

35. Planning and land use

35.1. Introduction

This chapter assesses the planning and land use impacts of the indicative long term development of the proposed airport.

Planning undertaken by governments over the last three decades for land use change, including for the South West Priority Growth Area and the Western Sydney Employment Area, has taken into account the likely impacts of the proposed airport.

This assessment builds upon previous studies and considers how the proposed airport would affect rural, agricultural, employment and recreational lands. Development controls have been considered for the management of aircraft safety, noise, lighting and air quality impacts from airport operations at the proposed airport. The need for local traffic and transport improvements has been identified, and considerations for future land acquisition have been recommended.

For this chapter, the long term development of the proposed airport is assumed to occur in progressively staged increments beyond 2030. The baseline position, for the purposes of considering the "existing environment" and therefore the impact of the long term development, is an airport catering for approximately 10 million annual passengers (Stage 1 development).

35.2. Methodology

A specialist report on planning and land use impacts of the proposed airport was prepared for this EIS (refer Appendix N in Volume 4). The broad methodology adopted for the preparation of the assessment included:

- inspection and analysis of the key characteristics of the airport site and surrounding land;
- review of existing Commonwealth and NSW legislation applying to the airport site and surrounding land;
- review of strategic land use plans relevant to the airport site and surrounding land to identify NSW Government objectives for development of the area;
- consultation with planning staff in local councils in the vicinity of the airport site to confirm applicable land use plans, policies and assessment considerations;
- review of relevant sections of other technical reports prepared for the draft EIS;
- assessment of the likely impacts of the airport proposal on surrounding land uses; and
- recommendations for mitigation measures to reduce the impacts of the proposed development.

35.3. Existing environment

35.3.1. Airport site

Existing rural residential and agricultural land uses on the airport site would be discontinued and replaced by the Stage 1 development.

Badgerys Creek flows along the southern and eastern boundary of the airport site, and Oaky Creek originates in the centre of the site and flows northwards. Both creeks drain to South Creek and the Hawkesbury River.

The airport site is contained within the Cumberland Plain Mitchell Landscape. This landscape comprises low rolling hills and valleys in a rain shadow area between the Blue Mountains and the coast. Vegetation is characterised by grassy woodlands and open forest dominated by Grey Box (*Eucalyptus moluccana*) and Forest Red Gum (*Eucalyptus tereticornis*) and poorly drained valley floors with forests of Cabbage Gum (*Eucalyptus amplifolia*) and Swamp Oak (*Casuarina glauca*).

Vegetation within the construction impact zone for the Stage 1 development would have been removed, although vegetation in the remainder of the airport site would be retained until the area is required for future use. Local roads within the airport site would be decommissioned following the Stage 1 development in preparation for the long term development. Following the Stage 1 development, the major roads in the vicinity of the site would be:

- The M12 Motorway – linking M7 (Westlink) Motorway and The Northern Road; and
- The Northern Road – which would be realigned to the west of the airport site.

35.3.2. Surrounding land

The airport site is located within Liverpool Local Government Area (LGA), with the northern airport site boundary coinciding with the Penrith LGA. Beyond the immediate LGAs, Blue Mountains LGA lies to the west; Wollondilly, Camden and Campbelltown LGAs lie generally to the south; and Bankstown, Fairfield and Blacktown LGAs lie generally to the east of the airport site.

Following the implementation of the strategic plan for the South West Priority Growth Area and the Western Sydney Employment Area, the existing rural character of the land surrounding the airport site will have transitioned to urban use.

35.4. Land use planning and regulation

35.4.1. Australian Government

35.4.1.1. Legislation and regulation

Under current law, the long term development stages of the proposed airport would continue to require approval under the Airports Act (refer to Chapter 3 Volume 2 for further discussion on how Commonwealth legislation applies to the airport development).

The airport master plan and environment strategy would also be revised every five years. The specific regime which applies to the long term development would depend on the nature of that development, and the long term planning would need to have regard to the Airports Act and any master plan.

Australian Standard 2021:2015 – *Acoustics – Aircraft noise intrusion – Building siting and construction* (Australian Standard 2015) would continue to provide guidance on the siting and construction of buildings in the vicinity of airports to minimise aircraft noise intrusion. The guidance provided by AS 2021 is based on the level of potential aircraft noise exposure at a given site using the Australian Noise Exposure Forecast (ANEF) system.

35.4.1.2. National Airport Safeguarding Framework

The National Airports Safeguarding Framework (NASF) is a national land use planning framework agreed to by Commonwealth, State and Territory Transport and Infrastructure Ministers in 2012. The NASF recognises that responsibility for land use planning rests with State, Territory and local governments, but that a national approach can assist in improving planning outcomes on and near airports and flight paths.

The framework aims to:

- improve safety outcomes by ensuring aviation safety requirements are recognised in land use planning decisions;
- improve community amenity by minimising noise sensitive developments near airports including through the use of additional noise metrics; and
- improve aircraft noise disclosure (public notification) mechanisms.

The NASF would be integral to safeguarding operations at the proposed airport into the future, as it expands in stages over the long term.

35.4.2. NSW Government

35.4.2.1. Legislation

The NSW planning legislative framework consists primarily of the *Environmental Planning and Assessment Act 1979* (the EP&A Act) and the Environmental Planning and Assessment Regulation 2000. Within this structure are the following three key instruments:

- State environmental planning policies (SEPPs) – these policies outline the NSW Government’s approach to dealing with more specific planning issues. They can be either site or issue specific, and may control land zoning and development controls, or ensure the establishment of a development process;
- local environmental plans (LEPs) – each LGA has a LEP to guide development and protect natural resources within LGAs. LEPs are prepared by local councils; and
- local planning directions – issued by the Minister for Planning under section 117 of the EP&A Act, these provide direction on matters which planning proposals need to address.

Relevant provisions would need to be maintained and revised in applicable NSW environmental planning instruments for development surrounding the proposed airport, to continue to safeguard airport operations, and protect the safety and amenity of surrounding residents and employees.

35.4.2.2. Strategic documents

South West Priority Growth Area

The South West Priority Growth Area is located directly to the south-east and east of the airport site, with Badgerys Creek as the border. The area is about 17,000 hectares in size and incorporates land in Liverpool, Camden and Campbelltown LGAs. The South West Priority Growth Area will provide 110,000 new dwellings and capacity for at least 22,000 jobs over the long term. The proposed extension of the South West Rail Link from Leppington to the proposed airport and further north to the Western Line would also pass through the South West Priority Growth Area. The area directly south and south-east of the airport site is identified in the South West Priority Growth Area Structure Plan as future industrial and employment lands.

Western Sydney Employment Area

The NSW Government established the Western Sydney Employment Area (WSEA) to provide businesses in Western Sydney with land for industry and employment generating uses, including transport and logistics, warehousing and commercial office space. In January 2015, the WSEA SEPP was amended to extend the boundaries to include land next to the airport site (known as the Western Sydney Employment Area Extension). The Western Sydney Employment Area amendment allows for even closer links between employment generating land uses and the proposed airport. The amendment identifies a further 4,573 hectares of land for future employment uses. The Western Sydney Employment Area is expected to accommodate more than 36,000 industrial jobs and 21,000 office jobs over the next 30 years.

35.5. Assessment of impacts during operation

Having regard to the existing environment, strategic planning at the local and regional scale, and the scope of the proposal, the following likely impacts on land use and planning from the proposed airport have been identified.

35.5.1. Land use impacts

35.5.1.1. Rural residential and agricultural lands

As the proposed airport continues to develop in incremental stages beyond 2030, (following the implementation of strategic planning for the South West Priority Growth Area and the Western Sydney Employment Area) much of the existing rural residential and agricultural lands that surround the airport site are likely to have transitioned to alternative land uses. Given the likely absence of rural residential land use by the time the long term airport would be in operation, impacts on rural residential land from either the construction or operation of the indicative long term development would likely be minimal.

35.5.1.2. Employment lands

The continued expansion of the proposed airport development following the Stage 1 development would continue to support the development of the adjacent South West Priority Growth Area employment lands. The proposed airport would be a mutually beneficial land use, creating demand for employment generating activities and providing transport infrastructure required for freight and logistics.

The draft Land Use Plan (part of the draft Airport Plan) identifies land use zones for retail and commercial development within the airport site. While specific businesses activities are yet to be confirmed, the impacts of these proposals on the proposed airport and surrounding lands would be considered in accordance with the provisions of the Airports Act.

35.5.1.3. Recreational lands

On the basis of the indicative aircraft flight paths outlined in this report, visual and noise impacts would result at the following recreational reserves:

- to the north – Twin Creeks Country Club, Ropes Creek Reserve (Erskine Park), Eastern Creek Raceway, Sydney International Equestrian Centre (Horsley Park), Western Sydney Parklands (Horsley Park), and Calmsley Hill City Farm (Abbotsbury); and
- to the south – Sales Park (Luddenham), Bent Basin State Conservation Area (Greendale), and Burragorang Recreation Area (Silverdale).

Actual impacts sustained as a result of the future airport would depend on the final flight paths developed prior to Stage 1 operation by Airservices Australia.

Long term noise modelling (see Chapter 31) identifies potential noise impacts on these locations. While long term operations may have impacts on the amenity of these sites, impacts on recreational lands are not currently addressed under AS2021.

Impacts on the Greater Blue Mountains World Heritage Area are assessed in Chapter 40.

35.5.2. Airport operations

35.5.2.1. Airspace development controls

During the development of Stage 1, Obstacle Limitation Surfaces (OLS) and the Procedures for Air Navigation Systems Operations Surface (PANS-OPS) would be identified for the proposed airport as part of ongoing operations planning.

For long term operations, it is anticipated that the Department of Infrastructure and Regional Development would liaise with NSW Department of Planning and Environment and relevant local councils to adopt the necessary additional OLS and PANS-OPS guidelines in applicable environmental planning instruments. This would ensure future development does not impede safe aircraft operations for the expanded airport operations.

35.5.2.2. Aircraft noise

Over the long term development of the airport, land use changes resulting from the South West Priority Growth Area and Western Sydney Employment Area would have largely provided a buffer to sensitive land uses.

Aircraft noise impacts are measured using the ANEF measure. Table 35–1 identifies the recommended development types within ANEF zones, as outlined in the AS2021. The noise technical report prepared for the draft EIS (see Appendix E1) provides Australian Noise Exposure Concept (ANEC) contour maps which use indicative data on aircraft types, aircraft operations and flight paths to forecast the aircraft noise levels that would be expected as a result of the proposed airport operations. Final ANEF contours will not be produced until subsequent regulatory processes have been undertaken, including the preparation of a plan for aviation airspace management that would detail final airspace management arrangements.

Table 35–1 – Building site acceptability based on ANEF zone (AS 2021)

Building type	ANEF zone		
	Acceptable	Conditionally acceptable	Unacceptable
House, home unit, flat, caravan park	Less than 20 ANEF	20 to 25 ANEF	Greater than 25 ANEF
Hotel, motel, hostel	Less than 25 ANEF	25 to 35 ANEF	Greater than 35 ANEF
School, university	Less than 20 ANEF	20 to 25 ANEF	Greater than 25 ANEF
Hospital, nursing home	Less than 20 ANEF	20 to 25 ANEF	Greater than 25 ANEF
Public building	Less than 20 ANEF	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		

A number of areas surrounding the airport site are expected to be affected by noise generated by aircraft overflights and operations of the proposed airport, as identified in Chapter 31. The NSW Department of Planning and Environment and relevant local councils would be consulted to ensure applicable environmental planning instruments are amended to include a revised ANEF forecast and supporting AS2021 compliant building siting and development controls.

The implementation of *Guideline A: Measures for Managing Impacts of Aircraft Noise* under the NASF would be instrumental in managing potential future operational noise impacts for future land use planning and development around the proposed airport.

35.5.2.3. Lighting

The proposed runway orientation limits the possible areas that would be affected by approach lighting and runway lighting. The location of buildings between the two runways also provides a buffer for the potential impact of the airport lighting on surrounding sensitive land uses. Light emitting diode apron lighting and directional external lighting would minimise potential impacts on surrounding land. The proposed airport lighting would likely have minimal impact on the surrounding land uses. See Chapter 38 for further details relating to the assessment of light spill and sky glow.

35.5.2.4. Air quality

Modified land use zoning for employment generation and other less sensitive land uses would likely result in a reduction of local air quality impacts on sensitive receivers in the vicinity of the airport site. The regional impacts on air quality from the proposed airport would be a cumulative effect of aircraft operations, road traffic, industrial emissions and other regional sources.

An air quality assessment was prepared for the EIS to forecast the air quality impacts on the surrounding areas. Potential impacts from the proposed airport include a slight degradation in local and regional air quality, impacts on human health and impacts on the environment (refer to Chapters 32 and 39).

35.5.2.5. Traffic and transport

As outlined in Chapter 33, changes to the road network on, and in the vicinity of the airport site would be required to cater for the continued expansion of operations at the proposed airport beyond Stage 1. This includes closure of Badgerys Creek Road (onsite) and all pre-existing onsite roads as required.

The Northern Road would already be realigned before the start of Stage 1 operations, outside the western boundary of the airport site. The M12 would also be constructed by the commencement of Stage 1 operations to link The Northern Road and the M7 (Westlink) Motorway while providing a direct route and access to the airport.

The proposed South West Rail Link Extension, which would include a new railway station for the airport site, is anticipated to be constructed to cater for the long term airport development.

35.5.3. Additional land acquisition

While a fuel pipeline may service the proposed airport in the future, it is important to note that a fuel pipeline corridor has not yet been identified. A route for a fuel pipeline will be determined by the entity or organisation responsible for providing fuel to the airport. Arrangements for access to the fuel pipeline, which may involve an easement, would be required along the pipeline corridor alignment to ensure maintenance access and as a public safety measure. This may include planning controls restricting development on, and adjacent to, the pipeline.

35.6. Considerations for future development stages

Having regard to the planning and land use impact assessment, Table 35–2 summarises the considerations identified to address planning and land use issues for the long term development of the airport site.

Table 35–2 – Considerations for future development stages

Issue	Recommended considerations	Comment
Operational airspace	Liaise with Airservices Australia, the Department of Planning and Environment and relevant local councils to implement appropriate OLS and PANS-OPS requirements in applicable environmental planning instruments to reflect prescribed airspace under the Airports (Protection of Airspace) Regulations 1996.	This would ensure OLS and PANS-OPS requirements are implemented in applicable environmental planning instruments.
Noise	Liaise with the Department of Planning and Environment and relevant local councils to implement appropriate noise management controls in applicable environmental planning instruments with reference to AS 2021 and <i>Guideline A: Measures for Managing Impacts of Aircraft Noise under the National Airports Safeguarding Framework</i> .	As the airport continues to expand with long term operations, applicable environmental planning instruments may need to be amended to reflect the revised ANEF for Liverpool, Penrith, Wollondilly, Camden, Blacktown and Fairfield LGAs.

35.7. Summary of findings

Construction and operation of the proposed airport would change the rural character of Badgerys Creek and surrounding land uses. This land use outcome has been anticipated in government strategic planning for the area over several decades.

The proposed airport would be a key driver for employment generating development in Western Sydney, creating jobs for the new residents of the South West Priority Growth Area.