

# CAMDEN AIRPORT

## Master Plan and Airport Environment Strategy



2015



SYDNEY METRO AIRPORT

CAMDEN

## Disclaimer

This Master Plan has been prepared by Camden Airport Limited (CAL) for the purpose of satisfying the statutory requirements of the *Airports Act 1996*.

This Master Plan has been prepared with the support of and inputs from:

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Environmental Affairs Pty Ltd  
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# Foreward



Camden Airport is a significant and important feature in the local landscape and has a history stretching back to the late 1930's. Camden Airport Limited's (CAL) vision is for the Airport to continue to make an economic contribution to the local economy and increase this contribution in a manner that will integrate with the NSW Government's *A Plan for Growing Sydney*.

## CAL's vision for Camden Airport

CAL's aviation vision is to maintain Camden Airport's role as a leading recreational and training aviation facility in New South Wales. This Master Plan (2015 MP) sets out in part how the Airport will meet the aviation demand over the planning period.

CAL's commercial vision is to enhance existing businesses that will bring jobs and increase the economic prosperity of the local community and as well as service the needs of the existing airport users.

The 2015 MP also outlines how CAL will address key issues arising from its vision, including infrastructure, environment, aircraft noise and heritage conservation.

To achieve this, CAL's strategic direction is:

- to provide an efficient airport supporting all forms of general aviation; and
- to develop the land assets of the Airport in order to provide high quality employment and commercial opportunities in harmony with the Airport's unique semi-rural location.

CAL recognises that to deliver this strategic direction, effective master planning and public consultation is a critical function as it enables stakeholder and community input into the master plan process.

This 2015 MP provides a platform for Camden Airport to achieve its economic potential and simultaneously provide for the broader interests of stakeholders and the community.

## Key Issues

The 2015 MP also sets out how CAL proposes to address key issues such as infrastructure, environmental management and heritage protection, road traffic and provides a five year implementation plan.

Through implementation of the 2015 MP, Camden Airport will endeavour to fulfil its economic potential while providing for the broader interests of stakeholders and the community. For the first time, the 2015 MP also integrates/incorporates:

- a five year ground transport plan for the Airport which indicates that no major alterations are planned to roads within the landside areas of the Airport between 2015 and 2020; and
- the new Airport Environment Strategy which presents CAL's objectives for and approach to management of the environment of the Airport.

The 2015 Preliminary Draft Master Plan was available for public comment from 24 June 2015 to 15 September 2015 - a total of 60 business days, however CAL accepted submissions for 65 business days.

The Draft Master Plan was prepared for the Deputy Prime Minister and Minister for Infrastructure and Regional Development for consideration having due regard to the written submissions from the community as well as from Federal, State and Local Government.

The Minister for Infrastructure and Regional Development approved the Draft Master Plan on 18 December 2015. In accordance with the Act, the next review of this 2015 MP will need to occur by 18 December 2020.

**Colin Grove**

Chief Executive Officer, Camden Airport Limited

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# Executive Summary

## CONTEXT

Camden Airport (the Airport) is a significant general aviation airport supporting aviation in the greater Sydney region and the Southern Highlands. It is located approximately 60 kilometres south-west of Sydney's Central Business District. The Airport currently caters for a wide range of general aviation movements (fixed wing, helicopter and gliding) providing for aviation activities including flight training, emergency services, gliding, ballooning and recreational flying. The Airport is also the location of aviation and non-aviation related business development within its overall site of approximately 196 hectares.

Camden Airport Limited (CAL) is the Airport Lessee Company for Camden Airport and, consistent with its obligations under the *Airports Act 1996*, has prepared this Master Plan (2015 MP) to set out its vision and objectives for the planning and development of a multi-use airport over the 20 year period to 2035.

## PREPARATION OF THE MP

Preparation of the 2015 MP included the following activities:

- review of the current Camden Airport 2010 Master Plan approved by the Minister on 27 October 2010 (2010 MP);
- preparation of a number of specialist studies in relation to aircraft flight paths, aircraft noise, ground transport and economic and community impact to provide technical input to the 2015 MP; and
- consideration of issues arising from the stakeholder consultation in preparation of the 2015 MP.

## STRATEGIC DIRECTION

CAL's vision for the Airport is "to meet the current and future aviation needs of greater Sydney and to develop the aviation and property assets to attain appropriate sustainable value".

To achieve this, CAL's strategic direction is:

- to provide an efficient airport supporting all forms of general aviation for the greater Sydney region;
- to provide a regional aviation hub for the attraction of new and diverse industries related to the operation of the airport including training, maintenance, manufacturing and emergency services; and
- to develop the land assets of the Airport in order to provide high quality employment and commercial opportunities.

CAL recognises that to deliver this strategic direction, effective master planning and public consultation is a critical

function as it enables stakeholder and community input into the master plan process.

Camden Airport already makes a contribution to the Camden and Greater Western Sydney economies, generating approximately 80 jobs and valuable economic activity. CAL's vision anticipates increasing this contribution based on a strategy encompassing sustainable aviation and non-aviation development over the next 20 years.

The development concept presented in this 2015 MP includes both an Aviation Development Concept and a complementary Non-aviation Development Concept for activities on land identified as surplus to aviation requirements in the longer term.

The land use zoning plan for Camden Airport - which reflects both the Aviation and Non-Aviation Development Concepts - is shown on Figure S1 with details of the areas and intent of each zone provided in Table S1.

**Table S1 | Camden Airport zones**

Zone	Gross area (hectares)	Location and general description
Aviation (plan colour: blue)	100	This zone includes all operational aviation areas, namely: <ul style="list-style-type: none"> <li>• runway/taxiway complex;</li> <li>• aircraft movement and parking areas/helipad; and</li> <li>• airside tenancy buildings and associated taxiways.</li> </ul>
Aviation/Business (plan colour: orange)	13.5	This zone applies to the non-aviation area south of the asphalt runway.
Airport Support (plan colour: green)	28.5	The area between the Aviation and Environment Significant zones.
Environmentally Significant (plan colour: yellow)	54	This zone applies to the airport land abutting the Nepean River.
<b>Total</b>	<b>196</b>	

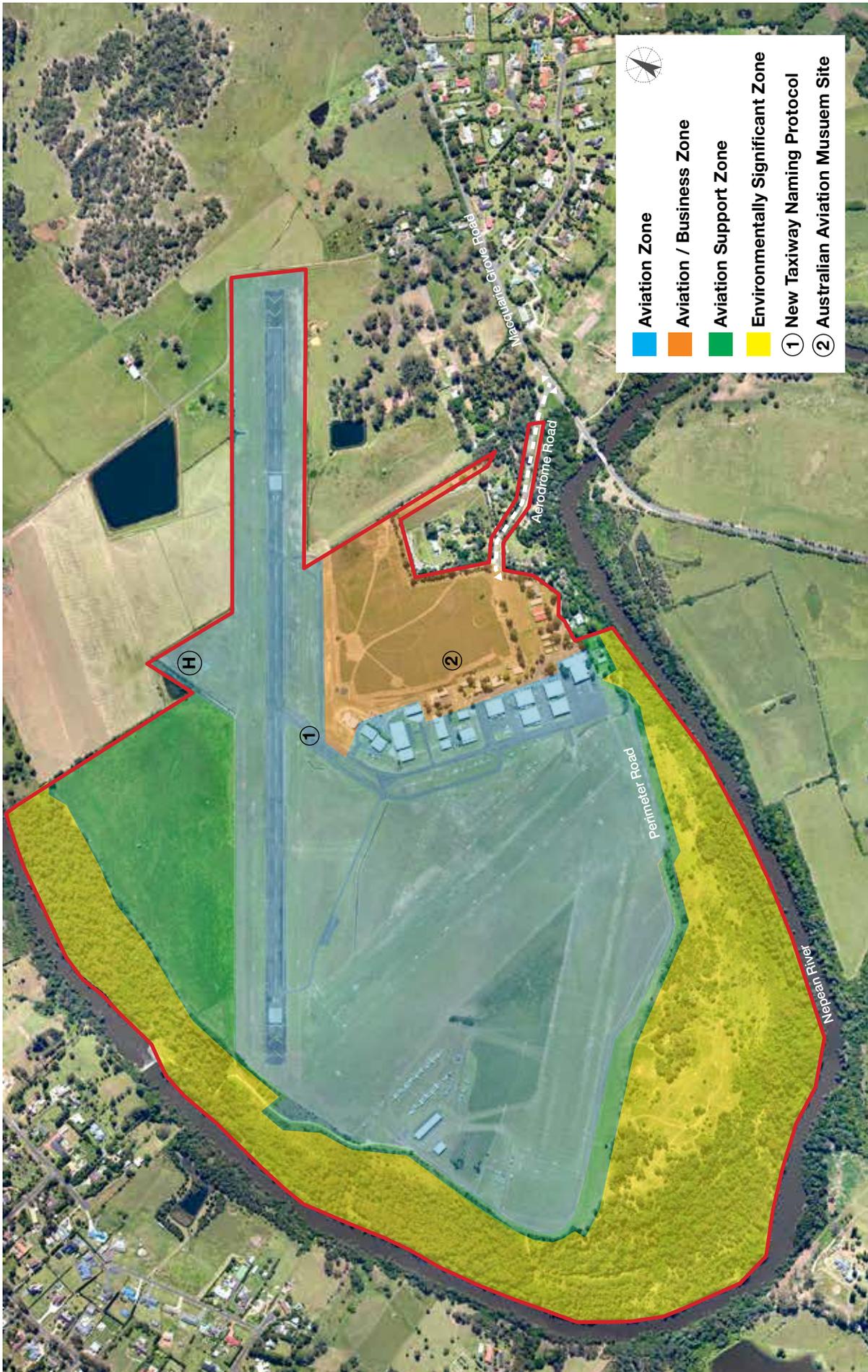


Figure S1 | Development concept and land use zoning

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## AVIATION DEVELOPMENT CONCEPT

The Aviation Development Concept is intended to enhance Camden Airport's capacity as a General Aviation airport. This concept commits CAL to improving the long term sustainability and growth of the aviation industry within the Sydney Region.

Over the 20 year planning period, CAL's traffic forecasts envisage aircraft movements growing from levels of around 93,000 movements estimated for year 2014/15 to around 112,000 in 2034/35. While forecast traffic levels in 2034/35 represent an increase on 2014/15 levels, the 2034/35 forecast traffic levels are lower than the forecast high of around 146,000 movements contained in the 2010 MP.

Key elements of the Aviation Development Concept through which CAL will improve the long term sustainability of the general aviation industry and facilitate the growth of air traffic levels include:

- implementation of a taxiway naming protocol;
- placement of Movement Areas Guidance Signs;
- provision for additional aircraft hangars; and
- provision for an increase in grass aircraft parking areas.

### Aircraft noise management

The existing and forecast aviation activities at Camden Airport will result in varying levels of exposure to aircraft noise. During the preparation of this 2015 MP, as required under the *Airports Act 1996*, and also to further assist the community to better understand the impact of aircraft noise CAL has:

- conducted extensive aircraft noise modelling based on the 2034/35 forecast of aircraft movements – both fixed wing and helicopter – to provide the 2034/35 Australian Noise Exposure Forecast (ANEF);
- provided aircraft and helicopter flight paths; and
- undertaken a comparison of the previously endorsed 2029/30 as contained in the 2010 MP and the current 2034/2035 N60 (instances of noise reaching 60 decibels) noise modelling. The N60 metric provides the community with additional and better information about the forecast extent and levels of aircraft noise.

The 2034/35 ANEF prepared as part of this 2015 MP (and endorsed by Airservices Australia) includes 20, 25, 30 and 35 ANEF contours. As shown on Figure S2, the reductions in the extent of the ANEF contours, particularly the 20 ANEF contour, compared to the previous ANEF endorsed by Airservices Australia in 2010, reflect a more realistic air traffic forecast and improved noise modelling resources and techniques.

In terms of significant noise contours on the current 2034/35 ANEF (see Figure S3), the 35 ANEF contour is contained wholly within the Airport's boundary. The 30 ANEF contour only exceeds the Airport's boundary slightly north of the Airport over a small area. At the eastern end of the Airport, the 30 ANEF contour extends over areas within the Airport.

CAL will continue to develop and implement its Noise Management Plan in consultation with the Camden Airport Community Aviation Consultation Group (CACACG), appropriate government agencies, aviation operators based at the Airport and users from elsewhere and including Airservices Australia and the Civil Aviation Safety Authority.

## NON-AVIATION DEVELOPMENT CONCEPT

The Non-Aviation Land Development Concept for Camden Airport identifies 42 hectares of land parcels as surplus to core aviation requirements. Zoned as Aviation / Business and Airport Support these parcels of land can to be used subject to demand.

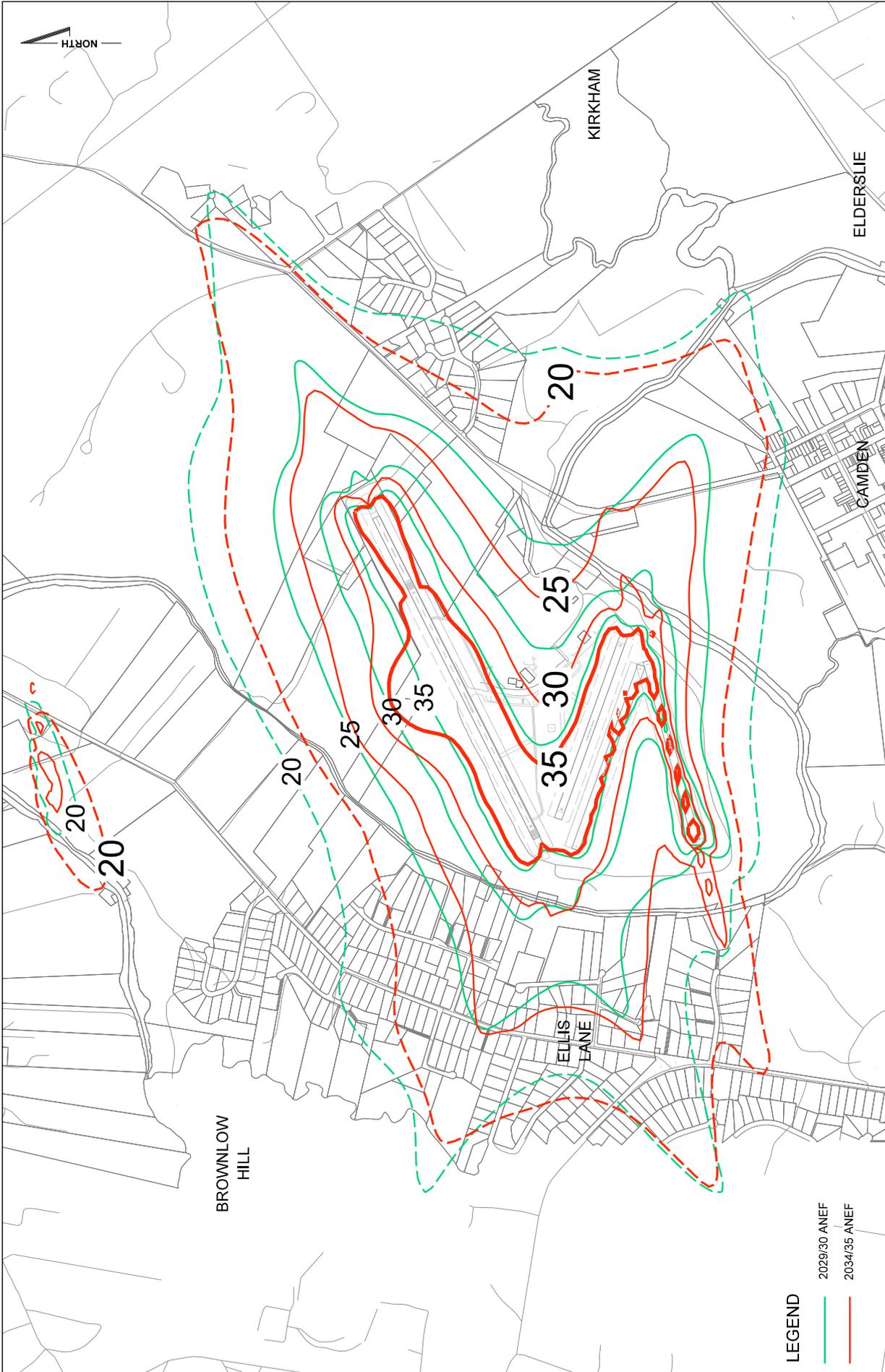
The Aviation / Business zone is found in the eastern part of the Airport, south of Runway 06/24. This area is currently underutilised apart from airport tenancy buildings in the north-eastern corner. The area is above the 1 in 100 year flood plain level, except for small areas nearest to the aircraft movement area. It is the most likely area suitable for development in the short to medium term due to flooding and infrastructure limitations associated with the other areas. This area was previously (2010 MP) zoned as Camden Airport Mixed Use and as such its potential uses is unchanged.

The Airport Support zone consists of 28.5 hectares and is located between the Aviation zone and the Environmentally Significant zone. The objective of this zone is for employment or tourist related development having regard to the provisions of services and the environmental and natural assets within the area.

Development can only occur on the basis of demand for suitable land uses in the Camden and Greater Western Sydney region area over the planning period. Specific development proposals will be in accordance with the requirements of the *Airports Act 1996*.

The expected non- Aviation Development Concept include:

- Relocation of the Australian Aviation Museum from Bankstown Airport to Camden Airport and to be located in the Aviation / Business zone; and
- Annual Maintenance program.



CAMDEN AIRPORT Master Plan 2015

Figure S2 | ANEF Comparison



## PLANNING AND ENVIRONMENTAL ISSUES

To support the realisation of the Development Concept presented in this 2015 MP, CAL will implement and manage key planning and environmental issues as follows:

### Ground Transport

As required by *the Airports Act 1996*, a 5 year ground transport plan for Camden Airport is included in this 2015 MP. The Ground Transport Plan for the 2015 to 2020 period is based on utilizing the current landside road network and the surrounding access and taking in to consideration any ground transport matters emanating from the implementation plan contained in the 2015 MP.

### On Airport road development

No major alterations are planned to the road within the landside areas of the Airport in the period from 2015 to 2020 as a result of forecast aviation-related or non-aviation development.

During the remainder of the 20 year Master Plan period, increased traffic using Aerodrome Road into and out of the Airport may occur. Any increase is not envisaged to justify any enhancement to the intersection of Aerodrome Road and Macquarie Grove Road.

### Public transport

Currently there is no direct public transport to Camden Airport. It is unlikely that public transport would be required during the life of the 2015 MP.

### Active transport - cycling and pedestrians

CAL will support and encourage cycling by Airport users and will give consideration to including cycling facilities in the design of new access arrangements and building proposals.

### Car parking

All car parking for the development of the Airport will be contained within the Airport's boundary.

### External road network

If required, consultation will be undertaken with the NSW Roads and Maritime Services to assess the potential impact of airport development on the external road network.

### Utilities/infrastructure

The implementation of the Aviation and Land Development Concepts may require either upgrading and reticulation (or both) of power, water and sewerage infrastructure. The analysis of utilities and services infrastructure in this 2015 MP concentrates on the eastern part of the area, south of

Runway 06/24, as this area is above the flood plain and most amenable to development. No development is currently envisaged in the other areas available for development that requires a substantial upgrade to road infrastructure or servicing of the land.

### Flooding and stormwater management

CAL has identified flooding and stormwater management as a key issue for the 2015 MP.

The current system operates efficiently with rainfall flowing overland via open drains and canals into the Nepean River, which is adjacent to the site.

Future aviation and non-aviation developments will take into consideration local and state planning requirements with respect to flooding and stormwater.

### Airport Environmental Strategy

As required by the *Airports Act 1996*, an Airport Environment Strategy is included as a key component of this 2015 MP.

The Airport Environment Strategy presents CAL's environmental management overview as well as specific environmental management approaches during the Master Plan period for:

- air quality;
- water quality;
- soil quality;
- ground noise;
- flora and fauna;
- heritage;
- waste and resource use; and
- social and community impacts.

Environmental impacts arising from the implementation of the Development Concept documented in this 2015 MP will also be determined and assessed during the development approval process for individual proposals, with appropriate management actions established prior to approval being given by the Minister in relation to Major Development Plans and the Airport Environment Officer for other Airport Lessee Company (ALC) consents.

### Heritage

As Camden Airport dates from the 1940s and was a significant development site for the Royal Australian Air Force during the Second World War, the Airport retains a number of sites and items of heritage significance.

The 2015 MP takes into account the heritage value of the Airport and provides for the conservation of the site's heritage values. A Heritage Management Strategy has been prepared for the Airport. Specific Heritage Impact Statements will be prepared for those developments which involve areas containing aspects identified as having heritage significance. The Heritage Impact Statements will take into account the heritage management policies and guidelines defined in the Heritage Management Strategy.

### Development beyond 2020

For the timing of developments beyond the initial five year period of the twenty year planning period, there is less certainty when a specific demand, business case or compliance trigger

will be reached. Further, the *Airports Act 1996* requires a final Master Plan to remain in force for five years. Consequently, this Master Plan will be reviewed and updated by late 2020.

### Western Sydney Airport

In April 2014, the Australian Government announced that Badgerys Creek will be the site for the new airport in Western Sydney. It is estimated that the first aviation activity could occur in the mid-2020s. However, the timing of the development of initial aviation operations at the Western Sydney Airport is yet to be exactly determined. As such this 2015 MP does not consider the potential impact Western Sydney Airport may have on Camden Airport over the life of the 2015 MP.

## IMPLEMENTATION OF THE MP

### Five year implementation plan

The 2015 MP sets out potential proposals anticipated in the period between 2015 and 2020 in relation to:

- aviation development concept proposals;
- CAL land development concept proposals;
- infrastructure provision or upgrades.

Precinct	Development Proposal	Timing
<b>Aviation Development</b>		
Aviation	Introduction of taxiway naming protocol	2017/18
	Placement of Movement Area Guidance Signs	2017/18
<b>Cal's Non-aviation Development</b>		
Aviation	Establishment of the Australian Aviation Museum	Completion by 2018
Business Zone		Annual Maintenance program
<b>Infrastructure Provision or Upgrades</b>		
Infrastructure provision and/or upgrades would be implemented on an 'as-needed' basis and subject to market demands. Infrastructure provision would include reticulation of electricity, water and sewer to necessary sites, lead-in power and water and sewer network upgrades and amplifications.		

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**PART A**

MASTER PLAN CONTEXT



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# Introduction

- 1.1 Background
- 1.2 Purpose of the Master Plan
- 1.3 Statutory requirements
- 1.4 Cal's vision and objectives
- 1.5. Master Plan structure

# Introduction

**The Camden Airport Master Plan 2015 (2015 MP) fulfils statutory requirements as well as building on development achievements since the approval of the MP 2010. The 2015 MP sets out CAL's objectives for the development of Camden Airport over the next twenty years.**

## 1.1 BACKGROUND

In December 2003, the BaCH Consortium purchased the long term lease over Camden Airport (the Airport) together with the Bankstown Airport lease from the Federal Government. As part of the sale process, the Consortium also acquired the airport management company, Camden Airport Limited (CAL), which continues to manage and operate the Airport. CAL is the Airport Lessee Company (ALC) for Camden Airport.

CAL is an Australian company owned by First State Super who invests in CAL on behalf of Australian individuals and families through their superannuation contribution. CAL is committed to the long term growth and development of Camden Airport based on sustainable development principles.

The previous *Camden Airport Master Plan 2010* was approved by the Minister for Transport and Regional Services on 27 October 2010 as such the *Airports Act 1996* required the Draft Master Plan (DMP) to be submitted by 27 October 2015.

## 1.2 PURPOSE OF THE MASTER PLAN

The purpose of this document is for CAL to present the 2015 MP for Camden Airport as required under the *Airports Act 1996*. This 2015 MP represents all of the stages involved in the preparation and approval of an Airport Master Plan as shown in Figure 5.

Following approval by the Deputy Prime Minister and Minister for Infrastructure and Regional Development (the Minister), the document replaces the *Camden Airport Master Plan 2010* (MP 2010) which was approved in October 2010. Key elements in the preparation of the 2015 MP included:

- reflecting on the development on the Airport since 2010;
- acknowledging the influence of land uses and communities surrounding the Airport; and
- presenting CAL's proposals for the management and development of the Airport over the 20 year planning period to 2034/35.

## 1.3 STATUTORY REQUIREMENTS

### 1.3.1 Statutory obligations

A key statutory requirement for the Master Plan as required under the *Airports Act 1996* requires an airport master plan to:

- cover a planning period of 20 years;
- be reviewed every 5 years;
- specify the Airport Lessee Company (ALC's) development objectives for the Airport;
- assess the future needs of civil aviation users and other users;
- specify the ALC's proposals for land use and related development;
- include forecasts relating to noise exposure levels, flight paths (in accordance with regulations) and the ALC's plans, following consultation, for managing aircraft noise intrusion above significant aircraft noise exposure forecast (ANEF) levels;
- assess environmental issues and plans for dealing with these issues;
- specify a 5 year ground transport plan;
- specify information on proposed developments for the first 5 years;
- assess the likely effect on employment levels at the Airport and on the local and regional economy and community in the first 5 years;
- provide an environment strategy;
- be made available for public comment for a period of 60 business days; and
- satisfy the relevant requirements of the *Airports Regulations 1997*.

**Appendix A** sets out the requirements of the *Airports Act 1996* and *Airports Regulations 1997* in relation to airport master plans and the compliance of this 2015 MP.

### 1.3.2 Master Plan preparation

The methodology used in the preparation of a master plan is shown in Figure 5. The following phases were undertaken:

- Phase 1 – data gathering and objective setting;

- Phase 2 – preparation of aviation traffic forecasts and facilities requirements analysis;
- Phase 3 – preparation of a commercial development concept based on land surplus to aviation requirements;
- Phase 4 – preparation of a development concept, analysed for potential impacts on traffic, services and infrastructure, environment, heritage, aircraft noise, airspace protection and the local and regional economy and community;
- Phase 5 – preparation of a land use and zoning plan to provide the implementation framework for individual development proposals;
- Phase 6 – preparation of the preliminary draft master plan;
- Phase 7 – public comment period for 60 business days;
- Phase 8 – consideration of comments;
- Phase 9 – preparation of the draft master plan; and
- Phase 10 – submission of the draft master plan to the Minister for his consideration.

In addition to the 10 phases, CAL's Master Plan preparation process also includes ongoing consultation and engagement with key stakeholders and the wider community, informing them of the planning process and gathering input and comments as required.

CAL's Master Plan has 3 primary planning roles – namely, to provide:

- stakeholders with a clear statement of CAL's vision and objectives for the Airport;
- direction on land use so that long term aviation requirements are catered for and non-aviation developments are appropriately integrated with other airport activities and take into account the local and NSW planning framework; and
- planning flexibility consistent with the Master Plan so that CAL can adjust its strategies to accommodate an ever changing commercial and operating environment.

In terms of its regulatory role, the Master Plan forms an integral part of CAL's ALC Consent process (see Figure 6). One of CAL's first reviews of any development proposal is to check its consistency with the Master Plan. However, the inclusion of a proposed development in CAL's Master Plan does not imply approval of that development. Any proposed development, including a development referred to in the Master Plan, is

subject to approval under the *Airports Act 1996* and *Airports (Building Control) Regulations 1996* through the approvals process shown in Figure 6.

### 1.3.3 Integration of the Airport Environment Strategy

The *Airports Act 1996* also requires CAL to prepare an Airport Environment Strategy (AES) concurrently with the Master Plan. The current AES was approved in May 2010 in accordance with the requirements of the *Airports Act 1996*. Consequently, the AES forms part of this 2015 MP and is at **Appendix B**.

## 1.4 CAL'S VISION AND OBJECTIVES

### 1.4.1 CAL'S vision for Camden Airport

CAL's aviation vision is to maintain and grow Camden Airport's role as an airport facilitating the General Aviation market in greater Sydney whilst its commercial vision includes adding value to the non-aviation assets of the Airport.

CAL recognises that, to deliver this vision, effective master planning catering for current and future aviation needs and property asset development is critical. CAL intends to communicate the role the Airport plays in the economic development of Western Sydney and the Sydney Region as a whole.

### 1.4.2 Primary objectives

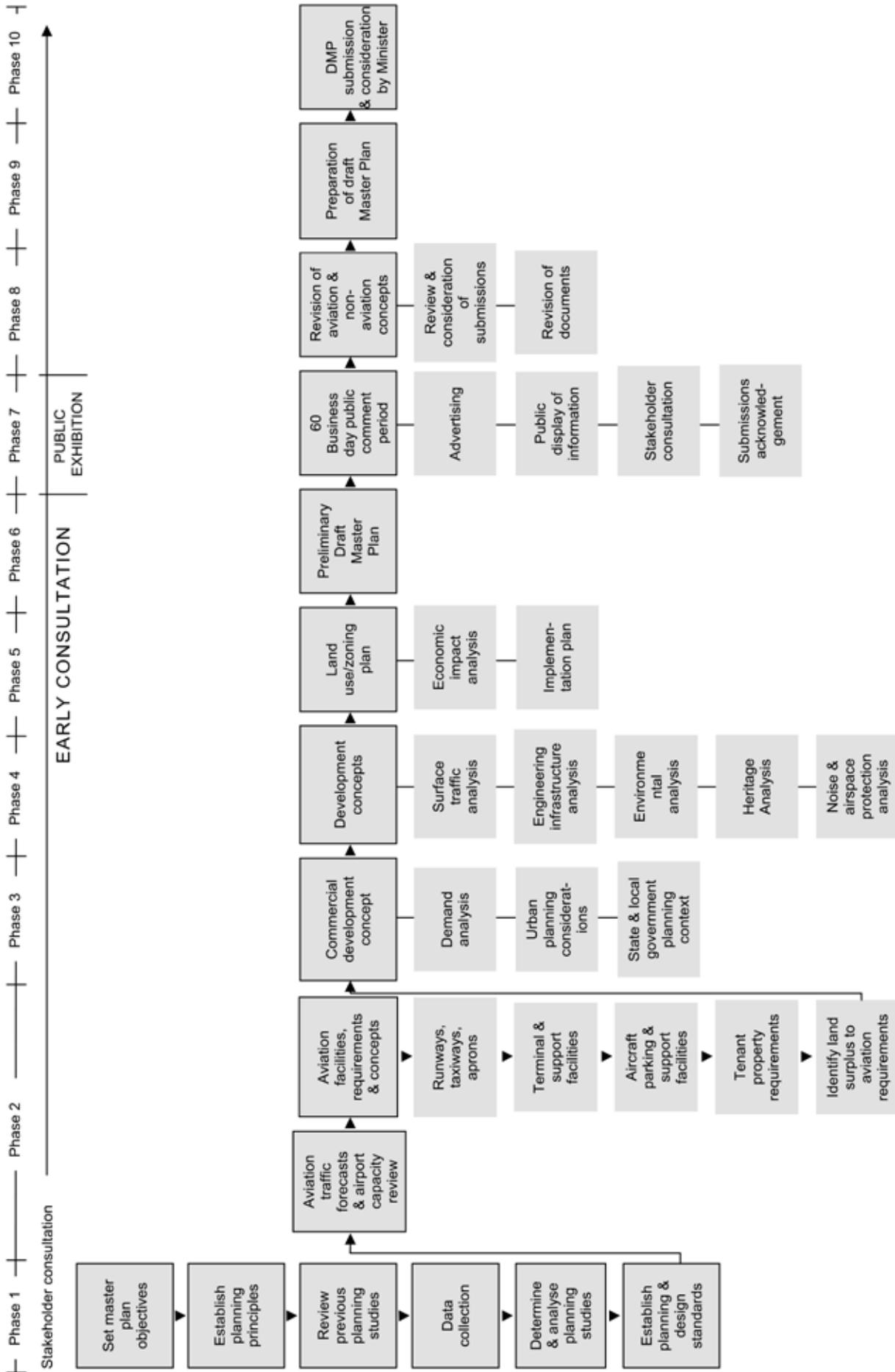
CAL has established the following four objectives for the 2015 MP:

- to fulfil CAL's statutory obligations under the *Airports Act 1996* (Part 5, Division 3, Sections 69 to 87) and the *Airports Regulations 1997* in relation to the preparation of an airport master plan (see **Appendix A**);
- to present CAL's 20 year vision for the Airport to year 2034/35;
- to explain the principles underpinning CAL's proposed Development Concept for Camden Airport (including the Five Year Ground Transport Plan); and
- to present the Airport Environment Strategy (see **Appendix B**).

### 1.4.3 CAL'S airport development objectives

CAL's key objectives for the development of the Airport are to:

- facilitate the efficient use of the existing aviation infrastructure;



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Figure 5 | MP preparation process

- facilitate the growth of aviation activity through the provision of appropriate capacity;
- provide a safe environment for all users, including commercial operators, employees, recreational users and members of the public;
- incorporate high standards of environmental sustainability and social responsibility in all developments;
- improve value and provide employment through the development of land surplus to existing and future aviation activity;
- develop appropriate flexibility within the planning framework appropriate so that CAL can grow;
- develop to reflect potential changes in aviation and non-aviation customer needs; and
- set out a process for ongoing communication and engagement with stakeholders and the wider community on all aspects of the Airport's operations.

The Development Concept for the Airport is presented in detail in Part B of this 2015 MP. In addition to the objectives presented above, the Development Concept is based on a number of more detailed objectives and guiding principles for the development of aviation and non-aviation related land (see Sections 5.3 and 6.2 respectively).

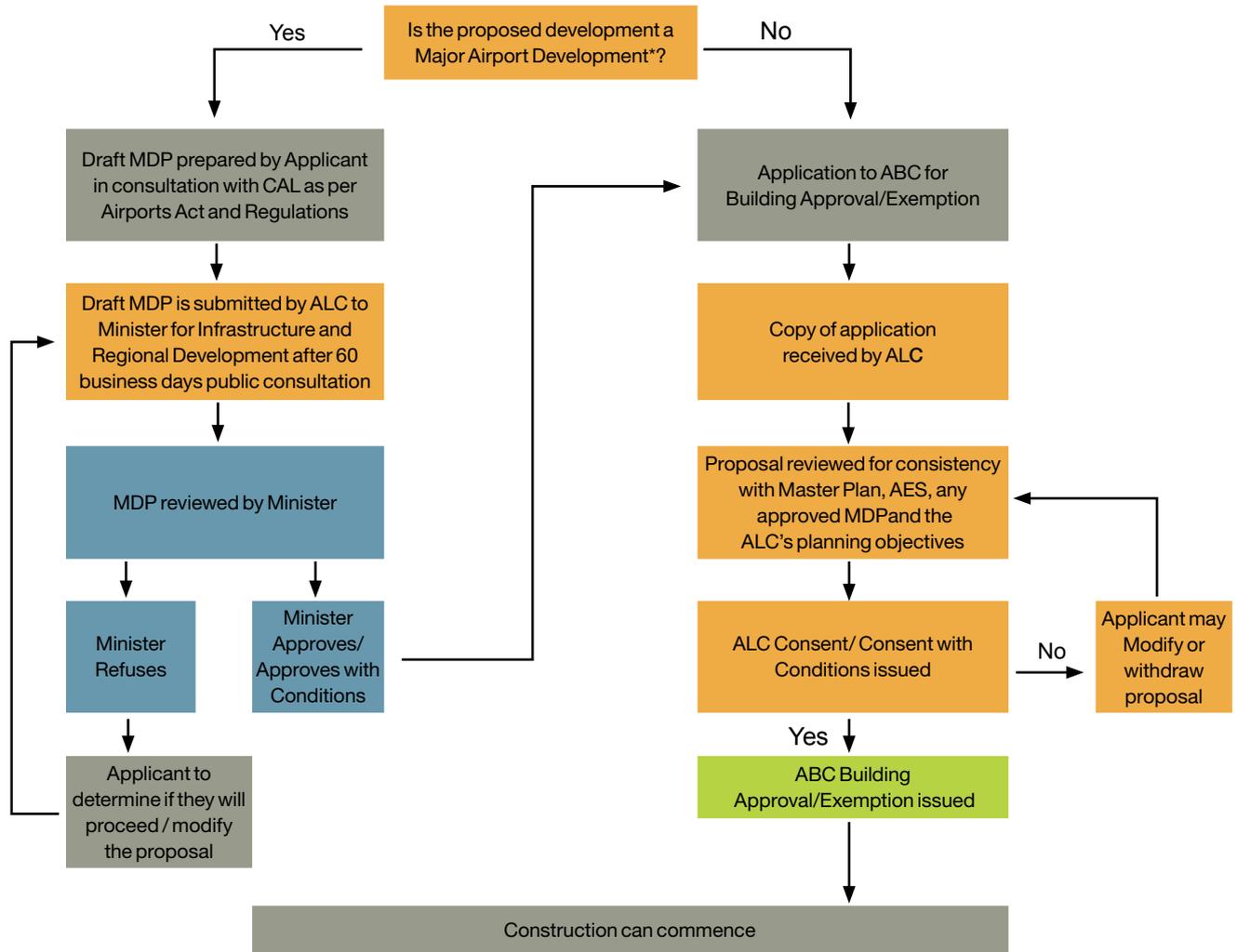
## 1.5 MASTER PLAN STRUCTURE

To facilitate use of this 2015 MP, the document has been divided into three parts as follows:

<b>Part A Master planning context</b>	provides all the contextual information required to understand the 2015 MP for the Airport.
<b>Part B Development concept</b>	presents the Development Concept for the aviation and the non-aviation land.
<b>Part C Planning management</b>	sets out the way in which CAL will manage the transport, economic impacts, environment, heritage and infrastructure arising from implementation of the Development Concept and provides a five year implementation plan for the Airport.

The Airport Environment Strategy, Noise Modelling and Airspace Protection are appendices to this 2015 MP.

Figure 6 | ALC Consent Process under the Airports Act 1996



\* CAL as the ALC can meet with potential applicants Pre-Application to provide guidance in this regard. CAL may require further information or advice in support of a proponent's position that a proposed development does not require a MDP.

ABC	Airport Building Controller
AES	Airport Environment Strategy
ALC	Airport Lessee Company i.e Bankstown Airport Limited (BAL) or Camden Airport Limited (CAL)
MDP	Major Development Plan

Action by ABC
Action by ALC
Action by Applicant
Action by Regulator (ABC or Department of Infrastructure and Regional Development)



# Stakeholder Engagement

- 2.1. Approach to consultation
- 2.2. Key stakeholders
- 2.3. Consultation during the development of the 2015 MP
- 2.4. Public comment period
- 2.5. Submissions received and issues raised in submissions
- 2.6. On-going consultation and engagement

# Stakeholder Engagement

**CAL is committed to continuing engagement with its key stakeholders to assist the day-to-day management of the Airport as well as the preparation of the 2015 MP. CAL uses a wide range of methods to communicate and consult with the wider community and key stakeholders.**

## 2.1 APPROACH TO CONSULTATION

CAL's approach to consultation during the preparation of the 2015 MP has been to engage and inform airport stakeholders and, where possible, the wider community about the development of the 2015 MP and to provide information on the master planning process during its preparation. This consultation informs the key airport stakeholders of the issues of relevance. This approach is consistent with the *Airport Development Consultation Guidelines* (Department of Infrastructure and Transport 2012).

The communications and stakeholder strategy for the 2015 MP was designed to inform and encourage community comment and to ensure that there is clear and transparent communication of the process, proposed changes, and opportunities for comment during the 2015 MP preparation and approval.

## 2.2 KEY STAKEHOLDERS

Consultation with airport stakeholders is a key part of the master plan preparation process. Key stakeholder groups in relation to the Airport are:

- aviation industry tenants, users and industry representatives;
- non-aviation tenants and users;
- the local residential and business communities;
- elected representatives;
- Federal and NSW Government departments and agencies;
- Local Government authorities; and
- various business and community groups.

CAL as the ALC for Camden Airport maintains on-going consultation with the following Commonwealth aviation and environmental agencies:

- the Airports Branch of the Department of Infrastructure and Regional Development which regulates all leased

Federal airports on Commonwealth land. The Branch administers the *Airports Act 1996*, its associated regulations and the airport head lease;

- the Civil Aviation Safety Authority which is responsible for all aspects of aviation safety including regulation of airspace, airport operations and standards compliance, aircraft maintenance and safety of aircraft in flight. The airport operating standards on Camden Airport are set through CASA's *Manual of Standards Part 139 – Aerodromes*. CASA conducts surveillance activity on the Airport;
- Airservices Australia which is the service provider for airspace management and provides air traffic control services on Camden Airport; and
- the Department of the Environment in relation to environmental assessment, biodiversity conservation and heritage protection under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the *Environment Protection and Biodiversity Conservation Regulations 2000* (EPBC Regulations).

## 2.3 CONSULTATION DURING THE DEVELOPMENT OF THE 2015 MP

Consultation and communications during the preparation of the 2015 MP involved:

- consultation with key stakeholders;
- information about the preparation of the 2015 MP included in the regular electronic newsletters *Sydney Metro e-Flyer* and *Aero Update*;
- communication and consultation with the Planning Coordination Forum;
- communication and consultation with the Camden Airport Community Aviation Consultation Group and;
- posting details of the 2015 MP preparation on the Camden Airport website.

These activities are described in the sections below:

### 2.3.1 Consultation with key stakeholders

Letters were sent to various Airport stakeholders (including all levels of Government) on 18 February 2015 advising of the preparation of the 2015 MP. Details of early and formal consultation are provided in **Appendix C**.

CAL representatives met with the organisations and agencies listed in Table 1 during the preparation of the 2015 MP.

**Table 1** | Organisations and agencies consulted

Sector	Organisation and agency
Council	Camden Council
NSW Government	Department of Premier and Cabinet Hon Robert Stokes - Minister for Planning for NSW
Australian Government	Civil Aviation Safety Authority Airservices Australia Department of Infrastructure and Regional Development
Airport and business committees	Planning Coordination Forum Local Emergency Management Committee
On Airport tenants	Camden Airport tenants
Community	Camden Airport Community Aviation Consultation Group

### 2.3.2 Information in the Sydney Metro e-Flyer and Aero Update

CAL prepares its electronic newsletter - the *Sydney Metro e-Flyer* - on a regular basis and it is distributed to approximately 1,200 interested parties.

The electronic *Aero Update* provides aviation specific information particularly for tenants and aviation users.

### 2.3.3 Consultation with the Planning Coordination Forum

CAL operates a Planning Coordination Forum (PCF) as part of its ongoing commitment to consultation and compliance obligations under the *Airports Act 1996*. Members of the PCF include Camden Council, NSW Planning and Environment and the Department of Infrastructure and Regional Development.

The PCF meets annually to discuss on- and off-airport strategic planning matters. Information about the 2015 MP was given to the PCF over the preceding 12 months.

### 2.3.4 Consultation with the Camden Airport Community Aviation Consultation Group

The role of the Camden Airport Community Aviation Consultation Group (CACACG) is to enable stakeholders to be consulted and become involved in issues relating to the master planning of Camden Airport in a constructive and effective manner. CACACG was briefed on the preparation over the preceding 12 months.

### 2.3.5 Information on the Camden Airport website

Details of the 2015 MP preparation process are posted on the Camden Airport website and updated regularly.

### 2.3.6 Notification to NSW Government Ministers and Local Government

As required by section 80 of the *Airports Act 1996*, CAL provided notification of its intention to prepare the 2015 PDMP and to submit the 2015 DMP to the Minister for his consideration, to:

- the NSW Minister for Planning and Environment;
- the NSW Department of Premier and Cabinet (through an agreed whole-of-NSW Government approach);
- the local government authorities surrounding the Airport, namely Camden City Council; and
- other persons as listed in **Appendix 'C'**.

Information was also provided on the proposed public exhibition details and comment invited on the 2015 PDMP.

### 2.3.7 Key issues for stakeholders

The key issues raised by stakeholders in consultation activities undertaken during the preparation and public consultation processes are listed in Table 2. This table also indicates where each issue is addressed in this 2015 MP.

**Table 2** | Issues raised by stakeholders in consultations during preparation of the 2015 PDMP

Key issues	Sector of the DMP
Impact of Sydney West Airport on Camden Operations	3.5
Location of the Airport in close proximity to the South Western Growth Centre in the NSW Governments's 'A Plan for Growing Sydney'	6.3.2
Continued access by Water NSW to Sharpes Weir for operational purposes	Appendix B 2.5.3
Camden Airport is listed as an item of local heritage significance	B

## 2.4 PUBLIC COMMENT PERIOD

As required by s. 79(1) of the *Airports Act 1996*, the 2015 PDMP was made available for 60 business days between 24 June and 15 September 2015 for public comment.

### 2.4.1 Notification to key stakeholders and agencies

In addition to notification directly to stakeholders as indicated in Section 2.3, information about the exhibition of the 2015 PDMP and the formal public comment period was provided by:

- notifications in generally circulating and local newspapers (the *Sydney Morning Herald* and the *Camden - Narellan Advertiser*). The advertisements provided information on how the 2015 PDMP may be accessed or purchased, how submissions can be made and closing dates for the receipt of submissions and the public comment period;
- placement of information about the public comment period and the 2015 PDMP on the Camden Airport website in a user-friendly, section-by-section format and supporting information for downloading;
- Contact details for Camden Airport in relation to 2015 PDMP matters have been widely publicised in all written and electronic material, including a freecall 1800 telephone line and email address established to receive submissions; and
- Utilisation of press media by the CAL Chief Executive Officer advising of the 2015 PDMP process and responses to media enquiries.

### 2.4.2 Exhibition and availability of 2015 PDMP

During the 60 business day public comment period, the 2015 PDMP was available through:

- display of the 2015 PDMP document at Camden Airport management office (available 7 days per week 9AM to 3PM);
- display of the 2015 PDMP document and CD version at sites including the local libraries and Camden Council office;
- placement of the 2015 PDMP on the Camden Airport website in a user-friendly format, together with explanatory material for downloading;
- supply of the *Question & Answer* leaflet at different locations, including the Airport, local libraries and Camden Council office;

- distribution of Question and Answer leaflet to households in suburbs adjoining the Airport; and
- distribution of copies of the 2015 PDMP on CD to key stakeholders
- presentation to Camden community groups.

Details of consultation activities undertaken are provided in **Appendix C**.

## 2.5 SUBMISSIONS RECEIVED AND ISSUES RAISED IN SUBMISSIONS

The public comment period of 60 business days concluded on 15 September 2015, however CAL accepted submissions for 65 business days. CAL acknowledged all submissions received by letter, facsimile or email.

The issues raised in the submissions are as follows:

- suggested minor variation to a flight path;
- airspace impacts as a result of developing Western Sydney Airport;
- informing landowners who are either no longer affected, newly affected or affected differently by the endorsed ANEF contours;
- support for the relocation of the Australian Aviation Museum to Camden Airport;
- request the recognition of neighbouring heritage listed items and that the Heritage Management Plan should form part of the DMP;
- that the DMP should reference the 2015 Nepean Flood Study;
- more consideration be given to the relationship between the airport and the increasing population and urbanisation of the Camden LGA;
- notification that bus routes exist on Macquarie Grove Road;
- that Principles for non – aviation development consider public and active transport options; and
- Section 4 of the Airport Environment Strategy could benefit from clarification and further details around: the precise location (with maps); the extent; the quality and; the intended management measures of specific matters.

CAL has carefully considered and has shown due regard to all comments received from stakeholders. Where appropriate,

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the 2015 DMP was revised prior to submitting, as the 2015 DMP, to the Minister for Infrastructure and Regional Development for his consideration under the *Airports Act 1996*.

The changes implemented as a result of demonstrating due regard include:

- Recognition of neighbouring heritage listed items in the AES, (Section 4.6.1);
- Reference to the 2015 Nepean Flood Study is now included in section 10.7 of the DMP;
- Inclusion of the bus routes in section 7.2.3;
- Expand the Traffic Management Principle of Table 13 Principles of non-aviation development, to consider public and active transport options; and
- Table 5 of the AES has been amended to reflect a flora and fauna survey as a key action proposed to be undertaken during the 2015-2020 AES period.

## **2.6 ON-GOING CONSULTATION AND ENGAGEMENT**

CAL is committed to ongoing community and stakeholder engagement during the implementation of the 2015 MP. CAL will continue to consult and engage with its stakeholders through its established consultation and communications processes.

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An aerial photograph showing a rural landscape. In the foreground, there's a green field with a small pond. In the middle ground, there's a cluster of buildings, possibly a school or a small town. To the right, there's a runway and taxiway. The background shows a river and more fields. The image is overlaid with a large green triangle on the left and a teal triangle on the top right.

# Master Plan Context

- 3.1. Historical context
- 3.2. Existing land use and operations
- 3.3. Land use in adjoining and surrounding areas
- 3.4. Master Plan 2010
- 3.5. Camden Airport's role in the Sydney Region
- 3.6. Relationship to the Metropolitan Strategy

# Master Plan context

***The context for the 2015 MP is to guide the management and development of Camden Airport over the next 20 years. This Master Plan is grounded in the Airport's historical evolution and set by the existing on-Airport and nearby land use, the development concept presented in the Master Plan 2010, local and metropolitan planning strategies and aviation planning for the Sydney Region.***

Of the 196 hectares at Camden Airport, 34 hectares are currently leased to around 42 tenants.

The tenants at Camden Airport primarily fall into commercial aviation, recreational aviation and rural categories. Large parts of Camden Airport fall within the 1 in 100 year flood plain.

## 3.1 HISTORICAL CONTEXT

Camden Airport is historically linked to the Macarthur-Onslow family, descendants of John Macarthur, a man widely regarded as the “father” of the Australian Wool industry and linked to the Airport's role during World War II. Camden Airport was constructed in 1935 on the Macarthur-Onslow family property and was initially used as a private aerodrome.

The onset of World War II resulted in the Federal Government purchasing the site. Camden Airport was home to at least seven squadrons that undertook training, anti-submarine, convoy escort, reconnaissance, general air and meteorological roles. A large US Army Air Corp was based and barracked at the Airport.

The key dates and stages in the development of the Airport since 1942 are shown in Table 4.

## 3.2 EXISTING LAND USE AND OPERATIONS

As shown on Figure 7, land at Camden Airport is predominantly used for aviation purposes, with significant areas of land currently unutilised.

A breakdown of land use on the Airport by broad use categories is given in Table 3. Over half of the Airport's land (51 per cent) is reserved for aircraft movement and parking areas as well as aviation-related tenancies. The areas currently devoted to each of these land use categories are shown in Figure 8

**Table 3 | Camden Airport land use**

Land use	Area	
	Hectares	%
Aviation zone	100.0	51.0
Aviation / Business Zone	13.5	6.9
Airport Support Zone	28.5	14.5
Environmentally Significant Zone	54.0	27.6
<b>Total – all areas</b>	<b>196.0</b>	<b>100.0</b>

**Table 4 | Key dates and stages in the development of Camden Airport**

Establishment of Camden Airport and its role in World War II	
1935	Camden Airport was constructed on the Macarthur-Onslow family property and was initially used as a private aerodrome.
War Years	Federal Government purchase of site and the airport housed several squadrons and was used for training, anti-submarine, convoy escorts and reconnaissance and was used by a large US Army Corp
Operation by the Department of Civil Aviation	
1946	Department of Civil Aviation assumed ownership of the airport and the following aviation infrastructure and procedures occurred during the subsequent years;
1946	Runway 06/24 was sealed;
1962	The control tower was built;
1975	Continuous daylight air traffic control introduced;
1978	Taxiway from the apron to the sealed 06/24 runway sealed;
1980	Introduction of General Aviation Airport Procedures (GAAP) in June; and
1988	Airport ownership transferred to the Federal Airports Corporation on 1 January 1988.
The Federal Airports Corporation era	
1988 to 1998	Leasing of various land areas and some buildings for commercial activities.
1990's	Construction of various taxiways and run-up bays
1998	Ownership transferred to Sydney Airports Corporation Limited (SACL).
The Airport develops as a stand alone business	
1998	Transfer, on 1 July, of the ownership of the Airport to CAL - a wholly owned subsidiary of Sydney Airports Corporation Limited (SACL).
2000	Camden Airport fulfilled its role as the main general aviation airport during the Sydney Olympic Games.
2001	Separation of CAL from SACL. CAL becomes a 'stand alone' entity wholly owned by the Commonwealth.
Airport development under CAL's ownership	
2003	Sale of CAL to the BaCH Consortium on 15 December.
2005	Approval of the first Master Plan and Airport Environment Strategy.
2010	Approval Master Plan and Airport Environment Strategy

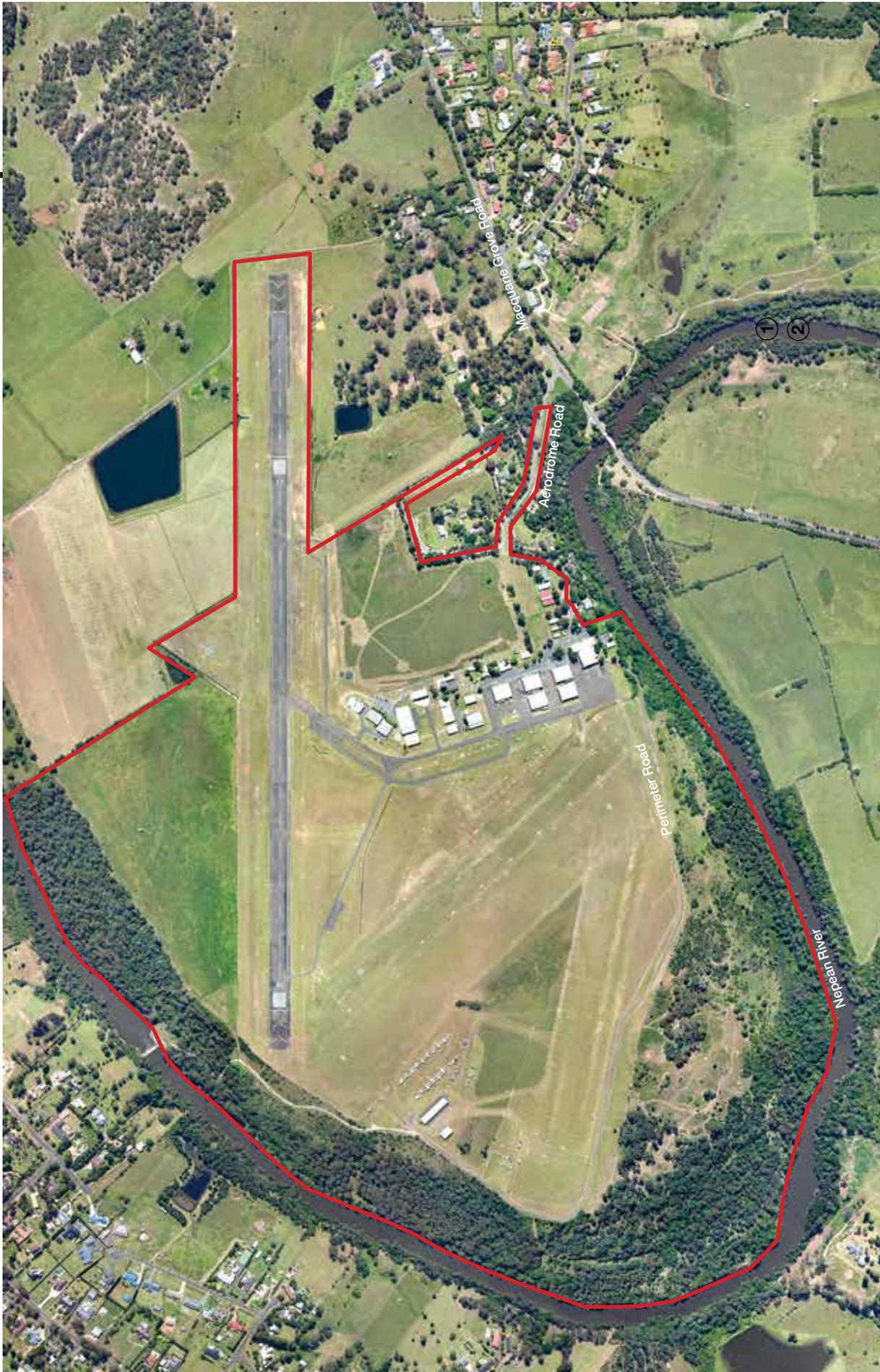


Figure 7 | Aerial photo of Camden Airport

CAMDEN AIRPORT Master Plan 2015

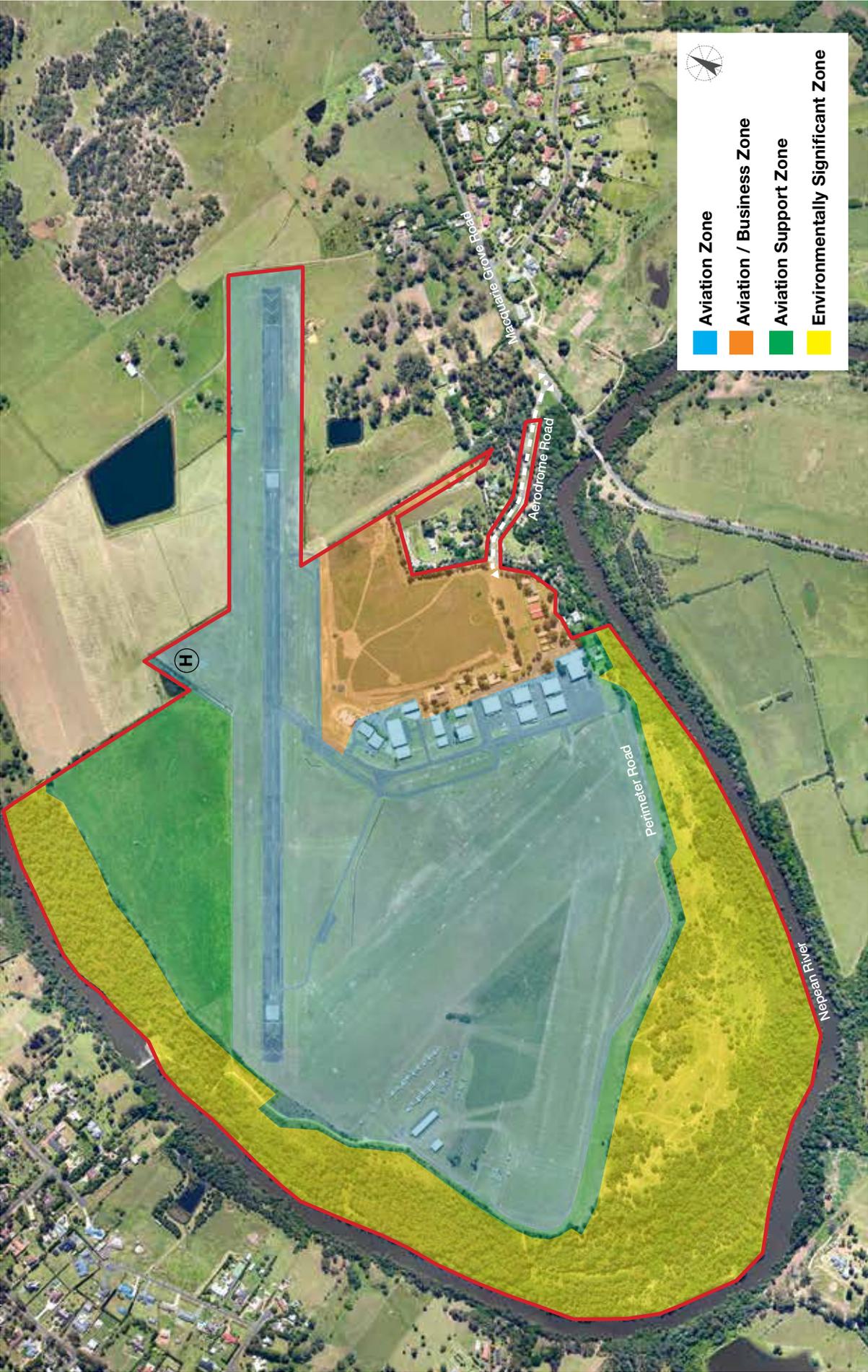


Figure 8 | Airport land zones concept

CAMDEN AIRPORT Master Plan 2015

### 3.3 LAND USE IN ADJOINING AND SURROUNDING AREAS

The land immediately surrounding Camden Airport is relatively undeveloped and predominantly has an agricultural use. The Airport lies adjacent to a Special Use zone (5a) - (retirement village) and Rural zones (1a and 1c).

In summary, the land use in adjoining and surrounding areas includes:

- south, east and north of the Airport – the majority of the land in these directions is used for agricultural purposes, predominantly grazing. The land is sparsely developed from a residential perspective. The Nepean River acts as a buffer between the Airport and these areas; and
- west of the Airport – although the Nepean River also acts as a buffer to the west, the land in this area adjacent to the Airport also incorporates low density residential activity, as well as rural activity.

### 3.4 MASTER PLAN 2010

The key features of Master Plan 2010 are described in the following subsections along with documentation of development achievements on the Airport in the period since 2010.

#### 3.4.1 Aviation development concept

The Aviation Development Concept committed CAL to retain and enhance the long term sustainability and growth of the aviation industry by providing sufficient capacity to meet forecast demand for all forms of General Aviation activity.

Forecasts envisaged aircraft movements growing modestly to around 145,647 in 2029/30, however this is unlikely to be achieved based on current trends.

Key elements of the Aviation Development Concept in Master Plan 2010 included:

- decommissioning of secondary helicopter area which has been completed; and
- taxiway and run-up bays modifications which have not been carried out due to demand not being established.

#### 3.4.2 Non Aviation land development concept

The Non Aviation Land Development Concept was based on the identification of 13.5 hectares of land as being surplus to aviation requirement, open space and environmental reserve requirements.

The elements of the Land Development Concept was based on sustainable development principles and although only minor development has occurred since 2010 it included:

- optimising value through the development of land surplus to aviation activity;
- growing and diversifying the business to improve Camden Airport's long term sustainability and to protect from revenue shocks (e.g. loss of a major tenant, or large scale reduction in aviation activity due to external factors); and
- growing the contribution Camden Airport makes in terms of jobs and economic activity to the local economy.

The Aviation and Non Aviation Land Development Concepts presented in Master Plan 2010 identified impacts of the aviation and land development concepts to be managed. These aspects were:

- surface transport;
- utilities/infrastructure;
- environment management;
- heritage;
- sustainability; and
- aircraft noise.

#### 3.4.3 Airport development achievements since 2010

Since the approval of Master Plan 2010, the following projects have been undertaken:

- Complete rebuild of Helicopter Landing Site;
- Co-located the day time and night time displaced thresholds;
- 2 new glider hangars; and
- placement of ground water wells.

### 3.5 CAMDEN AIRPORT'S ROLE IN THE SYDNEY REGION

Camden Airport is a General Aviation airport, hosting relatively small aircraft operations in the commercial, private, sports and recreational aviation areas. It has a reputation as Australia's leading sports/recreational aviation airport.

In addition to Camden Airport, there are a number of other airports operating within the Sydney Basin. The location and general role of these airports are summarised below and shown in Figure 9. A brief description of the aviation facilities and role of each airport is set out below.

### Sydney Airport

Sydney Airport is the largest airport in the Sydney Region, providing Regular Public Transport (RPT) services to international, interstate and regional destinations. The airport serves as Australia's key gateway to the international air transportation system.

Sydney Airport serves approximately 42 per cent of all international passengers and approximately 45 per cent of all domestic and regional passengers in Australia (*Sydney Airport 2033 Master Plan*, p. 45).

Typical aircraft using Sydney Airport include A380s, B747s, B787s B777s, B767s, B737, A340s and A320s as well as relatively low levels of GA activity such as helicopters, corporate and charters – 6.7 per cent of total aircraft movements at Sydney Airport in 2012 (*Sydney Airport Master Plan 2033*, p.45).

Sydney Airport is located approximately 50 kilometres east from Camden Airport (see Figure 9).

### Bankstown Airport

Bankstown Airport is located 23 kilometres south-west of the Sydney CBD and is the premier multi-use facility in Australia. The airport is located on a 313 hectare site and has three runways.

The main activity at Bankstown Airport is flying training for fixed wing aircraft and helicopters. Bankstown Airport also accommodates large numbers of commercial, charter, freight and corporate GA activity. This Airport also hosts extensive GA support activities such as aircraft sales and maintenance.

### RAAF Richmond

The Royal Australian Air Force's RAAF Base Richmond is 50 kilometres north-west of Sydney CBD. This airport houses the military aviation activities of the RAAF Heavy Lift Group. The airport occupies a 270 hectare site and has a single sealed runway with a length of 2,134 metres.

Some civilian general aviation activity is allowed, including practice instrument landing system (ILS) approaches and gliding activity on weekends. The operation of RAAF Richmond is significant due to the impact it has on air traffic control and airspace management in the Sydney Region.

### Western Sydney Airport

In April 2014, the Australian Government announced that Badgerys Creek will be the site for the new airport in Western Sydney. It is estimated that the first aviation activity could occur in the mid-2020's. However, the timing of the development of initial aviation operations at Badgerys Creek Airport is yet to be exactly determined. As such this 2015 MP does not consider the potential impact Western Sydney Airport may have on Camden Airport over the life of the 2015 MP.

### Other Airports

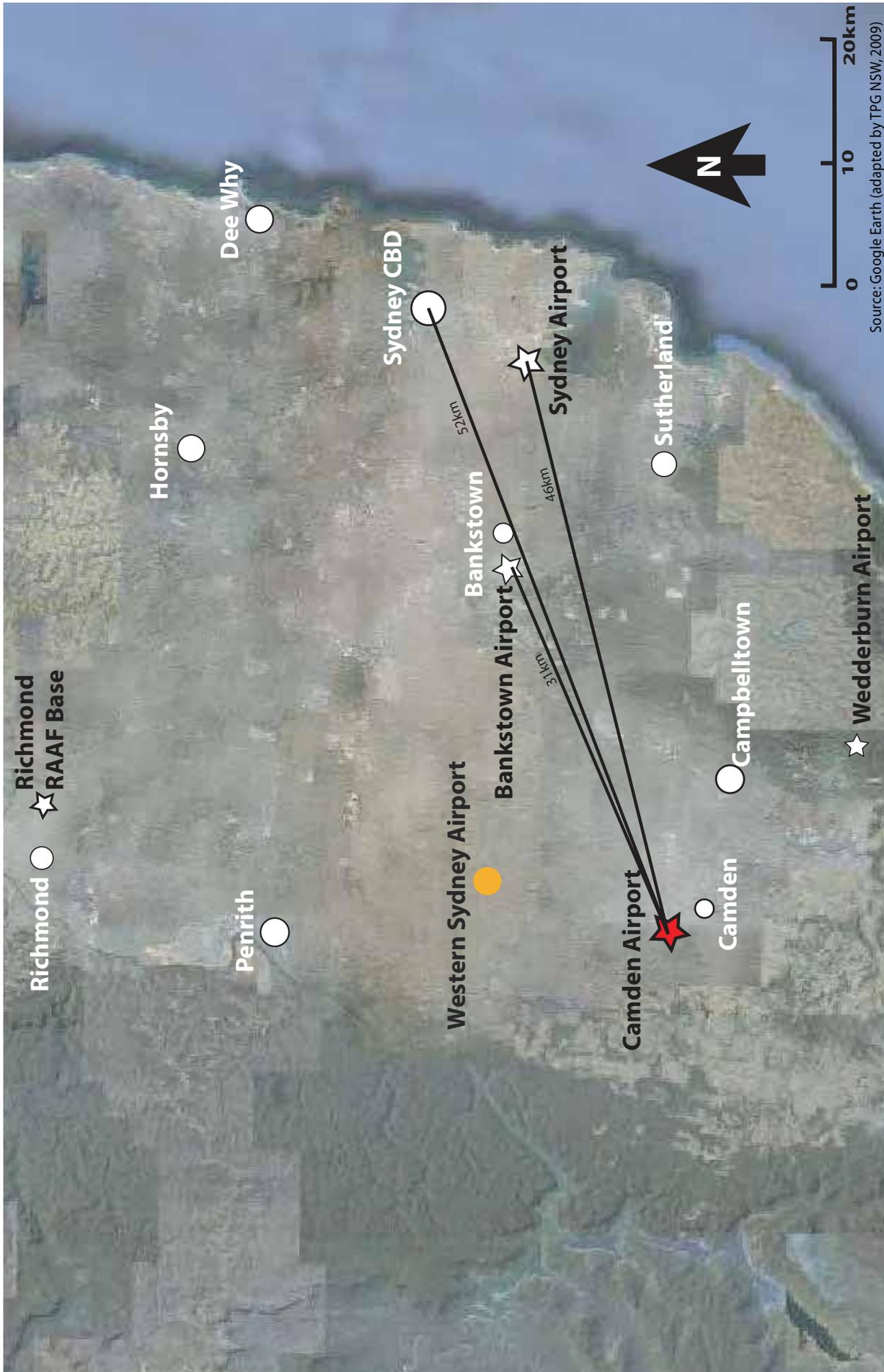
There are a range of other GA airports within the overall region. These include Albion Park, The Oaks, Warnervale, Wedderburn and Wilton. These airports typically provide general aviation facilities and cater for activities such as private flying, flying training and sports aviation.

## 3.6 RELATIONSHIP TO THE METROPOLITAN STRATEGY

A *Plan for Growing Sydney* (the Sydney Metropolitan Strategy) was released in December 2014 and is the NSW Government's 20 year plan for the Sydney Metropolitan Area (see section 6.3.2 for more detail).

Camden Airport, which has not been identified specifically in the Plan, is located in the South West Subregion of the Plan. The priorities and catalysts to housing and jobs in the South West Subregion are shown in Figure 20. Those of most relevance to Camden Airport include:

- Sydney West Airport as a transport gateway will be a catalyst for investment in infrastructure and jobs;
- the South West Growth Centre to the north of Camden Airport will continue to play a key role, particularly Oran Park precinct;
- improved access provided by the South West Rail Link and the proposed investigation of an associated Bringelly Road Enterprise Corridor; and
- a proposed Macarthur South Urban Investigation Area, to the south-east of the Airport.



CAMDEN AIRPORT Master Plan 2015

Figure 9 | Airports in the Sydney Region

A photograph of an airport control tower and hangars, set against a sky with light clouds. The image is framed by large, overlapping geometric shapes in shades of blue and green. The control tower is a tall, cylindrical structure with a glass-enclosed observation deck at the top. In the foreground, there are several large hangars with corrugated metal roofs. The ground is a mix of grass and paved areas.

# Aviation Context

- 4.1. Aviation infrastructure at Camden Airport
- 4.2. Activity types at Camden Airport
- 4.3. Airport users
- 4.4. Airport reference code and design aircraft
- 4.5. Airspace protection
- 4.6. National Airports Safeguarding Framework

# Aviation context

## 4.1 AVIATION INFRASTRUCTURE AT CAMDEN AIRPORT

### 4.1.1 Runways

Camden Airport is served by four runways, two for powered fixed wing aircraft and two for gliders. Table 5 summarises the physical characteristics of each runway.

Runway 06/24 has a sealed asphalt surface and is the main runway for aircraft movements at the Airport. In the 24 direction the threshold is displaced 307 metres. The runway is reserved for powered fixed wing aircraft and meets Civil Aviation Safety Regulations Part 139 standards for a Reference Code 2 runway.

Runway 10/28 is a grass surface crosswind runway. It is principally used by tailwheel landing gear aircraft or when crosswinds on runway 06/24 are excessive. The runway is reserved for powered fixed wing aircraft and can only be used during daylight hours under visual conditions.

There are two grass surface runways at Camden reserved for glider operations. One runway parallels the paved Runway 06/24, while the other parallels the crosswind Runway 10/28. The glider Runway 06/24 has a crushed sandstone base making the runway suitable for all-weather operations. The glider runways are located to the south of the crosswind runway.

None of the runways are equipped with landing aids but an illuminated wind indicator is provided. There is a designated helicopter landing site to the north of Runway 06/24. The location of runways and taxiways is depicted in Figure 7.

### 4.1.2 Aircraft Circulation

Camden Airport has a number of taxiways providing access to the runways, the airport building complex and the main apron. Sealed taxiways provide access to the southern side and centre of Runway 06/24 from the main hangar and apron complex. Dual parallel feeder taxiways extend from the western end of the main apron to near the midpoint of the runway. The dual taxiways enable separation of taxiing aircraft arriving and departing the main apron area. The sealed taxiways have a reported pavement strength of 5,700 kilograms. Grass taxiways provide access from the main apron area to Runway 10/28. In addition, the departure end in the 10 direction is also accessible via a sealed taxiway connecting to Runway 06.

Three additional unsealed grass surface taxiways are in use by powered fixed wing aircraft accessing Runways 06/24 and 10/28. These taxiways include the Runway 06/24 Exit taxiway, located approximately 650m from the Runway 06 threshold, and two taxiways located approximately equidistant along the

north side of Runway 10/28 extending across the two feeder taxiways and connecting with the taxiway leading into the main hangar complex.

**Table 5 | Runways at Camden Airport**

Runway Powered fixed wing	Length (metres)	Width (metres)	Pavement Strength (kilograms)	Tyre Pressure Rating (kilopascals)
Rwy. 06/24 (sealed)	1,464m	30m	5,700 kg	580 kPa
Rwy. 10/28 (grass)	723m	30m	5,700 kg	580 kPa
Gliding Strips				
Rwy. 06/24 (grass)	631m	110m	5,700 kg	580 kPa
Rwy. 10/28 (grass)	692m	110m	5,700 kg	580 kPa

### 4.1.3 Aircraft Storage And Parking

The main aircraft apron opposite the Runway 28 threshold is sealed and is approximately 7,200m<sup>2</sup>. Aircraft parking on the apron is limited due to the need to maintain aircraft access to the hangars fronting on the apron, as well as dual taxi lanes for aircraft circulation. A second apron is located to the west, opposite the grass aircraft parking area and is approximately 884m<sup>2</sup>. Itinerant aircraft parking is available in a 3,000m<sup>2</sup> grass surface parking area.

Two large hangars and open parking for an estimated 40 aircraft support the glider operations on the southern side of the Airport. There are 17 hangar buildings. In addition to aircraft storage, the hangars provide space for a variety of aviation-related activities including aircraft maintenance, flying schools, corporate/executive aviation facilities and freight operations.

### 4.1.4 Airfield Lighting And Nav aids

Runway 06/24 is equipped with single stage, low intensity runway lights. The runway lights may be activated using Pilot Activated Aerodrome Lighting (PAL). Runway 06/24 is also equipped with runway end and threshold lighting as well. Runway 10/28 is unlit. The Airport is equipped with a Non-Directional Beacon (NDB), which supports a circling non-precision approach. The Navigation Rationalisation Project carried by AirServices Australia has identified the Camden NDB will be decommissioned in May 2016.

#### 4.1.5 Support Facilities And Services

Camden Airport offers a cross section of commercial and recreational aviation facilities and services including initial flight training in fixed wing aircraft, helicopters and gliders. The Airport also serves as a base for the Scouting Association for air training and for helicopters involved in supporting seasonal bush firefighting activities.

#### 4.1.6 General Aviation Services

A variety of flight training, aircraft hire and air charter services are available at Camden Airport. There is a single fuel service operator, with bowser services.

Aviation support and service businesses at Camden Airport are summarised in Table 6.

**Table 6 | Camden Airport General Aviation Services**

Service or Activity	Number
Flying Schools and Flight Training	5
Flying Clubs	3
Airport Hangar Storage Facilities	17
Aircraft Hire	1
Air Charter Operations	4

*Note 1: Businesses providing more than one service are counted separately in each service category*

*Note 2: Excludes 15 individual glider storage units*

#### 4.1.7 Other Support Facilities And Services

The Air Traffic Control Tower (ATCT) is located north of the main hangar and apron area on land leased by Airservices Australia. The ATCT operates daily between 8 AM and 6 PM. Firefighting services are provided by off airport state emergency services through the activation of the airport emergency procedures.

### 4.2 ACTIVITY TYPES AT CAMDEN AIRPORT

Camden Airport accommodates between around 200 and 300 aircraft movements per day, with peak activity levels in excess of 300 aircraft movements per day. On average, around 40 aircraft per day are parked in the open areas of the airfield and an estimated similar number in hangars, most of these aircraft are based at Camden Airport. The number of aircraft on the airfield has remained relatively stable over the past four years. The types of aircraft typically using Camden Airport are highlighted in Table 7.

**Table 7 | Aircraft types typically used at Camden Airport**

Aircraft Type	Usage (%)
Turbo-prop	0.5
Other	0.6
Rotary	8.5
Twin-engine piston	3.2
Single-engine piston	87.2
Glider	Unknown
<b>Total</b>	<b>100%</b>

*Source: CAL 2015*

The majority of aircraft identified at Camden Airport (87.2 percent) are single-engine piston aircraft. These aircraft are typically engaged in flying training, private flying and related activities. Rotary aircraft is the second largest category at 8.5 percent. At Camden these aircraft are typically involved in flying training and firefighting. The remaining is split between twin-engine piston, turbo-prop and jet turbine.

### 4.3 AIRPORT USERS

Resulting from the variety of aviation and non-aviation activities and uses at Camden Airport as described in Section 4.2, there is a related variety of airport users. A number of these users are key stakeholders identified in Section 2.2.

The aviation users of the Airport include largely businesses based at the Airport as well as regular private operators. The key user groups include:

- flight training organisations;
- maintenance operators;
- aviation services providers;
- seasonal emergency services agencies; and
- private aircraft owners.

### 4.4 AIRPORT REFERENCE CODE AND DESIGN AIRCRAFT

A Design Aircraft is used as the basis for assessing airport facilities against the operating requirements of the aircraft to determine where changes may be needed. The Design Aircraft selected for Camden Airport is based on a combination of the largest aircraft type that can use the existing infrastructure at Camden Airport and the most demanding aircraft ever likely to use the Airport.

The Design Aircraft also helps to determine which Civil Aviation Safety Authority (CASA) planning and design criteria, as defined by the CASA's *Manual of Standards (MOS)- Part 139 Aerodromes*, should apply to the Airport.

The Design Aircraft selected for use in the 2015 MP is the Embraer EMB-110. It has been selected as the Design Aircraft for this 2015 MP because it provides planning flexibility for Code 2B aircraft which currently can use the Airport and allows the accommodation of all smaller GA aircraft.

The EMB-110 is general purpose twin turbo prop engine aircraft with a wingspan of 15.3 metres and a length of 15.1 metres.

## 4.5 AIRSPACE PROTECTION

### 4.5.1 Importance of airspace protection

The protection of the airspace surrounding airports is a critical component of maintaining a safe operating environment for both current aircraft traffic types and levels as well as for future traffic types and levels. Consequently, it is necessary to restrict some types of development and land uses in the vicinity of airports. This ensures that airspace required to facilitate aircraft operations remains obstacle-free and, as a result, contributes to the safety and efficiency of those operations.

The following airspace protections applying to Camden Airport are discussed in detail in **Appendix D**:

- regional airspace and operating procedures;
- prescribed airspace (OLS and PANS- OPS);
- external lighting limitations; and
- stack and vent efflux limitations.

### 4.5.2 Regional airspace and operating procedures

Airspace within the Sydney Region is dominated by the Sydney Airport Control Zone (CTR) and the requirement to efficiently manage the large volume of domestic and international aircraft movements into and out of Sydney Airport.

The Sydney Airport Control Area (CTA) is comprised of a series of controlled airspace blocks ascending in vertical steps and extending out to a maximum radius of 45 nautical miles (NM) at its greatest dimension. Airservices Australia's Sydney Terminal Control Unit (TCU) provides traffic management and separation within the Sydney Airport CTA and CTR. Aircraft takeoff and landing clearances as well as ground movements are handled by the Sydney Control Tower.

The Bankstown Airport CTR extends 3 NM from the Airport, except where it would overlap the Sydney Airport CTR to the east. To prevent overlapping CTRs, the Bankstown Control Zone is truncated to approximately 2 NM from the Airport. The ability of Bankstown and Sydney Airports to operate independently is predicated on the ability of aircraft using Bankstown Airport to remain within the Airport's CTR and to not infringe on Sydney Airport's airspace.

The Camden Airport CTR extends 2 NM and Class 'D' procedures are used to maintain traffic separation during the hours the control tower is in operation. When the tower is not in operation, common traffic advisory frequency (CTAF) procedures are in affect.

There are six flying training areas within the Sydney Region. The areas are encompassed by a line extending from the western boundary of the Bankstown CTR to the Richmond CTR then to the Blue Mountains, Camden, and back to the Bankstown CTR. The training areas are designated (Class G) uncontrolled airspace which extends from the surface up to the base of the overlying CTA step at 4,500 feet. Camden and Bankstown Airports are reported to be the predominant source of flying training activity using this area.

### 4.5.3 Local airspace and air traffic control

#### Local airspace

Camden Airport operates under Class D Airspace Procedures with a vertical limit of 2,000 feet and a nominal radius of 2 NM.

#### Air traffic control

At Camden Airport, the Air Traffic Control Tower (ATCT) operates daily from 8:00am until 6:00pm. Aircraft wishing to enter the Camden CTR must obtain a clearance from the tower prior to entry. Outside tower hours the CTR reverts to a CTAF.

### 4.5.4 Prescribed airspace

The *Airports Act 1996* requires the production of prescribed airspace plans for airports. Under the *Airports (Protection of Airspace) Regulations*, prescribed airspace is defined as airspace above any part of the obstacle limitation surface (OLS) or PANS-OPS surfaces, whichever represents the lower airspace surface.

The object of prescribed airspace is to ensure that the Airport is not adversely affected by the building of structures in the area used by arriving and departing aircraft. The prescribed airspace plan which represents the OLS and PANS-OPS surfaces gives airport operators guidance in protecting critical surfaces that affect instrument approach minimum altitudes.

### Obstacle limitation surfaces

The OLS's at Camden Airport are defined under the CASA *MOS Part 139 – Aerodromes*, Section 7.3 and they are established in accordance with International Civil Aviation Organization (ICAO) specifications. The OLSs comprise a series of imaginary surfaces in the airspace surrounding an airport which must be kept free and clear of obstructions that could be hazardous to aircraft taking off or landing at the facility. The surfaces are intended to prevent development of airspace obstructions that could adversely impact air navigation or the usability of the facility.

Extending from the end of each runway, the OLS standards define both a 'take - off climb' surface and an 'approach surface' for landing. Where take - offs and landings may occur in either direction along a runway, the more restrictive surfaces should be used in determining obstacle height restrictions.

### PANS-OPS

The PANS OPS surfaces (used when flying by instruments rules) cover all current approaches based on conventional radar navigation aids at Camden Airport. Future procedures for the Airport have been considered and consequently, to preserve future options, GNSS RNAV (reliant on instruments) precision and non-precision approach surfaces have been identified for protection.

Any precision approach will need to be determined by Airservices Australia taking into consideration the interface with the future Western Sydney Airport, Sydney Airport airspace and the schedule, fleet mix and aircraft type.

### Changes to the OLS and PANS-OPS

The proposed aviation development concept for the period to 2035 (see Section 5.4) does not envisage any changes to class 'D' operations. however it recognizes the NDB approaches will be withdrawn in May 2016.

### 4.5.5 Restrictions to external lighting

CASA provides airport operators with guidance on protecting aircraft operations from adverse impacts resulting from ground lighting, particularly during the landing phase of flight. Furthermore, under Regulation 94 of the *Civil Aviation Regulations 1988* (CAR 1988), CASA has the authority to require lights which may cause confusion, distraction or glare to pilots in the air to be extinguished or modified.

To assist developers, lighting designers and installation contractors in the vicinity of airports, CAL has prepared a plan highlighting maximum lighting intensities in areas surrounding Camden Airport (see **Appendix D**). External advertising, sportsfield floodlighting and street lighting are some of the

more likely lighting sources requiring consideration. CAL will consult and liaise with Camden City Council and other Councils as appropriate, on the most appropriate control mechanism.

### 4.5.6 Stack and vent efflux

The CASA *Advisory Circular AC 139-05(1)* November 2012 provides stakeholders with guidance for screening and assessing by CASA of possible adverse impacts of vertical exhaust plumes on aircraft operations near the Airport. The hazards addressed in the Advisory Circular are typically associated with industrial processes.

At Camden Airport, there are no known sources of gas efflux or plumes that would constitute a hazard to aircraft operating at the Airport. The *Airports Act 1996* also provides for protection of airspace against stack and vent efflux. CAL will consult and liaise with Camden Council on the most appropriate mechanism so that stack and vent efflux does not adversely impact on Airport operations.

## 4.6 NATIONAL AIRPORTS SAFEGUARDING FRAMEWORK

The National Airports Safeguarding Framework is a national land use planning framework that aims to:

- improve community amenity by minimising aircraft noise-sensitive developments near airports including through the use of additional noise metrics and improved noise-disclosure mechanisms; and
- 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 Framework is comprised of the following, with relevant sections in this 2015 MP:

- principles, and guidelines;
- measures for managing impacts of aircraft noise (section 5.5);
- the risk of building generated windshear and turbulence at airports (section 1.3.2, as this issue is considered in CAL's airport lessee Company consent approval process for on-Airport proposals);
- the risk of wildlife strikes and actions in the vicinity of airports;

- 
- the risk of wind turbine farms as physical obstacles to air navigation;
  - the risk of distractions to pilots from lighting in the vicinity of airports (section 4.5.5); and
  - the risk of intrusions into the protected airspace of airports (section 4.5.4).

It is the responsibility of each State jurisdiction to implement the Framework into their respective planning systems. Land use planning in the area surrounding the Airport is the responsibility of local government. CAL will continue to liaise with and advise Camden City Council concerning specific off-airport development proposals.

## **PART B**

# AVIATION DEVELOPMENT PLAN



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# Aviation Development Plan

- 5.1. Aviation development plan
- 5.2. Proposed aviation requirements
- 5.3. Aviation development concept
- 5.4. Key elements of the aviation development concept
- 5.5. Aircraft noise management

# Aviation Development Plan

CAL’s traffic forecasts envisage aircraft movements growing from around 94,000 in 2013/14 to around 112,000 in 2034/35. These levels are significantly lower than:

- the forecast included in the 2010 Master Plan of around 146,000 by 2029/30; and
- the historical high of around 134,000 recorded at the Airport in 1992/93.

The Aviation Development Concept includes:

- improving operational and land use efficiency for aviation purposes; and
- matching the supply of aviation infrastructure to demand.

## 5.1 AVIATION DEVELOPMENT PLAN

### 5.1.1 Aviation Forecast Considerations

Traffic forecasts are critical to an airport master planning process as they form the basis of facilities requirements over the 20 year planning period. The aviation traffic forecasts for Camden Airport for the 2015 MP were developed, taking into consideration the following issues:

- the existing Camden Airport GA traffic, based on historical growth patterns;
- current and projected economic conditions and industry-specific factors;
- traffic that may transfer to Camden Airport from other airports within the Sydney Basin; and
- review of limited available empirical evidence in relation to aircraft activity, sales activity and flight alternatives from various national and international sources such as Airservices Australia, General Aviation Manufacturers Association, Recreational Aviation - Australia, and the Bureau of Infrastructure, Transport and Regional Economics.

### 5.1.2 Historic air traffic patterns

While the annual number of aircraft movements at Camden Airport have fluctuated over the past 5 years activity is unlikely to reach the historical high of 134,000 movements experienced in 1992/93 or the 20 year forecast of 145,600 movements contained in the 2010 Camden Airport Master Plan.

Figure 11 sets out annual aircraft movement numbers over a five year period between 2009/10 and 2013/14. The Figure

identifies a traffic high of 110,000 aircraft movements in 2011/12 with the trend line virtually unchanged for that period sitting at approximately 99,000 movements. The comparison between fixed wing and rotary activity in Figure 12 also indicates that Fixed activity has reduced over the past 4 years whilst rotary activity has grown and maintained its activity levels.

Figure 11 | Recent aircraft movements at Camden Airport

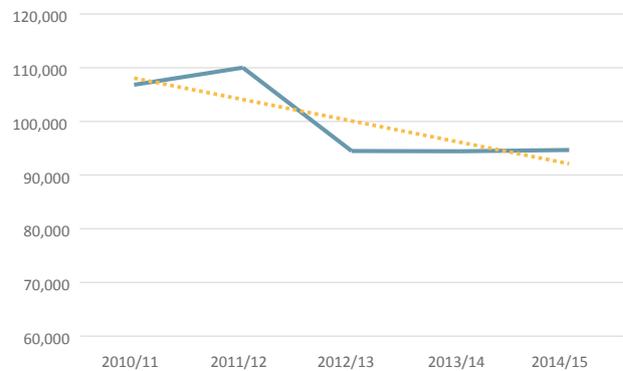
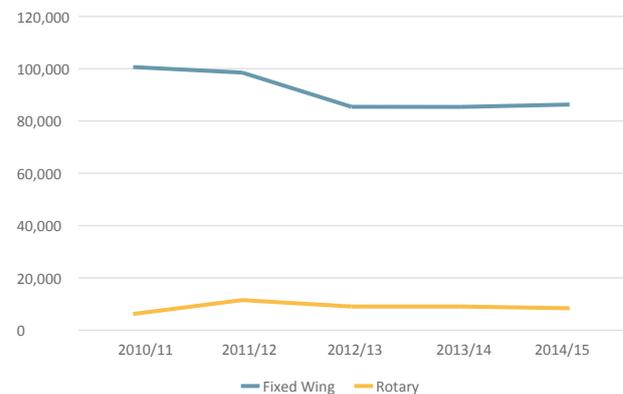


Figure 12 | Fixed wing / Rotary activity split



### 5.1.3 Aviation traffic forecast

The aircraft movement’s traffic forecast for Camden Airport is presented in Table 8 and Figure 13. Over the twenty year planning period, traffic is forecast to grow to approximately 112,300.

The average annual growth rate over the planning period is forecast to be 0.89% per cent.

The key aspects of the traffic forecast include:

- continuation of flat or minor negative growth for the next three years; and

- long-term low level growth between from 2017/18 and 2034/35 averaging one per cent per year including some years of cyclical negative growth.

**Table 8 | Camden Airport Aircraft Movements**  
(Actual and Forecast) – 2009/10 To 2034/35

Year	Aircraft Movements (per annum)	% change (per annum)
09/10 (actual)	88,255	39.2%
10/11 (actual)	106,830	21.0%
11/12 (actual)	110,018	3.0%
12/13 (actual)	94,488	-14.1%
13/14 (actual)	94,438	0.0%
14/15 (actual)	94,678	0.2%
15/16	93,026	-1.5%
16/17	93,026	0.0%
17/18	93,491	0.5%
18/19	93,595	0.5%
19/20	94,898	1.0%
20/21	96,322	1.5%
21/22	98,248	2.0%
22/23	99,722	1.5%
23/24	101,218	1.5%
24/25	102,230	1.0%
25/26	103,252	1.0%
26/27	104,285	1.0%
27/28	104,285	0.0%
28/29	103,763	-0.5%
29/30	103,763	0.0%
30/31	104,801	1.0%
31/32	106,373	1.5%
32/33	108,500	2.0%
33/34	110,670	2.0%
34/35	112,331	1.5%

*Note: Data prior to 09/10 not appropriate to use as it was not recorded in a consistent manner.*

## 5.2 PROPOSED AVIATION REQUIREMENTS

A key step in the preparation of this 2015 MP has been the determination of the land and facilities required to accommodate the forecast level of aircraft movements presented in Section 5.1.

The facilities requirements analysis process involved reviewing the traffic forecast-driven requirements against existing facilities to determine which facilities need to be upgraded or provided and the most efficient way in which any upgraded or additional facilities can be provided.

Inclusion of any proposed aviation facilities in the 2015 MP does not give approval to proceed with any changes. Rather, inclusion in the 2015 MP is the first step in the approvals process. The key aspects of the facilities requirement analysis are set out below.

### 5.2.1 Proposed aviation infrastructure requirements

The existing Camden Airport runway and taxiway system is described in Section 4.1. The annual operational capacity of the runway system has been previously estimated at 210,000 aircraft movements per annum.

The traffic forecasts project that, by 2034/35, annual aircraft movements will reach approximately 112,000. This level of forecast traffic suggests activity levels to be well below the Airport's estimated maximum annual capacity. As a result, no airport capacity increases are required or proposed through to the end of the Master Plan period.

Based on the Design Aircraft identified in Section 4.4, runway and taxiway geometry and separations meeting Aerodrome Reference Code 2B standards will apply to those movement and operations areas where activity by the largest aircraft types is expected to occur. While other lesser standards have been applied to other areas of the Airport, the standards used will reflect the Reference Code for the largest aircraft expected to use those facilities on a regular basis.

On the basis of the demand forecast, only the following minor changes to the aeronautical infrastructure are required:

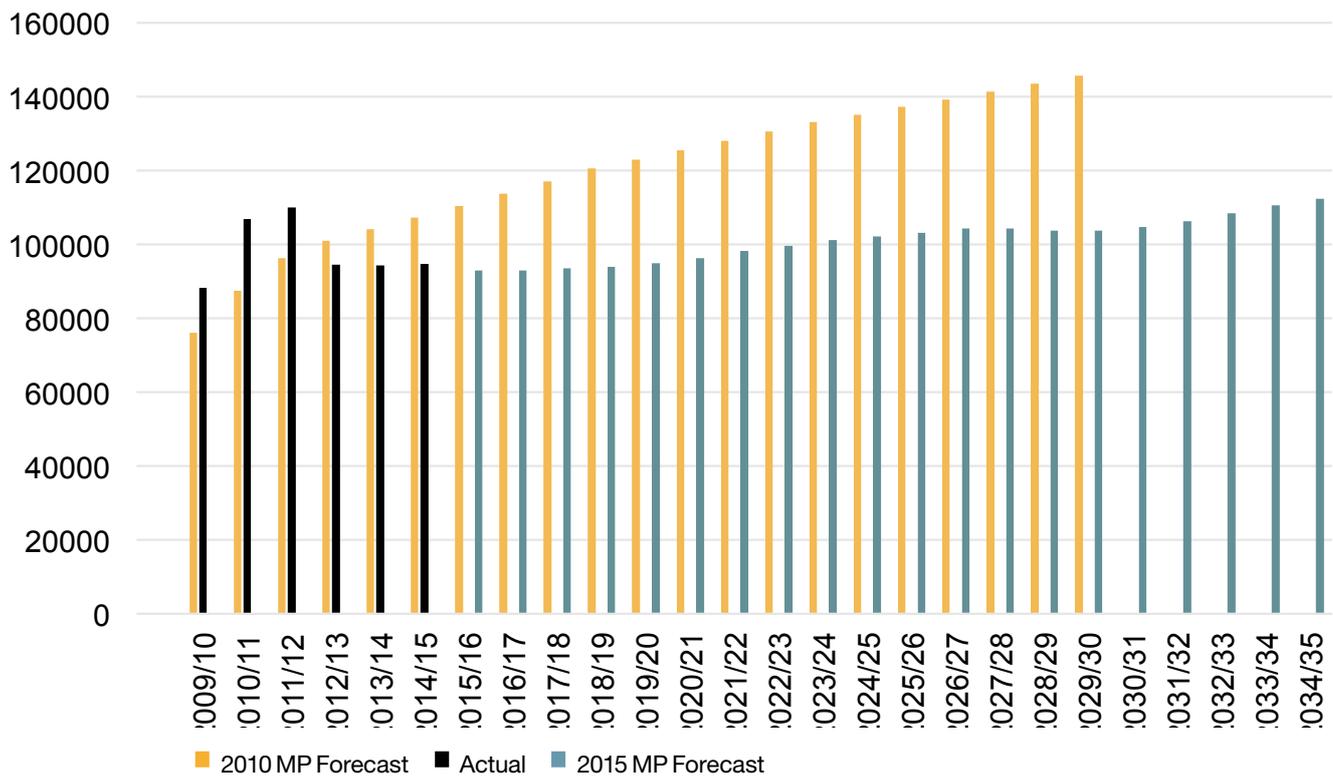
- Implement a naming protocol for the existing taxiway system;
- Implementation of Movements Area Guidance Signs (MAGS) for the taxiway system;

## 5.3 AVIATION DEVELOPMENT CONCEPT

### 5.3.1. Planning objectives and principles

CAL's key objectives and principles underpinning the planning process for the preparation of the Aviation Development Concept for Camden Airport are presented in Tables 9 and 10 respectively.

**Figure 13 | Camden Airport – Aircraft movements 2009/10 to 2034/35**



**Table 9 | Planning objectives**

Objective	Comment
<b>Business objectives</b>	
To meet current and future general aviation needs of greater Sydney.	<p>Although all aspects of GA activity are important to CAL, particular emphasis has been placed on following key aspects:</p> <ul style="list-style-type: none"> <li>• facilitating Camden Airport’s vital role in pilot training; and</li> <li>• facilitating the development of Camden Airport as a glider and sports aviation activities for GA and smaller aircraft.</li> </ul>
<b>Other aviation-related objectives</b>	
To maintain safe and secure operations	<p>CAL is determined to maintain its record of safe and secure aviation operations. Apart from statutory, regulatory and licence obligations to do so, CAL believes that maintenance of its reputation as a safe airport is a key business continuity and customer attraction issue.</p>
To meet CAL’s statutory and regulatory obligations	<p>CAL intends to meet the statutory requirements of airport ownership contained within the <i>Airports Act 1996</i>, and the <i>Civil Aviation Safety Regulations</i>. CAL will also ensure that all developments are planned after taking into account local and state planning frameworks and regulations.</p> <p>These business and aviation objectives are consistent with the zoning of the Airport site for ‘air transport facility’ under the Camden LEP 2010. The Regional Planning Context within which the Airport is situated is described in Section 6.3.</p>

**Table 10 | Aviation-related planning principles**

Aviation-related principles	Comment
Matching supply of aviation infrastructure to forecast demand	The principle of matching the supply of aviation infrastructure to demand has been adopted in the 2015 MP. Variations to aviation infrastructure will be planned according to demand (subject to consultation and regulatory requirements) and the following principles.
Utilisation of existing facilities	Given the facilities at Camden Airport, this 2015 MP has adopted the principle of using existing facilities where possible.
Selection of design aircraft	The aviation planning underpinning this is based on the selection of a design aircraft – that is, the largest aircraft likely to use the Airport on a regular basis. Selection of a design aircraft is based on traffic forecasts and consultation with aviation industry tenants and users. The design aircraft then sets the parameters for runway and taxiway lengths and widths, as well as appropriate setbacks and other operational constraints.
Efficient transport management and access	Aviation tenants and users at Camden Airport require an efficient road network for operator and customer access to business premises and key aviation facilities. This 2015 MP includes a Ground Transport Plan for the next five years.

**Table 11 | Development Concept - land use allocations**

Land use areas	Existing land use area (hectare) March 2015 <sup>1</sup>	Zoning areas	
		2010 Master Plan	2034/35 Development Concept
Environmentally Significant Zone	54.0	54.0	54.0
Aviation Zone	100.0	100.0	100.0
Aviation Business/Zone	13.5	13.5	13.5
Airport Support	28.5	28.5	28.5
<b>Total</b>	<b>196.0</b>	<b>196.0</b>	<b>196.0</b>

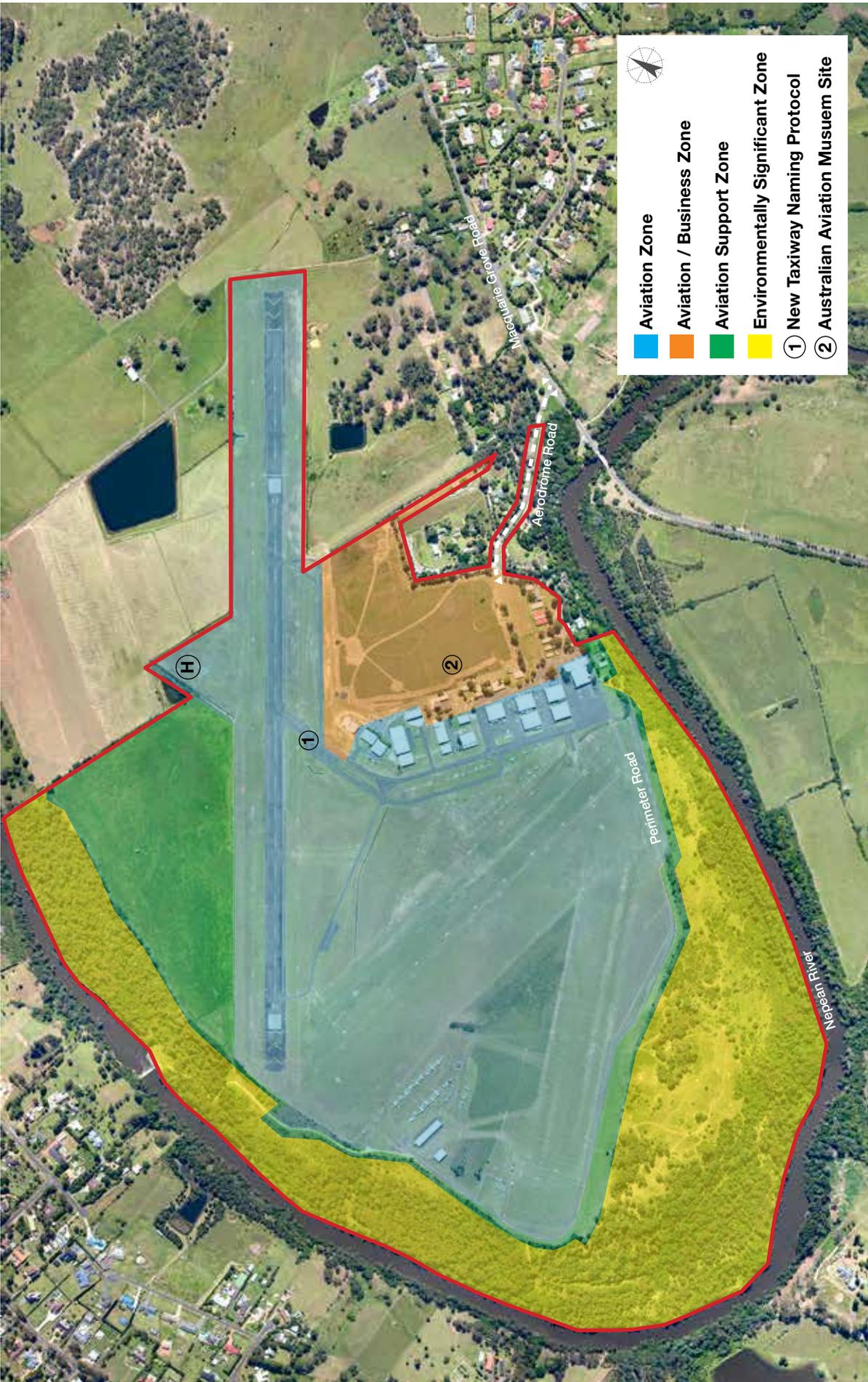


Figure 14 | Development concept and land use zoning

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### 5.3.2 Airport development concept

The Camden Airport Development Concept is presented in Figure 14. From an aviation perspective, the Development Concept highlights all of the areas to be reserved for aircraft operations, aircraft movement and parking and airside tenant requirements. The Concept also highlights areas that can and will be used for aviation purposes when required. Table 11 shows the proposed land use allocations in the 2034/35 Development Concept, relative to existing land use and the allocated land use areas in the 2010 Master Plan.

The proposed 2034/35 Development Concept maintains the area of the Aviation zone at 100 hectares.

In addition and to provide further flexibility for potential aviation uses, this 2015 MP includes the Aviation/Business Zone. The Aviation/Business Zone applies to land totaling 13.5 hectares to the east of the runway complex for aviation/aviation related or business uses.

Land as allocated in this 2015 MP has the capacity to cater for all existing and forecast aviation activity. As discussed below, the Aviation Development Concept reflects to the objectives and principles set out in Section 5.3.1.

### 5.3.3 Consistency with objectives and principles

#### Objectives

As set out below, the Aviation Development Concept meets all of the objectives presented in Table 9:

- to meet current and future general aviation needs of greater Sydney; and
- supporting all forms of GA aviation currently operating on Camden Airport including flight training, glider activity, rotary operations, joy/ adventure flights and private flight activities.

#### Principles

As noted below, the Aviation Development Concept is consistent with the principles in Table 10.

- matching of supply and demand for aviation infrastructure to forecast demand

Where required by demand, the Aviation Development Concept includes the provision of additional aviation infrastructure, including increased aircraft parking area, new hangar and build of an aviation museum.

- utilisation of existing facilities

To the extent possible, the Aviation Development Concept

uses existing facilities. efficiency of transport management and access.

- selection of the design aircraft

Utilising code 2B as the design parameters for the aviation infrastructures ensures current and future aviation infrastructure will meet the needs of aviation users to 2034/35.

- Efficient transport management and access

The inclusion of a Ground Transport Plan ensures that the ground transport requirements of the Aviation Development Concept are considered and managed.

## 5.4 KEY ELEMENTS OF THE AVIATION DEVELOPMENT CONCEPT

The facility improvements and modifications identified in the facility requirements analysis have been integrated into the proposed Development Concept for the Airport. These improvements and modifications are summarised below.

### 5.4.1 Prescribed airspace

Prescribed airspace maintains the current approaches, until the decommissioning of NDB procedures scheduled to occur in May 2016. The PANS-OPS and Obstacle Limitation Surfaces (OLS) standards are aligned for Code 2 aircraft to Runway 06/24 and Code 1 for other runways.

### 5.4.2 Operating Hours

Camden Airport operates 24 hours per day however the vast majority of aircraft operations occur during hours of daylight.

### 5.4.3 Runways

#### Runway 06/24

No enhancement to runway 06/24 is anticipated within the twenty year planning period as the runway length exceeds the need of Code 2 aircraft. Whilst Code 2 aircraft may exceed the 5,700 kilos maximum take-off weight (MTOW) currently applying to this runway, CAL has only received a small number of requests to land code 2 aircraft in excess of 5,700 kg MTOW over the past ten years and as such an increase to runway strength is not required.

#### Runways 10/28 and glider runways

These grass surfaced runways are designed to facilitate Code 1 aircraft. As the majority of aircraft operating on Camden airport are Code 1 the design of these runways meets the current and future needs of the aviation industry and their preference to use these runways in preference to the main runway.

#### 5.4.4 Taxiway enhancements

The planned taxiway enhancements are:

- Initiate a taxiway naming protocol; and
- Placement of Movement Area Guidance Signs (MAGS).

#### 5.4.5 Aircraft parking and storage

The requirements for aircraft parking and storage are:

- maintaining the general aviation grass/light aircraft parking as it meets demand forecasts; and
- maintaining the general aviation sealed apron parking as it meets demand forecasts.

#### 5.4.6 Helipad

The 2015 MP incorporates the retention of the designated Helicopter Landing Site (HLS) on the northern side of the airfield. The designated HLS will continue to meet the needs of the existing helicopter operators based at the Airport. As the existing operational procedures will continue to apply, there will be no need for new arrangements and flight paths to be defined in association with Airservices Australia. Larger helicopter arrival and departure can also take place from the runways.

#### 5.4.7 Non-directional beacon

Airservices Australia has notified that the non-directional beacon (NDB) at Camden Airport is scheduled to be decommissioned in May 2016 as part of its Navigation Rationalization Project.

#### 5.4.8 Airport fuel farm

This 2015 MP includes the retention of a single aircraft fuel storage with good airside access to support diverse aviation operations.

#### 5.4.9 Tenant facilities

The planned tenant facility improvements are:

- accommodation of existing tenant activity to the end of the planning period; and
- provision of space to accommodate the increase in aircraft hangars and aviation support facilities consistent with the demand forecasts.

#### 5.4.10 Airservices Australia and support facilities

Airservices Australia has provided detailed current and future navigational system and air traffic control planning

and technical standards and critical zones/siting criteria for developments. These are acknowledged and will be taken into account in the assessment of future developments through an aviation study. Airservices Australia will be consulted on developments that may impact on navigational aids or other operational facilities.

### 5.5 AIRCRAFT NOISE MANAGEMENT

#### 5.5.1 Modelling of aircraft noise

Modelling of the noise impact of aircraft operations has been undertaken for the following reasons:

- to fulfill the requirement for an Australian Noise Exposure Forecast (ANEF) in an Airport Master Plan under the *Airports Act 1996*;
- to assist the community to understand the noise impacts associated with the endorsed 2015 ANEF included in this 2015 MP, and
- to assist in land use planning.

Details of the aircraft noise modeling undertaken for this 2015 MP are presented in **Appendix E**.

The role of noise modelling in land use planning is described in *Australian Standard AS2021-2015: Acoustics - Aircraft noise intrusion - Building siting and construction* which advises on the acceptability of building sites for various uses based on ANEF zones.

An ANEF, which was endorsed for technical accuracy by Airservices Australia on 12 June 2015, is provided as part of this 2015 MP (see Figure S3).

In addition to the preparation of an ANEF, CAL conducted additional noise modelling to assist the community and airport stakeholders to better understand the impact of aircraft noise. This additional modelling involved the following:

- use of N60 modelling – as although not a formal requirement under the *Airports Act 1996*, guidance from the Australian Government recommends that General Aviation (GA) airports such as Camden Airport also use noise metrics based on the number of aircraft noise events to assist the community to better understand the impacts of aircraft noise; and
- use of flight path maps as – the *Airports Act 1996* requires the provision of flight path movement maps in airport master plans to demonstrate where aircraft fly. CAL commissioned flight path maps for all aircraft. This map is presented in **Appendix E**.

The noise modelling methodology used in this 2015 MP is the Integrated Noise Model (INM) to prepare ANEF contours and N60 maps. The INM model, ANEFs and N60s are described in **Appendix E**.

### 5.5.2 2015 ANEF for 2034/35

The 2034/35 ANEF contours based on forecast air traffic are shown in Figure 15. This 2034/35 ANEF was endorsed for technical accuracy by Airservices Australia on 12 June 2015 as shown in **Appendix E**.

The 2034/35 ANEF prepared as part of this 2015 MP includes 20, 25, 30 and 35 ANEF contours. In terms of the significant ANEF contours, the 35 ANEF contour is contained wholly within the Airport's boundary. The 30 ANEF contour only exceeds the Airport's boundary slightly northeast and north west of the Airport. At the eastern end of the Airport, the 30 ANEF contour extends over areas mostly used for rural purposes' while at the western end the 30 ANEF contour extends over an area that just crosses over the Nepean River zoned as residential area.

In regard to managing the significant ANEF contours, CAL will ensure that development on the Airport will be compliant with the provisions of Australian Standard 2021-2000 for any new development. In relation to land outside the Airport, CAL has advised Camden Council of the land to be affected and the requirements of Australian Standard 2021-2015.

The Noise Management Plan adopted in 2012 and the further actions in Section 5.5.4 also address measures for managing noise, Council's consideration to prevent inappropriate development in the areas of significant contours and to ensure that any other development will be constructed to meet AS 2021-2015.

### 5.5.3 Changes in aircraft noise exposure

#### Changes between the 2029/30 and 2034/35 ANEFs

The main changes reflected in the 2015 ANEF for 2034/35 (see Figure 16) compared to the previously endorsed 2010 ANEF for 2029/30 result from:

- the overall reduced aircraft movement numbers; and
- variation to the aircraft type percentage;

The flight paths, ANEF and N60 contours provided in **Appendix E** have been prepared on the basis of the current Class D airspace procedures which are expected to remain in place in the foreseeable future. The ANEF contours and N60 maps are prepared on the aircraft type category, runway strip end use and day-night assumptions set out below. Flight track assumptions have been developed in consultation with Airservices Australia (Camden Air Traffic Control).

Helicopter flight tracks reflect CAL's *Noise Management Plan and Fly Neighbourly Procedures*, which are to climb as soon as possible within the Airport perimeter as instructed. This means helicopter circuits and arrivals and departures will continue to be undertaken on the northern side of the airfield, as they are currently.

#### Comparison of N60s

Similar to the comparison between the current and proposed ANEF contours, a comparison between the 2029/30 N60 contours and the 2034/35 N60 contours has been developed and is shown in Figure 17. The outcome is positive with the elimination of the 200 N60 event contour and an overall reduction in the areas impacted by 20, 50 and 100 N60 events in the environs of the Airport.

Where the N60 contours have increased this is a result of improved modelling software compared to the 2010 Master Plan, in particular capacity to model a greater variety of aircraft use for glider towing as well as improved topography inputs.

These N60 contours reflect a better guide to assess noise impacts on the community.

### 5.5.4 Noise Management Plan and actions

CAL's Noise Management Plan (NMP) documents noise management initiatives that are undertaken as well as proposed future initiatives in relation to planning and operation. The NMP recognises that changes to the noise environment may occur for a variety of reasons and CAL commits to undertake an assessment of impacts when such changes occurs. CAL will update the ANEF in conjunction with the next Master Plan in five years.

CAL intends that the Camden Airport Community Aviation Consultation Group (CACACG) will have an ongoing and enhanced role consultative role in the monitoring of the NMP (see below).

CAL's Action Plan for aircraft noise management is as follows:

- planning – CAL will advise Camden Council of the extent of land affected by aircraft noise. CAL will work with Council to ensure that any new development in areas affected by the ANEF contours is undertaken in compliance with AS 2021-2015 having regard to the applicable ANEF contour(s) and the type of development. CAL has established a Planning Coordination Forum with Camden Council and the NSW Department of Planning and Environment. This Forum meets annually or as required to discuss Airport and development activities.

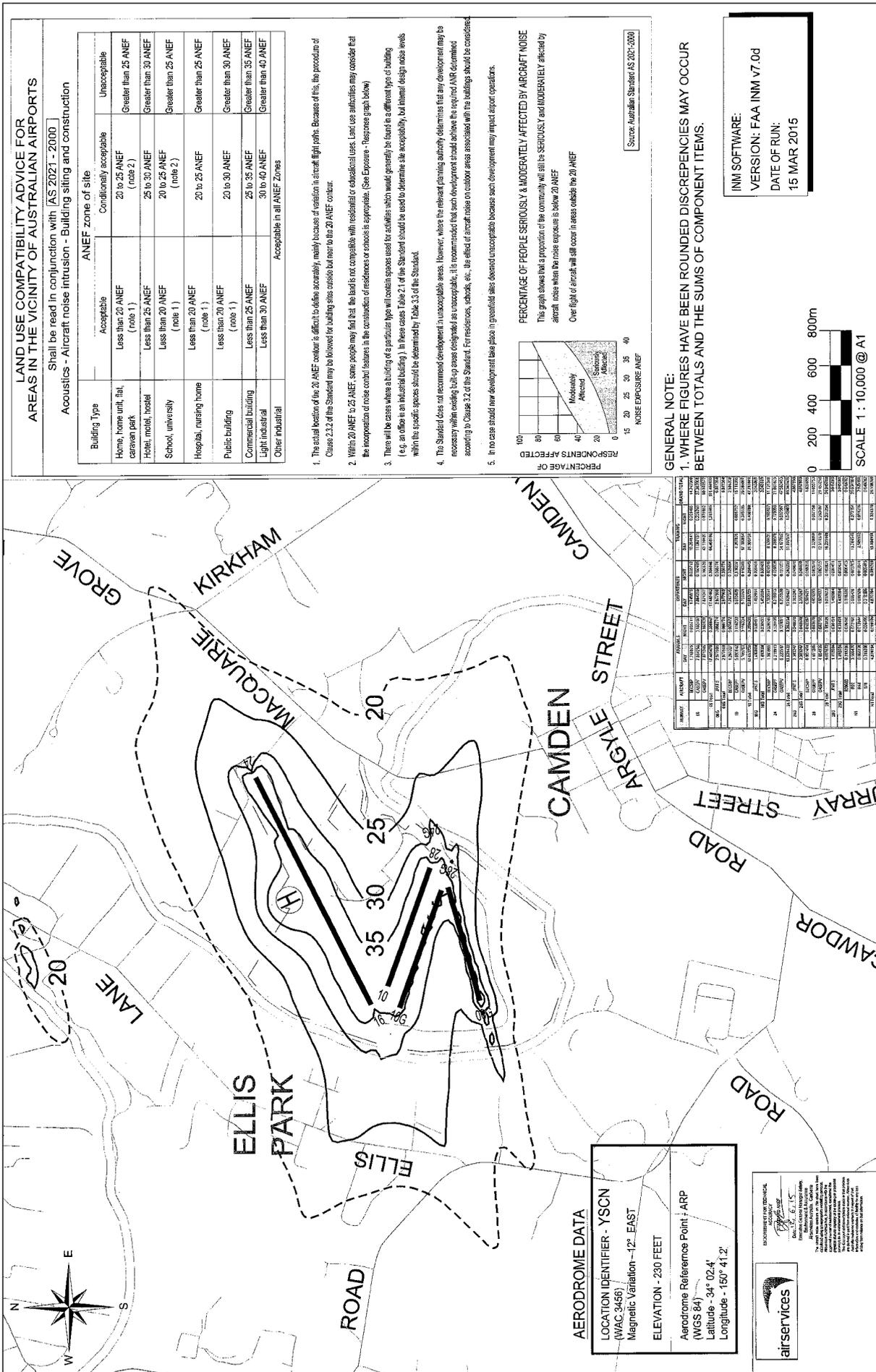


Figure 15 | Camden Airport 2034/35 ANEF

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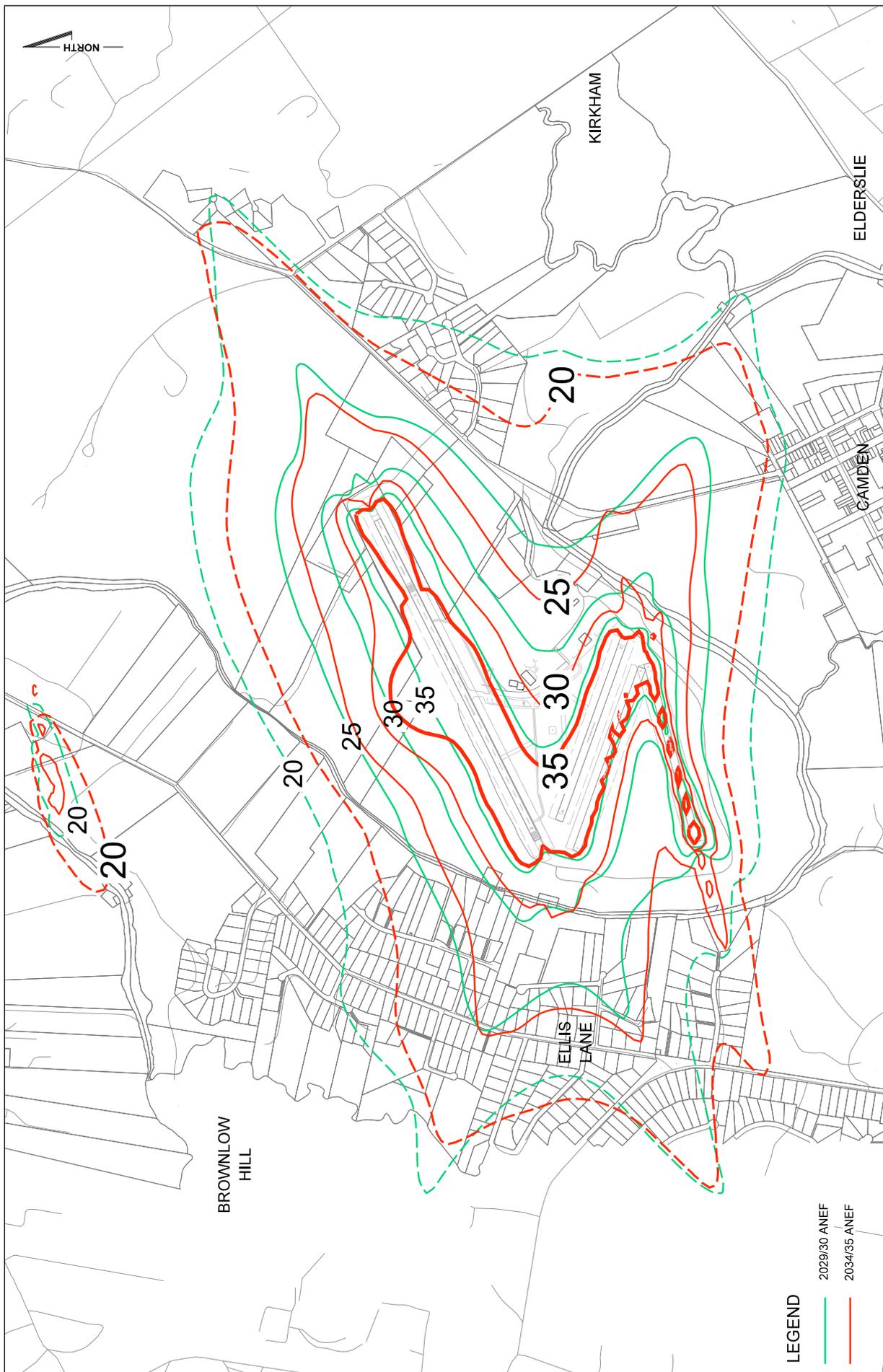


Figure 16 | ANEF Comparison

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This provides an additional avenue for detailed land use planning and liaison on noise to supplement the CACACG;

- ground running - CAL has issued Aircraft Engine Ground Running Guidelines (2013) to manage the impact of noise associated with ground based aircraft operations. These Guidelines have been distributed to all operators at the Airport and are available on the Airport's web site. There are dedicated run-up bays on the Airport (see Section 4.1.2);
- aircraft noise management - *Fly Neighbourly Procedures* for both fixed and rotary wing aircraft using Camden Airport is a voluntary code of conduct implemented by CAL to encourage the minimisation of noise in the vicinity of the airport. Fixed wing pilots are encouraged to:
  - △ Climb as soon as possible to minimise noise over residential areas;
  - △ Reduce engine revs as soon as possible;
  - △ Avoid flying over residential areas, hospitals and schools when possible. Endeavour to be above 1,000 ft when flying over residential areas, hospitals and schools; and
  - △ Keep circuits as compact as possible - do not fly wide circuits.
- Helicopter operators are encouraged to:
  - △ Climb as soon as possible to minimise noise over residential areas;
  - △ Use rates of climb and descent that minimise noise over residential areas;
  - △ Avoid blade slap by using slower, steeper descents;
  - △ Maintain correct tracks after take-off; and
  - △ Try to avoid flying over residential areas, hospitals and schools when departing from or approaching a landing site (or conducting circuit training). Always fly above 500 ft, and endeavour to be above 1,000 ft when flying over noise sensitive areas.
- CAL communicates this procedure and publishes it in a variety of airport media;
- complaints procedure – CAL will continue to monitor noise complaints made to the Airport and Airservices Australia and will report routinely to CACACG through a formal protocol as a means of identifying problem areas and investigating solutions in consultation with the community. As well as consultation with CACACG, complaints received directly by CAL will be dealt with on a case-by-case basis and will be forwarded to CASA and Airservices Australia where appropriate. CAL will also work with the Aircraft Noise Ombudsman within Airservices Australia, if required;
- alert the community to Aircraftnoise.com.au, an initiative of Airservices Australia and the Australian Airports Association and supported by the Aircraft Noise Ombudsman and aviation industry. This website has information on the causes and reporting of noise at airports and how the industry is working together to manage it;
- community consultation – CAL will continue active involvement in consultation with the community via the CACACG and associated bodies on issues relating to noise with assistance from Airservices Australia and CASA to respond to noise and other operational issues; and
- adventure flight operators are required to notify CAL of commencement of their operations and CAL considers the potential noise impacts of these operations.

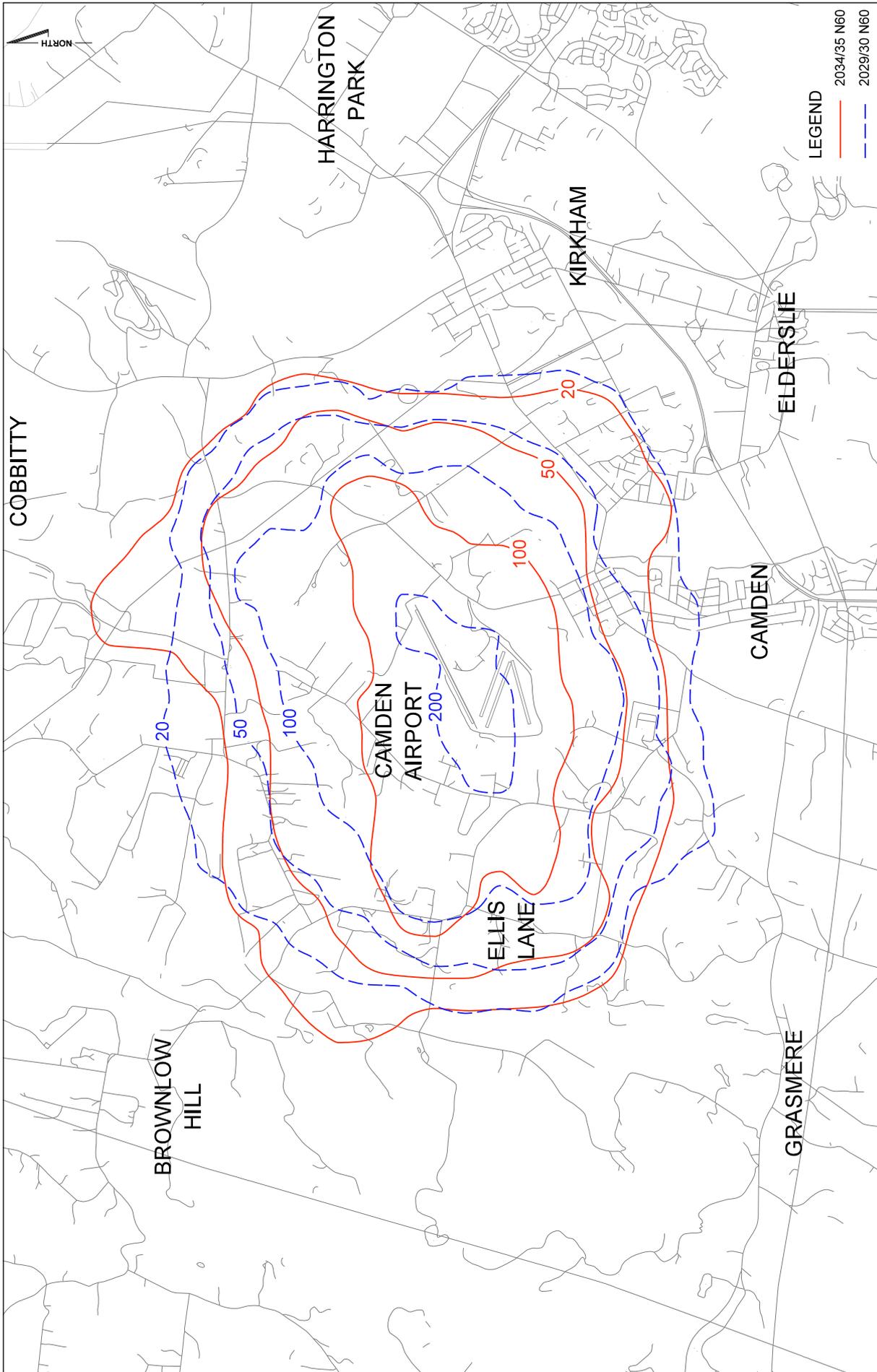


Figure 17 | N60 Comparison

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# Non-aviation Development Concept

- 6.1. Approach to preparation of the non-aviation development concept
- 6.2. Key objectives and principles
- 6.3. Regional and local planning context
- 6.4. Zoning
- 6.5. Built form and urban design
- 6.6. Existing use rights

# Non-aviation development concept

**The Non-Aviation Land Development Concept proposed for Camden Airport is presented as part of the overall Development Concept. The Concept for Camden Airport is based on the availability of land zoned as aviation / business and is not expected to be significant in scale.**

## 6.1 APPROACH TO PREPARATION OF THE NON-AVIATION DEVELOPMENT CONCEPT

The Non-Aviation Land Development Concept proposed for Camden Airport is presented as part of the overall Development Concept 2034/35 in Figure 14.

As shown in the master planning process chart (see Figure 5), the Development Concept 2034/35 for Camden Airport started with determining the land required for aviation purposes as presented in Chapter 5. Once the Aviation Development Concept was determined, land identified as being surplus to aviation was considered for the Non-Aviation Development Concept.

In accordance with the requirements of the *Airports Act 1996*, the 2015 MP:

- incorporates the objectives and associated principles for development of non-aviation land;
- specifies CAL's intentions for land use and development and establishes a strategic planning framework to guide the long term development of the site;
- implements land use zones with associated objectives reflecting CAL's stated landside aims and consistent with the *NSW Standard LEP Template* to the extent possible in **Appendix F**;
- notes that through the *Camden Airport Urban Design Guidelines 2009*, built form and development guidelines and controls will be applied where relevant to assist in achieving the proposed land use objectives; and
- provides a process whereby relevant objectives and guidelines will be considered in the assessment of any development proposal on the Airport.

Known potential proposals are listed in section 11.2 of the 2015 MP and are subject to the relevant airport-lessee company consent assessment process which will include consultation with appropriate stakeholders.

## 6.2 KEY OBJECTIVES AND PRINCIPLES

### 6.2.1 Key objectives for non-aviation development

This 2015 MP presents a comprehensive master plan for Camden Airport to provide the planning and development

framework for Airport tenants and users, other key stakeholders and the wider community. The 2015 MP sets out the existing building approval, application for airport-lessee company consent and environmental assessment processes. Land on the Airport is developed either by CAL or by a sub-lessee.

CAL's objectives for the non-aviation development on the Airport are shown in Table 12.

**Table 12 | Objectives for non-aviation development at Camden Airport**

Objective	Comment
To consolidate Camden Airport's role as an activity hub	A key objective for CAL is to optimise the contribution that Camden Airport makes to jobs and economic activity in Camden and South West Sydney.
To enhance value	The development of land surplus to aviation activity will ensure that value is enhanced for CAL's shareholders and businesses located on the Airport.
To grow and diversify the business	The growth and diversification of non-aviation development on the Airport will contribute to CAL's long term sustainability and reduce the impact of revenue shocks such as the loss of a major tenant or large scale reduction in aviation activity due to external factors.
To integrate with metropolitan planning policies and land use in surrounding areas	A key objective is for non-aviation development to complement metropolitan and regional planning strategies and to integrate with surrounding areas and the local community.

### 6.2.2 Key principles for non-aviation development

In achieving the objectives outlined above, CAL proposes to adhere to the principles presented in Table 13.

**Table 13 | Principles for non-aviation development**

Principle	Comment
Compatibility with aviation operations	Any non-aviation development is to be compatible with aviation activity – for example, taking into account appropriate prescribed clearances, prescribed airspace requirements and aviation risk considerations and to ensure the safety and security of persons at the Airport in general.
Sustainability	Property developments are to adopt high levels of environmental and social sustainability by striving to use resources in an efficient manner while meeting the expectations of stakeholders including government regulators, employees, tenants, investors and the broader community with regard to financial, social and environmental performance.
Development planning	Developments are to be planned taking into account local and State planning regulations where relevant and other relevant matters identified in the <i>Bankstown Airport Urban Design Guidelines</i> as reviewed from time to time and posted on the Airport website.
Traffic management	Developments are to be planned to take into account traffic impacts on external road systems, residential areas in the vicinity of the Airport and public transport / active transport options.
Conservation of heritage items	Key heritage elements of Camden Airport are to be conserved in accordance with the <i>Camden Airport Heritage Management Strategy</i> . Any new development will consider and respect heritage issues.
Open space and environmental areas	The Non-Aviation Development Concept is to be implemented having regard to the Environmentally Significant site addressed in Section 4.5 in the <i>Camden Airport - Airport Environment Strategy 2015</i> . Adequate open space areas and landscaping will be provided by each development proponent.
Community consultation	Development proposals will be subject to CAL's <i>Airport Lessee Consent Consultation Policy 2014</i> as reviewed time to time, which takes into account the potential impacts and scale of developments. Consultation will include the Camden Airport Community Aviation Consultation Group and the Planning Coordination Forum.
Flooding and stormwater	Developments are to be planned to take into account the guidelines identified in Section 10.7.

## 6.3 REGIONAL AND LOCAL PLANNING CONTEXT

### 6.3.1 Regulatory requirements

Regulations under the *Airports Act 1996* require that, in relation to the development objectives for the Airport, the 2015 MP must address the extent (if any) of consistency with planning schemes in force in NSW. For the landside part of the Airport, the 2015 MP must 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 NSW.

Notwithstanding this requirement, it should be noted that:

- land use and planning within the Airport site is regulated under the *Airports Act 1996* and not under the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act);

- where the term 'development' is used in this 2015 MP, it describes a 'building activity' and associated land use as set out in the *Airports Act 1996* and associated Regulations (rather than the definition of 'development' in the EP&A Act);
- where the term 'public utility undertaking' is used in the land use zonings in this 2015 MP, it describes the provision of infrastructure services such as electricity, gas, telecommunications, water, sewer, stormwater and fuel rather than the definition in the NSW *Standard Instrument (Local Environmental Plans) Order 2006*; and
- this 2015 MP contains definitions of land use types in **Appendix F**. Many definitions are the same as those in the Standard LEP Template, however, not all Standard Template definitions were suitable. **Appendix F** clarifies where Standard LEP Template definitions have been adopted and where other Master Plan specific terms are used.

### 6.3.2 Relationship to NSW planning policy and planning instruments

Although the Airport's future land use and planning is regulated under the *Airports Act 1996* (and not under the EP&A Act), it is essential that an understanding of the NSW planning policy and its associated planning instruments as they relate to Camden Airport is included in this 2015 MP.

#### Environmental Planning and Assessment Act 1979

The statutory planning framework in NSW is provided through the EP&A Act. In addition, there are other NSW Acts that deal with planning issues including the *Heritage Act 1977*, the *Protection of the Environment Operations Act 1997*, and the *Water Management Act 2000*. The EP&A Act and the planning instruments created under it are administered by variously the NSW Government and relevant local councils.

#### A Plan for Growing Sydney

The Minister for Planning, through the Department of Planning and Environment, is responsible for state and regional policy direction within NSW.

*A Plan for Growing Sydney* (the Sydney metropolitan strategy) was released in December 2014 and is the NSW Government's twenty-year plan for the Sydney Metropolitan Area. It is to be read in conjunction with the NSW Government's *Long Term Transport Master Plan and Rebuilding NSW – State Infrastructure Strategy 2014*.

With approximately 1.6 million more people expected in metropolitan Sydney over the next twenty years, *A Plan for Growing Sydney* (the Plan) identifies Sydney as a strong global city with planning principles which are increasing housing choice around all centres, stronger economic development in strategic centres and transport gateways and connecting centres with a networked transport system. The Plan identifies two CBDs (Central Business Districts) Sydney-North Sydney and Greater Parramatta.

There is a renewed focus on Western Sydney supported by investment of infrastructure including improved roads, the South West Rail Link and the proposed Western Sydney Airport.

Subregional planning together with local councils is the next stage in planning, in order to prepare subregional plans to implement the Plan. The Greater Sydney Commission will be tasked with the responsibility to drive implementation of the Plan and its actions, including delivery of 664,000 additional homes and 689,000 new jobs across the metropolitan area. Camden Airport is in the South West Subregion, the fastest growing subregion in Sydney.

Camden Airport has not been identified specifically in the Plan. The priorities and catalysts to housing and jobs in the South West Subregion are shown in Figure 18. Those of most relevance to Camden Airport include:

- Western Sydney Airport as a transport gateway will be a catalyst for investment in infrastructure and jobs;
- the South West Growth Centre will continue to play a key role, particularly Oran Park;
- improved access provided by the South West Rail Link and the proposed investigation of an associated Bringelly Road Enterprise Corridor, and
- a proposed Macarthur South Urban Investigation Area.

#### Draft South-West Subregional Strategy

The *Draft South-West Subregional Strategy* was exhibited in 2008. It translated the objectives of the then NSW Government's *Metropolitan Strategy and State Plan* to the subregional level. The *Draft Strategy* noted that the Camden Airport Master Plan (2004-05) identified surplus land at Camden Airport that could be used for employment uses. The *Draft Strategy* has been superseded by the new subregional definition and priorities in *A Plan for Growing Sydney* above and will be superseded by the proposed subregional plan.

#### South West Growth Centre

The South West Growth Centre is approximately 17,000 hectares in size and includes parts of the Liverpool, Camden and Campbelltown local government areas. It is divided into 18 Precincts that are being progressively released for planning and rezoned for sustainable urban development.

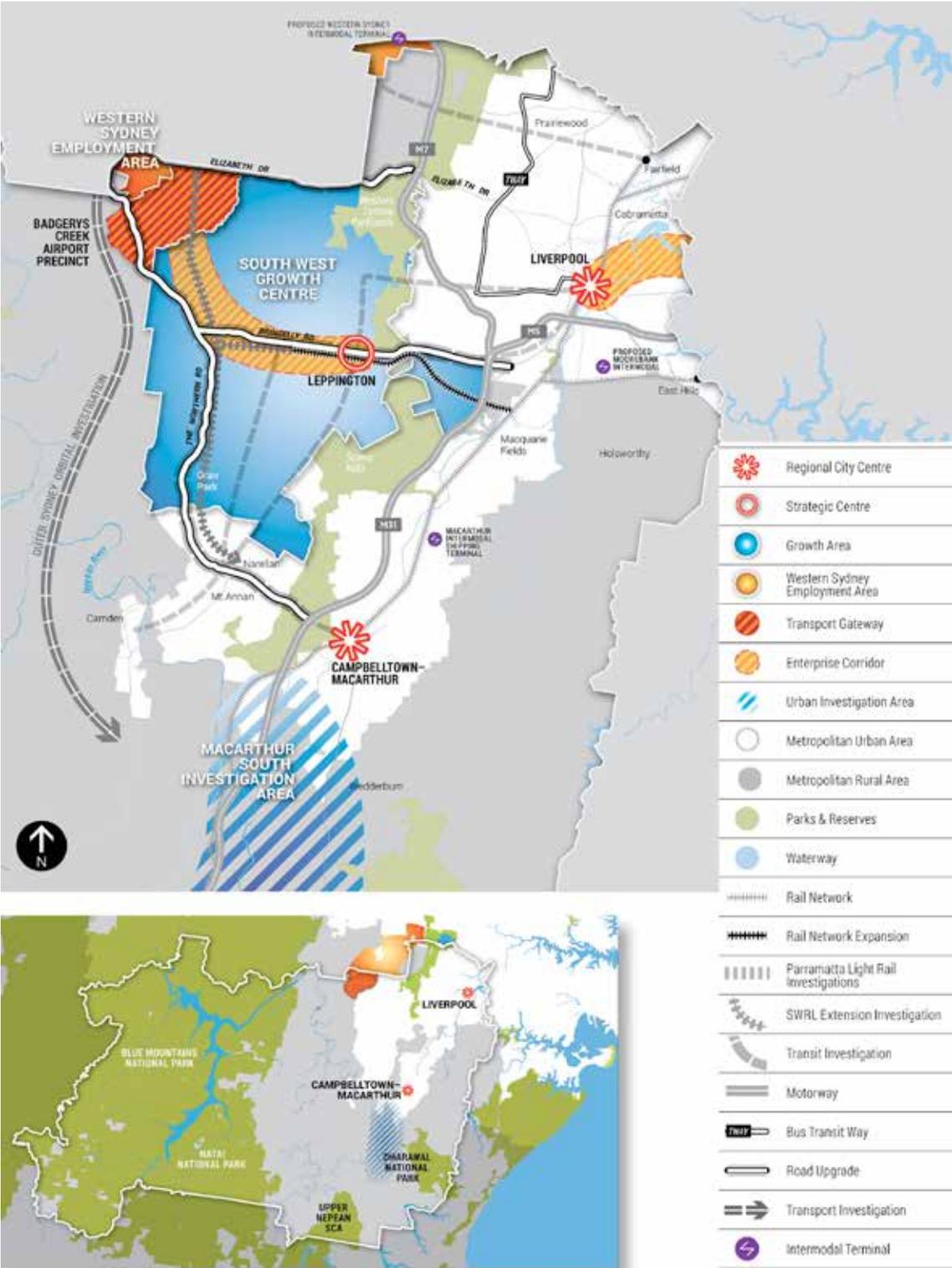
The South West Growth Centre will be supported by a Major Centre at Leppington and be serviced by the new South West Rail Link. It will contain about 110,000 new dwellings for some 300,000 residents, almost the same population as Canberra.

To date, seven SWGC Precincts, Oran Park, Turner Road, Edmondson Park, Austral, Leppington North, Catherine Field (part) and East Leppington, have been rezoned to allow urban development. Collectively, these Precincts have the potential for 42,560 homes to accommodate approximately 130,200 residents and capacity for 22,120 jobs.

Another Precinct, Leppington, is undergoing Precinct Planning. Upon rezoning, it is expected the Precinct will provide land for approximately 9,000 additional homes.

The south western edge of the South West Growth Centre, Oran Park Precinct, is located approximately 3 kilometres to the north of the Camden Airport boundary. Due to its close proximity, the employment potential of land within the

Figure 18 | A Plan For Growing Sydney – South West Subregion Priorities

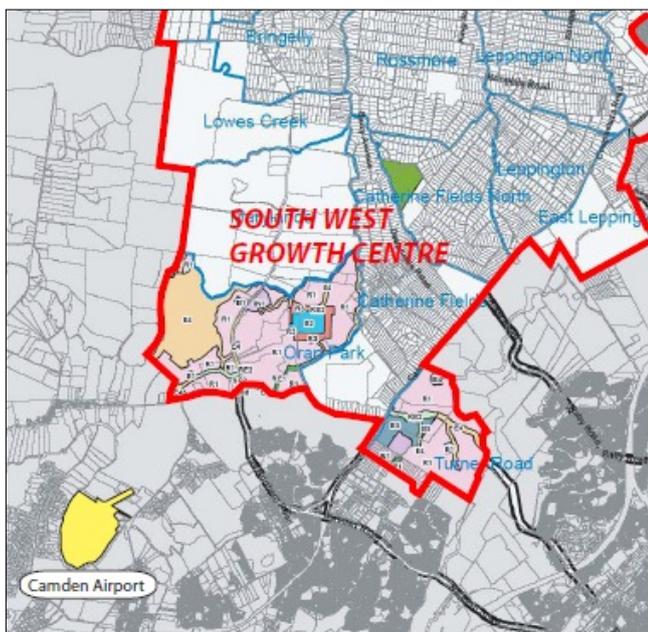


Source NSW Department of Planning & Environment 2014

Airport is clearly an important benefit for future residents and businesses within the Growth Centre. Oran Park, development of which commenced in 2008, has an employment capacity of 4,120, a dwelling capacity of 7,540 and a population capacity of 21,500. Another first release precinct is Turner Road. See Figure 19 for their context to Camden Airport.

The Camden LEP 2010 applies to all land within the Camden Local Government Area (LGA), with the exception of land at Oran Park, Turner Road (Gregory Hills) and Catherine Field which falls under *State Environmental Planning Policy (Sydney Region Growth Centres) 2006*.

**Figure 19 | South-West Growth Centre Context**



### State planning policies

These broader policy documents are implemented through State Environmental Planning Policies (SEPPs), Regional Environmental Plans (REPs) and Ministerial directions (i.e. Section 117 Directions) made under the EP&A Act, and are administered by the NSW Department of Planning and Environment with some delegation to local councils.

The regulation of land use and development in NSW is implemented through LEPs - also made under the provisions of the EP&A Act. LEPs are administered by local councils. The making of LEPs requires NSW Government input to ensure that their provisions are consistent with broader policy and relevant SEPPs, REPs and Ministerial directions.

### Section 117 Directions

Consideration has been given to Section 117 Directions made by the Minister for Planning under Section 117 of the EP&A Act (see Table F1 of **Appendix F**).

### State Environmental Planning Policies (SEPPs)

Consideration has been given to all current SEPPs, and relevant draft SEPPs (see Table F2 of **Appendix F**).

### Regional Environmental Plans (REPPs)

Consideration has been given to all current REPs and relevant draft REPs<sup>1</sup>. These are detailed in Table F3 of **Appendix F**.

### Local Environmental Plans

Camden Airport is located within the Camden Council local government area. Although the Camden LEP 2010 includes the Airport, this planning instrument does not operate to control development on the Airport. Rather, the *Airports Act 1996* is the controlling legislation for environmental and planning matters on the Airport and operates to the exclusion of the NSW legislation.

### Camden Local Environmental Plan 2010

The *Camden LEP 2010* includes the Airport site within a 'SP2 Infrastructure Zone' and marked as "Air Transport Facility SP2" on the planning map. The objectives of this Zone are to provide for infrastructure and related uses and to prevent development that is not compatible with or that may detract from the provision of infrastructure.

Consideration has been given to the relevant zones and provisions of LEP 2010. This is detailed in Table F4 of **Appendix F**.

### Heritage

Heritage issues are regulated at Commonwealth and State levels. Only the Commonwealth legislation applies to Camden Airport. This 2015 MP recognises on-Airport heritage issues. These are addressed in Section 9.8.

## 6.4 ZONING

### 6.4.1 Land use zoning overview

CAL has prepared a land use zoning plan to facilitate and control future development at the Airport (see Figure 8), taking account of the previous planning context. A summary of the zones is in Table 14.

### 6.4.2 Land use zoning

As shown in Figure 8, east of the centrally located Aviation zone land which applies to the principal aviation activity areas, there is the Aviation/Business zone.

**Table 14 | Camden Airport zones**

Zone	Gross area (hectares)	Location and general description
Aviation (plan colour: blue)	100	This zone includes all operational aviation areas, namely: <ul style="list-style-type: none"> <li>runway/taxiway complex;</li> <li>aircraft movement and parking areas/helipad; and</li> <li>airside tenancy buildings and associated taxiways.</li> </ul>
Aviation/Business (plan colour: orange)	13.5	This zone applies to the non-aviation area south of the asphalt runway.
Airport Support (plan colour: green)	28.5	The area between the Aviation and Environment Significant zones.
Environmentally Significant (plan colour: yellow)	54	This zone applies to the airport land abutting the Nepean River.
<b>Total</b>	<b>196</b>	

<sup>1</sup> As a result of SEPP (Repeal of REP Provisions) 2009 introduced on 26 June 2009, REPs became 'deemed' SEPPs on 1 July 2009 under the new Division 2, Part 3 of the EP&A Act. REPs are no longer part of the hierarchy of environmental planning instruments in NSW. A number of REPs have been removed from the planning system and many obsolete clauses have been removed from those remaining.

The objectives of each land use zone and permissible uses are set out in Tables 15 to 17. All development is subject to the approvals process shown in Figure 6 in Chapter 1. Land use definitions are in **Appendix G**.

Development which is not specified within a particular zone as permissible may nevertheless be permitted where CAL is satisfied that the development is a 'compatible land use', being a development that:

- is not inconsistent with the provisions of the current Master Plan;
- is not inconsistent with the objectives of the zone in which the use will be located;

- will not have an adverse effect on other land within the locality, and
- will not render the land unfit for the purpose for which it has been zoned.

Overall, any development on the Airport must be consistent with the 2015 MP.

### 6.4.3 Sensitive developments

Section 71A of the *Airports Act 1996* provides that the development, or a redevelopment that increases the capacity of certain community facilities at leased Federal Airports are 'major airport development' for the purposes of section 89 of the Act. The following 'sensitive developments' constitute a 'major airport development':

- residential dwelling (except accommodation for students studying at an aviation educational facility);
- community care facility (which includes an aged care facility, nursing home and respite care facility);
- pre-school;
- primary, secondary or tertiary educational institution (except an aviation educational facility); and
- hospital (except a facility the primary purpose of which is to provide emergency treatment to persons at the Airport and which does not include in-patient facilities).

The above types of development on airport land (apart from the exceptions indicated) can only proceed pursuant to an approved Major Development Plan. Some of the exempted uses are included within the land use tables for the Aviation and Aviation/Business zones.

Section 71A requires an airport master plan to identify any proposed 'sensitive developments'. No sensitive developments are planned by CAL on the Airport within the planning period.

### 6.4.4 Aviation zone

This zone is shown in blue shading on the zoning plan (see Figure 8). It includes the runway/taxiway complex, extends to the northern side of the main runway for the helipad, with an area for hangars located to the east of the runway complex.

The objective for this zone and permissible uses with consent are shown in Table 15.

**Table 15** | Aviation zone - objective and permissible uses with consent

Objective	Permissible uses with consent
To identify land for current and future aviation development as well as other development compatible within the Airport environment.	accommodation for students studying at an aviation educational facility; advertisement; aircraft and airport maintenance and storage facilities; aircraft engine testing areas; aircraft surveillance equipment; airport freight facilities; airport terminal and support facilities; aviation educational facility; business premises; commercial premises; car park; child care facility; communications facility; compatible land use; events and marketing; facility with the primary purpose of providing in-house training to staff of an organisation conducting operations at the airport; filming; flood mitigation works; fuel storage and distribution; hospital (whose primary purpose is to provide emergency treatment to persons at the airport and which does not include in-patient facilities); industry; civil works, land reshaping and filling; meteorological facilities; public utility undertaking; road; road transport terminal; runways, taxiways, helipads and aprons; shops (servicing the daily convenience needs of the local workforce and population or servicing those associated with the airport terminal); security control and screening points; transport depot; transport infrastructure; transport terminal; utility installation; vehicle storage; visual and non-visual navigation aids; and warehouse.

#### 6.4.5 Aviation/Business zone

This zone is shown in orange shading on the zoning plan (see Figure 8). It is located on the eastern side of the runway complex. This zone is already the location of a number of aviation-related tenancies which may prefer to locate on-airport but do not require airside access, as well as non-aviation tenancies, car parking facilities and vacant

areas. Other employment-generating developments will be permissible in this zone in locations that are compatible with permissible commercial activity.

The objective for this zone and permissible uses with consent are shown in Table 16.

**Table 16 | Aviation/Business zone - objective and permissible uses with consent**

Objective	Permissible uses with consent
To encourage a broad range and mix of commercial and business development within an integrated and active precinct.	advertisement; amusement centre; aviation educational facility; business premises; bushland regeneration works; car park; child care facility; civil works,
To identify land that is suitable for either aviation, aviation-related or employment related development, or a combination of such development.	commercial premises; communications facility; compatible land use facility with the primary purpose of providing in-house training to staff of an organisation conducting operations at the airport; facility with the primary purpose of providing short term accommodation for persons receiving aviation training at the airport; flood mitigation works; generating works; hospital (whose primary purpose is to provide emergency treatment to persons at the airport and which does not include in-patient facilities); industry; land reshaping and filling; motel; public utility undertaking; recreation facility; refreshment room; plant nursery; road; road transport terminal; service station; shop; transport depot; transport terminal; utility installation; and warehouse.

**6.4.6 Environmentally Significant zone**

This zone used for open space, recreational and compatible uses to enhance the environment surrounding the Airport is shown in yellow shading on the zoning plan (see Figure 8) and comprises the area located adjacent to the Nepean River. The objective for the zone and permissible uses with consent are shown in Table 17.

**Development and building consent**

With certain limited exceptions pursuant to the *Airports (Building Control) Regulations 1996*, all development on

the Airport will require both CAL airport-lessee company consent, as well as building approval from the Airport Building Controller (ABC).

Any proposed new use for this zone would require new management plans to be developed and implemented to conserve the environmentally significant aspects of the airport site.

**Table 17 | Environmentally Significant zone - objective and permissible uses with consent**

Objective	Permissible uses with consent
identify land for open space, recreational and compatible uses to enhance the environment surrounding the Airport.	advertisement; bushland regeneration works; communications facility; community facility; compatible land use; filming; flood mitigation works; land filling; public utility undertaking; recreation facility; road; shop (ancillary to the function of the zone); utility installation.

#### 6.4.7 Airport Support zone

This zone is shown in green on the zoning plan (see Figure 8) and is located between the Aviation zone and the Environmentally Significant zone. The objective for the zone and permissible uses with consent are shown in Table 17A.

**Table 17A | Airport Support zone - objective and permissible use with consent**

Objective	Permissible uses with consent
to encourage employment for tourist related development having regard to the provision of services and the environmental and natural assets within the area.	agriculture; bushland regeneration works; car park; communications facility; compatible land use; filming; flood mitigation works; land filling; plant nursery; public utility undertaking; refreshment room; recreation facility; road; shop; tourist facility; and utility installation.

### 6.5 BUILT FORM AND URBAN DESIGN

The 2015 MP establishes various zonings over the site to control development of both aviation and non-aviation activities. The construction of building forms, paved areas

and infrastructure on the Airport will involve the potential for environmental impacts including the range of issues addressed in Chapter 9, together with impacts associated with visual quality of the area and the potential for amenity-related impacts on nearby residential properties.

The 2015 MP contains broad objectives that call for the integration and cohesive planning within the Airport. Applications for development on the Airport will be required to address sustainability, built form and urban design issues as part of the airport-lessee company consent assessment process and in accordance with the *Bankstown Airport Urban Design Guidelines*, where relevant.

Objectives, targets and actions in relation to heritage management are addressed in Section 9.8 and Table 6 of the AES.

### 6.6 EXISTING USE RIGHTS

Where there are inconsistencies between current land uses and the development permitted under the zonings within this DMP, the current land uses may continue to exist with no further approvals. The tenants may expand or change the use on their respective sites and within their curtilage subject to consent by CAL.

A change to another use which is not specified within a particular zone as permissible may be permitted by CAL, where it is satisfied that the development is a “compatible land use” being development that is:

- not inconsistent with the provisions of the 2015 MP;
- not inconsistent with the objectives of the zone in which it will be located;
- will not have an adverse effect on the land within the locality, and
- will not render the land unfit for the purpose for which it is zoned.

Where a pre-existing lease is in place on the Airport, no changes to tenancies are planned.

## PART C

# PLANNING MANAGEMENT



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# Ground Transport Plan

- 7.1. Overview
- 7.2. Existing ground transport network
- 7.3. Planning and development
- 7.4. Conclusion

7

***The Ground Transport Plan for 2015 – 2020 is based on the current landside roads network and surrounding access roads being used. There is no change to the road network contemplated over the next five years.***

## 7.1 OVERVIEW

The Ground Transport Plan for the Camden Airport 2015-2035 Preliminary Draft Master Plan was completed in February 2015.

The Ground Transport Plan indicates the likely baseline trip generation capacity for the Airport. It is based on the current needs and any appropriately approved future developments.

Aviation activity at Camden Airport has not grown as forecast prior to 2010 – as the volume of fixed wing aircraft movements is currently trending downwards. As documented in Chapter 5, current aviation traffic forecasts are for a longer term annual average growth rate of 0.89 per cent.

In addition, largely as a result of economic conditions, much of the previously forecast Airport development has not materialised.

This Ground Transport Plan presents the following:

- the existing ground transport network; and
- planned ground access development for the current forecasts for air traffic movements and a proposed development on the Airport.

## 7.2 EXISTING GROUND TRANSPORT SYSTEM

**Figure 20** and **21** show the Airport's location and the surrounding region, including the road network which provides surface access to the Airport.

Camden Airport is located approximately 1.5km north of Camden Town Centre; 31km south west of Bankstown Airport; and 52km south west of the Sydney CBD.

Surface access to Camden Airport is entirely by road. Due to its regional, semi-rural location, there is limited public transport service connections to the Airport.

### 7.2.1 External Road Network

Camden Airport has one access road, Aerodrome Road, which connects to the external road network at Macquarie Grove Road. Macquarie Grove Road is a local road under the care and control of Camden Council and runs generally

north / south between Camden and Cobbitty Road; a length of about 4.5kms.

In the vicinity of the Airport, Macquarie Grove Road is a 2 lane undivided road, rural in nature, with unsealed road shoulders and no kerbing or guttering. The road is generally 6.5 to 7.0 metres wide, is constructed in bitumen and is in good condition. It is built over rolling terrain and has several curves and bends. It is marked with a centreline and some sections have edgelines.

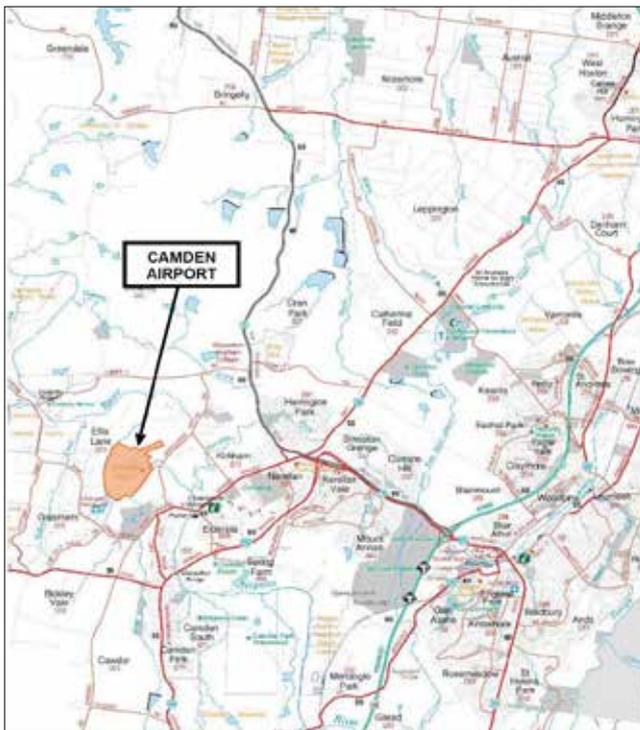
A two lane concrete bridge over the Nepean River is located on Macquarie Grove Road 150 metres south of Aerodrome Road. There is also a short additional climbing lane for northbound traffic about 180 metres north of Aerodrome Road. Macquarie Grove Road has a 70km/h speed limit. Development along the road (other than Camden Airport) consists of a mix of undeveloped rural land and residential properties on medium to large sized parcels of land.

Macquarie Grove Road leads to Cobbitty Road and The Northern Road to the north east of the Airport. The Northern Road is a State Road which continues north to Bringelly and Penrith in Sydney's outer Western suburbs. However the main access to Camden Airport from the greater Sydney region is via Kirkham Lane, Camden Valley Way, Narellan Road and the M31 Motorway (Hume Highway).

Kirkham Lane is a local road running south east from where it meets Macquarie Grove Road, about 1.3km north east of Aerodrome Road. It is a 2 lane undivided rural road, 2km long, linking Macquarie Grove Road and Camden Valley Way. It has a 6 to 6.5 metre wide bitumen road surface with unsealed shoulders and no kerbing. It is straight and has been built over undulating terrain. It provides access to nearby semi-rural residential properties and has a 70km/h speed limit, with a 40km/h School Zone at its northern end. It is controlled by a Stop sign at Macquarie Grove Road and by a Give Way sign at Camden Valley Way.

Camden Valley Way is a State Road running from near the intersection of the M7 and M5 Motorways at Casula to Camden. The section between Kirkham Lane and Narellan Road is about 2.2km long and is of variable width. Near Kirkham Lane it is a 2 lane road with an additional right turn lane for traffic entering Kirkham Lane. It has a 70km/h speed limit and is generally straight, with one bend over a crest about 270 metres north of Kirkham Lane. The road becomes a multi-lane, divided arterial road about half way between Kirkham Lane and Narellan Road, as it enters the Narellan residential and industrial areas. Camden Valley Way meets Narellan Road at a signal controlled cross intersection.

Figure 20 | Camden Airport in regional location context



Narellan Road is another State Road, running east west between Camden Valley Way and the M31 Motorway (Hume Highway), a length of about 5km. Narellan Road is a multi-lane, divided arterial road with an 80km/h speed limit. It meets the M31 at a fully grade separated interchange. The M31 is a major multi-lane divided motorway with a speed limit of 110km/h. It is part of the National Road Network, linking Sydney to Canberra and Melbourne.

### 7.2.2 Airport Roads

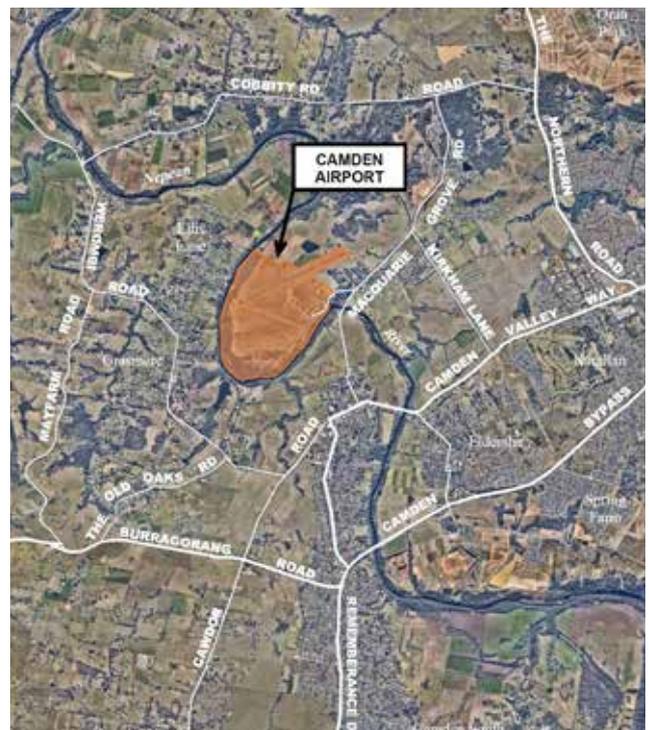
Camden Airport has one access road, Aerodrome Road, which meets Macquarie Grove Road at a T-junction. Aerodrome Road is controlled by a Stop sign at this intersection.

Aerodrome Road runs a total length of 1.1km, providing access to both the Airport and several residential properties which lie between Macquarie Grove Road and the Airport lands.

Figure 22 is the Airport Road Network Plan, which details the external access road and landside roads on Camden Airport.

The first 700 metres of Aerodrome Road runs generally east/west on a winding alignment with several vertical curves. It is a 2 lane undivided road with a marked, broken centreline.

Figure 21 | Camden Airport - location



It has 2 speed humps along this section. Several off-airport residential properties have their driveway access from this section of Aerodrome Road.

The road is signposted as a 25km/h local traffic zone. Its width varies from 5.5 metres to 6.5 metres of sealed bitumen in fair condition, with unsealed shoulders of variable width.

Upon reaching the airport landside area, the road turns to the north west and widens to facilitate parking and access to hangars and aviation related buildings. The road terminates at a car park near the Phoenix Aero Club. The Airport Perimeter Road runs from Aerodrome Road around the southern airside / landside boundary to an airside access gate at the glider hangar area, a road length of 1.7km to the west, where the Perimeter Road enters the airside lands.

### 7.2.3 Alternate Transport Modes

Camden Airport's surface access is entirely by road, as described in section 7.

Currently limited public transport services to Camden Airport are available along Macquarie Grove Road (school buses excepted).

Figure 22 | Camden Airport – road network



There are also no cycling or walking facilities provided along Macquarie Grove Road, although there is nothing preventing cyclists using Macquarie Grove Road and Aerodrome Road for access. In practice however, the relative remoteness of the Airport, the ease of car access and good availability of on-site parking results in no known use of any alternate transport modes by staff or visitors to Camden Airport.

### 7.2.4 Heavy Vehicle Access

There are no current aviation freight operations at Camden Airport nor are any planned, so heavy vehicle access is limited to low volumes of maintenance service vehicles and refuelling trucks.

There are no load limits on the external access roads or Aerodrome Road, and the trucks that currently service the Airport do not experience any access or on-site manoeuvrability issues.

### 7.2.5 Current Traffic Volumes

Camden Airport is predominantly used as an aviation sport and recreation airport, and the use of all developed buildings on the Airport is aviation related. It is understood that there is currently up to 80 staff working on the Airport, so ground traffic volumes are quite light and are spread across daylight hours of all seven days of the week. Recent traffic survey data (February 2015) for Aerodrome Road are shown in table 18.

Table 18 | Traffic survey data

Aerodrome Road, 80m west of Macquarie Grove Road		
	Weekday Average	7 Day Average
Vehicles per day	477	494

The average daily traffic volume (ADT) was 494 vehicles, which is a low volume that is easily accommodated on the access roads and intersections.

The busiest hour was noon to 1pm, with an average of only 46 vehicles per hour.

A recent traffic survey was also carried out on Macquarie Grove Road at the Nepean River bridge, 150 metres south of Aerodrome Road. This location was selected because historical ADT information is available from Roads and Maritime Services (RMS) for this location. The historic and recent ADT's in table 19:

Table 19 | ADT comparison

Macquarie Grove Road, at Nepean River bridge		
	1993 ADT	2015 ADT
Vehicles per day	2,168	4,023

The above information indicates that traffic volumes on Macquarie Grove Road have increased by 85% over the past 22 years, which equates to an average annual compound growth rate of 2.85%. The prime reason for this traffic growth is understood to be the growth in residential development across the region.

## 7.2.6 Current Traffic Conditions

The current surveyed two way peak hour traffic flow on Aerodrome Road is 46 vehicles, a rate of less than one vehicle per minute. This low volume of traffic means Aerodrome Road operates at a very good level of service, and no delays or traffic congestion would occur. There is also a very large spare capacity for any future growth.

SIDRA intersection modelling software was used to assess the current operation of the intersection of Aerodrome Road and Macquarie Grove Road. This intersection has been assessed as operating at Level of Service A, with low delays. This level of service is defined as “good operation”. This also indicates that the intersection has considerable spare capacity for any future traffic growth.

## 7.3 PLANNING AND DEVELOPMENT

### 7.3.1 Road Access Planning

Aerodrome Road has recently been upgraded through installation of 2 traffic calming treatments and a marked centreline. No further alterations or upgrades to Aerodrome Road are currently planned, nor are any upgrades justified by the low current and potential future use.

### 7.3.2 Landside Development And Traffic Impact

The only planned development on Camden Airport that may occur during the next five years is the relocation of the Australian Aviation Museum from Bankstown Airport to Camden Airport. The location for this museum will be in the Aviation/Business Zone, to the north east of the control tower, and it will be accessed directly from Aerodrome Road. The aviation museum is a low traffic generating development. There will be very little change to average daily traffic flows from this development, and the operation of both Aerodrome Road and Macquarie Grove Road will be unaffected by it.

Aviation activity growth is forecast in other sections of the 2015 MP, however there will be insufficient change in daily traffic volumes for any appreciable change in traffic conditions on the Airport access roads.

The RMS and Camden Council currently have no known plans to upgrade Macquarie Grove Road, Kirkham Lane, Camden Valley Way or Narellan Road during the next five years.

Notwithstanding that no change to the road system is expected on Camden Airport, CAL will continue to work with the State and Local authorities or other bodies responsible for the road network and public transport system through formal and informal channels.

## 7.4 CONCLUSION

Camden Airport is an aviation sport and recreation airport, which generates low ground traffic volumes. It is currently accessed by one Airport road, Aerodrome Road, with direct access to the external road network at Macquarie Grove Road. Current traffic conditions along both Aerodrome Road and Macquarie Grove Road are good with a significant amount of spare capacity. There is no justification for any upgrading of the access roads.

Surface access to Camden Airport is entirely by road. There are no nearby public transport services and no facilities along the nearby external roads for alternate transport modes (bicycles, walking). The site enjoys a good level of access by road and there is a sufficient supply of on airport parking.

There are no aviation freight operations at Camden Airport, nor are any planned.

The only heavy vehicle usage of the Airport roads are routine maintenance vehicles and refuelling tankers. The access roads and Aerodrome Road are not load limited and there is adequate manoeuvring room on the Airport roads for these trucks to be able to enter and leave the site in a forward direction.

The only planned future landside development which may occur within the next five years is the relocation of the Australian Aviation Museum from Bankstown Airport to Camden Airport. The traffic impact of this development is expected to be low, as it will maintain the current operating parameters i.e. opened on Wednesday, Saturday and Sunday with visitation of 40-50 persons on those days and there will be a negligible impact on the access roads to Camden Airport.

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# Socio-economic role of Camden Airport

- 8.1. Overview
- 8.2. Operations and investment
- 8.3. Employment at Camden Airport
- 8.4. Employment in the surrounding area
- 8.5. Camden Airport – 2015 MP
- 8.6. Consistency with planning framework
- 8.7. Economic impacts
- 8.8. Social and community impacts

# Socio-economic role of Camden Airport

**Camden Airport is the location of approximately 80 jobs and forms part of the broader Camden economy. Implementation of the 2015 MP could potentially result in an additional 11-15 full time equivalent jobs. A range of other positive social and community outcomes would also result.**

## 8.1 OVERVIEW

### 8.1.1 Scope of Assessment

The economic and community impact assessment (ECIA) of the land use and development concept proposed in the 2015 MP examines the potential economic and community impacts that could result from the 2015 MP, including impacts within the Airport itself, across the surrounding community and the broader NSW and Australian economy.

### 8.1.2 Frame of reference

The ECIA has been prepared in accordance with the requirements of the *Airports Act 1996* (the Act) – Section 71, in relation to the *contents of a draft or final master plan*, specifically, the sub-clauses that relate to economic, employment and community impacts.

In undertaking the assessment, CAL has examined the 2015 MP against a frame of reference that includes Local and State Government tests of socio-economic and net community impacts, and applied an industry standard methodology to examine impacts on the retail/centres hierarchy in the region.

## 8.2 OPERATIONS AND INVESTMENT

### 8.2.1 Camden Airport – Operations

Camden Airport is a leading recreational and training aviation facility in New South Wales. More specifically, it is a general aviation airport, hosting relatively small aircraft operations in the commercial, private, sports, glider and recreational aviation areas.

### 8.2.2 Investment

CAL operates a self-sustainable business. While the Airport's primary purpose is accommodating general aviation services, the majority of annual income (67-75%) is generated from its property holdings (i.e. leasing to aviation-orientated tenants).

While flight numbers have decreased by around 13.6% since a recent peak in FY2009, annual aviation revenues have remained fairly stable and are anticipated to rise.

CAL invests in ongoing maintenance and capital investment of existing buildings and services, in improving existing facilities and in the development of new buildings to enable future growth.

While investment in capacity is contingent on revenue and will be implemented on a “as needs” basis, there are specific items in the capital works program valued at approximately \$1.8M for Camden Airport, including:

- Relocation of the Australian Aviation Museum from Bankstown Airport;
- Introduction of taxiway naming protocol; and
- Placement of movement area guidance signs.

## 8.3 EMPLOYMENT AT CAMDEN AIRPORT

According to Bureau of Transport Statistics (BTS), the Camden Airport travel zone encompasses 57 workers. The main industries of employment include Education and Training (39% of total) and Agriculture, Fishing and Forestry (18% of total). These results do not appear to be consistent with a general aviation airport.

Based on a recent survey (see table 20) undertaken by CAL, the Camden Airport accommodates between 79 and 87 workers. The majority of these workers are engaged within aviation-related services and roles.

**Table 20** | Camden Airport employment by industry

Industry Of Employment	Number
Manufacturing	3
Professional, scientific and technical services	38
Administrative and support services	5
Educational and Training	23
Other services	10
Inadequately described	8
<b>Total</b>	<b>87</b>

## 8.4 EMPLOYMENT IN THE SURROUNDING AREA

Notably, Camden Airport is distinct from adjoining uses, and as such, entails a different employment profile from the Camden LGA and areas immediately surrounding it. Generally, the employment industry profile in the Camden LGA is dominated by population-driven industries such as retail trade (15%), health care and social assistance (11%), and education and training (10%) – accounting for approximately one-third of all employment in the LGA. Other key industries include construction (11%), manufacturing (9%) and accommodation and food services (7%).

## 8.5 CAMDEN AIRPORT – 2015 PDMP

The intention of the 2015 MP is based on CAL's aviation vision, which is to maintain Camden Airport's role as a leading recreational and training aviation facility in New South Wales. The 2015 MP sets out how the Airport will develop to meet aviation and non-aviation demand over the planning period.

CAL's commercial vision includes adding value to the non-aviation assets of the Airport. It is CAL's intention to enhance existing businesses that will bring jobs and increase the economic prosperity of the local community, as well as servicing the needs of existing airport users and the wider community.

In addition to outlining the implementation of this vision, the 2015 MP also outlines the approach to addressing key issues arising from the vision, including infrastructure, environment, aircraft noise and heritage conservation.

There is a commitment to introducing non-aviation stakeholders to Camden Airport. However over the past decade, notwithstanding the growth in population in the South West Growth Centre, there have been no proposals received for developing surplus and underutilised areas of the Airport.

The table below presents the current land zoning mix at Camden Airport, as outlined in the 2010 Master Plan, and compares it with the proposed zoning of land outlined in the MP 2015. Overall, there has been no change in the land zoning allocations in the new MP (from the existing 2010 MP).

**Table 21** | Camden Airport – Land Use Zones

Land Use	Current	2015 Masterplan
Aviation Zone	100.0	100.0
Aviation/Business Zone	13.5	13.5
Airport Support Zone	28.5	28.5
Environmentally Significant Zone	54.0	54.0
<b>Total</b>	<b>196.0</b>	<b>196.0</b>

## 8.6 CONSISTENCY WITH PLANNING FRAMEWORK

The 2015 MP is consistent with relevant strategic planning framework, outlined by the state government as well as Camden Council planning schemes and strategies. The 2015 MP is consistent with the surrounding planning framework, as outlined following:

- Sustained growth in movements and the relocation of the Australian Aviation Museum (outlined in the 2015 MP) will result in demand for additional employment resources in the long term and contribute to overall employment growth in the sub region – consistent with the Sydney Metropolitan Strategy to 2031: A Plan for Growing Sydney.
- Accommodate diverse employment opportunities and contribute to overall growth in the South West region. These new opportunities will complement centres at Camden, Campbelltown, Narellan and Leppington – consistent with South West Growth Centre Planning and the Camden Economic Development Strategy to 2040 (2013).
- Contribute to the social, cultural and recreational needs of the community through the relocation of the Australian Aviation Museum – consistent with the Camden Community Strategy to 2040 (2013) and the Camden Local Environment Plan (2010).

## 8.7 ECONOMIC IMPACTS

Employment growth at the Airport is expected to mainly spur from aviation related operations. However, projections allow for a temporary increase during the construction phase of the Australian Aviation Museum (i.e. 2015-2017), and an increase in the permanent workforce post-completion (beyond 2018). Overall, CAL expects future employment growth at Camden Airport to be largely organic, with most job additions being absorbed by existing businesses and operations.

Key potential impacts are summarised as follows:

- The 2015 MP could potentially result in the creation of an additional 11 to 14 full-time equivalent (FTE) at Camden Airport by 2020. Greater demand from an expanding and more affluent South West Growth Centre resident population is expected to support an increase in general aviation services. The projected job increases are aviation denominated.
- The temporary workforce required to undertake the continued capital works and maintenance program at the Airport is not significant, however, a reasonably sized construction workforce (6-8 workers) is expected to materialise, particularly during the construction phase of the Aviation Airport Museum.
- The 2015 MP could support up to an additional 71 indirect jobs across the economy by 2020, as well as an average of 5 temporary jobs per annum over the forecast period.
- For each million dollars of income derived there will be direct flow-on benefits across the economy in regards

to gross output, industry value added and household income. The estimated direct impact as at 2020 is:

- Δ Gross output: \$13.8-14.4 million
- Δ Value added: \$9.8-10.0 million
- Δ Household income: \$6.1-6.5 million

**Table 22 |** Direct Economic Impact, Camden Airport  
(FY2014-FY2020)

Economic Impact Factor	2014	2015	2016	2017	2018	2019	2020
Output (\$m)	117 - 13.6	128 - 13.3	13.1 - 13.6	13.5 - 14.1	13.3 - 13.9	13.6 - 13.9	13.8 - 14.4
Value added (\$m)	8.5 - 8.6	9.3 - 9.4	9.5 - 9.6	9.8 - 9.9	9.7 - 9.5	9.6 - 9.9	9.8 - 10.0
Household income (\$m)	5.2 - 5.8	5.7 - 6.2	5.8 - 6.4	6.0 - 6.5	5.9 - 6.3	6.0 - 6.4	6.1 - 6.5
Employment	80-89	87-96	89-98	92-100	91-97	93-98	94-100

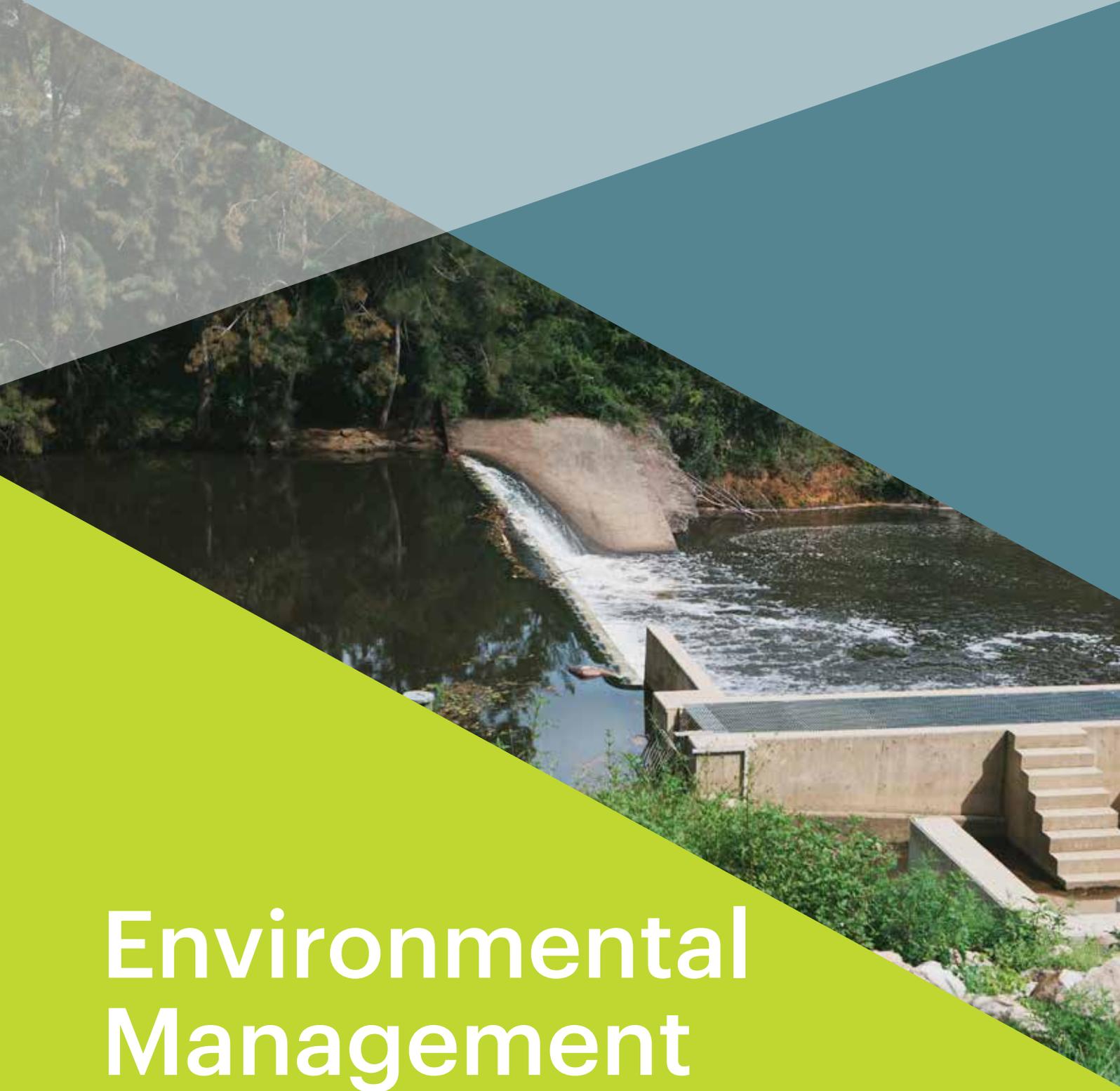
Source: MacroPlan Dimasi, ABS

- The prospect for non-aviation and business use development is limited out to 2020. As such, the impact on surrounding retail and commercial centres (e.g. Camden and Narellan Town Centres) is anticipated to be negligible.

## 8.8 SOCIAL AND COMMUNITY IMPACTS

Certain social and community impacts are expected to result from the 2015 MP. Some of the more pertinent social and community impacts that could be expected to result are outlined below:

- The 2015 MP will facilitate organic employment growth at Camden Airport over the five years to 2020.
- Promotes visitation and awareness of Camden Airport's aviation capabilities given the introduction of the Australian Aviation Museum (completion expected in 2018).
- As patronage of the Airport rises in the long term (as predicted in the 2015 MP), there will be additional employment opportunities for surrounding residents in non-aviation related industries.
- Improves the potential for social interaction (leisure, sports, flying clubs) and enhances community cohesion amongst young and mature persons with an interest in aviation.



# Environmental Management

- 9.1. Overview
- 9.2. Soil conditions
- 9.3. Surface water quality
- 9.4. Groundwater quality
- 9.5. Flora and fauna
- 9.6. Ground based noise
- 9.7. Air quality
- 9.8. Heritage
- 9.9. Resource efficiency
- 9.10. On-going regulation and management

9

# Environmental management

**CAL will continue to build on the environmental management improvements on the Airport. Best practice environmental management systems will ensure ongoing improvement of the Airport's environment in relation to all relevant aspects including protection of sites of environmental significance and heritage items.**

## 9.1 OVERVIEW

A detailed description of key environmental issues and management measures at the Airport is presented in the Airport Environment Strategy (AES) (see **Appendix B**). A summary of the environmental issues, which in CAL's assessment, might reasonably be expected to be associated with implementation of this 2015 MP are presented below.

Environmental impacts arising from the implementation of the Development Concept documented in this 2015 MP will also be determined and assessed during the Airport Lessee Company (ALC) consent process for individual proposals, with appropriate management actions established prior to approval being given by the Minister in relation to Major Development Plans and the Airport Environment Officer (AEO) for other ALC consents.

## 9.2 SOIL CONDITIONS

Camden Airport was established between 1938 and 1939 and numerous activities and processes have since been undertaken that have been identified as potential or actual sources of soil contamination. The potential and actual sources of soil contamination have been reviewed and documented by CAL in a Contaminated Sites Register. The contaminated sites are investigated and managed on a priority basis according to the risk each site presents to the environment.

Management of the contamination risk presented by current tenants is generally undertaken through the provisions of the *Airports (Environment Protection) Regulations 1997* (the Regulations) and strict lease clauses covering environmental performance and development controls that are imposed upon all tenants. CAL's environmental auditing program will also be used to promote operational practices that reduce soil contamination risks.

CAL also has procedures that allow for CAL and the AEO to investigate soil quality at the commencement and termination of tenant leases. Detailed management measures are given in Section 4.3 of the AES, including the process for environmental site assessments, remediation and validation.

The environmental impacts of individual developments will be undertaken as part of CAL's airport lessee company consent process. This process considers soil contamination issues as required by the Regulations.

## 9.3 SURFACE WATER QUALITY

The Nepean River, a major waterway draining to the Hawkesbury River, borders the eastern, southern and western boundaries of Camden Airport. A number of activities undertaken at the Airport have the potential to affect the water quality of the Nepean River, including:

- spills and leaks during aircraft servicing and maintenance, aircraft refueling, and runoff from aircraft washing;
- spills and leaks during vehicle refueling and maintenance, and runoff from vehicle washing;
- spills and leaks or sediment discharge during construction and maintenance activities;
- spills and leaks associated with bulk liquids storage and handling, and
- spills occasioned by accidents during vehicle travel on Airport roads.

Surface water quality monitoring is undertaken in accordance with CAL's *Water Quality Management Plan*. The monitoring results are used in conjunction with findings of tenant audits and CAL inspections to develop management actions to reduce the discharge of pollutants to surface waters. The potential impacts of construction works on water quality are managed via the Airport's lessee company consent process for new developments.

Any new developments are designed, constructed and operated in accordance with Ecologically Sustainable Development (ESD) principles for water management.

## 9.4 GROUNDWATER QUALITY

The groundwater beneath Camden Airport is not a significant resource and, based on experience, is not used for drinking water supply. The groundwater yield is generally low and the groundwater is saline.

Potential sources of groundwater pollution at the Airport are:

- contaminated sites;
- leakage from underground fuel tanks;
- spillage of fuels and chemicals;
- chemical use such as pesticides or herbicides, and
- historical activities, such as land filling.

Groundwater monitoring is undertaken in proximity to fuel depots. Groundwater monitoring results have indicated some

exceedances of water quality limits listed in Schedule 2 of the *Airports (Environment Protection) Regulations 1997* for hydrocarbon contaminants in the vicinity of two of the three fuel depots on the Airport. These two depots are currently non-operational and in the process of being permanently closed. Investigations are underway to determine the source of the groundwater exceedances and the requirements to address the issue. Ongoing groundwater monitoring and management of airport operations and future developments will be used to manage groundwater quality at the Airport.

Detailed management measures are given in Section 4.2 of the AES.

## 9.5 FLORA AND FAUNA

Camden Airport has been largely cleared of its original, native vegetation except for a narrow belt of River Flat Forest fringing the Nepean River. River Flat Forest is classified as an endangered ecological community under the *NSW Threatened Species Act 1995* and two species of flora, *Eucalyptus benthamii* and *Pomaderris brunnea*, listed as 'vulnerable' under the *Environment Protection and Biodiversity Conservation Act 1999* are known to occur within this area. *Pomaderris brunnea* is also listed as an "endangered" species under the *Threatened Species Conservation Act 1995 (NSW)*, and *Eucalyptus benthamii* is listed as a "vulnerable" species under the same Act.

The area in which this vegetation is located is subject to a Registered Property Agreement entered into with the NSW Government and has been designated an Environmentally Significant Zone that is subject to a Management Plan.

The development proposed by the 2015 MP will not impact upon the River Flat Forest. Development would be restricted to the operational parts of the Airport which do not contain significant stands of vegetation. The impacts of any vegetation removal required for development would be assessed during the development planning stage for each development. Current initiatives to manage flora and fauna at the Airport would continue under the implementation of the 2015 MP.

No fauna species of significance have been identified on the Airport.

## 9.6 GROUND-BASED NOISE

CAL has limited influence on aircraft noise and will continue to work with the Australian Government, local communities, aircraft operators, regulators and air navigation service providers to help develop practical solutions to mitigate noise impacts on communities.

Aircraft noise from flying operations is assessed in Section 5.5.

The major sources of ground-based noise at the Airport are:

- ground running of aircraft engines;
- aircraft servicing;
- mechanical plant and servicing equipment;
- operation of fixed audible alarm or warning systems;
- construction activities; and
- motor vehicle traffic.

CAL has a *Noise Management Plan (2011)* for the Airport which identified initiatives to manage noise associated with operations at Camden Airport.

CAL has adopted a number of management actions to reduce and monitor the potential impacts of ground-based noise on neighboring residents, including assigning designated aircraft run-up areas (see Section 4.4 in **Appendix B**) and restrictions on the timing of maintenance run-ups through its *Aircraft Engine Ground Running Guidelines*.

All developments at the Airport are required to address potential noise and vibration impacts during the development planning and approvals stage. CAL will continue to manage ground-based noise emissions via the development assessment and approval process, use of environmental management plans during construction and auditing of tenants' operations. Monitoring of noise sources will be undertaken in the event of significant concerns being identified to or by CAL.

## 9.7 AIR QUALITY

The NSW Government's *Air Quality Management Plan*, entitled *Action for Air* (prepared in 1998 and updated in 2009) identified the key areas for action to manage Sydney's air quality over the next 25 years. Airport-related air quality issues continue to be regarded as being a minor contributor to air emissions. Emissions from ground-based operations at the Airport, such as fuel storage, maintenance activities and ground-based engine running constitute only a very small proportion of total Airport emissions. Monitoring undertaken at the Airport will therefore concentrate on ensuring point source emissions at ground level do not adversely impact local air quality.

Tenants are responsible for demonstrating that their air emissions, including from point sources, chemical or fuel storages, vehicular traffic, aircraft engine ground runs or dust generated during construction activities, are compliant with the requirements of the *Airports Act 1996*. Compliance is progressively reviewed by CAL and the AEO as part of the environmental audit process.

The development proposed under this 2015 MP will involve construction activities which may result in minor increases in diffuse source emissions of some air pollutants, particularly associated with road vehicle movements and potential short-live and localised dust generation during earthworks for developments. The potential increases in air emissions will be offset to some extent by measures such as:

- energy efficient design of new buildings; and
- use of environmental management plans to reduce emissions during the construction stage of new developments.

CAL will continue to manage air emissions via the development assessment and approval process, use of environmental management plans during construction and auditing of tenants' operations. Monitoring of point sources will be undertaken in the event of unidentified concerns and the presence of applicable standards to evaluate performance.

## 9.8 HERITAGE

The Airport has been largely cleared of its original, native vegetation except for a narrow belt of River-flat Forest adjacent to the Nepean River. Part of this remnant vegetation is regrowth following several years of sand mining. Some undisturbed areas of River-flat Forest do occur and these areas in particular have the potential for Aboriginal sites and artefacts to be present.

Aboriginal artefacts in the form of stone flakes have been identified on the Airport within the Environmentally Significant Zone and their location has been registered in the Aboriginal Heritage Information Management System administered by the NSW Office of Environment and Heritage (OEH). The operation and future development of the Airport will not involve disturbance of the Environmentally Significant Zone and therefore will not have a significant impact upon indigenous heritage. In the event that any more items of indigenous heritage significance are identified during the development process, the items would be investigated and protected in accordance with regulatory requirements.

The Airport was established as an airfield by the Macarthur-Onslow family in the 1930s with the original Airport hangar still in use today. No other buildings that pre-date the development of the Airport exist within the Airport boundary. The Airport was used by the Royal Australian Air Force (RAAF) during World War II and a number of the hangars used at that time remain on the site and have some heritage value.

In 2004, a new Commonwealth heritage management system was introduced through the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*, which

included the creation of the National Heritage List and the Commonwealth Heritage List. Whilst Camden Airport has not been included on either of these lists, as it is located on Commonwealth Land, EPBC Act requirements do apply.

The 2015 MP recognises the heritage value of the Airport and provides for the conservation of the sites' heritage value. The Camden Airport Heritage Management Strategy (2005) will be the basis for heritage assessment and formulation of heritage conservation policy. Specific Heritage Impact Statements will be prepared for developments which involve areas containing aspects identified as having heritage significance. The Heritage Impact Statements will be undertaken in accordance with the EPBC Act Significant Impact Guidelines 1.2 requirements.

## 9.9 RESOURCE EFFICIENCY

CAL's AES requires that any proposed developments – either by CAL or by other proponents – incorporate resource efficiency and sustainability principles in their design, construction and operation. New developments will incorporate to the extent practicable key principles such as energy efficiency, stormwater retention and water sensitive urban design.

## 9.10 ON-GOING REGULATION AND MANAGEMENT

It is considered that environmental impacts arising from developments proposed in this 2015 MP can be managed through the environmental assessment and approvals processes under the *Airports Act 1996*, the *Airports (Environment Control) Regulations 1997* and the *Airports (Building Control) Regulations 1996*.

Development proposals must be consistent with the current Airport Master Plan, the AES and any Major Development Plan (MDP). A proponent must submit an ALC Consent form to CAL, which is then assessed for potential environmental impacts and the effectiveness of the proposed management measures.

Development is generally also subject to subsequent approval by the Airport Building Controller (ABC) - depending on the nature of the proposed development. The proponent is required to notify the ABC of proposed exempt building activities under the *Airports (Building Control) Regulations 1996*.

The ALC Consent may contain conditions relating to environmental management of the development and, in particular the preparation of an environmental management plan for the development. The environmental management plans are subject to audit and inspection by CAL and the AEO.

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If a development is of environmental significance, the preparation of a Major Development Plan under the *Airports Act 1996* will be required. In general, this requirement applies to developments such as schools, hospitals, runways, taxiways, terminals, major road works, and developments which exceed a cost threshold (currently \$20M) or add significantly to airport capacity, or developments of a kind that are likely to have significant environmental or ecological impact, or which affect an area identified as environmentally significant in the AES, or are likely to have significant impact on the local or regional community. The development may not proceed until approved by the Minister and must be referred to the Australian Minister for the Environment as part of the assessment process. ALC Consent for developments subject to a MDP also require the approval of CAL as well as the approval of the ABC where non-exempt building activities are involved.

To assist CAL in deciding whether a proposal is environmentally significant, CAL can require a proponent to prepare an Assessment of Environmental Effects (AEE) to be submitted with the ALC Consent. The AEE would be required to detail all potential impacts and all measures to be undertaken to appropriately mitigate identified adverse impacts.

Once the ALC Consent process is complete, the proponent submits a Building Application to the ABC. If potential impacts of construction are considered to require environmental management, CAL will require a Construction Environmental Management Plan to be prepared.

CAL has established a Planning Coordination Forum with Camden Council and the NSW Government. This Forum meets to discuss development activities on the Airport. In addition, CAL will continue to consult widely on development proposals through the CACACG and the extensive communication network already established. CAL displays all proposals on its website.

CAL will also identify other stakeholders who may be impacted by the proposed development and consult with and notify these stakeholders prior to deciding whether to grant development approval, in accordance with CAL's ALC consent procedures.

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A photograph of an airport tarmac area. In the foreground, a white and blue twin-engine aircraft is parked on the grass. Behind it, several other aircraft are visible, some covered with blue tarps. To the left, there is a hangar with a corrugated metal roof. The background shows a hazy landscape with hills under a cloudy sky. The image is overlaid with large, semi-transparent geometric shapes in shades of teal and lime green.

# Airport Infrastructure

- 10.1. Overview
- 10.2. Power
- 10.3. Water supply
- 10.4. Sewerage
- 10.5. Telecommunications
- 10.6. Gas
- 10.7. Flooding and stormwater

# 10

# Airport infrastructure

***Utilities will be provided or upgraded on the Airport with current technologies in line with forecasts and as developments take place.***

## 10.1 OVERVIEW

Camden Airport is currently serviced by a range of utilities including power, water supply, sewerage and telecommunications. These utilities service the requirements of both CAL and its users and tenants.

In line with forecasts and as various developments take place across the Airport, utilities will be provided to some areas for the first time, while in other areas they will need to be upgraded as required.

A description of the current situation and working estimates of the upgrades required is set out in the following sections for the following utilities:

- power;
- water supply;
- sewer;
- gas; and
- telecommunications.

The way in which CAL proposes to address flooding and stormwater drainage issues is also assessed.

## 10.2 POWER

### 10.2.1 Existing services

Energy Australia supplies electricity to Camden Airport, with the existing network consisting of an 11kVA feeder, located in Macquarie Grove Road with a spur branching off into Aerodrome Road that terminates at a 200kVA substation. This substation supplies Camden Airport. This substation is currently loaded to approximately 160kVA.

### 10.2.2 Upgrade required

Any proposed developments at the Airport will require an upgrade of the existing Airport network. There is sufficient external capacity to meet the upgrade required.

## 10.3 WATER SUPPLY

### 10.3.1 Existing services

The current water main at Camden Airport is approximately 30 years old. There are capacity issues with the current water supply. Water supply is via a Sydney Water main running along Macquarie Grove Road. The existing network reticulates water throughout the Airport.

### 10.3.2 Upgrade required

The existing Sydney Water main does not have sufficient capacity to meet anticipated demand.

Any aviation or non-aviation development will require an upgrade of CAL's internal system to provide additional capacity based on the existing external network. CAL will also discuss with Sydney Water and Camden Council the timing of any proposed upgrades to the external water supply and the ability to incorporate Camden Airport into such planning.

## 10.4 SEWERAGE

### 10.4.1 Existing services

A pumping station exists on site that connects into 150mm diameter gravity main along Macquarie Grove Road. The sewerage system was replaced with a new pumping station and rising main in 1995. The rising main crosses under the Nepean River, where it connects into a rising main on Macquarie Grove Road that discharges into a Pump Station, located on the corner of Macquarie Grove Drive and Exeter Street.

### 10.4.2 Upgrade required

For any aviation or non-aviation development CAL will liaise with Sydney Water to manage this issue.

An additional gravity sewer network may be required to service proposed development. Sufficient capacity exists in the surrounding external Sydney Water sewer infrastructure to accommodate the increased sewer discharge.

## 10.5 TELECOMMUNICATIONS

### 10.5.1 Existing services

Telstra's existing network extends to the corner of Macquarie Grove Road and Aerodrome Road. The network includes a Multiplexer and spare optical fibre cable.

### 10.5.2 Upgrade required

Sufficient capacity exists to accommodate short term growth demands for both aviation and non-aviation developments. However discussions with Telstra will be required to meet longer term strategies. CAL will liaise with Telstra to manage this issue.

## 10.6 GAS

### 10.6.1 Existing services

Gas is currently not available to this site. The closest high capacity feeder main is located along Cawdor Road and Camden and Sheathers Lane, Grasmere. There is also a

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secondary main along Argyle Street, Camden approximately 2.2km away from the Airport.

### **10.6.2 Upgrade required**

Sufficient capacity exists in the surrounding external Agility network, to accommodate any demand arising from any aviation or non-aviation development. However sufficient demand for gas will be required to justify the provision of gas infrastructure. CAL will liaise with Agility to manage this issue in the longer term.

## **10.7 FLOODING AND STORMWATER**

### **10.7.1 Flood management**

A considerable portion of the Airport, predominantly areas adjacent to the Nepean River are subject to flooding. Flooding will be considered as part of any airport lessee company consent including reference to the *Nepean Flood Study 2015*

### **10.7.2 Airport stormwater drainage catchments**

At Camden Airport the stormwater system operates efficiently with rainfall flowing overland via open drains and canals into the Nepean River which is adjacent to the site.

Any aviation or non-aviation development occurring over the planning period will take into consideration the following:

- Camden Council's relevant DCP clauses;
- Water Sensitive Urban Design – Technical Guidelines for Western Sydney, published by the Upper Parramatta River Catchment Trust; and
- the Principles and Guidelines contained in the NSW Floodplain Management Manual.

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# Implementation

- 11.1. Approach to Master Plan implementation
- 11.2. Development concept proposals
- 11.3. Infrastructure provision or upgrade
- 11.4. Development beyond 2020

# 11

# Implementation

*The aviation and non-aviation land development concepts outlined in this 2015 MP represent current views of development expected to be realised largely as a result of movement area asset management and property initiatives over the five year implementation period.*

## 11.1 APPROACH TO MASTER PLAN IMPLEMENTATION

This 2015 MP provides a twenty year strategic planning framework for the future development of Camden Airport. It demonstrates the necessary flexibility to ensure that future aviation and property industry trends and demands are appropriately met through the provision of infrastructure. A summary of the potential development proposals anticipated to be implemented in the first five years of the twenty year planning horizon for this 2015 MP is presented.

The actual timing of development proposals will depend on factors including:

- the assessment of prevailing and forecast market conditions;
- the demand triggers;
- a business case or an asset management case;
- the completion of required environmental assessment and approvals processes; and
- the outcome of stakeholder consultation processes.

Land at Camden Airport is developed by CAL, sub-lessees or third party developers under commercial development agreements. All developments must be approved by CAL with building approval by the Airport Building Controller and consent to, by CAL pursuant to the process detailed in the *Airport (Regulations) 1997*.

Potential proposals anticipated in the period between 2015 and 2020 are described below in relation to:

- aviation development concept proposals;
- CAL land development concept proposals;
- sub-lessee or third party property development proposals, and
- infrastructure provision or upgrades.

## 11.2 DEVELOPMENT CONCEPT PROPOSALS

The development proposals from those described in the 2015 MP expected to be undertaken during the period 2015 to 2020 are as follows:

### 11.2.1 Eastern Aviation/Business Zone

Development of 13,200sq/m site for the Australian Aviation Museum including 4,600sq/m building

### 11.2.2 Taxiway Naming and MAGS

As an enhanced safety measure CAL will initiate a naming protocol for all taxiways on Camden Airport. The introduction of taxiway naming protocol will be supported with the installation of MOS 139 compliant Movement Areas Guidance Signs (MAGS).

### 11.2.3 Annual maintenance program

This is a continuous improvement program for CAL-owned assets dependant upon the nature and extent of the works being undertaken. The works are necessary to meet CAL's ongoing compliance obligations in relation to:

- heritage (where identified);
- National Construction Code (Building Code of Australia);
- Work health and safety; and
- Australian Standards - such as residual current devices electrical systems.

## 11.3 INFRASTRUCTURE PROVISION OR UPGRADE

Infrastructure provision is described in Chapter 10. These developments would be implemented on an 'as-needed' basis and subject to market demands. Infrastructure provision would comprise reticulation of electricity, water and sewer to necessary sites, lead-in power, and water and sewer network upgrades and amplifications.

## 11.4 DEVELOPMENT BEYOND 2020

The South West region of Sydney is planned to grow and with that growth the potential for airport development remains long term.

For the timing of developments beyond the initial five year period of the twenty year planning period, there is less certainty when a specific demand, business case or compliance trigger will be reached. Further, the *Airports Act 1996* requires a final Master Plan to remain in force for five years. Consequently, this Master Plan will be reviewed and updated by late 2020.



**Appendix A: Compliance with the  
Airports Act 1996, Regulations and Airport  
Development Consultation Guidelines**

**A**

# Appendix A: Compliance with the Airports Act 1996, Regulations and Airport Development Consultation Guidelines

APPLICABLE SECTION OF THE AIRPORTS ACT 1996 AND RELATED REGULATIONS	RELEVANT SECTION OF THE MASTER PLAN
<b>Section 70 Final master plans</b>	
<p>(1) For each airport, there is to be a final master plan</p> <p>(2) The purposes of a final master plan for an airport are:</p> <ul style="list-style-type: none"> <li>(a) to establish the strategic direction for efficient and economic development at the airport over the planning period of the plan; and</li> <li>(b) to provide for the development of additional uses of the airport site; and</li> <li>(c) to indicate to the public the intended uses of the airport site; and</li> <li>(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.</li> <li>(e) to ensure all operations at the airport are undertaken in accordance with relevant environmental legislation and standards; and</li> <li>(f) to establish a framework for assessing compliance at the airport with relevant environmental legislation and standards; and</li> <li>(g) to promote the continual improvement of environmental management at the airport</li> </ul>	<p>This Master Plan</p>
<b>71 Contents of draft or final master plan</b>	
<p>(2) In the case of an airport other than a joint user airport, a draft or final master plan must specify:</p> <ul style="list-style-type: none"> <li>(a) the airport-lessee company's development objectives for the airport; and</li> <li>(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</li> <li>(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</li> <li>(d) an Australia Noise Exposure Forecast (in accordance with regulations, if any, made for the purpose of this paragraph) for the areas surrounding the airport; and</li> <li>(da) flight paths (in accordance with regulations, if any, made for the purpose of this paragraph) at the airport; and</li> </ul>	<p>Section 1: Introduction, Section 5: Aviation development plan and Section 6: Non-Aviation development concept</p> <p>Section 5: Aviation Development Plan, Section 6: Non-Aviation development concept</p> <p>Section 7: Ground transport plan</p> <p>Section 5: Aviation development plan, Section 6: Non-Aviation development concept</p> <p>Section 7: Ground transport plan</p> <p>Section 5.5: Aircraft Noise Management, Environment Management Appendix E Noise modelling methodology</p> <p>Appendix E Noise modelling methodology</p>

APPLICABLE SECTION OF THE AIRPORTS ACT 1996 AND RELATED REGULATIONS	RELEVANT SECTION OF THE MASTER PLAN
(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	Section 2: Stakeholder engagement Section 5.5: Aircraft Noise management Appendix E There are no airlines using the Airport
(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	Section 9: Environment Management Appendix B: Airport Environment Strategy
(g) the airport-lessee company's plans for dealing with the environmental issues, and mentioned in paragraph (f) (including plans for ameliorating or preventing environmental impacts);	Section 9: Environment Management Appendix B: Airport Environment Strategy
(ga) in relation to the first 5 years of the master plan – a plan for a ground transport system on the land side of the airport that details: <ul style="list-style-type: none"> <li>i. a road network plan; and</li> <li>ii. the facilities for moving people ( employees, passengers and other airport users) and freight at the airport; and</li> <li>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</li> <li>iv. the arrangements for working with the State or local authorities or other bodies responsible for the road network and public transport system; and</li> <li>v. the capacity of the ground transport at the airport to support operations and other activities at the airport; and</li> <li>vi. the likely effect of the proposed developments in the master plan on the ground transport system and traffic flows at, and surrounding, the airport; and</li> </ul>	Section 7: Ground transport plan
(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: <ul style="list-style-type: none"> <li>i. commercial, community, officer or retail purposes; or</li> <li>ii. for any other purpose that is not related to airport services; and</li> </ul>	Section 11: Implementation
(gc) in relation to the first 5 years of the master plan – the likely effect of the proposed developments in the master plan on: <ul style="list-style-type: none"> <li>i. employment levels at the airport; and</li> <li>ii. the local and regional economy and community, including an analysis of the proposed developments fit within the planning schemes for commercial and retail development in that area that is adjacent to the airport: and</li> </ul>	Section 8: Socio-economic role of Camden Airport

APPLICABLE SECTION OF THE AIRPORTS ACT 1996 AND RELATED REGULATIONS	RELEVANT SECTION OF THE MASTER PLAN
<p>(h) an environment strategy that details:</p> <ul style="list-style-type: none"> <li>i. the airport- lessee company's objectives for the environmental management of the airport; and</li> <li>ii. the areas (if any) within the airport site which the airport-lessee company, in consultation with State and Federal conservation bodies, identifies as an environmentally significant; and</li> <li>iii. the sources of environmental impact associated with airport operations; and</li> <li>iv. the studies, reviews and monitoring to be carried out by the airport- lessee company in connection the the environment impact associated airport operations; and</li> <li>v. the time frames for completion of those studies and reviews for reporting on that monitoring; and</li> <li>vi. the specific measures to be carried out by the airport-lessee company for the purpose of preventing, controlling or reducing the environmental impact associated with airport operations; and</li> <li>vii. the time frames for completion of those specific measures; and</li> <li>viii. details of the consultations undertaken in preparing the strategy (including the outcome of the consultation); and</li> <li>ix. any other matters that are prescribed in the regulations; and</li> <li>x. such other matters (if any) as are specified in the regulations.</li> </ul>	<p>Appendix B: Airport Environment Strategy</p>
<p><b>Matters provided by regulations</b></p>	
<p>(4) The regulations may provide that the objective, assessments, proposals, forecasts and other matters covered by subsection (2) or (3) may relate to one or more of the following:</p>	<p>NOTED</p>
<p>(a) the whole of the planning period of the plan;</p>	<p>This Master Plan</p>
<p>(b) one or more specified 5 year periods that are included in the planning period of the plan;</p>	<p>Section 11: Implementation</p>
<p>(c) subject to any specified conditions, a specified period that is longer than the planning period of the plan.</p>	<p>Note: no periods specified in Regulations</p>
<p>(5) The regulations may provide that, in specifying a particular objective, assessment, proposal, forecast or other matter covered by subsection (2) or (3), a draft or final master plan must address such things as are specified in the regulations.</p>	<p>Note: there are no Regulations in relation to these matters</p>
<p><b>Plan to address consistency with planning schemes</b></p>	
<p>(6) In specifying a particular objective or proposal covered by paragraph (2)(a), (c), (ga), (gb) or (gc) (3)(a), (c), (ga), (gb) or (gc), a draft or final master plan must address:</p> <ul style="list-style-type: none"> <li>a) the extent (if any) of consistency with planning schemes in force under a law of the State or Territory in which the airport is located; and</li> <li>b) if the draft or final master plan is not consistent with those planning schemes- the justification for the inconsistencies.</li> </ul>	<p>Section 1: Introduction  Section: 3.5 and 3.6  Section 5: Aviation development plan  Section 6: Non-Aviation development concept  Section: 6.3 and 6.4  Section 7: Ground transport plan  Section 8: Socio-economic role of Camden Airport  Section 11: Implementation  Appendix F Regional and Local Planning Considerations</p>

APPLICABLE SECTION OF THE AIRPORTS ACT 1996 AND RELATED REGULATIONS	RELEVANT SECTION OF THE MASTER PLAN
<b>Company to have regard to Australian Standard</b>	
(8) In developing plans to referred to in paragraph (2)(e) and (3)(e), and airport-lessee company must have regard to Australian Standard AS20201 – 1994 (“Acoustics – Aircraft noise intrusion – Building siting and construction”) as in force or existing at that time.	Section 5.5: Aircraft noise management
<b>71A Draft or final master plans must identify proposed sensitive developments</b>	
<p>1) A draft master plan must identify any proposed sensitive development in the plan</p> <p>2) A sensitive development is the development of, any of the following:</p> <ul style="list-style-type: none"> <li>a) a residential dwelling;</li> <li>b) a community care facility</li> <li>c) a pre-school</li> <li>d) a primary, secondary, tertiary or other educational institution;</li> <li>e) a hospital</li> </ul> <p>2A) A sensitive development does not include the following:</p> <ul style="list-style-type: none"> <li>a) an aviation educational facility</li> <li>b) accommodation for students studying at an aviation education facility at the airport</li> <li>c) a facility with the primary purpose of providing in-house training to staff of an organisation conducting operations at the airport</li> </ul>	Section 6.4.3
<b>72 Planning period</b>	
A draft or final master plan must relate to a period of 20 years. This period is called the planning period.	Section 1.2
<b>AIRPORTS REGULATIONS 1997 – REG 5.02</b>	
<b>Contents of draft or final master plan</b>	
<p>(1) For paragraphs 71 (2)(j) and (3)(j) of the Act, the following matters are specified:</p> <ul style="list-style-type: none"> <li>(a) any change to the OLS or PANS-OPS surfaces for the airport concerned that is likely to result if development proceeds in accordance with the master plan;</li> <li>(b) for an area of an airport where a change of use of a kind described in subregulation 6.07 (2) of the Airports (Environment Protection) Regulations 1997 [see note 1] is proposed: <ul style="list-style-type: none"> <li>(i) the contents of the report of any examination of the area carried out under regulation 6.09 of those Regulations; and</li> <li>(ii) the airport-lessee company’s plans for dealing with any soil pollution referred to in the report.</li> </ul> </li> </ul>	<p>Section 4.5: Airspace protection</p> <p>Appendix D: Airspace protection</p> <p>Section 9: Environmental management Appendix B: Airport Environment Strategy</p> <p>Section 9: Environmental management Appendix B: Airport Environment Strategy</p> <p>Section 9: Environmental management Appendix B: Airport Environment Strategy</p>

APPLICABLE SECTION OF THE AIRPORTS ACT 1996 AND RELATED REGULATIONS	RELEVANT SECTION OF THE MASTER PLAN
<p>(2) For section 71 of the Act, 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.</p>	<p>Section 6.4: Zoning Appendix F: Regional and Local Planning Considerations</p>
<p>(3) For subsection 71(5) of the Act, a draft or final master plan must:</p> <p>a) address any obligation that has passed to the relevant airport-lessee company under subsection 22 (2) of the Act or subsection 26 (2) of the Transitional Act; and</p> <p>b) address any interest to which the relevant airport lease is subject under subsection 22 (3) of the Act, or subsection 26 (3) of the Transitional Act.</p>	<p>Note: there are no Regulations in relation to these matters</p>
<p>(4) In subregulation (1): “OLS” and PANS-OPS surface have the same meanings as in the Airports (Protection of Airspace) Regulations.</p>	<p>Noted.</p>
<p>Note 1 Subregulation 6.07 (2) – Airports (Environment Protection) Regulations A change of use to which paragraph (1)(d) applies is a change that necessitates greater environmental protection measures because the use will result in the land being used in a way, or for a purpose, that will, or is reasonably likely to, cause greater harm:</p> <p>(a) to an aspect of the environment; or</p> <p>(b) to the health, safety or, in any respect, the welfare of, human beings.</p>	



**Appendix B: Airport Environment Strategy**

**B**

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# CAMDEN AIRPORT

## **Airport Environment Strategy**



# 2015

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# Background

- 1.1. Introduction
- 1.2. Purpose of the airport environment strategy
- 1.3. Contents of this airport environment strategy
- 1.4. Consideration of aircraft noise and air emissions
- 1.5. Consultation and airport environment strategy finalisation
- 1.6. Dissemination of the airport environment strategy
- 1.7. Future airport environment strategies
- 1.8. Contacts for airport environment issues

# Background

## 1.1 INTRODUCTION

Camden Airport (the Airport) is operated by Camden Airport Limited (CAL) on behalf of BAC Airports Pty Ltd (BACA) which completed the purchase of the Airport lease from the Commonwealth Government on 15 December 2003.

Under the terms of the lease, and in accordance with Part 5 of the *Airports Act 1996*, (the Act) operations at the Airport are subject to an Airport Environment Strategy (AES). The Act requires the AES to be updated every five years. The 2010 AES was required to be updated by 10 May 2015. However, to align the AES with the preparation of the 2015 Camden Airport Preliminary Draft Master Plan, in April 2014 the Minister for Infrastructure and Regional Development granted an application to extend the expiry date of the 2010 AES. This 2015 Camden Airport AES replaces the 2010 AES and is the first AES for Camden Airport to be incorporated into the Master Plan.

## 1.2 PURPOSE OF THE 2015 AIRPORT ENVIRONMENT STRATEGY

The purpose of the 2015 AES is to meet the Airport's obligations under the Act and the *Airports (Environment Protection) Regulations 1997* (the Regulations). The AES identifies CAL's objectives for environmental management of the Airport, sources of environmental impact associated with airport operations and outlines the environmental management strategies and actions that will be implemented at the Airport over the five years of the AES. It forms the central management tool that will enable CAL to ensure the integrated environmental management of ground-based activities, and to avoid, or otherwise, mitigate the impacts of activities at the Airport on the environment at the Airport and its surroundings.

## 1.3 CONTENTS OF THIS 2015 AES

The Act and the Regulations set out matters that must be addressed in an AES (**Annex A**). Accordingly, this 2015 AES is structured to address the requirements of the Act and Regulations, as well as to provide a framework for addressing the principles of Ecologically Sustainable Development.

Specifically, the 2015 AES includes the following sections:

- An introduction describing the purpose, contents and contact details for discussion of environmental issues;
- A description of the Airport in terms of its location, operations and tenants, management structure, regulatory regime, sites of cultural significance, environmentally significant areas as defined under the Act and Regulations as well as environmental elements

that are not specifically defined within the Act or the Regulations which CAL has identified as having attributes worthy of protection, or values worthy of consideration during development of the airport;

- An overview of environmental management at the Airport;
- A summary of environmental management issues including:
  - Environmental issues associated with airport operations and developments;
  - Environmental achievements undertaken during the life of the 2010 AES;
  - Objectives and targets for environmental management for the period of this 2015 AES (2015 to 2020); and
  - Measures proposed for preventing, controlling or reducing the environmental impacts for the period of the 2015 AES.
- Annex A details how this 2015 AES addresses the requirements of the Act and Regulations.

## 1.4 CONSIDERATION OF AIRCRAFT NOISE AND AIR EMISSIONS

Aircraft engine emissions are addressed by the *Air Navigation (Aircraft Engine Emissions) Regulations 1995* and aircraft noise emissions are addressed by the *Air Navigation (Aircraft Noise) Regulations 1984*. Both Regulations are administered by the Commonwealth Government through Airservices Australia.

CAL recognises aircraft engine and noise emissions as important environmental issues and will provide Airservices Australia assistance with the management of aircraft noise and emissions as required under the Act. Aircraft noise exposure has been modelled and is addressed in Section 5.5 of the 2015 MP. Noise and emissions generated from the ground running of aircraft engines during maintenance and non-aviation ground-based activities at the Airport are addressed in Section 9.6 of the 2015 MP. Mitigation measures for the management of aircraft noise are provided in the 2015 MP and discussed in Section 4.4 of this 2015 AES.

CAL will also facilitate discussions on aircraft noise and emissions with the surrounding community through the Camden Airport Community Aviation Consultation Group (CACACG) and with Local and State Government through the Planning Coordination Forum (PCF).

## 1.5 CONSULTATION AND AIRPORT ENVIRONMENT STRATEGY FINALISATION

Key stakeholders were consulted during the preparation of the 2015 MP which includes this 2015 AES. These stakeholders include the CACACG, Camden City Council, the NSW Government, Tharawal Local Aboriginal Land Council (LALC), the Commonwealth Department of Infrastructure and Regional Development (DoIRD) and the Department of the Environment (DoE). The Airport Environment Officer (AEO) was involved in the review of the 2015 MP.

## 1.6 DISSEMINATION OF THE AIRPORT ENVIRONMENT STRATEGY

The approved 2015 Master Plan including the AES will be made available to all CAL's tenants and other airport users so that all stakeholders are aware of their duties and obligations with respect to the contents of the AES.

In addition, advertisements will be placed in the local newspapers to inform members of the community that the 2015 Master Plan including the AES has been approved and is available free of charge on the Airport's website at [www.camdenairport.com.au](http://www.camdenairport.com.au).

## 1.7 FUTURE AIRPORT ENVIRONMENT STRATEGIES

The 2015 AES will be in force for a period of five years, from 2015 to 2020. Prior to 2020, CAL will prepare a new AES with the Master Plan in time to replace this 2015 AES. Stakeholders including tenants, other airport users, Camden City Council, CACACG, community interest groups, and relevant government authorities will be consulted in the preparation of the new AES.

## 1.8 CONTACTS FOR AIRPORT ENVIRONMENT ISSUES

Comments regarding environmental performance at Camden Airport are welcome at any time.

For issues relating to environmental management at the Airport, or the contents of this 2015 AES, please contact:

Environment Manager  
Camden Airport Limited  
Management Centre  
PO Box 6450  
WETHERILL PARK NSW 1851  
Telephone (02) 9796 2300  
Facsimile (02) 9791 0230  
[www.camdenairport.com.au](http://www.camdenairport.com.au)

It is recommended that comments or enquiries regarding aircraft noise and aircraft emissions be directed to:

Airservices Australia – Sydney Aircraft Noise Inquiry Line  
Telephone 1300 302 240  
Email [webmaster@airservicesaustralia.com](mailto:webmaster@airservicesaustralia.com)

For issues relating to the application of legislation at the Airport, or the scope of this document, contact:

Department of Infrastructure and Regional Development  
GPO Box 594  
CANBERRA ACT 2601  
Telephone (02) 6274 7111  
Facsimile (02) 6257 2505  
[www.infrastructure.gov.au](http://www.infrastructure.gov.au)

For issues relating to the enforcement of environmental matters in the *Airports Act 1996* or the *Airports (Environment Protection) Regulations 1997* at the Airport, contact:

Department of Infrastructure and Regional Development  
GPO 594  
CANBERRA ACT 2601  
Telephone (02) 6274 7111  
Facsimile (02) 6257 2505

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# Airport Environment and Heritage

- 2.1. Location
- 2.2. Airport operations
- 2.3. Tenants
- 2.4. Management structure overview
- 2.5. Environment regulatory regime
- 2.6. Environmentally significant areas
- 2.7. Sites of Indigenous significance

# 2

# Airport Environment and Heritage

## 2.1 LOCATION

Camden Airport is situated approximately 2 kilometres north west of the centre of Camden, 15 kilometres north west of Campbelltown and 46 kilometres from Sydney Airport, within the Camden Local Government Area.

As shown on Figure 1, the Airport is bounded by:

- Nepean River to the west;
- Nepean River and farmland to the east;
- Nepean River to the south; and
- Farmland to the north.

The Airport covers an area of approximately 196 hectares. An aerial photograph showing the land surrounding the Airport as well as the general layout of the Airport is shown in Figure 2. A plan showing the current land use is shown in Figure 3.

The Nepean River, a major waterway draining to the Hawkesbury River, borders the eastern, southern and western boundaries of the Airport. Airport land adjacent to the River is impacted by the 1 in 500 year flood event. The central north sector of the Airport is impacted by the 1 in 100 year flood event. The majority of Airport buildings are located toward the higher north eastern boundary, an area that is least impacted by potential flooding.

Access to the Airport is via Aerodrome Road located west of Macquarie Grove Road. An internal road system provides access to the hangars and landside buildings from Aerodrome Road.

## 2.2 AIRPORT OPERATIONS

Full details of Airport operations are provided in Chapters 4 and 5 of the 2015 MP, which present the vision for the development of the Airport over the twenty year period of the Airport Master Plan. The number of General Aviation (GA) movements at Camden Airport in 2014/15 is estimated to be 93,500. This number of movements is below the operational capacity of 210,000 movements per year. Air traffic forecasts are presented in Section 5.1 of the 2015 MP.

Camden Airport has two runways, a sealed runway of 1,464 metres in the 06/24 direction and a grassed runway of 723 metres in the 10/28 direction. Two grass strips in the 10/28-06/24 direction are also available for glider operations. The layout of the runways is shown in Figure 3. Aircraft parking areas are located adjacent to the runways and outside the existing hangar reserves.

Operational facilities include a lit runway, taxiways, aircraft parking areas, an air traffic control tower (ATCT) and refueling

Figure 1 | Location Plan



and fuel storage depots. The ATCT operates from 8:00 am to 6:00 pm. Outside these hours, the Airport operates under common traffic advisory frequency protocols. As the Airport is not operational for passenger traffic, it does not have terminal facilities.

## 2.3 TENANTS

There are approximately 42 tenants at Camden Airport carrying out a limited range of aviation and non-aviation activities.

Aviation-related tenants include flight training schools, fuel sales, glider manufacture and aircraft maintenance. Non-aviation tenants include a communications equipment manufacture and NSW Government's Air Quality Monitoring Station. With the exception of glider storage hangars, the tenants are clustered in the north eastern part of the site.

The 2015 MP discusses future development of the Airport and provides details of proposed land use at the Airport for both developed and undeveloped land. The Development Concept is shown on Figure 4. Airport tenant numbers may change in the future and the mix of tenants may change during the period of the 2015 AES. The 2015 AES will accommodate these changes.

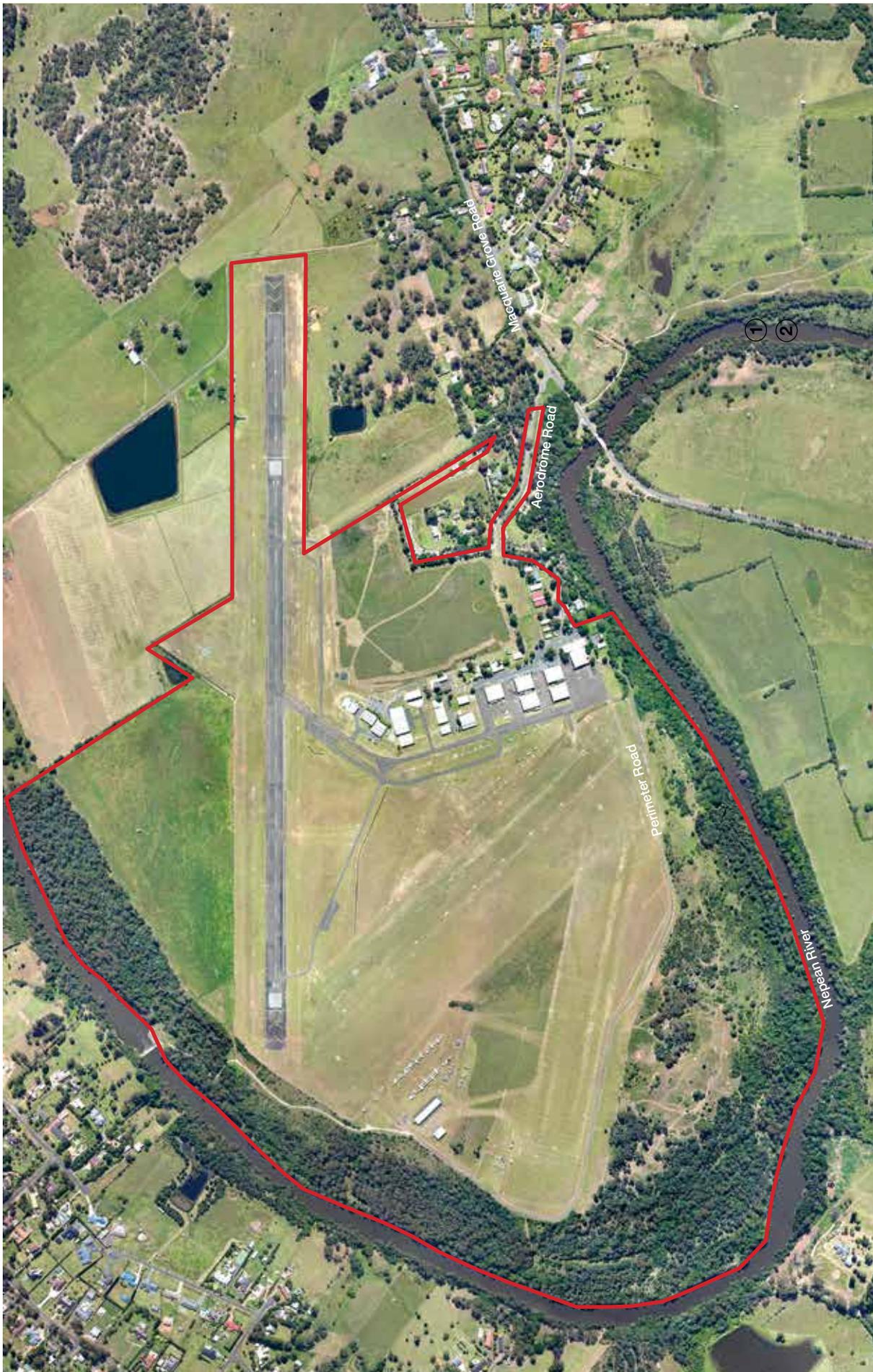


Figure 2 | General Airport layout

CAMDEN AIRPORT Master Plan 2015

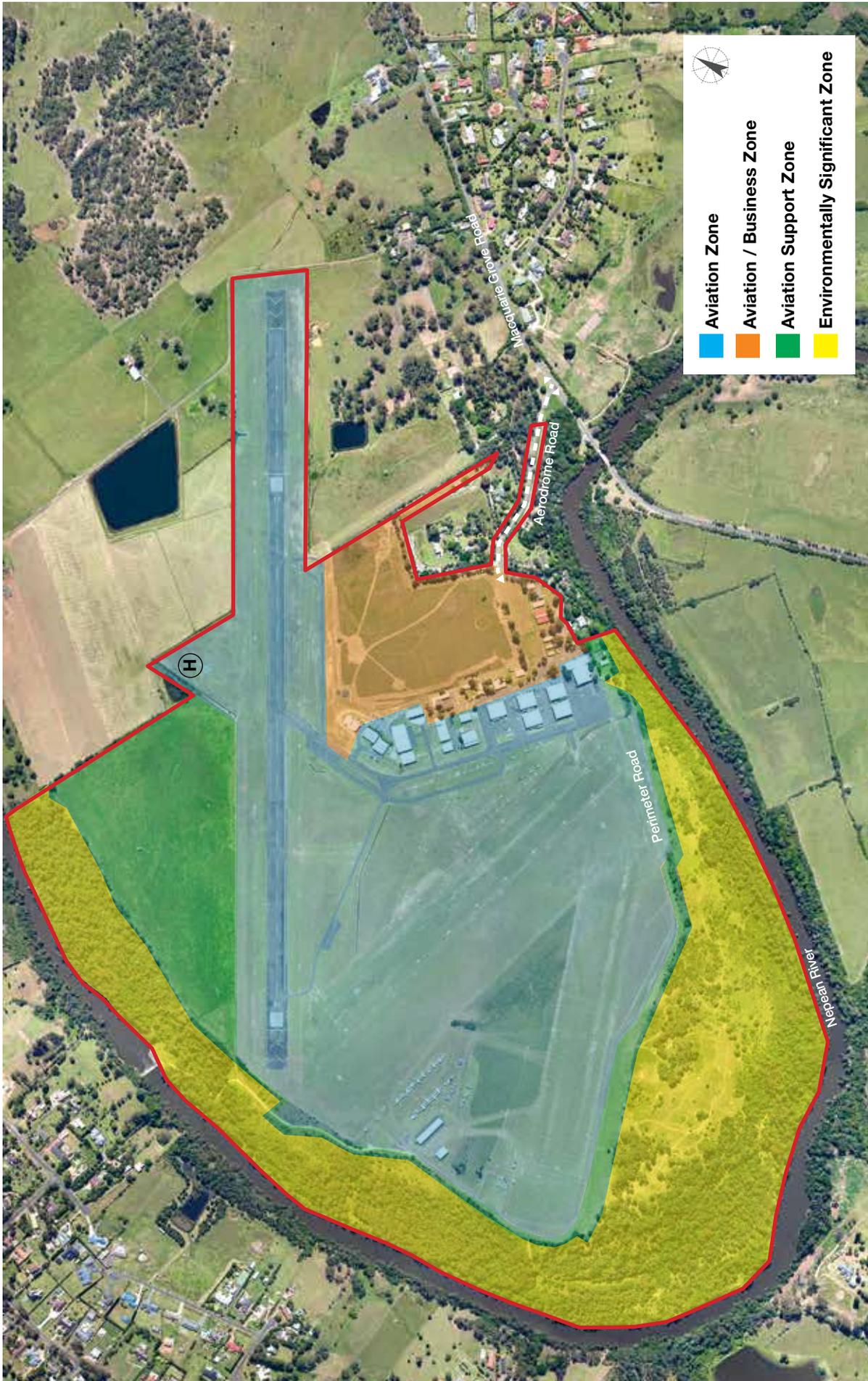


Figure 3 | Airport land zones concept

CAMDEN AIRPORT Master Plan 2015

### 2.3.1 Major Airport tenants

Camden Airport has not attracted any global or national entities and as such the major tenants on Camden Airport are flying related entities operating through single or multiple hangars. Their operations relate to flight training and or flying leagues. A large parcel of land is also tenanted for rural uses however the value of the lease is relatively low.

### 2.3.2 Environmental risk

Airport tenants are divided into three tiers based on their potential environmental risk.

#### Tier 1

Tier 1 tenants are those whose operations are considered to have a potential for significant environmental risk. This includes, but is not limited to, tenants that store 500 litres or more of hazardous substances or dangerous goods, and/or distribute fuel.

Tier 1 tenants are required to identify the environmental risks associated with their operations and prepare documented environment management procedures to address their identified risks in the form of an Environment Management System (EMS) or Environment Management Plan (EMP). Tier 1 tenants are to be audited at least annually or more frequently if appropriate under specific licensing or regulatory requirements (for example, underground fuel storage and distribution facilities). This environmental audit can be conducted by a tenant staff member who has received appropriate training for the task, but every second year these tenants must engage an independent certified environmental auditor to carry out an environmental audit of their activities.

#### Tier 2

Tier 2 tenants are those whose operations are considered to have a potential for moderate environmental risk and includes, but is not limited to, tenants that:

- Store up to 499 litres of hazardous substances or dangerous goods; and/or
- Operate spray paint booths; and/or
- Undertake maintenance and/or repair operations requiring the cleaning or washing of parts.

Tier 2 tenants are required to identify the environmental risks associated with their operations and prepare documented environment management procedures to address their identified risks in the form of an EMP. Tier 2 tenants are to be audited at least annually. This environmental audit can be conducted by an internal staff member who is considered appropriate for the task. Every third year these tenants

are required to engage an independent third party with appropriate environmental qualifications and environmental auditor experience to carry out an environmental audit of their activities.

#### Tier 3

Tier 3 tenants are those whose operations are considered to have a potential for minor environmental risk and include all tenants not categorised as Tier 1 or 2. Tier 3 tenants will be required to perform an internal environmental audit once every five years. These tenants are expected to identify and manage the environmental risks associated with their operations; however documented procedures are not required. CAL must be immediately advised of any change or proposed changes in tenant operations that may increase the potential of environmental risk.

If, at any time, a tenant fails to comply with the CAL environmental requirements or is deemed to cause undue environmental risk, CAL can increase that tenant's tier status to comply with a stricter environmental standard.

Aviation and non-aviation tenants and their employees, contractors and agents will be required to comply with the 2015 AES by regulatory, lease and audit means. Tenants are responsible for their contractors and for the environmental training of their staff, including actions to prevent, report and monitor environmental incidents and/or pollution events and compliance with the *Airports Act 1996* and *Airports (Environment Protection) Regulations 1997*.

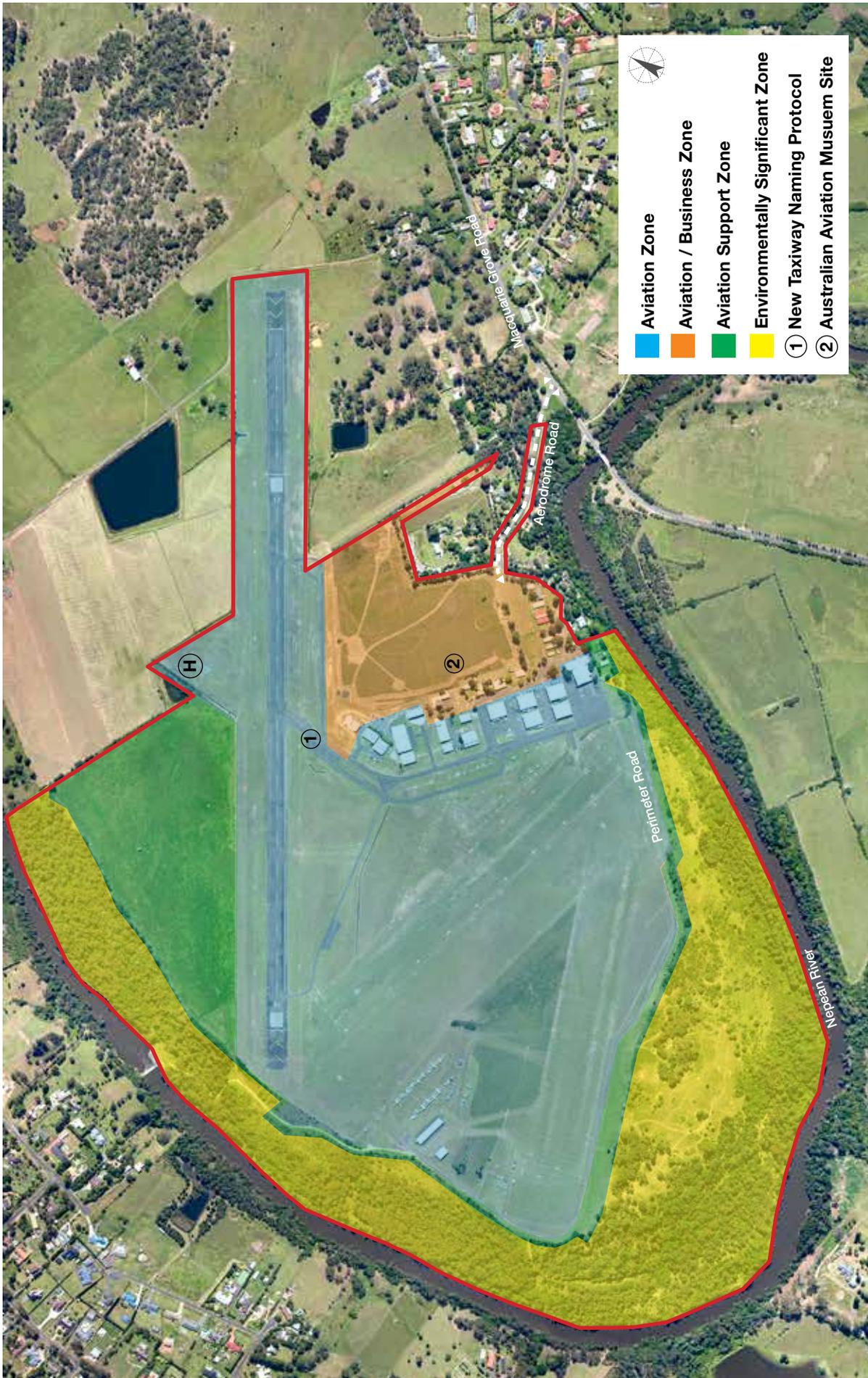
## 2.4 MANAGEMENT STRUCTURE OVERVIEW

The organisational structure of CAL is in keeping with the size and complexity of the Airport.

At the top of the structure is CAL's Chief Executive Officer (CEO). The CEO reports directly to the CAL Board of Directors. The Board expects a high standard of environmental performance at Camden Airport and is committed to providing trained staff, financial support and equipment.

CAL's CEO has the responsibility of ensuring compliance with the *Environment Policy* (see Section 3.1.1), maintaining the relevance of the Policy and ensuring the required standard of environmental performance is achieved.

The Environment Manager reports to the Chief Financial Officer, on day to day business matters but has a direct reporting line to the CEO on environment governance matters as warranted. The Environment Manager has the responsibility for the day-to-day implementation of the Environmental Management System (EMS), of which the AES is one component.



CAMDEN AIRPORT Master Plan 2015

Figure 4 | Development concept and land use zoning

By reporting to the Chief Financial Officer, the Environment Manager function is separated from the property and aviation business units. This allows the Environment Manager role to perform both service and governance functions. In terms of a service function, the Environment Manager works with the business unit managers to assist them to improve the environmental performance of their businesses. In terms of governance, a reporting line to the CEO allows the Environment Manager to independently audit and review the environmental performance of business units and report any variances, inconsistencies and failures to the CEO for remedial action.

More specifically, the Environment Manager's duties include:

- Preparing and implementing the AES;
- Distributing copies of the AES to all tenants and other Airport users (as required);
- Implementing the Airport's EMS;
- Reviewing, amending and improving the Airport's EMS;
- Maintaining environment records including the Environmental Sites Register;
- Liaising with the Airport Environment Officer (AEO), tenants, airport users and the general public on environmental matters;
- Preparing and providing advice on a range of environmental matters for tenants, airport users and the general public;
- Conducting and/or reviewing environmental audits of tenants' and CAL's operations;
- Reviewing tenant EMPs;
- Identifying and organising training and/or awareness programs for CAL staff, contractors and tenants;
- Assessing Airport Lessee Company (ALC) consents to development from existing and prospective tenants for environmental impacts associated with the development;
- Reviewing Construction EMPs and monitoring their implementation;
- Monitoring air, water and soil quality, noise and heritage matters as well as flora and fauna;
- Commissioning environmental studies and responding to study findings and recommendations;
- Responding to environmental emergencies; and

- Preparing CAL's Annual Environment Report to the Minister for Infrastructure and Regional Development.

## 2.5 ENVIRONMENTAL REGULATORY REGIME

### 2.5.1 Airport operations in general

Camden Airport is subject to the *Airports Act 1996* (the Act) and the *Airports (Environment Protection) Regulations 1997* (the Regulations).

This legislation aims to establish a cooperative approach to environmental management on Commonwealth leased airports, promote awareness of environmental issues and to ensure that management systems are in place that identify and manage environmental risks with the view to avoiding or, where avoidance is not possible, mitigating environmental impacts such as water pollution, soil contamination, adverse effects to biota and heritage sites, air pollution (from non-aircraft sources) and ground-based noise produced on airports.

In addition to the Act, the objective of promoting awareness and the management of environmental issues, the Regulations:

- Set standards and impose duties in relation to environmental pollution (dealing with water and soil quality, and ground-based air and noise emissions);
- Authorise the monitoring and remediation of breaches of environmental standards; and
- Support better environmental outcomes on leased Commonwealth airports.

The main environmental elements of the Act include the implementation of an AES, and the monitoring and remediation of pollution.

The 2010 AES was approved by the Minister on 10 May 2010. This 2015 AES has been prepared in accordance with the requirements of Part 5 of the Act to update and replace the 2010 AES and will cover the period from 2015 to 2020.

The Minister for Infrastructure and Regional Development, who is responsible for regulating all Commonwealth leased airports under the Act, determines whether to approve this 2015 AES as part of the 2015 MP, following an extensive review process.

### 2.5.2 Pollution control

The Regulations specify acceptable limits for pollution across all Commonwealth leased airports in all States and define a

framework for monitoring, reporting and remediating pollution. The Regulations are largely equivalent to the relevant State Regulations.

The Regulations do not apply to air and noise pollution generated by aircraft in flight or when landing, taking-off or taxiing at an airport (as noted in Regulation 1.03). Aircraft engine emissions are addressed by the *Air Navigation (Aircraft Engine Emissions) Regulations 1996* and aircraft noise emissions are addressed by the *Air Navigation (Aircraft Noise) Regulations 1984* and are regulated directly by the Commonwealth Government through Airservices Australia.

CAL recognises these as important environment issues, and will provide Airservices Australia assistance with the management of aircraft noise and engine emissions as required under the Act. CAL will also facilitate discussions on the control and management of aircraft noise and engine emissions through the CACACG. Additional information on aircraft noise management is provided in Section 4.4 of this 2015 AES and in Section 5.5 of the 2015 MP.

Noise and emissions generated by the ground running of aircraft engines associated with maintenance as well as non-aviation ground-based activities are addressed by the Regulations and are considered within this 2015 AES.

### 2.5.3 Development planning and approvals process

Future development at the Airport will be undertaken in accordance with the approved Camden Airport Master Plan. CAL is focused on developing a profitable and sustainable business and the CAL Environment Manager will work on future developments at the Airport to identify environmental risks and exploit opportunities with respect to sustainable development through the development planning and approvals process.

CAL recognises that sustainable business initiatives have the potential to add value to the future development of the Airport and will make an important contribution to the sustainable growth of the Camden district as well as the Sydney region as a whole.

Development proposals at Camden Airport are subject to planning approval and an environmental impact assessment process (see Figure 5). These processes work to identify and assess the impacts of the development on the local environment including:

- Soil;
- Water;
- Air quality;

- Noise;
- Waste;
- Flora/fauna;
- Heritage;
- Resource use (energy and waste); and
- Dangerous goods/hazardous substances.

#### Role of CAL

For new developments at Camden Airport, a proponent must obtain Airport Lessee Company (ALC) Consent forms including an Assessment of Environmental Effects (AEE) form from CAL. The ALC Consent and AEE forms are completed by the proponent and submitted to CAL for consideration. The objectives of this 2015 AES are reflected in the AEE form. A copy of the AEE form is included in Annex B of this AES (The AEE form, which may be amended from time to time, is available on the Camden Airport website).

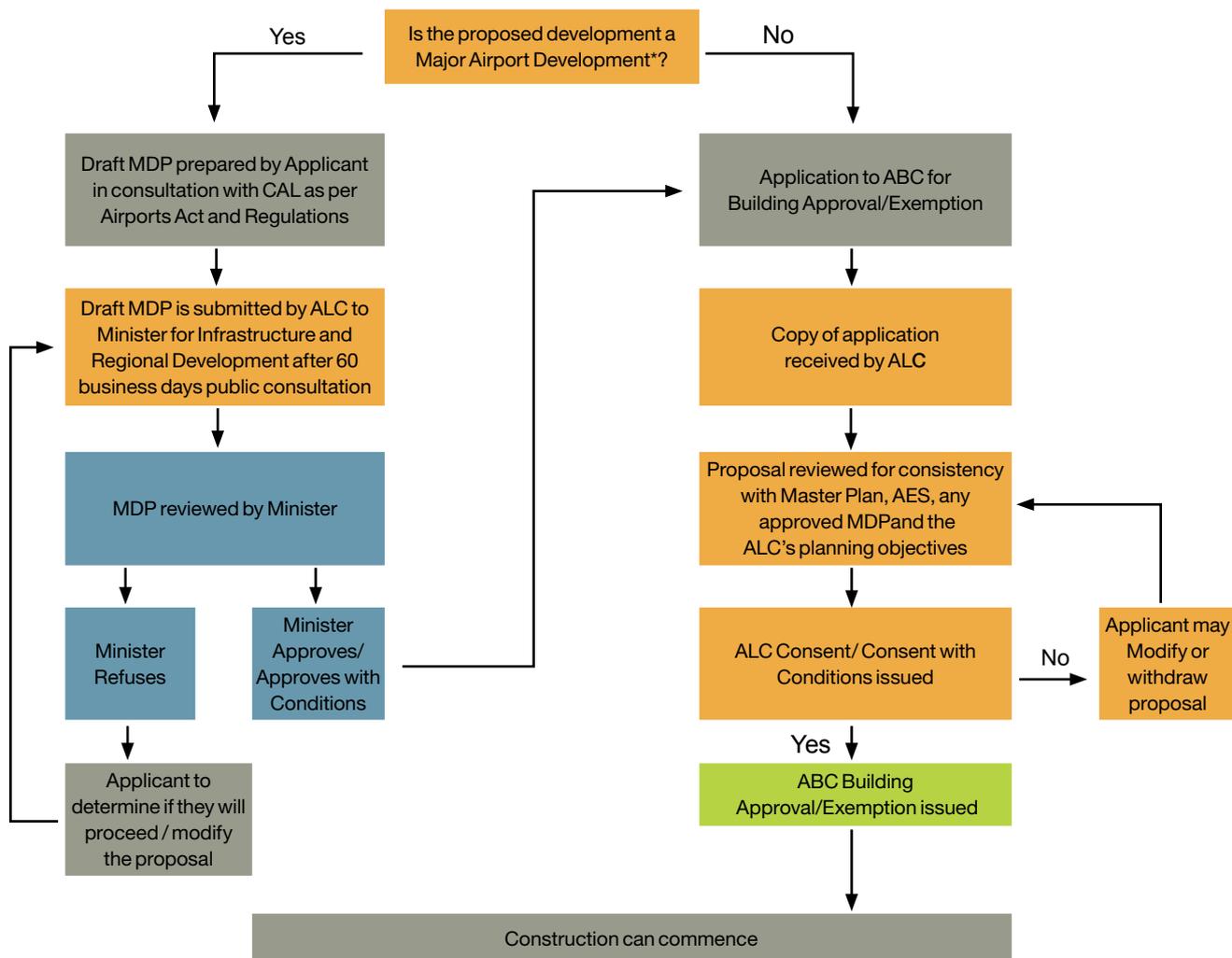
Prior to providing its consent to any development, CAL must consider the consistency of the proposal with the current Airport Master Plan and the AES, as well as relevant requirements of the Act, the Regulations and the *Environment Protection and Biodiversity Conservation Act 1999*, and other environmental legislation, standards and guidelines that may be relevant. CAL uses the consent process and the AEE to identify potential impacts, provide prompts for further assessment and suggested instructions for inclusion in the consent/approval granted by CAL. Issues covered include air, soil, water, air quality, noise, waste, flora/fauna, heritage, resource use, dangerous goods/hazardous substances and consultation.

CAL may consent to, or may refuse to provide its consent to a proposed development. CAL may apply conditions of consent to developments to ensure that they are designed, constructed and managed in an environmentally responsible manner and ensure comprehensive compliance with the AES, the Act and relevant environmental legislation, standards and guidelines.

#### Roles of the Airport Building Controller and Airport Environment Officer

The proponent of any development is required to submit a Works Permit Application (for works such as, but not limited to earthworks, engineering works, electrical works or hydraulic works) or Building Permit Application (for the construction or alteration of a building, or the removal of vegetation) to the Airport Building Controller (ABC) and the Airport Environment Officer (AEO). The applications for Tier 1 and Tier 2 tenants must be accompanied by an up to date EMP, detailing the

Figure 5 | ALC Consent Process under the Airports Act 1996



\* CAL as the ALC can meet with potential applicants Pre-Application to provide guidance in this regard. CAL may require further information or advice in support of a proponent's position that a proposed development does not require a MDP.

ABC	Airport Building Controller
AES	Airport Environment Strategy
ALC	Airport Lessee Company i.e Bankstown Airport Limited (BAL) or Camden Airport Limited (CAL)
MDP	Major Development Plan

Action by ABC
Action by ALC
Action by Applicant
Action by Regulator (ABC or Department of Infrastructure and Regional Development)

actions that will be taken to control pollution emissions that may be associated with the operation of the new facility. The ABC and AEO assess the application and may approve it with or without conditions, or may refuse the application.

### Major Development Plans

Under the Act, certain types of development, referred to as a 'major airport developments', require the preparation and approval of a Major Development Plan (MDP) prior to commencement of the development. The definition of a major airport development is provided in Part 5, Division 4 of the Act. In summary, major airport developments include:

- Runways, taxiways, terminals, major roadworks;
- Developments that exceed a defined cost of construction (currently \$20 million);
- Developments that add significantly to airport capacity;
- Developments of a kind that are likely to have significant environmental or ecological impact;
- Developments that affect an area identified as environmentally significant in the AES; and
- Sensitive developments including schools or hospitals.

An MDP must be approved by the Minister prior to the development proceeding.

All MDPs are referred by the Department of Infrastructure and Regional Development (DoIRD) to the Department of the Environment (DoE) for advice.

To assist CAL in deciding whether a proposal is environmentally significant, CAL would refer to the AEE submitted with the development proposal by the proponent, which will detail potential impacts and measures to be undertaken to mitigate the impacts.

### Consent to Development

CAL's consent to any development, building or other works requires compliance with the AES, and may include such matters as preparation of a Construction EMP to detail how the applicant intends to control issues such as dust, noise and water quality during construction works and an Operational EMP that addresses the measures that will be adopted to manage environmental risks during the operation of the facility.

EMPs are reviewed by CAL's Environment Manager and the AEO. CAL will provide a Statement of Compliance with the AES once the ALC consent has been approved by CAL. Building and works approvals are determined by the ABC on behalf of DoIRD in consultation with the AEO. The ABC

provides approval for engineering or building works prior to the commencement of any activity, in accordance with the provisions of the Act and the *Airports (Building Control) Regulations 1996*.

Some types of building activity are exempt from requiring approval, however, they require notification to the ABC prior to commencement (refer Regulation 2.24 of the *Airports (Building Control) Regulations 1996*).

### Liaison with Council and other stakeholders

CAL continues to liaise with Camden Council on environmental matters relevant to Council. CAL has established a Planning Coordination Forum (PCF) with Camden Council and the NSW Government. The PCF meets regularly to discuss on-airport development activities. CAL also consults widely on development proposals through the CACACG and the extensive communication network already established. CAL displays all development applications on its website.

Under CAL's Airport Lessee Company Consent: Consultation Policy 2014, CAL will identify potential stakeholders who may be impacted by proposed developments, and consult with or notify these stakeholders prior to granting consent to the development.

CAL has also an understanding with Water NSW allowing that body continuous access to Sharpe's Weir for operational purposes.

### 2.5.4 Flora, fauna and heritage

In addition to the Act and the Regulations, Commonwealth laws (such as the *Environment Protection and Biodiversity Conservation Act 1999*) which protect endangered species (biota and habitat protection), national heritage and matters of Aboriginal and Torres Strait Islander heritage have effect on Commonwealth-leased airport sites.

State laws dealing with biota, habitat, heritage sites and sites of indigenous significance apply to Commonwealth-leased airports to the extent they are not inconsistent with Commonwealth laws dealing with the subject matters.

### 2.5.5 Application of Commonwealth and State Legislation

The Act provides for a comprehensive regulatory regime for leased Commonwealth airports in relation to the prevention or minimisation of environmental pollution (including air, water or soil pollution), the emission of noise generated at airport sites and to promote better environmental outcomes on leased Commonwealth airport sites.

The Act and the Regulations are intended to operate to the exclusion of State laws other than where Commonwealth

Law is intended to operate concurrently with State Legislation or where no Commonwealth Law exists and State law is applied, for example in the following areas:

- Pollution from a motor vehicle;
- Work health and safety matters;
- Disposal or storage of waste at airport sites;
- Emissions of substances that deplete stratospheric ozone; and
- The use of pesticides.

### 2.5.6 Airport Environment Officer (AEO)

AEO's are appointed by DoIRD to administer the Act and the Regulations as well as monitor compliance by CAL and its tenants with the AES.

Duties of the AEO include:

- The issuing of authorisations to carry out activities at airports;
- The issuing of infringement notices for non-compliances with the Regulations such as failure to comply with the pollution limits specified in the Regulations;
- The issuing of environment protection orders directing persons undertaking an activity on an airport to undertake particular action to;
  - o Prevent, or mitigate the effects of, pollution;
  - o Prevent the generation of excessive noise; or
  - o Avoid a particular adverse consequence with respect to flora, fauna, ecological communities and sites of indigenous significance at the Airport site; and
- Liaising with CAL, Airport tenants and Airport users on environmental management issues. The AEO provides regulatory advice to the Environment Manager and reports to DoIRD during monthly meetings.

## 2.6 Environmentally Significant Areas

The Regulations require CAL to identify in the AES areas of environmental significance at the Airport. The Regulations do not define what constitutes an 'area of environmental significance'. However, the Regulations require CAL in specifying an area as environmentally significant, to address:

- Any relevant recommendation of the DoE regarding biota, habitat, heritage or kindred matters; and
- 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 kindred matters. Relevant NSW bodies include the Office of Environment and Heritage (OEH), National Parks and Wildlife Service (NPWS), Environment Protection Authority (EPA), the Department of Planning and Environment (DPE) and Greater Sydney Local Land Services.

Based on current information, CAL considers the following to be 'environmentally significant':

- Environmentally Significant Zone – bordering the Nepean River, as shown on Figure 3, due to the following being located within the Zone:
  - o River Flat Forest which is located on the banks of the Nepean River. The River Flat Forest is an endangered ecological community that has been listed under the *Threatened Species Conservation Act 1995 (NSW)*.
  - o Two flora species, *Eucalyptus benthamii* and *Pomaderris brunnea* are listed as "vulnerable" species under the *Environment Protection and Biodiversity Conservation Act 1999*. In addition, under the *Threatened Species Conservation Act 1995 (NSW)*, *Pomaderris brunnea* is listed as an "endangered" species and *Eucalyptus benthamii* is listed as a "vulnerable" species.
  - o A known Aboriginal site, comprising an artefact scatter. The site is registered on the NSW Aboriginal Heritage Information Management System (AHIMS). To protect the site, its specific location is not shown in this AES.

To better understand the variety and levels of flora and fauna on Camden Airport CAL commit to surveying the Airport in 2017 to accurately record and map the flora and fauna in greater detail. Refer to Section 4.5 of this AES for details.

As indicated in Section 2.5 of this AES, all development proposals are subjected to separate environmental impact assessments that consider whether a proposed development is likely to affect an area identified as environmentally significant in this AES.

## 2.7 Sites of Indigenous Significance

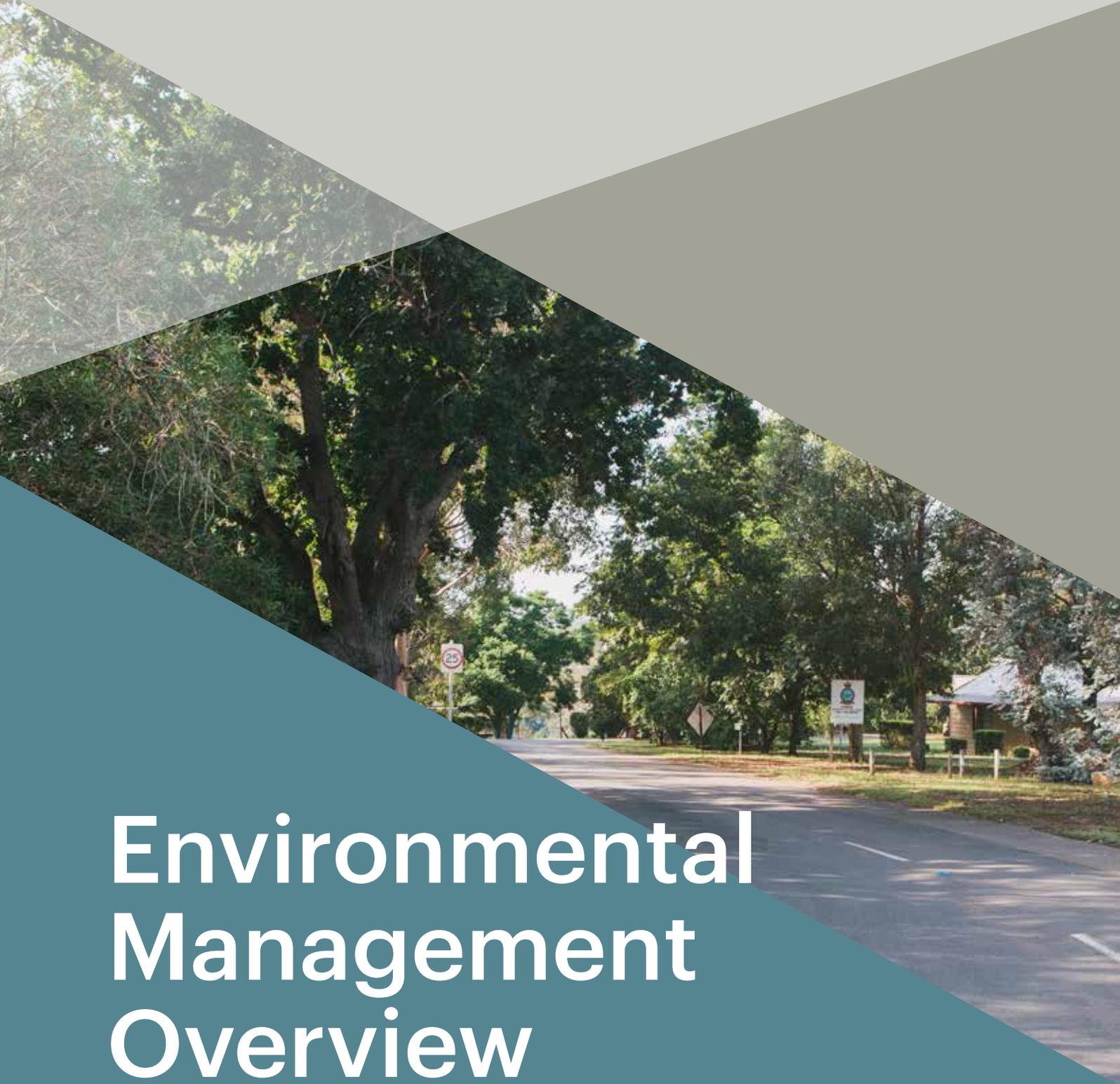
The Regulations require CAL to identify 'sites of indigenous significance'. The Regulations do not define what constitutes a 'site of indigenous significance' however require consultation with:

- Any relevant indigenous communities and organisations; and

- 
- Any relevant Commonwealth or State body.

Relevant indigenous communities and organisations include the Tharawal Local Aboriginal Land Council (LALC). The relevant government body is the NSW Office of Environment and Heritage.

As discussed in Section 4.6.1 of this 2015 AES, one site of indigenous significance has been identified on the Airport. This is located within the riparian zone adjacent to the Nepean River, an area designated as 'environmentally significant' on Figure 3. As indicated in Section 2.5.3 of this 2015 AES, all development proposals are subject to separate environmental impact assessments that consider whether a proposed development is likely to affect an area which has potential to contain a site of indigenous significance.



# Environmental Management Overview

- 3.1. Environmental management system
- 3.2. Continuous environmental improvement

# Environmental Management Overview

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## 3.1 ENVIRONMENTAL MANAGEMENT SYSTEM

The need for an Environmental Management System (EMS) is part of the regulatory requirements presented in Regulation 3.06(c) of the Regulations.

The 2015 AES forms part of CAL's EMS and is supplemented by other documentation and systems including an EMS Manual. The 2015 AES documents the strategic, legal and reporting framework within which the EMS operates. The EMS Manual identifies the key environmental risks associated with the management and operation of the Airport and incorporates action plans and procedures that address those risks.

The EMS is progressively reviewed and updated as opportunities for improvement are identified and also to maintain its consistency with *AS/NZS ISO 14001:2004* Environmental management systems – Requirements with guidance for use.

The following sections describe the components of the EMS and how they have been implemented and maintained.

### 3.1.1 Environment Policy

The Environment Policy below, is the guiding reference for the management of environmental matters at Camden Airport. The policy was introduced in 2005, and the current policy is posted on the Camden Airport website.

CAL's management and staff are committed to providing a centre of excellence for aviation, commercial and industrial facilities and services at Camden Airport.

All staff appreciates that this commitment must include the adoption of best practice environmental management systems that will ensure on-going improvement of the environmental health of the Airport.

CAL is therefore committed to:

- Promoting and implementing sound environmental management policies and practices in all Airport activities;
- Increasing the awareness of environmental responsibilities amongst staff and tenants;
- Meeting and wherever possible exceeding the statutory obligations of relevant environmental legislation;
- Promoting and applying the minimisation of waste and pollution, and operating effective waste management procedures;

- Promoting purchasing policies within the Airport environment, which will give preference, as far as practicable, to those products and services which cause the least harm to the environment;
- Continuing to promote consultation with the major stakeholders, including the community, to ensure that their views regarding environmental issues are considered;
- Training staff and liaising with tenants on a continuing basis on environmental issues, and their responsibilities towards protecting the environment;
- Providing sufficient resources to meet management's environmental objectives; and
- Continually measuring, monitoring, reporting and improving upon environmental performance.

The Environment Policy will be reviewed annually and amended as required.

### 3.1.2 Environmental Management Plans

Environmental Management Plans (EMPs) have been developed that address particular environmental issues or geographic parts of the Airport such as the *Camden Airport Noise Management Plan* and the *Camden Airport Water Quality Management Plan*. These EMPs:

- Identify environmental management objectives;
- Detail the actions required to achieve them;
- Specify responsibility for actions; and
- Nominate a time for their delivery.

EMPs will continue to be developed or updated as required.

Tier 1 and 2 tenants are required to prepare and implement an Operational EMP for the management of environmental risks associated with their operations (see Section 2.3). As many of the tenants affected by this requirement have small operations and may be inexperienced in preparing an EMP, assistance has been provided in the following manner:

- Issuing an EMP Guide;
- Ensuring the AEO and CAL's Environment Manager are available to offer advice in the development of the EMP as well as on other environmental matters; and
- Providing advice as part of the audit process.

Contractors undertaking major works at the Airport are also required to prepare a Construction EMP to show how the

environmental risks associated with their activities will be avoided or mitigated. As a minimum, these EMPs are required to include measures to avoid or minimise noise emissions, air pollution, water pollution, erosion and sedimentation.

Preparation and implementation of Construction EMPs are also a condition under building approvals as detailed in Section 2.5. A Construction EMP guide has been prepared to assist with this requirement and is available on the Camden Airport website.

EMPs will continue to be required for these activities and CAL will continue to provide reasonable assistance to ensure that the EMPs developed are relevant and are being implemented.

### 3.1.3 Training and awareness

Promoting sound environmental management policies and practices and environmental sustainable development via awareness raising and training of staff, contractors and tenants are principles of the Camden Airport Environment Policy.

CAL achieves these commitments by:

- Recruiting appropriately qualified staff to oversee the management of environmental issues;
- Providing educational opportunities for professional environmental employees to keep abreast of best management practices and emerging issues and technologies in the field;
- Providing environmental awareness, induction and EMS training for all employees;
- Raising tenant and contractor awareness of environmental issues - CAL does this via face to face meetings, site audits and inspections, and information sheets;
- Providing environmental awareness, induction and EMS training for all employees; and
- Induction and advice through the *Sydney Metro Airports Contractor Handbook 2014 Site Safety and Environment*.

CAL is committed to continuing developing environmental training and awareness programs for all staff, tenants and contractors.

### 3.1.4 Records and document control

CAL has developed and implemented an environmental filing system to ensure that records and documents are controlled and stored in a secure and logical manner. This allows records to be readily accessed and provided to relevant Government authorities upon request. An important component of the

environmental filing system is the Environmental Site Register (ESR). This register is a written record of the environmental management of the Airport and includes:

- Correspondence with the AEO;
- Results of environmental monitoring and investigations undertaken at the Airport;
- Environmental reports, including environmental assessments, remedial plans and validation reports;
- Details of incidents that resulted or had the potential to result in adverse environmental impacts; and
- Corrective and preventative actions implemented as a result of accidents and incidents.

CAL's Environment Manager who is responsible for the maintenance of the ESR and environmental records associated with the Airport will continue to ensure these are maintained in a secure and logical manner.

### 3.1.5 Environmental monitoring

Various environmental monitoring data is collected by CAL and in some cases by CAL's tenants in the course of implementing the 2015 AES.

All environmental monitoring and data collection is undertaken by suitably qualified professionals whose qualifications include relevant tertiary certificates or degrees, membership of appropriate professional bodies or who have recognition by long practice in the industry sector. All analyses are undertaken by laboratories that are registered with the National Association of Testing Authorities for the specific test method.

Records of the monitoring undertaken are kept by CAL and reported to the AEO and DoIRD annually in the Annual Environment Report, unless otherwise agreed with the AEO and DoIRD.

CAL will continue to maintain records of monitoring undertaken in the course of implementing the AES and will ensure that such monitoring is undertaken by suitably qualified professionals.

### 3.1.6 Auditing

#### Environmental Audits

The frequency and type of environmental audit required is based on the environmental risk associated with an operation.

Tier 1 tenants are required to be audited at least annually. This audit can be conducted by an internal staff member who has

received appropriate training for the task. Every second year these tenants are required to engage an independent certified environmental auditor to carry out an environmental audit of their activities.

Tier 2 tenants are required to be audited at least annually. This audit can be conducted by an internal staff member who is considered appropriate for the task. Every third year these tenants are required to engage an independent third party with appropriate environmental qualifications and environmental auditor experience to carry out an environmental audit of their activities.

The audits must assess:

- compliance with the AES and regulatory requirements;
- compliance with EMP requirements;
- potential for water pollution, soil contamination, ground-based noise and air pollution;
- management of dangerous goods and hazardous substances, including ozone depleting substances;
- waste management including liquid and solid wastes;
- documentation and record keeping; and
- actions arising from previous audits.

The results of each audit including all recommendations for improvement and a time frame for their implementation must be provided to CAL annually by a mutually agreed date, no later than 30 June. Compliance with recommendations made in an audit report and the effectiveness of the actions taken will be followed up by CAL and the AEO.

An environment audit checklist and guidance notes have been prepared (see Appendix C). These documents, which may be amended from time to time, are available on the Camden Airport website. CAL will institute training and assist tenants as required to develop the necessary skills to conduct self-audits.

Tier 3 tenants are required to submit in an internal audit to CAL once every five years and are subject to environmental inspections by CAL staff from time to time.

Tier 1 and 2 tenants may also be subject to environment inspections by CAL staff from time to time.

In the event an audit, an inspection or an incident identifies serious environmental risks or numerous environmental issues (i.e. examples of poor practice), the relevant tenant may be required to submit an audit by an appropriately qualified external party on an annual basis until it is evident environmental practices are improved.

If at any time a tenant fails to comply with the CAL environmental requirements or is deemed to cause undue environmental risk, CAL can increase that tenant's tier status to comply with a stricter environmental standard.

### Environmental Management System Audit

In addition to informal reviews of elements of the EMS, an internal audit of CAL's EMS can be conducted with the assistance of the AEO. Consideration will be given to having external consultants audit the EMS. The scope of the EMS audit includes:

- Checking EMS consistency with *ISO 14001:2004*;
- Checking compliance with objectives of the AES;
- Confirming that the EMS has been implemented and operates as described;
- Checking compliance with randomly selected environmental procedures;
- Check the Environmental Site Register for accuracy and currency;
- Identifying non-conformances and determining whether corrective action is being taken; and
- Documenting opportunities for improving any components of the EMS.

EMS audit results will be issued to the CEO for consideration and action. The EMS will be reviewed as appropriate based on the recommendations provided in the EMS Audit report. Compliance with the audit recommendations will be assessed in the course of informal reviews and during the following EMS Audit.

CAL will continue to update, amend and re-write sections of the EMS and progressively revise the EMS documentation and processes to ensure consistency with AS/NZS ISO 14001:2004.

The EMS will be audited and action will be taken, as required, to ensure consistency with AS/NZS ISO14001:2004 within the period of this AES.

### 3.1.7 Non-conformance, corrective and preventive action

Non-conformances identified in the course of environmental audits, routine inspections and incidents are managed through CAL's corrective and preventive action process.

The responsible party is required to address the recommended corrective and preventative actions and the CAL Environment Manager will check the implementation and effectiveness of the actions taken. The AEO determines whether regulatory

action is required in relation to non-compliance with the Act, the Regulations and the AES.

Where a non-conformance with the Act, the Regulations, other relevant legislation and the AES is identified, CAL will notify the responsible party and follow up to confirm corrective action is taken and ensure that the action taken addresses the matter.

### 3.1.8 Risk management

The 2010 AES identified the following potential incidents that could occur at the Airport:

- Loss of electrical power;
- Burst water main;
- Fuel, oil or chemical spill;
- Sewer blockage;
- Pump failures;
- Flood;
- Stormwater blockage;
- Fire (building or bush/grass); and
- Vehicle or aircraft accident.

Of these incidents, fuel, oil or chemical spills are considered to have a relatively high likelihood of occurrence and would pose a high potential environmental risk if they were to occur.

It is CAL's objective to manage environmental risks associated with all foreseeable incidents, accidents and emergencies. CAL has protocols in place to manage responses to fires, spillages and other incidents.

The EMPs prepared by Tier 1 tenants are likewise required to include an emergency response procedure for significant environmental risks associated with their operations.

Details of incidents, including the date, place and nature of the incident, that resulted or had the potential to result in adverse environmental impacts are recorded in the Environmental Site Register and reported in the Annual Environmental Report.

CAL will continue to ensure that all foreseeable incidents and accidents in relation to its operations are regularly assessed and that appropriate measures are developed and implemented to manage potential environmental risks. CAL will require its tenants to do likewise via their EMPs.

### 3.1.9 Tenant cooperation

CAL works in a cooperative fashion with tenants to achieve

compliance with the objectives and actions described in the AES. This is carried out in various ways including, face to face meeting, environmental forums, audits of tenant operations and facilities, reviewing tenant monitoring programs and results, undertaking regular site visits, providing information sheets on relevant environmental issues and forwarding correspondence, where necessary.

### 3.1.10 Environmental reporting

CAL undertakes a range of environmental reporting.

#### Annual Environment Report

In accordance with the the Regulations, CAL prepares an Annual Environment Report for submission to the Secretary of DoIRD. The contents of the Annual Environment Report are specified in Regulation 6.03. The Annual Environment Report is reviewed and verified by the AEO.

CAL will continue to prepare an Annual Environment Report in accordance with its obligations under the Act.

#### Public Environment Reporting

CAL is continually reporting to the public on environmental aspects of the airport through the CACACG meetings and the Metro Flyer informational e-newsletter.

Various Environmental Fact Sheets have been developed to describe aspects of the Airport's environment and the actions being taken by CAL to monitor, maintain and improve those aspects. The Fact Sheets are available on CAL's website. The Fact Sheets will be updated as required to incorporate the outcomes of environmental surveys and projects.

The 2010 AES discontinued the production of a Public Environment Report each year, due to limited interest. However, due to an increase in interest from tenants in environmental affairs of the Airport, CAL will be issuing an Annual Environment Update on the CAL website and the Metro Flyer informational e-newsletter. This update will provide information regarding the progress of the actions outlined in the 2015 AES, any updates in legislation or regulations and other information as deemed required.

#### Liaison meetings

The AEO and CAL meet monthly to discuss progress on the current AES, airport lessee company consents and other current environmental issues on the site. The AEO is kept informed of the results of routine monitoring performed by CAL and its tenants during the regular CAL and AEO liaison meetings.

CAL and the AEO will continue monthly liaison meetings.

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### Internal reports

Reporting of the performance of CAL with respect to environmental issues is undertaken by the Environment Manager on a regular basis at management meetings.

CAL's Environment Manager also prepares updates on progress in managing environmental matters including the implementation of the AES in CAL's Board reports.

Internal reporting of progress in managing environmental matters to the CEO and the Board will continue.

## 3.2 CONTINUOUS ENVIRONMENTAL IMPROVEMENT

CAL worked closely with DoIRD and its representative, the AEO, throughout the period of the 2010 AES to achieve improved environmental outcomes on Camden Airport by:

- implementing the management actions and outcomes of the AES;
- working with the community and Government Agencies;
- reviewing and updating the EMS, and continuing to identify and update environmental standards;
- undertaking monitoring and following up the outcome of any non-conformances with specified objectives and targets;
- implementing and reviewing the EMS; and
- conducting regular reviews to identify opportunities for continuous improvement.

CAL will continue to work closely with DoIRD and the AEO throughout the period of this 2015 AES to achieve continued improvement in environmental outcomes at Camden Airport via similar means.



# Environmental Management Issues

- 4.1. Air quality
- 4.2. Water quality
- 4.3. Soil quality
- 4.4. Ground-based noise
- 4.5. Flora and fauna
- 4.6. Heritage
- 4.7. Waste
- 4.8. Climate change and resource use
- 4.9. Social and community

4

# Environmental Management Issues

The 2010 AES described the environmental context in which Camden Airport operates and identified the primary sources of environmental impact associated with operations at the Airport. It established objectives and targets for the management of aspects of the Airport environment and identified the actions that would be taken to achieve those objectives and targets.

This section discusses the status of and ongoing and future management of the environmental aspects identified in the 2010 AES. Namely, it describes:

- Additional information obtained since the approval of the 2010 AES, new issues of significance that have been identified, and the initiatives taken to mitigate and control environmental impacts at the Airport in relation to air quality, water quality, soil quality, ground-based noise, flora and fauna, heritage and waste;
- The future actions that are proposed to deliver on the objectives and targets specified for each of these aspects of the environment; and
- An implementation meeting prioritising the actions required to deliver this strategy will be held with the AEO within 2 months of approval of this AES.

Environmental achievements against the 2010 AES are described in each sub-section below. In addition a summary table is included in Appendix D. This table details the 2010 commitments, identifies whether these have been achieved and comments on how they have been achieved.

## 4.1 AIR QUALITY

### 4.1.1 Background

Air Quality is a vital element to maintain a healthy community and local ecology. The NSW Government's *Air Quality Management Plan*, entitled *Action for Air* (prepared in 1998 and updated in 2009) identified the key areas for action to manage Sydney's air quality over the next 25 years. Airport-related air quality issues continue to be regarded as being a minor contributor to air emissions.

Emissions from ground-based operations at the Airport, such as fuel storage, maintenance activities and ground-based engine running constitute only a very small proportion of total Airport emissions. Monitoring undertaken at the Airport will therefore concentrate on ensuring point source emissions at ground level do not adversely impact local air quality.

The National Pollutant Inventory (NPI), an Internet database ([www.npi.gov.au](http://www.npi.gov.au)) maintained by the DoE, provides information on the types and amounts of pollutants being emitted to the environment by industrial facilities that exceed specified

thresholds of pollutant types. Two of Camden Airport's tenants, BP Australia Pty Ltd and Mobil Oil Australia Pty Ltd, submit NPI reports. The primary sources of air emissions from activities at the Airport, addressed by this AES are:

- Point sources including from aircraft maintenance activities
- Fuel storage and refuelling operations;
- Vehicle traffic to, from and on the Airport;
- Aircraft engine ground runs;
- Dust, including possible asbestos fibres, generated during construction or building maintenance activities; and
- Ozone depleting substances, such as some refrigerants (chlorofluorocarbons) and fire-suppressants (halons).

Tenants are responsible for demonstrating that their air emissions, including from point sources, chemical or fuel storages, vehicular traffic, aircraft engine ground runs or dust generated during construction activities, are compliant with the requirements of the Act. Compliance is progressively reviewed by CAL and the AEO as part of the environmental audit process.

Current vehicle emissions at Camden Airport can mainly be attributed to the local workforce and recreational glider flyers. There are no regular passenger services out of Camden Airport that generate traffic to, from and on the Airport.

### 4.1.2 Environmental achievements

The following management actions were undertaken at the Airport in relation to air quality issues during the period of the 2010 AES:

- The Camden Airport Asbestos Management Plan was developed and implemented;
- The register of buildings containing asbestos materials was maintained and updated as required;
- Airport tenants that trigger NPI threshold limits submitted NPI reports and options for reducing emissions of air pollutants were reviewed;
- The potential impact on air quality of all development proposals at Camden Airport was assessed. Measures were imposed, as required, to ensure the developments and their associated activities met the air quality standards specified in the *Airports (Environment Protection) Regulations 1997* and did not have an adverse impact on local air quality.

### 4.1.3 Air quality objectives, targets and management measures

Table 1 contains the objectives and targets for air quality at Camden Airport and the proposed measures that will be implemented to prevent, control or reduce the impacts of airport operations on air quality.

**Table 1 |** Air quality objectives, targets and management measures

Objectives	
Prevent or minimise air pollution (including minimising the release of ozone depleting substances) to the extent practicable and comply with regulatory requirements.	
Targets	
Comply with the requirements of the <i>Airports Act 1996</i> and <i>Airports (Environment Protection) Regulations 1997</i> .	
Actions	Timeframe
<ul style="list-style-type: none"> <li>Require audits of tenant operations to assess compliance with the <i>Airports (Environment Protection) Regulations 1997</i></li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>Assess air quality requirements and options for minimising emissions of air pollutants to the extent practicable in the development assessment and approval process at the Airport</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>Monitor the annual tenant NPI reports for those that trigger NPI reporting thresholds and assess options for reducing emissions of air pollutants</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>Monitor the aggregate Airport emissions report undertaken by NSW EPA as it is developed and assess options for reducing emissions of air pollutants</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>Identify and assess options to reduce air emissions at the Airport</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>Promote and encourage the use of alternative fuels and other measures to reduce emissions of air pollutants at the Airport</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>Monitor the emissions from all spray paint booths on the Airport</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>Maintain the Asbestos Register for the Airport</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>Implement an Air Quality Management Plan for operations at the Airport</li> </ul>	2015

## 4.2 WATER QUALITY

### 4.2.1 Background

CAL is conscious of the impact of the water resources at the Airport and aims to manage water responsibly in regards to usage, quality, monitoring, and compliance.

Since January 2014, Local Land Services (LLS) is the new regional-based organisation that replaced the amalgamated Hawkesbury-Nepean and Sydney Catchment Management Authorities and is the new NSW Government agency responsible for the coordination and management of Sydney's natural resources. LLS has prepared a 2013-2023 Transition Catchment Action Plan establishing goals and setting targets for the whole of the Greater Sydney LLS catchment area including the Nepean River. CAL is a stakeholder within the Greater Sydney LLS catchment and has a good working relationship with LLS to achieve positive outcomes for the Nepean River and its riparian zone. Over the period of this 2015 AES, CAL looks forward to continuing to work with LLS to promote productive, biodiverse and resilient landscapes, and implementing sustainable urban design and water management with the goal of improving river health.

#### Surface water

The Nepean River, a major waterway draining to the Hawkesbury River, borders the eastern, southern and western boundaries of Camden Airport. Rain that falls on the Airport is collected through a system of pipelines, box culverts and open drains which ultimately discharge into the Nepean River at the Airport boundary.

A number of activities at the Airport have the potential to affect the water quality of the Nepean River. The major sources of potential surface water pollution on the Airport include:

- Spills and leaks during aircraft servicing and maintenance, aircraft refuelling and runoff from aircraft washing;
- Spills and leaks during vehicle maintenance and runoff from vehicle washing;
- Spills and leaks or sediment discharge during construction and maintenance activities;
- Spills and leaks associated with bulk liquids storage; and
- Spills occasioned by accidents during vehicle travel on airport roads.

To reduce the potential impacts of water pollution on the Nepean River, pollution control devices in the form of absorbent booms are installed and maintained where appropriate. The booms are designed to absorb hydrocarbons which, being lighter than water, float on the water surface and are trapped on the absorbent boom material.

Surface water quality monitoring is undertaken every six months in accordance with the *Camden Airport Water Quality Management Plan (2013)* to assess compliance with the surface water quality limits listed in Schedule 2 of the *Airports (Environment Protection) Regulations 1997* for contaminants. Monitoring at the upstream boundary of the Airport is also undertaken to assess the contribution of pollution within the catchment upstream of the Airport. Where potential sources of exceedances of the surface water quality limits can be identified, CAL works with the operator to rectify the matter.

The source of some contaminants is difficult to identify and may be associated with non-point source pollutants such as vehicular traffic, building materials or related to the local geology and soils.

#### Groundwater

Sources of potential groundwater pollution include:

- Contaminated sites;
- Leakage from underground fuel tanks;
- Spillage of fuels and chemicals;
- Chemical use (such as pesticides/herbicides), particularly historical chemical use; and
- Historic activities such as landfilling.

There are three fuel depots at the Airport, which are operated by tenants – two of these are currently non-operational and awaiting permanent closure. All comprise in-ground tanks and bowsers located adjacent to the aprons. Regular groundwater monitoring is undertaken in proximity to these fuel depots. Groundwater monitoring results have indicated some exceedances of water quality limits listed in Schedule 2 of the *Airports (Environment Protection) Regulations 1997* for hydrocarbon contaminants in the vicinity of the non-operational depots. At the time of writing, investigations were underway to determine the source of the groundwater exceedances and determine the necessary requirements to address the issue. Both non-operational depots are in the process of permanent closure. All infrastructure will be removed and the site reinstated.

#### Wastewater

Camden Airport, like many commercial and industrial areas, generates wastewater. Wastewater includes any discharges to the sewerage system. Activities that generate wastewater typically include:

- Aircraft and vehicle washing;
- Parts and equipment washing; and

- Aircraft and vehicle servicing.

Typical wastewater treatments on the Airport include oil interceptors. Wastewater is either discharged to the sewer under agreement with Sydney Water or removed by a licensed contractor for off-site disposal at an approved waste facility.

### 4.2.2 Environmental achievements

#### Surface water

The following environmental achievements were undertaken at the Airport in relation to water quality issues during the period of the 2010 AES:

- The *Camden Airport Water Quality Management Plan (2013)* was developed and implemented to assist in the management of storm water and groundwater at the Airport;
- Stormwater monitoring, regular inspections of stormwater drains and regular auditing of tenant premises has identified the potential sources of some contaminants and action has been taken to eliminate these sources; and
- An article in the Metro Flyer e-newsletter was sent to tenants in February 2015 to educate them on the impact of methylene blue active substances (MBAS) in stormwater and to encourage tenants to use dry wash methods or biodegradable soap.

#### Groundwater

Groundwater monitoring in the vicinity of underground storage systems was undertaken by tenants and reviewed by CAL. Monitoring indicates there are hydrocarbon contaminants in groundwater downgradient of two non-operational fuel depots. This has led to the submission of environmental investigation proposals and applications to decommission the facilities. Both non-operational depots are in the process of permanent closure and groundwater impacts will be further investigated and addressed.

#### Wastewater

A register of tenants' Trade Waste Agreements is maintained in the Environmental Site Register.

### 4.2.3 Objectives, targets and management measures

Table 2 contains the objectives, targets and proposed measures that will be implemented to prevent, control or reduce the impacts of operations at the Airport on water quality.

**Table 2 |** Water quality objectives, targets and management measures

Objectives	
<ul style="list-style-type: none"> <li>To promote and improve sustainable water use practices;</li> <li>To prevent or minimise to the extent practicable surface or groundwater pollution;</li> <li>To detect and manage the risk of groundwater pollution; and</li> <li>To liaise with other organisations to contribute to an improvement in overall water quality in the Nepean River.</li> </ul>	
Targets	
Comply with the requirements of the <i>Airports Act 1996</i> and <i>Airports (Environment Protection) Regulations 1997</i> .	
Actions	Timeframe
<ul style="list-style-type: none"> <li>Require all new developments to adopt Water Sensitive Urban Design principles</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>Encourage new and existing tenants to adopt sustainable water use practices.</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>Continue to implement the Camden Airport Water Quality Management Plan</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>Require new underground petroleum storage systems to be designed and installed in accordance with NSW regulatory requirements</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>Require underground petroleum storage systems to be monitored in compliance with NSW regulatory requirements</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>Continue to liaise with Greater Sydney Local Land Services to ensure environmental integrity of this catchment area (when required)</li> </ul>	As required
<ul style="list-style-type: none"> <li>Require new lessees to undertake a base-line study of groundwater quality at the commencement and termination of the lease, if the new or existing activities are considered to be a high potential risk to groundwater quality</li> </ul>	As required
<ul style="list-style-type: none"> <li>Perform a water audit on CAL owned and operated facilities with the aim of developing a Water Saving Action Plan</li> </ul>	2018

## 4.3 SOIL QUALITY

### 4.3.1 Background

Camden Airport was built between 1938-1939. Over the intervening years, a number of the aviation-related and industrial activities undertaken at the Airport have been identified as potential or actual sources of soil contamination such as solid waste landfilling, refuelling and light aircraft maintenance.

Since the preparation of the 2010 AES, the Environmental Site Register (ESR), which is a database of information and records, has been maintained and further developed. The ESR includes a Contaminated Site Register that identifies sites at the Airport where the soil is suspected or has been confirmed to be contaminated. The status of the Contaminated Site Register is reported in the Annual Environment Report.

The Camden Airport Contaminated Site Register currently comprises confirmed, potential (suspected) and remediated sites. The ‘confirmed’ contaminated sites consist of areas where environmental investigations have confirmed soil pollution. The ‘potential’ contaminated sites are areas where contamination is suspected because historical activities frequently associated with contamination are known to have occurred or environmental audits have identified the potential for soil pollution as a result of poor practices. The ‘remediated’ sites are those where the contamination has been addressed and is no longer an issue.

#### Contaminated site management

Management of contaminated sites at the Airport is based on the following principles:

- Preventing contamination of soil and groundwater;
- Identifying, recording and assessing potential or known contaminated sites; and
- Managing and where appropriate, remediating contaminated sites to a level unlikely to pose a risk to human health and the environment, in consultation with the AEO.

The National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) will be used as a reference for the assessment of contaminated sites in conjunction with the *Airports (Environment Protection) Regulations 1997*.

#### Preventing contamination

Prevention of contamination is achieved through a range of activities including:

- Lease clauses – All leases issued at the Airport incorporate strict clauses concerning environmental performance;
- Development control – All developments on the Airport are subject to assessment and ALC Consents when issued, contain conditions that reduce the risk of any potential contaminating activities associated with the construction and operation of the proposed development; and
- Audits and inspections – CAL and the AEO inspect and assess all Tier 1 and Tier 2 tenant sites upon the expiry of their lease or, upon a proposed change of land use. If there is any reason to suspect soil contamination may have occurred in the course of the tenant's occupation a site assessment may be required.

A procedure has also been developed for investigating unoccupied sites that are being proposed for use. In this case CAL and the proponent agree on the scope of a 'baseline' or 'pre-occupancy' contamination investigation for the proposed site. The results of the pre-occupancy investigation can then be used to compare with the results of a post-occupancy contamination investigation (performed by the tenant if required) at the end of their lease period. In this way, any contamination caused by the tenant during the lease period should be detected.

Other measures employed by CAL for assessing and monitoring soil quality at the Airport include:

- Environmental audits and site inspections, which allow for regular inspection and assessment of all sites at the airport;
- Education – CAL promotes good management and work practices that avoid or minimise the risk of soil pollution. This is achieved via face to face consultation and the preparation and issue of Environmental Information Sheets on best-practice environmental management; and
- Practice – Soil and fill material brought onto the airport is subject to strict controls. The specification for materials imported to the Airport is addressed in an Environmental Information Sheet.

#### Identification and assessment of contaminated sites

Potentially contaminated sites are identified in a variety of ways. Sites included in the Camden Airport Contaminated Site Register include facilities and areas that have historically been used for activities that have a high potential to pollute. Therefore, areas that are identified in the course of environmental audits and inspections and areas that are identified in the course of site investigations undertaken prior to development or at a change of use.

Once identified, all potentially contaminated sites are entered on the Site Contamination Register and categorised as having a high or a moderate to low risk to human health and the environment.

This preliminary categorisation is based on the nature of the contamination and is primarily done on the basis of any or all of following considerations:

- Toxicity – what is the risk to human health and ecology?
- Location – is the contamination buried or at the surface? What impact does it have on the use of the area?
- Mobility – is the contamination inert, solid or liquid?
- Proximity – how close are the nearest receptors and what is their nature? Are they likely to be impacted?
- Size – how large is the area impacted by the contamination?

Sites that are considered to be of a high risk nature must be further assessed by a suitably qualified professional.

High-risk sites at Camden Airport are mainly associated with:

- Potential leakage from underground tanks, pipelines and hydrant systems;
- Fill material brought onto the Airport; and

Sites that are considered to be of a low risk nature are generally managed until a change of use is proposed when they are investigated and remediated or managed, as required.

All investigation and assessments of potentially contaminated sites are conducted by an appropriately qualified professional with relevant expertise in the management of the type of contamination thought to occur at the site.

All assessments of potentially contaminated sites at the Airport are based on the policy framework and objectives established in the *National Environment Protection (Assessment of Site Contamination) Measure (National Environment Protection Council 1999)*.

#### Remediation and management of contaminated sites

Management of confirmed contaminated sites at Camden Airport is based on the preferred hierarchy of options for site clean-up and/or management established in the *National Environment Protection (Assessment of Site Contamination) Measure*, namely:

- Treatment of the contaminated soil onsite, if practicable, otherwise treatment of the soil offsite and returning it to the site when clean (i.e. to destroying the contamination

or reducing it to an acceptable level); or if this option is not practicable;

- Containing and managing the contaminated soil onsite or removing it to an appropriate facility offsite.

If, however, remediation would have no net environmental benefit or would have a net adverse environmental impact, the preferred option involves:

- Implementing an appropriate management strategy to manage the contamination on the Airport site.

Camden Airport is located in salinity prone land. In 2004 Camden Council identified that much of the Camden Local Government Area (LGA) has evidence of a “mildly” aggressive saline environment.

### 4.3.2 Environmental achievements

The following environmental achievements were undertaken at the Airport in relation to soil contamination during the period of the 2010 AES:

- Improvements to the Environmental Site Register;
- Update of the Site Contamination Register;
- Through the development approvals process CAL has been implementing practices aimed at preventing soil and ground water contamination at the Airport (refer to Preventing Contamination in 4.3.1 above);
- A Salinity Information Sheet was developed and uploaded to the Airport website;
- CAL has consulted with the Airport Building Controller (ABC), who oversees infrastructure and development at the Airport, to ensure that all new buildings meet relevant guidelines for salinity prone areas; and
- An Asbestos Management Plan was developed and implemented at the Airport.

### 4.3.3 Objectives, Targets and Management Measures

Table 3 contains the objectives, targets and proposed measures that will be implemented to prevent, control or reduce the impacts of operations at the Airport on soil quality.

**Table 3 |** Soil quality objectives, targets and management measures

Objectives
<ul style="list-style-type: none"> <li>• To prevent adverse impacts associated with saline soils;</li> </ul>

- To prevent, detect and where appropriate remediate soil contamination;
- To minimise to the extent practicable the potential health and ecological impacts associated with contaminated soil; and
- To prevent the spread of ground contamination to neighbouring lands.

#### Targets

No occurrences of soil contamination from future activities on existing ‘clean’ sites;  
 Register and manage as appropriate known contaminated sites; and  
 Comply with the requirements of the *Airports Act 1996 and Airports (Environment Protection) Regulations 1997*.

Actions	Timeframe
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<ul style="list-style-type: none"> <li>• Annually update the Environmental Site Register</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>• Update the Site Contamination Register</li> </ul>	As required
<ul style="list-style-type: none"> <li>• Require that all ALC Consents include a statement as to how the tenants comply with the AES</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>• Manage importation of fill material to ensure contaminated fill is not brought onto site</li> </ul>	As required
<ul style="list-style-type: none"> <li>• When required, new lessees will undertake a baseline study of soil quality at the commencement and termination of the lease if the AEO and AEM determine that contamination may be an issue</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>• Require applicable tenants to adhere to CAL, industry and regulatory standards and guidelines for new fuel storage facilities</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>• Require environmental audits of tenant operations to assess compliance with the Airports (Environment Protection) Regulations 1997</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>• Conduct random inspections of tenant facilities to visually inspect facilities and activities that have potential to cause soil pollution</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>• For each ALC Consent, consider the risk of soil pollution</li> </ul>	Ongoing

- |   |         |
|---|---------|
| <ul style="list-style-type: none"> <li>Require underground petroleum storage systems to be monitored in compliance with NSW regulatory requirements</li> </ul>  | Ongoing |
| <ul style="list-style-type: none"> <li>Develop Urban Design Guidelines for the Airport that incorporate consideration of potential salinity issues in accordance with the requirements of the Department of Planning 'Site Investigation for Urban Salinity'</li> </ul> | 2017    |

## 4.4 GROUND-BASED NOISE

### 4.4.1 Background

#### Ground-Based Noise

In accordance with the *Airports (Environment Protection) Regulations 1997*, noise sources considered in the preparation of this 2015 AES address ground-based activities within the Airport boundaries including noise generated from ground-based aircraft operations, except when taxiing, taking off and landing.

Noise generated by aircraft in flight is addressed in Section 5.5 of the 2015 MP. CAL's Noise Management Plan 2011 documents noise management initiatives that are currently being undertaken as well as proposed future initiatives in relation to planning and operation.

The following sources of ground-based noise have been addressed in this AES:

- ground running of aircraft;
- aircraft servicing;
- mechanical plant and servicing equipment;
- non-aviation industrial activities;
- road traffic;
- operation of fixed audible alarm or warning systems; and
- construction activities.

Ground-based noise criteria are provided under the *Airports (Environment Protection) Regulations 1997*, against which the AEO can enforce compliance. However, for ground-based aircraft operations, the Regulations do not define the limit of 'excessive noise' at which regulatory action may be taken.

Camden Airport Aircraft Engine Ground Running Guidelines have been developed and identify the times and the locations where aircraft ground running is permitted. A copy of these guidelines has been provided to tenants and is posted on the Airport's

website. The Aircraft Engine Ground Running Guidelines are reviewed by CAL biennially, or as required by the AEO.

Tenants are reminded of their obligations with regards to noise management associated with all ground-based activities during the environmental audits and through tenant communications.

A Noise Complaint Register is maintained by CAL to enable recording and investigation of noise complaints in relation to ground-based activities at the Airport. Follow-up action with tenants is undertaken when required.

### 4.4.2 Environmental achievements

The following environmental achievements were undertaken at the Airport in relation to noise issues during the period of the 2010 AES:

- A *Noise Management Plan* continued to be implemented for Camden Airport. The Plan is available on the Camden Airport website;
- The *Aircraft Engine Ground Running Guidelines* for Camden Airport were reviewed;
- All new developments at the Airport are required to consider noise and vibration impacts during construction and operation of the new facility and, where necessary, a Noise and Vibration Control Plan is required to manage impacts; and
- The Noise Complaints Register continues to be maintained. The following details are recorded - the nature of a noise complaint, CAL's investigation results, actions taken as a result of the investigation and the response to the complainant.

### 4.4.3 Objectives, targets and management measures

Table 4 contains the objectives, targets and proposed measures that will be implemented to prevent, control or reduce the ground-based noise impacts of operations at the Airport.

**Table 4 |** Ground-based noise management objectives, targets and management measures

#### Objectives

- To prevent excessive ground based noise.

#### Targets

Comply with the requirements of the *Airports Act 1996* and the *Airports (Environment Protection) Regulations 1997*.

Actions	Timeframe
Continue to manage noise at Camden Airport according to the Noise Management Plan and facilitate discussions regarding noise with the CACACG	Ongoing
Require all developments to address noise and vibration impacts during development planning having regard to the Airports (Environment Protection) Regulations 1997 and the NSW Industrial Noise Policy	Ongoing
Require audits of tenant operations to assess compliance with the Airports (Environment Protection) Regulations 1997	Ongoing
Maintain the Noise Complaint Register	Ongoing
Require monitoring by a suitably qualified acoustic scientist where noise is considered excessive to assess compliance with Airports (Environment Protection) Regulations 1997 and the NSW Industrial Noise Policy	As required
Undertake a review of the Aircraft Engine Ground Running Guidelines and update as required	Every 2 years
Review the Airport Noise Management Plan and update as required	Every 5 years

Conservation Act 1999 and, to some extent, the *Threatened Species Conservation Act 1995* (NSW). The Management Plan for the Conservation Zone at Camden Airport prepared in 2001 identified 5 plant species considered “regionally significant” and 13 species considered “vulnerable” in Western Sydney. Of these, two species, *Eucalyptus benthamii* and *Pomaderris brunnea* are listed as “vulnerable” species under the *Environment Protection and Biodiversity Conservation Act 1999*. Whilst under the *Threatened Species Conservation Act 1995* (NSW), *Pomaderris brunnea* is listed as an “endangered” species and *Eucalyptus benthamii* is listed as a “vulnerable” species.

Apart from the *Eucalyptus benthamii* adjacent to the entrance road to the Airport, all the listed species and those considered ‘regionally significant’ and ‘vulnerable’ in Western Sydney occur within the riparian zone. For this reason CAL has identified these areas as environmentally significant areas (see Section 2.6.). CAL will aim to conserve and protect this area. Management objectives and action plans relating to flora species and vegetation communities are provided in Section 4.5.3.

**Fauna**

Vegetation clearance over most of the Airport has reduced the vegetative cover (except for grasses) to the river fringe and garden or park-like plantings within the Airport’s developed areas. This has had a significant impact on the fauna of the Airport, which contains few native mammal species.

**4.5 FLORA AND FAUNA**

**4.5.1 Background**

**Flora**

Camden Airport has largely been cleared of its original native tree vegetation except for a narrow fringe of riparian bushland along the banks of the Nepean River. Part of this remnant vegetation is regrowth following several years of sand mining within this area. Severe disturbance to trees, undergrowth and the soil occurred where sand mining took place.

A vegetation survey in 1997 identified the riparian vegetation as River Flat Forest, an Endangered Ecological Community under the *NSW Threatened Species Act 1995*. A vegetation survey, conducted in conjunction with extensive weed control works being undertaken within the bushland zone in 2007-08 found: ‘Most of the woodland vegetation is comprised of mature overstorey with a variable understorey of weed and native shrubs. Ground covers tend to be absent where weeds dominate and variable where there is a native understorey. Weed species were recorded throughout the areas that were investigated and dominated the understorey.’

Management of flora and fauna at the Airport is subject to the provisions of the *Environment Protection and Biodiversity*

The River Flat Forest provides faunal habitat in the form of hollow tree limbs and trunks, a dense shrub layer, grass layers and aquatic habitat within drainage lines. These habitats favour smaller birds and ground dwelling mammals. A range of common birds, mammals, marsupials, reptiles and amphibians have been identified on the site, and other species may be present.

In 2007 CAL commenced a long term bird banding survey. To date 45 bird species have been captured and banded prior to re-release and 91 species have been observed at the Airport.

The Habitat Protection Plan No.3 of the Hawkesbury - Nepean River System prepared by the NSW Fisheries recommends that native vegetation (including trees, shrubs and grasses) be retained wherever possible, particularly where it is within 50 metres of a water body, wetland, river or stream (as measured from the top of the bank or shore), in order to protect fish habitats.

Likewise the Transition Catchment Action Plan prepared by the Greater Sydney Local Land Services aims to improve riparian vegetation conservation, regeneration and rehabilitation. The objective is to improve river health and to maintain and

improve habitat as well as habitat connectivity for terrestrial and aquatic fauna species.

The Camden Residents Action Group and Cobbitty Progress Committee have historically expressed concern over the presence of noxious weeds on the Airport and that a habitat is provided for feral animals, particularly rabbits which are a problem to neighbouring properties.

The impacts of Airport operations on native flora and fauna are minimal.

#### 4.5.2 Environmental achievements

The following environmental achievements were undertaken at the Airport in relation to management of flora and fauna during the period of the 2010 AES:

- In 2013, a survey of listed species within the Environmentally Significant Zone was undertaken, targeting two species: *Pomaderris brunnea* and *Eucalyptus benthamii*. No additional listed flora species were identified during the survey; however an additional *Pomaderris brunnea* specimen was located. The plant was protected with wire fencing to keep feral and native fauna from disturbing the location. Volunteers have been monitoring the site.
- In 2013/2014, a bush regeneration project was completed in the Environmentally Significant Zone in conjunction with Local Land Services, local volunteers and bush regeneration contractors. The project involved weed control and follow-up maintenance including in areas of previous weed removal works (2008/2009).
- The Royal Botanic Gardens undertook seed collection and GPS survey of canopy trees within the area of bush regeneration works, focusing on *Eucalyptus benthamii*.
- CAL is working with Local Land Services in identifying and applying for funding opportunities for additional environmental works within the Environmentally Significant Zone.
- The Management Plan for the Environmentally Significant Zone was reviewed.
- Consultation was undertaken with Camden Council, local residents and Local Land Services on the feral goat species within the riparian zone. A goat management program was implemented including installation of exclusion fencing as well as culling.
- Volunteers have continued to monitor the listed species within the Environmentally Significant Zone and implement weed control and other bush regeneration works at the Airport.

- Bird surveys, which commenced in 2007, and are undertaken by volunteer avifauna experts, continued.

#### 4.5.3 Objectives, targets and management measures

Table 5 contains the objectives, targets and proposed measures that will be implemented to prevent, control or reduce the impacts of operations at the Airport on native flora and fauna.

**Table 5 |** Flora and fauna management objectives, targets and management measures

Objectives	
•	Conserve the River Flat Forest including the national and state listed species at the Airport.
•	Contribute to the protection of native flora and fauna and their habitat on the Airport.
Targets	
1.	Comply with the requirements of the <i>Airports Act 1996</i> and the <i>Airports (Environment Protection) Regulations 1997</i> , the <i>Environment Protection and Biodiversity Conservation Act 1999</i> and the <i>Threatened Species Conservation Act 1995 (NSW)</i> .
2.	No adverse impact on listed species within environmentally significant areas.
3.	No net loss of native vegetation coverage in the River Flat Forest
4.	No adverse impact from development proposals adjacent to or within the Environmentally Significant Zone
Actions	Timeframe
Maintain and comply with the Registered Property Agreement for the bushland area on the Airport	Ongoing
Undertake ongoing liaison with relevant external stakeholders regarding management of native flora and fauna at the Airport	Ongoing
Assess all the potential impacts of proposed developments within the vicinity of the Environment Protection Zone	Ongoing
Seek external funding and assistance for bush regeneration works within the Environmentally Significant Zone	Ongoing
Work co-operatively with relevant government agencies to manage and protect the Environmentally Significant Zone.	Ongoing

Establish a Landcare Group for Camden Airport (based on community interest)	2016
Survey the location and condition of all <i>Eucalyptus benthamii</i> and <i>Pomaderris brunnea</i> occurring within the Environmentally Significant Zone	2016
Conduct a flora and fauna survey	2017
Revise and implement the Management Plan for the Environmentally Significant Zone	2017

In regards to the last two items in the above Table, the flora and fauna survey and the Management Plan revision will at a minimum provide details of precise locations (with maps), extent, quality and intended management measures for:

- the *NSW Threatened Species Conservation Act 1995* listed ecological community, the River-Flat Eucalypt Forest on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner bioregions, which are present along the riparian zone.
- the *Environment Protection and Biodiversity Conservation Act 1999* listed species, the Camden White gum (*Eucalyptus benthamii*: Vulnerable) and the Rufous Pomaderris (*Pomaderris brunnea*: Vulnerable) which are present, either adjacent to the entrance road to the Airport or within the riparian zone.
- the fauna present in the area, including a more detailed description of all the fauna present, as well as details of the survey method used; a species identification list; and an abundance of figures.

## 4.6 HERITAGE

### 4.6.1 Background

Heritage issues are generally regulated through Commonwealth and State legislation and planning instruments at Local Government level, with only the Commonwealth legislation applicable in relation to the Airport site. This 2015 AES recognises the on-airport heritage issues, which have been identified in the *Camden Airport Heritage Management Strategy, (2005), (HMS)*.

The HMS is a basis for heritage assessment and formulation of heritage conservation policy. Specific Heritage Impact Statements will be prepared for developments which involve areas containing aspects identified as having heritage significance. The Heritage Impact Statements will be undertaken in accordance with the *Environment Protection and Biodiversity Conservation Act 1999 Significant Impact Guidelines 1.2* as required.

### Items of Indigenous Cultural Heritage

Prior to European occupation the setting in which the Airport lies would have been a favourable location for Aboriginal habitation. Since European occupation however, Camden Airport has been largely cleared of vegetation, first for agricultural purposes and then for the development of the Airport. All that remains of the native vegetation is a narrow belt of River-flat Forest adjacent to the Nepean River. Even here severe disturbance to trees, undergrowth and the soil occurred during the course of sand mining in the past. Some undisturbed areas of River-flat Forest do however occur and these areas have the potential for Aboriginal sites and artefacts to be present.

In 2009, an Aboriginal Archaeological Survey was undertaken as part of a flow restoration project being undertaken by the then Sydney Catchment Authority. The survey identified a number of small flaked stone artefacts scattered intermittently along an access track leading to the Nepean River. As a result of the finding, the site was registered on the NSW Office of Environment and Heritage Aboriginal Heritage Information Management System (AHIMS). This is the only AHIMS site registered as being located on Camden Airport. As part of the SCA works, the artefacts were relocated off the access track to another on-Airport location under an Aboriginal Heritage Impact Permit. This was completed in consultation with the Aboriginal community including the Tharawal Local Aboriginal Land Council (LALC). The existence of this site is important tangible evidence of Aboriginal occupation in the Nepean River region; however Aboriginal representatives have indicated that it does not have specific cultural significance that would warrant its ongoing conservation.

Areas for proposed future development may be subjected to archaeological assessments as considered appropriate in consultation with the AEO. An 'unexpected finds protocol' is a requirement of each development application's Construction Environment Management Plan (CEMP). Should a relic be discovered, work will stop immediately and CAL's Environment Manager will arrange further investigation.

### Non-indigenous Cultural Heritage

The Airport was developed by the Macarthur-Onslow family in the 1930s with the original Airport hangar still in use today. No other buildings that pre-date the development of the Airport exist within the Airport boundary. The Airport was used by the Royal Australian Air Force (RAAF) during World War II and a number of the hangars used at that time remain on the site.

It is noted that two local heritage cottages are located adjacent to the Airport site and that their significance is to be included in any future *Heritage Management Strategy*.

In 2004, a new Commonwealth heritage management system was introduced through the *Environment Protection*

and *Biodiversity Conservation Act 1999* (EPBC Act), which included the creation of the National Heritage List and the Commonwealth Heritage List. Whilst Camden Airport has not been included on either of these lists, as it located on Commonwealth Land EPBC Act requirements do apply.

Camden Airport is listed for heritage purposes on:

- Schedule 5 of *Camden Council's Camden Local Environment Plan 2010* as an item of local heritage significance (including airfield, airport, hangars, cottages, outbuildings and grounds).
- The Register of the National Estate (RNE) as an indicative place. Since the RNE was closed in 2007, the RNE became an on-statutory list; however, in accordance with the *Environment Protection and Biodiversity Conservation Act 1999*, RNE places owned by the Commonwealth are protected from any action likely to have a significant impact on the environment.

Day-to-day operations at the Airport do not have a significant impact upon items with heritage value at the Airport.

#### 4.6.2 Environmental achievements

The following environmental achievements were undertaken at the Airport in relation to heritage issues during the period of the 2010 AES:

- Tenants' management of heritage properties was monitored through the environmental audit process;
- New developments were assessed for heritage values against the *Camden Airport Heritage Management Strategy* and the *EPBC Act Policy Statement 1.2 Significant Impact Guidelines, Matters of National Environmental Significance*; and
- Tenants that have developed EMPs for lease properties that have heritage value have addressed the management of these values in their EMPs.

#### 4.6.3 Objectives, targets and management measures

Table 6 contains the objectives, targets and proposed measures that will be implemented to prevent, control or reduce the impacts of operations at the Airport on Aboriginal and non-indigenous heritage.

**Table 6 |** Aboriginal and non-indigenous cultural heritage management objectives, targets and management measures

#### Objectives

- To identify, preserve and protect sites of indigenous and non-indigenous heritage significance located within Camden Airport.

#### Targets

Compliance with the requirements of the *Airports Act 1996* and *Airports (Environment Protection Regulations) 1997* and the *Environment Protection and Biodiversity Conservation Act 1999*.

#### Actions

#### Timeframe

- |   |         |
|---|---------|
| <ul style="list-style-type: none"> <li>• Undertake additional investigations, in consultation with relevant organisations, to identify indigenous and non-indigenous heritage sites during the planning stage for new developments</li> </ul> | Ongoing |
| <ul style="list-style-type: none"> <li>• Monitor tenants' management of Heritage properties during environmental audits</li> </ul>  | Ongoing |
| <ul style="list-style-type: none"> <li>• Assess new developments impacting elements having heritage values against the applicable Acts and Guidelines</li> </ul>  | Ongoing |
| <ul style="list-style-type: none"> <li>• Ensure those tenants leasing property having heritage value address the management of these values in their EMPs</li> </ul>  | Ongoing |
| <ul style="list-style-type: none"> <li>• Implement measures to protect the Aboriginal heritage AHIMS site (i.e. signage)</li> </ul>   | Ongoing |
| <ul style="list-style-type: none"> <li>• Undertake annual inspections of heritage items on Airport under CAL's management.</li> </ul>   | Ongoing |

## 4.7 WASTE

### 4.7.1 Background

Airport operations generate a range of wastes that require off-site disposal to a licensed landfill. Types of waste vary from office waste such as paper through to aircraft maintenance wastes such as oil, metal and plastic.

No disposal of operational waste occurs on land within the Airport site.

CAL and each separate tenant are responsible for the disposal of their own waste. This is achieved through services offered by private waste disposal companies who supply small, transportable skip bins or by Camden Council via its regular waste collection service. Wastes collected from public areas including the litter bins are disposed of by CAL.

There is no centralised recycling system and recycling initiatives are left to individual tenants due to the low levels of waste generated at the Airport.

#### 4.7.2 Environmental achievements

The following environmental achievements were undertaken at the Airport in relation to waste management during the period of the 2010 AES:

- CAL undertook a review of tenants’ environmental audits to assess compliance with NSW waste legislation and the principles of the waste hierarchy; and
- Inspections were undertaken across the Airport grounds to identify potential waste management issues.

#### 4.7.3 Objectives, targets and management measures

Table 7 contains the objectives, targets and proposed measures that will be implemented to prevent, control or reduce the impacts of waste generated from operations at the Airport and/or stored at the Airport.

**Table 7 | Waste management objectives, targets and management measures**

Objectives
<ul style="list-style-type: none"> <li>• To comply with the principles of the waste management hierarchy of avoid, reuse, recycle and disposal, where practicable.</li> <li>• To have regard to Commonwealth and NSW regulatory guidelines in relation to waste management</li> </ul>
Targets
<ol style="list-style-type: none"> <li>1. Review options for waste reduction, reuse and recycling and set targets where practicable.</li> <li>2. Comply with the <i>Protection of the Environment Operations Act 1997 (NSW)</i> and the <i>Protection of the Environment Operations (Waste) Regulation 1997 (NSW)</i> with respect to waste management, particularly hazardous, industrial and liquid wastes</li> </ol>

Actions	Timeframe
<ul style="list-style-type: none"> <li>• Require audits of tenant operations to assess compliance with NSW waste legislation</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>• Consider waste management options in the design and construction of new developments at the Airport</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>• Continue to encourage tenants, through correspondence, environmental audits and awareness programs to reduce, reuse and recycle their waste</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>• Continue litter inspections through Airport grounds</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>• Monitor the NSW Government’s Waste Less Recycle More program for funding opportunities in waste minimisation</li> </ul>	2014-2018
<ul style="list-style-type: none"> <li>• Investigate opportunities to further reduce, reuse and recycle waste</li> </ul>	2018

### 4.8 CLIMATE CHANGE AND RESOURCE USE

#### 4.8.1 Background

Since the 2010 AES was approved, global climate change has continued to become an environmental issue of importance locally, nationally and internationally. In 2007, the Intergovernmental Panel on Climate Change estimated that aviation account for approximately two percent of the carbon dioxide emissions worldwide. In response, the aviation industry signed the Global Aviation Industry Commitment to *Action on Climate Change* in 2008.

As the Federal Government policy regarding climate change evolves, CAL will update its policies to ensure any requirements will be met.

According to a report commissioned by the NSW Government, the future climate of the Sydney Metropolitan region is predicted to be warmer and drier (CSIRO 2007). Despite this trend, the report found the possibility of increases in extreme rainfall events remains.

The key effects that climate change is anticipated to have on Camden Airport include:

- More frequent flooding, due to potential increases in extreme rainfall events;
- Higher water charges, due to an increasing demand for a reducing resource;

- Higher energy charges, as a consequence of pressure to reduce greenhouse gas emissions from carbon polluting sources (the major source of energy in NSW today); and
- Opportunities to participate in various carbon reduction projects through improvements in energy efficiency and renewable sources of energy.

Energy, in the form of electricity and fuel, and water are the main resources used at the Airport. The main use of these resources includes:

- Lighting;
- Heating and cooling (air conditioning);
- Industrial processes;
- Airport maintenance
- Road transport (public and private); and
- Aircraft activity.

Emissions from aircraft are made by a 'third' party that Camden Airport has no direct control over, therefore they are not considered in this AES. This AES therefore focuses on addressing greenhouse gases from the first four sources identified above - all of which generate greenhouse gases due to energy and fuel consumption.

The use of electrical energy has an impact on the generation of greenhouse gases (carbon dioxide in particular) through the burning of fossil fuels in the power generation process. Reductions in the power needs of the Airport or in inefficient or excessive energy use will, in a small way, help in reduce the greenhouse gas effect.

Proponents of new developments will be encouraged to consider energy efficiency and water efficiency re-use options in future development proposals, which will be considered by CAL when reviewing Airport Lessee Company Consents.

#### 4.8.2 Environmental achievements

Environmental achievements were undertaken at the Airport in relation to resource use issues during the period of the 2010 AES. These included:

- Camden Airport participated in a CSIRO survey to assess awareness, preparedness and interest in Climate Change Adaptation;
- All building development and refurbishment proposals were required to incorporate energy and water efficient features (where appropriate), use endemic native species

tolerant to dry conditions in landscaping, and show how waste generated during construction would be reduced;

- Completing the energy efficiency and first greenhouse gas emission audit for CAL operations;
- Opportunities for cogeneration did not arise during the 2010 AES. This action will remain unchanged for future development at the Airport;
- Renewable energy options for power generation on new projects were encouraged however where considered, the option was not cost effective at this time.

#### 4.8.3 Climate change and resource use objectives, targets and management measures

Table 8 contains the objectives, targets and proposed measures that will be implemented to prevent, control or reduce the impacts of resource use associated with operations at the Airport.

**Table 8 | Resource use management objectives, targets and management measures**

##### Objectives

- To conserve natural resources through efficient use of energy, water and other materials.
- To incorporate where practicable the principals of ecologically sustainable development in future development of the Airport.
- To convert waste to a resource where practicable.

##### Targets

1. Identify opportunities to reduce consumption of water and energy at the Airport and set targets for reduction
2. Identify options for re-use of water and waste as a substitute for new resources where practicable
3. Conserve natural resources through efficient use of energy, water and other materials.
4. Incorporate, where practicable, the principals of ecologically sustainable development in future development of the Airport.
5. Convert waste to a resource where practicable.

Actions	Timeframe
<ul style="list-style-type: none"> <li>Monitor resource use (energy, water and fuel) and look for opportunities to improve efficiency</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>Consider water harvesting on new developments</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>Consider water re-use options for grey water in new developments</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>Consider energy conservation in design of future developments</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>Consider renewable energy options for power generation on new projects where practicable and appropriate</li> </ul>	Ongoing
<ul style="list-style-type: none"> <li>Develop sustainability guidelines for development at the Airport</li> </ul>	2016
<ul style="list-style-type: none"> <li>Review co-generation or tri-generation opportunities</li> </ul>	Every 2 years

## 4.9 SOCIAL AND COMMUNITY

### 4.9.1 Background

CAL is committed to good Airport-neighbour relationships and engagement with the local community on a number of issues, including the environment. CAL has established the Camden Airport Community Aviation Consultation Group (CACACG) as a means of facilitating communication between the Airport and the community. CAL also prepares tenant and community newsletters to inform the community of Airport operations including environmental management issues.

CAL continues to liaise with Camden Council on environmental matters relevant to Council. CAL has established a Planning Coordination Forum (PCF) with Camden Council. This Forum was broadened to include the NSW Government and DoIRD and meets to discuss Airport development activities. In addition, CAL will continue to consult widely on development through CACACG and the extensive communication network already established. CAL will display Airport Lessee Company Consents on its website.

CAL will also identify other stakeholders who may be impacted by environmental matters associated with proposed development and, as appropriate, consult with or notify these stakeholders prior to deciding whether to grant development approval, in accordance with CAL's *Consultation Policy – Airport Lessee Company Consents 2014*.

### 4.9.2 Environmental achievements

The following environmental achievements were undertaken at the Airport in relation to social and community issues during the period of the 2010 AES:

- Establishment and continued meetings and involvement of the CACACG and PCF;
- Continued relationship with the community in relation to management of remnant vegetation on the Airport;
- Preparation and distribution of community and tenant newsletters which include environmental issues; and
- Posting of environmental information in relation to Airport operations on the Airport's website.

### 4.9.3 Objectives, targets and management measures

Table 9 contains the objectives, targets and proposed measures that will be implemented to prevent, control or reduce the impacts of operations at the Airport on the community.

### 4.9.4 Environmental management issues and achievements

The objectives and targets in the 2010 AES have been revised in this AES to incorporate progress since the approval of the 2010 AES.

Environmental achievements against the 2010 AES have been described in each sub-section above. In addition a summary table is included in Annex D. This table details the 2010 commitments and whether these have been achieved.

**Table 9 |** Community impact management objectives, targets and management measures

Objectives
<ul style="list-style-type: none"> <li>To act as a good neighbour and to undertake reasonable and practicable actions to prevent or minimise impacts from the Airport.</li> <li>To be open with stakeholders and the community regarding Airport operations.</li> <li>To maintain a consultative network that conveys Airport information to CAL's stakeholders and the community.</li> <li>To be, and be perceived as, responsible managers of environmental issues.</li> </ul>

### Targets

- Production of environmental information on the Camden Airport website for the community.
- Production of community newsletters.
- Report to meetings of the CACACG.

### Actions

### Timeframe

- |  |         |
|--|---------|
| • Produce and maintain environmental information on the Camden Airport website for the community                                   | Ongoing |
| • Produce the Metro Flyer e-newsletters  | Ongoing |
| • Hold meetings with the CACACG and discuss environmental issues   | Ongoing |
| • Provide an annual update on environmental activities at Camden Airport in the Metro Flyer e-newsletter and posted on the website | Ongoing |

# Annex A - Legal Requirements for an Airport Environment Strategy

APPLICABLE SECTION OF THE AIRPORTS ACT 1996 AND RELATED REGULATIONS.	RELEVANT SECTION OF THE AIRPORT ENVIRONMENT STRATEGY
<p>Part 5 Division 3 Section 71(h) and (j), Contents of draft or final master plan (as related to the AES)                      In the case of an airport other than a joint-user airport, a draft or final environment strategy that details:</p>	
<p>i) the airport-lessee company’s objectives for the environmental management of the airport; and</p>	<p>Sections 4.1 to 4.9</p>
<p>ii) the areas if any within the airport site which the airport lessee company, in consultation with State or Territory and Federal conservation bodies, identifies are environmentally significant; and</p>	<p>Section 2.6</p>
<p>iii) the sources of environmental impact associated with airport operations; and</p>	<p>Section 4</p>
<p>iv) the studies, reviews and monitoring to be carried out by the airport-lessee company in connection with the environmental impact associated with airport operations; and</p>	<p>Sections 4.1 to 4.9</p>
<p>v) the time frames for completion of those studies and reviews and for reporting on that monitoring; and</p>	<p>Sections 4.1 to 4.9</p>
<p>vi) the specific measures to be carried out by the airport lessee company for the purposes of preventing, controlling or reducing the environmental impact associated with airport operations; and</p>	<p>Sections 4.1 to 4.9</p>
<p>vii) the time frames for completion of those specific measures; and</p>	<p>Sections 4.1 to 4.9</p>
<p>viii) details of the consultations undertaken in preparing the strategy (including the outcome of the consultations); and</p>	<p>Section 1.5</p>
<p>ix) any other matters that are prescribed in the regulations</p>	<p>Matters in Regulations 5.02(A) and 5.02(B) are covered in Chapters 1, 2, 3 and 4,</p>
<p>(j) such other matters (if any) as are specified in the regulations.</p>	<p>Matters in Regulations 5.02(A) and 5.02(B) are covered in Chapters 1, 2, 3 and 4</p>

# Annex B - Airport Lessee Company: Lodgement Check List 2014



## AIRPORT LESSEE COMPANY CONSENT: LODGEMENT CHECKLIST 2014

*This form will be discussed at the pre-ALCC meeting and is to be completed and lodged with the Airport Lessee Company Consent form.*

### FORM 1 of 3

#### PART ONE: APPLICANT DETAILS

		√ or X
1	Has the Applicant provided the complete and accurate Applicant's name and contact details?	
2	Is the Applicant nominating a representative? Have their details been provided?	
3	Has the correct and current Tenant's/Sub-lessee's Consent been provided?	

#### PART TWO: PROPOSAL DETAILS

		√ or X
4	Have the complete site details been provided?	
5 - 11	Has the Applicant provided the entire necessary information requested on the Airport Lessee Company Consent form?	
12	Has the Applicant provided the contact details of the architect or builder?	
	Has the Applicant addressed the requirements of BAL/CAL's pre-ALCC letter (if applicable)?	

#### PART THREE: AVIATION

		√ or X
13 - 15	Does the proposal have aviation impacts? Have the requested documents been provided?	

#### PART FOUR: ENVIRONMENT MANAGEMENT

		√ or X
16 - 17	Does the proposal have environmental impacts? Have the requested documents been provided?	
	Has the Applicant provided the completed Assessment of Environmental Effects (AEE) form?	

#### PART FIVE: CHECKLIST & LODGEMENT

Have you provided:-

- 2 sets of all drawings (max A1 size);
- 2 copies of all reports & certificates;
- an electronic complete list of all documents lodged - including consultant, descriptions, drawing & report numbers, revision numbers and date;
- an electronic copy of all documents as provided for assessment.



Do the documents include the following:-

- Statement of Compliance with the Master Plan \_\_\_\_\_ ( )
- Statement of Compliance with the Airport Environment Strategy \_\_\_\_\_ ( )
- Survey Plan \_\_\_\_\_ ( )
- Planning Report/Assessment of Environmental Effects (AEE) \_\_\_\_\_ ( )
- Construction Environment Management Plan \_\_\_\_\_ ( )
- Energy Efficiency Statement (ABGR) \_\_\_\_\_ ( )
- Landscape Plan \_\_\_\_\_ ( )
- Erosion & Sediment Plan \_\_\_\_\_ ( )
- Floor Plans, Roof Plans, Sections \_\_\_\_\_ ( )
- Elevations \_\_\_\_\_ ( )
- Parking Layout \_\_\_\_\_ ( )
- OLS Assessment/Aviation Statement/Acoustic Report \_\_\_\_\_ ( )
- Operational Environment Management Plan \_\_\_\_\_ ( )
- Services Plans \_\_\_\_\_ ( )
- Others – please specify \_\_\_\_\_

v or X

19	Have you discussed the proposed development with the Airport Building Controller?	
20	Has the Applicant signed the Airport Lessee Company Consent form?	
21 - 24	Are you ready to lodge and pay the Airport Lessee Company Consent Lodgement Fee and Consultation Fee (if necessary)?	

I /we apply for Airport Lessee Company Consent to carry out the proposed development described in this form.

I /we declare that all the information given is true and correct. I/we also understand that:

- if incomplete, the ALC's response may be delayed or rejected;
- more information may be requested within 21 days of lodgement.

I / we agree, that should this request for consent be required to be assessed by a specialist consultant or referred to regulatory bodies (e.g. CASA, Airservices Australia) due to the nature of the development, BAL will advise the applicant of the approximate value of the additional fees, and following written acceptance of these fees, BAL may proceed to commission these assessments. All fees for third party consultants will be at cost + 12.5% to the applicant and paid in advance. Failure to pay requested fees may result in the ALC's response being withheld.

I / we agree that should the assessment of the application require additional services beyond those listed under "What does the Airport Lessee Company Consent Lodgement Fee cover?" as noted on the Airport Lessee Company Consent Fees 2014, BAL may require payment of additional fees prior to proceeding with the assessment of the request for consent. Failure to pay requested fees may result in the ALC's response being withheld.

Company Name:

ABN:

\_\_\_\_\_

Name:

Position:

\_\_\_\_\_

Signature:

Date:

\_\_\_\_\_



## AIRPORT LESSEE COMPANY CONSENT FORM 2014

All building activities as described under Airports Act 1996, Part 5, Division 5 - Building Control, require Airport Lessee Company (ALC) consent. Bankstown Airport Limited (BAL) / Camden Airport Limited (CAL) consent is required for all construction works at Bankstown and Camden Airports respectively.

Building activities also require a building approval from the Airport Building Controller (ABC). The ABC contact is Steve Glanville (02) 8344 3114 or [steve.glanville@philipchun.com](mailto:steve.glanville@philipchun.com).

### FORM 2 of 3

#### PART ONE: APPLICANT DETAILS

1	Applicant name and contact details <small>The Applicant must be the ALC, or a sub-lessee, or a person having an interest in the land.</small>	Company Name & ABN: _____ Contact Name: _____ Position: _____ Postal Address: _____ Phone: _____ Fax: _____ _____ Email: _____ _____ <small>If no representative is nominated this will be the only contact that BAL/CAL will contact to discuss the application.</small>
2	Applicant's Representative <small>Does the Applicant wish to nominate a contact to act on their behalf with regards to this application?</small>	Company Name & ABN: _____ Contact Name: _____ Postal Address: _____ Phone: _____ Fax: _____ _____ Email: _____ _____ <small>If nominated, the ALC will direct all enquiries to this representative. This will be the only contact that the ALC will contact to discuss the application.</small>
3	Tenant's (Sub-lessee's) Consent <small>The current sub-lessee from the ALC (as per the lease for the site / building) of the land must provide their approval prior to lodging this application.</small>	As sub-lessee/s of the land / building to which this application relates, I/we consent to this application. I/we also give consent for authorised BAL/CAL staff or agents to enter (without prior notice) onto the land to carry out inspections.  Name: _____ Position: _____ Signature: _____ Date: _____ Name: _____ Position: _____ Signature: _____ Date: _____  <small>If you are signing on the owner's behalf as the owner's legal representative, please state the nature of your legal authority and attach documentary evidence (e.g. Power of Attorney, Executor, Trustee, Director)</small> Company Name & ABN: _____ Signature: _____ Date: _____ _____



**PART TWO: PROPOSAL DETAILS**

4 Site Details Site / Building Number: \_\_\_\_\_  
 We need to correctly identify the land to be developed. Please attach a site plan either from the lease or prepared by a registered surveyor. Address: \_\_\_\_\_  
 Lot Number: \_\_\_\_\_ DP: \_\_\_\_\_

5 What is the property used for at present? Description of the current use of the site / building: \_\_\_\_\_  
 The proposal to be compliant with the lease usage clause; otherwise the Applicant must also seek approval for a change to the lease. What is the approved use of the property in the sub lease? \_\_\_\_\_

6 Description of the proposed Development Description of the proposed development: (What is the development to be used for, what is being built, need for the development, numbers of persons working in the development, proposed hours of operation, impact on services, traffic etc?) \_\_\_\_\_  
 The Applicant will need to ensure the proposed development complies with the Airport Master Plan, Airport Environment Strategy and planning objectives (identified in the Airport Lessee Company Consent Guide for Applicants and Urban Design Guidelines 2009) \_\_\_\_\_  
 How does the proposed development comply with the Airport Master Plan? Reference must be made to the relevant section of the Master Plan to confirm compliance. Refer to the approved Bankstown Airport Master Plan Section 18 or approved Camden Airport Master Plan Section 8 available at [www.sydneyairport.com.au](http://www.sydneyairport.com.au) \_\_\_\_\_  
 How does the proposed development comply with the planning objectives? Refer to the Urban Design Guidelines 2009 available at [www.sydneyairport.com.au](http://www.sydneyairport.com.au) (for Bankstown Airport, and for Camden Airport in regard to the Development Guidelines only) \_\_\_\_\_

You may need to supplement this information with a Planning Report

7 What is the type of development ? Does the proposal trigger a Major Development Plan application? Yes  No   
 Triggers for a Major Development Plan are listed in Sections 89(1) and (2A) of the Airports Act 1996.

Demolition \_\_\_\_\_ ( )  
 New building or structure \_\_\_\_\_ ( )  
 Alterations / additions to an existing building \_\_\_\_\_ ( )  
 Earthworks \_\_\_\_\_ ( )  
 Carpark / hardstands \_\_\_\_\_ ( )  
 Signage \_\_\_\_\_ ( )  
 Change of Use \_\_\_\_\_ ( )  
 Remediation \_\_\_\_\_ ( )  
 Other – please specify \_\_\_\_\_



**PART TWO: PROPOSAL DETAILS (continued)**

8 Estimated Project Value of the proposed development Estimated Project Value \$ \_\_\_\_\_ inclusive of GST  
 Estimate provided by: \_\_\_\_\_  
 Please state the Project Value estimate, including all associated building costs, provided by an architect or quantity surveyor. If unsure, ask for current building construction figures.  
 (Costs should be based on Australian Standard Method of Measurement of Building Works - 5th Edition [1991])

9 Will this be a new building? ( ) Yes, completely new building ( ) No, alterations / additions to an existing building

10 Total amount of new floor area? Will the proposed development add usable floor area? YES / NO  
 If YES please indicate area \_\_\_\_\_ m<sup>2</sup>

11 Will the proposed Development involve any of the following?  
 If yes to any of these items, special consideration will need to be given to approval or management during construction.  
 If you are unsure please contact BAL/CAL for clarification.  
 Item or place identified in the Bankstown Airport Heritage Management Strategy? \_\_\_\_\_ ( )  
 Earthworks within 40 metres of a watercourse? \_\_\_\_\_ ( )  
 Earthworks, hoarding or structures within a public road? \_\_\_\_\_ ( )  
 A NSW Office of Environment & Heritage (EPA) licensed activity if undertaken off airport? \_\_\_\_\_ ( )  
 Is the site identified as contaminated? \_\_\_\_\_ ( )  
 Destruction or damage to aboriginal relic/s? \_\_\_\_\_ ( )  
 Removal or damage to trees / bushland? \_\_\_\_\_ ( )  
 Extraction or use of groundwater? \_\_\_\_\_ ( )  
 Stormwater drainage works? \_\_\_\_\_ ( )  
 Building waste container on footpath? \_\_\_\_\_ ( )  
 Moveable building, temporary storage containers? \_\_\_\_\_ ( )  
 Temporary structures? \_\_\_\_\_ ( )

12 Your architect, builder or project manager?  
 We may need to discuss the details of the documents and will contact your architect, designer, project manager or builder directly.

Company Name & ABN: \_\_\_\_\_  
 Contact Name: \_\_\_\_\_  
 Postal Address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email: \_\_\_\_\_



**PART THREE: AVIATION**

13 Has the proposed development been checked for aviation impacts? Due to the impact on development in the vicinity of aviation facilities, all development on the Airport needs to be reviewed for compliance. Have you discussed the proposed development with the General Manager Aviation Manager? YES / NO  
 BAL / CAL aviation enquiries can be made via [aviation@bankstownairport.com.au](mailto:aviation@bankstownairport.com.au)  
 If yes, who did you speak to?  
 Name: \_\_\_\_\_ Date: \_\_\_\_\_

What documents have they requested be provided with this application:  
 \_\_\_\_\_

14 Has the Applicant provided aviation impact assessments? The proposed development has been assessed for compliance with and evidence is provided for:  
 Obstacle Limitation Surface (OLS) \_\_\_\_\_ ( )  
 PANS-OPS \_\_\_\_\_ ( )  
 Runway / Taxiway / Apron Clearances \_\_\_\_\_ ( )  
 Air disturbance (including building generated wind shear, turbulence and exhaust plumes) \_\_\_\_\_ ( )  
 Lighting \_\_\_\_\_ ( )  
 Control Tower Line of Sight \_\_\_\_\_ ( )  
 Navigation Equipment \_\_\_\_\_ ( )  
 All development on the Airport must include a report from a suitable qualified acoustic consultant, detailing the impact of aviation activity on the development. This report must include the measures undertaken for the inclusion of appropriate noise control features in the building construction using AS2021 - 2000:Acoustics – Aircraft noise intrusion – Building siting and construction.  
 Aviation Acoustic Report \_\_\_\_\_ ( )

15 Does the proposed development impact on Airport security? Is the proposed development on airside or interfacing with airside? YES / NO  
 If Yes, what measures are taken to ensure airside security is maintained throughout the works and operations of the proposed development to meet the standards required by the *Aviation Transport Security Act 2004*?  
 \_\_\_\_\_

**PART FOUR: ENVIRONMENT**

16 How does the proposed Development Ecologically Sustainable Development (ESD)? Has the proposed development addressed the following:  
 a) Energy efficiency and the conservation of natural resources, particularly water and soil and rainwater harvesting for onsite use? \_\_\_\_\_ ( )  
 b) The avoidance of environmentally damaging materials? \_\_\_\_\_ ( )  
 c) The avoidance of significant adverse impact on the natural environment, particularly areas of remnant vegetation, watercourses and native flora and fauna? \_\_\_\_\_ ( )  
 Significant impact on the local or regional community? \_\_\_\_\_ ( )  
 See Section 4 of [http://www.infrastructure.gov.au/aviation/airport/planning/files/Significant\\_Impact\\_Guide\\_2012.pdf](http://www.infrastructure.gov.au/aviation/airport/planning/files/Significant_Impact_Guide_2012.pdf)  
 d) Waste avoidance and waste minimisation? \_\_\_\_\_ ( )  
 e) Encouraging the use of public transport? \_\_\_\_\_ ( )  
 f) Commercial building/s should consider the National Australian Built Environment Rating System (NABERS) and Section J of the *Building Code of Australia* \_\_\_\_\_ ( )  
 g) Compliance with the approved Bankstown Airport / Camden Airport- Airport Environment Strategy? \_\_\_\_\_ ( )  
 h) Other – please specify \_\_\_\_\_ ( )

17 Has the Applicant provided \_\_\_\_\_



environment impact assessments ?

Due to the potential impact on the environment all development on the Airport needs to be reviewed for compliance.

Have you discussed the proposed development with the BAL/CAL Environment Manager? YES / NO

The Checklist indicates the required documentation to be lodged and is available at [www.sydneymetroairports.com.au](http://www.sydneymetroairports.com.au) as Form 3 of 3

BAL / CAL environment enquiries can be made via [environment@bankstownairport.com.au](mailto:environment@bankstownairport.com.au)

If yes, who did you speak to?

Name: \_\_\_\_\_ Date: \_\_\_\_\_

What additional documents have they requested be provided with this application:

\_\_\_\_\_

**PART FIVE: CHECKLIST & LODGEMENT**

18 Applications must be lodged with a complete set of documents

- All applications must include in hard copy:
- 2 sets of all drawings (max A2 size),
  - 2 copies of all reports and certificates
  - an electronic complete list of all documents lodged in MS Word or Excel format, including consultant, descriptions, drawing and report numbers, revision numbers, and date
  - an electronic copy of all documents as provided for assessment

(Any additional documents provided during the assessment of an application must be provided in hard copy x 2 and electronic copy)

Prior to consent to a proposal, the Applicant is to provide, on request, an electronic copy of the final list of documents as provided for assessment.

Have you completed the AIRPORT LESSEE COMPANY CONSENT LODGEMENT CHECKLIST 2014 YES / NO

**NOTE: These drawings and revisions should be consistent with those provided to the ABC**

19 Approval is required from the Airport Building Controller, prior to commencement on site.

Have you discussed the proposed development with the Airport Building Controller? YES / NO

Discussing the application with the ABC prior to lodging the application for ALC consent will assist in determining the documentation required. [Contact the ABC on 02 8344 3114](tel:0283443114)

If yes, who did you speak to?

Name: \_\_\_\_\_ Date: \_\_\_\_\_

20 Your declaration Must be completed and signed by the Applicant / Sub-lessee

I /we apply for ALC consent to carry out the development described in this application. I /we declare that all the information given is true and correct. I/we also understand that:

- if incomplete, the application may be delayed or rejected;
- more information may be requested within 21 days of lodgement.

I / we agree, that should the application be required to be assessed by a specialist consultant or referred to regulatory bodies (e.g. CASA, Airservices Australia) due to the nature of the development, BAL/CAL will advise the Applicant of the approximate value of the additional fees, and following written acceptance of these fees, BAL/CAL may proceed to commission these assessments. All fees for third party consultants will be at cost + 12.5% plus GST to the Applicant and paid in advance by way of a deposit on account. Failure to pay requested fees will result in delay or refusal of the application.

I / we agree that should the assessment of the application require additional services beyond those listed under "What does the Airport Lessee Company Consent Lodgement Fee cover?" as noted in the Airport Lessee Company Consent Fees 2014, BAL/CAL may require payment of additional fees prior to proceeding with the assessment of the application. Failure to pay requested fees will result in delay or refusal of consent

Company Name & ABN:



		Name:	Position:
		Signature:	Date:
21	Lodgement of the application	Applications must be lodged at the address below, unless otherwise agreed. To make alternative arrangements, please call 0424 184 116	
22	Meeting with us/lodgement	We are located at: Bankstown Airport Limited, 3 Avro Street, Bankstown Airport NSW 2200 Ph (02) 9796 2300	
23	Fees	The current fee schedule is available at <a href="http://www.sydneymetroairports.com.au">www.sydneymetroairports.com.au</a> under Airport Lessee Company Consent Fees 2014	
24	Payment Methods	Cheque: Made payable to Bankstown Airport Limited / Camden Airport Limited EFT: Payment to Bankstown Airport Limited, BSB 062 000, Account 1136 7699 <i>Please use the DA file number as a reference, or provide receipt of payment when lodging your application</i>	



## ASSESSMENT OF ENVIRONMENTAL EFFECTS 2014

This Form is suitable for simple proposals only. Prior to lodging your request for ALC consent please contact [environment@bankstownairport.com.au](mailto:environment@bankstownairport.com.au) to confirm if it is suitable for your proposed development.

### FORM 3 of 3

#### PART ONE: SOIL

What actions will be taken to manage the impacts?

COMMENTS			
1. Will the construction activities include excavations, exposure of soil or stockpiling?	<i>Erosion and sediment control measures must be installed and maintained as specified in the "Blue Book" - Managing Urban Stormwater: Soils and Construction (UrbanGrowth NSW (Landcom)).</i>	<b>Yes</b> → <b>No</b> ↓	
2. Has the BAL/CAL Environment Manager requested a contamination investigation?	<i>A site contamination assessment may be required. Please confirm with the BAL/CAL Environment Manager.</i>	<b>Yes</b> → <b>No</b> ↓	
3. Will sand/soil/rock etc be imported onto the site?	<i>Any material imported onto the Airport must comply with BAL specifications for Importation of Material. Specifications are available on the website under Environment.</i>	<b>Yes</b> → <b>No</b> ↓	

#### PART TWO: WATER

What actions will be taken to manage the impacts?

COMMENTS			
4. Will the works expose soil that might run off into the stormwater system?	<i>Controls must be installed and maintained as specified in the "Blue Book" - Managing Urban Stormwater: Soils and Construction (UrbanGrowth NSW (Landcom)).</i>	<b>Yes</b> → <b>No</b> ↓	
5. Will the development be discharging into the stormwater system?	<i>Stormwater runoff must meet the requirements specified in Schedule 2 of the Airport (Environment Protection) Regulations 1997, OR be contained on-site for treatment and/or re-use.</i>	<b>Yes</b> → <b>No</b> ↓	
6. Will the development be discharging any waste other than sewerage?	<i>The proponent is to indicate if a licence to dispose to sewer from Sydney Water is required.</i>	<b>Yes</b> → <b>No</b> ↓	
7. Will the development be recycling water or waste?	<i>Appropriate licence/s to dispose to sewer must be obtained from Sydney Water OR if water is recycled for use on-site it must meet quality conditions for re-use purpose (e.g. irrigation, vehicle wash, dust control)</i>	<b>Yes</b> → <b>No</b> ↓	



**PART THREE: AIR**

**What actions will be taken to manage the impacts?**

COMMENTS

8. Will the construction works generate any dust?	<i>Appropriate dust controls to be implemented in consultation with, and as specified by BAL/CAL. Measures could include, but are not limited to, dust mesh, water trucks, sprinklers.</i>	Yes → No ↵	
9. Will the operations discharge anything to the air?	<i>Emissions to atmosphere must comply with Schedule 1 of the Airport (Environment Protection) Regulations 1997.</i>	Yes → No ↵	
10. Does the development include any water cooling or evaporative systems?	<i>Prior to commencement of operations, the proponent is to provide evidence that any cooling tower is registered with Bankstown City Council or Camden Council, as applicable</i>	Yes → No ↵	
11. Does the development include any spray painting booths?	<i>Spray booths must be constructed, maintained and operated in accordance with NSW WorkCover guidelines.</i>	Yes → No ↵	
12. Is there known asbestos on the development site or noted in the Airport Asbestos Register?	<i>Renovations or demolitions must be conducted in accordance with NSW WorkCover guidance notes and recommendations for asbestos.</i>	Yes → No ↵	

**PART FOUR: NOISE**

**What actions will be taken to manage the impacts?**

COMMENTS

13. Will the construction works create significant noise or vibration?	<i>What are the sources of noise and any control proposed? (A Noise and Vibration Control Plan may be required).</i>	Yes → No ↵	
14. Will the operations create significant noise or vibration? Are the operating hours of the development outside standard business hours?	<i>What are the sources of noise and any controls proposed? Noise from ground activities is to comply with Schedule 4 of the Airport (Environment Protection) Regulations 1997 and NSW Office of Environment and Heritage (EPA) Noise Regulations for noise impacts off airport. A Noise Management Plan may be required.</i>	Yes → No ↵	



<b>PART FIVE: WASTE</b>		<b>What actions will be taken to manage the impacts?</b>	
<i>COMMENTS</i>			
15. Will the construction activities generate any waste?	<i>Materials must be disposed of appropriately in accordance with NSW Office of Environment and Heritage (EPA) requirements.</i>	<b>Yes</b> → <b>No</b> ↓	
16. How will the waste for the operations be managed?	<i>BAL /CAL fully support and encourage the adoption of waste minimisation and recycling programs. (e.g. separation &amp; recycling bins)</i>	<b>Yes</b> → <b>No</b> ↓	
<b>PART SIX: DANGEROUS GOODS / HAZARDOUS SUBSTANCES</b>		<b>What actions will be taken to manage the impacts?</b>	
<i>COMMENTS</i>			
17. Will the construction activities require the storage of or generate Dangerous Goods/ Hazardous Waste?	<i>Temporary chemical storage facilities must be adequately bunded and comply with NSW WorkCover Dangerous Goods storage requirements. Dangerous Goods/Hazardous Substances must be disposed of appropriately in accordance with NSW Office of Environment and Heritage (EPA) requirements.</i>	<b>Yes</b> → <b>No</b> ↓	
18. Will the operations activities require the storage of or generate Dangerous Goods/ Hazardous Waste?	<i>Storage facilities must be constructed in compliance with NSW WorkCover Dangerous Goods storage requirements and be licensed with NSW WorkCover, as appropriate.</i>	<b>Yes</b> → <b>No</b> ↓	
<b>PART SEVEN: FLORA &amp; FAUNA</b>		<b>What actions will be taken to manage the impacts?</b>	
<i>COMMENTS</i>			
19. Does the site have sensitive vegetation?	<i>Disturbance and damage to vegetation must be kept to a minimum. A Flora &amp; Fauna study may be required.</i>	<b>Yes</b> → <b>No</b> ↓	
20. Will the works require the importation of landscaping materials?	<i>Any material imported onto the Airport must comply with the Sydney Metropolitan Airports' Specification for the Importation of Soil and Fill Materials (see website under Environment).</i>	<b>Yes</b> → <b>No</b> ↓	



**PART EIGHT: HERITAGE**

**What actions will be taken to manage the impacts?**

COMMENTS

21. Is the site or building identified in the Bankstown Airport Heritage Management Strategy?	<i>A heritage plan and/or archaeological study may be required. Construction must be stopped and BAL/CAL notified immediately in accordance with State regulations, if any items of possible heritage or historical importance are uncovered.</i>	<b>Yes</b> →  <b>No</b> ←	
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**PART NINE: RESOURCE USE – ENERGY**

**What actions will be taken to manage the impacts?**

COMMENTS

22. Does the development include either the construction of a new facility or major modifications to an existing facility?	<i>What energy conservation measures have been included/ considered in design of the new and existing facilities? E.g. energy efficient design, equipment, insulation, etc (has the building or the building design been rated by the National Australian Built Environment Rating System (NABERS). Does the building design comply with Section J of the Building Code of Australia?</i>	<b>Yes</b> →  <b>No</b> ←	
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**PART TEN: RESOURCE USE - WATER**

**What actions will be taken to manage the impacts?**

COMMENTS

23. Does the development include either the construction of a new facility or major modifications to an existing facility?	<i>What water conservation measures in the new and existing facilities have been included/ considered, e.g. water efficient taps and systems, rain water tanks, grey water recycling?</i>	<b>Yes</b> →	
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I/we have read and understand the environmental responsibilities and duties outlined in the Bankstown Airport; Airport Environment Strategy or Camden Airport; Airport Environment Strategy.

Company Name:

Name: \_\_\_\_\_ Position: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(Contact BAL/CAL Development on 0424 184 116 if you have any questions)

# Annex C - Environment Audit Checklist And Guidance Notes

Issue	Legal Requirement	What is looked for
<b>Issue 1: Environmental Management</b>		
Environmental Management Plan	The Airport Environment Strategy requires all Tier 1 & 2 tenants to prepare and maintain an Environment Management Plan (EMP) for their operations.	Is there an Environmental Management Plan for the operation?
	Tier 1 tenants are those whose operations are considered to have the potential for significant environmental risk. This includes but is not limited to tenants that store 500 litres or more of hazardous substances or dangerous goods, and/or distribute fuel.	Does the EMP identify all the operations / activities that pose a moderate to high environmental risk?  Does the EMP include procedures for managing moderate to high environmental risks?
	Tier 2 tenants are those whose operations are considered to have the potential for moderate environmental risk and include, but is not limited to, tenants that store up to 499 litres of hazardous substances or dangerous goods, and/or operate spray paint booths, and/or undertake maintenance and/or repair operations requiring the cleaning or washing of parts.	Have staff been made aware of the EMP and trained in the procedures relevant to their work?  Is the EMP kept somewhere easily accessible for staff to be able to refer to it and do staff know where it is kept?  When was the last time the EMP was reviewed / updated?  Has a copy of the EMP been given to the Sydney Metro Airport Environment Manager?
<b>Issue 2: Fuel, Oil and Dangerous Goods Management</b>		
Dangerous Goods Register/ List MSDS Sheets	The Work Health and Safety Act 2011 and Regulation 2011 establishes employers must;	Are chemicals used in the workplace?
	<ul style="list-style-type: none"> <li>Reg 330 &amp; 346 maintain a register of the chemicals used within the workplace and</li> <li>Reg 330 &amp; 344 obtain and maintain Material Safety Data Sheets for all chemicals used within the work place.</li> </ul> <p>Note: Material Safety Data Sheets (MSDS) can be obtained from the place of purchase of or the manufacturer of a chemical product. They can also be obtained from the internet.</p>	Is there a register or list of all the chemicals kept or used on site?  Are Material Safety Data Sheets (MSDS) kept for each chemical product kept or used on site?  Are the MSDS up to date?  Is the chemical register / list and all the MSDS kept in a location that is easily accessible to staff?  Do staff know where the chemical register / list and the MSDS are kept?  Are staff trained in MSDS use?

Issue	Legal Requirement	What is looked for
Dangerous Goods Notification	<p>The Work Health and Safety Act 2011 and the Occupational Health and Safety Regulation 2011 establish;</p> <ul style="list-style-type: none"> <li>Persons are required to notify WorkCover if they store dangerous goods equal to or in excess of the MANIFEST quantity outlined in Reg 348.</li> </ul>	<p>Are chemicals in excess of the specified Manifest quantity stored / used on the premises?</p> <p>If so: Does the organisation hold a current Work Cover Dangerous Goods Notification?</p>
Storage, Handling & Disposal of fuel, oil & dangerous goods	<p>The Work Health and Safety Act 2011 and the Occupational Health and Safety Regulation 2011 establishes employers must;</p> <ul style="list-style-type: none"> <li>Reg 342 and 356 Separate chemicals that may react with each other.</li> <li>Reg 357 Provide for the containment of any spills of dangerous goods (during storage or handling).</li> </ul>	<p>Are all chemicals and dangerous goods used on the premises stored in an area that is contained, banded and covered from the elements?</p> <p>Are dangerous goods and other chemicals that may react with each other separated within the storage area?</p>
Spill Response Equipment	<p>The Work Health and Safety Act 2011 and the Occupational Health and Safety Regulation 2011 establishes employers must;</p> <ul style="list-style-type: none"> <li>Reg 357 take immediate action to reduce the risk associated with any spill or leak of dangerous goods and clean up and dispose of the spilled product.</li> </ul>	<p>Does the organisation have a procedure for containing and cleaning up spills of chemicals?</p> <p>Is there adequate and appropriate equipment on site to respond to any potential spill or incident involving a dangerous good or hazardous substance?</p> <p>Are spill kits located in easily accessible locations that are close to area where chemicals are stored and used?</p> <p>Is the spill kit maintained and re-stocked after use?</p> <p>Have staff been trained in spill response procedures and do they know the location of spill kits?</p> <p>How does the organisation dispose of spent spill response equipment?</p>

Issue	Legal Requirement	What is looked for
<b>Issue 3: Stormwater Maintenance</b>		
Sources of stormwater pollution	<p>The Airport (Environment Protection) Regulations 1997 establish;</p> <ul style="list-style-type: none"> <li>Reg 4.01 operators at the airport take all reasonable and practicable measures to prevent the generation of pollution.</li> <li>Reg 2.02 defines water pollution as something that causes or is reasonably likely to cause the physical, chemical or biological condition of waters to be adversely affected</li> <li>Schedule 2 Water Pollution – accepted limits sets limits for the level of a variety of contaminants in stormwater.</li> </ul>	<p>Is there any evidence that activities, whether current or past, pose a pollution threat to nearby stormwater drains?</p> <p>If so, what controls / procedures does the organisation employ in order to eliminate or minimise the risk of storm water pollution?</p> <p>Have staff been trained in procedures that eliminate or minimise the risk from activities such as aircraft wash down and maintenance on stormwater pollution? (Runoff from aircraft wash down contains detergents, sediment and traces of hydrocarbons (oil, fuel, grease, solvents) all of which are pollutants and must not be discharged to stormwater).</p> <p>Is there an interceptor or separator on the site and where does it discharge to?</p>
<b>Issue 4: Solid Waste Management</b>		
Solid Waste Storage	<p>The Protection of the Environment Operations (Waste) Regulations 2014 establish;</p> <ul style="list-style-type: none"> <li>Owners of waste (as well as the transporters and receivers) have a responsibility to ensure their waste is managed, transported and disposed of appropriately.</li> <li>Reg 112 Peoples storing waste on a premise must ensure it is stored in an environmentally safe manner. (This applies to all classes of waste).</li> </ul>	<p>Where and how is solid waste stored prior to disposal? Is it in a container that can be closed to prevent waste escaping?</p> <p>Is the waste container positioned away from high risk areas in the event waste does escape the container e.g. Stormwater drains?</p> <p>How is the solid waste disposed?</p> <p>Is waste separated and disposed according to its classification e.g. Industrial waste, hazardous waste, general waste?</p> <p>Is the waste collected by an appropriately licensed contractor?</p> <p>Does the organisation retain its waste disposal receipts?</p> <p>Does the organisation encourage waste minimisation i.e. Reduce, reuse, recycle products wherever possible?</p> <p>Have staff been trained in waste disposal requirements?</p>

**Issue 5: Soil & Groundwater Maintenance**

Issue	Legal Requirement	What is looked for
Current evidence of contamination	The Airport (Environment Protection) Regulations 1997 establish;	Does the organisation engage in any activities that pose a risk of soil and / or groundwater pollution?
	<ul style="list-style-type: none"> <li>Reg 4.01 operators at the airport take all reasonable and practicable measures to prevent the generation of pollution.</li> </ul>	If so, what measures has the organisation taken to eliminate or minimise the risk of soil and / or groundwater pollution from their activities?
	<ul style="list-style-type: none"> <li>Reg 2.03 establish soil pollution has occurred when, amongst other things, land including groundwater is contaminated by a substance that causes or is reasonably likely to cause the chemical or biological condition of the soil to be adversely affected</li> </ul>	Have staff been trained in the measures adopted by the organisation to minimise the risk of soil and / or groundwater contamination from relevant activities?
	<ul style="list-style-type: none"> <li>Schedule 3 Soil Pollution – accepted limits sets limits for the level of a variety of contaminates in soil.</li> </ul>	<p>Is there any evidence of current or past contamination e.g. Oil stains, discoloured vegetation, paint flakes, metal fibres?</p> <p>Is there any evidence that fill or landscaping material has been brought on to the site?</p> <p>If so does the organisation have a validation certificates which demonstrates the material meets the requirements of Schedule 3 or the Airports (Environment Protection) Regulations and contains no asbestos material or that it is Virgin Excavated Natural Material?</p>

**Issue 6: Parts Washing practices**

Parts Washing	<p>The EPA Guidelines: Servicing and Mechanical Repairs 1998, Information Sheet 3, Storm Water Management establish;</p> <ul style="list-style-type: none"> <li>Engines may be degreased in a workshop if it is done in an approved wash bay, or if there is some other means of storing and treating the waste water.</li> <li>Engines must not be degreased outside the workshop or in any area where run-off can enter the storm water system.</li> </ul>	Does the organisation conduct engine degreasing or parts washing?
		If so, where and how is engine degreasing and / or parts washing conducted?
		<p>Is engine degreasing conducted over a sealed / contained surface that is away from stormwater drains and under cover?</p> <p>Are parts washed in a container that can be sealed when not in use?</p> <p>Are all waste products collected?</p> <p>Are the waste products stored in a sealed container prior to disposal and is the container placed in a bunded and covered area?</p> <p>Are the waste products collected by an appropriately licensed contractor?</p>
		Have staff been trained in the correct location / method for engine degreasing and / or parts washing, as well as the appropriate storage and disposal of waste products associated with these activities?

Issue	Legal Requirement	What is looked for
<b>Issue 7: Liquid Waste Management</b>		
Liquid Waste Storage and Disposal	<p>The Protection of the Environment Operations (Waste) Regulations 2014 establish;</p> <ul style="list-style-type: none"> <li>The owners of waste (as well as the transporters and receivers) have a responsibility to ensure their waste is managed, transported and disposed of appropriately.</li> <li>Reg 112 Peoples storing waste on a premise must ensure it is stored in an environmentally safe manner. This applies to all classes of waste.</li> <li>EPA Bunding and Spill Management Guidelines 2004 provides information on common issues and controls associated with the storage of liquid waste.</li> </ul>	<p>Does the organisation generate liquid wastes?</p> <p>If so, where and how are the liquid wastes stored prior to disposal?</p> <p>Is the liquid waste storage area contained, bunded and covered? Are liquid wastes that may react with each other separated within the waste storage area?</p> <p>Are the liquid wastes collected by an appropriately licensed contractor?</p> <p>Have the waste disposal receipts issued by the contractor been retained?</p> <p>Have staff been trained in the correct method for storage and disposal of liquid wastes?</p>
<b>Issue 8: Sewer Discharge practices</b>		
Interceptor/ Separator	<p>Under Section 49 of the Sydney Water Act 1994, it is an offence to discharge any substance into a work owned by Sydney Water without the written agreement of Sydney Water. Monitoring must be carried out in as outlined in the agreement.</p>	<p>Is there an interceptor or separator on the site and where does it discharge to?</p> <p>If the interceptor discharges to sewer does the organisation have a trade waste licence with Sydney Water?</p> <p>If the interceptor discharges to stormwater is the discharge monitored and does it meet the requirements of Schedule 2 of the Airports (Environment Protection) Regulations?</p> <p>Has a copy of the monitoring results been provided to Sydney Metropolitan Airports Environment Manager?</p> <p>How regularly is the interceptor maintained and how and where is the waste disposed?</p>

Issue	Legal Requirement	What is looked for
<b>Issue 9: Noise Management</b>		
Sources of excessive noise	<p>The Airports (Environment Protection) Regulations 1997 establish;</p> <ul style="list-style-type: none"> <li>Reg4.06 operators at the airport must take all reasonable and practicable measures to prevent the generation of offensive noise from an undertaking</li> <li>Reg 2.04 establishes when noise that is offensive is deemed to occur</li> <li>Schedule 4 Excessive noise – guidelines, Parts 2.05 and 2.06 sets out indicators of noise that is excessive in relation to ground based aircraft operations and other airport operations.</li> </ul>	<p>Does the organisation conduct operations or activities that may cause offensive noise?</p> <p>If so, what measures does the organisation take to prevent or otherwise minimise the generation of offensive noise e.g. Appropriate use of pre-flight and engine maintenance run bays, compliance with airport specified ground running guidelines?</p> <p>Have there been any complaints made in relation to noise associated with the organisations operations and what action, if any, was taken to remedy such complaints?</p> <p>Where necessary, have measures been taken to limit or restrict noise exposure to staff and surrounding facilities e.g. issuing of appropriate Personnel Protective Equipment (PPE) or installation of muffling devices?</p> <p>Have staff been trained in the organisation’s noise mitigation measures and their application?</p>
<b>Issue 10: Aircraft Washing practices</b>		
Location of Aircraft wash down/ Product used	<p>The Airport (Environment Protection) Regulations 1997 establish;</p> <ul style="list-style-type: none"> <li>Reg 4.01 operators at the airport take all reasonable and practicable measures to prevent the generation of pollution.</li> <li>Reg 2.02 defines water pollution as something that causes or is reasonably like to cause the physical, chemical or biological condition of waters to be adversely affected</li> <li>Schedule 2 Water Pollution – accepted limits sets limits for the level of a variety of contaminates in stormwater.</li> </ul> <p>Note: Runoff from aircraft wash down contains detergents, sediment and traces of hydrocarbons (oil, fuel, grease, solvents) all of which are pollutants and must not be discharged to stormwater.</p>	<p>Does the organisation wash aircraft?</p> <p>If so, does the organisation use the airport designated aircraft wash bay adjacent to taxiway X-Ray just south of Alpha 3?</p> <p>If the airport designated wash bay isn’t used does the organisation wash its aircraft on a grassed area that is well away (10m) from stormwater drains?</p> <p>If aircraft are washed on hard stand what measures are taken, if any, to prevent wash water entering stormwater drains?</p> <p>What detergent is used and is it biodegradable? How much detergent is used?</p> <p>Does the organisation have an up to date Water Restriction Exemption issued by Sydney Water and is it displayed appropriately?</p> <p>Have staff been trained in the organisation’s aircraft wash procedures i.e. Do staff know how to mitigate the risk of storm water pollution associated with washing aircraft?</p>

Issue	Legal Requirement	What is looked for
<b>Issue 11: Air Quality Management</b>		
Sources of Air Pollution	<p>The Airport (Environment Protection) Regulations 1997 establish;</p> <ul style="list-style-type: none"> <li>Reg 4.01 operators at the airport take all reasonable and practicable measures to prevent the generation of pollution.</li> <li>Reg 2.01 establish that air pollution has occurred when a pollutant is present in air in a quantity, way, or condition, or under a circumstance, in which harm is likely to be caused to the environment; or unreasonable inconvenience is likely to be caused to a person.</li> <li>Schedule 1 Air Pollution-Accepted limits sets limits for the level of a variety of substances in air emissions.</li> </ul>	<p>Does the organisation conduct operations or activities that may affect air quality e.g. Spray painting, venting emissions from chemical stores?</p> <p>If so, what measures, if any, has the organisation taken to mitigate adverse impacts on air quality?</p> <p>If a spray paint booth, dust extraction system or any system that ventilates to the exterior of the premises has been installed does the system have WorkCover approval and was a DA/BA obtained?</p> <p>Have staff been trained in the measures the organisation has taken to mitigate the adverse impacts on air quality of their operations?</p> <p>What air quality monitoring if any does the organisation undertake?</p>
<b>Issue 12: Heritage Management</b>		
Heritage Aspects	<p>The Airports (Environment Protection) Regulations 1997 establish;</p> <ul style="list-style-type: none"> <li>Reg 4.04 operators at the airport take all reasonable and practicable measures to ensure that there are no adverse consequences for existing ... cultural, historical, social... values of the local area.</li> </ul>	<p>Is the building identified as having heritage value in the Airport's Heritage Management Strategy?</p> <p>If so, does the organisation understand the heritage values of the building and the implications of this for use and / or alterations of aspects of the building</p>

# Annex D Camden Airport Environment Strategy 2010 - Commitments & Achievements

Camden Airport AES Actions			
Camden Airport Environment Strategy 2010 Commitment	Achieved	Complete or Ongoing	Comment
<b>Air Quality</b>			
Require audits of tenant operations to assess compliance with the Airports (Environment Protection) Regulations 1997	Yes	Ongoing	Environmental audits and follow-up inspections were carried out to assess compliance with the Airports Regulations. No significant air quality issues (odours or emissions) were identified.
Assess air quality requirements and options for minimising emissions of air pollutants in the development assessment and approval process at the Airport	Yes	Ongoing	There has been limited development at the Airport over the period of the previous AES. For developments that have been assessed and approved, measures were imposed as required to ensure new facilities and operations met air quality standards and did not have an adverse impact on local air quality. Construction EMPs were required to identify management strategies for dust minimisation if dust generation was likely to occur during construction.
Monitor the annual tenant NPI reports for those that trigger NPI reporting thresholds and assess options for reducing emissions of air pollutants	Yes	Ongoing	Tenants that trigger the NPI reporting threshold submitted NPI reports as required.
Identify the options for tenants who trigger the NPI reporting threshold propose to implement to reduce emissions of air pollutants	Yes	Completed	Tenants that trigger NPI reporting were monitored and methods to reduce emissions of air pollutants were reviewed.
Monitor the aggregate Airport emissions report undertaken by NSW EPA every 5 years and assess options for reducing emissions of air pollutants	N/A	Ongoing	Aggregate Airport emissions report not produced in the period of the 2010 AES. To be completed every 5 years.
Identify and assess options to reduce air emissions at the Airport	Yes	Ongoing	Air emissions were identified through tenant environmental audit reports and NPI reporting. Where possible, options to reduce emissions are being investigated.
Promote and encourage the use of alternative fuels and other measures to reduce emissions of air pollutants at the Airport	Yes	Ongoing	A standard clause in all development approvals proposes the use of alternative fuels where possible.
Monitor the emissions from all spray paint booths on the Airport	Yes	Ongoing	Tenants are required to monitor emission for all spray paint booths. Additional monitoring is performed as required. Air quality is reviewed during environmental audits and follow-up site inspections.

### Camden Airport AES Actions

Camden Airport Environment Strategy 2010 Commitment	Achieved	Complete or Ongoing	Comment
Prepare and implement an Asbestos Management Plan	Yes	Completed	The Camden Asbestos Management Plan was prepared and implemented.
Maintain the Asbestos Register for the Airport	Yes	Ongoing	The Camden Airport Asbestos Register was maintained and updated.
<b>Water</b>			
Require all new developments to adopt Water Sensitive Urban Design principles	Yes	Ongoing	A standard approach to all development approvals proposes the use of Water Sensitive Urban Design principles.
Encourage new and existing tenants to adopt sustainable water use practices	Yes	Ongoing	During annual environmental audits tenants are reminded and encouraged to adopt sustainable water use practices.
Continue to develop and implement a Stormwater Management Plan and a Groundwater Management Plan as part of the EMS	Yes	Completed	Camden Airport has developed and implemented a Water Quality Management Plan as part of the EMS.
Document the Stormwater and Groundwater Management Plans	Yes	Completed	Camden Airport has developed and implemented a Water Quality Management Plan as part of the EMS.
Require new underground fuel installations to be designed and installed in accordance with NSW regulatory requirements	Yes	Ongoing	It is CAL policy for all new underground fuel storage tanks to be installed to meet the NSW requirements.
Require existing underground fuel storage tanks to be monitored in compliance with NSW regulatory requirements	Yes	Ongoing	Tenants with existing underground fuel storage tanks are required to monitor tanks in compliance with NSW regulatory requirements.
Continue to liaise with the Hawkesbury-Nepean CMA to ensure environmental integrity of this catchment area (when required)	Yes	Ongoing	CAL has an on-going relationship with the CMA (now Local Land Services).

Camden Airport AES Actions			
Camden Airport Environment Strategy 2010 Commitment	Achieved	Complete or Ongoing	Comment
<b>Soil</b>			
Develop Urban Design Guidelines for the airport that incorporate consideration of potential salinity issues in accordance with the requirements of the Department of Planning 'Site Investigation for Urban Salinity' (Dec 2011)	Partially	Not completed	Due to the low volume of development, this action has been amended for completion in the next AES period. A Salinity Environmental Information Sheet has been produced and placed on the Camden Airport Website and CAL has written to the Airport Building Controller (ABC) who oversees infrastructure and development at the airport to ensure that all new buildings meet the required guidelines for salinity prone areas.
Continue to develop and improve the Environmental Site Register	Yes	Ongoing	The Environmental Site Register was updated to include any additional sites or updated information on existing sites. The register was reviewed for possible improvements. Tenants were consulted to ensure the Register is up to date.
Continue to update the Site Contamination Register	Yes	Ongoing	The Site Contamination Register was reviewed and updated as required to include any additional sites or updated information on existing sites. The Register was reviewed for possible improvements. Tenants were consulted to ensure the Register is up to date.
Require that all Airport Lessee Company Consents include a statement as to how the tenants comply with the AES	Yes	Ongoing	Standard clause requires all Airport Lessee Company Consents include statement of compliance with the Master Plan and AES.
Continue to implement procedures for managing importation of fill material to ensure contaminated fill is not brought onto site	Yes	Ongoing	Fill specification information sheet is posted on the Airport website. Proponents of developments that require importation of fill are required to provide documentary evidence that materials proposed for importation to Airport meet specified requirements and address control of imported fill in the Construction EMP.
Require new lessees to undertake a base-line study of soil quality at the commencement and termination of the lease if the AEO suspects contamination may be an issue.	Yes	As required	CAL requires that new lessees undertake a soil assessment, if the AEO and AEM suspect contamination to be an issue.
Adhere to CAL, industry and regulatory standards and guidelines for new fuel storage facilities	Yes	Ongoing	It is CAL policy for all new underground fuel storage facilities to be installed to meet the necessary requirements.

## Camden Airport AES Actions

Camden Airport Environment Strategy 2010 Commitment	Achieved	Complete or Ongoing	Comment
Require environmental audits of tenant operations to assess compliance with the Airports (Environment Protection) Regulations 1997	Yes	Ongoing	This is addressed during environmental audits and follow-up site inspections. No significant soil contamination was identified.
Conduct random inspections of tenant facilities to visually inspect facilities and activities that have potential to cause soil pollution	Yes	As required	Tenants were notified of any issues and follow-up actions taken to ensure tenants addressed issues.
Implement an incident reporting and response program for all types of incidents with the potential to cause soil pollution	Yes	Completed	Camden Airport Incident Report and Response procedures were updated to include all environmental issues. Environmental training was undertaken by CAL staff to inform personnel of the updates.
Consider the risk of soil pollution when assessing new Airport Lessee Company Consents	Yes	Ongoing	The risk of soil pollution is assessed when reviewing new Airport Lessee Company Consents.
Monitor existing underground storage tanks in compliance with NSW DECCW guidelines	Yes	Ongoing	Tenants with active underground fuel storage tanks are required to monitor tanks in compliance with NSW regulatory requirements.
Require that tenants and all airport users dispose of their liquid wastes, including fuel samples, in an appropriate manner that is in compliance with regulatory requirements	Yes	Ongoing	Disposal of waste is addressed during environmental audits and follow-up inspections. Tenants have implemented protocols that include proper disposal of fuel samples.
Develop an information sheet on management of salinity issues on the Airport	Yes	Complete	A Salinity Environmental Information Sheet has been produced and placed on the Camden Airport Website.

## Noise

Require all developments to address noise and vibration impacts during development planning having regard to the Airports (Environmental Protection) Regulation 1997 and the NSW Industrial Noise Policy	Yes	Ongoing	Standard application process requires all Airport Lessee Company Consents to address noise and vibration impacts of the development. Proposed developments with potential noise and vibration issues during construction or operation are required to submit a report by an appropriately qualified acoustics professional to indicate how any issues will be mitigated or managed.
Require annual environmental audits of Tier 1 tenants and selected Tier 2 tenants to assess compliance with Airports (Environmental Protection Regulations 1997)	Yes	Ongoing	This is addressed during environmental audits and follow-up site inspections. No significant noise issues were identified.

## Annex D (AES)

Camden Airport AES Actions			
Camden Airport Environment Strategy 2010 Commitment	Achieved	Complete or Ongoing	Comment
Require monitoring by a suitably qualified acoustic scientist where noise is considered excessive to assess compliance with the Airports (environment Protection) Regulations 1997 and the NSW Industrial Noise Policy	Yes	As required	CAL requires monitoring by a suitably qualified acoustic professional where noise is considered excessive.
Provide more information regarding noise management at the airport on the Camden Airport website	Yes	Completed	Additional information regarding noise management is available on the Camden Airport Website, including the Camden Airport Noise Management Plan 2011.
Maintain the Noise Complaint Register	Yes	Ongoing	Register is maintained and reported to the CACACG as required.
Establish a Camden Airport Community Aviation Consultation Group (CACACG) and a Planning Coordination Forum		Completed	CAL has established the Camden Airport Community Aviation Consultation Group (CACACG) as a means of facilitating communication between the Airport and the community. CAL has established a Planning Coordination Forum which includes Camden Council, the NSW Department of Planning and the Department of Infrastructure and Regional Development.
Update and report aircraft noise modelling through the Master Plan process		Ongoing	Aircraft noise modelling is updated during the master planning process and is reported in the Draft Master Plan for Camden Airport.
Support measures by Airservices Australia to manage aircraft noise impacts (as required)		As required	CAL undertakes regular liaison with Airservices Australia regarding aircraft noise complaints. CAL continues to support Airservices Australia through inviting representatives to CACACG meetings and supporting information provided to the community.
Provide better information about the actions being undertaken to manage aircraft noise and provide links to Airservices Australia aircraft noise management information on the Camden airport website		Completed	Additional information has been provided on the CAL website. This includes information linking the new Aircraftnoise.com.au website which is an initiative of Airservices Australia and the Australian Airports Association.
Facilitate discussions on aircraft traffic with the community through the CACACG		As required	CAL has established the Camden Airport Community Aviation Consultation Group (CACACG) as a means of facilitating communication between the Airport and the community. Airport related matters are discussed at these quarterly meetings.
Flora/Fauna			
Maintain and comply with the Registered Property Agreement for the bushland area on the Airport	Yes	Ongoing	CAL will continue to maintain and comply with the Registered Property Agreement within the Environmentally Significant Zone.

## Camden Airport AES Actions

Camden Airport Environment Strategy 2010 Commitment	Achieved	Complete or Ongoing	Comment
Survey the location of the listed species occurring within the Environment Protection Zone	Yes	Completed	<p>A survey of the Environmentally Significant Zone has been completed within the period of the 2010 AES. The survey was undertaken in 2013 by the Hawkesbury-Nepean Catchment Management Authority in a limited area, targeting two species: Pomaderris brunnea and Eucalyptus benthamii. No additional species were identified; however an additional Pomaderris brunnea plant was located. Additional surveys of the Environmentally Significant Zone are proposed to be undertaken (including targeted survey of the location of all Eucalyptus and Pomaderris brunnea occurring within the ESZ) to continue to collect valuable information that will assist in focussing management efforts.</p> <p>During the 2013-2014 reporting year the Management Plan was reviewed, however it was determined that while much of the report is relevant, the areas listed for recommended bushland preservation have changed due to the identification and location of EPBC listed species Eucalyptus benthamii and Pomaderris brunnea. Therefore the general principal of the Plan was followed, however specific targeted areas will be required to be adjusted in future revisions of the Plan.</p>
Review the Management Plan for the Environment Protection Zone taking into consideration the requirements for the listed species	Yes	Completed	<p>During the 2013-2014 reporting year the Management Plan was reviewed, however it was determined that while much of the report is relevant, the areas listed for recommended bushland preservation have changed due to the identification and location of EPBC listed species Eucalyptus benthamii and Pomaderris brunnea. Therefore the general principal of the Plan was followed, however specific targeted areas will be required to be adjusted in future revisions of the Plan.</p>
Implement the Management Plan for the Environment Protection Zone	Yes	Ongoing	CAL will continue to implement a Management Plan for the Environmentally Significant Zone.
Undertake liaison with external stakeholders regarding the management of native flora and fauna at the Airport	Yes	Ongoing	Environmental issues, including flora and fauna are discussed during CACACG meetings and with individual volunteer groups at the Airport.
Facilitate meetings of the Camden Airport Bushland Review Group	Yes	Completed	Meetings of the Camden Airport Bushland Review Group were undertaken within the early period of the AES. CAL has and will continue to undertake liaison with external stakeholders regarding the management of native flora and fauna at the Airport using various forums.
Assess all the potential impacts of proposed developments within the vicinity of the Environment Protection Zone	Yes	Ongoing	CAL considers potential impacts of proposed developments within the vicinity of the Environmentally Significant Zone. Developers are required to address potential impacts and specify control measures within a Construction Environmental Management Plan.

Camden Airport AES Actions			
Camden Airport Environment Strategy 2010 Commitment	Achieved	Complete or Ongoing	Comment
Seek external funding and assistance for bush regeneration works within the Environment Protection Zone	Yes	Ongoing	CAL has successfully sought and been granted external funding and assistance for bush regeneration works within the Environmentally Significant Zone and will continue to monitor and seek external funding sources for these important works.
Liaise with Camden Council and the Hawkesbury-Nepean Catchment Management Authority to identify actions the Airport may take to improve the health of the Nepean River	Yes	Ongoing	CAL has an ongoing relationship with the Local Land Services in relation to the riparian vegetation within the Environmentally Sensitive Zone.
Monitor, record and assess bird strike	Yes	Ongoing	Bird strike is routinely monitored and recorded.
Heritage			
Use the Camden Airport Heritage Management Strategy 2005 as the basis for heritage assessment and the formulation of conservation policy	Yes	Completed	Camden Airport Heritage Management Strategy 2005 is used when deemed applicable as the basis for heritage assessment.
Develop a Heritage Management Plan in accordance with Commonwealth Heritage List criteria and National Heritage List Criteria to protect and manage the heritage values at Camden Airport	Not achieved	Not completed	Heritage Impact Statements are required for proposed developments that have a potential impact on a property's heritage values. Due to the limited development at the Airport, the development of a whole of Airport Management Plan has not been completed. Individual developments must have a Heritage Impact Statement for sites with heritage values.
Assess the impacts of new developments in the vicinity of elements having heritage values against the Camden Airport Heritage Management Strategy and the EPBC Act Policy Statement 1.2 'Significant Impact Guidelines, Matters of National Environmental Significance, May 2006	Yes	Ongoing	When required CAL has assessed developments impacting elements having heritage values against the Camden Airport Heritage Management Strategy and the EPBC Act Policy Statement 1.2 Significant Impact Guidelines, Matters of National Environmental Significance, 2013.
Undertake additional investigations as required, in consultation with relevant organisations, to identify indigenous and/or non-indigenous heritage sites during the planning stage for new developments	Yes	Ongoing	When required CAL will undertake additional investigations, in consultation with relevant organisations, to identify indigenous and/or non indigenous heritage sites during the planning stage for new developments.

### Camden Airport AES Actions

Camden Airport Environment Strategy 2010 Commitment	Achieved	Complete or Ongoing	Comment
Require tenants leasing property having heritage value to address the management of these values in their EMP	Yes	Ongoing	Tenants leasing properties as having heritage values are required to address management of these values in EMPs.
Monitor tenants management of heritage properties during environmental audits	Yes	Ongoing	Tenants are required to review and address heritage management during environmental audits and follow-up site inspections.
<b>Waste</b>			
Require audits of tenant operations to assess compliance with NSW waste legislation and the principles of the waste hierarchy	Yes	Ongoing	Addressed during environmental audits and follow-up site inspections. No significant waste management issues identified.
Consider waste management options in the design and construction of new developments at the Airport	Yes	Ongoing	It is a requirement for proponents to consider waste management in the design of new developments.. There is a standard requirement for Construction EMPs to include a waste management issues.
Monitor waste and look for opportunities to further reduce, reuse and recycle	Yes	Ongoing	Waste is monitored through visual inspections, environmental audits and site inspections. When opportunities to reduce are identified tenants and/or CAL staff is notified and when possible implemented.
Encourage tenants, through correspondence, environmental audits and awareness programs to reduce, reuse and recycle	Yes	Ongoing	Addressed during environmental audits and follow-up site inspections. Educational material provided to tenants upon request.
Continue litter inspections through Airport grounds	Yes	Ongoing	Addressed during environmental audits and site inspections. Relevant parties notified to address and follow-up occurs.
<b>Climate Change and Resource Use</b>			
Develop sustainability guidelines for development at the Airport	Partial	Ongoing	Key sustainability issues in relation to energy efficiency, water management and landscaping are addressed during the development assessment and approval process. The development of a Sustainability Guideline is to be completed during the 2015 AES period.
Consider water harvesting on new developments	Yes	Ongoing	All Airport Lessee Company Consents require consideration of water harvesting options including on-site detention and rainwater tanks.

**Camden Airport AES Actions**

Camden Airport Environment Strategy 2010 Commitment	Achieved	Complete or Ongoing	Comment
Undertake an energy audit of CAL facilities and operations with the view to identifying opportunities to improve energy efficiency	Yes	Completed	CAL undertook an energy efficiency and greenhouse gas audit for CAL owned and operated facilities that identified opportunities to improve energy efficiency.
Monitor resource use (energy, water and fuel) and look for opportunities to improve efficiency	Yes	Ongoing	Opportunities to improve resource use efficiency are identified during audits.
Consider water re-use options for grey water in new developments	Yes	Ongoing	All Airport Lessee Company Consents require developments to consider grey water re-use options.
Consider energy conservation on future developments	Yes	Ongoing	Energy conservation is a standard consideration for all Airport Lessee Company Consents.
Consider renewable energy options for power generation on new projects where practicable	Yes	Ongoing	Renewable energy options are considered as part of the development approvals process where practicable.
Undertake a carbon audit of CAL operations and facilities with the view to identifying opportunities to reduce greenhouse gas emissions	Yes	Completed	CAL undertook an energy efficiency and greenhouse gas audit for CAL owned and operated facilities that identified opportunities to improve energy efficiency and reduce greenhouse gas emissions.

**Community**

Establish a Camden Airport Community Aviation Consultation Group (CACACG) and Planning Coordination Forum and organise meetings of CACACG and PCF	Yes	Ongoing	CAL has established the Camden Airport Community Aviation Consultation Group (CACACG) as a means of facilitating communication between the Airport and the community. CACACG meets quarterly. CAL has established a Planning Coordination Forum with Camden Council. This Forum was broadened to include the NSW Government and the DoIRD and meets regularly on to discuss airport development activities.
Produce and maintain environmental information on the Camden Airport website for the community	Yes	Ongoing	Environmental information regarding Camden Airport is produced and provided on the Camden Airport website.
Continue the tenant Newsletter	Yes	Ongoing	CAL continued to supply The Metro Flyer tenant newsletter.
Establish a regular communication with the Owners and occupiers of Hassall Cottage and Macquarie Grove	Yes	Completed	Communication with owners and occupiers of Hassall Cottage and Macquarie Grove is established.

# Annex E - Camden Airport - Aircraft Engine Ground Running Guidelines

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## Introduction

This guideline document is issued to manage noise associated with ground running of aircraft for pre-flight engine run ups and engine maintenance testing. These guidelines have been developed with the express purpose of minimising noise impacts at the airport and in residential areas adjoining the airport whilst meeting the operational safety requirements for engine testing.

The engine running guidelines established in this document are minimum requirements. Aircraft operators are encouraged to consider the impact of the noise they generate in the course of executing pre-flight engine run ups and maintenance testing on all airport users and take appropriate action to minimise these impacts as much as it is practicable and safe to do.

## General duties of the airport operator and airport tenants

In accordance with the *Airports Act 1996*, Camden Airport Limited (CAL) is responsible for managing noise generated from ground-based aircraft operations, excluding aircraft taxiing, taking off and landing.

Under Section 4.06 of the *Airports (Environment Protection) Regulations 1997*, all tenants have a general duty to prevent the generation of offensive noise and, where prevention is not possible, to minimise the generation of offensive noise.

## Non-compliance with this Guideline

Non-compliance with the Aircraft Engine Ground Running Guideline may result in offensive noise and result in the application of enforcement measures by the Airport Environment Officer (AEO), Camden Airport's external regulator.

It is in the interests of all operators at the Airport to comply with and, where practicable to do so without compromising operational safety, improve upon this Aircraft Engine Ground Running Guideline.

## Engine ground running restrictions

Engine maintenance testing for fixed wing and rotary aircraft may only be conducted:

- Monday – Friday 7.00am to 8.00pm (local time)
- Saturday – Sunday 8.00am to 6.00pm (local time)

Engine maintenance testing is prohibited at all other times unless it is conducted in a fit for purpose engine test cell.

# Abbreviations

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ABC	Airport Building Controller
AEE	Assessment of Environmental Effects
AEO	Airport Environment Officer
AEM	Airport Environment Manager
AES	Airport Environment Strategy
ALCC	Airport Lessee Company Consent
AS/NZS	Australian Standard/New Zealand Standard
ATCT	Air Traffic Control Tower
CACACG	Camden Airport Community Aviation Consultation Group
CAL	Camden Airport Limited
Cwth	Commonwealth
DoE	Department of the Environment
DMP	Draft Master Plan
DoIRD	Department of Infrastructure and Regional Development
EMS	Environmental Management System
EMP	Environmental Management Plan
EPA	Environment Protection Authority (NSW)
EP&A Act	Environmental Planning and Assessment Act 1979 (NSW)
EPBC Act	Environment Protection Biodiversity Conservation Act 1996 (Cwth)
ESR	Environmental Sites Register
HMS	Heritage Management Strategy
LEP	Local Environmental Plan
LLS	Local Land Services
MDP	Major Development Plan
MP	Master Plan
NPI	National pollutant inventory
NPWS	National Parks and Wildlife Service
NSW	New South Wales
OEH	Office of Environment and Heritage (NSW)
PCF	Planning Coordination Forum
PDMP	Preliminary Draft Master Plan 2034/35
vph	Vehicles per hour

# References

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## Camden Airport documents:

Bushland Management Plan (2001)  
Heritage Management Strategy (2005)  
Noise Management Plan (2011)  
Water Quality Management Plan (2013)  
Asbestos Management Plan (2012)

## Other documents

AS/NZS ISO 14001:2004. Environment Management Systems

EPBC Act Policy Statement 1.2 Significant Impact Guidelines,  
Matters of National Environmental Significance.



**Appendix C: Consultation undertaken for the DMP and consultation materials**

C

# Appendix C: Consultation undertaken and consultation materials

## Activities undertaken during preparation of PDMP

Date	Activities	By Who	Individual or Group Consulted
18/12/2014	Tenant meeting	Mario Bayndrian and Peter Crowley	Cross section of Camden Airport tenants
30/01/2015	Metro Flyer e-Flyer inviting concepts for PDMP	Mario Bayndrian	Sydney Metro Flyer - eFlyer Distribution List
18/02/2015	PDMP Concepts letters to stakeholders	Colin Grove	Early Consultation Stakeholder Distribution List
13/02/2015	PDMP process update	Mario Bayndrian	Sydney Metro Flyer - eFlyer Distribution List
12/03/2015	Camden Airport Community Airport Consultation Group	Mario Bayndrian	Concepts presentation to CACACG members
20/03/2015	Website PDMP Process	Colin Grove	Public website access
31/03/2015	Exposure Draft PDMP Consultation	Colin Grove	Department of Infrastructure and Regional Development
29/04/2015	Draft ANEF consultation	Colin Grove	Camden Council
07/05/2015	Draft ANEF consultation	Colin Grove	Department of Premier and Cabinet
07/05/2015	Draft ANEF consultation	Colin Grove	The Hon. Rob Stoke MP, Minister for Planning

### Activities undertaken as part of Public Exhibition

As required by Section 79 (1) of the Act, the PDMP was formally exhibited between 24 June 2015 and 15 September 2015, a period of 60 days\*. During the public exhibition period CAL undertook an extensive stakeholder and community consultation process described in Section 2.4.

Consultation material

- Public notice in newspaper advertisement
- Community Q & A letterbox drop notification / FAQ
- Various website images
- Sample of electronic newsletters

Date	Activity	By Whom	Individual or Group Consulted
19 to 23 June 2015	S79 letters advising of PDMP and enclosing CD of documents	Geoff Day – Acting CEO	Distribution List
23 June 2015	Display at Camden Library	Mario Bayndrian	Public display
23 June 2015	Display at Camden Airport office, Aerodrome Road, Camden Airport	Mario Bayndrian	Public display
23 June 2015	Sydney Morning Herald newspaper advertisement advising of commencement of formal consultation	Mario Bayndrian	Major newspaper distribution
24 June 2015	Camden Advertiser newspaper advertisement advising of commencement of formal consultation	Mario Bayndrian	Local newspaper distribution
24 June 2015	Camden Airport Website upload of PDMP	Mario Bayndrian	Website
25 June 2015	Camden Airport Press Release advising of commencement of formal consultation	Mario Bayndrian	Press Release distribution list
25 June 2015	Aero Update	Mario Bayndrian	Aero Update distribution list
25 June 2015	Metro Flyer	Mario Bayndrian	Metro Flyer distribution list
2 July 2015	Camden Airport Community Aviation Consultation Group (CACACG) meeting	Colin Grove	CACACG attendees
2 July 2015	Planning Coordination Forum (PCF) meeting	Mario Bayndrian	PCF members
6 July 2015	Letterbox drop to 1,940 Camden residents	Colin Grove	Residents of Grasmere, Kirkham, Ellis Lane and Cobbitty
23 July 2015	Camden Airport Tenant Briefing	Mario Bayndrian and Camden Airport tenants	Various Camden Airport tenants
14 August 2015	Metro Flyer	Mario Bayndrian	Metro Flyer distribution list
03 September 2015	Camden Rotary	Mario Bayndrian	Briefing to Camden Rotary Members

\* submissions accepted for 65 business days

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Appendix D: Airspace Protection

D

# Airspace protection

## D1 OVERVIEW

The protection of the airspace surrounding airports is a critical component of maintaining a safe operating environment for both current traffic types and levels as well as for future traffic types and levels. Consequently, it is necessary to restrict some types of development and land uses in the vicinity of airports. This ensures that airspace required to facilitate aircraft operations remains obstacle-free and, as a result, contributes to the safety and efficiency of those operations.

The following airspace protections applying to Camden Airport are discussed below:

- description of the regional airspace and operating procedures;
- prescribed airspace (OLS and PANS- OPS);
- external lighting limitations; and
- stack and vent efflux limitations.

## D2 REGIONAL AIRSPACE

### D2.1 Overview

Airservices Australia is responsible for airspace management within the Sydney Region, as well as elsewhere in Australia. Airspace within the Sydney Region is dominated by the Sydney Airport Control Zone (CTR) and the requirement to efficiently manage the large volume of domestic and international aircraft movements into and out of that airport.

The Sydney Airport Control Area (CTA) is comprised of a series of controlled airspace blocks ascending in vertical steps and extending out to a maximum radius of 45 nautical miles (NM) at its greatest dimension. Airservices Australia's Sydney Terminal Control Unit (TCU) provides traffic management and separation within the Sydney Airport CTA and CTR. Aircraft takeoff and landing clearances as well as ground movements are handled by the Sydney Control Tower.

The Bankstown Airport CTR extends out 3 NM from the airport, except where it would otherwise overlap the Sydney Airport CTR to the east. To prevent overlapping CTRs, the Bankstown Control Zone is truncated to approximately 2 NM from the airport on the south-eastern side. The ability of Bankstown and Sydney Airports to operate independently is predicated on the ability of aircraft using Bankstown to remain within the airport's CTR and to not infringe on Sydney Airport airspace.

The Camden Airport CTR extends 2 NM from the Airport and Class 'D' airspace procedures are used to maintain separation during the hours when the control tower is in operation. When the control tower is closed CTAF procedures are in effect.

There are six flying training areas within the Sydney Region. The areas are encompassed by a line extending from the western boundary of the Bankstown CTR to the Richmond CTR then to the Blue Mountains, Camden, Campbelltown and back to the Bankstown CTR. The training areas are designated (Class G) uncontrolled airspace which extends from the surface up to the base of the overlying CTA step at 4,500 feet. Camden and Bankstown Airports are reported to be the predominant source of flying training activity using this area.

Regional airspace allocations within the Sydney Airport CTR are shown in Figure D1.

## D3 LOCAL AIRSPACE AND AIR TRAFFIC CONTROL

### D3.1 Local airspace

As discussed above, Camden Airport operates under Class D Airspaces Procedures with a vertical limit of 2,000 feet and a nominal radius of 2 NM. When the Camden CTR is active, i.e. when the ATCT is in operation, aircraft are not authorised to enter the CTR without a clearance from the tower.

When Class 'D' airspace is in effect, there are five designated approach points and associated routes to the Airport including:

- The Oaks, 6 NM west south-west on an inbound track of 056 degrees M;
- Mayfield, 6 NM north-west on an inbound track of 138 degrees M;
- Bringelly, 7 NM north north-east on an inbound track of 189 degrees M;
- Menangle, 6 NM south-east on an inbound track of 318 degrees M, and
- Picton, 9 NM south southwest on an inbound track of 012 degrees M.

Camden Airport reverts to CTAF procedures when the ATCT is closed. Under CTAF procedures, pilots are responsible for maintaining separation from other aircraft.

The flight patterns for powered fixed wing aircraft are restricted to the north to north-west side of the airport with right-hand circuits required for Runways 24 and 28. Glider operations are kept south to south-east of Runway 10/28.

Circuit training is restricted to the hours of 7:00am and 10:00pm Monday through Friday, and 7:00am and 8:00pm Saturday and Sunday.

Circuit training is conducted at 1,300 feet Above Ground Level (AGL). Aircraft depart on runway heading or on the extended upwind, crosswind or downwind leg and maintain 1,300 feet until clear of the CTR, ensuring they remain clear of the GA approach points and associated routes. Arriving aircraft enter the CTR at 1,800 feet and maintain this altitude until receiving sequencing instructions. Overflying aircraft must maintain an altitude of at least 1,800 feet.

Helicopters must follow Class 'D' CTR procedures unless otherwise approved by ATC. Helicopter circuit altitude during daylight hours is 1,000 feet and 1,300 feet at night. During daylight, the helicopter circuit lies inside the fixed wing aircraft circuit. At night, helicopter circuit training conforms to the fixed wing circuit pattern.

When the ATCT is operating, glider operations are noted on the Automatic Terminal Information Service (ATIS) broadcast. When the ATCT is closed, gliders are required to follow CTAF procedures.

### D3.2 Air traffic control

At Camden Airport, the ATCT operates generally from 8:00am until 6:00pm daily. Aircraft wishing to enter the Camden CTR must obtain a clearance from the tower prior to entry. Outside tower hours the CTR reverts to a CTAF.

### D3.3 Aviation approaches

The Airport has an NDB transmitter on site and there is a published NDB circling approach procedure for the airport with a minimum descent altitude of 1,280 feet (1,050 feet Above Ground Level) for Category A and B aircraft.

The approach is reported to be of limited benefit during instrument meteorological conditions (IMC) due to the high minima. The NDB will be decommissioned in May 2016 as part of the AirServices Australia Navigational Rationalisation Project.

There is also a Global Navigation Satellite System (GNSS) Area Navigation (RNAV) non-precision approach published for Runway 06 with a minimum descent altitude of 930 feet (709 feet AGL) for Category A and B aircraft.

### D3.4 Flight paths

Flight paths for aircraft are also included in the 2015 MP. See **Appendix E**.

## D4 PRESCRIBED AIRSPACE

The *Airports Act 1996* requires the production of prescribed airspace plans for airports. Under the *Airports (Protection of Airspace) Regulations*, prescribed airspace is defined as airspace above any part of the OLS or PANS-OPS surfaces, whichever represents the lower airspace surface.

The object of prescribed airspace is to ensure that the Airport is not adversely affected by the building of structures in the area used by arriving and departing aircraft. The prescribed airspace plan which represents the OLS and PANS-OPS surfaces gives airport operators guidance in protecting critical surfaces that affect instrument approach minimum altitudes.

### D4.1 Obstacle limitation surfaces

The OLSs at Camden Airport are defined under the *CASA MOS Part 139 – Aerodromes*, Section 7.3 and they are established in accordance with International Civil Aviation Organization (ICAO) specifications. The OLS comprise a series of imaginary planes surrounding an airport which must be kept free and clear of obstructions that could be hazardous to aircraft taking off or landing at the facility. The surfaces are intended to prevent development of airspace obstructions that could adversely impact air navigation or the usability of the facility. The height restrictions imposed by the OLS are determined based on the following factors:

- the intended use of the runway, i.e. for take - off, landing or both;
- the runway code as determined by the runway length and type of aircraft using the runway ; and
- type of approach, i.e. non-instrument, non- precision or precision instrument.

Extending off the end of each runway, the OLS standards define both a 'take - off climb' surface and an 'approach surface'. Where take-offs and landings may occur in either direction along a runway, the more restrictive surface should be used in determining obstacle height restrictions.

Surrounding the runway pavement is the Runway Strip. The Runway Strip is defined as an area including the runway and stopway, if any, intended to reduce the risk of damage to aircraft running off the runway surface, and to protect aircraft flying over it during take - off or landing. The dimensions of the Runway Strip determine where the OLS surfaces begin and are defined based on the width of the runway pavement, type of aircraft using the runway and approach capability available.

The OLS for Camden Airport are depicted in Figure D2.

### D4.2 PANS-OPS

The PANS OPS surfaces cover all current approaches based on conventional radar navigation aids at Camden Airport. Future procedures for the Airport have been considered and consequently, to preserve future options, GNSS RNAV precision and non-precision approach surfaces have been identified for protection.

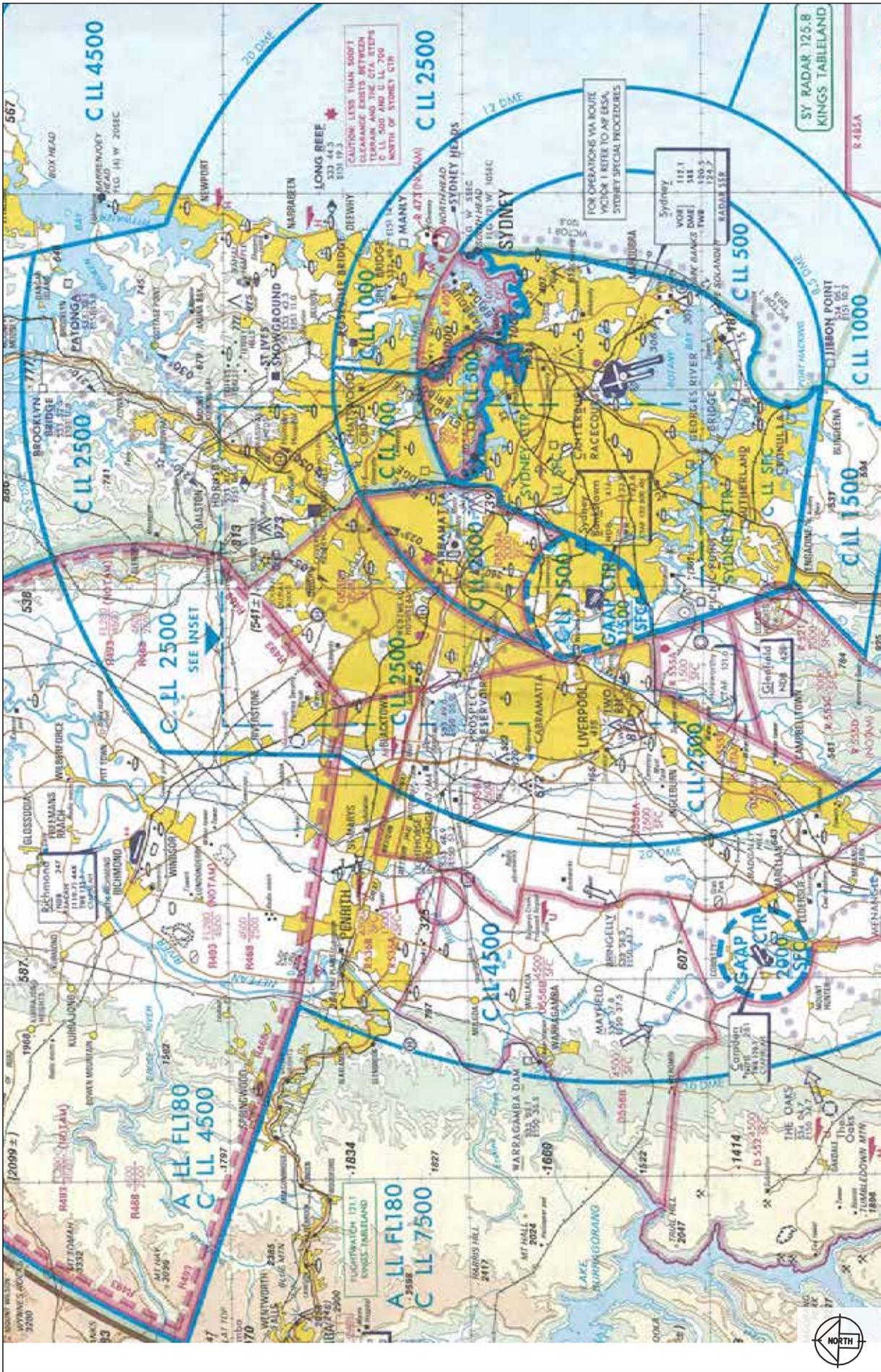


Figure D1 | Regional Airspace allocations within the Sydney Airport CTR

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Any precision approach will need to be determined by Airservices Australia taking into consideration the interface with the future Western Sydney Airport, Sydney Airport airspace and the schedule, fleet mix and aircraft type of any future RPT operator.

The PANS- OPS surfaces for Camden Airport are presented in Figure D3.

#### **D4.3 Changes to the OLS and PANS-OPS**

The proposed aviation development concept contained in this 2015 MP for the 2034/35 period is identical to the 2010 Master Plan (for the 2029/30 period). The removal of the NDB approaches in May 2016 will require refinement to the PANS-OPS surfaces.

Airservices Australia has provided detailed current and future navigational system and air traffic control planning and technical standards and critical zones/ siting criteria for developments. These are acknowledged and will be taken into account in the assessment of future developments through an aviation study. Airservices Australia will be consulted on developments that may impact on navigational aids or other operational facilities.

#### **D5 RESTRICTIONS TO EXTERNAL LIGHTING**

CASA provides airport operators with guidance on protecting aircraft operations from adverse impacts resulting from ground lighting, particularly during the landing phase of flight. Furthermore, under Regulation 94 of the *Civil Aviation Regulations 1988* (CAR 1988), CASA has the authority to require lights which may cause confusion, distraction or glare to pilots in the air to be extinguished or modified. Pilot confusion or distraction may be the result of lighting colour, position, pattern or intensity of emission above the horizontal plane.

Should the owner of a property creating a lighting hazard fail to take remedial action once they have been notified, CASA is authorised under the regulations to make modifications to remove the hazard at the property owner's expense.

General guidance is provided for situations where lights are to be installed within a 6 kilometres radius of the airport as lights within this area are considered most likely to fall under the provisions of Regulation 94 of CAR 1988. Further guidance is provided as to allowable light levels, as measured 3 degrees above the horizontal, in four zones surrounding the runway and extending out a total distance of 4,500 metres from the runway threshold. The zones become narrower and shorter the closer to the runway threshold. The maximum allowable lighting intensity in each zone decreases the closer to the runway. The most critical area is the inner zone (Zone A),

which extends 1000 metres beyond the runway threshold and 300 metres to each side of the runway centre line.

Potential conflicts or distractions caused by lighting colour are noted as independent from lighting intensity as some colours may cause confusion with airport lighting.

Adverse impacts from ground lighting can often be associated with outdoor advertising displays, sports field lighting and street lighting. At present, no adverse impacts from ground light emissions are known to exist at Camden Airport. Lighting associated with future development in the airport vicinity should conform to the provisions of Regulation 94 of the CAR.

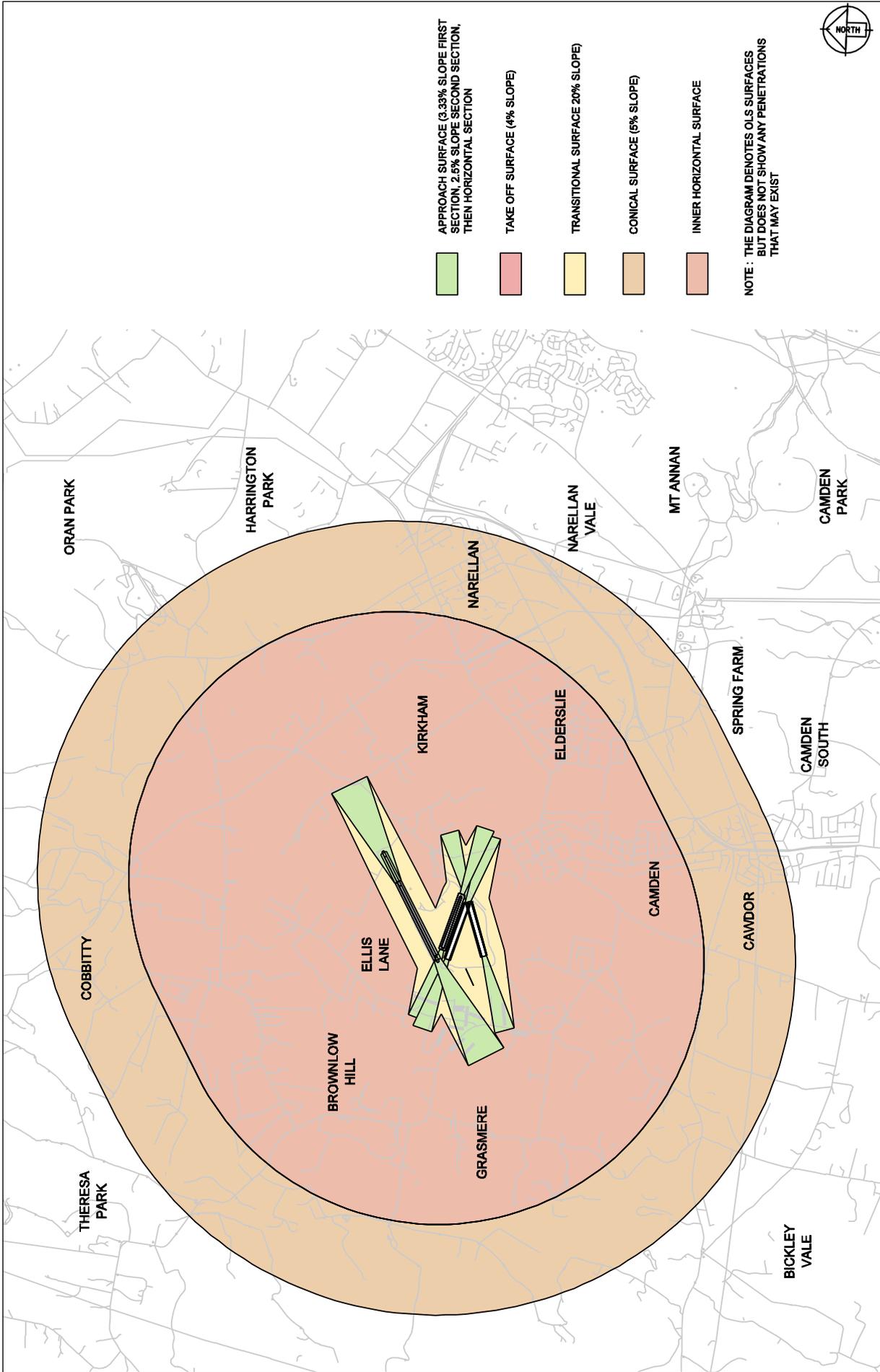
To assist developers, lighting designers and installation contractors on and in the vicinity of the Airport, CAL has prepared a plan highlighting maximum lighting intensities in areas surrounding Camden Airport (see Figure D4). External advertising, sports field floodlighting and street lighting are some of the more likely lighting sources requiring consideration. CAL will consult and liaise with Camden Council as appropriate, on the most appropriate control mechanism.

#### **D6 STACK AND VENT EFFLUX**

CASA has identified the need to assess the potential hazard to aviation where the vertical velocity from an exhaust plume may cause airframe damage and/or affect the handling characteristics of an aircraft in flight. This is especially critical during periods of high pilot workload or when the aircraft is being manoeuvred at low altitudes, particularly with flaps extended and/or gear down. Typically, this includes the initial take-off climb or approach to land, when the aircraft is near an airport.

In some cases, the high efflux temperature or vertical velocity may cause air disturbance at higher altitudes. If so, CASA also requires an assessment of the potential for the exhaust plume to affect the safe handling of aircraft in other phases of flight. The draft *CASA Advisory Circular AC 139-05(1)* November 2012 provides persons involved in the design, construction and operation of facilities with vertical exhaust plumes as well as proponents and stakeholders, with guidance for a standard method of determining the critical velocity of a plume and the process for assessing possible adverse impacts of plumes on aircraft operations near an airport. Plumes with a vertical velocity greater than 4.3 metres/second may be a hazard to aircraft operations because of the velocity or location of the efflux.

Proponents of a facility to be located within 15 kilometres of an airport are to consult the airport operator if that facility includes a combustion source which generates an exhaust plume which has a vertical velocity greater than 4.3 metres/second at the OLS.



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Figure D2 | Obstacle Limitation Surfaces



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Proponents of a facility are to provide CASA with an Application for an Operational Assessment if that facility includes a combustion source which generates an exhaust plume which has a vertical velocity greater than 4.3 metres/second at exit. CASA assesses the impact of the plume and any mitigation measures necessary. Relevant legislation is Regulation 139.370 of CASR 1998.

The hazards addressed in the Advisory Circular are typically associated with industrial processes. At Camden Airport, there are no known sources of gas efflux or plumes that would constitute a hazard to aircraft operating at the Airport. The *Airports Act 1996* also provides for protection of airspace against stack and vent efflux. CAL will consult and liaise with Camden Council as appropriate, on the most appropriate mechanism so that stack and vent efflux does not adversely impact on Airport operations.

## **D7 PROTECTION AirServices Australia FACILITIES**

Any development on Camden Airport must also consider what impact the development will have on Airservices Australia capacity to carry out airspace management services and the facilities to support this services.

This includes but is not restricted to:

- Maintain Line of Sight criteria for the ATC Tower
- Development in the vicinity of Navigational Aids
- Developemnt in the vicinity communications facilities.

Any development within the WAM/VHF Building Restricted Areas (BRA) will require early and formal assessment by Airservices for potential impacts. Any development within 350m of the Airservice Anemometer must also be reviewed for potential impact.

Where relocation of Airservices facilities or assets is required as a result of the proposed MP, the cost of obtaining any necessary environmental approval for decommissioning and relocation of assets will be borne by CAL.

Any plant and crane operations planned for the construction of proposed developments associated with the Plan will need to be negotiated between CAL and Airservices prior to construction commencing.

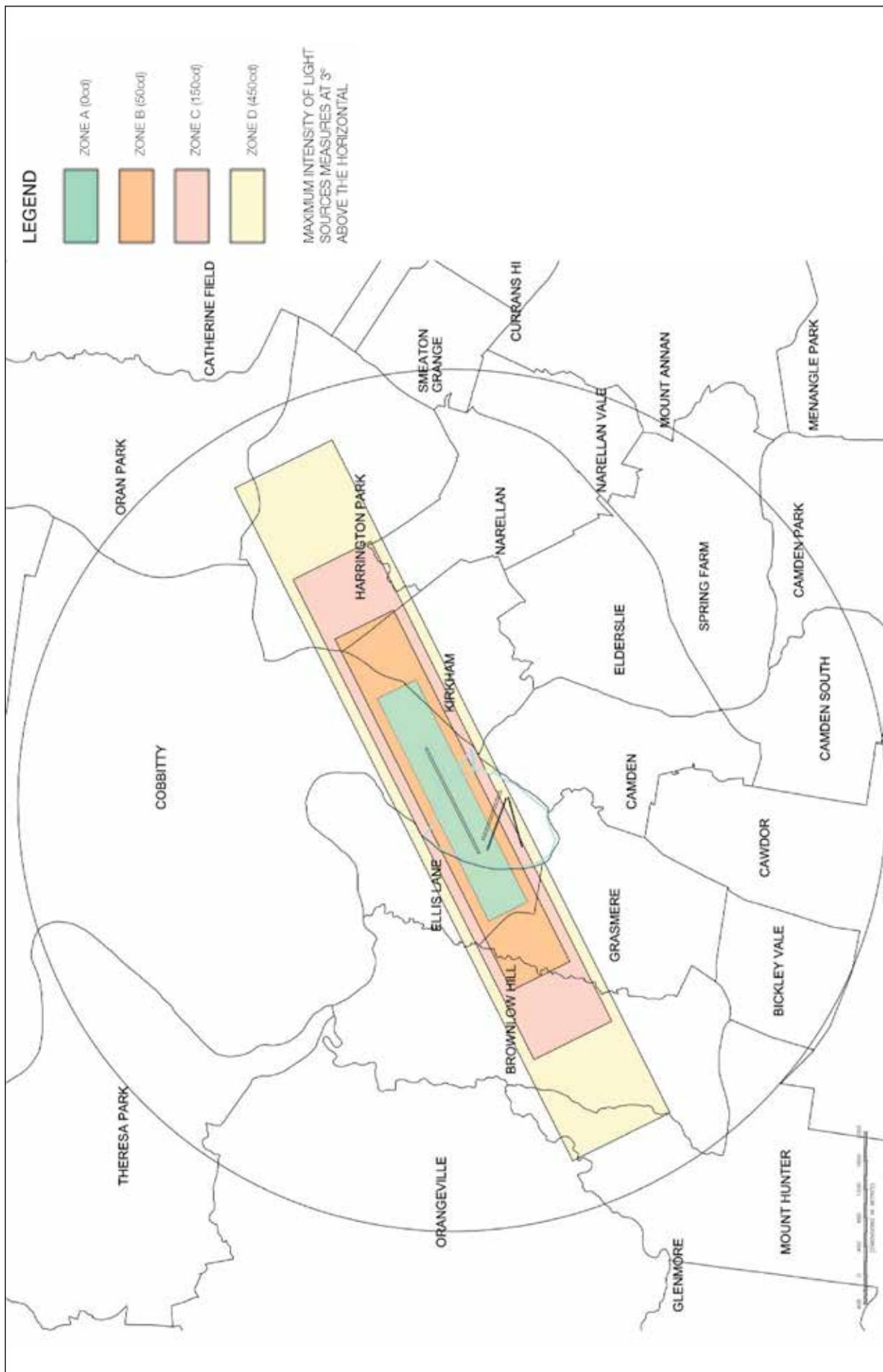


Figure D4 | Maximum External Lighting Intensities

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## Appendix E: Noise modelling methodology

E

# Noise modelling methodology

**Table E1 | Building type acceptability in ANEF zones**

Building type	Acceptable	Conditionally Acceptable	Unacceptable
House, home unit, flat, caravan park	Less than 20 ANEF (Note 1)	20 to 25 ANEF (Note 2)	Greater than 25 ANEF
Hotel, motel, hostel	Less than 25 ANEF	25 to 30 ANEF	Greater than 30 ANEF
School, university	Less than 20 ANEF (Note 1)	20 to 25 ANEF (Note 2)	Greater than 25 ANEF
Hospital, nursing home	Less than 20 ANEF (Note 1)	20 to 25 ANEF	Greater than 25 ANEF
Public building	Less than 20 ANEF (Note 1)	20 to 30 ANEF	Greater than 30 ANEF
Commercial building	Less than 25 ANEF	25 to 35 ANEF	Greater than 35 ANEF
Light industrial	Less than 30 ANEF	30 to 40 ANEF	Greater than 40 ANEF
Other industrial	Acceptable in all ANEF zones		

## Notes

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

## E1 WHY IS AIRCRAFT NOISE MODELLED?

Modelling of the noise impact of aircraft operations has been undertaken as part of this 2015 MP. Such modelling is undertaken for three primary reasons as follows:

- Australian Noise Exposure Forecasts (ANEFs) are a required part of an Airport Master Plan under the *Airports Act 1996*;
- to assist the community to understand the noise impacts associated with the endorsed 2015 ANEF included in the MP; and
- to assist in land use planning. ANEFs play a major role in land use planning in communities surrounding airports. They have been adopted by the NSW Government for planning and assessing development in areas subject to aircraft noise and consequently are in the Local Environment Plans of councils surrounding the Airport. The role of noise modelling in land use planning is described in *Australian Standard AS2021-*

*2015: Acoustics - Aircraft noise intrusion - Building siting and construction* which advises on the acceptability of building sites for various uses based on ANEF zones, as shown.

## E2 STATUTORY REQUIREMENTS AND BEYOND

The *Airports Act 1996* requires a master plan to specify forecasts relating to noise exposure levels.

In addition to the provision of ANEFs, CAL has also conducted additional noise modelling in order to assist the community and airport stakeholders better understand the impact of aircraft noise. The additional modelling conducted is as follows:

- use of N60 modelling – although not a formal requirement under the *Airports Act 1996*, a paper entitled *Guidance Material for Selecting and Providing Aircraft Noise Information* (Department of the Environment and Heritage and Department of Transport and Regional Services, 2003) recommended that General Aviation (GA) airports

such as Camden Airport also use noise metrics based on the number of aircraft noise events to assist the community to better understand the impacts of aircraft noise. Consequently, in response to a recommendation by the Department of Infrastructure and Regional Development, CAL also commissioned N60 modelling of noise impacts as part of this 2015 MP.

The noise modelling methodology adopted in this 2015 MP used the Integrated Noise Model (INM) to prepare both the ANEF contours and N60 maps. The INM model, ANEFs and N60s are described below.

### E3 INTEGRATED NOISE MODEL

The aircraft noise modelling conducted as part of this 2015 MP was prepared using the USA Federal Aviation Administration's (FAA) Integrated Noise Model (INM) computer program version 7.0D.

The INM has been the FAA's standard tool for aircraft noise prediction in the vicinity of airports since 1978 and has been continuously refined over time to improve the accuracy of noise impact prediction. The INM calculates noise impacts by applying standard or user defined aircraft flight profiles, performance data and noise curves to specific runway configurations and flight tracks. The time of day at which operations take place is also factored into the noise computation. This allows for varying sensitivity in people's reaction to noise.

For this 2015 MP, the INM was set to produce two forms of output:

- Australian Noise Exposure Forecasts (ANEFs); and
- N60 contour maps.

These model outputs are described below. In interpreting the outputs of the INM, it should be noted that:

- aircraft movements are allocated as either a day (7:00am to 7:00pm) or a night operation (7:00pm to 7:00am);
- the number of approach and departure operations modelled relate directly to the actual/forecast number of approach and departure movements, and
- the INM requires 'touch and go' training to be modelled as a circuit – the initial take-off coupled with the final landing – in conjunction with a number of 'touch and go' operations – i.e. each INM circuit or 'touch and go' corresponds to two aircraft movements.

## E4 MODEL OUTPUTS

### E4.1 Australian Noise Exposure Forecasts

As part of the 2015 MP, CAL was required to produce an ANEF indicating what the possible extent of aircraft noise exposure will be in 2034/35. The accepted method of preparing an ANEF is to undertake noise modelling using the industry standard Integrated Noise Model (INM) aircraft noise modelling package. The INM incorporates data based on the noise profiles of individual aircraft in flight measured during the airworthiness certification process. Whilst the ANEF system incorporates noise from aircraft operations on the runway, it does not take account of ground-based noise such as that from aircraft taxiing or performing engine run-ups. Noise from these activities is managed directly by CAL in conjunction with the aircraft operators.

The ANEF contours have been prepared in accordance with the guidance provided by Airservices Australia (the agency responsible for endorsing the ANEF contours for technical accuracy) and the contours have been endorsed by Airservices Australia in the manner as approved by the Minister for Infrastructure and Regional Development (the Minister). The endorsement process reviews all aircraft type and operational assumptions to ensure there is no potential bias in the noise contours.

Total aircraft movement numbers modelled reflect the revised forecast of overall movements at 2034/35 of 112,331 as opposed to the 145,647 assumed in the 2029/30 ANEF. There are, inevitably, differences between the 2029/30 ANEF and the endorsed 2034/35 ANEF as a result of:

- reduced activity levels for the air traffic forecast down from 145,647 movements contained in the superseded ANEF to 112,331 movements forecast in the current ANEF- a reduction of 33,316 movements or 22.9%; and
- changes to the proportion of activity levels for each aircraft category including helicopters increased from 2.5% to 9.1% and GA fixed wing activity down from 97.5% to 91.5%.

In general, a conservative approach was taken which makes no allowance for improvements to aircraft noise as a result of enhanced technology in the future.

Aircraft noise is a subjective issue and different people react to the same noise in different ways. To assist stakeholders in understanding the noise impacts anticipated in the 2015 MP, CAL has prepared a substantial amount of additional information about the possible future impacts of aircraft noise in addition to the statutory requirements. Additional information included in the 2015 MP included N60 contours and a range of comparisons to provide a more complete picture of future aircraft noise impacts than has been provided in the past.

The noise modelling conducted for this 2015 MP takes into account a number of Airservices Australia's noise impact management measures already in place at Camden Airport. These measures are supported by CAL and include:

- restriction of circuit training operations (touch and go movements) to between 7.00 am and 10.00 pm, Monday to Friday reduced from 6:15 am and 11:00 pm contained in the 2010 Master Plan, and to between 7:00 am and 8:00 pm on weekends which is also reduced from 6:15 am and 8:00 pm in the 2010 Master Plan; and
- where possible, utilisation of the 06 runway direction for noise abatement.

In consideration of aircraft noise factors, the Design Aircraft selected for this 2015 MP was based on the types of aircraft that can already use the aviation infrastructure at Camden Airport.

The ANEF is a contour map showing forecast noise levels. The previous certified ANEF model was applied to the 2010 MP and has been superseded by the ANEF contained in this 2015 MP which is based on lower activity levels than the 2029/30 forecast levels.

The 2015 MP ANEF applies to a forecast activity level of 112,331 movements for 2034/35. This has been done to ensure that the noise modelling outputs represent the same period as the 2015 DMP.

The 2015 MP ANEF is also based on Class D Airspace arrangement which came in to operation in July 2010.

It is important to appreciate that these are forecasts of noise in the future, not a reflection of the existing noise climate. For the purposes of noise modelling, forecast levels of aircraft movements are categorized into a range of different aircraft types (as different aircraft type categories have different noise profiles). The forecast numbers of movements by each aircraft type category are then modelled, taking into account the following factors:

- the runway strip end they are forecast to use;
- the flight tracks they are forecast to use; and
- the likely time of day of the operation.

ANEFs are primarily used for assessing average community response to aircraft noise and for land-use planning around airports.

The 2034/35 ANEF contours based on forecasted traffic are shown in Figure E2.

The Camden 2034/35 ANEF was endorsed for technical accuracy by Airservices Australia on 12 June 2015 and is shown in Figure E3. As part of the process of obtaining endorsement for technical accuracy of the ANEF contours by Airservices Australia, in the manner approved by the Minister, the airport operator (CAL) must demonstrate that the forecast numbers of aircraft movements, operating times and the aircraft types carrying out operations are not greater than the physical ultimate capacity of any existing or proposed runways, using accepted and published methodologies. This is the case as the capacity for the Airport is estimated to be 230,000 movements per annum and the 20034/35 forecast is 112,331 movements per annum.

## E4.2 N60 Modelling

In addition to ANEF contour based noise modelling, CAL has also undertaken modelling of noise metrics based on the number of aircraft noise events, based on recommendations from DIRD. N60 noise modelling measures the number of noise events over a specified period of time over particular flight paths. This allows the community to interpret aircraft noise issues based on actual counts of aircraft with a noise profile greater than 60 decibels over a range of flight paths. The modelled 2034/35 N60 contours are shown in Figure E4.

## E4.3 Flight paths

The *Airports Act 1996* requires flight paths used in the development of the ANEF, ANEF and N60 noise contours to be illustrated. Flight path maps provide the community with an indication of where aircraft fly not only within but also beyond the contour limits and are a useful tool in interpreting noise information.

The flight paths used for the ANEF and N60 noise modelling processes are shown in Figure E5.

## E5 MODEL INPUTS

### E5.1 Aircraft type categories

The distribution of aircraft movements into aircraft type categories has been done on a conservative basis – that is, for the purposes of noise modelling, more aircraft have been allocated to relatively noisier aircraft type categories than actually included in the traffic forecast. This has been done to ensure that the noise modelling outputs presented represent worst-case scenarios. The distribution of forecast aircraft movements by aircraft type categories is presented in Table E2.

### E5.2 Runway end use

For the purposes of noise modelling, the forecast level of traffic must be allocated according to runway end use. This determines which flight tracks will be used for noise modelling

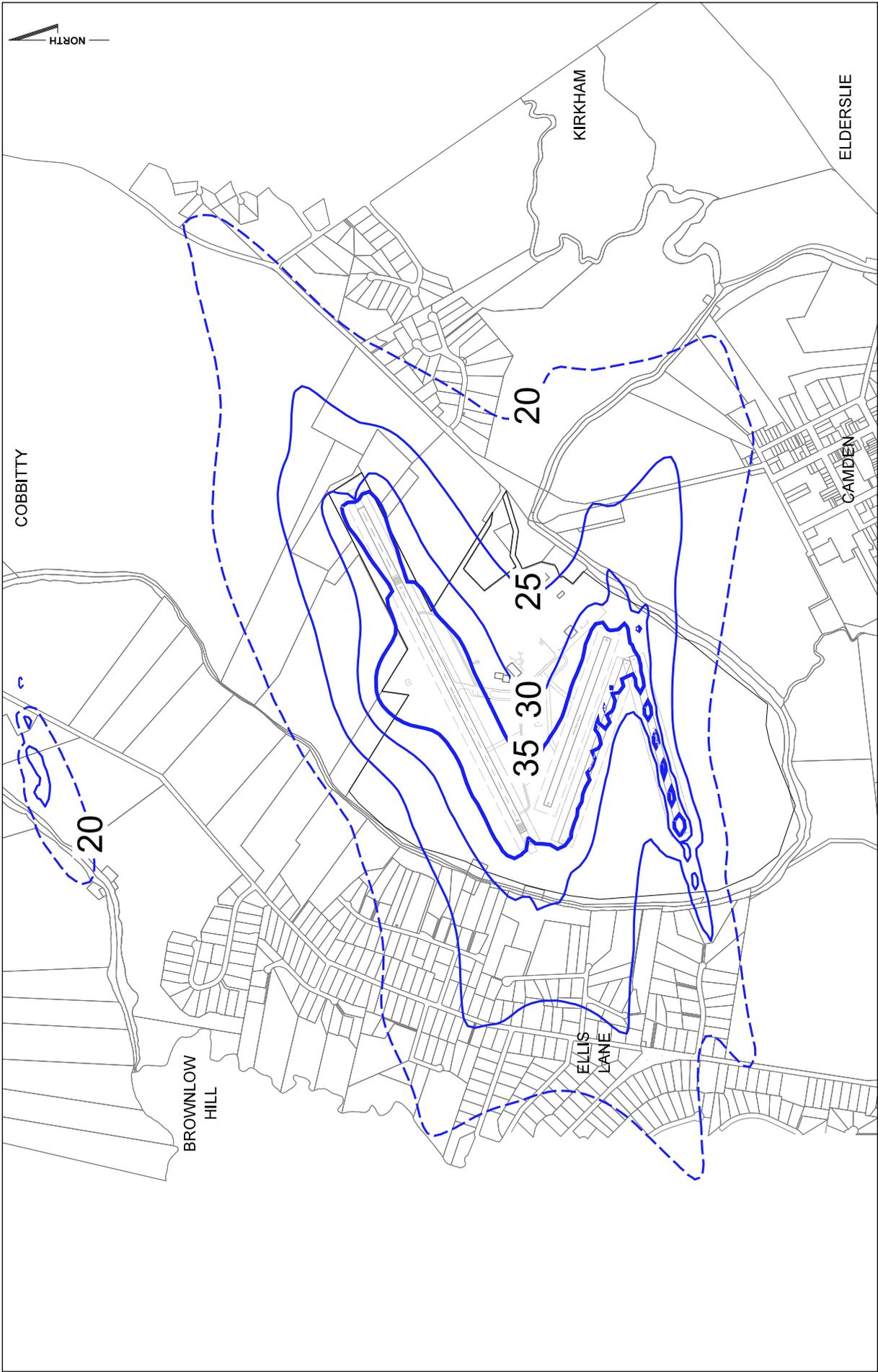
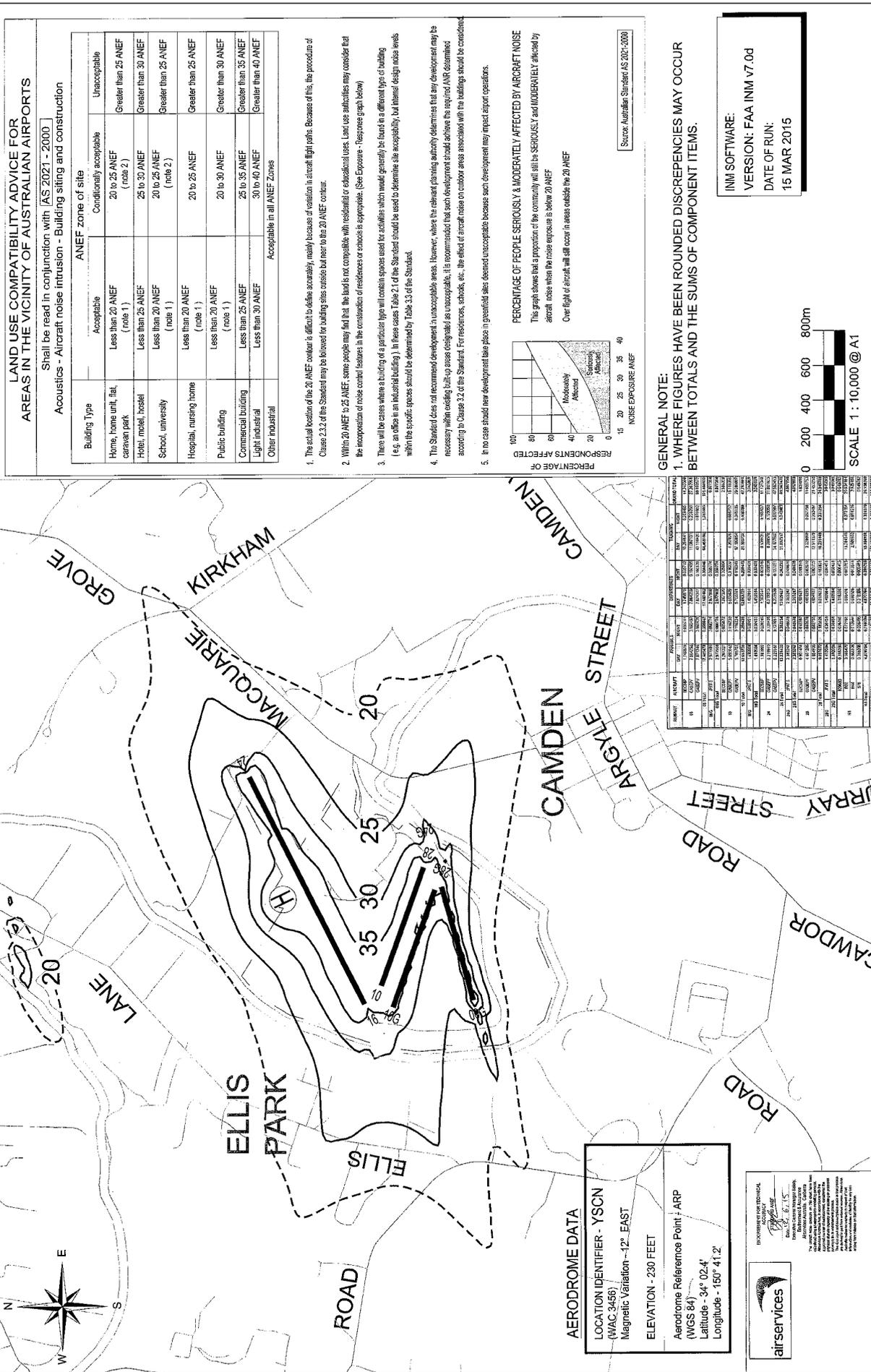


Figure E2 | 2034/35 ANEF Contours

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Figure E3 | Endorsed 2034/35 ANEF

purposes. The allocation of traffic by runway end use is based on the following factors:

- advice provided by Airservices Australia regarding the runway direction used;
- analysis of forecast traffic by activity and allocation to appropriate runway; and
- the distribution of forecast aircraft movements by runway end is presented in Table E3.

### E5.3 Day and night traffic

There are no official statistics kept on day versus night traffic splits at General Aviation airports such as Camden. Nevertheless, CAL has derived estimates from CAL's aviation charging system, which uses closed circuit television to determine activity outside of Airservices Australia's control tower operating hours.

The assumptions made are as follows:

- fixed wing aircraft: 98 per cent day, 2 per cent night; and
- rotary aircraft: 98 per cent day, 2 per cent night.

## E6 CURRENT VERSUS ENDORSED ANEFS

The ANEF modelling undertaken as part of this 2015 MP replaces the 2029/30 ANEF contours endorsed for technical accuracy by Airservices Australia prepared in 2009.

A comparison between the 2029/30 ANEF and the 2034/35 ANEF prepared for this 2015 MP is presented in Figure E6. The endorsed ANEF is presented in Figure E3.

CAL considers that:

- the 2034/35 ANEF prepared for this 2015 MP is accurate within the limits of the necessary assumptions about future aircraft operations and has been prepared in accordance with the latest requirements and guidance in relation to ANEFs; and
- the 2034/35 ANEF prepared for this 2015 MP is an accurate reflection of the potential noise impacts.

There are changes in the 20 and 25 ANEF noise contours in the residential areas to the west in Ellis Lane and Grasmere where they have increased in certain parts but have decreased in other parts of these suburbs. There has been also considerable reductions in all the contours to the north, south and east of the Airport over sparser residential areas.

CAL will liaise with Camden Council with the ANEF data to establish the revised areas affected, in accordance with

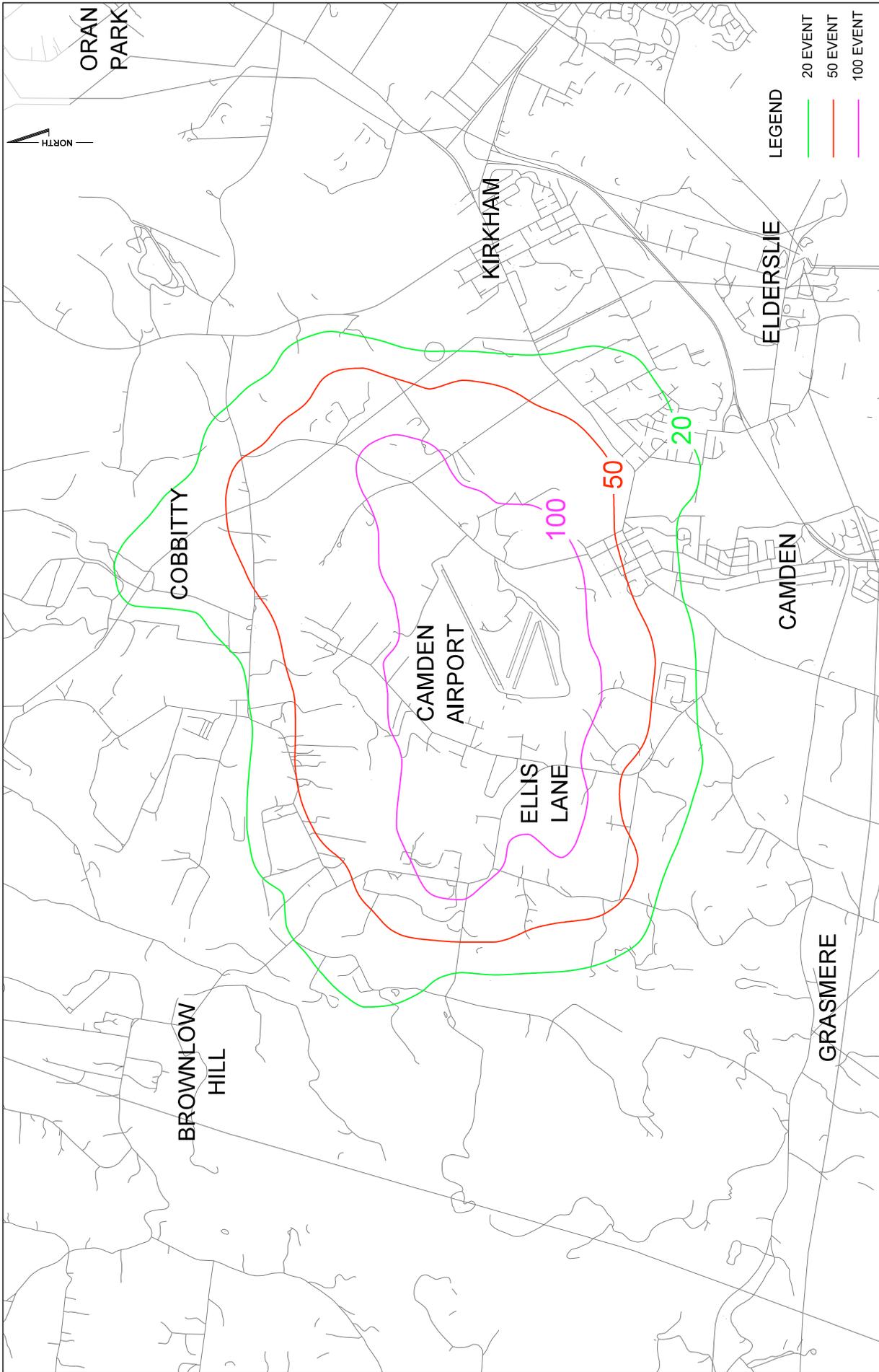
AS2021 (see Table E1), implementation of the NSW LEP Standard Template standard noise clause and the Section 117 direction under the EP&A Act (see Schedule 1 of Appendix F).

**Table E2 | Distribution of aircraft movements into aircraft type categories**

Aircraft type category	Typical aircraft in category	% of total movements
General Aviation	Beechcraft Baron 58, Low Performance Single Engine Fixed e.g. Cessna 150 and Piper PA 28. Low Performance Single Engine Variable e.g. Cessna 170 and Piper PA 32	35.2
Fixed wing training	Beechcraft Baron 58, Low Performance Single Engine Fixed e.g. Cessna 150 and Piper PA 28. Low Performance Single Engine Variable e.g. Cessna 170 and Piper PA 32	50.8
5.5	Air Tractor AT 802	8.5
Helicopter	Robinson 22/44, Bell 206 and Sikorsky S-76	9.1
<b>Total</b>		<b>100</b>

**Table E3 | Distribution of forecast aircraft movements by runway end**

Runway	% Use
06	33.0
10	15.5
24	26.1
28	11.4
06G	1.9
10G	1.0
24G	1.6
28G	1.0
H	8.5
<b>Total</b>	<b>100.0</b>



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Figure E4 | 2034/35 N60 Contours

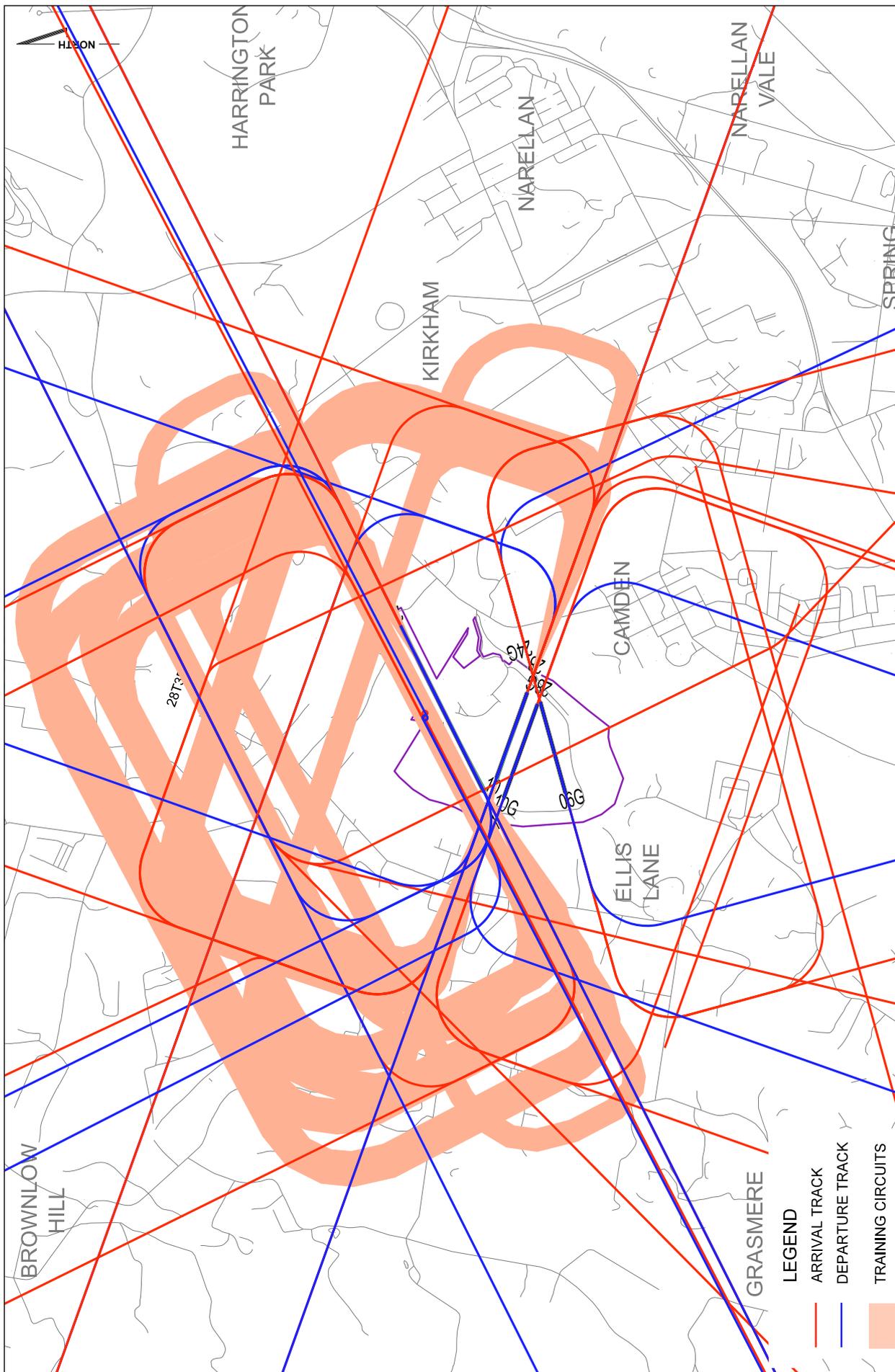


Figure E5 | Flight Paths

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## **E7 COMPARISON OF N60s**

Similar to the comparison between the current and proposed ANEF contours, a comparison between the 2029/30 N60 contours and the 2034/35 N60 contours has been developed and is shown in Figure E7. The outcome is positive with no areas impacted by the 200 event contours in contrast to the 2029/30 N60 model outcome. Whilst overall there is also a reduction in the 20, 50 and 100 N60 events.

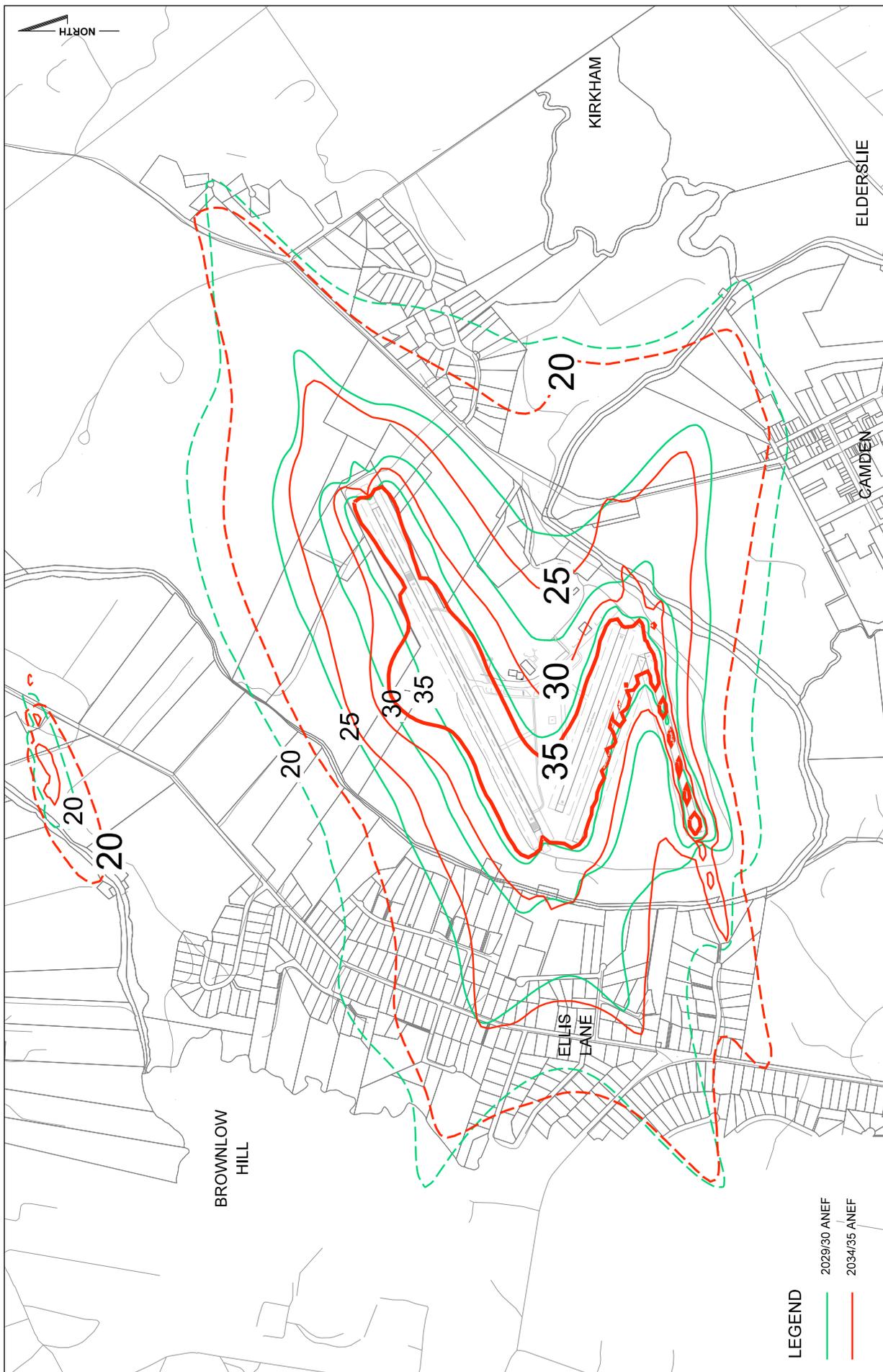
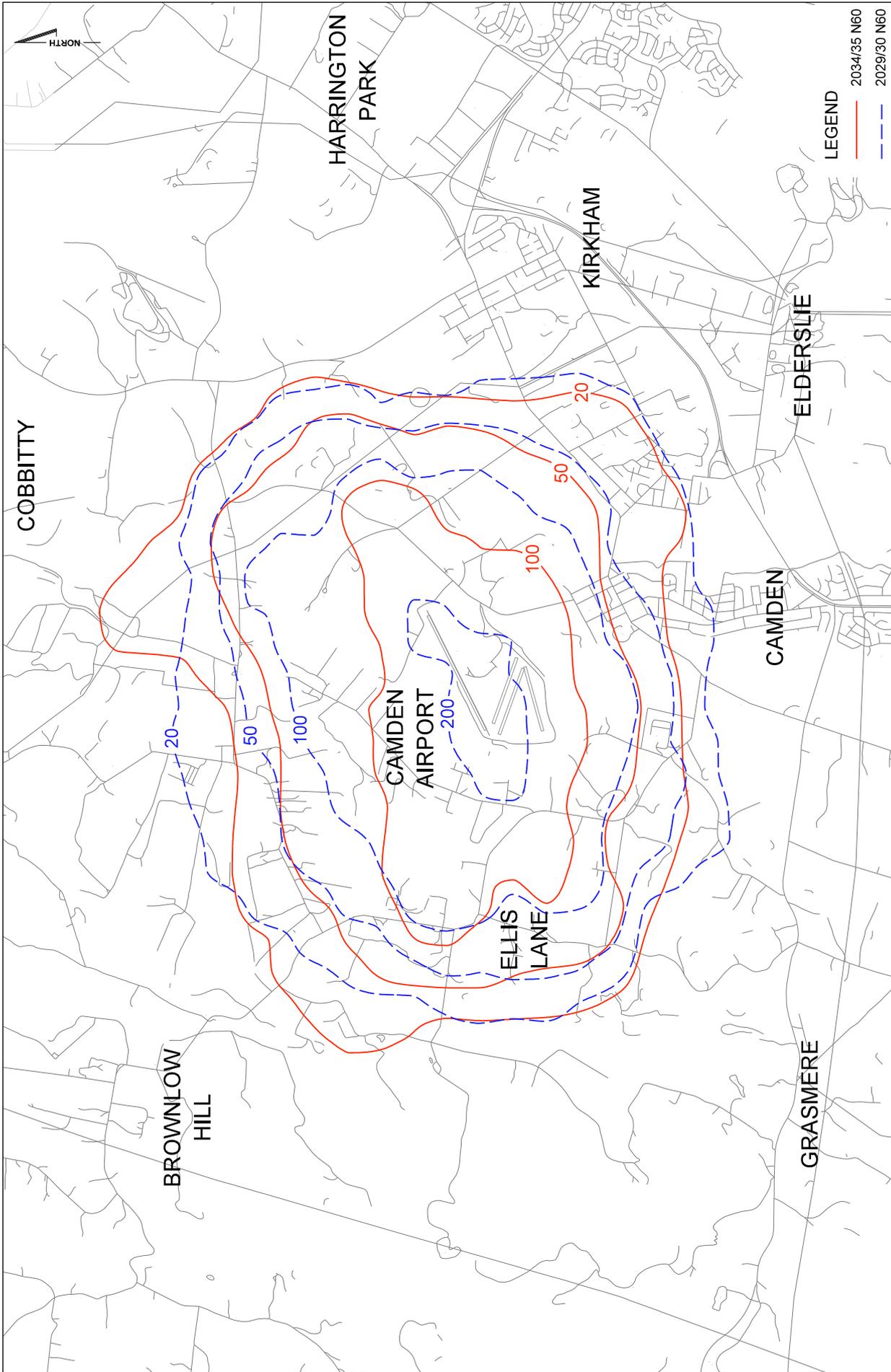


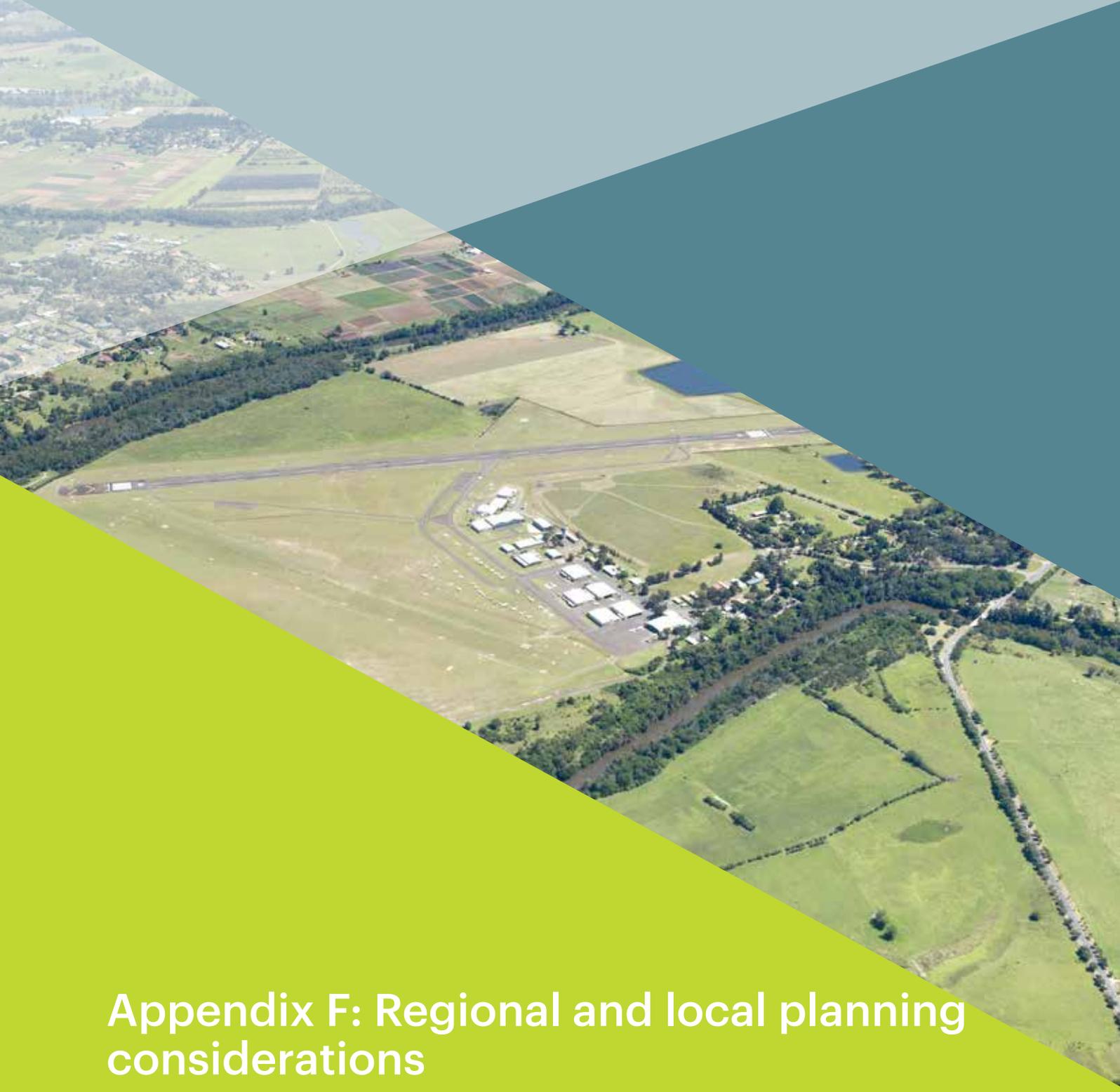
Figure E6 | ANEF Comparison

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Figure E7 | N60 Comparison



**Appendix F: Regional and local planning considerations**

**F**

# Regional and local planning considerations

**Table F1** | Section 117 Directions under the EP&A Act

Directions	Objectives/Relevance/Consistency
<b>1. Employment and Resources</b>	
1.1 Business and Industrial Zones	The objectives of this Direction are to encourage employment growth in suitable locations such as Camden Airport, to protect land and support the viability of identified centres. The 2015 MP seeks to provide areas for business and industrial uses.
1.2 Rural Zones	
1.3 Mining, Petroleum Production and Extractive Industries	Not relevant
1.4 Oyster Aquaculture	
1.5 Rural Lands	
<b>2. Environment and Heritage</b>	
2.1 Environment Protection Zones	The Airport is not located within an Environmental Protection Zone, as defined under the EP&A Act. However, the remnant River Flat Forest bushland adjacent to the Nepean River is an area that has environmental significance as identified in the Airport Environment Strategy and is included within the Environmentally Significant Zone under this 2015 MP.
2.2 Coastal Protection	Not relevant
2.3 Heritage Conservation	The Camden Airport Heritage Management Strategy (CHMS) was prepared in 2005 and identifies items with heritage value. The CHMS provides principles, policies and specific guidelines for managing the heritage values of items at Camden Airport during on-going operations and proposed future development.
2.4 Recreation Vehicle Areas	Not relevant
<b>3. Housing, Infrastructure and Urban Development</b>	
3.1 Residential Zones	Not relevant
3.2 Caravan Parks and Manufactured Home Estates	Not relevant
3.3 Home Occupations	Not relevant
3.4 Integrating Land Use and Transport	The 2015 MP enhances the Airport's position as a transport and employment area and integrating a variety of land uses in the one location. In turn, this improves the opportunity for access to the Airport by means other than private transport; the opportunities for public transport; and provides for the efficient movement of freight.

Directions	Objectives/Relevance/Consistency
3.5 Development Near Licensed Aerodromes	<p>The objectives of this Direction are:</p> <p>(a) to ensure the effective and safe operation of aerodromes, and</p> <p>(b) to ensure that their operation is not compromised by development that constitutes an obstruction, hazard or potential hazard to aircraft flying in the vicinity, and</p> <p>(c) to ensure development for residential purposes or human occupation, if situated on land within the Australian Noise Exposure Forecast (ANEF) contours of between 20 and 25, incorporates appropriate mitigation measures so that the development is not adversely affected by aircraft noise.</p> <p>These objectives have been addressed in the 2015 MP.</p>
<b>4. Hazard and Risk</b>	
4.1 Acid Sulfate Soils	Any development within areas affected by acid sulphate soils will be subject to the airport-lessee company consent assessment process.
4.2 Mine Subsidence and Unstable Land	Not relevant
4.3 Flood Prone Land	All development will be required to address the relevant principles and guidelines established by the NSW Floodplain Development Manual.
4.4 Planning for Bushfire Protection	As part of the 2015 MP process, consultation will be undertaken with the NSW Rural Fire Service in respect to the appropriate location and design of development within any areas identified as bush fire prone.
<b>5. Regional Planning</b>	
5.1 Implementation of Regional Strategies	The relevant land use strategies, policies, outcomes and actions for relevant Regional Strategies have been considered in the preparation of the 2015 MP.
5.2 Sydney Drinking Water Catchments	Not relevant
5.3 Farmland of State and Regional Significance on the NSW Far North Coast	Not relevant
5.4 Commercial and Retail Development along the Pacific Highway, North Coast	Not relevant
5.5 Development in the vicinity of Ellalong, Paxton and Millfield (Cessnock LGA)	Not relevant
5.6 Sydney to Canberra Corridor	(Revoked 10/7/2008. See Direction 5.1)
5.7 Central Coast	(Revoked 10/7/2008. See Direction 5.1)
5.8 Second Sydney Airport: Badgerys Creek	Not considered due to insufficient build and aeronautical data.
<b>6. Local Plan Making</b>	
6.1 Approval and Referral Requirements	The 2015 MP complies with the objective of this Direction which is to ensure that zoning provisions encourage the efficient and appropriate assessment of development.

Directions	Objectives/Relevance/Consistency
6.2 Reserving Land for Public Purposes	The Airport is currently zoned Air Transport Facility SP2 under the Camden Local Environmental Plan 2010 and its continued use as an airport is encouraged within the 2015 MP.
6.3 Site Specific Provisions	<p>The Airport is currently zoned Air Transport Facility SP2' under the Camden Local Environmental Plan 2010 and its continued use as an airport is encouraged within the 2015 MP.</p> <p>The 2015 MP complies with the objective of this Direction which seeks to discourage unnecessarily restrictive site specific planning controls.</p>

### 7.1 Implementation of A Plan for Growing Sydney

The 2015 MP considers and incorporates all relevant policies and strategies from *A Plan for Growing Sydney*.

**Table F2 | State Environmental Planning Policies**

State Environmental Planning Policies	Response
SEPP No. 1 - Development Standards	CAL manages a development assessment process pursuant to the aims and objectives of the <i>Airports Act 1996</i> , called the airport-lessee company consent process.
SEPP No. 4 - Development without Consent and Miscellaneous Complying Development	Changes of use are managed through this development process pursuant to the aims and objectives of the <i>Airports Act 1996</i> .
SEPP No. 6 - Number of Storeys in a Building	Not relevant
SEPP No. 14 - Coastal Wetlands	Not relevant
SEPP No. 15 - Rural Land-Sharing Communities	Not relevant
SEPP No. 19 - Bushland in Urban Areas	Bushland areas adjacent to the Nepean River within the Airport are identified as an Environmentally Significant Zone in this 2015 MP and AES and contain a couple of species listed as vulnerable under the EPBC Act 1999. The River Flat Forest is an endangered ecological community listed under the <i>NSW Threatened Species Conservation Act 1995</i> . Any activity in this zone will need to be in accordance with the Management Plan.
SEPP No. 21 - Caravan Parks	Not relevant
SEPP No. 22 - Shops and Commercial Premises	Any change of use is to be handled through the airport-lessee consent assessment process and may also require Airport Building Controller approval.
SEPP No. 26 - Littoral Rainforests	Not relevant
SEPP No. 29 - Western Sydney Recreation Area	Not relevant
SEPP No. 30 - Intensive Agriculture	Not relevant

State Environmental Planning Policies	Response
SEPP No. 32 - Urban Consolidation (Redevelopment of Urban Land)	Not relevant
SEPP No. 33 - Hazardous and Offensive Development	Various industrial development are permissible in the Aviation Zone and Mixed Use (Aviation/Business Support) Zone and light industry only is permissible in the Support Zone. Any proposed development of a hazardous or offensive nature requires consent through the airport-lessee company consent assessment process and building approval process through the Airport Building Controller. In some cases the AES may necessitate an Operational Environmental Management Plan for which CAL would have regard to the current guidelines of Workcover NSW, the NSW Office of Environment & Heritage (EPA) and the Department of Planning & Environment
SEPP No. 36 - Manufactured Home Estates	Not relevant
SEPP No. 39 - Spit Island Bird Habitat	Not relevant
SEPP No. 41 - Casino/Entertainment Complex	Not relevant
SEPP No. 44 - Koala Habitat Protection	Not relevant
SEPP No. 47 - Moore Park Showground	Not relevant
SEPP No. 50 - Canal Estates	Not relevant
SEPP No. 52 - Farm Dams and Other Works in Land and Water Management Plan Areas	Not relevant
SEPP No. 53 - Metropolitan Residential Development	Not relevant
SEPP No. 55 - Remediation of Land	Environmental issues within Camden Airport are regulated by the <i>Airports Act 1996</i> (and associated Regulations) and the <i>Environment Protection and Biodiversity Conservation Act 1999</i> .  The <i>Airports Act 1996</i> requires CAL to prepare an Airport Environment Strategy (AES) for the Airport as part of the 2015 DMP (see Appendix B). Any development of the land would have to consider this AES. Contaminated land sites are managed through this AES and are also subject to regulation by the Airport Environment Officer, a body appointed by the Commonwealth Government under the <i>Airports Act 1996</i> to regulate environmental impacts at the Airport.  CAL has developed internal processes to manage contaminated sites to achieve objectives similar to the broad aims and objectives of SEPP 55.
SEPP No. 59 - Central Western Sydney Economic and Employment Area	Not relevant
SEPP No. 60 - Exempt and Complying Development	Not relevant
SEPP No. 62 - Sustainable Aquaculture	Not relevant
SEPP No. 64 - Advertising and Signage	CAL acknowledges the aims and objectives of SEPP 64. CAL considers issues of amenity, character and finish through its airport-lessee company consent assessment process.
SEPP No. 65 - Design Quality of Residential Flat Development	Not relevant

State Environmental Planning Policies	Response
SEPP No. 70 - Affordable Housing (Revised Schemes)	Not relevant
SEPP No. 71 - Coastal Protection	Not relevant
SEPP (Housing for Seniors or People with a Disability) 2004	Not relevant
SEPP (Building Sustainability Index: BASIX) 2004	Any development will be developed having regard to the aims of the Policy where relevant.
SEPP (Major Development) 2005	Not relevant
SEPP (Sydney Region Growth Centres) 2006	Not relevant
SEPP (Mining, Petroleum Production and Extractive Industries) 2007	Not relevant
SEPP (Temporary Structures and Places of Public Entertainment) 2007	Not relevant
SEPP (Infrastructure) 2007	The aim of this SEPP is to encourage a range of infrastructure works in NSW, by a consistent planning regime and appropriate consultation. The SEPP supports greater flexibility in the location of infrastructure and service facilities. The 2015 MP is consistent with the SEPP's provisions for a robust development assessment regime.
SEPP (Kosciuszko National Park - Alpine Resorts) 2007	Not relevant
SEPP (Rural Lands) 2008	Not relevant
SEPP (Exempt and Complying Development Codes) 2008	Used as an assessment tool for the airport-lessee company consent assessment process, where relevant
SEPP (Western Sydney Parklands) 2009	Not relevant
SEPP (Affordable Rental Housing) 2009	Not relevant
SEPP (Western Sydney Employment Area) 2009	Not relevant

**Table F3 | Regional Environmental Plans (Deemed State Environmental Planning Policies)**

Sydney Regional Environmental Plans	Response
REP No. 5 - Chatswood Town Centre	Not relevant
REP No. 6 - Gosford Coastal Areas	Not relevant/Repealed 1/7/09
REP No. 7 - Multi-Unit Housing - Surplus Government Sites	Not relevant/Repealed 1/7/09
REP No. 8 - Central Coast Plateau Areas	Not relevant
REP No. 9- Extractive Industry (No. 2)	Not relevant
REP No. 10 - Blue Mountains Regional Open Space	Not relevant/Repealed 1/7/09

Sydney Regional Environmental Plans	Response
REP No. 11 - Penrith Lakes Scheme	Not relevant
REP No. 12 - Dual Occupancy	Not relevant
REP No. 13 - Mulgoa Valley	Not relevant
REP No. 14 - Eastern Beaches	Not relevant/Repealed 1/7/09
REP No. 16 - Walsh Bay	Not relevant
REP No. 17 - Kurnell Peninsula	Not relevant
REP No. 18 - Public Transport Corridor	Not relevant
REP No. 19 - Rouse Hill Development Area	Not relevant
REP No. 20 - Hawkesbury–Nepean River (No. 2 - 1997)	REP 20 integrates planning with catchment management to protect the river system, by ensuring that the impacts of future land uses are considered in the regional context. The 2015 MP and AES have an Environmentally Significant Zone near the Nepean River which is subject to a Management Plan and very limited permissible development. Any proposed development will have to consider any potential impact on the river through the airport-lessee company consent assessment process.
REP No. 21 - Warringah Urban Release Areas	Not relevant/Repealed 1/7/09
REP No. 24 - Homebush Bay Area	Not relevant
REP No. 25 - Orchard Hills	Not relevant
REP No. 26 - City West	Not relevant
REP No. 27 - Wollondilly Regional Open Space	Not relevant/Repealed 1/7/09
REP No. 28 – Parramatta	Not relevant
REP No. 29 - Rhodes Peninsula	Not relevant
REP No. 30 - St Marys	Not relevant
REP No. 31 - Regional Parklands	Not relevant
REP No. 33 - Cooks Cove	Not relevant
Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005	Not relevant
Greater Metropolitan Regional Environmental Plans	Response
Drinking Water Catchments Regional Environmental Plan No. 1	Not relevant
REP No. 2 - Georges River Catchment	Not relevant

Table F4 | Local planning instruments - Camden LEP 2010

Camden Local Environmental Plan 2010 LEP Provision	Details	Camden Airport MP Response
1.2 Aims of Plan	<p>(1) This Plan aims to make local environmental planning provisions for land in Camden in accordance with the relevant standard environmental planning instrument under section 33A of the Act.</p> <p>(2) The particular aims of this Plan are as follows:</p> <ul style="list-style-type: none"> <li>(a) ensure Camden retains its valued traditional qualities, character and scenic landscapes while providing for sustainable urban growth,</li> <li>(b) ensure that new communities are planned and developed in an orderly, integrated and sustainable manner and contribute to the social, environmental and economic sustainability of Camden,</li> <li>(c) ensure that natural assets within Camden are protected and enhanced,</li> <li>(d) minimise the impact on existing and future communities of natural hazards such as bushfires and flooding,</li> <li>(e) ensure that appropriate housing opportunities are provided for all existing and future residents of Camden at all stages of their lives,</li> <li>(f) ensure that the economic, employment and educational needs of all existing and future residents of Camden are appropriately planned for,</li> <li>(g) ensure the agricultural production potential of rural land, and prevent the fragmentation of agricultural holdings,</li> <li>(h) ensure that the recreation and social needs of all existing and future residents of Camden are appropriately planned for,</li> <li>(i) protect and restore the environmental values of land, including waterways and riparian land, as part of the natural systems,</li> <li>(j) conserve and enhance the built and landscape heritage of Camden.</li> </ul>	<p>The principles included are required to be considered in these objectives and are matters that will be considered in the airport-lessee company consent assessment process.</p> <p>Development proposals with potential impacts and scale identified in CAL's Airport Lessee Company Consent - Consultation Policy 2014 are referred to Camden Council for comments.</p> <p>Consultation will include the Camden Airport Community Aviation Consultation Group and the Planning Coordination Forum.</p>
1.4 Definitions	<p>The Dictionary at the end of this Plan defines words and expressions for the purposes of this Plan.</p>	<p>Appendix G includes the listed definitions (and their origins) as they appear in the 2015 MP.</p>
2.7 Demolition requires consent (local)	<p>The demolition of a building or work may be carried out only with consent.</p> <p><b>Note.</b> If the demolition of a building or work is identified in <i>State Environmental Planning Policy (Exempt and Complying Development Codes) 2008</i> as exempt development, the Act enables it to be carried out without consent.</p>	<p>Demolition of a building or work on the Airport requires approval from the Airport Building Controller and is subject to the airport-lessee company consent assessment process.</p>

Camden Local Environmental Plan 2010 LEP Provision	Details	Camden Airport MP Response
Land Use Table Zone SP2 Infrastructure	<p>1 Objectives of zone</p> <ul style="list-style-type: none"> <li>• To provide for infrastructure and related uses.</li> <li>• To prevent development that is not compatible with or that may detract from the provision of infrastructure.</li> </ul> <p>2 Permitted without consent Nil</p> <p>3 Permitted with consent The purpose shown on the Land Zoning Map, including any development that is ordinarily incidental or ancillary to development for that purpose: Community facilities; Environmental protection works; Flood mitigation works; Recreation areas; Roads; Waterbodies (artificial).</p> <p>4 Prohibited Any development not specified in item 2 or 3.</p>	<p>The area of Camden Airport is zoned SP2 Infrastructure (Air Transport Facility). In this zone, purposes shown on the Land Zoning Map are permissible with consent.</p> <p>The land use zones in this 2015 MP make more specific provision for the Airport by dividing into smaller zones than are shown in LEP 2010.</p>
4.3 Height of buildings	<p>(1) The objectives of this clause are:</p> <ul style="list-style-type: none"> <li>(a) to ensure that buildings are compatible with the height, bulk and scale of the existing and desired future character of the locality, and</li> <li>(b) to minimise visual impact, disruption of views, loss of privacy and loss of solar access to existing development, and</li> <li>(c) to minimise the adverse impact of development on heritage conservation areas and heritage items.</li> </ul> <p>(2) The height of a building on any land is not to exceed the maximum height shown for the land on the Height of Buildings Map.</p>	<p>Restriction of the height of buildings is included for air safety reasons (see Appendix D of the 2015 MP relating to Airspace Protection).</p>
4.6 Exceptions to development standards	<p>1) The objectives of this clause are:</p> <ul style="list-style-type: none"> <li>(a) to provide an appropriate degree of flexibility in applying certain development standards to particular development, and</li> <li>(b) to achieve better outcomes for and from development by allowing flexibility in particular circumstances.</li> </ul> <p>(2) Development consent may, subject to this clause, be granted for development even though the development would contravene a development standard imposed by this or any other environmental planning instrument. However, this clause does not apply to a development standard that is expressly excluded from the operation of this clause.</p>	<p>The 2015 MP contains provisions for changing to another use which may not be permissible in the zone if it is assessed to be a “compatible land use” (see section 6.4)</p>

Camden Local Environmental Plan 2010 LEP Provision	Details	Camden Airport MP Response
4.6 Exceptions to development standards <i>continued</i>	<p>(3) Development consent must not be granted for development that contravenes a development standard unless:</p> <p>the consent authority has considered a written request from the applicant that seeks to justify the contravention of the development standard by demonstrating:</p> <ul style="list-style-type: none"> <li>(a) that compliance with the development standard is unreasonable or unnecessary in the circumstances of the case, and</li> <li>(b) that there are sufficient environmental planning grounds to justify contravening the development standard.</li> </ul> <p>(4) Development consent must not be granted for development that contravenes a development standard unless:</p> <ul style="list-style-type: none"> <li>(a) the consent authority is satisfied that: <ul style="list-style-type: none"> <li>(i) the applicant's written request has adequately addressed the matters required to be demonstrated by subclause (3), and</li> <li>(ii) the proposed development will be in the public interest because it is consistent with the objectives of the particular standard and the objectives for development within the zone in which the development is proposed to be carried out, and</li> </ul> </li> <li>(b) the concurrence of the Director-General has been obtained.</li> </ul> <p>(5) In deciding whether to grant concurrence, the Director-General must consider:</p> <ul style="list-style-type: none"> <li>(a) whether contravention of the development standard raises any matter of significance for State or regional environmental planning, and</li> <li>(b) the public benefit of maintaining the development standard, and</li> <li>(c) any other matters required to be taken into consideration by the Director-General before granting concurrence.</li> </ul> <p>(6) Consent must not be granted under this clause for a subdivision of land in Zone RU1, RU2, RU3, RU4, RU6, R5, E2, E3 or E4 if:</p> <ul style="list-style-type: none"> <li>(a) the subdivision will result in 2 or more lots of less than the minimum area specified for such lots by a development standard, or</li> <li>(b) the subdivision will result in at least one lot that is less than 90% of the minimum area specified for such a lot by a development standard.</li> </ul>	The 2015 MP contains provisions for changing to another use which may not be permissible in the zone if it is assessed to be a "compatible land use" (see section 6.4)

Camden Local Environmental Plan 2010 LEP Provision	Details	Camden Airport MP Response
<p>4.6 Exceptions to development standards <i>continued</i></p>	<p>(7) After determining a development application made pursuant to this clause, the consent authority must keep a record of its assessment of the factors required to be addressed in the applicant’s written request referred to in subclause (3).</p> <p>(8) This clause does not allow consent to be granted for development that would contravene any of the following:</p> <ul style="list-style-type: none"> <li>(a) a development standard for complying development,</li> <li>(b) a development standard that arises, under the regulations under the Act, in connection with a commitment set out in a BASIX certificate for a building to which <i>State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004</i> applies or for the land on which such a building is situated,</li> <li>(c) clauses 5.4,</li> <li>(ca) clauses 6.1, 6.2 and 6.3.</li> </ul>	<p>The 2015 MP contains provisions for changing to another use which may not be permissible in the zone if it is assessed to be a “compatible land use” (see section 6.4)</p>
<p>5.3 Development near zone boundaries</p>	<p>1) The objective of this clause is to provide flexibility where the investigation of a site and its surroundings reveals that a use allowed on the other side of a zone boundary would enable a more logical and appropriate development of the site and be compatible with the planning objectives and land uses for the adjoining zone.</p> <p>(2) This clause applies to so much of any land that is within the relevant distance of a boundary between any 2 zones. The relevant distance is 50 metres.</p> <p>(3) This clause does not apply to:</p> <ul style="list-style-type: none"> <li>(a) land in Zone RE1 Public Recreation, Zone E1 National Parks and Nature Reserves, Zone E2 Environmental Conservation, Zone E3 Environmental Management or Zone W1 Natural Waterways, or</li> <li>(b) land with in the coastal zone, or</li> <li>(c) land proposed to be developed for the purpose of sex services or restricted premises.</li> </ul> <p><b>Note.</b> When this Plan was made it did not include Zone E3 or Zone W1.(4) Despite the provisions of this Plan relating to the purposes for which development may be carried out, development consent may be granted to development of land to which this clause applies for any purpose that may be carried out in the adjoining zone, but only if the consent authority is satisfied that:</p>	<p>Similar to the LEP 2010, the 2015 MP includes “compatible land uses” within each of the zones. This allows approval of development that is not listed as permissible, subject to the requirements of compatible development in section 6.6. The compatible land use provisions of the 2015 MP would accommodate the zone boundary provisions of the LEP 2010, but go beyond what would be permissible under the LEP.</p>

Camden Local Environmental Plan 2010 LEP Provision	Details	Camden Airport MP Response
5.3 Development near zone boundaries <i>continued</i>	<p>(a) the development is not inconsistent with the objectives for development in both zones, and</p> <p>(b) the carrying out of the development is desirable due to compatible land use planning, infrastructure capacity and other planning principles relating to the efficient and timely development of land.</p> <p>(5) The clause does not prescribe a development standard that may be varied under this Plan.</p>	<p>Similar to the LEP 2010, the 2015 MP includes “compatible land uses” within each of the zones. This allows approval of development that is not listed as permissible, subject to the requirements of compatible development in section 6.6. The compatible land use provisions of the 2015 MP would accommodate the zone boundary provisions of the LEP 2010, but go beyond what would be permissible under the LEP.</p>
5.9 Preservation of trees or vegetation	<p>(1) The objective of this clause is to preserve the amenity of the area, including biodiversity values, through the preservation of trees and other vegetation.</p> <p>(2) This clause applies to species or kinds of trees or other vegetation that are prescribed for the purposes of this clause by a development control plan made by the Council.</p> <p><b>Note.</b> A development control plan may prescribe the trees or other vegetation to which this clause applies by reference to species, size, location or other manner.</p> <p>(3) A person must not ringbark, cut down, top, lop, remove, injure or willfully destroy any tree or other vegetation to which any such development control plan applies without the authority conferred by:</p> <p>(a) development consent, or</p> <p>(b) a permit granted by the Council.</p> <p>(4) The refusal by the Council to grant a permit to a person who has duly applied for the grant of the permit is taken for the purposes of the Act to be a refusal by the Council to grant consent for the carrying out of the activity for which a permit was sought.</p> <p>(5) This clause does not apply to a tree or other vegetation that the Council is satisfied is dying or dead and is not required as the habitat of native fauna.</p> <p>(6) This clause does not apply to a tree or other vegetation that the Council is satisfied is a risk to human life or property.</p> <p>(7) A permit under this clause cannot allow any ringbarking, cutting down, topping, lopping, removal, injuring or destruction of a tree or other vegetation:</p> <p>(a) that is or forms part of a heritage item, or</p> <p>(b) that is within a heritage conservation area, unless the Council is satisfied that the proposed activity is of a minor nature or is for the maintenance of the heritage item, Aboriginal object, Aboriginal place of heritage significance or heritage conservation area.</p>	<p>Any development will need to consider the provisions of the Land Clearing Guidelines issued by all appropriate authorities.</p>

Camden Local Environmental Plan 2010 LEP Provision	Details	Camden Airport MP Response
5.9 Preservation of trees or vegetation <i>continued</i>	<p><b>Note.</b> As a consequence of this subclause, the activities concerned will require development consent. The heritage provisions of clause 5.10 will be applicable to any such consent.</p> <p>(8) This clause does not apply to or in respect of:</p> <ul style="list-style-type: none"> <li>(a) the clearing of native vegetation <ul style="list-style-type: none"> <li>(i) that is authorised by a development consent or property vegetation plan under the <i>Native Vegetation Act 2003</i>, or</li> <li>(ii) that is otherwise permitted under Division 2 or 3 of Part 3 of that Act, or</li> </ul> </li> <li>(b) the clearing of vegetation on State protected land (within the meaning of clause 4 of Schedule 3 to the <i>Native Vegetation Act 2003</i>) that is authorised by a development consent under the provisions of the <i>Native Vegetation Conservation Act 1997</i> as continued in force by that clause, or</li> <li>(c) trees or other vegetation within a State forest, or land reserved from sale as a timber or forest reserve under the <i>Forestry Act 1916</i>, or</li> <li>(d) action required or authorised to be done by or under the <b>Electricity Supply Act 1995</b>, the <b>Roads Act 1993</b> or the <b>Surveying Act 2002</b>, or</li> <li>(e) plants declared to be noxious weeds under the <i>Noxious Weeds Act 1993</i>.</li> </ul> <p><b>Note.</b> Permissibility may be a matter that is determined by or under any of these Acts.</p>	
5.10 Heritage conservation	<p><b>Note.</b> Heritage items (if any) are listed and described in Schedule 5. Heritage conservation areas (if any) are shown on the Heritage Map as well as being described in Schedule 5.</p> <p>(1) Objectives The objectives of this clause are:</p> <ul style="list-style-type: none"> <li>(a) to conserve the environmental heritage of Camden,</li> <li>(b) to conserve the heritage significance of heritage items and heritage conservation areas including associated fabric, settings and views, and</li> <li>(c) to conserve archaeological sites, and</li> <li>(d) to conserve places of Aboriginal heritage significance.</li> </ul> <p>(2) Requirement for consent Development consent is required for any of the following:</p> <ul style="list-style-type: none"> <li>(a) demolishing or moving any of the following or altering the exterior of any of the following (including, in the case of a building, making changes to its detail, fabric, finish or appearance)</li> </ul>	<p>Under Schedule 5 Environmental heritage of the LEP, <i>Cobbity - Camden Airport (including airfield, airport, hangars, cottages, outbuildings and grounds)</i> is a listed heritage item (Item 198) of local significance. Development will need to consider the <i>Camden Airport Heritage Management Strategy 2005</i>.</p> <p>Heritage Impact Statements will be developed for any activity impacting on or affecting sites identified in the CHMS.</p>

Camden Local Environmental Plan 2010 LEP Provision	Details	Camden Airport MP Response
5.10 Heritage conservation <i>continued</i>	<p>(i) a heritage item,  (ii) an Aboriginal object,  (iii) a building, work, relic or tree within a heritage conservation area,</p> <p>(b) altering a heritage item that is a building by making structural changes to its interior or by making changes to anything inside the item that is specified in Schedule 5 in relation to the item,</p> <p>(c) disturbing or excavating an archaeological site while knowing, or having reasonable cause to suspect, that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed,</p> <p>(d) disturbing or excavating an Aboriginal place of heritage significance,</p> <p>(e) erecting a building on land:</p> <p>(i) on which a heritage item is located or that is within a heritage conservation area, or  (ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance.</p> <p>(f) subdividing land: (i) on which a heritage item is located or that is within a heritage conservation area, or  (ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance.</p> <p>(3) When consent not required  However, consent under this clause is not required if:</p> <p>(a) the applicant has notified the consent authority of the proposed development and the consent authority has advised the applicant in writing before any work is carried out that it is satisfied that the proposed development:</p> <p>(i) is of a minor nature, or is for the maintenance of the heritage item, Aboriginal object, Aboriginal place of heritage significance or archaeological site, or a building, work, relic, tree or place within a heritage conservation area, and  (ii) would not adversely affect the significance of the heritage item, Aboriginal object, Aboriginal place, archaeological site or heritage conservation area, or</p> <p>(b) the development is in a cemetery or burial ground and the proposed development:</p> <p>(i) is the creation of a new grave or monument, or excavation or disturbance of land for the purpose of conserving or repairing monuments or grave markers, and</p>	<p>Under Schedule 5 Environmental heritage of the LEP, <i>Cobbity - Camden Airport (including airfield, airport, hangars, cottages, outbuildings and grounds)</i> is a listed heritage item (Item 198) of local significance. Development will need to consider the <i>Camden Airport Heritage Management Strategy 2005</i>.</p> <p>Heritage management plans will be developed for any activity impacting on or affecting sites identified in the CHMS.</p>

Camden Local Environmental Plan 2010 LEP Provision	Details	Camden Airport MP Response
5.10 Heritage conservation <i>continued</i>	<p>(ii) would not cause disturbance to human remains, relics, Aboriginal objects in the form of grave goods, or to a place of Aboriginal heritage significance, or</p> <p>(c) the development is limited to the removal of a tree or other vegetation that the Council is satisfied is a risk to human life or property, or</p> <p>(d) the development is exempt development.</p> <p>(4) Effect on heritage significance The consent authority must, before granting consent under this clause, consider the effect of the proposed development on the heritage significance of the heritage item or heritage conservation area concerned. This subclause applies regardless of whether a heritage management document is prepared under subclause (5) or a heritage conservation management plan is submitted under subclause (6).</p> <p>(5) Heritage impact assessment The consent authority may, before granting consent to any development on land:</p> <p>(a) on which a heritage item is situated, or</p> <p>(b) within a heritage conservation area, or</p> <p>(c) within the vicinity of land referred to in paragraph (a) or (b),</p> <p>require a heritage management document to be prepared that assesses the extent to which the carrying out of the proposed development would affect the heritage significance of the heritage item or heritage conservation area concerned.</p> <p>(6) Heritage conservation management plans The consent authority may require, after considering the significance of a heritage item and the extent of change proposed to it, the submission of a heritage conservation management plan before granting consent under this clause.</p> <p>(7) Archaeological sites The consent authority must, before granting consent under this clause to the carrying out of development on an archaeological site (other than land listed on the State Heritage Register or to which an interim heritage order under the Heritage Act 1977 applies):</p> <p>(a) notify the Heritage Council of its intention to grant consent, and</p> <p>(b) take into consideration any response received from the Heritage Council within 28 days after the notice is sent.</p>	<p>Under Schedule 5 Environmental heritage of the LEP, <i>Cobbity - Camden Airport (including airfield, airport, hangars, cottages, outbuildings and grounds)</i> is a listed heritage item (Item 198) of local significance. Development will need to consider the <i>Camden Airport Heritage Management Strategy 2005</i>.</p> <p>Heritage management plans will be developed for any activity impacting on or affecting sites identified in the CHMS.</p>

Camden Local Environmental Plan 2010 LEP Provision	Details	Camden Airport MP Response
5.10 Heritage conservation <i>continued</i>	<p>(8) Aboriginal places of heritage significance The consent authority must, before granting consent under this clause to the carrying out of development in a place of Aboriginal heritage significance:</p> <p>(a) consider the effect of the proposed development on the heritage significance of the place and any Aboriginal object known or reasonably likely to be located at the place by means of an adequate investigation and assessment (which may involve consideration of a heritage impact statement), and</p> <p>(b) notify the local Aboriginal communities (in such way as it thinks appropriate) about the application and take into consideration any response received within 28 days after the notice is sent.</p> <p>(9) Demolition of nominated State heritage items The consent authority must, before granting consent under this clause for the demolition of a nominated State heritage item:</p> <p>(a) notify the Heritage Council about the application, and</p> <p>(b) take into consideration any response received from the Heritage Council within 28 days after the notice is sent.</p> <p>(10) Conservation incentives The consent authority may grant consent to development for any purpose of a building that is a heritage item, or of the land on which such a building is erected, or for any purpose on an Aboriginal place of heritage significance, even though development for that purpose would otherwise not be allowed by this Plan, if the consent authority is satisfied that:</p> <p>(a) the conservation of the heritage item or Aboriginal place of heritage significance is facilitated by the granting of consent, and</p> <p>(b) the proposed development is in accordance with a heritage management document that has been approved by the consent authority, and</p> <p>(c) the consent to the proposed development would require that all necessary conservation work identified in the heritage management document is carried out, and</p> <p>(d) the proposed development would not adversely affect the heritage significance of the heritage item, including its setting, or the heritage significance of the Aboriginal place of heritage significance, and</p> <p>(e) the proposed development would not have any significant adverse effect on the amenity of the surrounding area.</p>	<p>Under Schedule 5 Environmental heritage of the LEP, <i>Cobbity - Camden Airport (including airfield, airport, hangars, cottages, outbuildings and grounds)</i> is a listed heritage item (Item 198) of local significance. Development will need to consider the <i>Camden Airport Heritage Management Strategy 2005</i>.</p> <p>Heritage management plans will be developed for any activity impacting on or affecting sites identified in the CHMS.</p>

Camden Local Environmental Plan 2010 LEP Provision	Details	Camden Airport MP Response
5.11 Bush fire hazard reduction	<p>Bush fire hazard reduction work authorised by the Rural Fires Act 1997 may be carried out on any land without consent.</p> <p><b>Note.</b> <i>The Rural Fires Act 1997</i> also makes provision relating to the carrying out of development on bush fire prone land.</p> <p>(1) The objectives of this clause are:</p> <ul style="list-style-type: none"> <li>(a) to minimise the flood risk to life and property associated with the use of land,</li> <li>(b) to allow development on land that is compatible with the land's flood hazard, taking into account projected changes as a result of climate change,</li> <li>(c) to avoid significant adverse impacts on flood behaviour and the environment.</li> </ul> <p>(2) This clause applies to land at or below the flood planning level.</p> <p>(3) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that the development:</p> <ul style="list-style-type: none"> <li>(a) is compatible with the flood hazard of the land,</li> <li>(b) is not likely to significantly adversely affect flood behaviour resulting in detrimental increases in the potential flood affectation of other development or properties,</li> <li>(c) incorporates appropriate measures to manage risk to life from flood,</li> <li>(d) is not likely to significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or water courses, and</li> <li>(e) is not likely to result in unsustainable social and economic costs to the community as a consequence of flooding.</li> </ul> <p>(4) A word or expression used in this clause has the same meaning as it has in the NSW Government's Floodplain Development manual published in 2005, unless it is otherwise defined in this clause.</p> <p>(5) In this clause, flood planning level means the level of a 1:100 ARI (average recurrent interval) flood event plus 0.6 metre freeboard.</p>	<p>Any development on Airport land will need to consider the Bushfire Guidelines and the relevant provisions of the <i>Rural Fires Act 1997</i>.</p>
7.1 Flood planning	<p>(a) is compatible with the flood hazard of the land,</p> <p>(b) is not likely to significantly adversely affect flood behaviour resulting in detrimental increases in the potential flood affectation of other development or properties,</p> <p>(c) incorporates appropriate measures to manage risk to life from flood,</p> <p>(d) is not likely to significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or water courses, and</p> <p>(e) is not likely to result in unsustainable social and economic costs to the community as a consequence of flooding.</p> <p>(4) A word or expression used in this clause has the same meaning as it has in the NSW Government's Floodplain Development manual published in 2005, unless it is otherwise defined in this clause.</p> <p>(5) In this clause, flood planning level means the level of a 1:100 ARI (average recurrent interval) flood event plus 0.6 metre freeboard.</p>	<p>Any development on flood liable land will be the subject of the airport-lessee company consent assessment process. This process includes considering the guiding principles contained within relevant Flood Management DCPs adopted by Camden Council and the NSW Floodplain Development Manual.</p>

Camden Local Environmental Plan 2010 LEP Provision	Details	Camden Airport MP Response
7.2 Airspace operations	<p>(1) Development consent must not be granted to development if the consent authority is satisfied that the proposed development will penetrate the Obstacle Limitation Surface as shown on the Obstacle Limitation Surface Map.</p> <p>(2) Before granting development consent to development on land shown on the Obstacle Limitation Surface Map for which an obstacle limitation surface is identified the consent authority must give written notice of the proposed development to the relevant Commonwealth body and take into account any comments received from that body within 28 days after the notice is given.</p> <p>(3) Before granting development consent to development on land shown on the Procedures for Air Navigation Services—Aircraft Operations Map for which a PANS-OPS surface is identified the consent authority must take into account whether the proposed development may compromise the effective and on-going operation of Camden Airport.</p> <p>(4) In this clause:                      Obstacle Limitation Surface Map means the Obstacle Limitation Surface Map for the Camden Airport prepared by the operators of Camden Airport and approved by the relevant Commonwealth body or relevant Commonwealth Minister.                      Procedures for Air Navigation Services—Aircraft Operations Map means the Procedures for Air Navigation Services—Aircraft Operations Map for the Camden Airport prepared by the operators of Camden Airport and approved by the relevant Commonwealth body or relevant Commonwealth Minister.                      Relevant Commonwealth body means the body that is responsible for development decisions relating to the Camden Airport under Commonwealth legislation.                      Relevant Commonwealth Minister means the Minister responsible for development decisions relating to the Camden Airport under Commonwealth legislation.</p>	<p>Development in this Clause refers to off-Airport development. Appendix D Airspace Protection provides the maps for Council’s consideration of developments under this Clause.</p> <p>On-Airport development is also subject to these maps through the airport-lessee company consent assessment process</p>
7.3 Development in areas subject to aircraft noise	<p>(1) The objectives of this clause are as follows:</p> <ul style="list-style-type: none"> <li>(a) to prevent certain noise sensitive developments from being located near Camden Airport and its flight paths,</li> <li>(b) to assist in minimising the impact of aircraft noise from that airport and its flight paths by requiring appropriate noise attenuation measures in noise sensitive buildings,</li> <li>(c) to ensure that land use and development in the vicinity of that airport d not hinder or have any adverse impact on the ongoing safe and efficient operation of that airport.</li> </ul>	<p>The 2015 MP incorporates both a Noise Exposure Contour Forecast Map and further information to guide assessment of off Airport development by Camden Council and on-Airport development by CAL. It also contains a Flight Path Map.</p>

Camden Local Environmental Plan 2010 LEP Provision	Details	Camden Airport MP Response
7.3 Development in areas subject to aircraft noise <i>continued</i>	<p>(2) The consent authority must not grant development consent for the purposes of caravan parks, child care centres, educational establishments, hospitals or residential accommodation if the development will be in ANEF contour 25 or higher.</p> <p>(3) Before granting consent to development for the following purposes on land in the vicinity of Camden Airport, the consent authority must consider whether the development will meet AS 2021 – 2015. Acoustics – Aircraft noise intrusion – Building siting and construction, with respect to interior noise levels:</p> <p>(a) if the development will be in ANEF contour 20 to 25 – caravan parks, child care centres, educational establishments, hospitals and residential accommodation,</p> <p>(b) if the development will be in ANEF 25 or higher – business premises, community facilities, community facilities, light industry, places of public worship or retail premises.</p> <p>(4) In this clause: ANEF contour means a noise exposure shown as ANEF contour on the Noise Exposure Forecast Contour Map for Camden Airport prepared by the Department of the Commonwealth responsible for airports.</p>	<p>The 2015 MP incorporates both a Noise Exposure Contour Forecast Map and further information to guide assessment of off Airport development by Camden Council and on-Airport development by CAL. It also contains a Flight Path Map.</p>
7.4 Earthworks	<p>(1) The objectives of this clause are as follows:</p> <p>(a) to ensure that earthworks for which development consent is required will not have a detrimental impact on environmental functions and processes, neighbouring uses, cultural or heritage items or features of the surrounding land,</p> <p>(b) to allow earthworks of a minor nature without separate development consent.</p> <p>(2) Development consent is required for earthworks unless:</p> <p>(a) the work is exempt development under this Plan or another applicable environmental planning instrument, or</p> <p>(b) the work is ancillary to other development for which development consent has been given.</p> <p>(3) Before granting development consent for earthworks, the consent authority must consider the following matters:</p> <p>(a) the likely disruption of, or any detrimental effect on, existing drainage patterns and soil stability in the locality,</p>	<p>Earthworks on the Airport require approval. This will need to consider the 2015 MP and AES and is subject to the airport-lessee company consent assessment process.</p>

Camden Local Environmental Plan 2010 LEP Provision	Details	Camden Airport MP Response
7.4 Earthworks continued	<p>(b) the effect of the proposed development on the likely future use or redevelopment of the land,</p> <p>(c) the quality of the fill or the soil to be excavated or both,</p> <p>(d) the effect of the proposed development on the existing and likely amenity of adjoining properties,</p> <p>(e) the source of any fill material and the destination of any excavated material,</p> <p>(f) the likelihood of disturbing relics,</p> <p>(g) the proximity to and potential for adverse impacts on any watercourse, drinking water catchment or environmentally sensitive area.</p> <p><b>Note.</b> The National Parks and Wildlife Act 1974, particularly section 86, deals with disturbing or excavating land and Aboriginal objects.</p>	<p>Earthworks on the Airport require approval. This will need to consider the 2015 MP and AES and is subject to the airport-lessee company consent assessment process.</p>



Appendix G: Land Use definitions

G

# Land use definitions

Except for the following definitions, CAL adopts the definitions used in the NSW Standard LEP Template (with a limited number of definitions adopted from the *Camden Local Environmental Plan 2010*).

**Aircraft Maintenance Facility** means a building or place used for the repair and fitting of accessories to aircraft or vehicles associated with airport operations, and includes work involving body building, panel building, panel beating, spray painting or chassis restoration.

**Bulky goods retailing** means a building or place used principally for the sale by retail or auction, the hire or display of items (whether goods or materials) which are of such a size, shape or weight as to require: a large area for handling, storage or display; or direct vehicular access to the site of the building or place by members of the public, for the purpose of loading items into their vehicles after purchase or hire.

**Bush regeneration works** means the regeneration of bushland or vegetation areas including the removal of exotic species and material.

**Business identification sign** means a sign:

- (a) that indicates:
  - (i) the name of the person or business, and
  - (ii) the nature of the business carried on by the person at the premises or place at which the sign is displayed, and
- (b) that may include the address of the premises or place and a logo or other symbol that identifies the business, but that does not include any advertising relating to a person who does not carry on business at the premises or place.

**Business premises** means a building or place in which there is carried on an occupation, profession, service, light industry or trade which provides a service directly and regularly to the public.

**Child care centre means** a building or place which is used (whether or not for profit) for the purpose of educating, minding or caring for children (whether or not any of the children are related to the owner or operator), but only if the following conditions are satisfied:

- (a) the children number 6 or more, are under 6 years of age, and do not attend a government school, or a registered non-government school, within the meaning of the *Education Reform Act 1990 (NSW)*, and
- (b) the building or place does not provide residential care for any of the children (other than those related to the owner or operator).

**Club** means a building used by persons associated, or by a body incorporated, for social, literary, political, sporting, athletic or other lawful purposes whether of the same or of a different kind and whether or not the whole or a part of such building is the premises of a club registered under the *Registered Clubs Act 1976 (NSW)*.

**Commercial premises** means a building or place used as an office or for other business or commercial purposes, but does not include a building or place elsewhere specifically defined in this 2015 MP or a building or place used for a purpose elsewhere specifically defined in this 2015 MP.

**Compatible land use** means development that is not inconsistent with the provisions of the 2015 MP; is not inconsistent with the objectives of the zone in which the use will be located; will not have an adverse effect on other land within the locality; and will not render the land unfit for the purpose for which it has been zoned.

**Development for the purposes of this 2015 MP** means:

- (a) constructing buildings or other structures,
- (b) altering the structure of buildings or other structures,
- (c) undertaking, constructing or altering earthworks (whether or not in relation to buildings or other structures),
- (d) undertaking, constructing or altering engineering works, electrical works or hydraulic works (whether or not in relation to buildings or other structures).
- (e) demolishing, destroying, dismantling or removing:
  - (i) buildings or other structures, or
  - (ii) earthworks, or
  - (iii) engineering works, or
  - (iv) electrical works, or
  - (v) hydraulic works,
- (f) Undertaking land clearing.

**Earthworks or engineering works** means:

- (a) runways, taxiways and aprons
- (b) surface car parks
- (c) retaining walls
- (d) dams
- (e) roads
- (f) railways
- (g) pipelines
- (h) tunnels.

**Educational establishment** means a building used as a school, college, technical college, academy, lecture hall, gallery or museum, but does not include a building used wholly or principally as an institution or child care centre.

**Flood mitigation work** means work designed and constructed for the express purpose of mitigating flood impacts (on-site or downstream). It involves changing the characteristics of flood behaviour to alter the level, location, volume, speed or timing of flood waters to mitigate flood impacts. Types of works may include excavation, construction or enlargement of any fill, wall, or levee that will alter riverine flood behaviour, local overland flooding, or tidal action so as to mitigate flood impacts.

**Freight transport or handling facility** means a facility used principally for the bulk handling of goods for transport by road, rail, air or sea, including any facility for the loading and unloading of vehicles, aircraft, vessels or containers used to transport those goods and for the parking, holding, servicing or repair of those vehicles, aircraft or vessels or for the engines or carriages involved.

**Generating works** means a building or place used for the purpose of making or generating gas, electricity or other forms of energy.

**Heritage conservation management plan** means a document that details the heritage significance of an item, place or heritage conservation area and identifies conservation policies and management mechanisms that are appropriate to enable that significance to be retained.

**Heritage item** means a building, work, archaeological site, tree, place or Aboriginal object described in an inventory of heritage items within the *Camden Airport Heritage Strategy 2005*.

**Heritage significance** means archaeological, architectural, cultural, historical, natural, or aesthetic value, scientific or social value.

**Hospital** means a building or place (other than an institution) used for the purpose of providing professional health care services (such as preventative or convalescent care, diagnosis, medical or surgical treatment, care for people with developmental disabilities, psychiatric care or counselling and services provided by health care professionals) to people admitted as in-patients (whether or not outpatients are also cared for or treated there), and includes:

- (a) ancillary facilities for the accommodation of nurses or other health care workers, ancillary shops or refreshment rooms and ancillary accommodation for persons receiving health care or for their visitors, and
- (b) facilities situated in the building or at the place and used for educational or research purposes, whether or not they are used only by hospital staff or health care workers, and whether or not any such use is a commercial use.

**Hotel or motel accommodation** means tourist and visitor accommodation (whether or not licensed premises under the *Liquor Act 2007* [NSW]):

- (a) comprising rooms or self-contained suites, and
- (b) that may provide meals to guests or the general public and facilities for the parking of guests' vehicles,
- (c) but does not include backpackers' accommodation, a boarding house, bed and breakfast accommodation or farm stay accommodation.

**Industrial retail outlet** means a building or place that:

- (a) is used in conjunction with an industry (including, but not limited to, a light industry or aviation activity),
- (b) is used for the storage, display, or sale (whether by retail or wholesale) of those goods that have been manufactured, stored or distributed on the land on which the industry is carried out.

**Liquid fuel depot and distribution facility** means storage and distribution premises that are used for the bulk storage and distribution of petrol, oil, petroleum or other inflammable liquid for aircraft and airport vehicles.

**Land filling** means all works or activities involved in the placement of fill on land, or an excavation of land, which significantly alters the shape, natural form or drainage of land.

**Mixed use development** means a building or place comprising two or more different land uses, identified as permissible in the zone.

**Motel** means a building or buildings (other than a hotel, boarding-house or residential flat building) substantially used for the overnight accommodation of travelers and the vehicles used by them whether or not the building or buildings are also used in the provision of meals to those travelers or the general public.

**Motor showroom** means a building or place used for the display or sale of motor vehicles, caravans or boats, whether or not motor vehicle accessories, caravan accessories or boat accessories are sold or displayed therein or thereon.

**Navigational aids** means any aircraft surveillance equipment, control towers, radars, visual and non-visual navigation aids and the like.

**Passenger transport facility** means a building or place used for the assembly or dispersal of passengers by any form of transport, including public transport and facilities required for parking, manoeuvring, storage or routine servicing of any vehicle that uses the building or place.

**Place of assembly** means a public hall, theatre, cinema, music hall, concert hall, dance hall, open-air theatre, drive-in theatre, music bowl or any other building of a like character used as such and whether used for the purposes of gain or not, but does not include a place of public worship, an institution or an educational establishment.

**Place of public worship** means a building or place used for the purpose of religious worship by a congregation or religious group, whether or not the building or place is also used for counselling, social events, instruction or religious training.

**Plant nursery** means a building or place used for either the growing or retail selling of plants, whether or not ancillary products are sold therein.

**Pub means** licensed premises under the *Liquor Act 1982 (NSW)* the principal purpose of which is the sale of liquor for consumption on the premises, whether or not the premises include hotel or motel accommodation and whether or not food is sold on the premises, but excludes gaming facilities.

**Public administration building** means a building used as offices or for administrative or other like purposes by the Crown, a statutory body, a council or an organisation established for public purposes, and includes police stations, customs, aviation rescue and fire fighting services and the like.

**Public utility** undertaking means any development involving the provision of infrastructure services to the site, including, but not limited to, hydraulic power, electricity, gas, telecommunications, water, sewer, stormwater and fuel.

**Recreation facility** means a building or place used for sporting activities, recreation or leisure activities, and may incorporate a shop or office, whether or not operated for the purpose of gain.

**Refreshment room** means a restaurant, cafe, tea room, eating house or the like.

**Research facility** means a building or place used for the design, research or development of any industrial goods or any articles for commercial purposes, but does not include a building or place elsewhere defined in this Schedule.

**Road** means road, street, lane, highway, pathway or thoroughfare.

**Road transport terminal** means a building or place used for the principal purpose of the bulk handling of goods for transport by road, including facilities for the loading and unloading of vehicles used to transport those goods and for the parking, servicing and repair of those vehicles.

**Runway** means a paved strip on which aeroplanes land and take off.

**Shop** means a building or place used for the purpose of selling, exposing or offering for sale by retail, goods, merchandise or materials, but does not include a building or place elsewhere specifically defined in this 2015 MP.

**Structures** mean:

- (a) bridges
- (b) fences
- (c) towers and pylons
- (d) tents and other temporary structures.

**Taxiway** means a paved strip used by aircraft in taxiing to and from a terminal or runway.

**Temporary structure** includes a booth, tent or other temporary enclosure (whether or not part of the booth, tent or enclosure is permanent), and also includes a mobile structure.

**Transport terminal** means a building or place used as an airport terminal, a road transport terminal, a bus station or a bus depot.

**Utility installation** means a building or work used by a public utility undertaking, but does not include a building designed wholly or principally as administrative or business premises or as a show-room.

**Utility undertaking** means any of the following undertakings carried on or permitted to be carried on by or by authority of any Government Department or under the authority of or in pursuance of any Commonwealth or State Act:

- (a) railway, road transport, water transport, air transport, wharf or river undertakings
- (b) undertakings for the supply of water, hydraulic power, electricity or gas or the provision of sewerage or drainage services;
- (c) and a reference to a person carrying on a utility undertaking includes a reference to a council, electricity supply authority, Government Department, corporation, firm or authority carrying on the undertaking.



## Appendix H: Abbreviations & Glossary

H

# Abbreviations

## Abbreviations

ABC	Airport Building Controller
AEO	Airport Environment Officer
AEP	Airport Emergency Plan
AEPR	Airports ( <i>Environment Protection</i> ) Regulation 1997 (Cwth)
AES	Airport Environment Strategy
AHD	Australian height datum
ALC	Airport Lease Company
ALCC	Airport Lessee Company Consent
ANEF	Australian Noise Exposure Forecast
ANEI	Australian Noise Exposure Index
ARI	Average recurrence interval
ATCT	Air traffic control tower
BCA	Building Code of Australia
CACACG	Camden Airport Community Aviation Consultation Group
CAL	Camden Airport Limited
CAR	<i>Civil Aviation Regulations 1988</i>
CASA	Civil Aviation Safety Authority
CBD	Central business district
CTA	Control area
CTAF	Common traffic advisory frequency
CTR	Control zone
Cwth	Commonwealth
dB/dBA	Decibel
DCP	Development Control Plan
DEC	Department of Environment and Conservation (NSW)
DECCW	Department of Environment, Climate Change and Water (NSW)
DOIRD	Department of Infrastructure and Regional Development
DMP	Draft Master Plan
EPA	Environment Protection Authority (NSW)
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
EPBC Act	<i>Environment Protection Biodiversity Conservation Act 1996 (Cwth)</i>
FAA	Federal Aviation Authority (USA)
GA	General aviation
GSE	Ground support equipment
HLS	Helicopter landing site
HMP	Heritage Management Plan
ICAO	International Civil Aviation Organisation
ICNG	Interim Construction Noise Guideline
IFR	Instrument flight rules
INM	Integrated Noise Model

LEP	Local Environmental Plan
LOE	Line of entry
M5	South Western Motorway
MAD	Major airport development
MDP	Major development plan
NDB	Non directional beacon
NEPM	National Environment Protection Measure
NML	Noise Management Levels
NSW	New South Wales
OEH	Office of Environment and Heritage
OLS	Obstacle limitation surfaces
PANS-OPS	Procedures for air navigation services – aircraft operations
PAPI	Precision approach path indicator
PDMP	Preliminary Draft Master Plan 2034/35
PSZ	Public Safety Zone
RAAF	Royal Australian Air Force
RESA	Runway end safety area
RL	Reduced level
RMS	NSW Roads and Maritime Services
RTA	NSW Roads and Traffic Authority
SID	Standard instrument departure
SMCMA	Sydney Metropolitan Catchment Management Authority
STAR	Standard arrival route
TfNSW	Transport for New South Wales
USA	United States of America
VET	Vocational education and training
VFR	Visual flight rules
vph	Vehicles per hour

## Measurements

kg	kilogram
km	kilometre
l	litre
m	metre
mg	milligram
mm	millimetre
NM	Nautical mile
µg	microgram

## Glossary

**Aprons** - Areas defined for the safe parking of aircraft.

**General Aviation (GA)** - General aviation commonly refers to that part of the aviation industry that engages in activity other than scheduled commercial airline activity. By this definition, GA incorporates business, corporate, charter and freight

activity. GA is often also used to mean activity by aircraft of less than 5,700kg Maximum Take-off Weight.

For the purposes of this 2015 MP, GA is taken to mean all aviation activity other than that in relation to Regular Passenger Transport (RPT) and freight operations.

**N60** - number of aircraft noise events per day that are 60 decibels or higher.

**Runways** – Runways are defined areas provided for the landing and take-off of aircraft. Runways are typically identified by reference to approximate compass bearings and direction when viewed from the perspective of the direction in which the aircraft is flying.

**Taxiways or Taxilanes** – Taxiways or taxilanes are defined areas provided for the surface movement of aircraft between runways and aprons.

## Camden Airport documents

*Aircraft Engine Ground Running Guidelines*

*Camden Airport Heritage Management Strategy (2005)*

*Camden Airport Master Plan 2010*

*Camden Airport - Airport Environment Strategy 2010*

*Bankstown Airport Urban Design Guidelines 2009*

*General Airside Filming Guidelines (2009)*

*Guide to Understanding Noise.*

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