



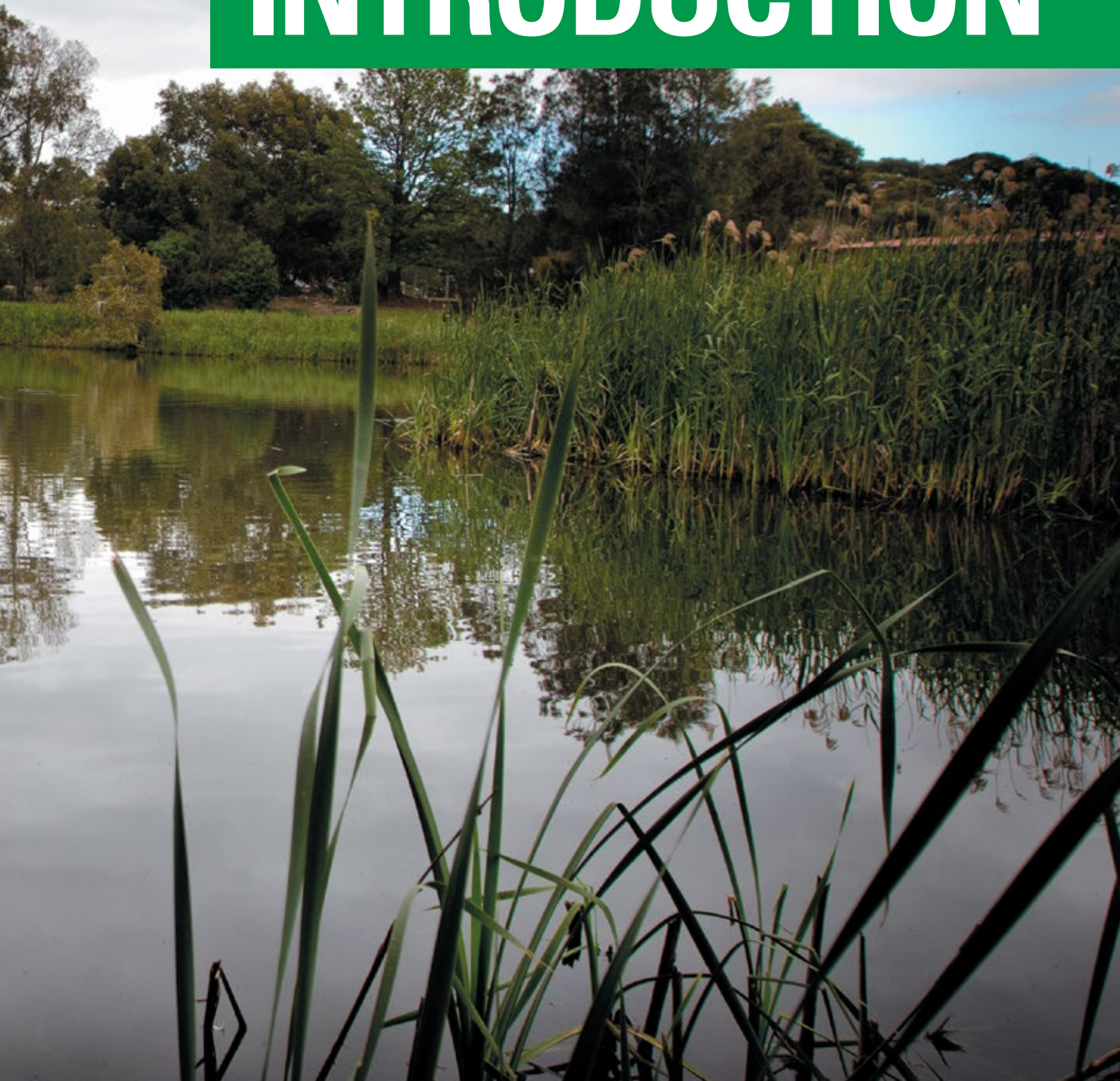
**Sydney
Airport**

The right future.
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1.0

INTRODUCTION



CHAPTER 1: INTRODUCTION



The Sydney Airport Environment Strategy 2013 – 2018 provides the strategic direction for the environmental management of Sydney Airport for the five year period between 2013 and 2018. This is the fourth Environment Strategy prepared by Sydney Airport.

1.1 Sydney Airport location

The airport is situated 8km south of Sydney's central business district (CBD) on a 907 hectare site owned by the Australian Government and leased to Sydney Airport Corporation Limited (Sydney Airport), known as the airport lessee company (ALC) under the Airports Act 1996. The airport is strategically located on the northern shores of Botany Bay adjacent to Sydney's main shipping container port – Port Botany. An aerial photograph of the airport is shown in **Figure 1.1**. Sydney Airport in relation to other airports and airfields in the Sydney region is shown in **Figure 1.2**.

The boundaries of the City of Botany Bay, Marrickville and Rockdale City local government areas (LGAs) fall within the airport site. The airport comprises the aerodrome and a number of other smaller landholdings including:

- Parcels of land on the northern side of Alexandra Canal, including the northern lands and the high intensity approach lighting (HIAL) site
- The former Pacific Power and former Department of Public Works and Services sites in South Burrows Road, Alexandria

- A small parcel of land on the western foreshore of the Cooks River, located near the Kogarah Golf Course
- The elevated water tank in Old Street, Tempe
- A small piece of land between Robey Street and Coleman Street in Mascot
- A small parcel of land located near Muddy Creek/ Barton Park
- Other small parcels of land (Joyce Drive, Ascot Lodge)

1.2 Sydney Airport history

The land on which the airport is sited – the northern shore of Botany Bay – is within the traditional country of the Eora people, the name given to the coastal Aborigines around Sydney.

The airport site has also been a vital part of the history of Sydney since the earliest days of European settlement. The airport lies on the area around Botany Bay first explored by Captain James Cook and botanist Sir Joseph Banks in 1770. At this time the airport site was marshland traversed by the Cooks River.

In 1813, the former convict and then successful businessman and trader Simeon Lord dammed the Mill Stream to establish a water-powered woollen mill and a flour mill. This created what are now called the Engine Ponds East and West. The woollen mill is claimed to be the first successful private manufacturing industry in Australia (Doring, 1996). The mills operated until the government acquired the land in 1855, and were demolished around 1862.

The Botany/Lachlan Swamps subsequently became Sydney's third water supply (after the Tank Stream and The Tunnel, or Busby's Bore). The steam-powered Botany Water pumping station was built within the airport site in around 1858 to pump water from the swamps up to the Crown Street Reservoir (which is still in use today). In the late 1880s, Botany was replaced by the Upper Nepean scheme. Remains of the pumping station, including ruins of the engine house and boiler house and the lower part of the chimney are still present on the airport site today.

Further use of the airport site was made in 1916 with the construction of the electric-powered sewage pumping station No.38 and associated inspection hall and sub-station (Sydney Water, 2003). The sewage pumping station is part of the southern and western suburbs ocean outfall sewer system (SWSOOS) and is still in use today.

The airport's aviation history began when the New Zealand aviator Captain JJ Hammond took off from the airport site on 18 April 1911. In 1919, flying enthusiast, Nigel B Love chose the cow pastures at Mascot as the site to establish an aircraft manufacturing facility. That

year Love leased 400 acres from the Kensington Racing Club for £300 a year. In January 1920, the site was officially declared an aerodrome and today the airport is one of the oldest continuously operating airports in the world.

Mascot Aerodrome was officially opened in January 1920. In 1921, the Commonwealth acquired the aerodrome as part of a program to develop a nationwide airport network.

Additional land was acquired during the 1930s and a new passenger terminal was opened in 1940.

The airport continued to be developed during World War II to enhance its civilian and military facilities. After the war, further land was acquired and the Cooks River was diverted to its present location to enable the construction of new runways.

In 1968, the main north-south runway (16R/34L) was extended into Botany Bay to cater for the new long-haul international jets. The runway was extended again in 1972 to its present length of 3,962m.

In 1989, the Commonwealth commenced development of the third (parallel north-south) runway (16L/34R), which was opened in 1994.

In July 2002, the airport was privatised and, since then, Sydney Airport has invested over \$2 billion on capital projects, with significant further investment to come. Key projects have included terminal upgrades, new car parks, new checked baggage screening facilities, new runway lighting, new aircraft parking areas, runway end safety areas and other enhancements to cater to the new generation of larger, quieter, cleaner and more fuel efficient aircraft utilising the airport.

1.3 Airport components

The airport has all the major infrastructure elements needed to operate a modern and efficient international airport and to accommodate the forecast growth in aviation activity outlined in the Master Plan 2033.

The aerodrome comprises a number of components as shown in **Figure 1.3** and as described below. Detailed information on each component can be found elsewhere in the Sydney Airport Master Plan 2033, which can be downloaded at www.sydneyairport.com.au.

Airfield system

The airfield system consists of the runways, taxiways, aprons and surrounding areas, which collectively form the aircraft movement area of the airport. The airfield also includes a dedicated helicopter precinct and support elements including the air traffic control tower, non-visual navigation aids, radar surveillance systems, and the aviation rescue and fire fighting service (ARFF).

The airport has three runways:

- Runway 16R/34L is the main longer north-south runway (3,962m)
- Runway 16L/34R is the shorter parallel north-south runway (2,438m)
- Runway 07/25 is the east-west runway (2,530m).

Terminal and passenger systems

The airport has three terminals. Sydney Airport operates Terminal 1 (T1) and Terminal 2 (T2) as well as the associated gates, departure and holding lounges, aerobridges, car parks, baggage handling and other passenger facilities. Terminal 3 (T3) is currently leased and operated by Qantas.

Freight system

Air freight activities occur in conjunction with international, domestic and regional passenger services and also in dedicated freight aircraft. There are currently six freight operators with on-airport facilities:

- Qantas Freight
- Menzies
- Australian air Express – international
- Australian air Express – domestic
- Toll Aviation
- Toll Dnata

DHL operates as an independent express operator.

Aviation support facilities

Aviation support facilities include fuelling facilities, aircraft maintenance facilities, ground support equipment, and flight catering facilities.

Landside access facilities

The airport is bordered in part by major roads including General Holmes Drive, the M5 East Motorway and Southern Cross Drive as well as Airport Drive and Qantas Drive (the last of two of which, which are owned and maintained by Sydney Airport). In addition, the airport is served by two on-airport railway stations which link into Sydney's CityRail passenger network. Landside access facilities include internal public roadways, kerbside transfer, car parking, public transport (bus and rail), cycling and pedestrian facilities.

1.4 Sydney Airport environmental context

The airport is situated on the northern shore of Botany Bay. Approximately 25 per cent of the airport, including part of the two north-south parallel runways, is situated on reclaimed land.

The site and surrounding topography are generally flat, with the underlying geology consisting of unconsolidated sediments (sand and silt) above sandstone and shale bedrock. The water table typically

lies about two to three metres below the surface of the airport. Most of the terrain has been extensively modified through historic airport development activities which included the redirection of the Cooks River. The river originally flowed through the centre of the airport site.

The airport is almost entirely surrounded by waterways, with Botany Bay to the south, Sydney Airport Wetlands (part of the Botany Wetland system) to the east, Alexandra Canal to the north and the Cooks River to the west. While the natural environment at the airport has undergone a dramatic change since 1920 when the site was first declared as an aerodrome, there still remain important areas of biodiversity.

Environmental and other features at the airport are shown in **Figure 1.4**.

Detailed information on specific environmental aspects is provided in the individual environmental action plans (refer to **Chapter 4**).

Sites of indigenous significance

The strategy must specify any areas within the airport site which have been identified as being a site of indigenous significance, following consultation with any relevant indigenous communities and organisations and any relevant Commonwealth or state body.

There are currently no identified sites of indigenous significance within the airport. Archaeological studies indicate that the potential for sites of indigenous significance is low due to the highly disturbed nature of the airport site. (Refer to **Chapter 4, Section 4.9** for further detail).

Environmentally significant areas

Section 71(2)(h) of the Airports Act 1996 requires that the strategy must identify any environmentally significant areas on the airport site, in consultation with state and federal conservation bodies. This includes the NSW Office of Environment and Heritage (OEH), Environment Protection Authority (EPA), the federal Department of Sustainability, Environment, Water, Population and Communities (SEWPaC) and the Australian Heritage Council (AHC).

The environmentally significant areas identified in this strategy are listed in **Table 1.1** and shown in **Figure 1.4**.

Sydney Airport Wetlands

The Sydney Airport Wetlands – which include Engine Pond East, Engine Pond West, Mill Pond and Mill Stream – are an important part of the cultural heritage of Sydney in that they provide evidence of the early growth of municipal services in Sydney during the 19th century. The Sydney Airport Wetlands are part of the larger Lachlan Swamps/Botany Wetlands system, which runs from Centennial Park to Botany Bay. This larger system is an important environmental resource and is listed under the National Wetlands Program as a significant wetland.

The two Engine Ponds were originally connected, forming part of a much larger pond system that has been gradually filled in over time. General Holmes Drive now divides the ponds, although it is not known to what extent water flows under the road (Federal Airports Corporation, 1989). Engine Pond West is now effectively isolated from the direct flow line of Botany Wetlands, which flow through Engine Pond East and Mill Stream. The mouth of Mill Stream is located adjacent to Runway 16L/34R and is highly modified. This has been further modified by the development of a groyne by Sydney Ports Corporation as part of the Port Botany expansion works to minimise the longshore drift of sand into Mill Stream.

The ecological assessment of the airport, finalised in 2011 during the previous strategy period, proposed that some native species were present in the area around Engine Pond West that are consistent with some of those that characterise the endangered ecological community (EEC) known as Sydney freshwater wetlands in the Sydney Basin bioregion. In 2012, further work carried out by AECOM concluded that Engine Pond West and its surrounds do not meet definitions provided by the NSW Scientific Committee determination of this EEC as described in Benson & Howell (1994) and Adam & Stricker (1993).

More information on the Sydney Airport Wetlands is provided in the biodiversity and conservation management EAP (refer **Section 4.8**).

Main north-south and east-west runways (location and function)

The location and function of the main north-south and east-west runways has been identified in the heritage management plan for the airport as having exceptional heritage value. The main north-south and east-west runways form a cruciform over the full extent of the airport site. Both were originally constructed during the first phase of the post war redevelopment from 1947 to

1955. The main north-south runway has been extended twice onto reclaimed land in Botany Bay.

Each runway and its existing alignment is a visual demonstration of the operational requirements of a busy civilian airport. Ongoing maintenance and changes to the runways contribute to the heritage value of each since each embodies the changing operational requirements that a major international airport must accommodate.

Keith Smith Avenue (location and form)

The location and form of Keith Smith Avenue has been identified in the heritage management plan for the airport as having exceptional heritage value. Keith Smith Avenue is the horseshoe-shaped access road to T2 and T3. It has historical significance as a key remnant of the early airport and has dictated the form of the T2/ T3 precinct since its construction in 1930. It forms the underlying structure that has been fundamental to the pattern of the airport's development and expansion throughout the twentieth century.

Consultation with state and federal conservation bodies

In identifying an area as being environmentally significant within the meaning of Section 71(2)(h) of the Act, Sydney Airport is also required to address any relevant recommendation of SEWPaC, OEH or EPA.

Details of the outcome of the consultation are shown in **Chapter 5**.

Areas previously identified as environmentally significant areas

There have been no changes to environmentally significant areas identified in the previous Sydney Airport Environment Strategy 2010 - 2015.

Table 1.1: Environmentally significant areas

| Site | Significance | Applicable Registers |
|--|-------------------------|---|
| Sydney Airport Wetlands (incorporating Engine Ponds East and West, Mill Pond and Mill Stream) | Heritage / biodiversity | Heritage management plan for Sydney Airport Directory of important wetlands in Australia |
| Main north-south and east-west runways (location and function) | Heritage | Heritage management plan for Sydney Airport |
| Keith Smith Avenue (location and form) | Heritage | Heritage management plan for Sydney Airport |

Figure 1.1
Aerial photograph of the airport



Figure 1.2
Airports and airfields in the Sydney region

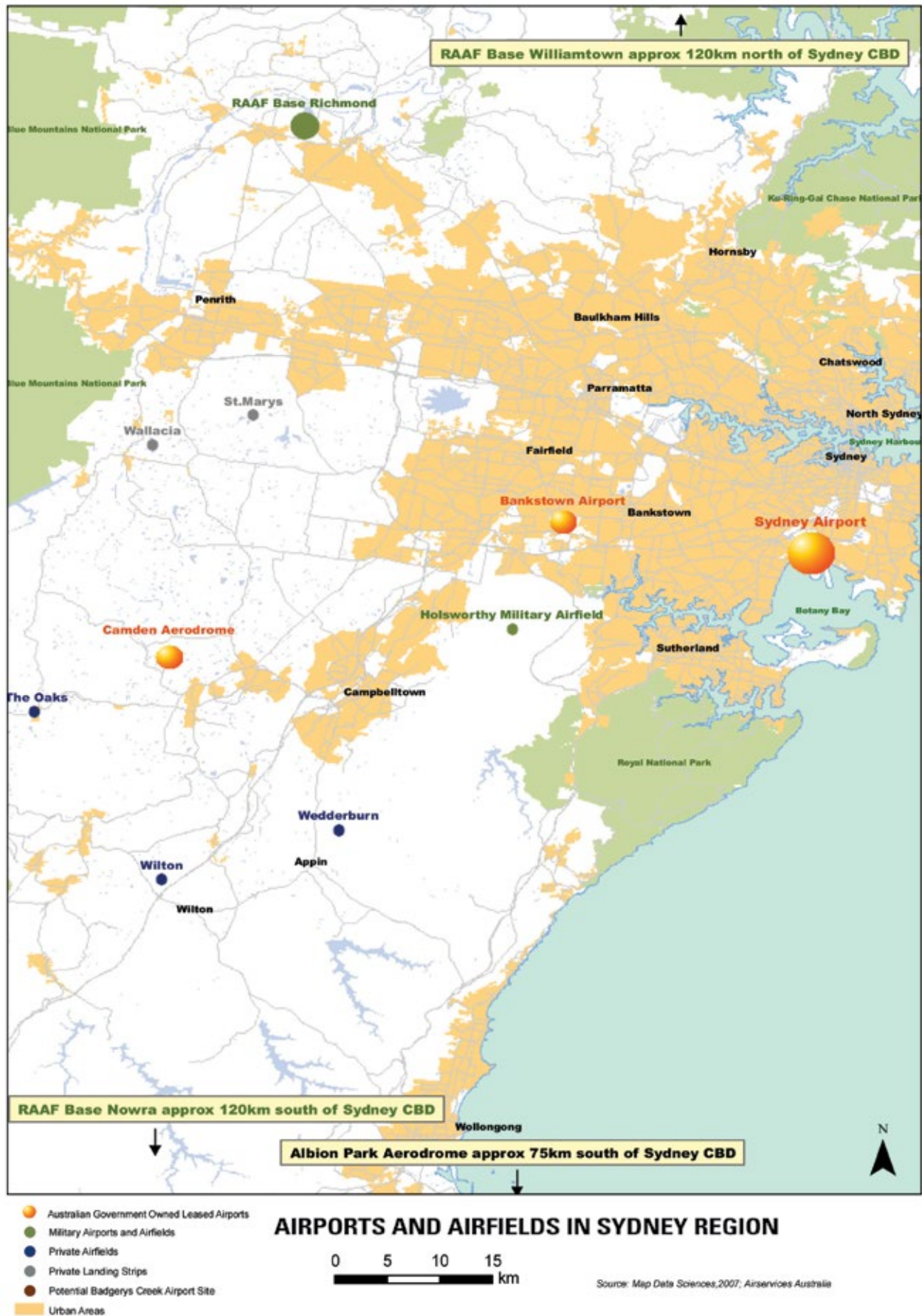


Figure 1.3
Layout of Sydney Airport 2013



Figure 1.4
Environmental and other features

