments.

In the absence of significant noise complaints qualitative noise monitoring continues to be conducted on an ongoing basis.

Construction Environment Management Plans (CEMPs) address potential noise pollution issues associated to construction activities and are a control measure for noise exposure during development on airport.

COMPLETED ACTIONS AND ACHIEVEMENTS
Actions and achievements which have progressed noise management at ASA during the period of the 2009 AES are:
• timely investigation and response reporting on any complaints received
• continued noise monitoring program as required
• reviewed ground running procedures.

ACTION PLAN
Table 9 contains the high level actions for noise management at ASA and the specific targets that will be implemented to prevent, control or reduce environmental impacts of airport activities on noise management.

<table>
<thead>
<tr>
<th>HIGH LEVEL ACTION</th>
<th>SPECIFIC TARGET TO BE ACHIEVED</th>
<th>TIMELINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimise complaints regarding ground running noise at ASA</td>
<td>Continue to timely investigate and respond to any complaints received</td>
<td>As required</td>
</tr>
<tr>
<td></td>
<td>Continue noise monitoring program</td>
<td>As required</td>
</tr>
<tr>
<td></td>
<td>Review ground running procedure</td>
<td>2019</td>
</tr>
</tbody>
</table>
SECTION 10

Hazardous Materials

OBJECTIVE

• Minimise the use of hazardous materials at Alice Springs Airport.

• Manage hazardous material storage, use, and disposal in a manner that minimises risk to the surrounding environment.
BACKGROUND
Hazardous materials include flammable gases and liquids, toxic substances, oxidizing agents, and explosives.

At Alice Springs Airport, hazardous materials (other than fuels and oils) are rarely used in quantities that pose a significant threat to the environment, and stringent regulations apply to their use under Occupational Health and Safety laws. As a matter of occupational health and safety, the Regulations do not cover the storage and handling of hazardous materials and thus Northern Territory Legislation applies.

LEGISLATIVE REQUIREMENTS AND GUIDELINES
Applicable Acts and guidelines include:
- Dangerous Goods Act (NT)
- Dangerous Goods (Road and Rail Transport) Act (NT)
- Waste Management and Pollution Control Act (NT)
- Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC: 2018 (2005)]

POTENTIAL SOURCES OF ENVIRONMENTAL IMPACT
Potential sources include:
- fuel
- asbestos used in early construction
- hydrogen gas for weather balloons
- herbicides
- batteries and battery electrolytes
- paint and paint stripping products
- cleaning chemicals including acids and solvents
- waste water containing acid and heavy metals from paint stripping and aircraft maintenance.

ENVIRONMENT MANAGEMENT AND MONITORING
Any waste water containing hazardous materials is treated on-site using pollution control equipment and treated waste water is discharged into the environment or to sewerage.

All tenants are required to maintain and refer to Safety Data Sheets for chemicals they use on site. In addition, audits of chemical storage arrangements are conducted to ensure operators and tenants comply with storage standards. Any issues regarding hazardous materials identified in these audits are discussed with the operator.

ASA also maintains a hazardous materials register (Chemalert) for its own lease holdings, which covers all hazardous materials and products stored. An Asbestos Register is maintained for ASA buildings with inspections in accordance with the National Code of Practice.

Any incidents involving the spill or leakage of hazardous materials are required to be reported in accordance with ASA’s Spill Response Procedures.

COMPLETED ACTIONS AND ACHIEVEMENTS
Actions and achievements that have progressed hazardous substances management at ASA during the period of the 2009 AES are:
- Continued hazardous material storage inspection program.
- Ongoing development of Airport Chemical Storage Register.
- Reviewed, updated and disseminated Spill Response Procedure.
- Developed ASA Spill Management Preventing Stormwater Pollution handbook.
- Reviewed and updated ASA Environment Management – An Information Handbook for Operators at the Airport.
- Undertook tenant audits which included spill response capabilities, procedures, and an update of type and quantity of hazardous materials held on their premises.

ACTION PLAN
Table 10 contains the high level actions for hazardous substances management at ASA and the specific targets that will be implemented to prevent, control or reduce environmental impacts of airport activities associated with hazardous substances.

<table>
<thead>
<tr>
<th>HIGH LEVEL ACTION</th>
<th>SPECIFIC TARGET TO BE ACHIEVED</th>
<th>TIMELINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous material reduction and monitoring</td>
<td>Minimise the use of hazardous materials through ongoing awareness of impact to the environment</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Continue hazardous material storage inspections of ASA facilities</td>
<td>Annual</td>
</tr>
<tr>
<td></td>
<td>Ongoing development of ASA Chemical Storage Register</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Spills and emergency response</td>
<td>Review, update and disseminate Spill Response Procedures</td>
<td>2017</td>
</tr>
</tbody>
</table>
SECTION 11

Waste

OBJECTIVE

• Minimise waste production from all airport operations and recycle waste products wherever practical.
• Ensure wastes are properly stored, transported, and disposed.
SECTION 11  Waste

BACKGROUND
Waste generated at the airport can be defined as either solid, liquid, recyclable, or hazardous.

- Solid waste includes office waste, food and packaging, green waste, construction and demolition waste.
- Liquid waste includes sewage effluent and contaminated runoff water.
- Recyclable materials include paper, glass, plastic, oil, batteries, tyres.
- Hazardous waste includes asbestos, chemical storage containers, used chemicals.

Waste at Alice Springs Airport is handled by local waste contractors and general wastes are disposed of at the Alice Springs Town Council Waste Disposal Site. As Alice Springs is geographically isolated from major centres to date there has been limited scope for recycling of general waste materials and no curb-side recycling collection.

Wastewater at the airport includes both sewage and runoff water from airport operations including paint stripping, fire training exercises, aircraft and vehicle wash down. The airport has a sewer system that is independent from that servicing the city of Alice Springs.

LEGISLATIVE REQUIREMENTS AND GUIDELINES
Applicable Acts and guidelines include:

- Waste Management and Pollution Control Act (NT)
- Waste Management and Pollution Control Strategy (NT)
- National Environment Protection Measure - Movement of Controlled Waste between States and Territories

POTENTIAL SOURCES OF ENVIRONMENTAL IMPACT
Environmental impacts at ASA, attributable to waste include:

- Incorrect disposal of solid waste by airport operators, contractors, tenants and users.
- Inadequate/inappropriate storage of waste oils, chemicals, and other hazardous waste materials.
- Waste water runoff from airport operations such as paint stripping, fire training exercises, aircraft and vehicle wash down.
- spills and incorrect storage and disposal of sewage.
- Illegal dumping of waste on airport land.

ENVIRONMENTAL MANAGEMENT AND MONITORING
Due to the limited recycling services available in the region, the focus at ASA is on waste minimisation. ASA encourages airport tenants to adopt waste minimisation strategies and promotes waste reduction.

Historically, the illegal dumping of waste on the airport site has been an issue. Fencing erected by ASA at airport boundaries has reduced this, whilst also preventing stock and recreational vehicles accessing the airport site. The airport boundary fences are inspected regularly to identify illegal dump or breaches in the fencing.

The airport sewer system comprises a number of stand-alone septic systems as well as a larger system with a set of evapotranspiration beds on the airport site. These are sufficiently sized to meet current and projected demand in the medium term. The system is monitored annually to ensure that its capacity remains greater than the maximum potential input into the system. The airport size, evaporation rates and system capacity ensure there is minimal risk of pollution of natural waterbodies by waste water.

COMPLETED ACTIONS AND ACHIEVEMENTS
Actions and achievements which have progressed waste management at ASA during the period of the 2009 AES are:

- Monitored sewage system to ensure capacity within operational requirements.
- Construction Environmental Management Plans (CEMPs) are required for all, except small, developments and are required to address waste management.

ACTION PLAN
Table 11 contains the high level actions for waste management at ASA and the specific targets that will be implemented to prevent, control, or reduce environmental impacts of airport activities on waste management.
### TABLE 11 – WASTE MANAGEMENT FIVE YEAR ACTION PLAN

<table>
<thead>
<tr>
<th>HIGH LEVEL ACTION</th>
<th>SPECIFIC TARGET TO BE ACHIEVED</th>
<th>TIMELINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste reduction and monitoring</td>
<td>Review Waste Reduction Plan for ASA</td>
<td>2019</td>
</tr>
<tr>
<td></td>
<td>Formalise Stockpile Management Plan</td>
<td>2017</td>
</tr>
<tr>
<td>Reuse and recycle</td>
<td>Continue to encourage the development of Construction Environment Management Plans (CEMPs) that adopt the principles of the waste management hierarchy</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Trade waste</td>
<td>Investigate/implement regular monitoring of discharges into the ASA septic facility and evapotranspiration beds</td>
<td>2019</td>
</tr>
<tr>
<td>Resource use</td>
<td>Continue to identify opportunities to purchase environmentally responsible products</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Asbestos</td>
<td>Ensure all asbestos waste is removed in accordance with the Asbestos Code of Practice and Asbestos Register updated accordingly</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Hazardous Waste</td>
<td>Ensure all hazardous waste is removed by a qualified and licenced contractor</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Sewage system</td>
<td>Continue to monitor sewage system to ensure capacity within operational requirements</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Illegal dumping</td>
<td>Boundary fence is to be regularly checked for breaches and illegal entry/dumping.</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
SECTION 12

Resource Use and Climate Change

OBJECTIVE

• Minimise the use of non-renewable resources.
• Increase efficiency in the use of natural resources, particularly energy and potable water.
• Use renewable energy sources wherever practicable.
• Develop and implement adaptation and mitigation strategies to manage climate change risks to the airport and the environment.
SECTION 12
Resource Use and Climate Change

BACKGROUND
Alice Springs Airport requires significant amounts of energy in its day to day operations and energy costs are a major component of airport expenses. The airport is connected to Alice Springs power grid, which is supplied by natural gas fired power plants. On site emergency power is provided via diesel generators.

The management of water as a resource is particularly pertinent as Alice Springs has the second highest rate of water consumption per capita in Australia. The airport is supplied with water from an underground aquifer (from a bore field operated by the Power and Water Corporation) which has a low rate of recharge. It is projected that this bore can supply water to Alice Springs for approximately another 50–100 years after which an alternative supply will need to be sourced.

ASA was the first Australian airport to have a large scale (over 100kW) photovoltaic system providing a direct source of renewable energy to its internal grid, with its power station opening for business in September 2010. At the time, ASA’s solar power station supplied approximately 28 per cent of the airport’s energy needs and resulted in reducing the airport’s carbon emissions by about 470 tonnes of carbon dioxide a year. Simultaneously, a number of energy efficiency measures were implemented inside the airport terminal building (such as a movement switch sensors).

In May 2014, the solar power capacity was expanded significantly with the construction of a new car park using solar panels as the roof. This resulted in a significant growth in power capabilities whereby the solar power generated approximately 50 per cent of the airport’s energy needs.

The solar panels to the car park facility were further expanded in late 2015 with the addition of more than 1000 photovoltaic panels. In total, the solar initiatives undertaken at ASA now provide almost 100 per cent of peak airport day demand power requirement. The combined total of the airport’s solar power output is now more than 800kw (equivalent to powering 280 homes each year), and offsets approximately 1270 tonnes of carbon dioxide emissions per year.

There are a number of potential climate change impacts predicted for the Alice Springs region, including hotter summer days and more extreme weather events. In addition to this, predictions include a decline in annual rainfall. Therefore, it is likely there will be a reduction in stormwater run-off to rivers and creeks.

LEGISLATIVE REQUIREMENTS AND GUIDELINES
Applicable Acts and guidelines include:
• Airports (Environmental Protection) Regulations 1997 (Commonwealth)
• National Greenhouse and Energy Reporting Act 2007 (Commonwealth)

POTENTIAL SOURCES OF ENVIRONMENTAL IMPACT
The environmental impact of energy and water consumption may not be immediately evident but the misuse of both can lead to significant consequences on a local and global scale.

The main sources of energy consumption at Alice Springs Airport include:
• aircraft movement
• runway lighting
• control tower operations
• lighting, air-conditioning, power use and conveyor belts within the terminal building and other buildings occupied by ASA staff, tenants and contractors
• airside and landside vehicle movement including security patrols, airport shuttle services, and haulage vehicles.

Airport activities using significant volumes of water include:
• aircraft and vehicle washdown
• fire training activities
• water usage by airport customers
• landscape garden maintenance.

In addition to energy usage, waste in landfill is also a source of greenhouse gas emissions. Airport activities contributing to waste volumes to landfill are outlined in Section 11 Waste.

Climate change impacts on ASA could potentially include:
• Increases in energy demand due to hotter temperatures and greater pressures on air-conditioning systems, refrigeration and cooling systems.
• Increased water demand for irrigation of gardens due to hotter temperatures and greater evaporation during the dry season.
More frequent and intense wildfires due to hotter dry season temperatures.

ENVIRONMENT MANAGEMENT AND MONITORING
ASA is committed to reducing water consumption at the airport and recently participated in a water efficiency audit. As a result of the audit findings, ASA continues to implement changes as well as upgrades and modifications to equipment and fixtures associated to water usage where appropriate and feasible. Excessive water loss is also associated to leaks in irrigation as well as poor management of the system. Therefore, particular attention is focused on landscaping reticulation whereby sprinklers are checked and adjusted as required for the season. ASA already minimises water usage through the adoption of the ASA Landscaping Guidelines, which require the use of native species for revegetation and landscape works.

ASA has installed power factor correction equipment in the airport power distribution network to reduce energy consumption across the airport. ASA has also replaced all airport fleet vehicles with current energy efficient models and installed energy efficient lighting within the terminal building and reduced lighting wattage in appropriate areas. The airport conducts ongoing monitoring of power consumption.

Any further expansions and developments to the airport will incorporate energy and water efficient design where feasible.

Airport roads, car parks, aircraft aprons, runways and other hard stand areas are designed to minimise excessive runoff and local flooding, and incorporate water sensitive urban design where possible.

The potential for wildfire at ASA is managed through fire management planning as outlined in Section 6 Land.

COMPLETED ACTIONS AND ACHIEVEMENTS
Actions and achievements which have progressed resource use and climate change management at ASA during the 2009 AES are:

- Implementation of the electrical metering strategy.
- Installation of a CO2 monitoring system that will allow the terminal air condition system to respond to area occupancy.
- Investment in solar technology for power generation.
- Expansion of the Building Management System (BMS) to assist in the management of water and power reduction.
- Continued implementation of the Landscaping Master Plan to ensure native species (water wise) are used across the lease holding.
- Participated in water efficiency audit.
- 2014 Environment Centre NT Safe Climate Award for ASA Solar Power Station expansion.

ACTION PLAN
Table 12 contains the high level actions for resource use and climate change management at ASA and the specific targets that will be implemented to prevent, control, or reduce environmental impacts associate to airport resource use and climate change.

TABLE 12 – RESOURCE USE AND CLIMATE CHANGE FIVE YEAR ACTION PLAN

<table>
<thead>
<tr>
<th>HIGH LEVEL ACTION</th>
<th>SPECIFIC TARGET TO BE ACHIEVED</th>
<th>TIMELINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy conservation</td>
<td>Continue to further expand electricity metering of ASA facilities and infrastructure and new tenancies as developed</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Continue to investigate maximisation of energy efficiencies</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Water conservation</td>
<td>Consider water harvesting and/or the use of recycled/grey water in new developments</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Continue implementation of Landscape Master Plan to ensure native species (water wise) are preferential across the lease holding</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Encourage new and existing tenants to adopt sustainable water use practices</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Undertake water audit on ASA owned and operated facilities with aim of developing a water saving actions plan</td>
<td>2017</td>
</tr>
<tr>
<td>Reduce resource use</td>
<td>Continue investigations into the feasibility of alternative sources of energy with emphasis on solar energy</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
SECTION 13

Cultural Heritage

OBJECTIVE

• Preserve cultural heritage sites located at Alice Springs Airport.
• Formulate and implement appropriate management procedures in the event new cultural heritage sites are identified.
SECTION 13
Cultural Heritage

BACKGROUND
There is one known Sacred Site (Aboriginal heritage) located close to the northern boundary of Alice Springs Airport. This site is connected to the Traditional Owners (the Arrernte people) and is protected from any disturbances within the airport’s control. There are no other Sacred Sites known to occur within the airport’s property.

The Seven-Mile Aerodrome is a registered heritage site (European heritage) and consists of a complex of buildings constructed in 1940. These buildings formed the original airport complex and were constructed to service military and civilian operations. In 1965 a new terminal and fire station were opened to handle the increase in airline traffic. These were replaced by the current buildings in 1991 to accommodate the increased tourist traffic to the Northern Territory, however are still intact and are currently occupied by airport staff or tenants. Ongoing occupancy ensures the buildings are maintained appropriately. There are no other known European heritage sites within the airport.

LEGISLATIVE REQUIREMENTS AND GUIDELINES
Applicable Acts and guidelines include:

- Aboriginal Sacred Sites Act (NT)
- Aboriginal Land Act (NT)
- Heritage Conservation Act (NT)
- Aboriginal and Torres Strait Islander Heritage Protection Act 1994 (Commonwealth)
- Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)

POTENTIAL SOURCES OF ENVIRONMENTAL IMPACT
Potential impact to sacred sites, heritage sites, and artefacts as a result of:

- disturbance of sites during development, landscaping or fire activities
- failure to identify sites
- accidental or malicious disturbance of sites
- non-compliance with development protocols
- biological causes such as termites, climate ravages of wind and high temperatures.

ENVIRONMENTAL MANAGEMENT AND MONITORING
A management plan for the Seven-Mile Aerodrome has been developed to ensure protection of the cultural heritage values of the site and it is recognised as one of Australia’s most intact airfields from the WWII period.

The recorded Sacred Site has management provision identified under the Aboriginal Areas Protection Authority (AAPA) Certificate which has previously been issued to ASA. The site is listed on the ASA Site Register.

Works on future development will be stopped immediately if culturally significant artefacts are found, and the relevant authority informed. In the case a new indigenous or heritage site is identified the Site Register will be updated.

COMPLETED ACTIONS AND ACHIEVEMENTS
Actions and achievements which have progressed cultural heritage management at ASA during the period of the 2009 AES are:

- Ensured all contractors and tenants understand their heritage obligations under the ‘Site Rules’, Construction Environment Management Plans (CEMPs) and/or via the ASA Environment Management – An Information Handbook for Operators at the Airport.

ACTION PLAN
Table 13 contains the high level actions for cultural heritage management at ASA and the specific targets that will be implemented to prevent, control or reduce environmental impacts of airport activities on cultural heritage.
### TABLE 13 – CULTURAL HERITAGE FIVE YEAR ACTION PLAN

<table>
<thead>
<tr>
<th>HIGH LEVEL ACTION</th>
<th>SPECIFIC TARGET TO BE ACHIEVED</th>
<th>TIMELINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural heritage awareness</td>
<td>Continue to ensure all contractors manage their heritage obligations via inclusion in submitted Construction Environment Management Plans (CEMPs)</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Continue to ensure all tenants are aware of their heritage obligations via provision of information such as the ASA Environment Management – An Information Handbook for Operators at the Airport</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Review site register with regard to heritage aspects and update if/where appropriate</td>
<td>Event based or by 2017</td>
</tr>
<tr>
<td>Foster relationships with relevant community and heritage organisations</td>
<td>Continue to work with Traditional Owners in the event cultural heritage sites or artefacts are suspected</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
This page has intentionally been left blank
SECTION 14
Development

OBJECTIVE

- Integrate environmental considerations into the
development of facilities and services and seek to
minimise their impact on the natural environment.
SECTION 14
Development

BACKGROUND
Development and expansion is necessary for Alice Springs Airport to be able to respond to the increasing demands of travelers, the aviation industry and Alice Springs. ASA understands the importance of achieving a balance between development and the maintenance and enhancement of environment values.

LEGISLATIVE REQUIREMENTS AND GUIDELINES
Applicable Acts and guidelines include:
- Airports Act 1996 (Commonwealth)
- Airports (Environment Protection) Regulations 1997 (Commonwealth)
- Airports (Building Control) Regulations 1996 (Commonwealth)

POTENTIAL SOURCES OF ENVIRONMENTAL IMPACT
Development activities have the potential to impact upon each of the different environmental attributes addressed throughout this AES. Broadly, the likely sources of environmental impact associated with each attribute during development include:
- Surface water, groundwater and land:
  - alterations to the water table through excavation or fill/material placement
  - contamination by hazardous material spills or inappropriate treatment of construction water prior to release
  - inappropriate sediment and erosion control structures resulting in increased sediment loads in water courses.
- Downstream impacts off airport from airport stormwater management.
- Waste – increase in volume of waste generated from increased activity.
- Flora – vegetation clearing, introduction of disease and weeds through inadequate management of tyres, equipment, and footwear.
- Fauna – accidental chemical spills, death or injury by machinery, and habitat loss through vegetation clearing.
- Weeds – introduced through sand/fill imported during construction.
- Noise – produced by mobile plant and their reverse warnings, power tools, site clearing and earthworks, and an increase in air traffic.
- Air quality – the movement of mobile plant on disturbed ground has a high potential to create dust and exhaust fumes.
- Cultural heritage – inadequate awareness of the potential for cultural heritage sites and artefacts could lead to the destruction or damage of known cultural heritage sites.
- Resource use – increased demand for resources e.g. energy, water, and construction materials.

ENVIRONMENTAL MANAGEMENT AND MONITORING
ASA has developed a range of initiatives aimed at minimising the impacts of development:
- Contractors performing major works or those with potential to cause environmental harm are required to prepare a Construction Environment Management Plan (CEMP) and are required to go through the development approval process.
- Potential developments will be assessed against data entered into the ESR to determine potential impacts upon sensitive areas.
- In the event that major developments are proposed in areas of intact native habitat on airport land, a flora and fauna survey will be conducted before construction begins and management options assessed.
- Work on developments will be stopped immediately if suspected culturally significant/heritage artefacts are found and the relevant authority informed.

COMPLETED ACTIONS AND ACHIEVEMENTS
Actions and achievements which have progressed cultural heritage management at ASA during the period of the 2009 AES are:
- Ensuring ASA operators, tenants and contractors are appropriately inducted and trained.
- Maintained and updated all relevant plans and strategies to ensure adherence to best practice by ASA operators, tenants and contractors.
- Ensured all relevant plans and strategies are available to ASA operators, tenants and contractors.
- Ensured new developments incorporated sustainability design, wherever feasible.
- Encouraged tenants to use energy efficient building design and use of efficient technologies through the building and development approval process.
**ACTION PLAN**

Table 14 contains the high level actions for development management at ASA and the specific targets that will be implemented to prevent, control, or reduce environmental impacts of airport activities relating to development.

**TABLE 14 – DEVELOPMENT FIVE YEAR ACTION PLAN**

<table>
<thead>
<tr>
<th>HIGH LEVEL ACTION</th>
<th>SPECIFIC TARGET TO BE ACHIEVED</th>
<th>WHEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implement relevant ASA plans and strategies to minimise the impact of development projects across the airport site.</td>
<td>Encourage developers to incorporate sustainability design</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Continue to ensure Construction Environment Management Plans (CEMPs) are developed and submitted for all medium and large construction projects</td>
<td>Ongoing</td>
</tr>
<tr>
<td></td>
<td>Ensure plans, strategies and information, inclusive of legislative provision, are available to ASA operators, tenants and contractors</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
SECTION 15

Tenants

OBJECTIVE

- Work in partnership with Alice Springs Airport tenants and operators to ensure best environmental practice continues to be implemented in all airport operations.
SECTION 15
Tenants

BACKGROUND
There are 70 listed tenants at Alice Springs Airport. Lease terms vary between one and 40 year periods. Of these, 30 do not have staff regularly on site.

The nature of tenant activities carried out varies widely but most relate to airport functions such as freight handling, car rental, aircraft maintenance, charters, and retail concessionaires.

LEGISLATIVE REQUIREMENTS AND GUIDELINES
Applicable Acts and guidelines include:
- Airports Act 1996 (Commonwealth)
- Airports (Environment Protection) Regulations 1997 (Commonwealth)
- Airports (Building Control) Regulations 1996 (Commonwealth)

POTENTIAL SOURCES OF ENVIRONMENTAL IMPACT
The environmental impact arising from tenants depends on the nature of the tenancy and the activities, however the following are examples of activities that cause impact to the environment:
- resource usage
- aircraft and vehicle washdown
- waste production
- accidental hazardous materials leaks and spills.

ENVIRONMENTAL MANAGEMENT AND MONITORING
The Airport Lessee Company (ALC) and all operators of any undertakings at the airport are legally required to take all practicable steps to meet the requirements outlined in the AES. This includes any airport based business, tenants, or contractors. Environmental management is ultimately the responsibility of all staff, tenants, and contractors at the airport.

Tenants are required to report to ASA in relation to their environmental obligations. ASA in turn submits this information on an operational level to the AEO and submits this information to DIRD in the Annual Environment Report.

Awareness raising and input from ASA tenants is conducted through the development of the Tenant Environmental Management Handbooks and audits.

Airport tenants are also invited to join the local committee which review the ASA Bird and Animal Hazard Monitoring System (BAHMS). This provides tenants with another forum to view ASAs ongoing commitment to environmental management and allows for tenants to put forward their own views and ideas.

COMPLETED ACTIONS AND ACHIEVEMENTS
Actions and achievements which have progressed tenant management by ASA during the period of the 2009 AES are:
- Continued to encourage implementation of tenant EMPs and conduct training when necessary
- Reviewed and updated ASA Environment Management – An Information Handbook for Operators at the Airport.
- Developed ASA Spill Management Preventing Stormwater Pollution handbook.
- Continued tenant environmental audits and inspections.

ACTION PLAN
Table 15 contains the high level actions for tenant management at ASA and the specific targets that will be implemented to prevent, control or reduce environmental impacts associated to tenant activities.

<table>
<thead>
<tr>
<th>TABLE 15 – TENANT FIVE YEAR ACTION PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HIGH LEVEL ACTION</strong></td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>Contential improvement in communication with and training of ASA tenants</td>
</tr>
<tr>
<td>Continue to encourage implementation of tenant Environment Management Plan's (EMPs)</td>
</tr>
<tr>
<td>Conduct tenant inspections based on a risk based approach</td>
</tr>
<tr>
<td>Continue to provide environmental information on the ASA website</td>
</tr>
</tbody>
</table>
SECTION 16

Community

OBJECTIVES

• Maintain and increase the involvement of Alice Springs community groups in the development and implementation of local environmental initiatives through the promotion of positive relationships.
SECTION 16
Community

BACKGROUND
Alice Springs Airport is located within the Alice Springs Municipal Planning Area. With a population of approximately 28,000 people, Alice Springs is the only major population centre within a large area of the Northern Territory.

ASA provides this remote community with a vital health and social link, facilitating access to the rest of Australia and providing a base for essential services.

ENVIRONMENTAL MANAGEMENT AND MONITORING
ASA maintains support to the community through provision of sponsorship to a number of local clubs and sporting groups as well as remaining an active member of local industry and environmental organisations.

ASA fosters ongoing, positive working relationships with airport operators and tenants to ensure the objectives of the AES are met. These links also provide an independent perspective on how the community views ASA's achievements and management practices.

ASA acknowledges the significant contribution of the Arrernte people to the community of Alice Springs and continues to foster a positive relationship with the local indigenous community.

Traditional Owners are fully consulted in relation to any aspects of Indigenous heritage identified on site.

COMPLETED ACTIONS AND ACHIEVEMENTS
Actions and achievements which have progressed community development management by ASA during the period of the 2009 AES are:
- Ongoing liaison with local community and resident groups.
- Continued involvement in Clean Up Australia Day.
- Included environmental activities in the Corporate Giving Program, ASA’s charitable donation program.

ACTION PLAN
Table 16 contains the high level actions for community engagement by ASA and the specific targets that will be implemented to enhance a sense of community with regard to airport activities.

<table>
<thead>
<tr>
<th>TABLE 16 – COMMUNITY FIVE YEAR ACTION PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HIGH LEVEL ACTION</strong></td>
</tr>
<tr>
<td>Build partnerships</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Support environmental activities and causes</td>
</tr>
</tbody>
</table>
SECTION 17

Figures and Tables
FIGURES
Figure 1: Average Temperatures and Rainfall at ASA
Figure 2: Surrounding Land Use
Figure 3: Framework for Environmental Management at ASA
Figure 4: Cultural and Heritage Significant Sites
Figure 5: Water Plan
Figure 6: Land Use and Proposed NT Government AZRI ASA Vegetation Types

TABLES
Table 1: ASA Environmental Monitoring Program
Table 2: Water Management Zones Relevant to ASA
Table 3: Water Five Year Action Plan
Table 4: Land Management Five Year Action Plan
Table 5: Threatened and Near Threatened Species that have been recorded at ASA
Table 6: Ecological Monitoring Programs at ASA
Table 7: Biodiversity Five Year Action Plan
Table 8: Air Quality and Emissions management Five Year Action Plan
Table 9: Noise Management Five Year Action Plan
Table 10: Hazardous Substances Five Year Action Plan
Table 11: Waste Management Five Year Action Plan
Table 12: Resource Use and Climate Change Five Year Action Plan
Table 13: Cultural Heritage Five Year Action Plan
Table 14: Development Five Year Action Plan
Table 15: Tenant Five Year Action Plan
Table 16: Community Five Year Action Plan