State Planning Policy – state interest guidance material

Strategic airports and aviation facilities

July 2017

Queensland Government

The State of Queensland, July 2017. First published by the Department of Infrastructure, Local Government and Planning, 1 William Street, Brisbane Qld 4000, Australia.

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Using the SPP state interest guidance material

The Queensland Government established the State Planning Policy (SPP) to define the matters of state interest in land-use planning and development. State interests in the SPP consist of a state interest statement, state interest policies and, where applicable, assessment benchmarks.

This guidance material has been prepared to support the implementation of the SPP and the interpretation of the *Strategic airports and aviation facilities* state interest. Although the SPP broadly applies to a range of activities undertaken by state and local governments, the guidance material is particularly focused on assisting local governments when making or amending a local planning instrument and when applying the assessment benchmarks (to the extent relevant).

The SPP does not prioritise one state interest over another, providing flexibility for decision-makers to respond to specific regional and local circumstances. This allows for the state interests to be considered in their entirety rather than as individual or separate priorities. State interests are to be considered in the context of the guiding principles in the SPP which promote an *outcome focused*, *integrated*, *efficient*, *positive* and *accountable* planning system.

The SPP guidance material is intended to be read in conjunction with the SPP and the relevant state interest. The SPP guidance material is not statutory in its effect and does not contain any new policy. It is not mandatory for local governments to use the guidance material but it is provided to assist with the interpretation and application of the state interest policies and the assessment benchmarks contained in the SPP.

The SPP guidance material is structured as follows:

Part 1: Understanding the state interest – This section briefly explains why a particular matter is a matter of state interest, describes the purpose of the relevant state interest statement and defines the core concepts associated with the state interest.

Part 2: Integrating the state interest policies – This section provides background and further explanation for each of the state interest policies defined in the SPP. It also provides examples and options regarding how to appropriately integrate each state interest policy into a local planning instrument.

Part 3: Mapping – This section identifies and explains the mapping layers contained in the SPP Interactive Mapping System (IMS) relevant to a particular state interest. It also clarifies how a local government can locally refine state mapping in certain instances and outlines where online mapping for the state interest can be accessed (if relevant).

Part 4: Applying assessment benchmarks – In accordance with the Planning Regulation, an assessment manager or referral agency must have regard to the SPP when assessing a development application. For some state interests, there are also specific assessment benchmarks that must be used by a local government for development assessment. This section outlines the development applications to which the assessment benchmarks apply and how a development application may demonstrate compliance with these benchmarks, to the extent that these are relevant. The assessment benchmarks contained in the SPP will apply to assessable development in addition to any assessment benchmarks contained in a local planning instrument, to the extent of any inconsistency.

Part 5: Example planning scheme provisions – This section provides example planning scheme provisions that a local government may choose to adopt, or to adapt, for its local planning instrument. It is important to note that the example planning scheme provisions provided may only be in relation to a particular aspect of a state interest, rather than addressing all of the particular state interest policy requirements.

Part 6: Supporting information – This section provides a list of technical resources that a local government may wish to consider when preparing for making or amending a planning scheme. This section also provides a glossary of terms and acronyms used throughout the SPP guidance material.

Where text in this guidance material is in a coloured text box, it is an excerpt from the SPP and is either the state interest statement, state interest policy or the assessment benchmarks applicable to the *Strategic airports and aviation facilities* state interest.

Any queries related to the SPP guidance material or the SPP should be sent to SPP@dilgp.qld.gov.au.

Part 1: Understanding the state interest

State interest statement

The operation of strategic airports and aviation facilities is protected, and the growth and development of Queensland's aviation industry is supported.

Strategic airports and aviation facilities play a key role in facilitating economic growth in Queensland. All sectors of the Queensland economy, including tourism, trade, logistics, and business rely on the efficient movement of people and freight through strategic airports. The continued growth and development of Queensland's aviation industry depends on access to strategic airports. Strategic airports are also a vital part of Queensland's passenger transport infrastructure network, ensuring communities can access employment and recreation opportunities, and vital services such as health and welfare.

Military airfields are integral to the national defence system and support emergency service activities and make significant contributions to surrounding regional economies.

The Australian and Queensland governments have a direct role in protecting the safety and efficiency of existing and future aircraft operations at strategic airports and aviation facilities, to sustain economic growth in Queensland.

Core concepts

Aviation facilities
Aviation facilities are those shown in Appendix 1 and listed at Appendix 2.

Strategic airports
Strategic airports are those shown at Appendix 3 and identified in the SPP, Table 2: Strategic airports. Appendix 4 lists the criteria which airports must meet to be considered a 'strategic airport'.

Appendix 1 of this guidance material shows the general location of aviation facilities, while Appendix 2 states the specific locations and types of these facilities. Appendix 3 shows the indicative location of strategic airports.

There are four categories of strategic airports:
1. leased federal
2. defence airfields
3. joint-user
4. regional (either owned by a local authority or private entity or leased from the state).

The process for an airport being listed as a strategic airport under the SPP is outlined in Appendix 4.

Operational airspace
Operational airspace is a volume of airspace that must be kept clear of obstructions to enable safe and efficient take-off, landing and maneuvering of aircraft (see Figure 1 and Figure 2). For more information on operational airspace, refer to Appendix 5.

The SPP Integrated Mapping System (IMS) uses the following mapping layers to define operational airspace and ensure it is protected:

Obstacle limitation surface (OLS) – defines the lowest extent of operational airspace for leased federal and regional airports (see Figure 1).

Height restriction zones – are applied to defence airfields and joint-user airfields, and may limit the height of new structures or additions to existing structures (see Figure 2).

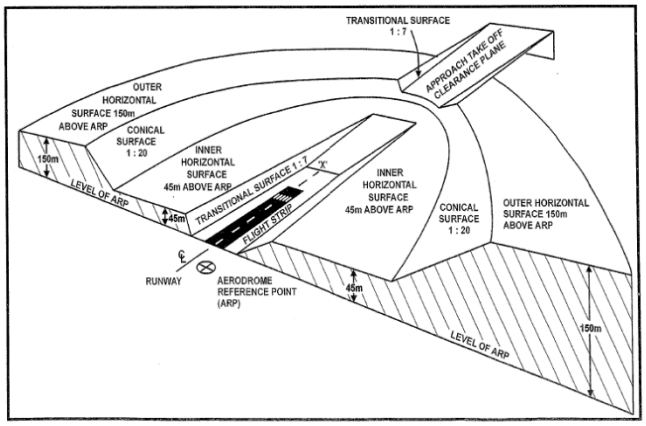


Figure 1: Isometric view of operational airspace
(Source: National Airports Safeguarding Framework Guidelines)

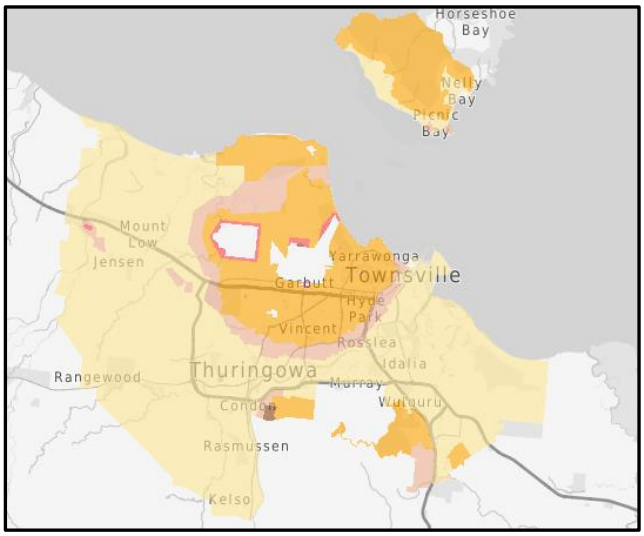


Figure 2: Height restriction zones around Townsville Airport / RAAF Base Townsville
(Source: SPP Integrated Mapping System (07/02/2017)

For more information on OLS and Height restriction zones, refer to Appendix 6.

PANS-OPS

The Procedures for Air Navigation Services – Operations (PANS-OPS) is a different component of operational airspace and is *generally* located higher than the OLS. The PANS-OPS is designed to allow take-off, landing and approach procedures based entirely on navigation using aircraft instruments. The PANS-OPS is not currently displayed in the SPP IMS due to the complexity and changing nature of the surface. However, a development proposing to intrude into operational airspace will trigger assessment by an airport operator and the Australian Government who will consider the impacts on both the OLS and PANS-OPS.

Australian Government role

Part 12 of the *Airports Act 1996* and the Airports (Protection of Airspace) Regulations 1996 establishes mechanisms for the declaration of 'prescribed airspace' at and around leased federal airports.

The Civil Aviation Safety Authority (CASA) sets the standards which determine the OLS and PANS-OPS surface for strategic airports. An airport operator is responsible for determining the OLS and PANS-OPS surface applicable to the airport. Height Restriction Zones for Queensland's defence airfields are depicted by maps in the schedules of the Defence (Areas Control) Regulations. Under Part 139 of the Civil Aviation Safety Regulations, CASA must be notified of any object extending to a height of 110 metres or more above ground level (even if the obstacle to located outside of OLS airspace). Any object extending to a height of 150 metres or more above ground level is considered to be an obstacle unless assessed by CASA to be otherwise.

Public safety areas

A public safety area (PSA) is a defined area at the end of a strategic airport's runway where there is potentially an increased risk of an aircraft incident occurring. A PSA is 1000 metres long, 350 metres wide closest to the runway end, tapering to a width of 250 metres furthest from the runway (see Figure 3).

Circumstances in which a PSA would be required for a strategic airport are set out in Appendix 7.

Note: Applies to each runway end.

Figure 3: Dimensions and application of a PSA

The Australian Noise Exposure Forecast (ANEF) system

The ANEF system uses contours to show the amount of total noise energy received by locations on the ground near an airport on an annual average day. ANEF contours are based on average daily sound pressure levels which are measured in decibels (dB). The ANEF charts displayed on the SPP IMS show noise exposure contours for 20, 25, 30, 35 and 40 or greater ANEF.

Aviation facilities

An aviation facility is a communication, navigation or surveillance facility that allows:

- pilots to navigate while en-route between airports

- pilots to utilise navigation aids to conduct instrument approach procedures
- dialogue between pilots and air traffic control
- air traffic control to monitor and confirm an aircraft location.

The SPP supports the protection of aviation facilities and their associated systems and processes that safely manage the flow of aircraft into, out of and across Australian unified airspace. Aviation facilities are crucial to the safety and operations of aircraft across Australia. Airservices Australia and Department of Defence (DoD) rely on them to ensure the safety of civilian and military aircraft operations, thereby maximising aircraft flying safely in our skies.

The general location of aviation facilities is shown at Appendix 1. Appendix 2 provides specific locational information, and lists the types of aviation facilities protected under the SPP. Radio links and radar monitors sites are not protected under the SPP.

The aviation facilities listed in Appendix 2 are:

- directly associated with the operations of a strategic airport listed in SPP Table A and operated by the airport owner; or
- a system-wide (or en-route) aviation facility operated by Airservices Australia, DoD or another agency under contract with the Australian Government.

What is a *building restricted area* (BRA) of an aviation facility?
A BRA is the airspace surrounding an aviation facility that needs to be clear from physical intrusions including plume rises, competing radio transmissions and significant electrical/electromagnetic emissions (for example, arc welding) and reflective surfaces that could interfere with transmissions needed for the airport to function effectively. The purpose of a building restricted area is to trigger the assessment of potential impacts on aviation facilities from proposed development and its associated activities.

The extent of the BRA depends on the type of aviation facility, but it can extend to 15 kilometres. A BRA is divided into different zones within which different types of development and activities are considered compatible. BRAs, constraints and referrals required for each type of aviation facility are described in detail in the National Airports Safeguarding Framework Principles and Guidelines – Guideline G, Attachment 3 https://infrastructure.gov.au/aviation/environmental/airport_safeguarding/nasf/nasf_principles_guidelines.aspx.

The roles and relationships between airport operators and different levels of government are explained at Appendix 9, and summarised by Figure 4.

Federal Government

- Implements international standards and recommendations.
- Responsible for civil and defence aviation legislation, regulation, policy and standards associated with aviation surveillance and security and air safety investigation.
- Regulates Australian-administered airspace.
- Provides, operates and maintains Australia's network of aviation facilities.
- Endorses ANEF contours for airports.
- Issues approvals for intrusions into operational airspace around leased federal airports and military and joint-user airfields.
- Provides advice to local governments regarding development impacts on operational airspace.
- Assesses referred development applications.
- Provides pre-lodgement advice to development proponents.
- Provides DoD mapping to state government.

State government

- Develops planning policy to be integrated in local planning instruments.
- Coordinates SPP IMS mapping to be integrated in local planning instruments.
- Reviews new and amended local planning instruments from local governments.
- Assesses potential strategic airports.
- Establishes and maintains deeds of agreement with airport operators for data supply and use to support SPP implementation.
- Reviews and provides feedback on leased federal airport master plans.

Local government

- Prepares local planning instruments, in accordance with SPP.
- Assesses development applications, incorporating advice from airport operators and the federal government.
- Notifies airport operators and DoD of relevant development proposals.

Airport operator

- Publishes five-yearly master plans (leased federal only).
- Preliminary assessment of development applications.
- Refers development applications to federal government as necessary.
- Provides advice to local government.
- Prepares and provides ANEF charts to federal government.
- Provides operational airspace and ANEF mapping to state government.

Figure 4: Airport planning – overview of key agency relationships and roles

Part 2: Integrating the state interest policies

When making or amending a local planning instrument, each local government is required to consider all state interests in the SPP and appropriately integrate those state interests applicable to their local area.

Appropriately integrating a state interest requires all state interest policies to be considered by a local government, but it does not necessarily mean a local government must address each and every state interest policy when making or amending a local planning instrument. For example, if a local government needs to balance competing state interests in a local planning instrument, it may mean not be possible to address all policies.

This balancing of state interests may mean that the planning scheme preferences one state interest policy over another. This outcome will be considered as part of the state interest review. Ministerial approval means the approach taken by the local government in balancing the state interest polices is endorsed by the state.

This section provides examples for how to appropriately integrate each state interest policy for the *Strategic airports and aviation facilities* state interest.

State interest policy (1)

Strategic airports and aviation facilities are identified, including the associated Australian Noise Exposure Forecast (ANEF) contours, obstacle limitation surfaces or height restriction zones, public safety areas, lighting area buffers, light restriction zones, wildlife hazard buffer zones, and building restricted areas.

Local planning schemes should ensure that the locations of strategic airports and aviation facilities are appropriately identified in the planning scheme. The SPP IMS includes mapping layers depicting constraints associated with strategic airports and aviation facilities.

Local governments should avoid using Australian Noise Exposure Concept (ANEC) contour and alternative aircraft noise metrics (such as N70s) to assess aircraft noise impacts on development applications.

How to appropriately integrate the policy

1.1 Include the following overlays to protect strategic airports and aviation facilities:

- operational airspace
  - OLS and OLS contour (for leased federal and regional strategic airports); or
  - height restriction zones (for defence airfields and joint-user airfields)
- light restriction zone (lighting intensity zones A–D)
- lighting area buffer (6km)
- wildlife hazard buffer zone (3, 8 and 13km)
- airport public safety areas
- ANEF contours (20-25, 25-30, 30-35, 35-40, 40 or greater)
- building restricted areas (BRAs) for aviation facilities (except glide path and localiser facilities – see 1.2 below).

Available information will vary depending on the airport or aviation facility. For information on the mapping layers applicable to each strategic airport refer to Appendix 9.

1.2 Source mapping data directly from the Department of Transport and Main Roads (DTMR). See Appendix 8.

State interest policy (2)

The safety, efficiency and operational integrity of strategic airports are protected. Development and associated activities:

(a) do not create incompatible intrusions, or compromise aircraft safety, in operational airspace

What constitutes an intrusion into operational airspace?

Intrusions into operational airspace may create a safety hazard for aircraft and can limit aviation operations into and out of an airport. A single intrusion, or the cumulative impact of multiple intrusions, may seriously affect efficient runway utilisation, cause airspace congestion and reduce the effective handling capacity of an airport.

The safety and efficiency of operational airspace can be compromised not only by buildings and structures, but also by 'outputs' (such as smoke, plumes and lighting) and congregations of wildlife, particularly birds or bats (refer Appendix 10).

Intrusions by physical or transient obstructions

Potential physical or transient intrusions into operational airspace include:

- buildings and structures
- landscaping that at maturity will intrude into operational airspace
- works and advertising devices (where operational airspace is in proximity to ground level).

Intrusions by activities associated with development

Activities which may be associated with development that have the potential to intrude into operational airspace include:

- the operation of cranes, concrete pumpers or other equipment used during construction
- transient activities, such as parachuting, hot air ballooning, hang-gliding, operation of remotely piloted aircraft (RPA) (for example, drones) and shooting on firearm ranges (for example, shooting bullets, ordnance or lasers).

The operation of RPA in operational airspace can adversely impact on the safety and efficiency of aircraft operations. CASA regulates the operation of RPAs under the Civil Aviation Safety Regulations available.

Intrusions by external lighting and reflections

Pilots often rely on runway lights and approach lights to safely approach and land aircraft.

Lighting and reflective surfaces associated with, and emanating from, development within a light restriction zone or lighting area buffer can have adverse effects on aircraft if it is configured in such a way as to:

- confuse pilots because of similarities with approach or runway lighting
- distract or interfere with a pilot's vision, e.g. because of brightness or glare.

Intrusions by wildlife

All wildlife within the wildlife hazard zone should be regarded as a potential hazard to aircraft safety.

Most wildlife strikes occur on and in the vicinity of airports, where aircraft fly at lower elevations. The risk of a wildlife strike by an aircraft is relative to the level and form of wildlife activity within the airport's boundary and surrounds. Certain land uses can attract wildlife which then migrates onto an airport or across flight paths within operational airspace, increasing the risk of strikes.

Intrusions by emissions and particulates

Gaseous plumes

Development incorporating stacks or vents that can emit high velocity gaseous plumes exceeding 4.3m per second have the potential to adversely impact aircraft operations.

Exhaust plumes can originate from several sources including:

- stacks or vents from industrial facilities
- industrial flares creating an instantaneous release of hot gases
- cooling towers producing large volumes of buoyant gases
- exhaust gases from power generation facilities.

Airborne particulates

Development or associated activities (such as extractive industries) with the potential to emit steam, dust, smoke, ash and other airborne particles or pollutants into operational airspace may affect aircraft safety by reducing pilot or air traffic control visibility, or impacting engine operation.

How to appropriately integrate the policy

2(a)1 When allocating land uses in areas where development has the potential to impact on operational airspace, consider giving preference to uses that are unlikely to adversely affect operational airspace and aircraft safety. Adverse impacts on operational airspace can arise from land uses, development and associated activities listed in Appendix 10 and Appendix 11.

Land in the vicinity (indicated by OLS and wildlife hazard buffer zone mapping) of a strategic airport should only be allocated for a use listed in these tables where the local government can demonstrate that the use is, or could be, compatible and will not result in adverse impacts on operational airspace or aircraft safety.

2(a)2 Seek advice from airport operators when undertaking land use planning in the vicinity of a strategic airport.

2(a)3 Consider code provisions that do not allow permanent or temporary physical or transient intrusions into operational airspace, unless approved under relevant federal legislation. Code provisions should include an editor's note, or similar, which references the requirement to refer a development application to the airport operator or DoD, if it proposes to intrude into the operational airspace of a leased federal airport, defence airfield or joint-user airfield (Refer to Appendix 12 for further detail on this requirement and process). The SPP model code provides editor's notes to assist proponents with the Australian Government assessment process.

State interest policy (2)

The safety, efficiency and operational integrity of strategic airports are protected. Development and associated activities:

(b) avoid increasing risk to public safety in a public safety area

PSAs define the area in which development should be restricted to protect the safety of aircraft passengers, property and people on the ground in the event of an aircraft incident during landing or take-off. As such, planning schemes should avoid increasing risk to public safety in a PSA.

How to appropriately integrate the policy

2(b)1 Consider planning scheme provides that provide certainty about land uses permissible in a PSA. This can be achieved by ensuring any zoning is for compatible land uses and including planning provisions which do not allow, or intensify, incompatible development and uses in a PSA. Examples of compatible and incompatible land uses within a PSA are listed in Appendix 13.

State interest policy (2)

The safety, efficiency and operational integrity of strategic airports are protected. Development and associated activities:

(c) are compatible with forecast levels of aircraft noise within the 20 ANEF contour or greater [as defined by Australian Standard 2021–2015: Acoustics—Aircraft noise intrusion—Building siting and construction (AS 2021), adopted 12 February 2015] and mitigate adverse impacts of aircraft noise.

ANEF contours indicate areas around an airport which are exposed to aircraft noise of certain levels; the higher the ANEF value, the greater the noise exposure. To mitigate reverse amenity issues and assist ongoing viability of strategic airports, it is important to identify areas affected by aircraft noise and prioritise suitable land uses in these locations.

It should be recognised that the effects of aircraft noise are not confined to areas defined as being within the 20 ANEF contour or greater. A site outside the 20 ANEF contour, may experience aircraft noise, but noise from sources other than aircraft may generally be more dominant.

How to appropriately integrate the policy

2(c)1 When allocating land uses in areas affected by significant levels of aircraft noise within the ANEF 20 or greater contour, consider giving preference to those land uses that are compatible with forecast levels of aircraft noise. Land should only be allocated for a use listed in Appendix 14 if it is compatible, or compatible subject to conditions.

2(c)2 Consider using both ANEF contours and alternative noise contours (e.g. N-contour and Australian Noise Exposure Concept mapping) to inform strategic decisions.

Alternative noise contours generally provide a good indication of the frequency and loudness of aircraft noise events. They are complementary tools to inform strategic land use planning. Notwithstanding, these maps should not be used as a development assessment tool, as they may not have been subject to the same level of scruitiny from relevant authorities as ANEF contours.

For further information refer to the National Airports Safeguarding Framework, Guideline A: Attachment 1 Alternative Aircraft Noise.

2(c)3 Measures for airports without an ANEF:

An ANEF chart may not be available for airports with low frequencies of scheduled regional passenger transport flights. In such cases, land-use planning and development assessment for noise-sensitive development should use Appendix E of Australian Standard AS 2021–2015: Acoustics – Aircraft noise intrusion – Building siting and construction (AS 2021).For planning purposes, a 5km zone of influence should be taken into account, depending on the amount of traffic at the airport for which an ANEF chart is unavailable.

2(c)4 Consider provisions consistent with appendix 14, 15 and 16.

State interest policy (3)

Development complements the role of a strategic airport as an economic, freight and logistics hub, and enhances the economic opportunities that are available in proximity to a strategic airport.

Stategic airports play a key role in facilitating economic growth in sectors of the Queensland economy such as; tourism, trade, logistics and business. Local governments can capitalise on the economic opportunities provided by strategic airports by ensuring that complementary land uses are planned surrounding strategic airports.

How to appropriately integrate the policy

3.1 Consider strategic framework and land-use strategies that support development in proximity to strategic airports that complement the aviation industry.

3.2 Consider (through zoning, for instance) complementary land uses surrounding a strategic airport such as:

(a) aviation industry activities
(b) compatible development that depends on or gains economic advantage from being in proximity to a strategic airport. For example, an air charter business, service station or car parking facility
(c) compatible development that supports the role of the strategic airport as a critical freight and logistics hub, e.g. an air freight depot, or logistics or distribution centre.

3.3 Ensure that land surrounding a strategic airport is not allocated for non-complementary land uses (see appendices 10, 11, 13 and 14).

State interest policy (4)

Aviation facilities are protected by avoiding development and associated activities within building restricted areas that may affect the functioning of the aviation facilities.

The ability for aircraft to operate safely and effectively can be compromised by development and associated activities that intrude into the BRA of an aviation facility. As such, planning schemes should integrate measures to avoid these intrusions.

How to appropriately integrate the policy

4.1 Through the strategic framework, land-use strategies, tables of assessment and code provisions, protect the function of aviation facilities from the adverse impacts of development and associated activities.

4.2 Consider land-use strategies that ensure potential development and associated activities will not create an intrusion into a BRA or interfere with the function of an aviation facility. To function effectively, a BRA needs to be clear of permanent or temporary:

- physical intrusions into the 'line of sight' between transmitting and receiving devices
- radio frequency interference
- electromagnetic emissions that will interfere with signals transmitted by the facility (e.g. arc welding)
- reflective surfaces that could deflect or interfere with signals transmitted by the facility
- plume rises.

4.3 Seek guidance from Airservices Australia and the National Airports Safeguarding Framework (NASF) Guideline G, Attachment 3, to inform BRA specifications for each aviation facility. This is particularly important for glide path and localiser facilities which are not mapped in the SPP IMS.

State interest policy (5)

Key transport corridors (passenger and freight) linking strategic airports to the broader transport network are identified and protected.

Strategic airports need to be linked to the broader transport network for their operations to be viable. Without roads and railways the airport would not be able to be supplied with the passengers, freight, goods and services required to operate.

How to appropriately integrate the policy

5.1 Identify key linkages and consider strategies to protect them (code provisions, for instance) from development which would compromise the function of the transport route.

Part 3: Mapping

To support the SPP, wherever possible and to the extent relevant, matters of state interest are spatially represented as layers included in the SPP IMS. The mapping is necessary to help local government, the community and industry understand and interpret where and how state interest policies and assessment benchmarks included in the SPP apply.

Several mapping layers contained in the SPP IMS are prepared by entities other than the Department of Infrastructure, Local Government and Planning and may serve an additional purpose outside the Queensland planning system. Where relevant, the SPP IMS represents the single point of truth for the spatial representation of the state interests expressed in the SPP.

Appendix 1 of the SPP identifies three categories of mapping layers provided or referred to in the SPP IMS that are intended to be used in one of the following ways:

Category 1 – State mapping layers that must be appropriately integrated in a local planning instrument in a way that achieves the relevant state interest policy.

Category 2 – State mapping layers that must be appropriately integrated, and can be locally refined by a local government in a local planning instrument in a way that achieves the relevant state interest policy.

Category 3 – State mapping layers that are provided for local government information purposes only.

The SPP IMS is located at: https://planning.dilgp.qld.gov.au/maps. Any queries related to the SPP mapping should be sent to mappingenquiries@dilgp.qld.gov.au.

This section provides clarity regarding the mapping layers on the SPP IMS relevant to the *Straegic airports and aviation facilities* state interest.

Mapping layers

ANEF contour layers	
Purpose	The ANEF system is a measure of the aircraft noise exposure levels around airports.
Mapping category	Category 1
Data custodian	DTMR
Head of power	*Airports Act 1996* (leased federal and Joint-user only) *Airservices Act 1995* *Transport Planning and Coordination Act 1994* National Airports Safeguarding Framework (refer Appendix 18) Appendix 17 sets out the mapping layer change process.

Obstacle limitation surface layers	
Purpose	Obstacle limitation surface (OLS) – defines the lowest extent of operational airspace for leased federal and regional airports that must remain clear of any obstacles, activities or intrusions that could distract or interfere with the safe operation of an aircraft.
Mapping category	Category 1
Data custodian	DTMR

Head of power	Regional airports: *Airspace Act 2007* Airspace Regulations (2007) *Transport Planning and Coordination Act 1994* National Airports Safeguarding Framework Leased federal: *Airports Act 1996* Airports (Protection of Airspace) Regulations 1996 *Transport Planning and Coordination Act 1994* National Airports Safeguarding Framework (refer Appendix 18) Appendix 17 sets out the mapping layer change process.

Airport public safety area	
Purpose	PSAs define the area in which development should be restricted to protect the safety of both aircraft passengers, property and people on the ground in the event of an aircraft incident during landing or take-off.
Mapping category	Category 1
Data custodian	DTMR
Head of power	Applicable strategic airport runways: *Transport Planning and Coordination Act 1994* National Airports Safeguarding Framework (refer Appendix 18) Appendix 17 sets out the mapping layer change process.

Light restriction and buffer layers	
Purpose	The Light restriction zone and Lighting area buffer 6km define the area in which lighting and reflective surfaces associated with, and emanating from development should be limited.
Mapping category	Category 1
Data custodian	DTMR
Head of power	All strategic airports: *Civil Aviation Act 1998* *Transport Planning and Coordination Act 1994* Civil Aviation Regulation 94 National Airports Safeguarding Framework (refer Appendix 18) Appendix 17 sets out the mapping layer change process.

Wildlife hazard buffer zone	
Purpose	The Wildlife hazard buffer zone identifies the area in which development that may increase the likelihood of wildlife strikes should be limited.
Mapping category	Category 1
Data custodian	DTMR
Head of power	All strategic airports: *Transport Planning and Coordination Act 1994* National Airports Safeguarding Framework (refer Appendix 18) Appendix 17 sets out the mapping layer change process.

Height restriction zone layers	
Purpose	Height restrictions zone layers may limit the height of new structures or additions to existing structures.

Mapping category	Category 1
Data custodian	DTMR
Head of power	Joint-user and defence airfields: *Defence Act 1903 (Cwlth)* Defence (Area Control) Regulations 1989 *Transport Planning and Coordination Act 1994* Appendix 17 sets out the mapping layer change process.

Aviation facility layers	
Purpose	Aviation facilities, and their associated building restricted areas, are identified in order to protect the facilities themselves and their associated systems and process, which in turn ensure the safety of civilian and military aircraft operations.
Mapping category	Category 1
Data Custodian	DTMR
Head of power	*Airspace Act 2007* (Declared prescribed aviation facilities) *Transport Planning and Coordination Act 1994* National Airports Safeguarding Framework (refer Appendix 18) Appendix 17 sets out the mapping layer change process.

Part 4: Applying assessment benchmarks

The SPP contains specific assessment benchmarks for the *Strategic airports and aviation facilities* state interest.

Under the Planning Regulation 2017 the assessment benchmarks apply if the *Strategic airports and aviation facilities* state interest has not been appropriately integrated in a planning scheme. If this is the case, a development application must be assessed against the assessment benchmarks to the extent of any inconsistency with the planning scheme and where the assessment manager considers these assessment benchmarks are relevant to the proposed development.

In addition, the assessment manager must have regard to the SPP (including the *Strategic airports and aviation facilities* state interest statement and policies), where the planning scheme has not appropriately integrated the state interest. The SPP applies as a matter to have regard to where the assessment manager considers these matters are relevant to the proposed development and only to the extent of any inconsistency with the planning scheme.

This section provides guidance for local government when determining how a development application may satisfy these assessment benchmarks.

Applicable development:

A development application for:
(1) a material change of use of premises that will result in a building, structure or associated activity intruding into the operational airspace of a strategic airport; or

(2) a material change of use of premises where any part of the premises is within the light restriction zone or lighting area buffer of a strategic airport; or

(3) a material change of use of premises where any part of the premises is within a wildlife hazard buffer zone of a strategic airport; or

(4) a material change of use of premises or reconfiguration of a lot where any part of the premises is within a public safety area of a strategic airport; or

(5) a material change of use of premises or reconfiguration of a lot where any part of the premises is within the 20 ANEF contour or greater for a strategic airport; or

(6) a material change of use of premises that will result in a building, structure or associated activity intruding into the building restricted area of an aviation facility; or

(7) building work not associated with a material change of use, that will result in a building, structure or associated activity intruding into the operational airspace of a strategic airport; or

(8) building work not associated with a material change of use where any part of the premises is within the light restriction zone or lighting area buffer of a strategic airport; or

(9) building work not associated with a material change of use that will result in a building, structure or associated activity intruding into the building restricted area of an aviation facility; or

(10) operational work not associated with a material change of use where the work or associated activity will intrude into the operational airspace of a strategic airport; or

(11) operational work not associated with a material change of use where any part of the premises is within the light restriction zone or lighting area buffer of a strategic airport; or

(12) operational work not associated with a material change of use where the work or associated activity will intrude into the building restricted area of an aviation facility.

Assessment benchmark (1)

Development and associated activities do not create a permanent or temporary physical or transient intrusion into a strategic airport's operational airspace, unless the intrusion is approved in accordance with the relevant federal legislation.

How a development application may demonstrate compliance with the assessment benchmark

The height of local topography needs to be taken into account when considering height restrictions for development in relation to operational airspace. Generally, the further a development is from a runway, the taller it can be without intruding into operational airspace (see Figure 5).

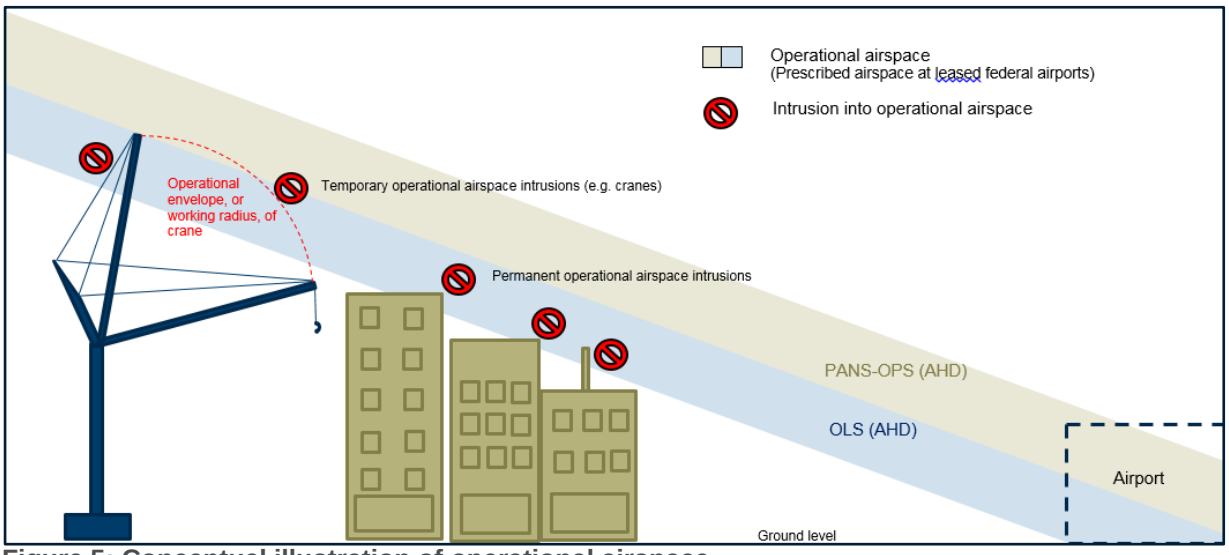


Figure 5: Conceptual illustration of operational airspace

Appropriate height restrictions for a proposed development need to be determined following advice from the relevant authority. Development applications which may intrude into operational airspace must be referred to:

- the airport operator for leased federal and regional airports, who will refer it to the Australian Government if required
- the DoD for defence of joint-user airfields (See Appendix 12 - Guidance on other statutory approvals required for assessment process).

Note that while the Procedures for Air Navigation Services—Aircraft Operational Surfaces (PANS-OPS) are not reflected in the SPP IMS, they will be considered as part of the airport operator's and Australian Government's assessment of an intrusion into operational airspace.

To assist with the assessment of the potential impacts of a proposed development on operational airspace, development applications should include:

- Elevation drawings – showing the maximum overall height of the structure above the Australian Height Datum (AHD). Maximum height calculations should include ancillary projections (e.g. antennae, satellite dishes, masts, signs, lift overruns etc.).

- Information about the height and type of associated activities, e.g. the use of cranes, concrete pumpers or other construction equipment.
- Information about any proposed planting of tree species – to determine if the mature height of the trees will intrude into operational airspace. This is especially important close to runway ends.
- Information about any proposed operations for uses or associated activities which may create an intrusion into operational airspace (e.g. shooting, parachuting, hot air ballooning or hang gliding) (see Appendix 10 and Appendix 11).

Height restrictions may be relaxed by an airport operator if the impacts of a proposed development are determined to be shielded by existing structures.

Further information about how to address risks to aviation safety posed by development can be found in Guideline F of the National Aviation Safeguarding Framework, Managing the risk of intrusions into the protected airspace of airports.

Construction activities infringing into operational and prescribed airspace

Construction activities, such as crane operations, in the vicinity of an airport have the potential to create air safety hazards and to adversely impact upon airport operations. Consideration needs to be given to crane operations in locations where a development is proposed in close proximity to the lower limit of operational airspace (for example, within 100 metres of the OLS for a tall building in a capital city centre or principal/major regional activity centre).

The matters to consider when designing development close to operational airspace are listed at Appendix 19.

Operational works in operational airspace

Operational work (e.g. filling and placing an advertising device on a premises) has the potential to intrude into operational airspace on land near an airport. These operational works need to be assessed if intruding into operational airspace.

Firearm ranges below operational airspace

If a new firearm range is proposed beneath a strategic airport's operational airspace, CASA, or if relevant, DoD, should be notified and the proposal discussed.

Further information about how to address risks to aviation safety posed by intrusions into the protected airspace of airports can be found in Appendix 20 (see Guideline F of the National Aviation Safeguarding Framework).

Wind turbines

Information about how to address risks to aviation safety posed by wind turbine farms can be found in Appendix 20 (see Guideline D of the National Aviation Safeguarding Framework).

Assessment benchmark (2)

Development and associated activities do not include light sources or reflective surfaces that could distract or confuse pilots within a light restriction zone or lighting area buffer.

How a development application may demonstrate compliance with the assessment benchmark

The SPP IMS shows four light restriction zones: A, B, C and D. These zones reflect the degree of interference ground lights can cause as a pilot approaches to land. Development located within a light restriction zone is not permitted to emit light that will exceed the maximum light intensity specified for the zone:

- Zone A – 0 candela
- Zone B – 50 candela
- Zone C – 150 candela
- Zone D – 450 candela.

Note: *Light intensity is measured from the light source at 3 degrees above its horizontal plane.*

Further information about how to address risks of distraction to pilots from lighting in the vicinity of airports can be found in Appendix 20 (see Guideline E of the National Aviation Safeguarding Framework).

A development proposal within the light restriction zone or lighting area buffer of a strategic airport involving installation of external lighting or reflective surfaces likely to affect aircraft operations must be referred to the airport operator for assessment. They will refer the proposal to the Australian Government if required. Lighting design matters should be addressed during the pre-lodgement stage.

Assessment benchmark (3)

Emissions do not significantly increase air turbulence, reduce visibility or compromise the operation of aircraft engines in a strategic airport's operational airspace.

How a development application may demonstrate compliance with the assessment benchmark

Development and associated activities may demonstrate compliance by ensuring plume rises do not exceed a velocity of 4.3 metres per second. Where plume rises exceed a velocity of 4.3 metres per seconds, proposals will require advice from CASA (where a leased federal or regional airport) or DoD (where a defence or joint-user airport), to demonstrate that visibility in operational airspace won't be impared. Applicants should refer their application to the airport operator, who will refer to CASA or DoD for assessment.

The Advisory Circular AC 139–5(1) provides guidance to proponents regarding the plume rise assessment process and the information required by CASA under Regulation 139.370 of the Civil Aviation Safety Regulations and Regulation 6 of the Airspace Regulations 2007.

Assessment benchmark (4)

Development and associated activities do not attract wildlife or increase wildlife hazards within a wildlife hazard buffer zone.

How a development application may demonstrate compliance with the assessment benchmark

Development should exclude wildlife attractants, such as; food garbage disposal, sewerage treatment and disposal, lakes, abattoirs and freezing works, fish processing plants and bird sanctuaries.

Where wildlife attractants are proposed, measures (developed in consultation with the airport operator and qualified bird and wildlife management experts) should be implemented.

Further information about how to address risks of wildlife strikes can be found in Appendix 20 (see Guideline C of the National Aviation Safeguarding Framework).

Note: Local government will refer any development proposal that may increase the risk of wildlife strike in a wildlife hazard zone to the relevant authority listed below for advice and/or assessment:

- leased federal or regional airport – the airport operator
- defence or joint-user airfield – DoD.

Assessment benchmark (5)

Development and associated activities within a building restricted area do not interfere with the function of aviation facilities.

How a development application may demonstrate compliance with the assessment benchmark

Development and associated activities located in a BRA should mitigate adverse impacts on aviation facilities. This may be demonstrated by written support from Airservices Australia.

Development intruding into a BRA may demonstrate its compatability with aviation facility function, if it is shielded by other obstacles. Airservices Australia can identify areas of obstacle shielding where buildings or other structures of an agreed height would not cause an obstruction in a building restricted area.

A proposed development or associated activity intruding into a BRA must be assessed as outlined in the National Airports Safeguarding Framework (NASF) Principles and Guidelines – Guideline G, Attachment 3. Referral to Airservices Australia or DoD may be required.

Airservices Australia or DoD will provide local government and proponents with technical advice about:

- the impact of a proposed development on the function of an aviation facility
- requirements for risk assessment processes
- mitigation measures.

It is recommended that advice be sought during the pre-lodgement stage of development assessment processes to avoid objections from Airservices Australia or DoD. The Airservices Australia assessment process is outlined in Appendix 12.

If a development adversely affects the functioning of an aviation facility, CASA (under the *Civil Aviation Act 1988*) has legislative powers to cause buildings and structures to be modified, an activity to cease, or other action to be taken as necessary to remove the interference.

Assessment benchmark (6)

Development does not increase the risk to public safety within a public safety area.

How a development application may demonstrate compliance with the assessment benchmark

Development involving a material change of use or reconfiguration of a lot in a PSA should avoid:

- increasing the number of people living, working or congregating in the PSA
- the manufacture, use or storage of flammable, explosive, hazardous or noxious materials.

Examples of the types of new or changed development considered compatible and incompatible within a PSA are outlined in Appendix 13: PSA – Generally compatible and incompatible uses.

Development applications in a PSA should consider:

- direct impacts to aircraft passengers and people on the ground in the case of an aircraft incident in a PSA
- indirect impacts arising from damage to ground facilities, e.g. storage facilities for explosive, flammable, hazardous or noxious materials.

Assessment benchmark (7)

Development within the 20 ANEF contour or greater is appropriately located and designed to prevent adverse impacts from aircraft noise.

How a development application may demonstrate compliance with the assessment benchmark

A material change of use should be consistent with compatible and incompatible land uses for particular ANEF contours as outlined in Appendix 14.

Assessable development identified in Appendix 15 should ensure associated building work incorporates noise attenuation measures that achieve the indoor design sound levels set out in Appendix 16. Noise attenuation measures should be determined by an appropriately qualified acoustic professional.

Guideline A of the National Aviation Safeguarding Framework, *Measures for managing impacts of aircraft noise* provides further information about how to address adverse aircraft noise impacts on development.

Part 5: Example planning scheme provisions

Example planning scheme provisions for the *Strategic airports and aviation facilities* state interest have been prepared. A local government may choose to adopt or otherwise adapt when making or amending a planning scheme.

The example planning scheme provisions should not be seen as the only way to appropriately reflect the *Strategic airports and aviation facilities* state interest. It is not intended that a local government would use these example provisions verbatim.

Where a local government seeks to adopt the example planning scheme provisions, variations will be required to reflect the local circumstances, opportunities and aspirations of each local government area.

Example code: Strategic airports and aviation facilities overlay code

Application of code

This code applies to the same development to which the assessment benchmarks apply.

Purpose

The purpose of the SPP model code: *Strategic airports and aviation facilities* is to protect the safety, efficiency and operational integrity of strategic airports and aviation facilities by ensuring development and associated activities:

- do not create incompatible intrusions, or compromise aircraft safety, in operational airspace
- do not adversely affect the functioning of aviation facilities
- avoid increasing risk to public safety in a public safety area
- are compatible with forecast levels of aircraft noise within the 20 ANEF contour or greater (as defined by Australian Standard 2021-2015: Acoustics – Aircraft noise intrusion – Building siting and construction (AS 2021) as adopted 12 February 2015).

The purpose of the code will be achieved if development complies with the performance outcomes.

Table 1: Assessment benchmarks for assessable development

Performance outcomes	Acceptable outcomes
Operational airspace	
Physical and transient obstructions	
PO1 Development and associated activities do not create a permanent or temporary physical or transient intrusion in a strategic airport's operational airspace, unless the intrusion is approved in accordance with the relevant federal legislation. **Note:** If a proposed development will intrude into the operational airspace of a strategic airport, it must be referred to the airport operator for assessment. Defence or joint-user airfields will require referral to the Department of Defence.	**AO1.1** Buildings and structures do not intrude into the airport's operational airspace. **AO1.2** Cranes and other equipment used during construction do not intrude into the airport's operational airspace. ***Note:*** *Compliance with AO1.2 can be demonstrated through a construction management plan.*

Refer to Appendix 12 - Guidance on other statutory approvals required and Appendix 8: Guidance on agency roles and contact information for more information regarding the Australian Government's role, contact information for airport operators and assessment processes for intrusions into operational airspace of strategic airports.	**AO1.3** Landscaping does not include vegetation that at maturity will intrude into the airport's operational airspace. **AO1.4** Development does not include transient activities such as parachuting, hot air ballooning and hang-gliding that could affect an airport's operational airspace.
Lighting and reflective surfaces	
PO2 Development does not include or emit light sources or reflective surfaces that could distract or confuse pilots. **Note:** A development proposal within the light restriction zone or lighting area buffer of a strategic airport involving installation of external lighting sources or reflective surfaces that are likely to affect aircraft operations must be referred to the airport operator for assessment. Defence or joint-user airfields will require referral to the Department of Defence (DoD). Lighting design matters should be addressed during pre-lodgement stage of the development assessment process to avoid Civil Aviation Safety Authority (CASA) or DoD directives to modify lighting after it has been installed. Refer to Appendix 12- Guidance on other statutory approvals required and Appendix 8: Guidance on agency roles and contact information for further information on the Australian Government's role, contact information for airport operators and assessment processes for external lighting or reflective surfaces that are likely to affect aircraft operations.	**AO2.1** Development located within the light restriction zone or lighting area buffer for the strategic airport does not include any of the following types of outdoor lighting: • straight parallel lines of lighting 500 m to 1000 metres long • flare plumes • upward shining lights • flashing lights • laser lights • sodium lights • reflective surfaces. **AO2.2** Development and associated activities in a light restriction zone do not emit a light source that will exceed the following light intensities: • Zone A – 0 candela • Zone B – 50 candela • Zone C – 150 candela • Zone D – 450 candela ***Note:*** *Light intensity is measured from the light source at 3 degrees above its horizontal plane.*
Emissions	
PO3 Emissions do not significantly increase air turbulence, reduce visibility or compromise the operation of aircraft engines in a strategic airport's operational airspace. **Note:** A development proposal involving high velocity gaseous plumes or the emission of airborne particulates that may impair visibility in operational airspace must be referred to the airport operator who will refer the proposal to the Civil Aviation Safety Authority (CASA) for assessment. Note that defence or joint-user airfields will require referral to the Department of Defence (DoD). It is recommended proponents seek CASA or DoD advice during pre-lodgement stage of the development assessment process. Refer to Appendix 12- Guidance on other statutory approvals required and Appendix 8: Guidance on agency roles and contact information for more information regarding the Australian Government's role, contact information for airport operators and assessment processes for intrusions into operational airspace.	**AO3.1** Development and associated activities do not emit smoke, dust, ash or steam into the airport's operational airspace; and **AO3.2** Development and associated activities do not emit a gaseous plume into the airport's operational airspace at a velocity exceeding 4.3 metres per second; or **AO3.3** Development and associated activities which emit smoke, dust, ash, steam or a gaseous plume exceeding 4.3 metres per second are designed and constructed to mitigate adverse impacts of emissions upon operational airspace.

Wildlife hazards	
PO4 Development and associated activities do not attract wildlife or increase wildlife hazards within the wildlife hazard buffer zone. **Note:** A development proposal in the vicinity of a strategic airport that may increase the risk of wildlife strike should be referred to the airport operator for assessment. Note that defence or joint-user airfields will require referral to the Department of Defence. Where local government seeks to approve land uses which may increase the risk of wildlife strike near airports, steps should be taken to mitigate risk in consultation with the airport operator and qualified bird and wildlife management experts. Refer to Appendix 12- Guidance on other statutory approvals required and Appendix 8: Guidance on agency roles and contact information for further information on the Australian Government's role, contact information for airport operators and assessment processes for wildlife hazards that are likely to affect aircraft operations.	**AO4.1** Development and associated activities located within the 3 km wildlife hazard buffer zone does not involve uses listed in column 1 of Appendix 11 Land uses associated with increases in wildlife strikes and hazards. **AO4.2** Development and associated activities located within the 3 km wildlife hazard buffer zone involving a use listed in column 2 of Appendix 11: Land uses associated with increases in wildlife strikes and hazards, includes measures to reduce the potential to attract birds and bats. **AO4.3** Development and associated activities located within the 3 km or 8 km wildlife hazard buffer zones involving a use listed in column 1 or column 2 of Appendix 11: Land uses associated with increases in wildlife strikes and hazards, includes measures to reduce the potential to attract birds and bats. **AO4.4** Development and associated activities located within the 13 km wildlife hazard buffer zone involving a use listed in column 1 or column 2 of Appendix 11: Land uses associated with increases in wildlife strikes and hazards, does not increase the potential to attract birds and bats.
Public safety areas	
PO5 Development does not increase the risk to public safety within a public safety area.	**AO5.1** Development within a strategic airport's public safety area does not involve: • an increase in the number of people living, working or congregating in the area; and • the manufacture, use or storage of flammable, explosive, hazardous or noxious materials.
Aircraft noise	
PO6 Development is appropriately located and designed to prevent adverse impacts from aircraft noise. **Note:** Where the acceptable outcomes cannot be met, a Noise Assessment Report prepared by an appropriately qualified acoustic consultant must be prepared to demonstrate compliance with this performance outcome.	**AO6.1** Development within the 20 – 40 or greater ANEF contour is consistent with Appendix 14: Compatible and incompatible land uses within ANEF contours. **AO6.2** Development within the 20 – 40 or greater ANEF contour is designed and constructed to attenuate aircraft noise by achieving the indoor design sound levels specified in Appendix 16: Desirable indoor sound levels for sensitive land uses.
Protection of aviation facilities	
PO7 Development and associated activities do not interfere with the function of aviation facilities **Note:** A development proposal on land located within a building restricted area must be assessed as outlined in National Airports	**AO7.1** Development and associated activities located within the building restricted area for an aviation facility do not create permanent or temporary: • physical intrusions into the 'line of sight' between transmitting and receiving devices • radio frequency interference

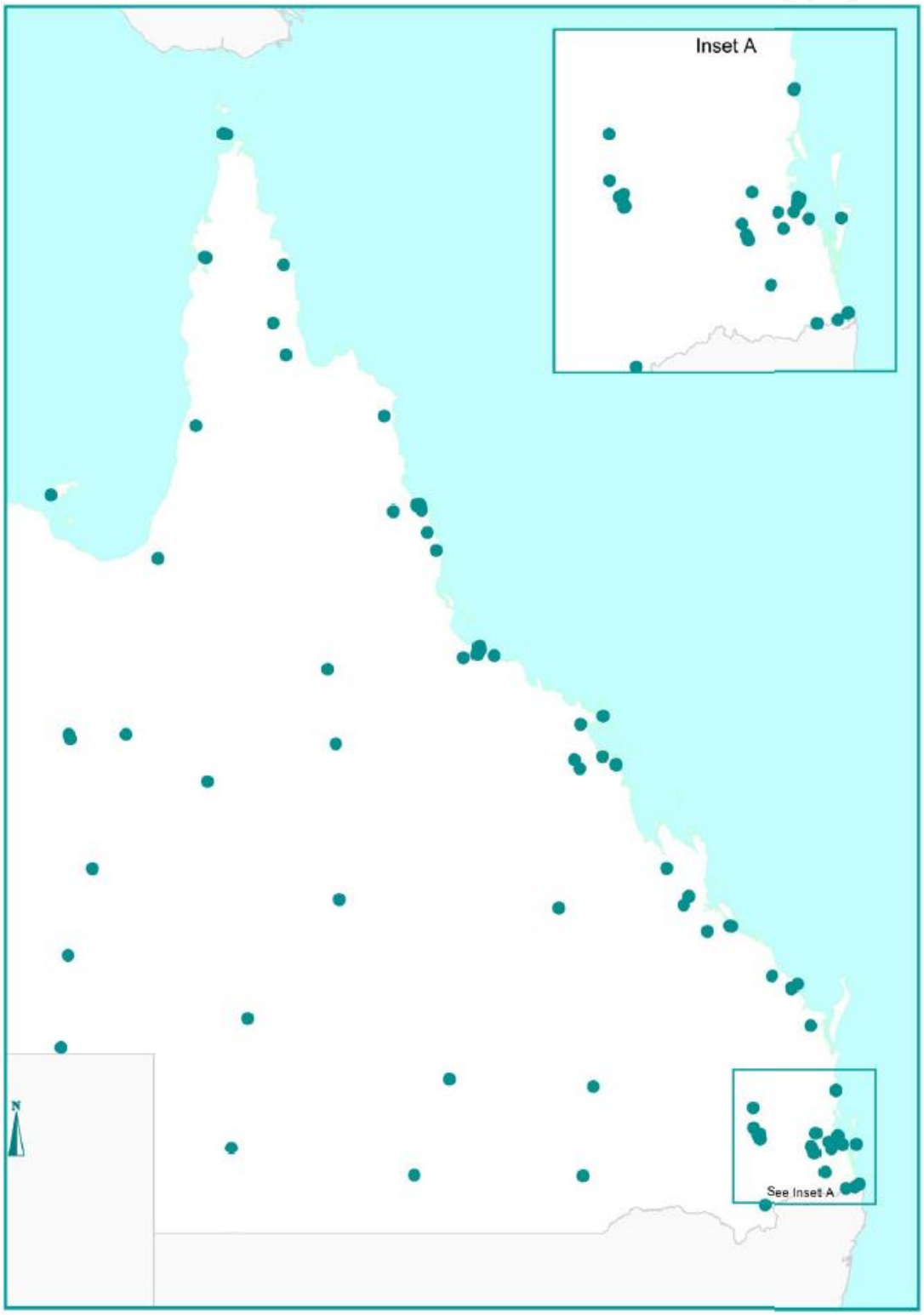
Safeguarding Framework (NASF) Principles and Guidelines – Guideline G, Attachment 3. Referral to Airservices Australia or DoD may be required. Refer to Appendix 12 - Guidance on other statutory approvals required and Appendix 8: Guidance on agency roles and contact information for further information on the Australian Government's role, contact information for the relevant authority and assessment processes for development with the potential to interfere with the function of aviation facilities. It is recommended that advice be sought during pre-lodgement stage of development assessment processes to avoid objections from Airservices Australia or Department of Defence.	• electromagnetic emissions that will interfere with signals transmitted by the facility (e.g. arc welding) • reflective surfaces that could deflect or interfere with signals transmitted by the facility or • plume rises in the building restricted area of an aviation facility protected by the Airports (Protection of Airspace) Regulations 1996 (see aviation facilities asterisked in column 3 of Table 2, Appendix 2). **AO7.2** Development and associated activities located within the building restricted area for an aviation facility are designed and constructed to mitigate adverse impacts on the function of the facility.

Part 6: Supporting information

The following appendices are provided in support of the SPP and this guidance material.

Appendix 1:	General location of aviation facilities
Appendix 2:	Aviation facilities – location and type
Appendix 3:	Indicative location of strategic airports
Appendix 4:	Strategic airport listing criteria and Queensland Government endorsement processes
Appendix 5:	Operational airspace
Appendix 6:	Obstacle limitation surface and height restriction zones
Appendix 7:	Public safety areas (PSAs)
Appendix 8:	Guidance on agency roles and contact information
Appendix 9:	Airport SPP IMS mapping layers
Appendix 10:	Land uses with the potential to adversely impact operational airspace and aircraft safety
Appendix 11:	Land uses associated with increases in wildlife strikes and hazards
Appendix 12:	Guidance on other statutory approvals required
Appendix 13:	PSA – Generally compatible and incompatible uses (new or changed development only)
Appendix 14:	Compatible and incompatible land uses within ANEF contours for the purposes of development assessment
Appendix 15:	Levels of assessment for development within ANEF contours
Appendix 16:	Desirable indoor design sound levels for sensitive land uses
Appendix 17:	Mapping update processes
Appendix 18:	Guidance on the National Airports Safeguarding Framework
Appendix 19:	Matters to consider when designing development in close proximity to operational airspace
Appendix 20:	Aviation legislation and regulation
Appendix 21:	SPP Interactive Mapping System mapping updates and data responsibilities

Appendix 1: General location of aviation facilities



Appendix 2: Aviation facilities—location and type

Communication facilities

Communication facilities enable air-to-ground communications between pilots and air traffic control (ATC) or communications between major ATC and other aviation facilities. Communication facilities used in Queensland are:

- VHF radio transmitters and receivers
- high frequency (HF) radio transmitters and receivers
- SGS antennas.

Signal reception between aircraft and ground facilities is by line-of-sight or satellite link.

Navigation facilities

A network of ground-based navigation aids is used for instrument navigation by pilots. These navigation aids are located at airports or at key points on air routes. Navigation aids used in Queensland include:

- Instrument Landing System (ILS), including associated localisers, glide paths and marker beacons
- non-directional beacon (NDB)
- VHF omnidirectional range (VOR), conventional VHF omni-directional range (CVOR) and doppler VHF omni-directional range antennas (DVOR)
- distance measuring equipment (DME).

Surveillance facilities

Surveillance facilities monitor air routes and aircraft movements to assist ATC with more accurate information on aircraft position. This reduces the need for voice communications between ATC and the pilot. Surveillance facilities used in Queensland are:

- Primary Surveillance Radar (PSR)
- Secondary Surveillance Radar (SSR)
- Automatic Dependent Surveillance Broadcast (ADS-B) surveillance system
- Advanced Surface Movement Guidance and Control System (A-SMGCS).

Aviation facilities protected by the SPP are listed in Table 2 and included in the SPP IMS.

Changes in technology may result in facilities being added, deleted or specifications being amended. The state will facilitate an update to Table 2 if and when such mapping changes occur.

Table 2: Aviation facilities

Local government	Other LGAs impacted	Location	Facility type	Latitude	Longitude	Siting height (AHD)
Balonne Shire		St George	NDB	-28.04716111	148.5971722	197.628
Balonne Shire		St George	SGS	-28.046763	148.597076	0
Balonne Shire		St George	VHF	-28.046868	148.597348	0
Barcoo Shire		Windorah	NDB	-25.41092778	142.6631972	131.139
Boulia Shire		Boulia	NDB	-22.91476667	139.9069778	161.615
Brisbane City		Brisbane	DME	-27.36594869	153.13929	10.443
Brisbane City		Brisbane	DME	-27.37783547	153.134311	6.296
Brisbane City		Brisbane	DVOR	-27.36606786	153.1392218	3.463
Brisbane City		Boggy Creek	MM	-27.41002003	153.1140461	7.918
Brisbane City		Lytton Road	OM	-27.45756389	153.0872833	32.199
Brisbane City	Moreton Bay Regional Redland Shire	Brisbane RSR *	Radar	-27.357697	153.116081	24.695
Brisbane City		Brisbane	SGS	-27.388204	153.114904	0
Brisbane City		Archerfield Tower	VHF	-27.576129	153.00424	0
Brisbane City		Brisbane TCU	VHF	-27.388024	153.115479	0
Brisbane City		Brisbane Tower	VHF	-27.38781944	153.1154444	0
Brisbane City		Mt Coot-tha	VHF	-27.460616	152.958014	0
Brisbane City		Brisbane	GP	-27.40087303	153.1210472	2.338
Brisbane City		Brisbane	GP	-27.37780078	153.13424	2.246
Brisbane City		Brisbane	LOC	-27.37016975	153.1368773	2.832
Brisbane City		Brisbane	LOC	-27.40752989	153.1155139	3.32
Bulloo Shire		Jackson	ADS-B	-27.578073	142.37901	193.784
Bulloo Shire		Jackson	SGS	-27.578011	142.378956	0
Bulloo Shire		Jackson	VHF	-27.578036	142.378796	0
Bundaberg Regional		Double Sloping	ADS-B	-24.70225	151.962443	414.974
Bundaberg Regional		Bundaberg	NDB	-24.90658094	152.3203107	30.661

Bundaberg Regional	Gladstone Regional	Double Sloping	VHF	-24.70225	151.962443	0
Bundaberg Regional		Sloping Hummock	VHF	-24.84258611	152.4266167	0
Cairns Regional		Cairns	DME	-16.85013792	145.7439491	12.233
Cairns Regional		Cairns	DME	-16.86908268	145.743426	6.695
Cairns Regional		Cairns	DME	-16.85037097	145.743135	13.912
Cairns Regional		Cairns	DVOR (Elevated Counterp	-16.85001858	145.7438906	3.905
Cairns Regional		Barron River	MM	-16.85818394	145.7401814	7.418
Cairns Regional		Cairns	NDB	-16.84696667	145.7355444	2.899
Cairns Regional		Yorkeys Knob	OM	-16.81036294	145.7183447	10.494
Cairns Regional	Mareeba Shire Yarrabah	Redden Creek PSR	Radar	-16.86074133	145.7470171	33.442
Cairns Regional	Mareeba Shire Yarrabah	Redden Creek SSR	Radar	-16.86074133	145.7470171	35.892
Cairns Regional		Cairns	SGS	-16.874745	145.755167	0
Cairns Regional		Bellenden Ker	VHF	-17.26430833	145.8536111	0
Cairns Regional		Cairns Tower	VHF	-16.87486667	145.7552778	0
Cairns Regional		Cairns	GP	-16.86905621	145.7434928	1.505
Cairns Regional		Cairns	LOC	-16.89321702	145.7559497	1.266
Cairns Regional		Cairns	LOC	-16.86467165	145.7430463	1.019
Carpentaria Shire		Normanton	NDB	-17.69574444	141.0730306	18.709
Carpentaria Shire		Normanton	SGS	-17.695614	141.0736	0
Carpentaria Shire		Normanton	VHF	-17.695604	141.073273	0
Cassowary Coast Regional		Innisfail	NDB	-17.56164722	146.0153917	11.555
Central Highlands Regional		Emerald	NDB	-23.56745556	148.1710583	187.223
Central Highlands Regional		Emerald	SGS	-23.56707	148.171369	0
Central Highlands Regional		Emerald	VHF	-23.567061	148.171231	0
Charters Towers Regional	Townsville City	Tabletop RSR	Radar	-19.378725	146.493617	702.85

Charters Towers Regional		Tabletop	SGS	-19.378619	146.493648	0
Charters Towers Regional	Townsville City	Tabletop	VHF	-19.378725	146.493617	0
Cloncurry Shire		Cloncurry	NDB	-20.66567222	140.5010611	186.948
Cook Shire	Weipa Town	Weipa	DME	-12.67356553	141.9226218	24.063
Cook Shire	Weipa Town	Weipa	DVOR (Elevated Counterpoise)	-12.67355278	141.9224849	16.856
Cook Shire		Coen	NDB	-13.76605	143.1172611	159.484
Cook Shire	Lockhart River Aboriginal	Lockhart River	NDB	-12.78859444	143.30375	17.381
Cook Shire		Weipa	NDB	-12.66162778	141.8988	15.855
Cook Shire		Kintore	SGS	-14.296646	143.345058	0
Cook Shire		Weipa	SGS	-12.66898	141.922977	0
Cook Shire		Kintore	VHF	-14.296705	143.344884	0
Diamantina Shire		Birdsville	ADS-B	-25.8959487	139.3534564	68.72
Diamantina Shire		Birdsville	NDB	-25.89627778	139.3534111	47.232
Diamantina Shire		Bedourie	SGS	-24.357866	139.471429	0
Diamantina Shire		Birdsville	SGS	-25.895969	139.35352	0
Diamantina Shire		Bedourie	VHF	-24.358007	139.471411	0
Diamantina Shire		Birdsville	VHF	-25.896025	139.353424	0
Etheridge Shire		Cheviot Hills	SGS	-19.575811	144.083477	0
Etheridge Shire	Flinders Shire	Cheviot Hills	VHF	-19.575839	144.08357	0
Flinders Shire		Hughenden	NDB	-20.82062222	144.2290361	316.572
Fraser Coast Regional		Copenhagen Bend	VHF	-25.51647222	152.6632833	0
Gladstone Regional		Gladstone	DME	-23.86686253	151.2204759	19.058
Gladstone Regional		Gladstone	DVOR (Ground Mounted)	-23.86524622	151.2044108	55.191
Gladstone Regional	Banana Shire	Mt Alma RSR	Radar	-23.95965278	150.8048583	775

Gladstone Regional		Mt Alma	SGS	-23.959597	150.804706	0
Gladstone Regional		Mt Alma	VHF	-23.959519	150.804471	0
Gladstone Regional		Gladstone	GP	-23.86691331	151.2204553	14.774
Gladstone Regional		Gladstone	LOC	-23.87310122	151.2353998	9.444
Gold Coast City		Gold Coast	DME	-28.16891659	153.5039417	11.526
Gold Coast City		Gold Coast	DVOR (Elevated Counterpoise)	-28.16894437	153.5040889	4.226
Gold Coast City		Gold Coast	NDB	-28.16485833	153.5011139	4.145
Gold Coast City		Mt Somerville PSR	Radar	-28.21556151	153.4259906	363.223
Gold Coast City		Mt Somerville SSR	Radar	-28.21556151	153.4259906	365.673
Gold Coast City		Coolangatta Tower	VHF	-28.163936	153.50912	0
Gold Coast City		Springbrook	VHF	-28.240075	153.2663472	0
Hope Vale Aboriginal Shire		Mt Piebald	VHF	-15.315628	145.086382	0
Ipswich City		Amberley	MM	-27.61377256	152.7024817	29.865
Ipswich City		Amberley	NDB	-27.64875792	152.7235106	27.395
Ipswich City		Amberley	OM	-27.53921825	152.6688117	59.447
Ipswich City		Amberley	GP	-27.62445542	152.7084199	22.152
Ipswich City		Amberley	LOC	-27.65005269	152.7176486	24.469
Ipswich City		Amberley	TACAN	-27.641528	152.716028	36.68
Kowanyama Aboriginal Shire		Kowanyama	NDB	-15.47980556	141.7484639	9.922
Livingstone Shire	Rockhampton Regional	Princhester	Radar	-22.9064001	150.0850906	407.632
Longreach Regional		Longreach	ADS-B	-23.428005	144.288128	216.166
Longreach Regional		Longreach	NDB	-23.42841944	144.2891444	195.764
Longreach Regional		Longreach	SGS	-23.427938	144.28826	0
Longreach Regional		Longreach	VHF	-23.428091	144.288212	0
Mackay Regional		Mackay	DME	-21.17301769	149.1873751	12.025

Mackay Regional		Mackay	DVOR (Elevated Counterpoise)	-21.17299922	149.1872329	4.615
Mackay Regional		Mackay	NDB	-21.16224444	149.1862556	4.477
Mackay Regional	Isaac Regional	Swampy Ridge RSR	Radar	-21.08258333	148.4394167	1179
Mackay Regional		Mackay	SGS	-21.16983532	149.1749572	0
Mackay Regional		Swampy Ridge	SGS	-21.08249444	148.4394361	0
Mackay Regional		Eungella	VHF	-21.230169	148.537644	0
Mackay Regional		Mackay Fire Station	VHF	-21.170369	149.176886	0
Mackay Regional		Mackay Tower	VHF	-21.17001667	149.174525	0
Mackay Regional		Mt Blackwood	VHF	-21.032287	148.943492	0
Mackay Regional		Swampy Ridge	VHF	-21.082583	148.439417	0
Maranoa Regional		Roma	ADS-B	-26.5426593	148.7817002	321.819
Maranoa Regional		Roma	NDB	-26.543075	148.7816889	301.918
Maranoa Regional		Roma	SGS	-26.5426024	148.7816689	0
Maranoa Regional		Roma	VHF	-26.54282	148.781598	0
Mareeba Shire		Hann Tableland	Radar	-16.915572	145.252161	1001.4
Mareeba Shire		Hann Tableland	SGS	-16.915497	145.252233	0
Mareeba Shire		Hann Tableland	VHF	-16.915795	145.252176	0
Mareeba Shire	Cairns Regional	Saddle Mountain	VHF	-16.818252	145.663065	0
McKinlay Shire		Kyunna	ADS-B	-21.456706	141.951037	210.847
McKinlay Shire		Kynuna	SGS	-21.456747	141.951147	0
McKinlay Shire		Kynuna	VHF	-21.456901	141.951138	0
Mornington Shire		Mornington Island	ADS-B	-16.659059	139.1708204	32.64
Mornington Shire		Mornington Island	SGS	-16.659055	139.170875	0
Mornington Shire		Mornington Island	VHF	-16.659141	139.170853	0

Mount Isa City		Mount Isa	ADS-B	-20.7353943	139.5127862	481.223
Mount Isa City		Mount Isa	DME	-20.66463394	139.4857919	346.565
Mount Isa City		Mount Isa	DVOR (Elevated Counterpoise)	-20.66461936	139.4856482	339.386
Mount Isa City		Mount Isa	NDB	-20.67541111	139.4865611	340.208
Mount Isa City		Mt Isa	SGS	-20.664335	139.490702	0
Mount Isa City		Mt Isa DCA Hill	SGS	-20.735357	139.512818	0
Mount Isa City		Mount Isa Aeris	VHF	-20.675478	139.486514	0
Mount Isa City		Mount Isa Airport	VHF	-20.664785	139.485641	0
Mount Isa City		Mount Isa DCA Hill	VHF	-20.73544167	139.5128694	0
Murweh Shire		Charleville	NDB	-26.42003333	146.2490056	301.494
Murweh Shire		Charleville	SGS	-26.419176	146.249959	0
Murweh Shire		Charleville	VHF	-26.419259	146.24983	0
Paroo Shire		Cunnamulla	NDB	-28.03476389	145.62375	190.104
Redland City		Mt Hardgrave	ADS-B	-27.49972222	153.4531417	239.5
Redland City		Mt Hardgrave PSR	Radar	-27.49997983	153.4531951	240.73
Redland City		Mt Hardgrave SSR	Radar	-27.49997983	153.4531951	243.181
Redland City		Capalaba	SGS	-27.50647	153.2041145	0
Redland City		Mt Hardgrave	VHF	-27.49972222	153.4531417	0
Rockhampton Regional		Rockhampton	DME	-23.38282033	150.47166	17.246
Rockhampton Regional		Rockhampton	DVOR (Elevated Counterpoise)	-23.38279828	150.4715162	10.476
Rockhampton Regional		Rockhampton	NDB	-23.37091944	150.4753083	9.743
Rockhampton Regional		Rockhampton	SGS	-23.375884	150.477179	0
Rockhampton Regional		Rockhampton Control	VHF	-23.37677778	150.4778278	0

Rockhampton Regional		Table Mountain	VHF	-23.516971	150.383415	0
Scenic Rim Regional		Bromelton	NDB	-27.96609722	152.9007667	125.556
Somerset Regional	Moreton Bay Regional	Mount Glorious	VHF	-27.315068	152.748016	0
South Burnett Regional	Western Downs	Mt Mowbullan	VHF	-26.898669	151.620067	0
Southern Downs Regional		Passchendaele	VHF	-28.535852	151.832689	0
Sunshine Coast Regional		Sunshine Coast	CVOR (Elevated Counterpoise)	-26.59768333	153.0902972	4.028
Sunshine Coast Regional		Sunshine Coast	DME	-26.59768333	153.0902972	10.828
Sunshine Coast Regional		Sunshine Coast	NDB	-26.59218889	153.0917139	2.816
Sunshine Coast Regional		Sunshine Coast	VHF	-26.605169	153.0876	0
Toowoomba Regional		Oakey	DME	-27.39958336	151.7379957	413.616
Toowoomba Regional		Oakey	DVOR (Elevated Counterpoise)	-27.3996521	151.7378591	406.637
Toowoomba Regional		Oakey	MM	-27.39526255	151.7313539	0
Toowoomba Regional		Brymaroo	NDB	-27.23510401	151.6246948	417.198
Toowoomba Regional		Oakey	NDB	-27.42135833	151.737175	403.658
Toowoomba Regional		Oakey	OM	-27.35068247	151.6964727	0
Toowoomba Regional		Turkey Hill (ATIS)	VHF	-27.328424	151.737743	0
Toowoomba Regional		Oakey	GP	-27.40404198	151.7401558	406.395
Toowoomba Regional		Oakey	LOC	-27.41650457	151.7479271	407.026
Torres Shire		Thursday Island	ADS-B	-10.57693606	142.2275643	123.258
Torres Shire		Horn Island	NDB	-10.59205	142.2925639	15.168
Torres Shire		Thursday Island	SGS	-10.577026	142.227605	0
Torres Shire	Torres Strait Island	Thursday Island	VHF	-10.577026	142.227496	0
Townsville City		Townsville	DME	-19.24420669	146.758233	10.449

Townsville City		Townsville	DME	-19.25516886	146.7645379	9.037
Townsville City		Townsville	DVOR (Elevated Counterpoise)	-19.24419025	146.7580895	3.099
Townsville City	Burdekin Shire	Airservices HF Rx Site	HF	-19.351059	147.018485	0
Townsville City	Burdekin Shire	Airservices HF Rx Site	HF	-19.350447	147.020348	0
Townsville City		Airservices HF Tx Site	HF	-19.201612	146.768142	0
Townsville City		Airservices HF Tx Site	HF	-19.200025	146.768584	0
Townsville City		Airservices HF Tx Site	HF	-19.203166	146.767636	0
Townsville City		Garbutt	MM	-19.27091833	146.7587033	11.02
Townsville City		Townsville	NDB	-19.24695833	146.7622889	3.519
Townsville City		Douglas	OM	-19.33087722	146.7304842	31.173
Townsville City		Townsville	SGS	-19.25485526	146.7738735	0
Townsville City		Many Peaks	VHF	-19.18901944	146.7647194	0
Townsville City		Townsville	GP	-19.25520008	146.7646033	4.237
Townsville City		Townsville	LOC	-19.23520928	146.7756263	3.669
Townsville City		Townsville	TACAN	-19.278972	146.742528	199.74
Whitsunday Regional		Hamilton Island	CVOR (Elevated Counterpoise)	-20.35116944	148.9558806	184.926
Whitsunday Regional		Hamilton Island	DME	-20.35116944	148.9558806	191.726
Whitsunday Regional		Proserpine	DME	-20.49686064	148.552827	29.425
Whitsunday Regional		Proserpine	DVOR (Elevated Counterpoise)	-20.49687821	148.55297	22.085
Whitsunday Regional		Hamilton Island	SGS	-20.352808	148.951138	0
Whitsunday Regional		Hamilton Island	VHF	-20.35141	148.955349	0
Whitsunday Regional		Hamilton Island ATIS	VHF	-20.352909	148.951198	0

Whitsunday Regional		Proserpine	VHF	-20.490522	148.556015	0

* Aviation facilities protected under the Airports (Protection of Airspace) Regulations 1996 as declared in Instrument No: AA-01/2013 dated 19 April 2013.

Table 3: Aviation facility types protected under the SPP

Communication facilities	
SGS	Satellite ground station
HF	High frequency transmit site
HF	High frequency receiver site
VHF	Very high frequency communication facilities
Navigation facilities	
NDB	Non-directional beacon
DME	Distance measuring equipment
Very high frequency omni-directional range (VOR)	
CVOR	Conventional very high frequency omni-directional range (ground-mounted or elevated counterpoise)
DVOR	Doppler very high frequency omni-directional range (ground-mounted or elevated counterpoise)
TACAN	Tactical air navigation system
Instrument landing system	
MM OM	Middle and outer marker beacon
GP	Glide path
LOC	Localiser
Surveillance facilities	
WAM	Wide area multilateration
ASD-B	Automatic dependent surveillance broadcast
PSR	Primary surveillance radar
SSR	Secondary surveillance radar

Appendix 3: Indicative location of strategic airports

Appendix 4: Strategic airport listing criteria and Queensland Government endorsement processes

What is a strategic airport?

A strategic airport is an airport that has been listed by the state as essential to the national and state air transport network or the national defence system.

Airports meeting the criteria for a strategic airport are identified in the SPP, Table 2: Strategic airports.

Strategic airport criteria

An airport is a strategic airport for the purposes of the SPP if it meets one or more of the following criteria:

1. The airport is listed as a 'Commonwealth place' as defined by the *Commonwealth Places (Application of Laws) Act 1970* and comes under the regulatory regime of the *Airports Act 1996*.
2. The airport is a joint-user airport under the control of the Department of Defence (DoD) where an arrangement under section 20 of the *Commonwealth Civil Aviation Act 1988* is in force.
3. The airport is a defence airfield subject to the Defence Act (Areas Control) Regulations 1989, implemented by DoD under the *Defence Act 1903*.
4. The airport is:
   a) serviced by regular public transport services intended for hire or reward
   b) handles more than 50,000 passenger movements per annum or handles more than 10,000 aircraft movements per annum
   c) is serviced by aircraft with a minimum take-off weight 3400 kilograms.
5. The airport has been deemed by the Queensland Government to be strategically important to the state for economic, tourism, social or protection reasons. Such reasons include, but are not limited to:
   a) the airport enables services necessary to support both existing tourism and identified tourism opportunities
   b) the airport supports existing regional areas and planned regional development opportunities
   c) the airport is a major freight and logistics hub or provides significant cargo import/export, industry and employment opportunities
   d) the airport provides essential air services that support communities in very remote locations with access to key social, medical and community services (listed as a government-regulated air service destination).

Process for listing strategic airports under the SPP

The strategic airport list is periodically reviewed by the Queensland Government to determine if the listed airports continue to meet the strategic airport criteria or if other airports should be included. An airport operator can also apply to the Queensland Government for listing as a strategic airport under the SPP.

When applying for strategic airport listing, aerodrome/airport operators must provide robust evidence to the Queensland Government demonstrating that the aerodrome/airport meets the following considerations:

a) is operational
b) has regional passenger transport aircraft operations
c) meets one or more of the strategic airport criteria

d) is a registered aerodrome under part 139 of the Civil Aviation Safety Regulations 1998 (CASR)
e) has all relevant local, state and federal approvals (including development and operational approvals) applicable for airport infrastructure.

Appendix 5: Operational airspace

The operational airspace around leased federal airports is also defined as 'prescribed airspace' for the purpose of the Airports (Protection of Airspace) Regulations 1996. The operational airspace around defence airfields and joint-user airfields is defined in the Defence (Areas Control) Regulations 1989 (DACR) under the *Defence Act 1903*.

During take-off, landing or manoeuvring operations, pilot workload is greatest and an aircraft is least manoeuverable. Operational airspace must remain clear of any obstacles, activities or intrusions that could distract or interfere with the safe operation of an aircraft. Permanent, temporary or transient structures, landscaping or activities that intrude into operational airspace could constitute obstacles to aircraft taking off or approaching to land. Intrusions into operational airspace have the potential to create aviation safety risks and to limit the scope of aviation operations into and out of the airport.

Appendix 6: Obstacle limitation surface and height restriction zones

Obstacle limitation surface (OLS) – defines the lowest extent of operational airspace for leased federal and regional airports. The OLS can extend up to 15 kilometres from the end of runways at major airports.

Intrusions into the OLS require assessment for their potential impact upon the safety and efficiency of airport operations and subsequent approval by the airport operator, CASA and/or Airservices Australia. These assessments will also address intrusions into the Procedures for Air Navigation Services – Operations (PANS-OPS). The assessment will determine whether the intrusion is permitted, and in limited circumstances where it is, whether any risk mitigation is required to protect the operational safety of the airport.

Height restriction zones – are applied to defence airfields and joint-user airfields, according to the DACR. Height restriction zones may limit the height of new structures or additions to existing structures to heights of 0, 7.5, 15, 45 or 90 metres above ground level.

Intrusions above height limits in a height restriction zone require assessment and approval by the Department of Defence (DoD).

Appendix 7: Public safety areas (PSAs)

A PSA is required at the each end of a strategic airport's main runway if:

- the airport is listed as a 'Commonwealth place' under the *Commonwealth Places (Application of Laws) Act 1970*
- the airport is a joint-user airport under the control of the Department of Defence (DoD) where an arrangement under section 20 of the *Commonwealth Civil Aviation Act 1988* is in force
- the airport is a defence airfield subject to the *Defence Act 1903* administered by DoD
- the runway meets the following criteria:
  - i. accommodates regular public transport jet aircraft services, or
  - ii. greater than 10,000 aircraft movements occur per year (excluding light aircraft movements).

PSAs are also required for other runways (i.e. secondary or cross-runways) of strategic airports where the runway meets the aircraft movements' threshold listed above (i.e. criteria i or ii above). Appendix 9 identifies the strategic airport runways where PSAs are required.

Note:

1. The PSA dimensions indicate an area where the risk per year, resulting from an aircraft crash, to a representative individual (individual risk) is 1 in 10,000 (10^4). As general guidance, it would be inappropriate for a use, subject to assessment against the SPP, to be exposed to a higher individual risk than 1 in 10,000 (10^4).

2. The PSA dimensions also partially enclose an area of individual risk of 1 in 100,000 (10^5).

Appendix 8: Guidance on agency roles and contact information

Role of airport operator

The airport operator (owner or lessee) manages, maintains and improves the airport. The airport operator is responsible for publishing five-yearly master plans, including endorsed ANEF information.

While most strategic airports will have an airport master plan, a master plan is only mandatory for core-regulated, leased federal airports. All regional strategic airports, particularly those displaying significant growth potential, are encouraged to prepare master plans.

In the context of plan making and development assessment for the state interest – *strategic airports and aviation facilities*, the airport operator is responsible for:

- preliminary assessment of development applications referred by local government for potential impacts on the safety and efficiency of airport operations
- referring development applications with the potential to adversely impact the safety and efficiency of airport operations to the Australian Government for assessment
- advising local government about the impact of a development proposal
- preparing ANEF charts (endorsed by Airservices Australia or DoD for defence airfields). ANEF contour information should be prepared in accordance with the Australian Standard AS 2021–2015: Acoustics – Aircraft noise intrusion – Building siting and construction (AS 2021) as adopted 12 February 2015
- providing the state with up-to-date overlay mapping for operational airspace (OLS or height restriction zones) and ANEF contours within 4 weeks of official endorsement (see Part C: Mapping).

Role of local government

Local government is responsible for preparing local planning instruments which outline the planning and development outcomes for land in the local government area. Local government is also the assessment manager for development applications on land within the local government area.

In the context of plan making and development assessment for the state interest – *strategic airports and* aviation *facilities*, local government is responsible for:

- ensuring their local planning instrument
  - integrates the SPP
  - incorporates legislative requirements under the *Commonwealth Places (Application of Laws) Act 1970* and the *Air Navigation Act 1920*.
- ensuring the local planning instrument accurately reflects the SPP IMS's strategic airport and aviation facilities mapping layers
- notifying airport operators and DoD of development proposals which have the potential to adversely impact on the safety and efficiency of airport operations as per the SPP guideline
- ensuring development applications are consistent with the performance outcomes detailed in relevant development assessment codes designed to protect the safety and efficiency of airport operations
- ensuring decision making takes account of advice received from airport operators, the Australian Government and DoD; and that development applications are approved, carry appropriate conditions or are refused in accordance with such advice.

Role of state government

The Queensland Government is responsible for developing and implementing planning policy to ensure the state's interest in strategic airports and aviation facilities is protected.
In the context of plan making and development assessment for the state interest – *Strategic airports and aviation facilities*, the Queensland Government is responsible for:

- reviewing local planning instruments and amendments to ensure that the state interest has been appropriately reflected in the instrument
- providing advice to local government on plan making and how to interpret the policy requirements described in the SPP and SPP guideline
- ensuring the SPP IMS includes up-to-date mapping layers for aviation matters
- establishing and maintaining deeds of agreement with airport operators for data supply and use to support the protection of strategic airports under the SPP.

Role of Australian Government

The Australian Government is responsible for implementing the standards and recommended practices adopted by the International Civil Aviation Organisation. This responsibility is primarily delegated to CASA, Airservices Australia and the Department of Infrastructure and Regional Development (DIRD).

The Australian Government also maintains the Australian Transport Safety Bureau's investigation of aircraft accidents and incidents and has a direct interest in protecting leased federal airports.

Department of Infrastructure and Regional Development

The DIRD has responsibility under the *Air Navigation Act 1920* for civil aviation policy, aviation security and air safety investigation. It also has overriding responsibility for developing policy settings and regulatory arrangements for environmental matters, such as aircraft noise, aircraft engine emissions and fuel spillage.

DIRD's role includes regulation of leased federal airports under the *Airports Act 1996* to ensure they are operated in a safe, efficient and environmentally sustainable manner. In the context of plan-making and development assessment for the state interest – *Strategic airports and aviation facilities*, DIRD is responsible for:

- providing advice on regulatory and policy requirements of prescribed airspace and controlled activities around leased federal airports
- assessing development applications referred to the Australian Government by airport operators for adverse impacts on the safety and efficiency of airport operations
- issuing controlled activity approvals for structures around leased federal airports with advice from CASA and Airservices Australia.

Airservices Australia

Airservices Australia (under the *Air Services Act 1995*, and as delegated under the *Air Navigation Act 1920*) is responsible for providing and maintaining air traffic services and facilities to ensure safe and efficient air navigation.

Interference with Airservices Australia's communications can invoke powers available under the *Australian Communications and Media Authority Act 2005* and its regulations.

In the context of plan making and development assessment for the state interest – *Strategic airports and aviation facilities*, Airservices Australia is responsible for:

- providing assistance to local government in the process of identifying the location and specific protection requirements for aviation facilities within its jurisdiction
- providing advice to local government on any development or associated activity that has the potential to impact an aviation facility's building restricted area
- endorsing ANEF contours for airports.

Civil Aviation Safety Authority

The Civil Aviation Safety Authority (CASA) has responsibility under the *Civil Aviation Act 1988*, Civil Aviation Regulations 1988 and Civil Aviation Safety Regulations 1998 for the safety regulation of civil aviation in Australia. CASA conducts surveillance to ensure airport and aircraft operators meet their responsibilities under the civil aviation legislation.

The *Airspace Act 2007* establishes the head of power for CASA to regulate and administer Australian-administered airspace. It has sole responsibility for the classification, designation and regulation of the design of all Australian-administered airspace. This responsibility is exercised through the Office of Airspace Regulation within the authority.

The role of the Office of Airspace Regulation is to regulate Australian airspace according to the *Airspace Act 2007* and the Airspace Regulations 2007 and to meet the Australian Government commitment expressed in the Australian Airspace Policy Statement 2012.

This is to:

- ensure that Australian airspace is administered and used safely, taking into account:
  - protection of the environment
  - efficient use of that airspace
  - equitable access to that airspace for all users of that airspace
  - national security.
- continue the reform of Australia's airspace to move towards closer alignment with the International Civil Aviation Organisation system and adoption of proven international best practice.

As part of this planning framework, the Australian Government has responded in part by introducing modernised air traffic management infrastructure and systems to enhance air safety at and around Australian airports.

In the context of plan making and development assessment for the state interest – *Strategic airports and aviation facilities*, CASA is responsible for:

- providing advice to DIRD and local governments regarding development or associated activities that may adversely impact operational airspace for a strategic airport
- assisting local government and proponents to ascertain whether a proposed development or associated activity will adversely impact upon operational airspace using various assessment tools and measures.

Department of Defence

The Department of Defence (DoD) operates military airfields and shares the operation of joint-user airfields. It administers the Defence (Areas Control) Regulations (DACR) under the *Defence Act 1903* to ensure airspace surrounding military airfields is obstruction-free.

In the context of plan making and development assessment for the state interest – *Strategic airports and aviation facilities*, DoD is responsible for:

- providing advice on policy requirements in relation to operational airspace, aircraft noise, wildlife hazards, lighting, PSAs, aviation facilities and explosive ordnance safeguarding for military and joint user airports
- providing the state with up-to-date overlay mapping for height restriction zones and ANEF contours
- assessing development applications referred by airport operators for adverse impacts on the safety and efficiency of military operations
- issuing approvals for structures and intrusions around military and joint-user airfields
- providing local government with overlay mapping for height restriction zones.

Table 4: Sources of advice

Agency	Advice
Queensland Department of Transport and Main Roads (DTMR) 07 3066 1552 Email: planningpolicy@tmr.qld.gov.au	Implementing and interpreting the SPP and reflecting the SPP in a planning instrument.
Queensland Department of State Development, Manufacturing, Infrastructure and Planning (DSDMIP)	Ensuring Local Governments reflect the SPP in a local planning instrument and the operation of IDAS.
Airport operators (see Table 14)	First point of contact for approval requirements for their respective airports, relevant Commonwealth legislation and regulations.
Commonwealth Department of Infrastructure and Regional Development (DIRD)	Approval requirements of prescribed airspace and 'controlled activities' as defined by the *Airports Act 1996*.
Civil Aviation Safety Authority (CASA) 131 757	Advice and information as part of pre-lodgement discussions for proposed development and strategic planning decisions regarding operational airspace. Recommendations and advice on surrounding
Airservices Australia Airports relations team 02 6268 4111	Advice and information as part of pre-lodgement discussions for proposed development and strategic planning decisions regarding ANEF and aviation facilities. Recommendations and advice surrounding development and associated activities intruding on operational airspace.
Department of Defence (DoD) Defence Support Group 02 6266 8191	Impacts of a development and associated activities on defence interests at defence airfields and joint-user airports. Defence (Areas Control) Regulation requirements for defence airfields and joint-user airports and the Regulation 8 approval process.

Table 5: Contact information for airport operators

Airport operator	Position	Address	Phone
Army Aviation Centre Oakey	Director General Estate Planning Defence Support and Reform Group	Department of Defence PO Box 7925 Canberra DC ACT 2610	02 6266 8005
Archerfield Airport	General Manager Operations and Technical Officer	Archerfield Airport Airside Application PO Box 747 Archerfield QLD 4108	07 3275 8011 07 3275 8012
Brisbane Airport Corporation	Head of Airport Development Planning Manager	PO Box 61 Hamilton Central Brisbane QLD 4007 11 The Circuit Airport Village Brisbane Airport QLD 4008	07 3406 3047 07 3406 3169 07 3406 3161 07 3406 3011
Brisbane West Wellcamp Airport	General Manager	1511 Toowoomba-Cecil Plains Road, Wellcamp 4350 PO Box 151 Drayton North QLD 4350	07 4614 3200
Bundaberg Airport	Airport Operations Coordinator	c/o Bundaberg Regional Council PO Box 3130 Bundaberg QLD 4670	1300 883 699 07 4130 4825
Cairns Airport	NQA General Manager Property Development Cairns Airport	PO Box 57 Airport Administration Centre Cairns Airport QLD 4870	07 4080 6721
Emerald Airport	Airport Operations Controller Senior Airport Reporting Officer	PO Box 21 Emerald QLD 4720	07 4980 4941 1300 242 686
Gladstone Airport (Gladstone Airport Corporation)	Chief Executive Officer	PO Box 7200 Kin Kora QLD 4680	07 4977 8801 07 4977 8800
Gold Coast Airport (Coolangatta) (Queensland Airports Ltd)	Manager Operations and Standards	PO Box 112 Coolangatta QLD 4225	07 5589 1192
Hamilton Island Airport (Great Barrier Reef Airport Pty Ltd)	Airport Manager Airport administration office Airport safety officer	PO Box 201 Hamilton Island QLD 4803	07 4948 9319 07 4946 8615
Hervey Bay Airport	Executive Manager – Corporate Business Airport Technical Officer (backup contact)	PO Box 1943 Hervey Bay QLD 4655	07 4194 8101 (direct line) 07 4194 8113

Airport operator	Position	Address	Phone
Horn Island Airport	Operator Airport Manager	PO Box 171 Thursday Island QLD 4875	07 4069 1336 07 4069 1314 0429 691 314
Longreach Airport (Queensland Airports Ltd)	Airport Manager	PO Box 503 Longreach QLD 4730	07 4658 3766
Mackay Airport	General Manager	PO Box 5806 Mackay Mail Centre Mackay QLD 4741	07 4957 0234
Mareeba Airport	Airport Project Coordinator Aerodrome Reporting Officer	Tablelands Regional Council PO Box 154 Mareeba QLD 4880	07 4043 4100 07 40434656
Moranbah Airport	Airport owner BHP Mitsubishi Alliance Principal Airport Operator	Locked Bag 4 Dysart	0467 761 076
Mount Isa (Queensland Airports Ltd)	Asset Services Manager	PO Box 2305 Mount Isa QLD 4825	07 4743 4598
Northern Peninsula (Bamaga)	General Manager	Bamaga Airport Airport Road Bamaga QLD 4876 PO Box 200 Bamaga QLD 4876	07 4090 4100 (Council)
	General Manager	1511 Toowoomba-Cecil Plains Road, Wellcamp 4350 PO Box 151 Drayton North QLD 4350	07 4614 3200
Rockhampton Airport	Manager	Rockhampton Airport, Rockhampton Regional Council PO Box 1860 Rockhampton QLD	07 4936 8017
Roma	Maranoa Regional Council	PO Box 42 Mitchell	1300 007 662
RAAF Base Amberley	Director General Estate Planning Defence Support and Reform Group	Department of Defence PO Box 7925 Canberra DC ACT 2610	02 6266 8005
RAAF Base Scherger	Director General Estate Planning Defence Support and Reform Group	Department of Defence PO Box 7925 Canberra DC ACT 2610	02 6266 8005
RAAF Base Townsville	Director General Estate Planning Defence Support and Reform Group	Department of Defence PO Box 7925 Canberra DC ACT 2610	02 6266 8005
Sunshine Coast Airport	Airport Operations Manager General Manager	Locked Bag 72 SCMC QLD 4560 Friendship Avenue Marcoola QLD 4564	07 5453 1527 07 5453 1500
Townsville Airport (Queensland Airports Ltd)	General Manager Asset Services Manager	PO Box 7636 Garbutt QLD 4814 Stinson Ave (cnr Halifax St) Garbutt QLD 4814	07 4727 3211
Weipa Airport	Airport owner—Rio Tinto Airport Manager	PO Box 514 Weipa QLD 4874 PO Box 1027	07 4069 7289
Whitsunday Coast Airport - Proserpine	Airport Operations Manager	PO Box 104 Proserpine QLD 4800	07 4945 5510

Appendix 9: Airport SPP IMS mapping layers

Airport type	Strategic Airport	Applicable SPP Integrated Mapping System layers								
		Obstacle limitation surface and contour	Height restriction zones	Light restriction zones	Lighting area buffer 6km	Wildlife hazard zones	Public safety areas required on main runway	Public safety areas required on other runway	ANEF	Aviation facilities and building restricted areas
Leased federal	Brisbane	✓		✓	✓	✓	✓	✓ Yes - Runway 14/32 - cross only	✓	**All** local governments should check Appendix 2: Aviation facilities—location and type to determine if the local government area is impacted by aviation facilities.
	Archerfield	✓		✓	✓	✓	✓		✓	
	Gold Coast	✓		✓	✓	✓	✓		✓	
	Mount Isa	✓		✓	✓	✓	✓		✓	
Joint-user	Townsville Airport/RAAF Base Townsville		✓	✓	✓	✓	✓		✓	
Defence airfield	Army Aviation Centre Oakey		✓	✓	✓	✓	✓		✓	
	RAAF Base Amberley		✓	✓	✓	✓	✓		✓	
	RAAF Base Scherger		✓	✓	✓	✓	✓			
Regional	Brisbane West Wellcamp Airport	✓		✓	✓	✓	✓			
	Bundaberg	✓		✓	✓	✓	#		✓	
	Cairns	✓		✓	✓	✓	✓		✓	
	Emerald	✓		✓	✓	✓	✓		✓	
	Gladstone	✓		✓	✓	✓	✓		✓	
	Hamilton Island	✓		✓	✓	✓	✓			
	Hervey Bay	✓		✓	✓	✓	✓		✓	
	Horn Island			✓	✓	✓				
	Longreach	✓		✓	✓	✓	✓		✓	
	Mackay	✓		✓	✓	✓	✓	✓	✓	
	Mareeba	✓		✓	✓	✓			✓	
	Moranbah			✓	✓	✓	✓			
	Northern Peninsula			✓	✓	✓				
	Rockhampton	✓		✓	✓	✓	✓		✓	
	Roma			✓	✓	✓				
	Sunshine Coast	✓		✓	✓	✓	✓		✓	
	Weipa			✓	✓	✓				
	Whitsunday Coast Airport - Proserpine	✓		✓	✓	✓	✓			

PSA in place at local government's discretion

Appendix 10: Land uses with the potential to adversely impact operational airspace and aircraft safety

Intrusions into operational airspace	Land uses
Physical obstructions (including associated activities): • temporary or permanent • natural or man-made.	Intrusions associated with all land uses where building/structure height intrudes into OLS or exceeds a height limit in a height restriction zone. For example: • built structure • antennae, satellite dish, mast, lift overrun etc. • crane operations • concrete pump • elevation platform • advertising device • trees or other vegetation at mature height • renewable energy facility (wind farm).
Transient obstructions (includes associated activities)	Intrusions associated with all land uses that involve outdoor sport and recreational aviation activities (e.g. parachuting, hot air ballooning, hang gliding, firearm ranges)
Intrusions by external lighting and reflections, including reflected sunlight, which: • distract or interferes with pilot visibility • creates pilot confusion regarding approach or runway lighting.	Intrusions emanating from: • industry • port services • warehouse • major sport, recreation and entertainment facility • outdoor sport and recreation • outdoor lighting • roads (500–1000m-long straights) • advertising device • solar farm.
Intrusions by wildlife	Wildlife intrusions encouraged by: • cropping • intensive animal industry • animal husbandry • aquaculture • industry involving food processing • major sport, recreation and entertainment facility

	• outdoor sport and recreation • utility installation (e.g. sewage/wastewater treatment facilities and waste management facilities [landfill and transfer stations]) • environmental facility (park/conservation estate) (e.g. wetlands, lakes).
Intrusions by emissions and particulates: • gaseous plumes with high velocity (exceeds 4.3 m per second) • airborne particulates that impair visibility	Intrusions generated by: • special industry (noxious and hazardous industry) • extractive industry • utility installation • crematorium.

Appendix 11: Land uses associated with increases in wildlife strikes and hazards

Column 1: High risk	Column 2: Moderate risk
Rural activities • cropping (turf farm, fruit tree farm) • intensive animal industry (piggery) • aquaculture (fish processing/packing plant). Conservation • conservation estate (e.g. wetland) • sport and recreation activities • major sport, recreation and entertainment facility (showground). Industry activities • low-impact industry (food processing plant) • medium-impact industry (food processing plant) • high-impact industry (food processing plant). Utility installation • food/organic waste facility • putrescible waste facility (e.g. landfill, transfer station).	Rural activities • animal husbandry (cattle/dairy farm) • intensive animal industry (poultry farm). Conservation • Environment facility Recreation activities • major sport, recreation and entertainment facility (all other) • outdoor sport and recreation activities • park. Utility installation • non-putrescible waste facility (e.g. landfill, transfer station) • sewage/wastewater treatment facility.

Appendix 12: Guidance on other statutory approvals required

Part A: Applications affecting operational airspace

Proponents of development and local governments should be aware that if development or associated activities propose to intrude into the operational airspace of a strategic airport, approval may be required from the Australian Government.

This section outlines the various development assessment processes for applications affecting the operational airspace of the different types of strategic airports. The purpose of this information is to provide an understanding of the Australian Government's role in development proposals submitted into the Integrated Development Assessment System (IDAS).

Note:

- an Australian Government approval is separate to any development approval issued under the *Planning Act 2016*
- an approval under the *Planning Act 2016* does not guarantee Australian Government approval and vice versa
- Australian Government approval processes are not subject to IDAS timeframes.

It is recommended that proponents seek any necessary Australian Government pre-lodgement advice or if appropriate, approvals, before lodging a development application in the IDAS.

Leased federal airport approval process for controlled activities under the Airports Act

The Commonwealth protects the operational airspace around leased federal airports – 'prescribed airspace' – under Part 12 of the *Airports Act 1996* and the Airports (Protection of Airspace) Regulations 1996.

An intrusion into prescribed airspace, constitutes a 'controlled activity' under the *Airports Act*. Carrying out a 'controlled activity' without approval is an offence under section 183 of the *Airports Act* and can result in a Federal Court order to 'demolish, dismantle or remove the building, structure or thing concerned'.

Step 1

A local government must notify the airport operator of a development application which seeks to intrude into the operational airspace (OLS or PANS-OPS) of a leased federal airport.

Step 2

Airport operators are required to notify CASA and Airservices Australia of any development or proposed construction that is likely to involve a controlled activity, create an obstacle to aviation or if an object will intrude into the OLS or PANS-OPS surfaces. If the airport operator determines that an intrusion will occur, the operator will advise the proponent to lodge a formal application with the airport operator to penetrate declared prescribed airspace.

Step 3

The airport operator then refers the application to CASA and Airservices Australia for assessment regarding impacts on aviation safety and seeks advice from relevant parties such as the local government. In certain instances, the airport operator will be required to forward the combined advice to DIRD for a decision.

Step 4
Once assessed, the airport operator will provide local government with consolidated advice regarding the Commonwealth approval decision from the Australian Government, which will include advice (and conditions) from CASA, Airservices Australia and the local government. The local government will then notify the proponent of the outcome.

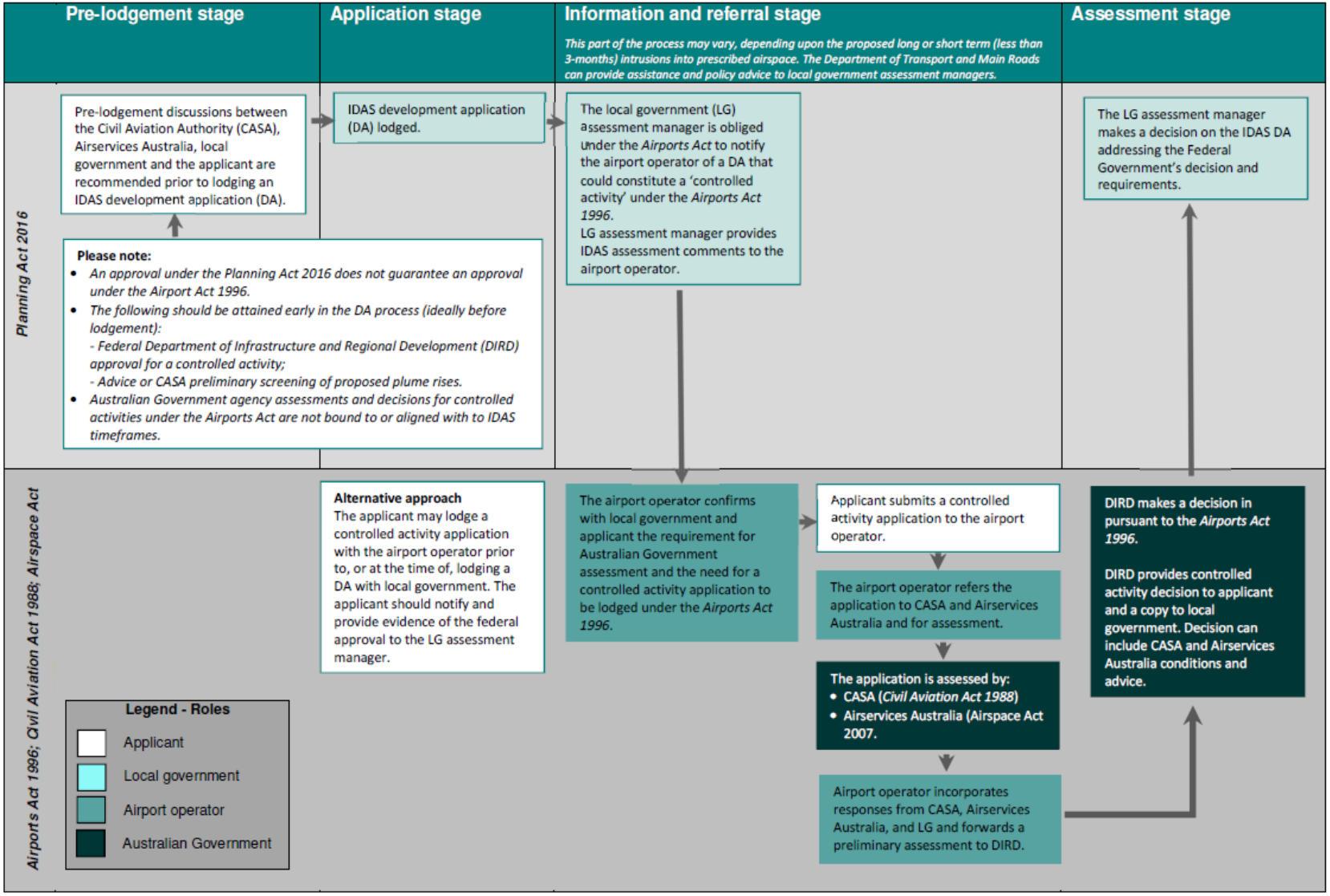


Figure 6: Assessment process for a development application proposing to intrude into the operational airspace (prescribed airspace) of a leased federal airport

Defence airfields approval processes

The Department of Defence (DoD) is responsible for protecting airspace surrounding military airfields to ensure the safety of aircraft on approach, departure and during low-flying manoeuvres. DoD provides approvals for intrusions into the height restriction zones surrounding military airfields in accordance with the Defence (Areas Control) Regulation 1989 (DACR), a Commonwealth regulation under the *Defence Act 1903*. Under Regulation 10 of the DACR, development which exceeds the applicable DACR height restriction will require a separate approval from DoD. The DACR application process and defence information requirements are outlined in Regulation 8 of the DACR.

Step 1

Where a proponent knows that a development proposal will exceed the height restriction zone for a DoD airfield, an application should be submitted to DoD for approval under the DACR. It is recommended that this occur before submitting the development application to local government for approval.

Step 2

On receipt of a development application within a height restriction zone, local government will assess the proposal to determine if it will exceed the applicable height restriction zone. If in doubt, the local government will seek advice from DoD or undertake the following:

Proposal does not exceed height restriction zone

- Where a structure does not exceed a height restriction zone for an airfield, no separate application to DoD is required.
- Local government will refer the application to DoD for third party advice on general defence interests.

Proposal exceeds height restriction zone

- Where an applicant has not provided evidence of prior DoD approval and the local government determines that a structure is likely to exceed the height restriction zone, the applicant will need to make a formal application to DoD for approval of the development under the DACR.
- The local government will also refer the application to DoD for third party advice on general defence interests (e.g. aircraft noise, extraneous lighting, wildlife hazard and PSAs).

Step 3

On receipt of an application for approval under the DACR, DoD will assess the development proposal for impacts on aviation safety and defence operations.

Step 4

Under the *Defence Act*, DoD may approve an application subject to conditions or reject an application. A copy of DoD's decision letter will be provided to the local government assessment manager.

- If DoD approves the DACR application then the local government assessment manager can proceed with assessing the application noting that the development has been assessed and approved by DoD.
- If DoD rejects the application, the local government assessment manager could either refuse the proposal or seek amendments to make the proposal compliant with height restriction zones for the airfield and other policy matters outlined in the SPP and SPP guideline.

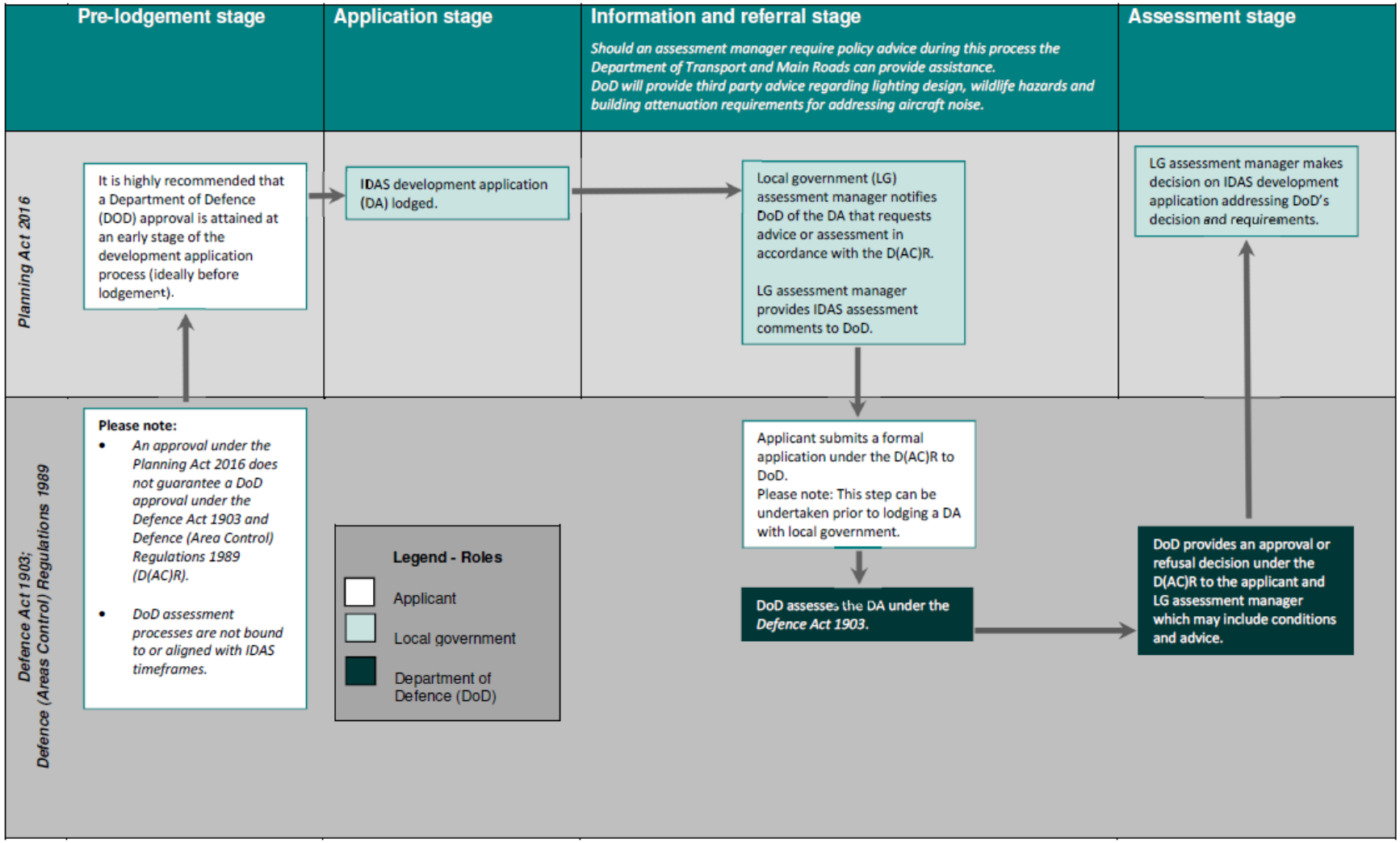


Figure 7: Assessment process for a development application proposing to exceed a height limit in a height restriction zone of a defence or joint-user airfield

Regional strategic airports

Step 1
Where a local government receives a development application which seeks to intrude into the operational airspace (OLS or PANS-OPS) of a regional strategic airport, it is required to notify the airport operator.

Step 2
On receipt of the application, the airport operator will seek advice from CASA and Airservices Australia regarding impacts on aviation safety, regularity and efficiency.

Step 3
Once assessed, the airport operator will provide local government with consolidated advice from CASA and Airservices Australia on whether to permit an intrusion into the operational airspace of a strategic airport.

Part B: Applications affecting the building restricted area of an aviation facility

Step 1
Where a local government receives a development application that seeks to intrude into the BRA, the assessment manager should contact Airservices Australia (and the airport operator if the facility is on airport land but the BRA extends off airport land) to discuss the details of the application.

Step 2
Airservices Australia and the airport operator assesses the application and provides authoritative advice to the local government about how to proceed with the assessment.

Step 3
Local government will notify Airservices, the airport operator and DoD, where relevant, of the final decision including any mitigation measures. Local government will provide written justifications and/or explanations in the case of an appealed or disputed decision.

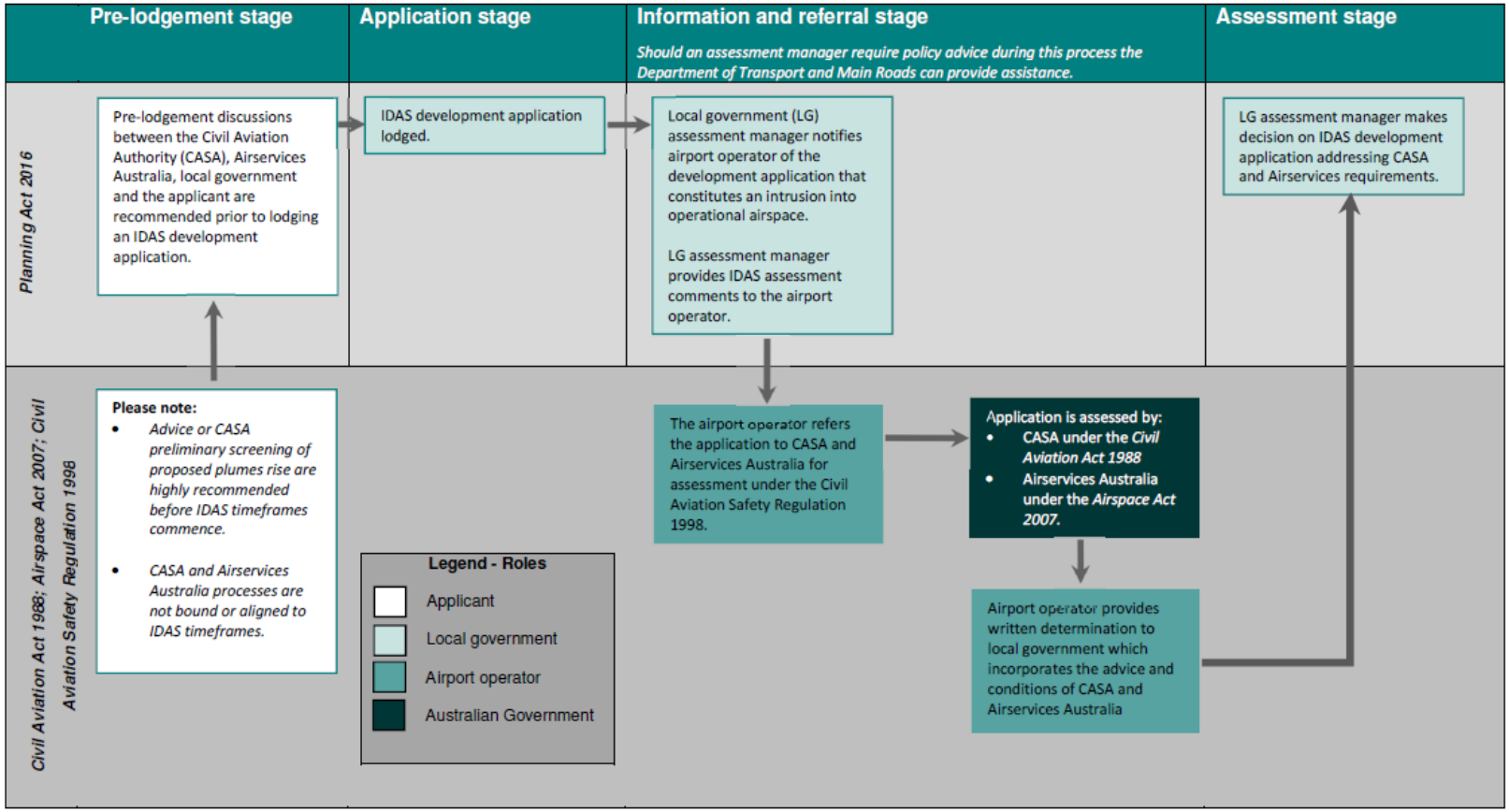


Figure 8: Assessment process for a development application proposing to exceed a height limit in a height restriction zone of a defence or joint-user airfield

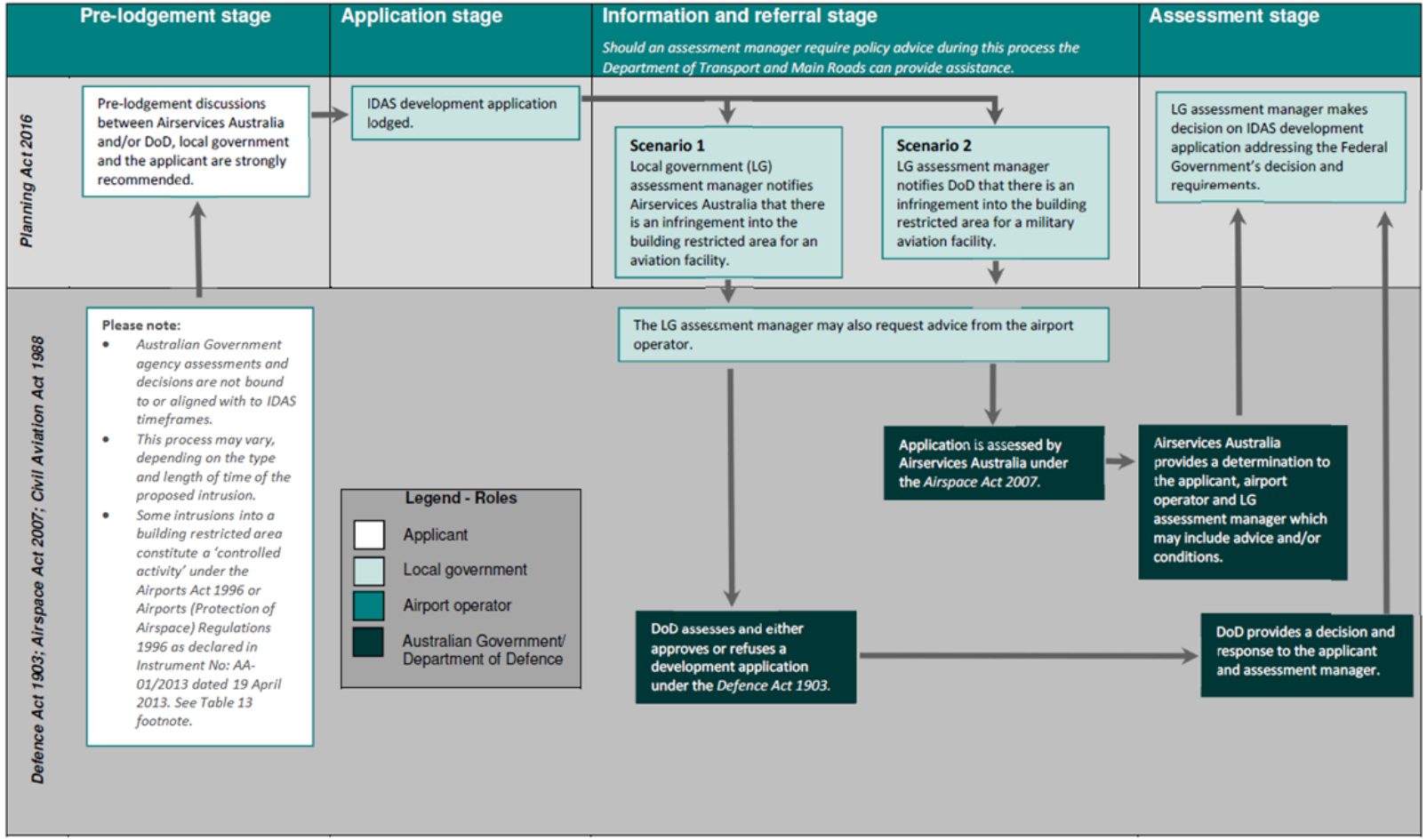


Figure 9: Assessment process for a development application proposing intrude into the building restricted area of an aviation facility

Appendix 13: PSA – Generally compatible and incompatible uses (new or changed development only)

Incompatible land uses in a PSA	Compatible land uses in a PSA
• accommodation activities: includes dwelling houses, multiple dwellings, resort complexes, tourist park, hostels, retirement villages or other residential care buildings note: extensions to existing dwellings may be considered on a case-by-case basis • community activities: includes educational establishments, community centres, hospitals, theatres, child-care centres and playgrounds, detention facilities, places of worship • recreation activities: includes parks, outdoor recreation and sport, major sport and entertainment facilities • entertainment and centre activities: includes shopping centres, service stations, showrooms, markets, hotels, theatres, tourist attractions, garden centres • industrial and commercial uses involving large numbers of workers or customers: includes Intensive uses such as high impact, medium and low impact industry, warehousing, services industry • manufacture or bulk storage of flammable, explosive or noxious materials • public passenger transport infrastructure: includes bus train and light rail stations.	• long stay and employee car parking (where the minimum stay is expected to be in excess of six hours) • built development for the purpose of housing plant or machinery and would require no people on site on a regular basis, such as electricity switching stations or installations associated with the supply or treatment of water • golf courses, but not club houses • open storage and types of warehouses with a very small number of people on site. The planning authority could consider imposing conditions to prevent future intensification of the use of the site and limit the number of people to be present on the site • developments which require few or no people on site on a regular basis such as buildings housing plant or machinery • low intensity public open space.

Appendix 14: Compatible and incompatible land uses within ANEF contours for the purposes of development assessment

Sensitive land uses	Compatibility of use within ANEF contour of site		
	Compatible	Compatible subject to conditions	Incompatible
Accommodation activity (except short–term accommodation, rooming accommodation) Residential care facility	Less than 20 ANEF	20–25 ANEF	Greater than 25 ANEF
Short-term accommodation Hotel Hostel	Less than 25 ANEF	25–30 ANEF	Greater than 30 ANEF
Educational establishment Child care centre	Less than 20 ANEF	20–25 ANEF	Greater than 25 ANEF
Hospital Health care service	Less than 20 ANEF	20–25 ANEF	Greater than 25 ANEF
Community activity Place of worship	Less than 20 ANEF	20–30 ANEF	Greater than 30 ANEF
Office	Less than 25 ANEF	25–35 ANEF	Greater than 35 ANEF
Light industrial	Less than 30 ANEF	30-40 ANEF	Greater than 40 ANEF

Source: Adapted from AS 2021 (as adopted 12 February 2015).

Note:

1. Appendix 14 only considers aircraft noise impacts on indoor spaces specifically.
2. AS 2021 should be referred to by those seeking information/background on the basis for Appendix 14

Appendix 15: Levels of assessment for development within ANEF contours

Land uses	Level of assessment	
	Self-assessable	Assessable
Accommodation activity (except short-term accommodation, rooming accommodation), residential care facility	Less than 25 ANEF	Reconfiguration of a lot or material change of use on land within the 25–40+ ANEF
Short-term accommodation, hotel, rooming accommodation	Less than 30 ANEF	Material change of use on land within the 30–40+ ANEF
Educational establishment, child care centre	Less than 25 ANEF	Material change of use on land within the 25–40+ ANEF
Hospital, health care service	Less than 25 ANEF	Material change of use on land within the 25–40+ ANEF
Community use, places of worship	Less than 30 ANEF	Material change of use on land within the 30–40+ ANEF
Office	Less than 35 ANEF	Material change of use on land within the 35–40+ ANEF
Light industry	Less than 40 ANEF	Material change of use on land within the 40+ ANEF

Source: Adapted from AS 2021 (as adopted 12 February 2015).

Note:

1. AS 2021 should be referred to by those seeking information/background on the basis for Appendix 15.

Appendix 16: Desirable indoor design sound levels for sensitive land uses

Land use	Location within development	Indoor design sound level dB(A)
Accommodation activities Residential care facilities	Sleeping areas	50
	Other habitable	55
Short-term accommodation Hotels Rooming accommodation (hostel)	Sleeping areas	55
Educational establishments Child care centres	Libraries Classrooms, study areas, sleeping areas	50
	Teaching area, assembly areas	55
Hospitals Health care services	Wards, theatres, treatment and consulting rooms	50
	Laboratories	65
Community activities Places of worship		50
Offices	Private offices, conference rooms	55
	Open offices	65
Light industry	Inspection, analysis, precision work	75
	Light machinery, assembly, bench work	80

Source: Adapted from AS 2021 (as adopted 12 February 2015).

Note:

1. Appendix 16 only considers aircraft noise impacts on indoor spaces specifically.
2. AS 2021 as adopted 12 February 2015, should be referred to for detailed advice and information about the indoor design sound levels in Appendix 16.

Appendix 17: Mapping update processes

This appendix outlines the mapping update processes for each layer and the relevant legislation.

SPP Interactive Mapping System layer	Head of power	Data custodian	Mapping change process (as in place 01/01/2017)
ANEF 20 – 25 contour ANEF 25 – 30 contour ANEF 30 – 35 contour ANEF 35 – 40 contour ANEF 40 contour or greater (ANEF data may be limited or may not exist. In those cases, the airport has not developed an ANEF contour)	Leased federal and joint-user • *Airports Act 1996* • *Airservices Act 1995* • *Transport Planning and Coordination Act 1994* • National Airports Safeguarding Framework • *Queensland Air Navigation Act 1939* • *Planning Act 2016* • SPP	DTMR	Statutory change process: The ANEF data supplied to DTMR by an airport operator must be endorsed by Airservices Australia and the Commonwealth Minister for Infrastructure and Transport. In accordance with the *Airservices Act 1995,* Airservices Australia is responsible for endorsing Australian Noise Exposure Forecasts for **all Australian airports,** including Defence airfields. Before Airservices Australia endorse an ANEF, the airport operator must provide evidence that state and local government have been consulted. ANEF's are developed in accordance with the Australian Standard 2021-2015 *Acoustics - Aircraft Noise Intrusion - Building Siting and Construction*. The production of ANEFs is required at leased-federal airports as part of the airport master planning process established under the *Airports Act 1996.* An ANEF update will trigger the airport masterplan review process.
	Defence airfields • *Defence Act* • *Airservices Act 1995* • *Transport Planning and Coordination Act 1994* • National Airports Safeguarding Framework • *Queensland Air Navigation Act 1939* • *Planning Act 2016* • SPP	DTMR	Statutory change process: The ANEF data supplied to DTMR must be endorsed by DoD, and by Airservices Australia. The Department of Defence (DoD) updates ANEF contours for military airbases every five-ten years. Defence uses the same method to create ANEF maps as Australian civilian airports.
	Regional airports	DTMR	Statutory change process: The ANEF data supplied to DTMR by an airport

	• *Transport Planning and Coordination Act 1994* • National Airports Safeguarding Framework • *Queensland Air Navigation Act 1939* • *Planning Act 2016* • SPP		operator must be endorsed by Airservices Australia.
Obstacle limitation surface (OLS) and contour	Leased federal • *Airports Act 1996* • *Airports (Protection of Airspace) Regulations 1996* • *Transport Planning and Coordination Act 1994* • National Airports Safeguarding Framework • *Queensland Air Navigation Act 1939* • *Planning Act 2016* • SPP	DTMR	Statutory change process: An OLS must be declared as part of prescribed airspace, by the Commonwealth Minister for Transport and Infrastructure pursuant to the Airports (Protection of Airspace) Regulations. The Department of Infrastructure and Regional Development protects the airspace around leased federal airports under Part 12 of the *Airports Act 1996* (the Act) and the Airports (Protection of Airspace) Regulations 1996.
	Regional airports • *Airspace Act 2007* • *Airspace Regulations (2007)* • *Transport Planning and Coordination Act 1994* • National Airports Safeguarding Framework • *Queensland Air Navigation Act 1939* • *Planning Act 2016* • SPP		Statutory change process: The airport operator must provide OLS data that meets CASA regulation and standards. The airport operator has the responsibility to establish the obstacle limitation surface contour applicable to the airport. Any proposed changes to an OLS is legislated under the Airspace Regulations 2007 and associated CASA Airspace Planning Manual.
Public safety area	Applicable strategic airport runways • *Transport Planning and Coordination Act 1994* • National Airports Safeguarding Framework • *Queensland Air Navigation Act 1939* • *Planning Act 2016* • SPP	DTMR	Non-statutory change process: The application of PSAs is subject to the SPP and SPP Guideline criteria. DTMR policy is to audit airport runway profiles annually in consultation with the airport operator.
Light restriction zone • Zone A • Zone B • Zone C • Zone D	All strategic airports • *Civil Aviation Act 1998* • *Transport Planning and Coordination Act 1994* • *Civil Aviation Regulation 1994* • National Airports Safeguarding Framework	DTMR	Non-statutory change process: These layers are applied to all strategic airports as required in Manual of Standards, Part 139. ***Note:*** *Both CASA (under the Civil Aviation Act 1988 and*

	• *Queensland Air Navigation Act 1939* • *Planning Act 2016* • SPP		*Regulation 94 of the Civil Aviation Regulations 1988) and DoD have legislative powers to cause lighting which may cause distraction, confusion or glare to pilots flying aircraft to be turned off or modified.*
Lighting area buffer 6km	All strategic airports • *Civil Aviation Act 1998* • *Transport Planning and Coordination Act 1994* • National Airports Safeguarding Framework • *Queensland Air Navigation Act 1939* • *Planning Act 2016* • SPP	DTMR	Non-statutory change process: These layers are applied to all strategic airports as required in Manual of Standards, Part 139. Note: CASA has powers under the *Civil Aviation Act 1998* to restrict lighting and the *National Airports Safeguarding Framework* sets out a guideline for lighting.
Wildlife hazard buffer zone • 3km • 8km • 13km	All strategic airports • *Transport Planning and Coordination Act 1994* • National Airports Safeguarding Framework • *Queensland Air Navigation Act 1939* • *Planning Act 2016* • SPP	DTMR	Non-statutory change process: These layers are applied to all strategic airports. Wildlife hazard buffer zone layers are based on the *National Airports Safeguarding Framework* which has been developed from the International Civil Aviation Organisation. The Civil Aviation Safety Regulations 1998 imposes obligations on airports to reduce the risks of wildlife strikes.
Height restriction zone 0m Height restriction zone 7.5m Height restriction zone 15m Height restriction zone 45m Height restriction zone 90m	Joint-user and defence airfields • *Defence Act 1903 (Cwlth)* • *Defence (Area Control) Regulations 1989* • *Transport Planning and Coordination Act 1994* • National Airports Safeguarding Framework • *Queensland Air Navigation Act 1939* • *Planning Act 2016* • SPP	DTMR	Statutory change process: Department of Defence requirement pursuant to the Defence (Areas Control) Regulations 1989. Updates are undertaken by the DoD and provided to TMR.
Aviation facility and associated building restricted areas • location • zone A • zone B	• *Airspace Act 2007 (Declared prescribed aviation facilities)* • *Transport Planning and Coordination Act 1994* • National Airports Safeguarding Framework	DTMR	Non-statutory change process: Mapping updates are instigated by Airservices Australia if an aviation facility is either decommissioned or installed.

• area of interest	• *Queensland Air Navigation Act 1939* • *Planning Act 2016* • SPP		Airservices Australia or DoD set the standards used to determine the building restricted areas for the different types of aviation facilities. These are drawn from International Civil Aviation Organisation standards and the National Airports Safeguarding Framework.

Appendix 18: Guidance on the National Airports Safeguarding Framework

The Australian Government's 2009 Aviation White Paper proposed the development of a national land- use planning framework called the *National Airports Safeguarding Framework* (the safeguarding framework).

The safeguarding framework was developed by the National Airports Safeguarding Advisory Group (NASAG) which comprises Australian, state and territory government planning and transport officials, DoD, CASA, Airservices Australia and the Australian Local Government Association. The Standing Council on Transport and Infrastructure endorsed the release of the safeguarding framework in June 2012.

The safeguarding framework provides the opportunity to improve planning outcomes consistently across all jurisdictions and to improve the safety and viability of operations at all Australian airports. The safeguarding framework supports and enables:

- implementation of best practice relating to land use assessment and decision making in the vicinity of airports
- assurance of community safety and amenity near airports
- better understanding and recognition of aviation safety requirements and aircraft noise impacts in land-use and related planning decisions
- provision of greater certainty and clarity for developers and land owners
- improvements to regulatory certainty and efficiency
- publication and dissemination of information on best practice in land-use and related planning to support the safe and efficient operation of airports.

A copy of the National Aviation Safeguarding Framework is available from the Australian Department of Infrastructure and Transport at:
https://infrastructure.gov.au/aviation/environmental/airport_safeguarding/nasf/nasf_principles_guidelines.aspx

The safeguarding framework includes guidelines which provide proponents of development and local government further information about how to address risks to aviation safety posed by development.

The guidelines available are listed in the table below.

Table 6: National Airports Safeguarding Framework Guidelines

State interest area	National Airports Safeguarding Framework resources
Aircraft noise	Guideline A: Measures for managing impacts of aircraft noise • Attachment 1 – Alternative aircraft noise
Windshear and turbulence	Guideline B: Managing the risk of building generated windshear and turbulence at airports • executive summary • report: Guidance material for building induced wake effects at airports • case study - Sydney Airport Cooks Cove: A practical application of Guideline B
Wildlife hazards	Guideline C: Managing the risk of wildlife strikes in the vicinity of airports • glossary • Attachment 1 – Wildlife attraction risk and actions by land use • Attachment 2 – Brisbane Airport buffers
Wind turbine farms	Guideline D: Managing the risk of wind turbine farms as physical obstacles to air navigation

Lighting	Guideline E: Managing the risk of distractions to pilots from lighting in the vicinity of airports • Attachment 1 – Diagram of maximum intensity of light sources
Intrusions into operational airspace	Guideline F: Managing the risk of intrusions into the protected airspace of airports • Attachment 1a – Example of OLS chart • Attachment 1b – Sydney OLS • Attachment 2 – Example of PANS-OPS chart • Attachment 3 – Summary of processes
Aviation facilities and building restricted areas	Guideline G: Protecting aviation facilities – communication, navigation and surveillance • Attachment 1 – Assessment of potential infringements into a building restricted area • Attachment 2 – What is the function of communication, navigation and surveillance facilities? • Attachment 3 – Building restricted areas for aviation facilities.

Queensland's policy position

The Queensland Government advanced its commitment to protecting aviation infrastructure in Queensland by actively contributing to the development of the safeguarding framework through NASAG. The safeguarding framework reinforces the current legislative and policy position of the Queensland Government captured in the SPP and SPP guideline, which takes into account:

- existing Commonwealth and state legislation and regulatory processes and the need for a cooperative approach
- responsibilities and role of local governments and local planning instruments in the context of the Planning Act 2016 and Planning Regulation 2017
- the need for efficiency, effectiveness and appropriate risk management regarding public safety
- provision for evaluation and review of regulatory arrangements over time to accommodate changing circumstances and technology
- Queensland conditions and circumstances.

Given that Queensland government policy and legislation has supported the protection of aviation infrastructure over the past two decades, the safeguarding framework is not a new approach – it does not fundamentally alter Queensland's state interest.

Windshear

The Queensland Government acknowledges a new policy position for mitigating building-generated windshear and turbulence at airports has been endorsed as part of the safeguarding framework.

The new policy position has not been adopted in the SPP at this time as NASAG is still developing the framework that will underpin implementation of the policy. Once NASAG has developed the implementation framework for windshear, the Queensland Government will seek to incorporate the policy into the SPP or other land use planning tools as appropriate.

Public safety areas

The Queensland Government acknowledges there are alternatives methodologies for determining the dimensions of a PSA. The Queensland Government is currently supporting NASAG in its work to develop a nationally-consistent approach for managing safety at the end of Australian airport runways. When this work is complete, the Queensland Government will seek to incorporate the endorsed approach into the SPP.

Appendix 19: Matters to consider when designing development in close proximity to operational airspace

The following matters should be considered when designing a development in close proximity to operational airspace:

- method of construction
- operational characteristics of the crane or equipment to be used
- maximum height of a crane with the jib at maximum radius (AHD). A crane is likely to sit higher than the highest part of the building, on top of a crane tower structure. Some cranes require the jib to be lifted into the vertical position for refueling activities.
- maximum operating envelope, or maximum radius, of a crane (AHD)
- whether the working radius of the crane required for construction can occur without intrusion into operational airspace
- frequency of intrusion.

Crane operations proposing to intrude into the operational airspace of:

- leased federal airports require assessment and approval under Part 12 of the Commonwealth's *Airports Act 1996* and the Airports (Protection of Airspace) Regulations 1996. Please refer to the Department of Infrastructure and Regional Development website for further information: https://infrastructure.gov.au/aviation/safety/protection/index.aspx)
- defence airfields or joint-user airfields require assessment by the DoD
- regional airports require assessment by the airport operator, in consultation with CASA.

Appendix 20: Aviaiton legislation and regulation

Cairns and Mackay airports

The state also has a direct role in regulating Cairns International and Mackay airports under the *Airport Assets (Restructuring and Disposal) Act 2008* (AAA08 Act). Both Cairns and Mackay airports are leased from the state by a private operator under the AAA08 Act.

Leased federal airports

The *Airports Act 1996* (Airports Act) (Commonwealth) and the Airports (Protection of Airspace) Regulations 1996 include powers to protect leased federal airports (also known as Commonwealth airports) at Archerfield, Brisbane, Gold Coast, Mount Isa and Townsville (civil component only). Although these five airports are leased to private operators, they are a 'Commonwealth place' under the *Commonwealth Places (Application of Laws) Act 1970* and therefore remain under the jurisdiction of the Australian Government.

Part 12 of the Airports Act and the Airports (Protection of Airspace) Regulations establishes a framework for the protection of operational airspace around leased federal airports. The Airports Act defines any activity that encroaches into a leased federal airport's operational airspace (known as prescribed airspace) to be a 'controlled activity'. Controlled activities cannot be carried out without approval from the Australian Government. The Australian Government and/or the airport manager can approve or refuse applications to carry out a controlled activity or impose conditions on the approval.

Defence airfields

DoD operates defence airfields at Amberley, Oakey, Scherger and Townsville under the *Defence Act 1903* and the DACR. Regulation 10 of the DACR requires any building, structure or natural obstacle located on land within a Height Restriction Zone to be assessed by DoD for hazards to military aviation operations. DoD also safeguards defence airfields against extraneous lighting and wildlife hazards up to 15 kilometres from the airfield.

Other airports

Under the *Civil Aviation Act 1988* and supporting civil aviation regulations, CASA exercises powers to protect the operational airspace for airports that are not a Commonwealth place from incompatible intrusions.

Aviation facilities and building restricted areas

Airservices Australia sets the standards used to determine the BRA for different types of aviation facilities. The local government is responsible for determining the BRA applicable to the facility in consultation with Airservices Australia. Under the *Air Services Act 1995, Civil Aviation Act 1988* and the *Defence Act 1903,* the Australian Government (Airservices Australia and DoD) is responsible for ensuring that the functioning of Australia's network of aviation facilities is not compromised. Interference with an aviation facility may also invoke powers under the *Australian Communications and Media Authority Act 2005*. Radio frequency interference is regulated by the Australian Communications and Media Authority (ACMA) and therefore not addressed under this state interest.

Appendix 21: SPP Interactive Mapping System (IMS) mapping updates and data responsibilities

The SPP IMS will include the most recent airport environs overlay data required for each local government area. DTMR will periodically liaise with all airport operators and Airservices Australia to source the most up-to-date data for each strategic airport and aviation facility. Local governments can contact DTMR for the latest GIS mapping data (see Appendix 8).

Airport operator's responsibilities

The airport operator is responsible for notifying TMR in writing of any mapping data changes and for supplying the updated data files by email within four weeks of endorsement to planningpolicy@tmr.qld.gov.au.

TMR has executed individual Deeds of Agreement for data supply and use with airport operators to support the protection of strategic airports under the SPP. Under the Deed of Agreement the airport operator is responsible for providing TMR with the data/mapping listed in Table 10.

Table 7: Data and mapping to be provided to TMR by airport operators of strategic airports

Data type	Applicable standard	Supply format
Australian Noise Exposure Forecast contours	Airport masterplan or other documentation endorsed by Airservices Australia	Spatial data/mapping supplied digitally in one of the following file formats referenced in the WGS 84 (preferred) or Map Grid of Australia (MGA) system – MGA 94, Zone 54, 55 or 56 (depending on location of area) and specifying the coordinate system/projection: • MapInfo.tab (preferred) • AutoCAD.dwg • ESRI.shp.
Obstacle limitation surfaces	Civil Aviation Safety Regulations 1998	
Aerodrome reference point	En Route Supplement Australia Geo-referenced coordinates	
Runway dimensions (including runway centreline, ends, threshold markings and constructed widths).	Geo-referenced *as constructed* plans.	

As part of the ANEF endorsement process, Airservices Australia requires airport operators to provide evidence of consultation with state and local authorities and demonstrate that due regard has been given to the concerns raised. This also applies to the DoD for defence airfields. Airport operators should submit the following to TMR (see Appendix 8):

- a letter advising of the intention to submit draft ANEF contours to Airservices Australia or DoD for endorsement and outlining the extent of consultation with the relevant local government(s) and the public
- a spatial data file showing the existing and revised ANEF contours for the airport. Individual land parcels should be identifiable.

In response, TMR will provide a letter to the airport operator raising any issues of concern and confirming that consultation has occurred. Within four weeks of Airservices Australia/DoD endorsement, the airport operator must provide the endorsed ANEF contour data and evidence of Airservices Australia/DoD approval to TMR. This data will be used to update the SPP IMS.

TMR's responsibilities

TMR will use the quality assured data provided by the airport operator and other data to generate the spatial data and mapping layers for the SPP Integrated Mapping System.

To undertake quality assurance before the SPP IMS update, TMR will provide this data to the airport operator for approval, allowing 10 business days for comment. Once the airport operator approves the spatial data/mapping layers, TMR will provide the data to DILGP for inclusion in the SPP IMS. On request, TMR will supply the spatial data and mapping layers to local governments for inclusion in local government planning schemes.

TMR will contact the airport operator twice a year to confirm that the spatial data/mapping for the airport in the SPP IMS is up-to-date.

Local government responsibilities

Local government is responsible for ensuring the mapping layers for strategic airports and aviation facilities in a local government planning scheme align with the SPP IMS. The SPP spatial data/mapping layers for an airport can be requested from TMR by emailing planningpolicy@tmr.qld.gov.au and specifying the data format required (for example, MapInfo, ESRI). The SPP Integrated Mapping System prevails where there is an inconsistency with a planning instrument.

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