



WEST SALE AIRPORT

DRAFT MASTER PLAN 2045

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Part One

Introduction

1. Introduction

Background

West Sale Airport is owned and managed by Wellington Shire Council and benefits from its strategic location and its status as having one of the longest runways in regional Victoria. The Shire is also home to Victoria's largest Royal Australian Air Force training base, RAAF Base East Sale. West Sale Airport currently supports a range of domestic aeronautical users while also enabling key RAAF training activities and broader defence capability.

Since the previous master plan update in 2017, the airport has experienced a substantial increase in aircraft movements, driven largely by the commencement of the RAAF Pilot Training System (AIR 5428) in 2019. This growth has reinforced the airport's importance as a dual-use civil-military asset and highlights the need for coordinated long-term planning.

Recent upgrades, including the extension of the main runway to 1,803 metres, along with developable land and supporting infrastructure, position West Sale Airport well for future development and expansion. These factors collectively underscore the importance of preparing a new master plan to guide the airport's next phase of growth and ensure it continues to meet regional, defence, emerging industry and community needs.

Purpose & Objectives

The purpose of the West Sale Airport Master Plan 2045 is to establish the West Sale Airport's vision and objectives, shaped by its stakeholders, to support existing operators while maximising opportunities through appropriate infrastructure and services over the next 20 years.

The objective of the West Sale Master Plan 2045 is to respond to current interests, guide future development, and update the Australian Noise Exposure Forecast (ANEF).

Report Structure

The West Sale Airport Master Plan 2045 is comprised of three (3) parts in line with the Australian Airports Association (AAA) Airport Practice Note 4 Regional Airport Master Planning Guideline:

- **Part One** Introduction
- **Part Two** Background Information
- **Part Three** Airport Master Plan

Methodology & Consultation

The methodology for the development of the West Sale Airport Master Plan 2045 follows the four broad stages outlined in the AAA Regional Airport Master Planning Guideline and has included a range of consultation with key stakeholders and the wider community as illustrated in **Figure 1**.

Figure 1: Master Plan Methodology



Part Two

Background Information

2. Master Plan Context

This section summarises the regional, local and aviation regulatory environment relevant to the West Sale Airport Master Plan 2045.

Gippsland Region

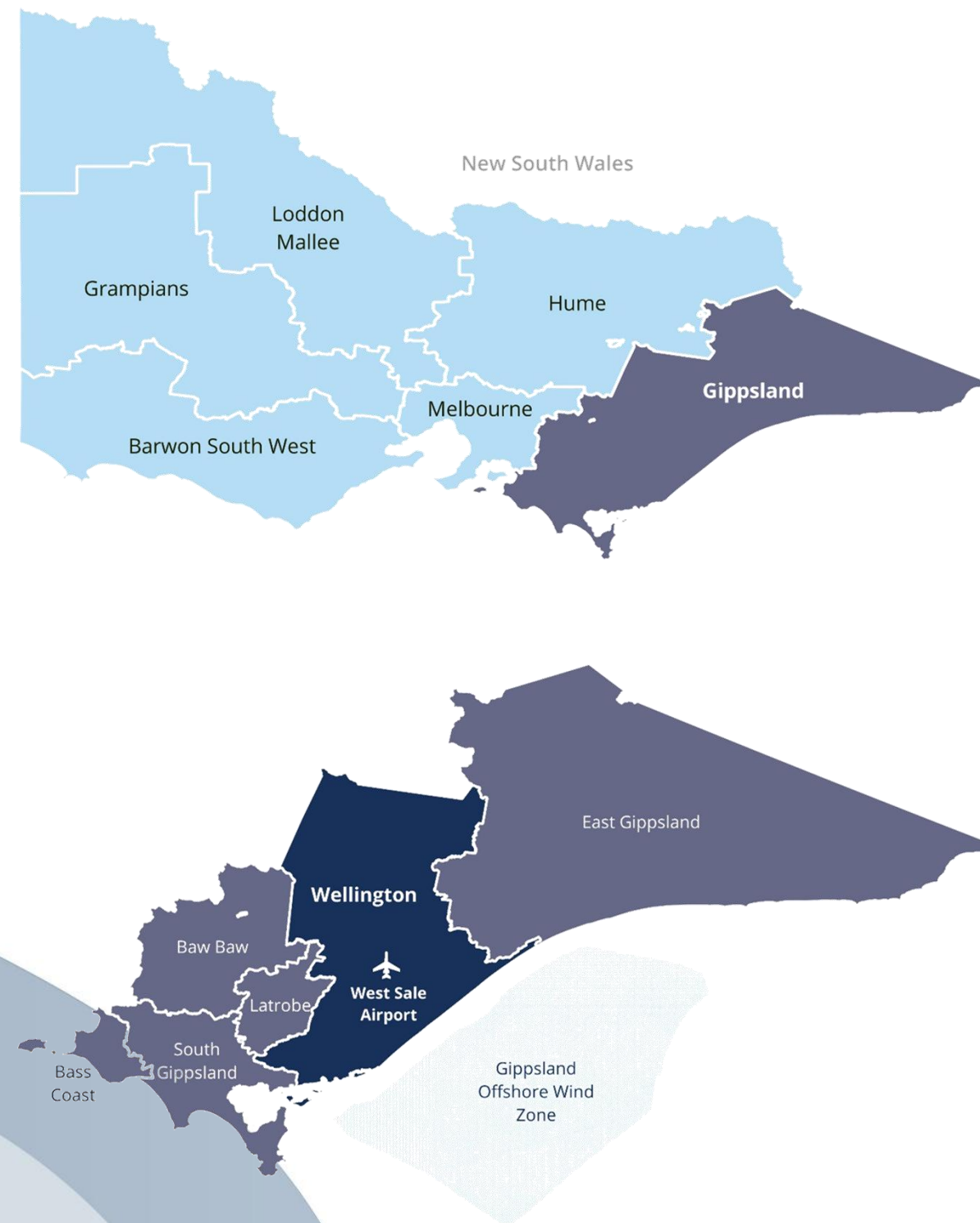
Gippsland, in southeastern Victoria, stretches from the outskirts of metropolitan Melbourne to Victoria's easternmost point. It borders New South Wales, with its southern boundary marked by the Victorian coastline. Gippsland's economy is strongly driven by natural resources and commodities, with major industries including agriculture, forestry, dairy, fishing, pastoral operations, coal mining, and oil and gas extraction. The agribusiness sector is a key employer, with over 37% of businesses engaged in agriculture and fishing, and 15% in upstream processing.

Gippsland produces most of Victoria's electricity, along with 97 per cent of the state's natural gas and 14 per cent of Australia's oil from Bass Strait's extensive gas and oil fields. With a shifting energy landscape and some of the best wind resources worldwide, the 2025 Victorian Transmission Plan proposed renewable energy zones, with Gippsland being one of six, along with a proposed Gippsland Shoreline Renewable Energy Zone and transmission network upgrades.

With its strategic location, abundant natural resources, and established industries, Gippsland remains a key economic driver for Victoria, with new pathways opening for renewable energy and economic diversification.

The **Gippsland Regional Growth Plan** (May 2014, though still current) established a long-term vision for a connected, resilient and prosperous region, guiding land use and development across Gippsland as part of a coordinated approach applied to regional Victoria. It provides a strategic framework to support the sustainable growth of key cities and centres, aligning infrastructure investment with future population and economic needs.

Figure 2: Regional Context



Gippsland is **projected to be one of Victoria's fastest-growing regions**, with the population expected to increase by 116,000 people to reach 386,000 by 2041. With targeted investment, particularly in **clean and renewable energy**, the region has the capacity to accommodate up to 465,000 residents. This growth presents an opportunity to shape Gippsland as a **leading regional economy, underpinned by innovation, sustainability and strong community foundations**.

The Plan is guided by four core pillars: economic resilience, environmental stewardship, sustainable communities, and integrated infrastructure. Together, these pillars support a diversified economy, protection of valued natural assets, liveable and well-connected communities, and efficient movement of people and goods.

Strategic infrastructure investment plays a central role in realising this vision. Key initiatives such as the duplication of the Princes Highway between Traralgon and Sale (now completed) will **strengthen regional connectivity** and unlock economic potential. At the same time, **expanding Gippsland's aircraft manufacturing capabilities** positions the region to **diversify into advanced and high-value industries**. This evolution is supported by collaboration between Latrobe Regional Airport and **West Sale Airport**, alongside **stronger links to the growing defence sector** and expansion in professional and technical services.

Within this regional context, **Sale is identified as a key urban centre for central Gippsland**. It will continue to serve as a critical service hub for **offshore oil and gas**, agriculture and forestry, while also embracing emerging opportunities in **defence, aviation, food processing and packaging**. This positions Sale to play a pivotal role in shaping Gippsland's future as a dynamic, diversified and forward-looking region.

Wellington Shire

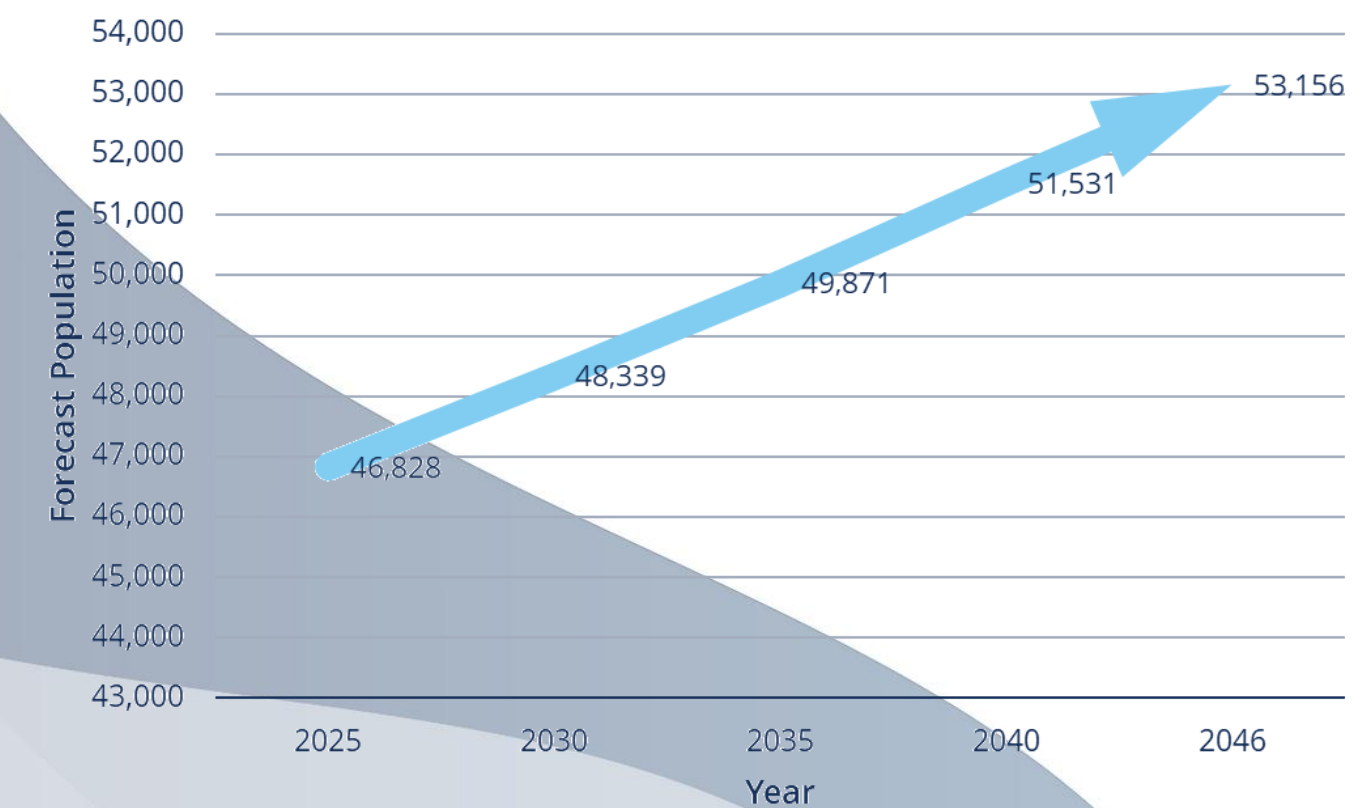
Gippsland consists of six local government areas (LGAs). Wellington Shire is Victoria’s third-largest municipality, covering 10,924 square kilometres and home to 45,639 residents (2021 Census)¹.

Wellington Shire extends from the Great Dividing Range and Victoria’s High Country through rich irrigated farmland and some of Australia’s most productive grazing areas, to the internationally significant Gippsland Lakes and Wetlands, Ninety Mile Beach, and Bass Strait. It is also strategically located within Australia’s first offshore wind zone, poised to benefit from \$40 billion in renewable energy investment.

Connected via the Princes Highway, Wellington Shire offers direct links to Sydney, Melbourne, Canberra, and the eastern seaboard of New South Wales, ensuring strong accessibility for business and tourism. The Shire has a diverse economic landscape, with key employment sectors including construction, agriculture, forestry, fishing and manufacturing.

The Wellington Shire population is forecasted to grow to 53,156 by 2046 as shown on **Figure 3**, with one of the main drivers being the attraction of the region's natural amenity, particularly for sea changers.

Figure 3: Wellington Shire Population Forecast



Source: forecast.id – Wellington Shire Population Summary

¹ Australian Bureau of Statistics *Wellington – 2021 Census All persons QuickStats*
<https://www.abs.gov.au/census/find-census-data/quickstats/2021/LGA26810> Accessed 26.02.2026

The **Wellington Shire Council Community Vision 2041** outlines long-term aspirations and guiding principles for the Wellington Shire and sets the foundation for all future planning.

Developed through extensive community consultation, the vision is centred on six guiding principles that collectively reflect the priorities and aspirations of the community for the future.

The **Wellington Shire Council Plan 2025–2029** sets the strategic direction for the region, focusing on connected communities, a diverse economy, quality infrastructure, and environmental stewardship, with priorities shaped through community and Council input.

The Plan also highlights the role of aviation and defence in driving economic growth. It recognises over \$400 million in Defence aviation investment at RAAF Base East Sale, including the Basic Pilot Training School under Project Air 5428, as well as the development of a master plan for West Sale Airport. Together, these initiatives position Wellington as a growing hub for aviation training, infrastructure, and innovation, reinforcing its identity as “The Middle of Everywhere.” The biennial ANZAC Weekend Airshow is also identified as a key regional event supporting tourism, economic activity, and the Shire’s profile in the aviation sector.

Sale and Surrounds

The town of Sale is located approximately three hours by road or rail from Melbourne. The RAAF Base East Sale (YMES) is five kilometres to the east of the town centre. West Sale Airport (YWSL) is nine kilometres west of Sale and approximately 40 kilometres east of Traralgon in neighbouring Latrobe City. **Figure 4** shows the relative locations of Sale, RAAF Base East Sale, and West Sale Airport.

Figure 4: West Sale Airport Location



Source: Google Earth Pro

Wellington Shire Planning Scheme

The Wellington Shire Planning Scheme (WSPS) sets out the vision and strategic direction for the municipality. The WSPS recognises the importance of the RAAF Base East Sale and the West Sale Airport, particularly the range of aviation-related businesses and value-added industries in the region.

The Scheme promotes leveraging the strategic advantages of RAAF Base East Sale and West Sale Airport to strengthen Wellington's employment base and economic profile. It supports the growth of aviation-related industries in and around these locations and encourages the expansion of complementary sectors such as recreation and general industry.

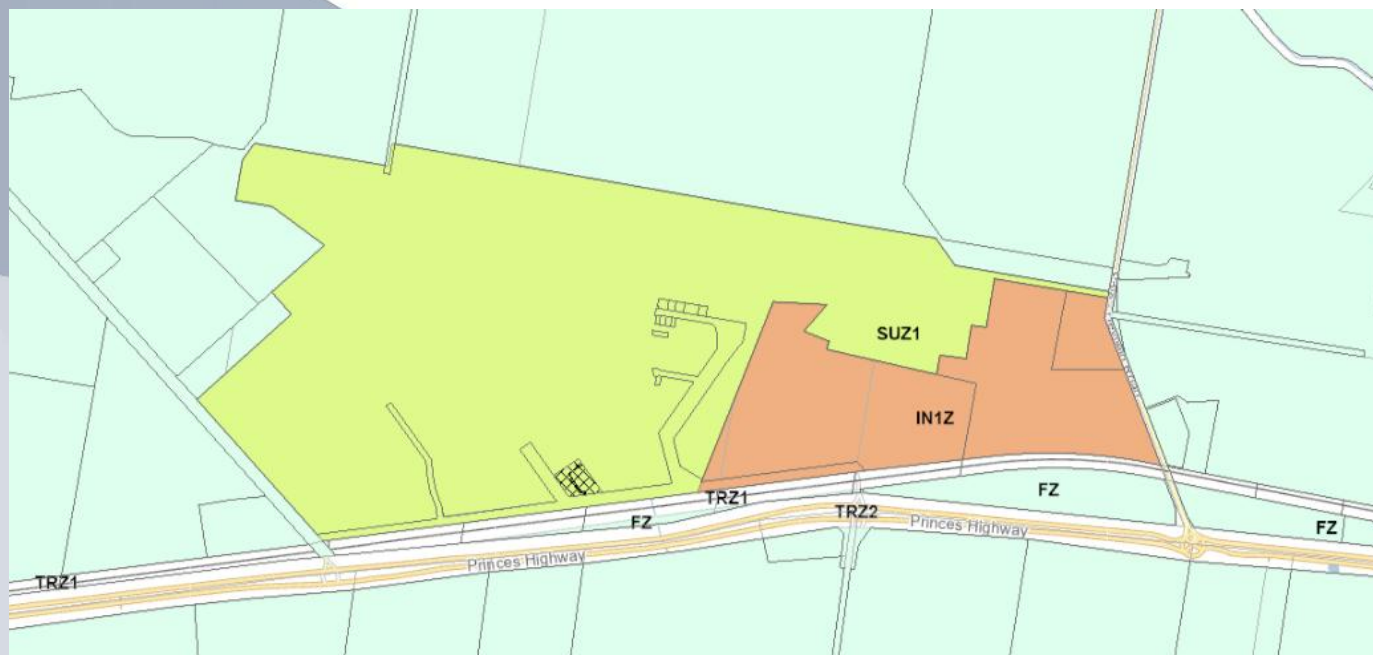
Additionally, the Scheme facilitates the development of the West Sale Airport precinct as a key industrial hub, aligned with the West Sale Industrial Strategy Plan under Clause 17.03-1L—providing multimodal access via road, rail, and air, while safeguarding both the operational integrity of the airport and the surrounding environmentally significant areas.

Clause 18.02-7S — *Planning for airports and airfields* - Wellington supports the protection and efficient use of existing airports and airfields. It reinforces the importance of integrating these strategic assets into broader land use and transport planning frameworks to foster economic development and regional connectivity. The West Sale Airport Master Plan 2017 is included in the WSPS as a Policy document.

The WSPS provides for the use and development of land, expectations for areas and land uses and for the implementation of State, regional and local policies affecting land use and development through zones and overlays.

West Sale Airport is zoned Special Use Zone 1, which dictates how the land can be used, and development is guided through the Airport Environs Overlay and the Design and Development Overlay.

Figure 5: Wellington Shire Planning Scheme Zones

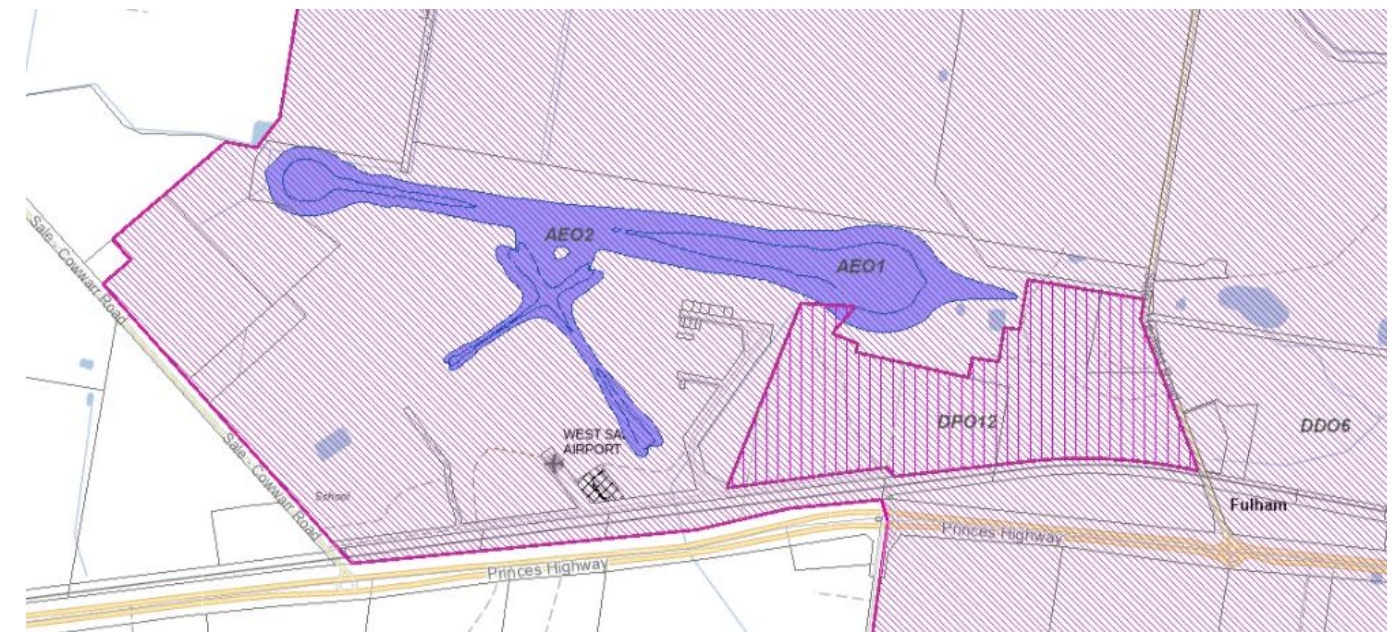


Source: VicPlan

SUZ1 - Special Use Zone (Schedule 1: West Sale Airport) is to provide for the safe and efficient operation of the West Sale Airport. SUZ1's purpose is to provide for the development of aeronautical industries and activities, educational facilities appropriate to the site and ensure that the use of the land does not adversely affect the operation of the West Sale Airport. Additionally, SUZ1 seeks to ensure that existing and future activities do not negatively impact areas identified for their environmental significance, including those with notable flora and fauna values. Importantly, this zone requires the use of the land to be in accordance with the West Sale Airport Master Plan.

Farming Zone (FZ) applies to the majority of the land surrounding the airport. The purpose of the FZ is to provide for the use of land for agriculture, encourage the retention of productive agricultural land, and ensure that non-agricultural uses, such as dwellings, do not disrupt agricultural activity. The FZ is also to encourage the retention of employment and population to support rural communities and encourage the use and development of land based on comprehensive and sustainable land management practices and infrastructure provision.

Figure 6: Wellington Shire Planning Scheme Overlays



Source: VicPlan

The **Airport Environs Overlay (AEO)** identifies areas that are forecast to be subject to high levels of aircraft noise, including areas where land uses sensitive to aircraft noise will be restricted to ensure land use and development are compatible with the operation of airports. The extents of each AEO are based on the Australian Noise Exposure Forecast (ANEF) chart for the airport. AEO1 and AEO2 state the acceptable requirements in each overlay area which are guided by Australian Standard AS2021-2015 *Acoustics – aircraft noise intrusion – building siting and construction*.

An updated ANEF chart is being prepared as part of the West Sale Airport Master Plan 2045 (see Part Three: Section 9 – Airport Safeguarding Plan). Once endorsed and active, the AEO extents will be updated as part of the implementation plan, through the appropriate Wellington Shire Planning Scheme amendment process.

The **Design and Development Overlay – Schedule 6 (DDO6)** identifies areas which are affected by specific requirements relating to the design and built form of new development. The airport and its immediate surroundings are subject to DDO6, of which the objective is to ensure that building height does not adversely affect the operation of the East Sale Royal Australia Air Force Base. Upon adoption of the Master Plan a DDO should be put in place for the West Sale Airport that aligns with the obstacle limitation surfaces to be protected (refer Part Three: Section 9 – Airport Safeguarding).

West Sale Industrial Precinct

The West Sale Industrial Precinct adjacent the West Sale Airport southeastern boundary is zoned **Industrial 1 Zone (IN1Z)**. IN1Z provides for the manufacturing industry, the storage and distribution of goods and associated uses in a manner that does not affect the safety and amenity of local communities. The **West Sale Industrial Precinct Development Plan** was adopted by Council on 21 April 2026 and responds to the **Development Plan Overlay 12 (DPO12)** in the WSPS. The objectives of the DPO12 are to ensure development does not prejudice or conflict with the ongoing operation of the West Sale Aerodrome, Gippsland rail line, Princes Highway, or Sale alternate truck route.

Aviation Regulatory Context

All air transport regulations are implemented through the **Civil Aviation Act 1988** and associated regulations, which are administered by the **Civil Aviation Safety Authority (CASA)**. CASA is an independent statutory authority responsible for regulating the safety of civil air operations across Australia.

The **Civil Aviation Safety Regulations 1998** (CASRs) prescribe the requirements for aerodromes used in air transport operations in accordance with the ICAO Annex 14 – Aerodromes. The CASRs are structured into multiple Parts, each addressing specific aspects of aviation regulation. West Sale Airport is owned and operated by the Wellington Shire Council and is a ‘certified’ aerodrome under Part 139 of the CASRs.

The **Part 139 (Aerodromes) Manual of Standards 2019** (Part 139 MOS), made pursuant to CASR Part 139, sets out the standards for design, construction, maintenance and operation of certified aerodromes, defines the requirements for aerodrome radiocommunication services at all aerodromes as well as requires the identification and reporting of hazards on aerodromes and within the prescribed airspace around an aerodrome. Grandfathering provisions are included to allow the operator of an aerodrome to maintain their facility and the obstacle limitation surfaces of an existing runway to the standard that applied at the time the facility was constructed. or replaced/upgraded. Grandfathered facilities will retain grandfathered status until they are next upgraded or replaced by the aerodrome operator.

West Sale Airport has **grandfathered facilities** which include Runway 09/27 as a Code 3 non-precision approach runway. Runway 09/27 is grandfathered and maintained in accordance with the requirements set out in the CASA Manual of Standards Part 139 – Aerodromes Version 1.14.

Advisory Circulars (AC) provide recommendations and guidance on compliance with the CASRs. While ACs illustrate an accepted approach, they do not represent the only means of meeting regulatory requirements. ACs are not mandatory but serve as explanatory notes to support decision-making. They are continuously refined through consultation with the aviation industry to align with evolving best practices.

Aviation White Paper - Towards 2050

The *Aviation White Paper – Towards 2050*, released by the Australian Government in August 2024, outlines a long-term vision for a safe, competitive, and sustainable aviation sector. It places strong emphasis on supporting regional aviation, enhancing connectivity, and ensuring that infrastructure planning aligns with future growth and technological change. For West Sale Airport, the White Paper reinforces its strategic role as a regional aviation asset, particularly in the context of general aviation, emergency services, and aviation training. The policy framework encourages investment in regional airports like West Sale to **improve resilience, support economic development, and maintain essential services** for surrounding communities. It also highlights the importance of safeguarding airport operations through appropriate land use planning, an objective directly supported by the existing zoning and overlay controls in place at West Sale.



3. Current Situation

Existing Activities

Today, West Sale Airport hosts a variety of activities including:

- Military flight training
- Aircraft repair and maintenance
- Civil flight training
- Recreational and private flying
- Gippsland Armed Forces Museum
- Victoria Emergency Management Training Centre (VEMTC) West Sale

Since the previous Master Plan update in 2017, aircraft movements at West Sale Airport have risen considerably, mainly due to the introduction of RAAF pilot training in 2019. Annual movements are now nearly nine times higher than in 2017. The yearly movements are outlined in **Figure 7**.

In 2025, 68% of all aircraft movements are Defence-related, which consists primarily of training. Civilian aircraft movements make up 27% of all aircraft movements, as shown in **Figure 8**.

Of all aircraft movements, 98% are fixed wing aircraft and the remaining 2% helicopters.

Figure 7: Annual Aircraft Movements 2016-2025

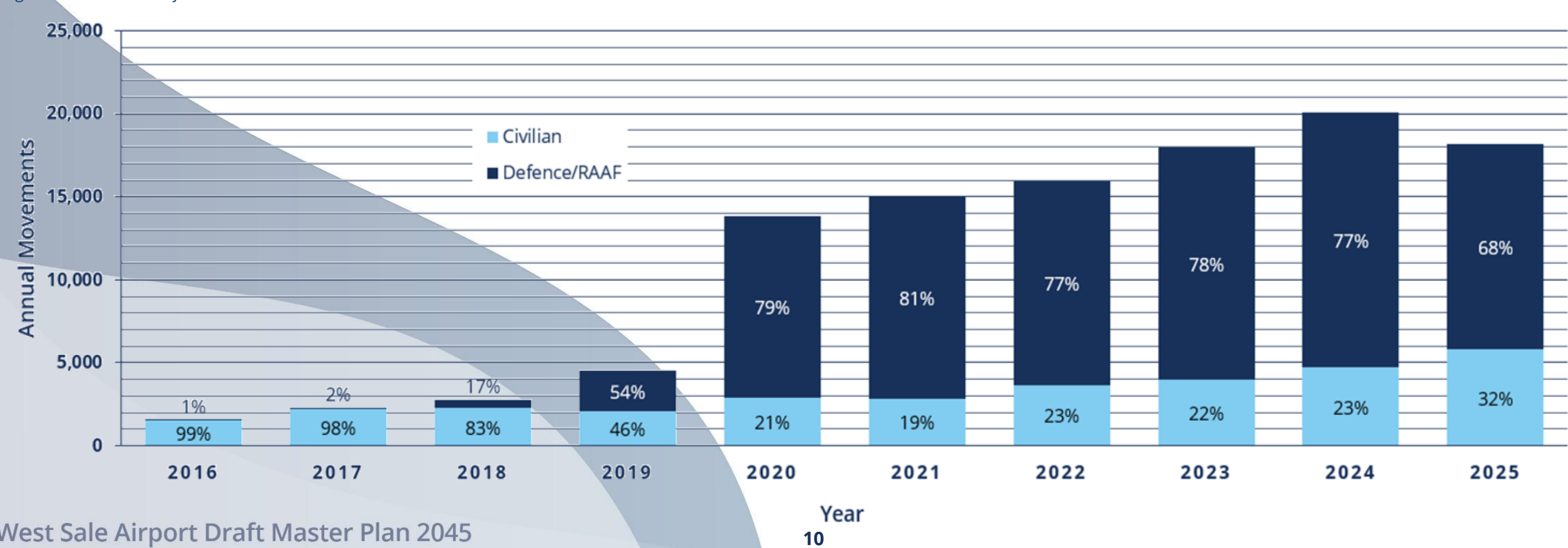
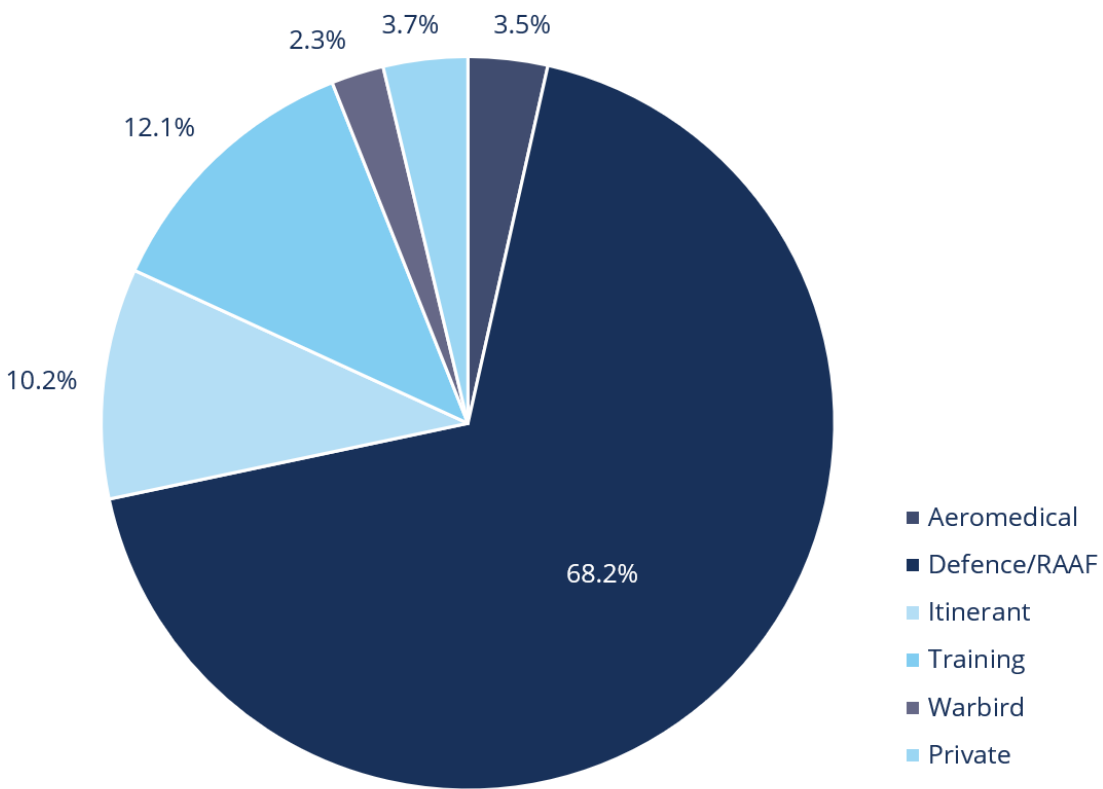


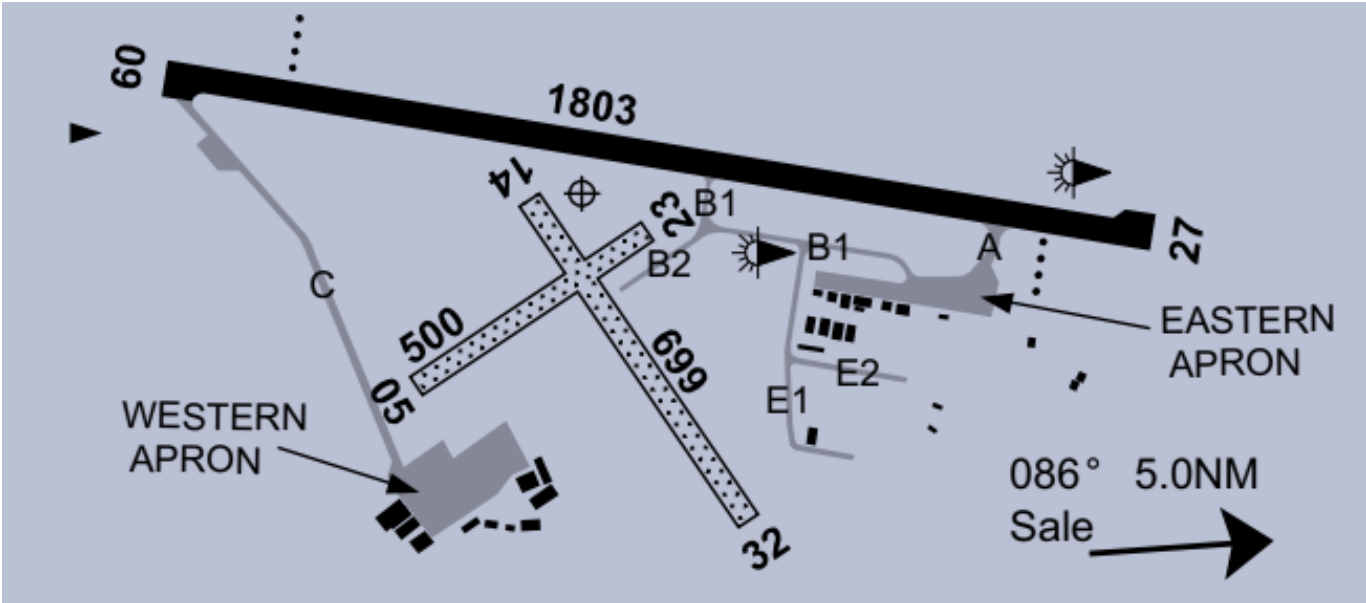
Figure 8: Aircraft Movements by Category 2025



Existing Facilities

The main aerodrome facilities at West Sale are summarised below.

Figure 9: West Sale Airport Facilities



Source: Airservices Australia AIP ERSA FAC YWSL 19-MAR-2026

Runways

Table 1 outlines the key characteristics of the existing runways, as documented in the Aeronautical Information Publication (AIP) En-Route Supplement Australia (ERSA) by Airservices Australia.

Table 1: West Sale Airport Runways Physical Characteristics

Runway	Code Number	Length x Width (m)	Strip Width (m)	Surface	Strength
09/27	3	1,803 x 30	150 (90 graded)	Asphalt - Grooved	PCR 100 /F /D / 1.06MPa/ T
05/23	1	500 x 30	90	Grassed Grey Slit Clay	5700 kg/ 0.65 MPa
14/32	1	699 x 30	90	Grassed Grey Slit Clay	5700 kg / 0.65 MPa

Source: Airservices Australia AIP ERSA FAC YWSL 19-MAR-2026

Runway 09/27 is equipped with Low Intensity Runway Lights. Runway 05/23 and Runway 14/32 are unlit.

Taxiways

West Sale Airport is serviced by a network of taxiways, summarised in Table 2.

Table 2: West Sale Airport Taxiway Facilities

Taxiway	Width (m)	Taxiway Strip (m)	Surface	Lighting
A	15	26	Sealed	Blue Edge Lighting
B1	10.5	20	Sealed	Blue Edge Lighting
B2	7.5	15.5	Unsealed	No Lighting
C	10.5	20	Sealed	Blue Edge Lighting
E1	7.5	15.5	Sealed	Reflective Markers
E2	7.5	15.5	Sealed	Reflective Markers

Source: Airservices Australia AIP ERSA FAC YWSL 19-MAR-2026

Taxiway A is sealed (15 m wide), accommodating aircraft up to a 36 m wingspan (OMGWS <9 m), and provides access between Runway 09/27 and the Eastern Apron.

Taxiway B1 and Taxiway C are sealed (10.5 m wide), supporting aircraft up to a 24 m wingspan (OMGWS < 6 m); B1 connects mid-way to Runway 09/27 and to B2 and E1, while C links to the Western Apron. There are three designated engine run-up bays for aircraft up to 15 metres wingspan on the northern end of Taxiway C.

Taxiway B2 is unsealed and serves smaller aircraft (up to 15 m wingspan, OMGWS < 4.5 m).

Taxiway E1 and Taxiway E2 are sealed (7.5 m wide) and accommodate smaller aircraft (up to 15 m wingspan, OMGWS < 4.5 m), providing access within the eastern precinct and connecting to B1.

Aprons

The Eastern Apron, approximately 10,000m², accommodates charter, Air Ambulance movements for both fixed and rotary wing, and aircraft operations requiring access to the terminal and fuel facilities.

The Western Apron supports aircraft maintenance businesses located along the western edge as well as facilitates the West Sale Airshow every second year.

Communication and Navigational Aids

Visual Aids

A Precision Approach Path Indicator (PAPI) system is located at each end of Runway 09/27.

There are two Illuminated Wind Direction Indicators (IWDI) on airport. One is located south of Taxiway B1, and one located on the north side of the main runway near the Runway 27 end.

A ground-based non-directional beacon (NDB) services West Sale Airport and is located at RAAF Base East Sale and provides for instrument approaches to the airport and en-route navigation guidance.

Instrument Flight Procedures

The Airservices Australia published instrument procedures are as follows:

- SID West Sale Two Departure – RWY 09 & 27
- DME or GNSS Arrival
- RNP RWY 09
- NDB-Y RWY 27
- NDB-Z RWY 27

Meteorological Information

Meteorological information is available through East Sale Aerodrome Weather Information Service (AWIS).

Fuel Facilities

Jet A1 and Avgas are available on the Eastern Apron 24 hours. The facility includes two 20,000-litre fuel storage tanks, with provisions for an additional fuel tank. Refuelling services are accessible 24 hours a day. The facility assets are owned and operated by World Fuel Services following a land agreement with Wellington Shire Council in 2025.

Terminal Building

The terminal building is situated at 1 Jackson Drive, in the Eastern Precinct. It is open 24 hours and includes a lounge area, airport management and operations, and amenities.

Hangars and Other Facilities

A number of privately owned hangars east of the terminal building are situated on freehold land parcels. There is also a Council-owned hangar to the east of the fuel facility.

A further freehold land parcel in the Western Precinct is located close to the Runway 32 threshold and is provided with access to the airfield.

Gippsland TAFE previously occupied a number of existing buildings in the landside portion of the Western Precinct. These buildings do not have direct access for aircraft.

A previous helicopter crew training facility recently served as the Sale public swimming pool however is now unoccupied. The building to the north of this is occupied by the Gippsland Armed Forces Museum.

Two existing aircraft maintenance business own hangars on the western edge of the Western Apron, at the end of Taxiway C.

VEMTC West Sale leases a substantial area for their training activities in the southwest portion of the airport land.

Access

West Sale Airport is accessed via Williams Drive from the Princes Highway. The railway line runs parallel the Princes Highway along the southern boundary of West Sale Airport. The Sale-Cowwarr Road is along the western end of the airport accessing the VEMTC West Sale area. The Sale-Heyfield Road runs north south on the eastern end of the airport.

Within the airport, Williams Drive connects to the terminal and the Eastern Precinct. Off of Williams Drive is Mortimer Drive accessing the western side of the airport. Lyons Road, off Mortimer Drive, accesses the eastern end of the TAFE buildings and museum. Hawker Place provides access from Mortimer Drive to the western end of the TAFE buildings. Lockheed Close provides access to the VEMTC West Sale area and the maintenance area.

Utility Services

Water, Electricity, Communications, Gas

The airport provides connected water, electricity and communications. Gas is not available.

Sewer

The Airport is not connected to town sewerage. Existing airport lots must treat and dispose of sewage using onsite septic tanks for primary treatment followed by effluent disposal via dispersion systems.

- VEMTC West Sale has its own independent onsite treatment and disposal system.
- Lots 1, 2/3, 4, 6 and 7C in the Eastern precinct, and Lots 27 and 29 in the Western Precinct treat their own sewerage but the disposal is via the airport's waste system and evaporation pond.
- Effluent from the previous Gippsland TAFE campus flows to a pump station and is then transferred to an EPA approved evaporation lagoon.
- In 2006 sewer lines and a pump station were installed in the Eastern Precinct to required standards. The pump station receives treated effluent from connected allotments within the Eastern precinct and also selected Lots from the Western Precinct and transfers wastewater into the evaporation lagoon.

An engineering study conducted in early 2015 by SMEC reviewed the current wastewater treatment system and identified activities that would trigger the need for review and changes to the current system. Mid 2015, following the completion of the SMEC study, Council installed flow meters to enable accurate measurement of discharge volumes into the evaporation pond to capture the trigger activities more accurately.

Environmental Value

West Sale Airport has been identified as the location of a Threatened Ecological Community (TEC), protected under the Commonwealth Environment Protection and Biodiversity Conservation (EPBC) Act 1999 as a Matter of National Environmental Significance. The TEC, known as Gippsland Red Gum (*Eucalyptus tereticornis* subspecies *mediana*) Grassy Woodland and Associated Native Grassland, holds Critically Endangered status, having been formally listed in 2009 to support its protection, recovery, and preservation.

The airport is recognized as a key site under both the EPBC Act and Flora and Fauna Guarantee Act 1988 (FFG Act), requiring controlled management to ensure ongoing conservation. The Council management plan addresses the protection of these grasslands, informed by a Vegetation Overview and Habitat Hectares Assessment conducted by ETHOS NRM in 2014.

Managed grasslands are found in quadrants adjacent to the two grassed runways, with remnants located west of Taxiway C and to the north and south of Runway 09/27 at its eastern end. Any proposed airport development must consider potential impacts on the TEC, requiring assessment and approval from the Federal Environment Minister before proceeding.

Heritage Value

There are currently no formal heritage protections applying to the airport or its buildings. However, the Bellman Hangar and the former bunker sites located on the western portion of the airfield are recognised as having historical significance. These structures should be fully documented and recorded prior to any removal or redevelopment to ensure their heritage value is preserved for future reference.

In addition, below-ground remains older than 75 years that are relatively undisturbed are automatically protected under the Heritage Act 2017.

West Sale Airport holds significant heritage value for the Sale region, closely tied to its World War II history as a RAAF Base, Bombing Gunnery School, and Air Gunnery School. The site showcases Victoria's important role in aviation and military heritage, especially its part in training air force personnel during the war.

One structure remains from its 1940s use as a RAAF base: the Bellman Hangar, both recognised for its historical importance in 2005, alongside Raeshaw House to the east. However, no formal protections currently apply to these buildings. There are four to five small bunkers in a semi-ruinous state on the western side of the airport.

Existing Airspace

West Sale Airport is unique in that it is civilian owned and operated by Wellington Shire Council, however is located within the extents of Military Restricted Airspace (R360A), which extends 20 nautical miles (37 km) from RAAF Base East Sale and sits above West Sale Airport. R360A extends vertically from ground level to 6,000 feet.

When R360A is active, the airspace is managed by Air Traffic Control (ATC) at RAAF Base East Sale and all aircraft arriving and departing West Sale Airport require ATC clearances. When R360A is activated, it is always RA2, which means pilots must not flight plan through the Restricted Area. Tracking may be offered on a tactical basis although a clearance from ATC is not assured. During active hours, RAAF ATC facilitates civilian VFR aircraft to and from West Sale clear of military flying activities generally making use of the Princes Route and a VFR transit lane (D353) to the north of West Sale.

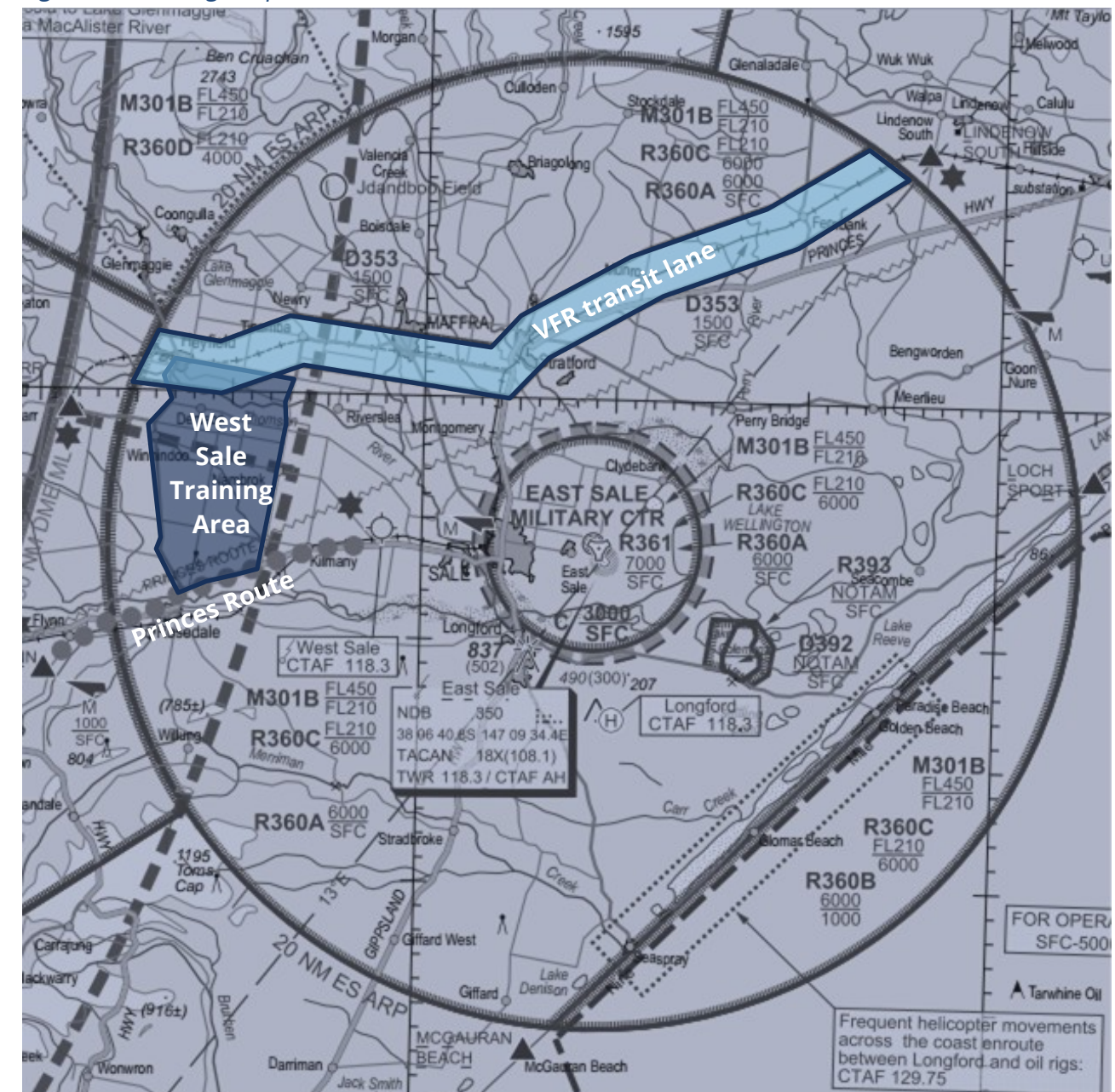
Generally, R360A is active during typical business hours (Monday to Friday 0900 – 1700 hours) although times do vary as operationally needed. Military use of R360A may also cause the hours of activation to differ in future to ensure Defence operational priorities can be maintained.

When R360A restricted airspace is not active, Common Traffic Advisory Frequency (CTAF) procedures apply.

The West Sale Training Area (WTA) is for civilian use and defined as the piece of airspace bounded by the following four roads and depicted in **Figure 10**.

- Traralgon-Maffra Road
- Maffra-Rosedale Road
- Princes Highway
- Rosedale-Heyfield Road

Figure 10: Existing Airspace



Source: FIHA AD2 Supp – East Sale

4. Strategic Direction

The strategic direction of West Sale Airport has been shaped by the community, key stakeholders, and the environment in which the airport is expected to grow and develop.

Stakeholder Engagement

The West Sale Airport Master Plan has been created in collaboration with the Wellington Shire Council and stakeholders. Consultation was conducted with Council representatives, airport users, Defence, local businesses, industry groups, and other interested parties throughout the draft Master Plan development period between June 2025 and June 2026.

Consultation with key stakeholders revealed several recurring themes that outline the airport's opportunities and constraints. These are summarised here.



Regional Identity and Positioning

Stakeholders highlighted the airport's strategic position within Gippsland and its potential to serve as a key regional gateway for aviation. Its proximity to the Princes Highway and its direct connection to the regional rail network were recognised as major strengths that improve broader connectivity and accessibility. However, limited public awareness and a lack of cohesive branding were seen as challenges, with many locals still viewing Melbourne (Tullamarine) as the default option for regional air travel. There is strong support for developing a clearer identity for West Sale Airport as a reputable, distinctive, and visible hub in Victoria's regional aviation network.

Airside Infrastructure

Stakeholders highlighted the strong condition and reliability of the main Runway 09/27, along with the value of the grass runways, particularly for recreational and light aircraft operations. However, several operational challenges were noted. The lack of designated parking for itinerant aircraft was identified as a key limitation, often leading to the informal use of grassed areas, which may be unsuitable during wet conditions. Also, concerns were raised about the limited connectivity between the Eastern and Western precincts, with some suggesting upgrades could improve circulation across the site. Pavement quality in certain areas was also flagged, with reports of uneven surfaces and loose materials that may impact safety and aircraft handling.

Military Controlled Airspace

The close proximity to RAAF Base East Sale and its operational flexibility were widely recognised as key advantages. Defence operations were viewed by stakeholders as providing the airport with a clear sense of purpose and strategic direction, reinforcing its significance within both local and national aviation networks. Ongoing interest from government and industry indicates a growing opportunity to further incorporate defence and emergency service roles into the airport's operational profile. However, ongoing access to military controlled airspace by civilian users of West Sale Airport was highlighted as a potential challenge and constraint on future growth of flying activity.

Freight and Logistics

Stakeholders highlighted the potential for West Sale Airport to enhance freight and logistics activities, especially given its proximity to the Princes Highway, nearby rail access, and location within a region experiencing significant infrastructure investment. The airport's sealed runway, one of the longest in regional Victoria, positions it well for handling various aircraft types, while its proximity to the Gippsland offshore wind zone and agricultural areas indicates a good fit with emerging freight demands.

Tenure

Stakeholders raised ongoing concerns about limited hangar availability at West Sale Airport, citing inadequate hangar widths, a shortage of vacant spaces for new tenants, and a lack of long-term lease options to support investment in new construction. Demand for additional hangar capacity is increasing among both recreational pilots and commercial operators, especially those seeking to establish maintenance, training, or aviation support services. However, uncertainty around lease arrangements discourages development. Stakeholders expressed a clear need for more flexible hangar designs and transparent processes for securing tenure to enable business growth and reliable aircraft storage.

SWOT Analysis

Through the stakeholder consultation process, an analysis of key strengths, weaknesses, opportunities and threats around West Sale Airport was compiled in collaboration with Council’s airport personnel.

<i>Strengths</i> Main runway length of 1803 m with grooved asphalt surface, in combination with the two grass runways, provides for a range of aircraft operations. There are ample development areas at the airport for additional hangars or businesses. There are a number of vacant buildings with potential for repurposing to classrooms, offices, flight training facilities, and student/staff support. The airport is accessible directly off the Princes Highway and in close proximity to Sale-Heyfield Road (the alternate truck bypass). The Sale-Cowwarr Road also runs along the western boundary of the airport. The Traralgon to Sale railway line runs along the southern boundary of the airport, providing further opportunities of connectivity that may benefit passengers and freight facilities.	<i>Weaknesses</i> The grass runways are not operational in wet weather and this contributes to limited taxiway connectivity between the western and eastern precincts, requiring aircraft to backtrack the full Runway 09/27 length. A lack of infrastructure or space for itinerant aircraft. The pavement strength of runways, aprons, and taxiways is limited to current operations (i.e. PC-21). Native vegetation reduces future development and expansion areas. There is limited sewage capacity due to septic tank constraints and no connection to town sewer. There has been limited promotion, marketing, and advertising to provide ongoing activation of the airport.
<i>Opportunities</i> Defence use and history provide a strong foundation for shared initiatives. There are a series of opportunities for Defence-related businesses and other initiatives to strengthen and support Defence activity in the area. There are existing airside businesses involving the wider local aviation professional and technical community – fixed wing & helicopter maintenance, aircraft engine overhaul, aircraft parts & supply, aircraft construction – which offer the opportunity to build on Sale’s existing strengths in the Defence and aviation sectors. The adjacent West Sale Industrial Precinct offers opportunities in the non-aviation sector – warehousing & logistics – as well as potential air freight connections. Passenger transport services to support the growing renewable energy industry. The established bi-annual Anzac Week Airshow offers opportunities to increase activation and promote a wider range of airport usage.	<i>Threats</i> Nearby developments or activities that may not align with aviation operations. Presence of birds and other wildlife. Increased airspace civilian usage could lead to prioritization of military operations, restricting civilian aircraft access. Succession planning for Council operational and management expertise.

Vision & Objectives

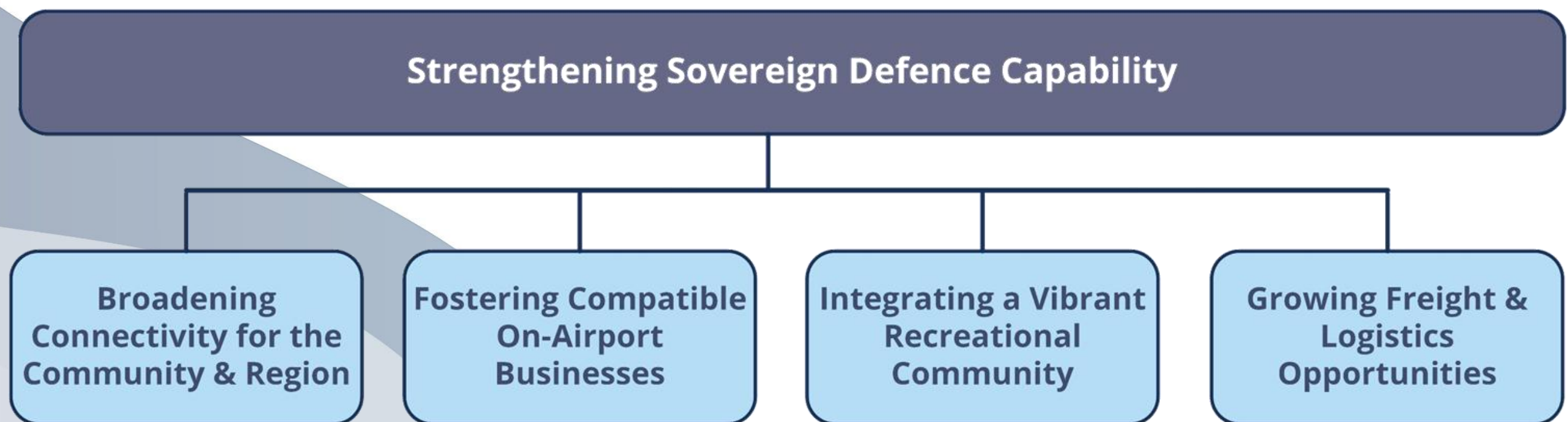
The vision and objectives are fundamental to the development of the land-use plan and the facilities development plan. The West Sale Airport Vision and underpinning objectives were developed through Council, key stakeholders and the wider community through *Your Wellington, Your Say*.

Underpinning the vision statement are the following strategic principles and objectives:

- **Enable and support Defence and Defence-related aviation operations** through resilient, fit-for-purpose airside and landside infrastructure.
- **Improve passenger and charter connectivity** to strengthen regional access and economic opportunity.
- **Attract and support aviation-related and complementary businesses** that foster a sustainable airport economy.
- Provide facilities and access that promote a **safe, active, and engaged recreational aviation** community.
- Develop infrastructure and access needed to **enhance the region's airfreight and logistics capability**.

West Sale Airport Vision

West Sale Airport has a strong potential as a distinct aviation hub, enhancing investment in the region through:



Identified Opportunities

Throughout the stakeholder engagement process, several aviation-related opportunities were identified. These opportunities have been outlined for master planning purposes. It is important to recognise that other opportunities may exist, and those identified at this stage could develop differently from what is described below. However, from a facility planning and airport safeguarding perspective, supporting these growth opportunities is considered vital to the Master Plan objectives.

Defence-Related Pilot Training

Alongside anticipated modest increases in the current use of West Sale Airport by RAAF Base East Sale for pilot training overflow, growth in pilot training has been identified and expected to stem from opportunities that closely align with RAAF operational requirements.

The military-controlled airspace at YWSL does not seem to prevent such opportunities; however, it is important to recognise that, for these to be viable, a high level of coordination with RAAF Base East Sale operations will be essential.

Defence-related pilot training would likely involve establishing classroom and flightline training facilities, along with a dedicated maintenance facility for training aircraft assets (due to defence security requirements). For the purposes of this YWSL Master Plan, the training aircraft is anticipated to be a high-performance turboprop equipped with modern avionics, rather than a lower-performance civilian piston-engine typically used for private pilot licences.

Helicopters

The Defence Search and Rescue Services (DSARS) contract tender was being reviewed by the Commonwealth during the preparation of this Master Plan, with a number of potential providers having expressed interest to Council in establishing a helicopter base at West Sale Airport should they be successful in the tender.

There are also opportunities for helicopter activity for personnel transport operations related to the energy shift from offshore oil and gas to renewables, and that associated with longer-term inspection and maintenance activities.

Commercial Aircraft Maintenance

Stakeholder consultation identified various opportunities for aircraft maintenance at West Sale, encompassing expansion of existing businesses and the potential for development of new commercial maintenance facilities.

Business and Tourism

The West Sale Airport presents a significant opportunity to support tourism and drive economic impact through the strategic delivery of major events and aviation-based experiences.

Building on its existing infrastructure, location within Wellington Shire, and proximity to Sale and the wider Gippsland region, the site is well positioned to host large-scale public events, including airshows, defence-related demonstrations, motorsport activations, and niche aviation tourism experiences.

Events provide a powerful mechanism to activate the site, attract visitors, and increase regional visitation, delivering direct economic benefits through accommodation, dining, retail, and local supply chains.

With appropriate planning, investment in supporting infrastructure, and integration into broader destination marketing, the airport can operate as a multi-purpose events precinct, supporting both recurring flagship events and smaller-scale activations.

This aligns with the broader vision of enhancing utilisation of the airport beyond its core aviation function, strengthening its role as an economic driver and regional destination.

Aeroskills and Aircraft Engineering Education

The Aviation White Paper Towards 2050 identifies the aviation sector as currently facing a significant skills shortage, with key roles including pilots, flight instructors, and maintenance engineers. On 29 September 2025, the Australian Airports Association made a submission to the First Assistant Secretary of Jobs and Skills Australia on the 2025 Core Skills Occupation List. In its submission, the AAA notes specifically the nationwide shortage of aircraft maintenance engineers.

Previously, TAFE Gippsland offered aeronautical skills and aircraft maintenance training programs on West Sale Airport. TAFE Gippsland no longer provides this course, however there are prospects to reintroduce aeronautical training on the airport. Currently, students must travel to Melbourne for training, which is both impractical and costly. This situation hampers young people's ability to access career opportunities at RAAF Base East Sale and in the surrounding support industry.

There is the opportunity to reuse and repurpose the existing ex-TAFE facilities, which could help establish a Certificate II syllabus delivered part-time to students completing Year 11 or 12 secondary education locally under the Vocational Education and Training Delivered to School Students (VDSS) scheme. A longer-term option involves creating a regional 'centre of excellence' in aircraft maintenance engineering training, including the delivery of Certificate IV-level qualifications that lead to Licensed Aircraft Maintenance Engineer status. This traineeship has the potential to be supported by industry work placements in local businesses on West Sale Airport and elsewhere in Sale supporting RAAF Base East Sale.

Private and Recreational Aviation

Despite restrictions in the surrounding airspace, there remains potential for growth among both local and itinerant private and recreational pilots using West Sale Airport during times when military airspace is less active or less congested outside core RAAF hours.

Existing Aviation Businesses

Several existing aviation businesses have the potential to sustain current operations with modest growth prospects.

Passenger Services

To support regional economic activity, especially driven by renewable energy development and ongoing defence efforts, there is potential for a range of passenger air services to and from West Sale Airport. These services may take various forms, from traditional scheduled airline operations to charter (non-scheduled) services. Among these options, a range of models, some still emerging in Australia, might develop to meet passenger movement needs.

Air Freight

Domestic air freight services have been recognised as a potential means of supporting the region's agricultural industry. The development of the adjacent industrial precinct warrants the inclusion of aviation facilities to accommodate domestic freight. The realisation of this opportunity at West Sale Airport will involve a number of factors, including the economic factors which may be informed by dedicated domestic freighters or belly-hold on passenger services.

5. Critical Airport Planning Parameters

Key facility requirements are determined through stakeholder consultation and identified future aviation opportunities and are appropriate to the relevant critical planning parameters.

Critical airport planning parameters are established based on the aviation facility needs appropriate to the identified airport opportunities.

Forecast of Future Operations

Forecasts of future operations associated with the identified growth opportunities have been prepared for airport safeguarding, including the Australian Noise Exposure Forecast (ANEF). The number and type of aircraft operations anticipated for the ANEF are summarised in **Figure 11**, **Figure 12**, and **Figure 13**.

An increase to a potential 62,000 annual movements is anticipated, which is mainly driven by the possibility of growth in defence-related aircraft movements. More modest growth in civilian flying activity is expected, taking into account potential constraints in relation to accessibility of controlled airspace.

Of the forecast movements in 2045, approximately half are expected to be circuit/touch-and-go operations at West Sale. The majority, around 94%, of all movements are expected to be by fixed-wing aeroplanes. Forecast aircraft types are discussed below.

Figure 11: Forecast 2045 Aircraft Movements

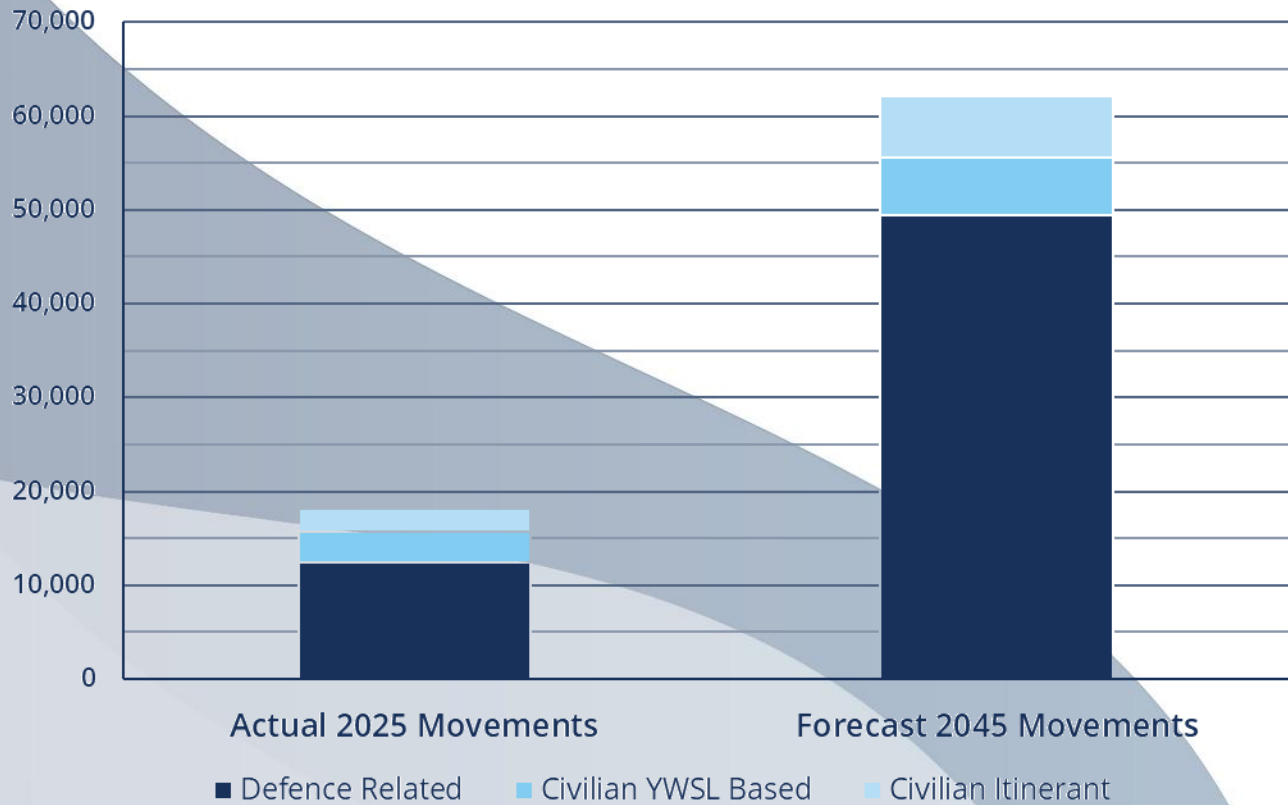


Figure 12: Forecast Movements by Operation Type

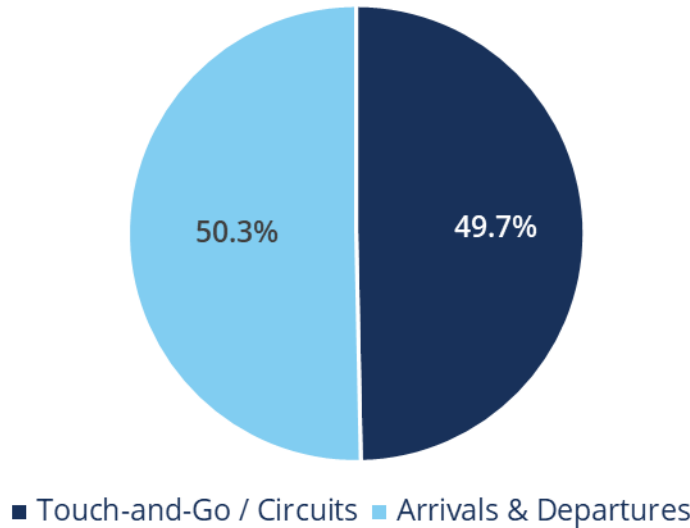
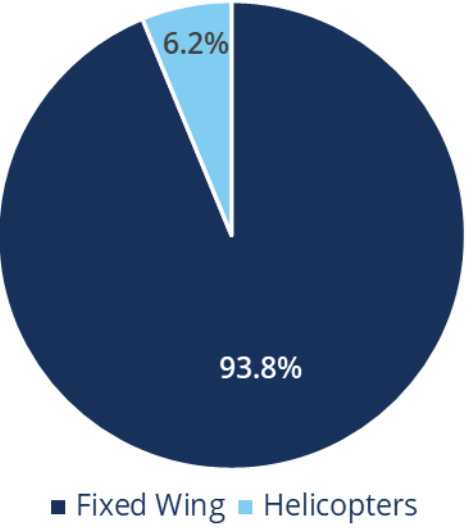


Figure 13: Forecast Aircraft Type



Aerodrome Reference Code

Part 139 MOS 2019 provides the standards an aerodrome must meet to accommodate aeroplanes within a defined range of performance and size. These standards are prescribed by the Aerodrome Reference Code (ARC), which is selected by the aerodrome operator.

The ARC serves as a critical link between the aerodrome’s design requirements and the operational and physical characteristics of the intended aircraft. The ARC comprises three key elements.

Element 1: ARC Number

The ARC code is based on the aeroplane reference field length which is a standardised measurement that represents the runway length an aircraft requires under specific conditions, allowing for comparison across different aircraft types.

While closely related, the reference field length is not the same as the actual physical runway length available. The operational runway length an aircraft needs can vary depending on factors such as load, wind direction, temperature, runway gradient, and nearby obstacles.

Element 2: ARC Letter

The code letter is used to define required clearances to objects for aeroplanes manoeuvring on the runways, taxiways and aprons. It is determined by the wingspan of the design aircraft.

Element 3: Outer Main Gear Wheel Span

The Outer Main Gear Wheel Span (OMGWS) refers to the lateral distance between the outer edges of an aircraft’s main landing gear. It plays a critical role in determining the aircraft’s ground manoeuvring capability and directly impacts the design and width requirements of movement area pavements such as runways, taxiways, and aprons.

Table 3: Aerodrome Reference Code Elements

Code Element 1		Code Element 2		Code Element 3
Code Number	Aeroplane Reference Field Length	Code Letter	Wingspan	
1	Less than 800 m	A	Up to but not including 15 m	OMGWS Up to but not including 4.5 m
2	Not less than 800 m	B	15 m up to but not including 24 m	OMGWS 4.5 m up to but not including 6 m
3	Not less than 1,200 m	C	24 m up to but not including 36 m	OMGWS 6 m up to but not including 9 m
4	Not less than 1, 800 m	D	36 m up to but not including 52 m	OMGWS 9 m up to but not including 14 m
		E	52m up to but not including 65m	
		F	65 m up to but not including 80 m	

Selected Design Aircraft

The design aircraft will vary between different airport facilities based on the intended operation in each area. **Table 4** and **Table 5** show the categories and aircraft types identified for the critical airport planning parameters, for fixed-wing aeroplanes and helicopters respectively.

Table 4: Design Fixed Wing Aircraft Types by Category of Operation

Category	Description	ARC Number	ARC Letter	ARC OMGWS
Defence Related	RAAF PC21 Training (Existing)	2	A	Less than 4.5 m
	Small military fast jet	2	A	
	Light turboprop specialist trainer	1	A	
Emergency Services	Beech Super King Air 250/350 Twin turboprop	2	B	4.5 m up to but not including 6 m
	Cessna 208 Caravan Single Turboprop	1	B	
Commercial Services	9-30 Seat Turboprop	2	B	6 m up to but not including 9 m
		1	B	
	70-seat Turboprop	3	C	
	Freight narrow-body commercial jet	4	C	
		4	C	
West Sale Operators	Light Sports Aircraft and light single/twin piston engine	1	A	Less than 4.5 m
	Aerobatic aircraft	1	B	
	Itinerant private light piston engine	2	A	4.5 m up to but not including 6 m
	Private, business and military small turboprops and business jets	2	B	

Table 5: Design Helicopter Types by Category of Operation

Category	Description	D-Value	Rotor Diameter
Defence Related	Super Medium Twin engine (H175)	18.6	16.1
Emergency Services	Aeromedical (VHBA Guideline)	18.5	15
	Fire (Bell412)	17.2	14.1
	Police (AW139)	16.7	13.8
Itinerant	Heavy Twin Engine	20.9	17.2
	Light Single Engine	11.7	10.1



Navigation Systems

If commercial services are introduced there may be a requirement to introduce an instrument approach procedure for Runway 27. Decisions about instrument approaches will need to be discussed at the time with the relevant operators.

Aircraft Movement Area

The existing aircraft movement area facilities, with some maintenance and refurbishment over time, are largely suitable for the existing and most of the anticipated future operations. However, connectivity between the Eastern and Western Precincts requires improvement.

Should helicopter operations be established at West Sale, allocation of a suitable area with appropriate separation from fixed-wing operations will be required.

If larger turboprop and/or jet aircraft be introduced for commercial passenger or freight services, an apron area suitable for Code C aircraft will be needed as there is currently no capacity for aircraft of this size or weight. Runway strengthening would also be required. If jet aircraft for direct freight services eventuate, further strengthening will be needed and runway extensions (and, possibly, widening) may also be required to maximise operational capability, depending on the aircraft operators' requirements and the destination(s) for the services.

Pavement Strength

Whilst the existing runway is long enough to accommodate larger aircraft than the current operations, its strength is only suitable for existing aircraft operations.

To accommodate narrow-body jet aircraft freight services, the runway will need to be strengthened from its current PCR 100 / F / D / 1.06 MPa / T to as much as PCR 680 / F / D / 1.57 MPa.

Intermediate strength improvements should be considered during planned maintenance resurfacing to accommodate the range of opportunities and particular aircraft types envisaged in each subsequent period.

Aviation Support and Landside Facilities

Should growth occur to the full extent envisaged in the forecasts, expansion of the fuel facility is likely to be required, as well as to accommodate different emerging aircraft propulsion technologies.

As passenger numbers are not forecast to exceed 350,000 annually, the establishment of an aerodrome rescue and firefighting service (ARFFS) is not expected to be required.

Current runway lighting, other visual aids and meteorological facilities are expected to be adequate for the opportunities envisaged in this Master Plan.

An air traffic control tower will not be established at West Sale, as the RAAF does not provide ATC service to aircraft on the ground at the airport. Aircraft in the air, when military controlled airspace (R360) is active, are provided ATC service from East Sale.

Passenger and Freight Facilities

The current public terminal is functional and suitable for the existing use. Many of the envisaged opportunities would not involve passengers or could operate from their own facilities or the existing terminal. Some opportunities may require the development of larger passenger terminal facilities, for example if commercial charter or scheduled passenger services were to be established.

The introduction of dedicated freight aircraft services would require a suitable freight processing facility, the specific requirements for which would be dependent on the nature of the freight opportunity, for example export of local produce would require substantial cold storage.

Security Requirements

Passenger or baggage security screening under the Aviation Transport Security Regulations 2005 is not expected to be required, due to relatively low passenger numbers. However, passenger terminal requirements, including security, will need to be reviewed at the time, should scheduled passenger services eventuate.

Airspace Protection Surfaces

Changes to the Obstacle Limitation Surfaces (OLS) would be required in relation to a future extension of Runway 09/27. The OLS to be safeguarded is discussed in **Section 9**.

Aircraft Noise Contours

An updated Australian Noise Exposure Forecast is to be prepared as part of this Master Plan. Aircraft noise is discussed further in **Section 9**.

Part Three

Airport Master Plan

6. Land Use Plan

The Land Use Plan, as shown on **Figure M25058/01**, defines how the airport can support shared goals and opportunities while safeguarding the areas required for airport operations.

The Land Use Plan results from analysing the current situation, stakeholder feedback, identifying future needs and opportunities and applying aviation regulations, standards and guidance to allocate the various operations to appropriate locations and precincts.

Precincts are allocated to support the existing operations and accommodate new opportunities. Using the precincts to guide development opportunities towards suitable locations will maximise the strengths of West Sale Airport ensuring a cohesive aviation environment.

The Land Use Plan will assist Wellington Shire Council in decision-making that will shape and organise development opportunities as they occur whilst preserving future flexibility as much as possible.

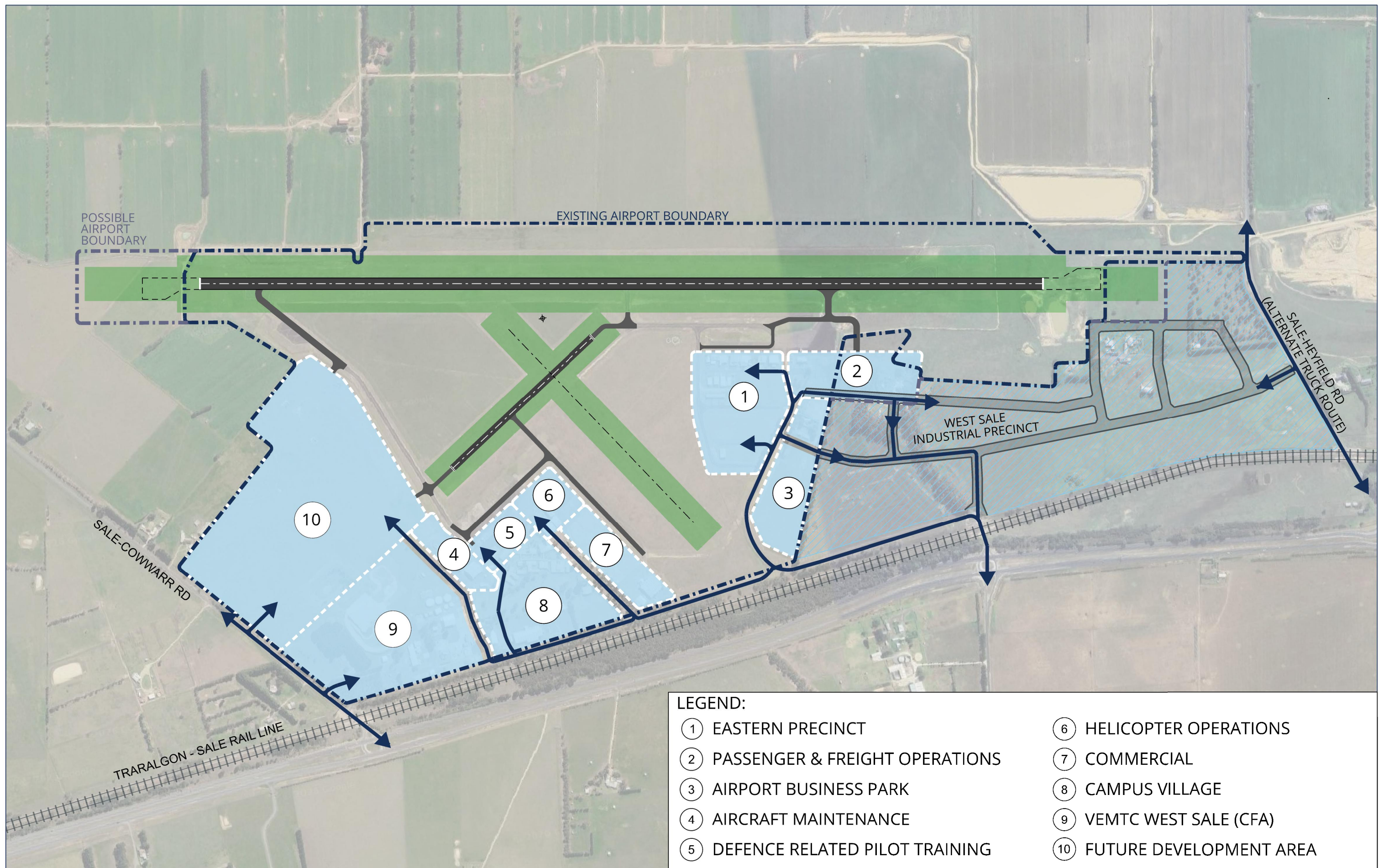
Future Airport Boundary & Wellington Shire Council Land Acquisition Policy

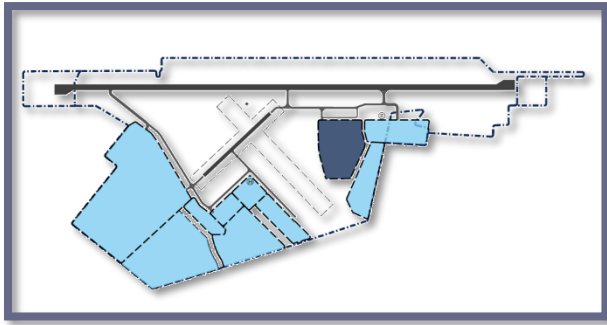
Council's policy regarding acquisitions is that it is preferred to pursue 'acquisition by agreement (voluntary negotiation)' with affected landowners.

On the basis of the landowner expressing interest in exploring this pathway, this process involves direct engagement with landowners, supported by independent valuation advice, to negotiate fair compensation outcomes having regard to the extent of land required, impacts of partial acquisition and any associated disturbance or loss. Typically, the Valuer General Victoria is engaged is supported by the landowner.

Acquisition by agreement provides a more efficient, cost effective and collaborative pathway, avoiding the time, cost and legal complexity associated with compulsory acquisition – these benefits apply to both the landowner and Council.

Where voluntary agreement cannot be reached, Council may retain the ability to proceed with statutory compulsory acquisition processes following approval of a Planning Scheme Amendment and the adoption of the required Public Acquisition Overlay.

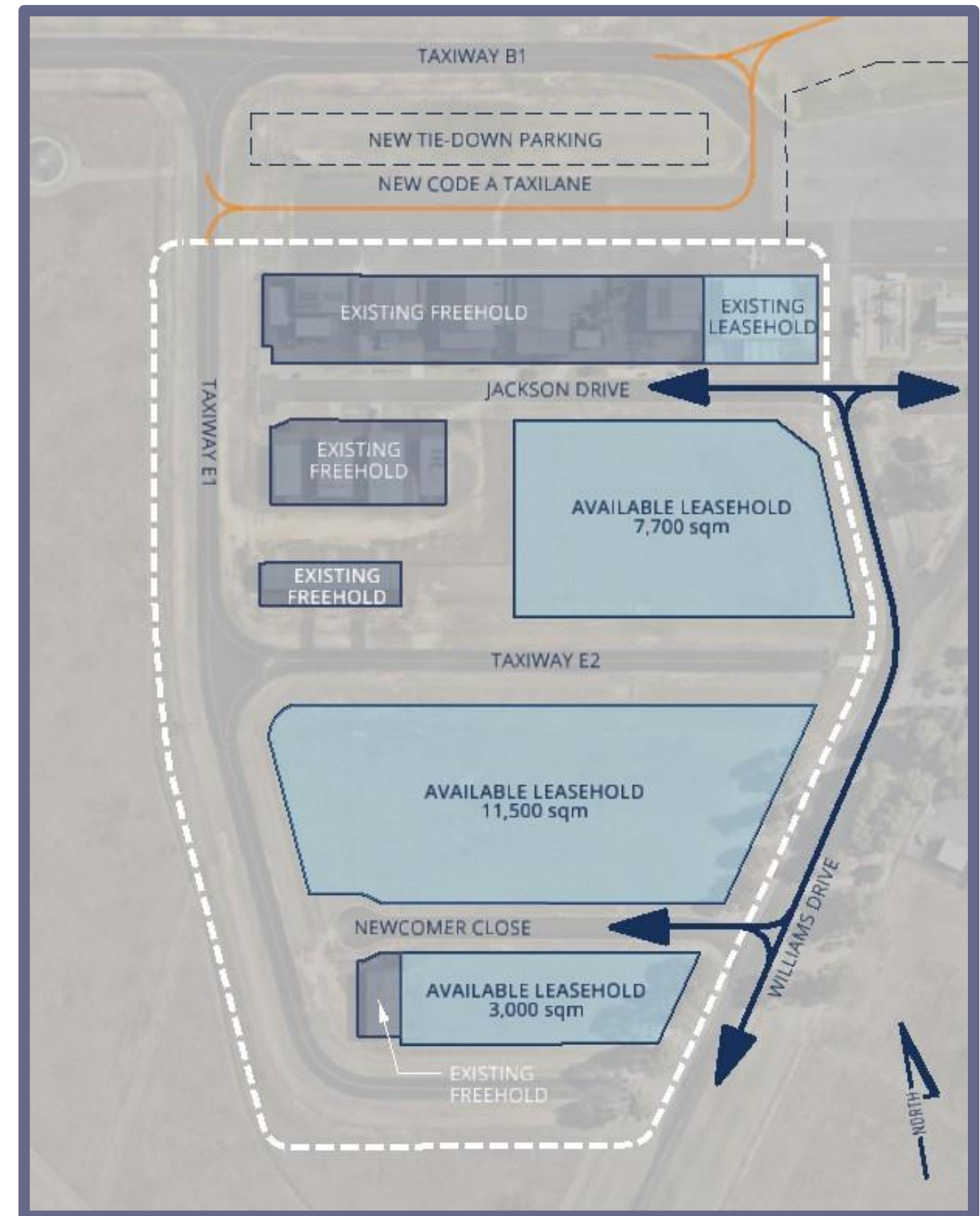


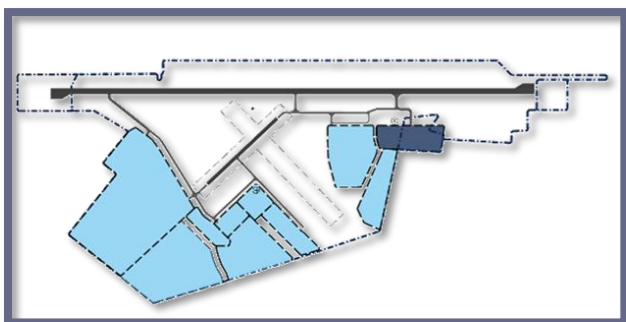


Eastern Precinct

The Eastern Precinct is intended to continue accommodating Code A aircraft by providing leasable areas suitable for both private users and aviation businesses, as shown. Individual lot boundaries will vary according to the operational needs of individuals, and internal aircraft access will need to be managed accordingly.

The precinct will accommodate an additional 22,500 square metres approximately of leasable area accessible via Taxiways E2 and E1. Road access is provided via Jackson Drive and Newcomer Close off Williams Drive.





Passenger & Freight Operations

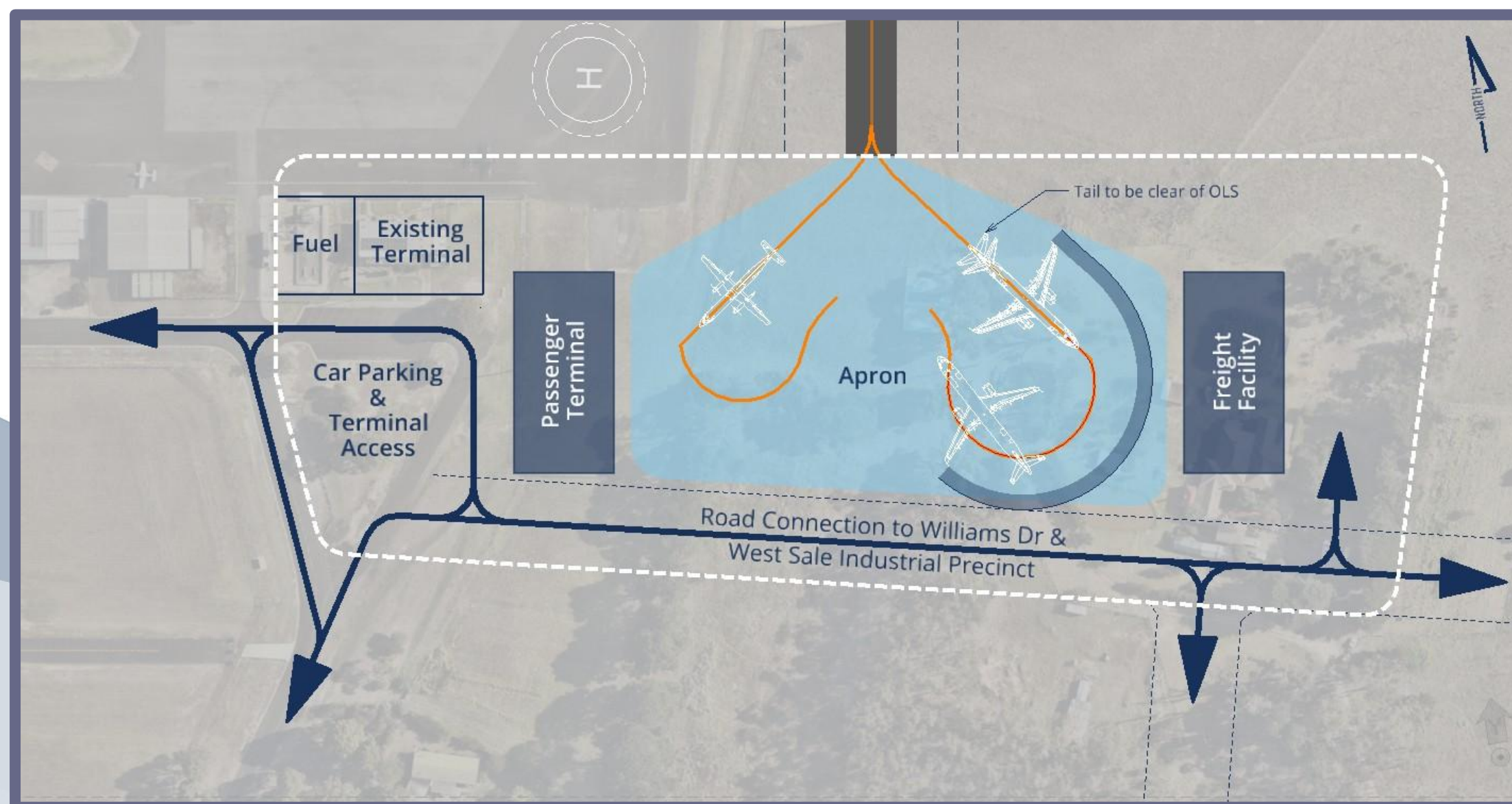
The Passenger and Freight Operations zone is located east of and adjacent to the Eastern Precinct. This location is driven by the need for sufficient space to accommodate potential larger aircraft associated with these opportunities, and offers synergies and connectivity with the West Sale Industrial Precinct in relation to freight.

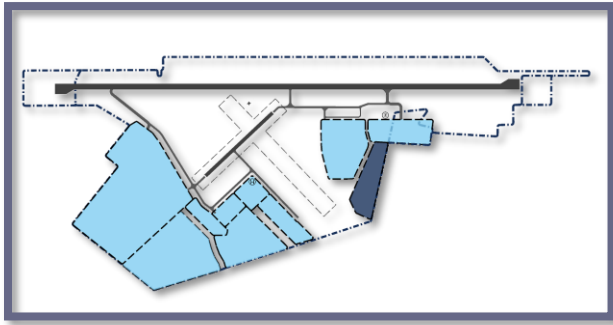
The Passenger and Freight Operations zone will include:

- The existing fuel facility with the space to expand for additional fuel should demand require with increased aviation activity.
- The existing terminal building, which will continue to support local and itinerant aircraft activities. As passenger and freight activities evolve, the terminal building is placed to continue to support local aviation activities and the airport operators.
- Growth in the offshore renewable energy sector may require passenger services to be realised, a new passenger terminal area is allowed for as larger aircraft utilise West Sale Airport.
- Provision for a dedicated freight facility, interfacing directly with the adjacent West Sale Industrial Park. The freight facility is kept separate to passengers
- The area is designed to accommodate Code C turboprop (e.g. Q400) and narrow-body jet aircraft (e.g. B737/A321F) with access to Runway 09/27 via Taxiway A, based on one aircraft parking position for passengers and one for freight. Aircraft need to be parked such that their tails remain below the Obstacle Limitation Surfaces (OLS)

The layout of this precinct shown is conceptual only in nature, to indicate the facilities that would need to be accommodated should the opportunities for passenger and freight operations fulfil the envisaged potential.

All aspects, including the interaction with the adjoining airport precincts and the West Sale Industrial Precinct require further detailed planning and feasibility assessment prior to implementation of any element.

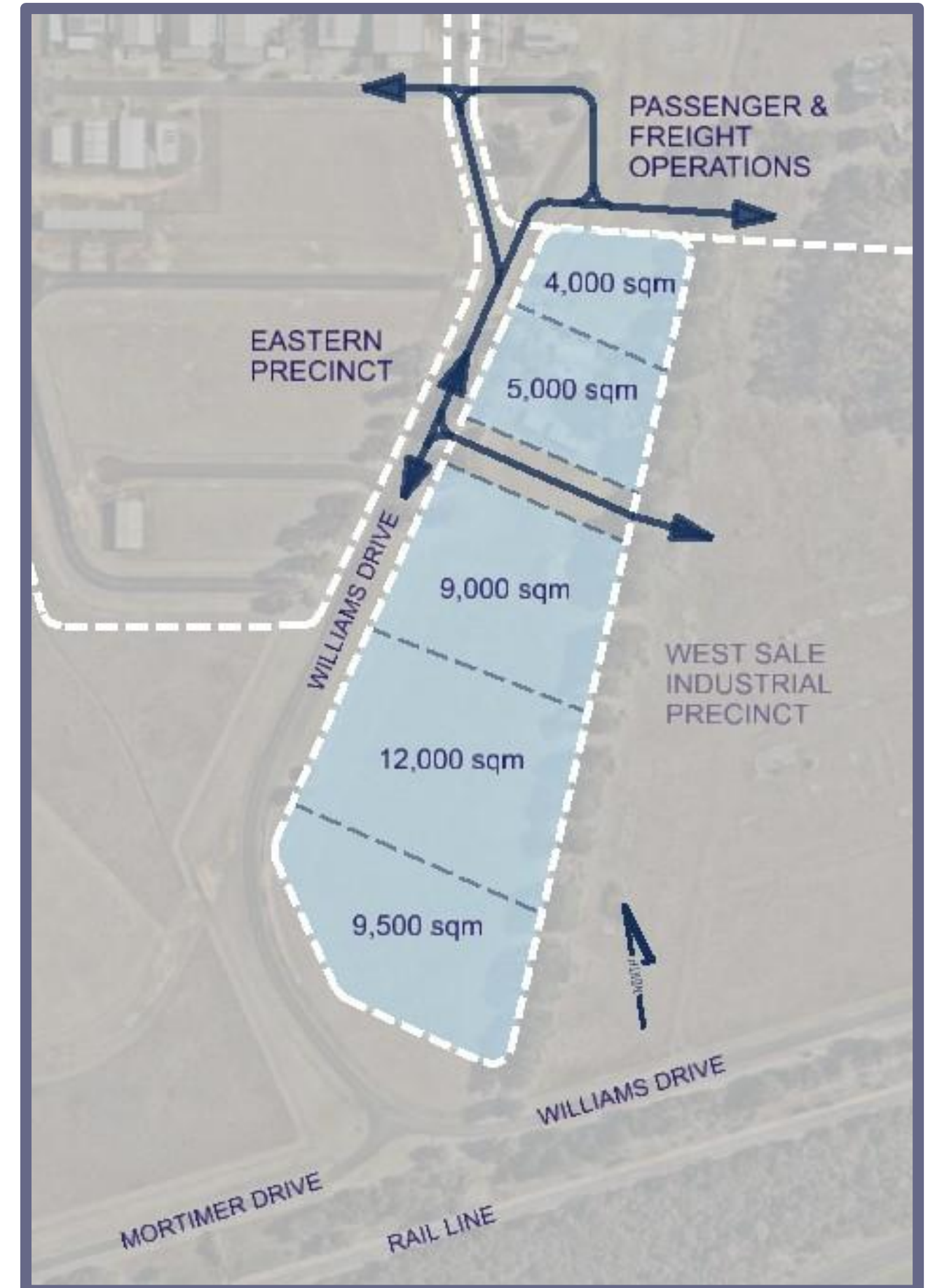


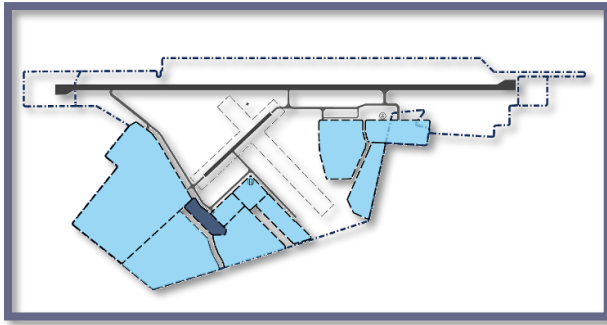


Airport Business Park

The Airport Business Park is well-placed to support businesses that do not require direct airside access but benefit from close proximity to the airport and connectivity to the adjacent West Sale Industrial Precinct. The leasehold lot sizes are to be determined as opportunities arise.

The Airport Business Park is accessed via Williams Drive and the West Sale Industrial Precinct.



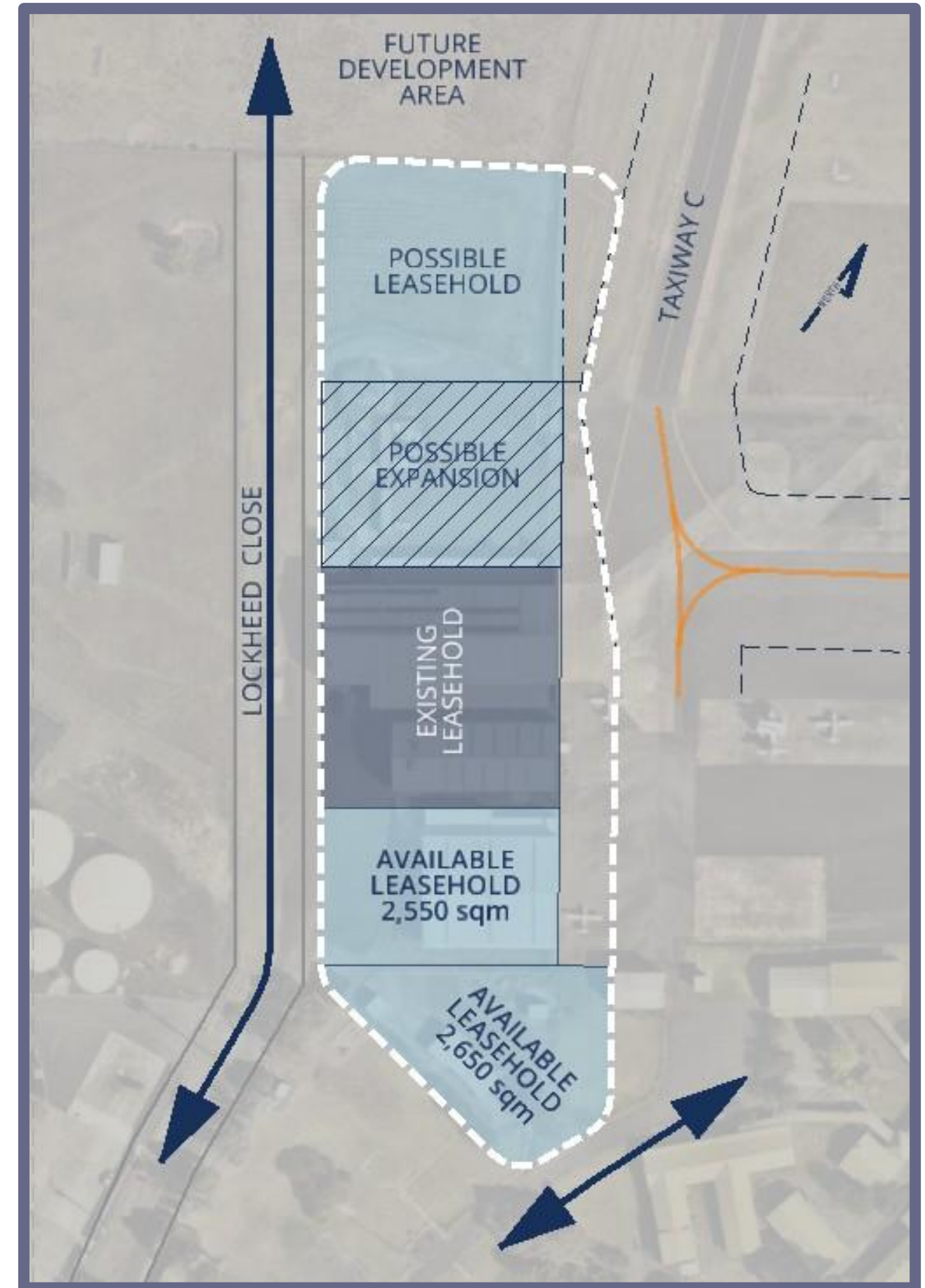


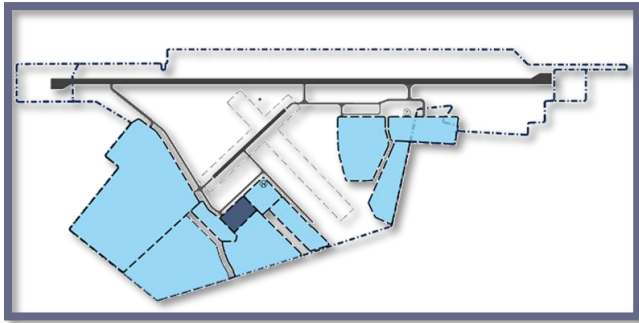
Aircraft Maintenance

The Aircraft Maintenance precinct is located at the western end of the western apron. This precinct plays an important role in sustaining local aviation operations and offers potential for future expansion of maintenance-related businesses.

This precinct houses key facilities supporting aircraft servicing and repair activities. Currently, the precinct includes East Gippsland Aviation and Southern Aircraft Services. Space is available for expansion of these businesses as well as the opportunity for additional maintenance providers to locate here in future. This might include private businesses, or maintenance facilities associated with Defence Related Pilot Training provider(s).

The Aircraft Maintenance precinct is accessed via Taxiway Charlie (Code B) and the newly proposed taxiways circulating onto the Western Apron. Road access is via Lockheed Close.





Defence Related Pilot Training

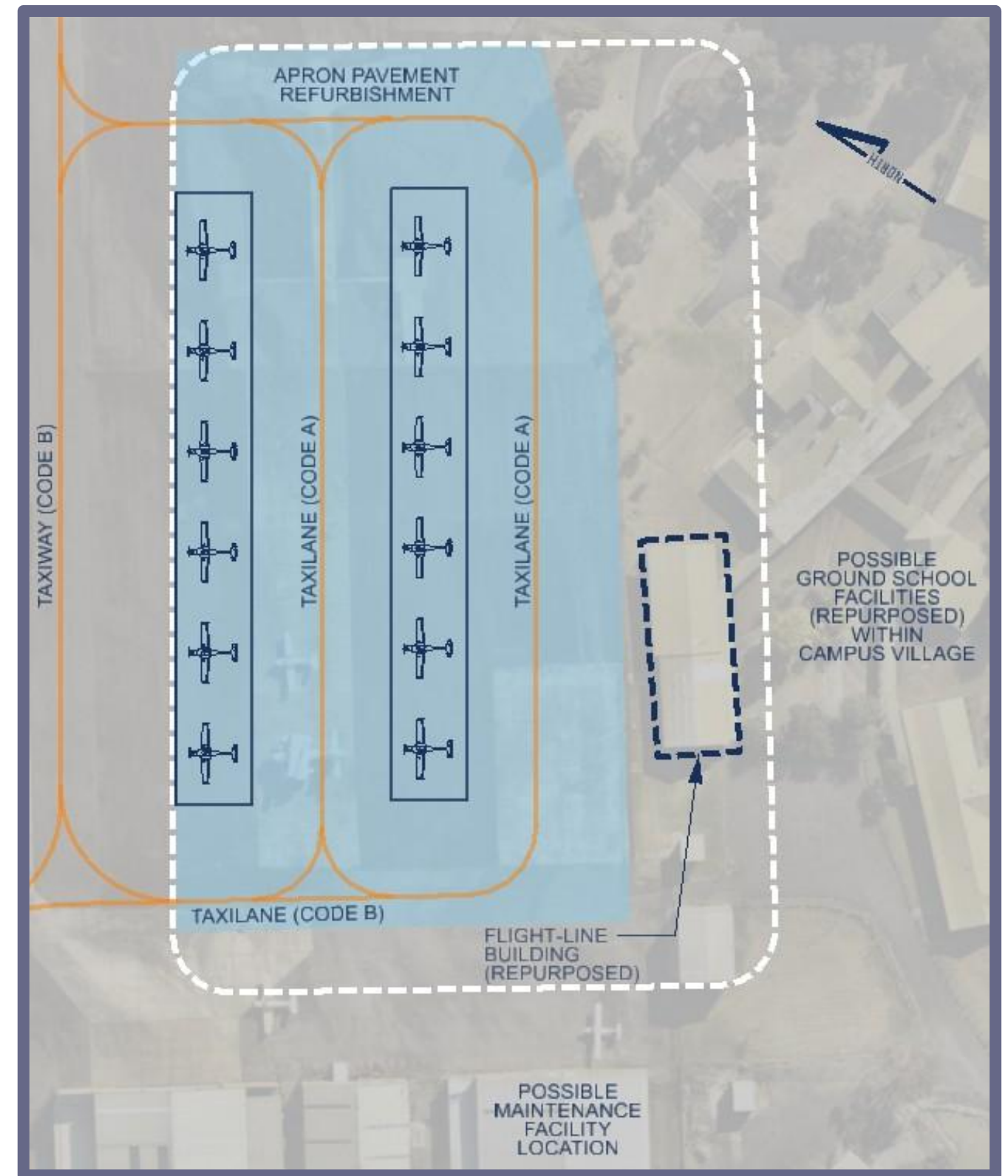
Dedicated pilot training activities play a key role in supporting Defence aviation training programs and are identified in the opportunities. The precinct, located on the Western Apron, provides dedicated Code A aircraft parking.

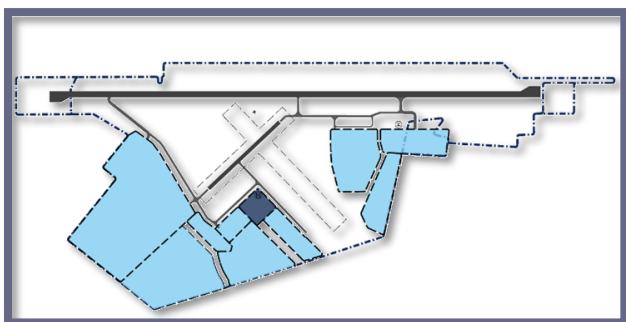
Refurbishment of the existing apron pavement is recommended to minimise the risk of foreign object debris and to reduce potential operational disruptions later. The aircraft parking can accommodate a 'carport' type structure to shelter from the sun and rain if required. Six (6) aircraft with a wingspan of approximately 10 m is allowed for with potential expansion for another six (6) aircraft. (Until such expansion is required, the second row of aircraft parking can be allocated to other users as tie-down parking, perhaps to assist in overflow apron area for the Aircraft Maintenance precinct operations.

The existing Bellman Hangar location within the Aircraft Maintenance precinct, offers a potential location for a new purpose-built maintenance facility dedicated to a flight training operator. The Bellman Hangar itself would require significant investment and substantial upgrades or renewals in order to remain and a replacement facility is considered more appropriate.

Additional taxiways providing connectivity to Runway 09/27 and Runway 05/23, reducing delays caused by full runway backtracking.

Existing Building 9, previously a TAFE building, could be re-purposed within the precinct, allowing for flight line access, supported by the Campus Village for ground school and student facilities.





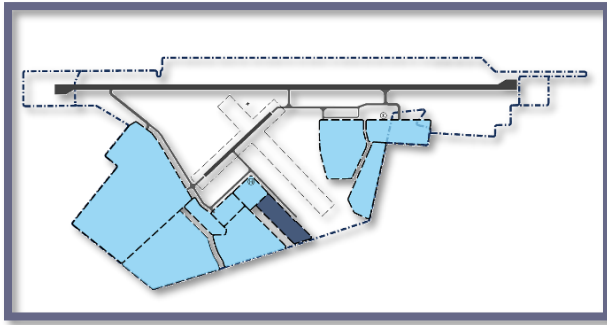
Helicopter Operations

The Helicopter Operations precinct is designated to support demand for rotary-wing operations by providing a central common helicopter landing site Final Approach and Take-off Area (FATO) with the potential for lease sites for individual operators' helicopter stands and hangar facilities clear of downwash/outwash impacts.

This location maximises rotary-wing operations separation from other aircraft, permitting rapid helicopter departures in multiple directions directly from the FATO, while avoiding direct overflight of the adjacent precincts. Access is also available to Runway 05/23 which, when sealed, will allow for runway-type rolling departures, favoured by larger helicopter types for some missions, without having to air or ground taxi to Runway 09/27.

The optimum configuration of the lease areas will depend on the exact opportunities arising. Repurposing of the existing prior helicopter crew training facility may be possible for some uses. Alternatively, temporary hangars or shelters may be able to be accommodated without demolition or relocation of the existing buildings within the precinct. However, it is noted that wholesale reconfiguration of this area may be required depending on the needs of the opportunities that are presented.



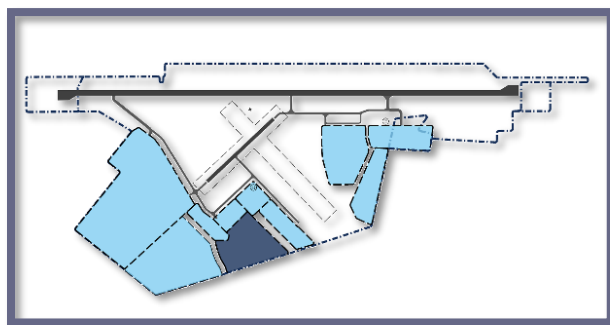


Commercial Precinct

The Commercial Precinct is suited to aviation-related commercial activities such as charter/fixed base operators, aircraft sales, maintenance services, and other enterprises that benefit from immediate access to the runways and taxiway system (subject to construction of a taxiway connection from the Western Precinct and Runway 05/23).

The Precinct accommodates large level lots benefitting from an easterly facing position, away from the more predominant westerly winds. Mains gas, limited to the western area of the airport, is also within proximity for access.



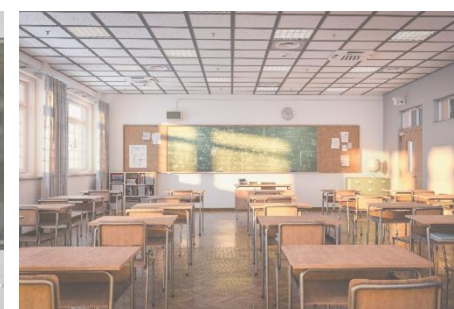


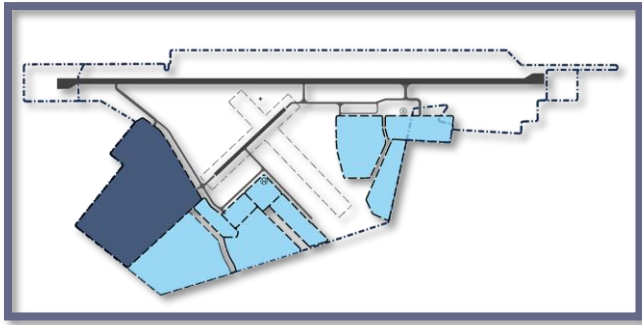
Campus Village

The Campus Village is the 'town centre' of West Sale Airport, anchoring the Aircraft Maintenance, Defence Related Pilot Training, Helicopter Operations and Commercial Precincts, and providing amenity to all airport tenants and visitors.

There is no direct aircraft access, however the precinct contains a number of existing facilities that offer a wealth of opportunities for repurposing to support other opportunities. These include:

- A 'training and education hub' with classroom and canteen facilities to support Aeroskills delivery and Defence Related Pilot Training ground school.
- Other ex-TAFE buildings available for long- or short-term lease to compatible businesses which might be developed into a base for small businesses and start-ups.
- Open green space offering a 'Village Green' style central outdoor space for meeting and relaxation, and to accommodate aviation-compatible community-focused events and activities, to support the campus environment and wider on-airport businesses.
- The potential for relocation and expansion of the Gippsland Armed Forces Museum (if required to vacate the Helicopter Operations precinct) into the previous automotive skills building, with space available for other initiatives potentially creating a 'history & heritage centre'.
- A variety of other opportunities to provide enhanced amenity to the West Sale Airport community.



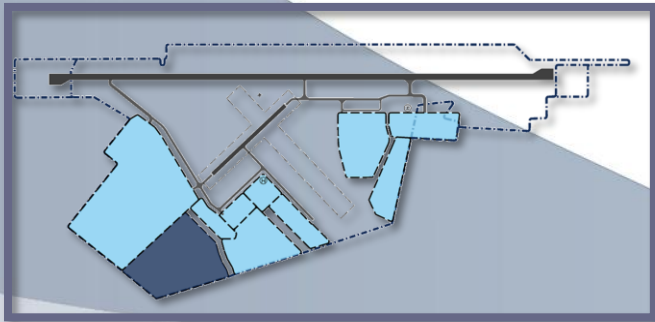


Future Development Area

The future development area is reserved to accommodate long-term expansion opportunities and large-scale uses.

This precinct, approximately 25 hectares in area, provides flexible space for future aviation-related opportunities not currently envisaged or obvious within this Master Plan period. This precinct could be suitable for several commercial businesses that seek close proximity to the main runway such as a fixed-base operator (FBO) facility, charter operator, or large scale maintenance provider. This is the only other area, aside from the Passenger and Freight Operations zone, where Code C aircraft access would be feasible due to topography. The area benefits from separation from other activities on-airport with potential for its own landside access as well as the benefits of a greenfield site, although servicing and a new intersection would need to be provided.

Until such opportunities arise, this area may support compatible community uses, intermittent activities such as the airshow, along with other major events that may emerge as the airport grows.



VEMTC West Sale

There is no change envisaged for the Victorian Emergency Management Training Centre West Sale area. VEMTC West Sale's training and operational activities will continue in this area.

7. Facilities Development Plan

This section details the future facility and physical infrastructure needs for West Sale Airport, based on the strategic analysis, the airport's long-term strategic goals, and the key planning parameters that support safe and efficient aviation operations. The facilities development plan is shown on attached **Figure M25058/02** and described below.

Runway Complex

Runway 09/27

Runway 09/27 is identified to remain as a grandfathered Code 3 instrument non-precision runway. To accommodate future freight operations, Runway 09/27 will need to be extended to 2,200 m. This requirement is driven by the take-off field length of the larger freight-capable aircraft which require more runway length than the existing (1,803 m) can provide.

The ultimate runway has been positioned to ensure that the OLS approach and take-off climb surfaces maintain adequate clearance over vehicles and light poles along Sale-Cowwarr Road and Sale-Heyfield Road. Additionally, the runway will need to be strengthened to withstand an A321.

The runway will be retained at its current 30 m width, however widening to 45 m may be required depending on future aircraft operational needs.

The runway strip is currently grandfathered at 150m width (75m each side of the runway centreline) and is intended to remain, given there is no change proposed to the runway code or other upgrade which would trigger compliance with the Part 139 MOS 2019 runway strip width requirements as long as the runway remains at 30m wide. Should operator requirements dictate a widening to 45m, the impact on runway strip and OLS requirements would need to be evaluated in light of the standards prevailing at the time.

Provision is made for Runway End Safety Area (RESA) at 90 metres by 240 metres at each end of Runway 09/27 in accordance with current standards.

Possible runway starter extensions up to 150m long may be incorporated into the RESA if needed to provide additional take-off length, if needed depending on the mission requirements of dedicated freight aircraft.

Runway 05/23

Runway 05/23 is proposed to be sealed, at 18m wide, to provide all-weather usability and to enhance connectivity between the Eastern and Western Precincts. The runway strip will remain at 90m wide.

Runway 14/32

The existing grass runway 14/32 will continue to be maintained in its current configuration.

Taxiways

Extensions and upgrades to the taxiway system are required to improve connectivity between the Eastern and Western Aprons, minimise backtracking on Runway 09/27, accommodate access to development sites in the Western Precinct, and facilitate larger Code C aircraft where necessary and feasible.

The proposed layout will extend Taxiway B1 to the north-eastern end Runway 05/23. Further connections, at the south-western end of Runway 05/23 to Taxiway C, and an intermediate connection to proposed taxiways serving the Western Precinct, will improve airfield circulation, decrease runway occupancy time, and boost overall operational efficiency and safety.

Taxiway A will be strengthened as required to accommodate Code C passenger and freight aircraft with a connection to the passenger and freight apron.

Taxiway B1 will be retained at Code B strip width (10.5 m pavement width) and extended eastward to connect to Taxiway A, improving access to the Eastern Apron. The alignment will transition northward and be positioned to maintain the grandfathered runway-taxiway centreline separation of 93 m, which satisfies the separation requirement for Code C aircraft, while the taxiway itself will remain constructed to Code B standard along this section.

A possible extension of the Runway 09/27 parallel taxiway to the existing or extended runway 27 threshold should be preserved, with the opportunity if required to meet Code C standards. However, a more modest Code A extension is considered more likely, primarily to minimise backtracking for the most frequent aircraft operations. Such an extension could usefully incorporate engine run-up bays.

Taxiway Charlie will be maintained at Code B (10.5 m pavement width) for most of its length to access the Western Apron. A section at the north-western end could be upgraded to accommodate Code C aircraft access to the Future Development Area. Upgrade to Code C beyond this is precluded due to the inability to meet the more stringent grading requirements compared to Code B.

Eastern Apron

A new taxilane parallel to Taxiway B1 will provide access to the Eastern Precinct hangars. The taxilane is to be designed for Code A aircraft operations.

Between this new taxilane and Taxiway B1 is a designated tie-down area for aircraft parking.

A dedicated helicopter stand will be provided to accommodate emergency services and other itinerant/charter helicopter operations. The stand will be positioned to maintain compliant clearance from adjacent fixed-wing parking and taxiway movements.

The apron layout will also allow for Code B aircraft (i.e. Beechcraft King Air 350 (B350)) and maintain aircraft access to the fuel facility.

Western Apron

The Western Apron will require pavement reconstruction and resurfacing across the Defence Related Flight Training, new pavement construction in the Helicopter Operations precinct and a new sealed Code B taxiway access to development sites parallel to Runway 14/32.

Navigational Aids

Due to the runway expansion to the east and west, the Precision Approach Path Indicators (PAPI) will need to be repositioned.

The current navigation systems at West Sale Airport are adequate; however, implementing an RNP approach for Runway 27 would provide a significant improvement over the existing NDB procedure.

Aviation Support and Landside Facilities

With TAFE no longer occupying the National Safety Council of Australia buildings, these facilities are now available for alternative uses and some of these are envisioned to be refurbished support aviation related education and training as well as defence related flight training opportunities.

Given the increased operational demand and potential introduction of larger aircraft, expanded fuel storage and refuelling capacity will also be required.

Passenger Terminal

The existing terminal comprises three small offices, a public seating area for approximately 30 passengers, a small kitchenette, and toilet facilities. To meet expanded passenger volumes and operational requirements, a new terminal building may be required for scheduled and charter services.



Freight Facility

A dedicated freight facility would be required for the processing and management of dedicated freight operations. The facility is planned to be separated from a new passenger terminal to accommodate dedicated freighter aircraft servicing. This separation also allows truck access through the West Sale Industrial Precinct, rather than via Williams Drive, which is not of an industrial road standard.

Security Requirements

West Sale Airport is not currently configured to support security-controlled RPT operations. The terminal and freight facilities may need to meet security and screening needs in the future. These will need to be determined under the *Aviation Transport Security Regulations 2005* and will be dependent on the nature and volume of activity.

Utility Services

Sewer

To accommodate likely expansion opportunities in the Western Precinct (aircraft maintenance, commercial opportunities and helicopter operations), connection to the town sewer network will be required. Sewer sizing would need to take into account specific user requirements (for example, aircraft paint and maintenance facilities); however, the Master Plan has identified a total of approximately 70,000 square metres of development area.

Stormwater

Management of stormwater from increased impervious areas as a result of airfield and landside developments will need to be considered in the detailed planning and design of proposals.

Environmental & Heritage Considerations

Environmental

This section addresses potential environmental issues and impacts associated with proposed future developments at West Sale Airport.

In November 2014, the Council engaged an environmental specialist to prepare the report *Vegetation Overview and Habitat Hectares Assessment* (ETHOS NRM Pty Ltd), which identified vegetation locations and significance across the airport site. The report classified the site into several vegetation zones, as illustrated in Figure 30. Based on this study, any future airport development requiring removal of native vegetation may be subject to:

- Planning Permit (Biodiversity Assessment Guidelines)
- Permit under the Flora and Fauna Guarantee Act 1988 (in accordance with the PAMA Agreement)
- Changes to the PAMA Agreement
- Environment Protection and Biodiversity Conservation (EPBC) Act

The site is predominantly covered by Plains Grassy Woodland (PGW), with an Ecological Vegetation Class (EVC) of 55, and contains six defined Habitat Zones.

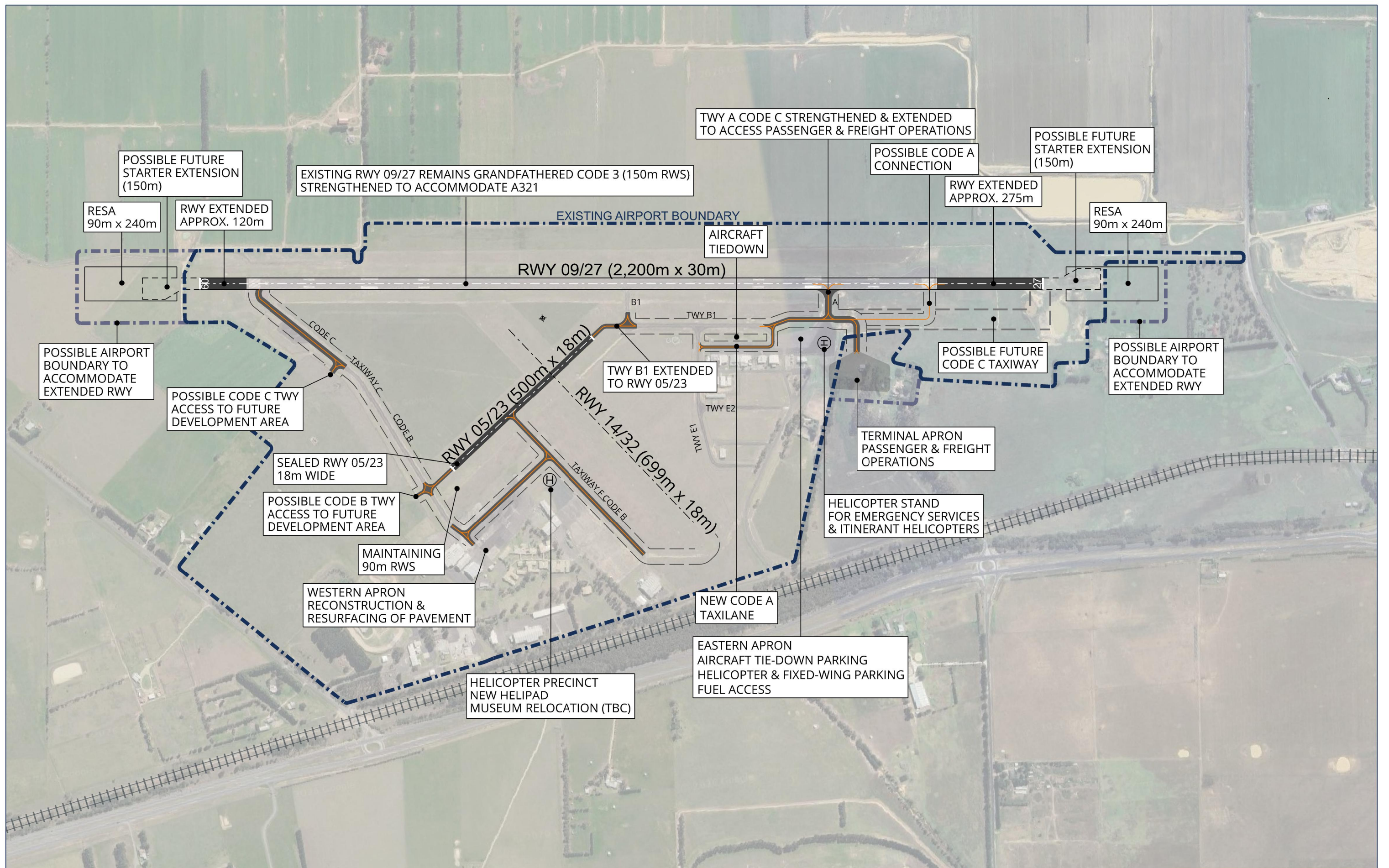
State policy for vegetation removal requires a risk-based assessment (low, moderate, or high), considering both the extent of vegetation proposed for removal and the location risk based on DEPI models. The assessment identified the WSA aerodrome site as a high-risk area for vegetation removal. Where removal is unavoidable, offsets are required to compensate for biodiversity impacts. DEPI regulations outline that offsets can be achieved through:

- Long-term protection, enhancement, and management of native vegetation on private or third-party land
- Purchase of Native Vegetation Credits from accredited offset brokers

Offsets must be secured prior to vegetation removal, including an onsite management plan or evidence of a secured third-party offset.

Heritage

To minimise the risk of encountering unexpected archaeological material during groundworks, which could delay construction to allow for archaeological retrieval—it is recommended that a qualified archaeologist be engaged early in the planning process. Their role would include identifying areas of potential archaeological sensitivity, advising on the likelihood of subsurface remains, and undertaking targeted investigations (such as historical research and test-pit excavation) where works are proposed in higher-risk areas. An archaeologist can also provide guidance on which types of construction activities are likely to disturb archaeological deposits; for example, surface-level works with minimal excavation may not trigger the need for investigation.



8. Ground Transport Plan

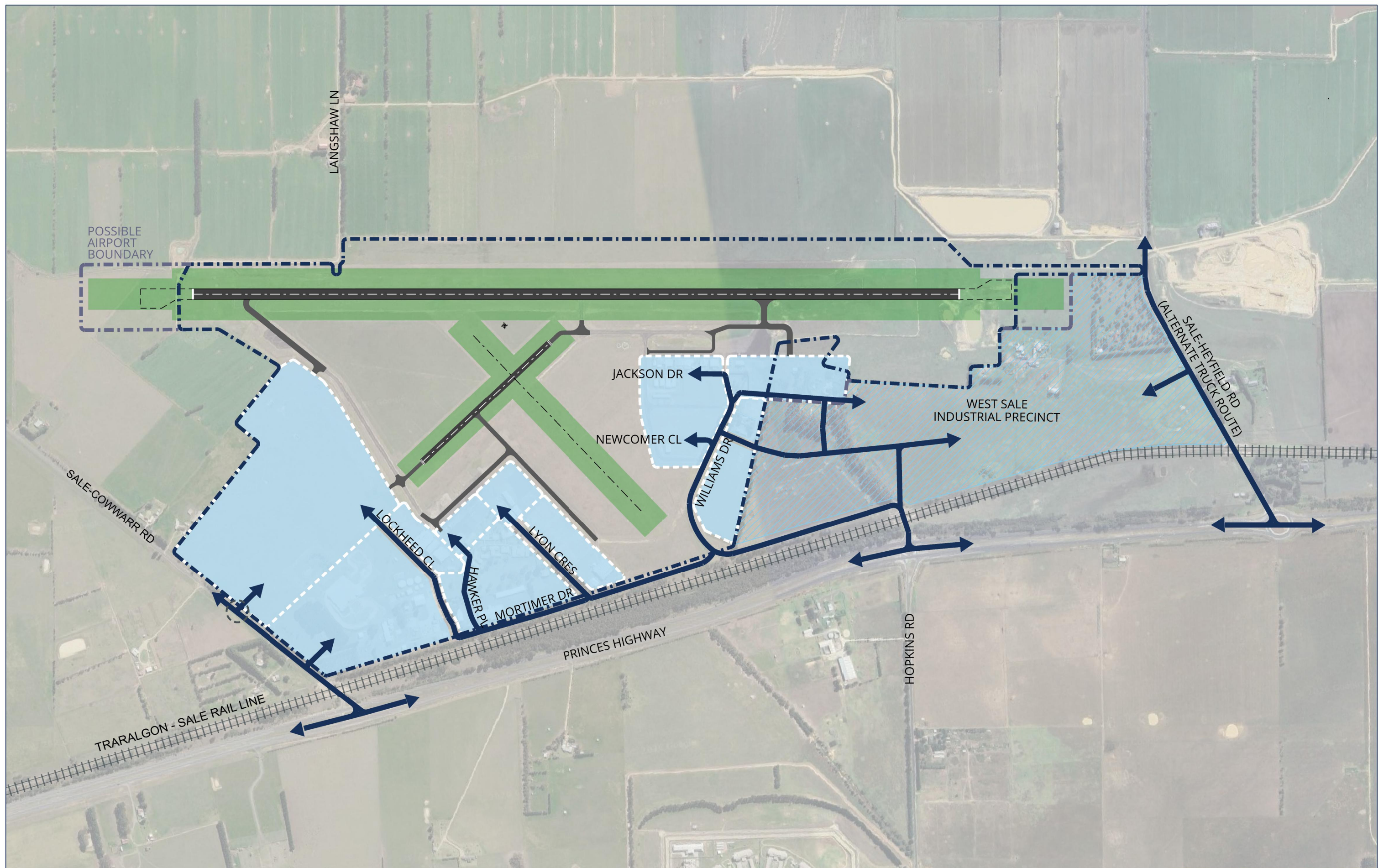
Access to West Sale Airport is currently directly off the Princes Highway, part of the national highway network, via Williams Drive.

Roads from the West Sale Industrial Precinct will also connect to Williams Drive, providing circulation throughout the area. There is also potential for a future connection to the rail network to facilitate freight or passenger movements.

To support future charter, RPT, and freight-related activity, improved road access capable of accommodating larger vehicles, including freight trucks, will be required. The West Sale Industrial Precinct provides the opportunity to deliver this.

Circulation through the Western Precinct is expected to remain largely as present. An additional road connection between the Campus Village and the Future Development Area is considered to be beneficial. A new intersection access into the Future Development Area off Sale-Cowwarr Road would also be required to maximise the potential of this area.

Key ground transport elements are illustrated on **Figure M25058/03**.



9. Airport Safeguarding Plan

Safeguarding the airport from incompatible development in the vicinity of the runway is essential to preserve the possibility that the opportunities envisaged in the West Sale Airport Master Plan 2045 can be safely and compliantly accommodated without inappropriate impacts on surrounding land uses.

National Airports Safeguarding Framework

The Australian government has developed the National Airports Safeguarding Framework to assist airport operators and local governments in managing land use and development in the vicinity of airports to achieve this goal.

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

- Improve community amenity by minimising aircraft noise-sensitive developments near airports including through the use of additional noise metrics and improved noise-disclosure mechanisms; and
- Improve safety outcomes by ensuring aviation safety requirements are recognised in land use planning decisions through guidelines being adopted by jurisdictions on various safety-related issues.

The NASF was developed by the National Airports Safeguarding Advisory Group (NASAG), comprising of Commonwealth, State and Territory Government planning and transport officials, the Australian Government Department of Defence, the Civil Aviation Safety Authority (CASA), Airservices Australia and the Australian Local Government Association (ALGA).

NASF currently consists of a set of seven principles and nine guidelines. The full NASF principles and guidelines can be found on the Department of Infrastructure and Regional Development's website². The NASF principles are as follows, and each Guideline is described in the following subsections.

- **Principle 1:** The safety, efficiency and operational integrity of airports should be protected by all governments, recognising their economic, defence and social significance
- **Principle 2:** Airports, governments and local communities should share responsibility to ensure that airport planning is integrated with local and regional planning.
- **Principle 3:** Governments at all levels should align land use planning and building requirements in the vicinity of airports.
- **Principle 4:** Land use planning processes should balance and protect both airport/aviation operations and community safety and amenity expectations.
- **Principle 5:** Governments will protect operational airspace around airports in the interests of both aviation and community safety.
- **Principle 6:** Strategic and statutory planning frameworks should address aircraft noise by applying a comprehensive suite of noise measures.
- **Principle 7:** Airports should work with governments to provide comprehensive and understandable information to local communities on their operations concerning noise impacts and airspace requirements.

² <https://www.infrastructure.gov.au/infrastructure-transport-vehicles/aviation/aviation-safety/aviation-environmental-issues/national-airports-safeguarding-framework>.

Aircraft Noise

The assessment of aircraft noise impacts is a key component of airport master planning. Its purpose is to ensure that sensitive land uses are not located in areas exposed to unacceptable aircraft noise, that the amenity of surrounding communities is protected, and that long-term airport operations are safeguarded from incompatible development encroaching into noise-affected areas.

An Australian Noise Exposure Forecast (ANEF) is used to illustrate the forecast aircraft noise environment around an airport. It provides contour mapping of expected future noise levels and forms the basis for land-use planning recommendations. Guidance on appropriate land uses within ANEF zones is provided in Australian Standard AS2021-2015: *Acoustics – Aircraft Noise Intrusion – Building Siting and Construction*. A summary of these recommendations is presented in **Table 6**; however, the full Standard should be consulted for detailed requirements, notes, and conditions.

Table 6: Building Site Acceptability Based on ANEF Zones (AS2021 2015 Table 2.1)

Building Type	Acceptable	Conditional	Unacceptable
House, home unit, flat, caravan park	< 20 ANEF	20–25 ANEF	> 25 ANEF
Hotel, motel, hostel	< 25 ANEF	25–30 ANEF	> 30 ANEF
School, university	< 20 ANEF	20–25 ANEF	> 25 ANEF
Hospital, nursing home	< 20 ANEF	20–25 ANEF	> 25 ANEF
Public building	< 20 ANEF	20–30 ANEF	> 30 ANEF
Commercial building	< 25 ANEF	25–35 ANEF	> 35 ANEF
Light industrial	< 30 ANEF	30–40 ANEF	> 40 ANEF
Other industrial	Acceptable in all ANEF zones		

- Notes:
- Acceptable- Special noise-reduction measures usually not required.
 - Conditional - Noise attenuation required.
 - Unacceptable -Development should not normally be considered.

The National Airports Safeguarding Framework (NASF) Guideline A: *Measures for Managing Impacts of Aircraft Noise* provides additional guidance on interpreting noise contours and recommends the use of supplementary noise metrics. One such metric is the “Number Above” (N-contour) system, which identifies the number of aircraft noise events per day exceeding specific noise thresholds (e.g., 60 dB(A), 65 dB(A), 70 dB(A)). Unlike the ANEF, which represents long-term average exposure, N-contours present noise in a way that aligns more closely with how people experience it, individual noise events throughout the day.

Due to the limitations of the ANEF system and the introduction of NASF Guideline A, N-contours are increasingly used by airports to better communicate aircraft noise impacts and support land-use planning decisions.

As part of the West Sale Airport Master Plan, the Council is updating the noise modelling from 2017 to reflect potential growth based on the identified opportunities and vision out to 2045. The projected aircraft movements for the 2045 ANEF is 62,119 as shown in **Table 7**.

Table 7: Forecasted 2045 ANEF Aircraft Movements

FIXED WING	Category	Forecast Aircraft Type	2045 Movements
	DEFENCE RELATED	Pilatus PC-21 Turbo Trainer	17,122
		Military fast subsonic jet e.g. Hawker Hunter	1,040
		Military supersonic jet e.g. Jaguar	1,040
		Two-seat turboprop aerobatic trainer e.g. Grob 120TP	29,410
	COMMERCIAL SERVICES	Twin Turboprop e.g. King Air 350	104
		Single-engine Turboprop e.g. Pilatus PC-12	104
		70-seat turboprop e.g. Dash 8 Q400	208
		Narrow-body jet freighter e.g. A321/B737-800	208
	EMERGENCY SERVICES	Twin Turboprop e.g. Beech King Air 200/250//350	284
		Single Turboprop e.g. Cessna 208 Caravan	20
	WEST SALE OPERATORS	Light Twin Piston Engine e.g. Beech Musketeer	1,906
		Warbird e.g. Nanchang CJ-6	2,496
		Ultralight/Light Sports Aircraft	1,745
	ITINERANT	Single Engine Piston e.g. Cessna 182	2,362
		Single-engine Turboprop e.g. Pilatus PC-12	1,745
		Business jet e.g. Pilatus PC-24	104
	Fixed Wing Total		58,257
ROTARY	Category	Forecast Aircraft	2045 Movements
	DEFENCE RELATED	Medium Twin e.g. AW139	760
	EMERGENCY SERVICES	Medium Twin e.g. Bell 412/AW139	98
		Light Twin e.g. Bell 429	5
		Light Single e.g. Robinson R44	5
		Medium Twin e.g. Bell 412/AW139	2,920
	ITINERANT	Light Twin e.g. Bell 429	37
		Light Single e.g. Robinson R44	37
	Rotary Total		3,862
	Grand Total		62,119

An Aircraft Noise Exposure Concept (ANEC) has been prepared incorporating the 2045 aircraft movements as shown in **Table 7**. The Preliminary ANEC contours are shown on **Figure M25058/04** in the **Appendix**. The ANEF 20 contour, which marks the outer boundary of land-use planning restrictions in accordance with AS2021:2015 Acoustics – Aircraft Noise Intrusion Building Siting and Construction, is depicted as a dashed line.

The ANEC is subject to technical endorsement of Airservices Australia after which it will become the West Sale Airport 2045 ANEF. **Note: A formal version of the ANEF 2045 chart will be prepared as part of the ANEF endorsement process, for inclusion in the Wellington Shire Planning Scheme through amendment to the current Airport Environs Overlays (AEOs).**

Projected noise levels differ from those in the West Sale Airport Master Plan Update 2017 and cover a broader area, for reasons including (but not limited to) the following:

- The actual number of movements for West Sale Airport in 2017 was approximately 2,300 movements as compared to approximately 20,800 movements 2024;
- The introduction of defence training (PC21) in 2020 grew to approximately 15,500 movements in 2024;
- An increase in forecast aircraft movements from 4,300 to 63,000 per year;
- Inclusion of additional training and search and rescue movements supporting Defence;
- Inclusion of additional and larger aircraft due to new opportunities for the Council and growing interest in the airport as the industrial precinct develops and offshore opportunities emerge.

Building Generated Windshear and Turbulence

The purpose of NASF Guideline B: *Managing the Risk of Building Generated Windshear and Turbulence at Airports* is to assist land use planners and airport operators in their planning and development processes to reduce the risk of building generated windshear and turbulence at airports near runways.

Applicability of this Guideline is initially determined by the location of the building within an 'assessment trigger area' around the runway ends, that is:

- 1200 metres or closer perpendicular from the runway centreline (or extended runway centreline);
- 900 metres or closer in front of runway threshold (towards the landside of the airport); and
- 500 metres or closer from the runway threshold along the runway.

The guideline recommends that all developments within the assessment trigger areas that will infringe a 1:35 sloping surface from the runway centreline should undergo further assessment.

Figure **M25058/05** in the **Appendix** shows the assessment trigger areas for West Sale Airport Runway 09/27 based on threshold locations. It also illustrates the assessment trigger areas for the grass runways.

Preliminary desktop assessment, in accordance with NASF Guideline B, indicates that the scale and nature of buildings associated with the development opportunities envisaged in the West Sale Airport Master Plan 2045 should be realisable without unacceptable impacts on operations as a result of building generated windshear. However, further investigation is needed where buildings infringing the 1:35 assessment surface are proposed.

Building generated windshear and turbulence Assessment Action Plan

A number of development opportunities identified in the West Sale Airport Master Plan 2045 would infringe the assessment trigger surfaces and require further assessment in accordance with the National Airports Safeguarding Framework (NASF) Guideline B. While there is sufficient confidence that developments of the scale anticipated would be possible without causing undue impacts on aircraft safety, the uncertainty which prevails until the assessment process is concluded may deter potential proponents.

Therefore, Council intends to adopt a proactive approach to encouraging and de-risking development and so as a further action once the West Sale Airport Master Plan 2045 is adopted, is to prepare and implement a building generated windshear and turbulence assessment action plan.

The plan is anticipated to include steps including (but not limited to):

- Further desktop assessment of development scenarios in accordance with the 'simple building-induced wind speed deficit (BWD) assessment given in Attachment A to Guideline B.
- Modelling at a precinct level (rather than individual structures) where required to confirm windshear and turbulence criteria are not exceeded.
- Engagement with aircraft operators and CASA in relation to the findings to identify any concerns.
- Internal engagement with development approval decision-makers to establish Council organisational awareness and knowledge.

Through this process Council intends to accelerate development assessment processes, increase outcome certainty and minimise the cost burden on individual developments.

Wildlife Hazards

NASF Guideline C: *Managing the Risk of Wildlife Strikes in the Vicinity of Airports* provides guidelines to State/Territory and local government decision makers to manage the risk of collisions between wildlife and aircraft at or near airports where that risk may be increased by the presence of wildlife-attracting land uses.

Guideline C recommends that airport operators identify and make public three (3) wildlife management areas for the airport, as follows:

- Off-airport land within 3 km of the aerodrome reference point (Area A);
- Land between 3 km and 8 km from the aerodrome reference point (Area B); and
- Land between 8 km and 13 km from the aerodrome reference point (Area C).

The Guideline permits airport operators to adjust the perimeters of Areas A and B based on a wildlife hazard expert's recommendation and with the agreement of the relevant state or territory government. This is typically done so that the 3 km and 8 km distances are measured from the ends of the runway(s), rather than the aerodrome reference point.

Figure **M25058/06** in the **Appendix** illustrates the 3 km, 8 km and 13 km wildlife management areas in relation to West Sale Airport from the aerodrome reference point (ARP).

Wind Farms

NASF Guideline D: *Managing the Risk to Aviation Safety of Wind Turbine Installations* (Wind Farms)/Wind Monitoring Towers, provides guidance to State/Territory and local government decision makers, airport operators and developers of wind farms to jointly address the risk to civil aviation arising from the development, presence and use of wind farms and wind monitoring towers.

Proponents of such installations should take account of Guideline D in undertaking assessments of the impacts of the proposals, including on aviation.

Council should be aware of Guideline D, and it may assist in evaluating and commenting on any wind farm proposals within 30 kilometres of West Sale Airport.

Lighting & Glare

Lighting

NASF Guideline E: *Managing the Risk of Distractions to Pilots from Lighting in the Vicinity of Airports* provides guidance on the risk of distractions to pilots of aircraft from lighting and light fixtures near airports. The CASA Part 139 (Aerodromes) Manual of Standards 2019 Section 9.144: Lights – requirements for zones sets out the restrictions and the degree of interference ground lights may acceptably cause as a pilot approaches and provides advice to lighting suppliers on the general requirements for lighting within a 6 kilometre radius of a known aerodrome.

Within this 6 km area there exists a primary area which is divided into four light control zones: A, B, C and D. These zones reflect the degree of interference ground lights can cause pilots as they approach. **Figure M25058/07** in the **Appendix** illustrates the light control zones and restrictions on lighting levels for West Sale Airport Runway 09/27. These zones are based on the ends of the ultimate starter extensions as these are to be lit in accordance with the requirements for runways and it is important to ensure pilots can clearly understand the runway layout when approaching to land. The grass runways are not lit nor proposed to be lit in the future therefore primary light control zones do not apply to these runways.

The light control zones reflect the degree of interference ground lights are permitted to cause pilots as they approach. Lighting associated with any developments should therefore meet the maximum intensity of light sources measured at three (3) degrees above the horizontal associated with each Zone as follows:

- Zone A – 0 cd;
- Zone B – 50 cd;
- Zone C – 150 cd; and
- Zone D – 450 cd.

Council should consider Guideline E in relation to any proposed lighting installations on airport, as well as off-airport (for example, associated with sports fields, industrial facilities and similar) within six (6) kilometres of West Sale Airport.

Glare

Potential for glare from solar panel installations and other reflective surfaces has, traditionally, been a concern for aviation safety around airports. Currently, there are no specific Australian standards that apply to solar farms near aerodromes, or the installation of rooftop solar panels on buildings on airport. CASA has generally followed the US Federal Aviation Administration (FAA) which is relatively advanced in terms of solar farm glare evaluation. The FAA revised its guidance in May 2021 as follows:

“In most cases glint and glare from solar energy systems to pilots on final approach is similar to glint and glare pilots routinely experience from water bodies, glass-façade buildings, parking lots, and similar features. However, FAA has continued to receive reports of potential glint and glare from on-airport solar energy systems on personnel working in ATCT cabs. Therefore, FAA has determined the scope of agency policy should be focused on the impact of on-airport solar energy systems to federally-obligated towered airports, specifically the airport’s ATCT cab.”

There is no ATC tower at West Sale Airport nor is one expected in the timeframe of this Master Plan. CASA has not typically required technical glare assessments for rooftop solar installations on individual buildings as CASA has adopted this updated FAA policy. However, development of the industrial precinct should take into account a cumulative effect of solar panels on multiple buildings.

Protected Operational Airspace

NASF Guideline F: *Managing the Risk of Intrusions into the Protected Operational Airspace of Airports*, provides guidance to State/Territory and local government decision makers as well as airport operators to jointly address the issue of intrusions into the operational airspace of airports by tall structures, as well as trees in the vicinity of airports.

If these activities are not regulated, CASA may have to mitigate risk by imposing restrictions on the runway distance that can be used. Alternatively, the minimum descent altitude for aircraft approaching in inclement weather may have to be lifted, with the result that fewer aircraft may be able to land under such conditions.

Two separate groups of criteria determine the dimensions and volumes of the required operational airspace. The first group, Obstacle Limitation Surfaces (OLS), protect visual operations (which typically include most general aviation operations, as well as air transport operations in good weather). The second group of criteria protect aircraft operations that are solely reliant on navigational instruments.

Finally, NASF Guideline F also addresses activities that could cause air turbulence or the emission of steam, gas, smoke, dust and other particulate matter where this could affect the operation of aircraft in accordance with the Visual Flight Rules (VFR).

Obstacle Limitation Surfaces

The Obstacle Limitation Surfaces (OLS) for West Sale Airport have been established for a Code 3 instrument non-precision approach and take-off operations on Runway 09/27 and Code 1 non-instrument operations on both grass runways (Runway 05/23 and Runway 14/32) as illustrated on **Figure M25058/08** in the **Appendix**. The main sealed runway OLS remains grandfathered as a Code 3 instrument non-precision runway extended to 2,200m in length.

The future West Sale Airport OLS requirements will be included in the Wellington Shire Planning Scheme through a planning scheme amendment to include a Design and Development Overlay.

PANS-OPS

In addition to the OLS, Council is also required to monitor and report obstacles to the Procedures for Air Navigation Surfaces – Aircraft Operations (PANS-OPS) surfaces which may affect the published instrument approach procedures.

The PANS-OPS surfaces protect the airspace in the vicinity of the airport for instrument operations. The PANS-OPS surfaces differ to the OLS in that they protect aircraft conducting operations under IFR and as such cannot be infringed under any circumstances, as aircraft are relying on them for the avoidance of obstacles. However, like the OLS, they comprise a series of airspace reference surfaces. PANS-OPS surfaces are generally (though not always) higher than the OLS, but they extend further from the airport than the OLS.

Council should work with Airservices Australia to ensure the information needed for monitoring obstacles within the associated instrument approach and departure procedure protection areas is available, to allow it to fulfil its obligations under the relevant regulations.

Plume Rise

Exhaust plumes from industrial and other facilities can be considered obstacles if they present a significant risk of turbulence of sufficient severity to cause a loss of safe control of aircraft by pilots.

CASA has established a process, set out in Advisory Circular AC 139.E-02 v1.0 *Plume rise assessments* March 2023 for assessing proposed plume rises for risk to aviation operations.

Communication, Navigation and Surveillance (CNS) Facilities

The purpose of Guideline G: *Protecting Aviation Facilities – Communication, Navigation and Surveillance (CNS)* is to provide a consistent approach to land use planning protection of CNS facilities. Guideline G assists land use planning decision makers with guidance for assessing development proposals in Building Restricted Areas (BRA).

The ground-based NDB which services West Sale Airport is located at RAAF Base East. Attachment 3 to the Guideline provides the Building Restricted Areas (BRAs) for aviation facilities, including the NDB. The BRA for the NDB extends out 300 m from the NDB antenna. As such the NDB Building Restricted Area (BRA) as defined in NASF Guideline G would not impose restrictions on development at West Sale Airport.

Public Safety Areas

NASF Guideline I: *Managing the Risk in Public Safety Areas at the Ends of Runways* provides guidance on approaches for the application of a Public Safety Area (PSA) planning framework in Australian jurisdictions. The Guideline is intended to ensure there is no increase in risk from new development and to assist land-use planners to better consider public safety when assessing development proposals, rezoning requests and when developing strategic land use plans.

Guideline I provides three examples two of which are of most relevance to Australia (the UK and Queensland approaches) to developing PSA extents. Council has previously established PSAs at the ends of the proposed extended Runway 09/27 in line with the Queensland template dimensions. These PSAs are valid in accordance with NASF Guideline I and are to be retained.

10. Implementation Plan

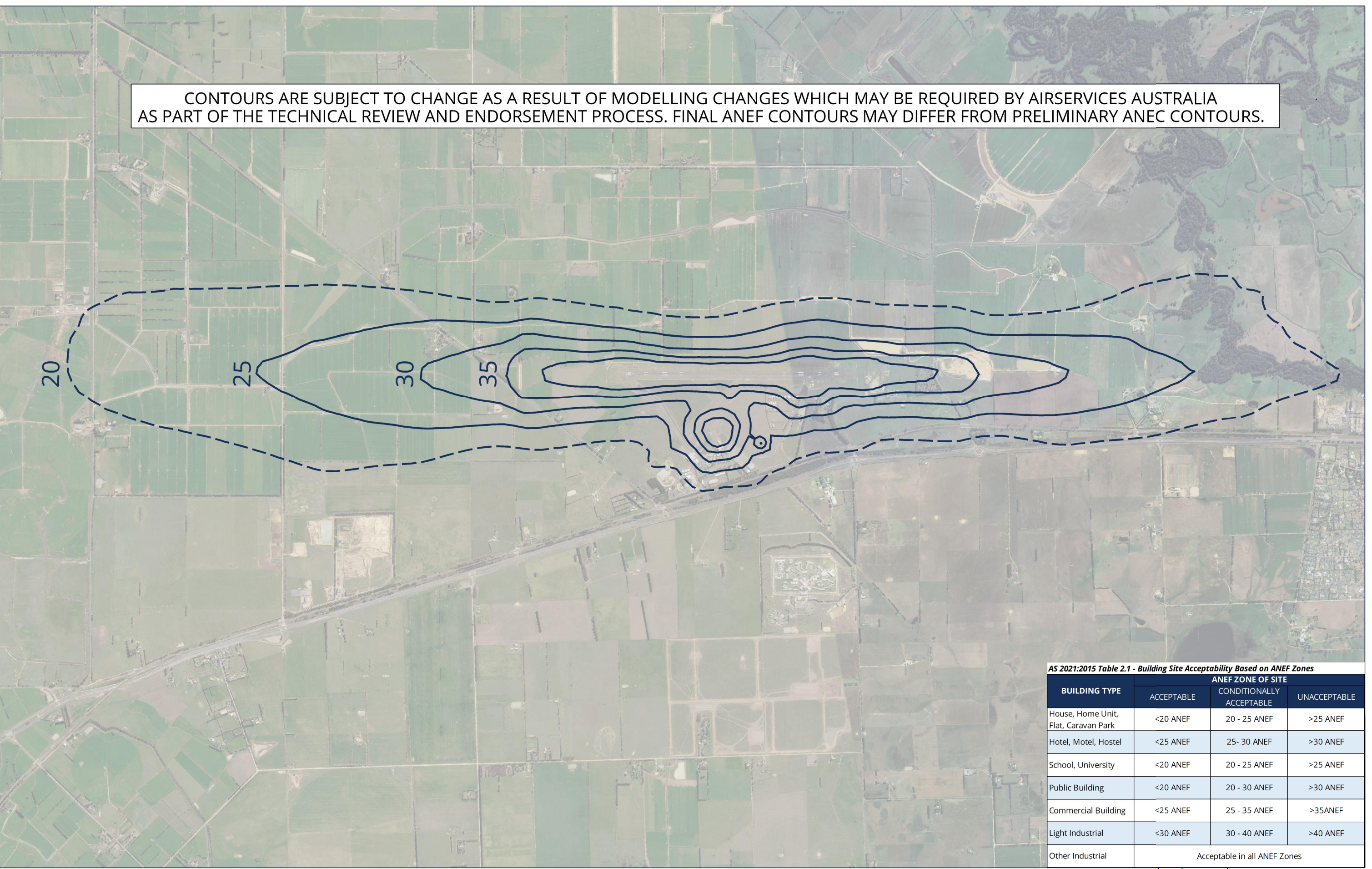
Table 8 summarises the key development priorities covered in the Facilities Development Plan along with other actions and applicable triggers. Indicative timing is subject to change depending on the trigger occurring. Each development should be subject to a further assessment incorporating a business case to an appropriate level of detail, which will allow external funding to be sought where necessary.

Table 8: Implementation Plan

Action	Trigger	Indicative Timing of Implementation
Release of final Master Plan	Council adoption of Master Plan	Immediately on adoption by Council
Development of a business attraction program as a practical way of developing interest in the opportunities identified in the Master Plan	Council adoption of Master Plan	0 – 1 year
Implement Planning Scheme Amendments to adjust AEOs and include new DDO	Council adoption of Master Plan	12 – 18 months
Develop an airport-wide servicing plan identifying scope, cost and timing of expected improvements to sewer and stormwater systems and provision of power, water, gas and telecommunications networks to precincts currently not serviced	Required to enable development opportunities airport-wide	1 – 2 years
Construct new FATO in Helicopter Operations precinct	Defence Search and Rescue Services opportunity	1 – 3 years
Establish new Code A Taxilane & grass aircraft parking in Eastern Precinct	Could be implemented at minimal cost	0 – 5 years
Seal Runway 05/23 and taxiway connections to TWY C, TWY B1 and Helicopter Operations precinct	Required now to address connectivity issues. Timing subject to funding.	0 – 5 years
Taxiway F Commercial Precinct Taxiway Access (Code B)	Required to activate opportunities in the Commercial Precinct. Timing subject to demand.	0 – 5 years
Realign TWY B1 to expand Eastern Apron capacity	Increased charter aircraft traffic and fuel access demand	5 –10 years
Western Apron refurbishment of pavement and provision of Defence Related Pilot Training aircraft parking	Establishment of Defence Related Pilot Training opportunity	5 – 10 years
Progressive Runway 09/27 strengthening	Consider increasing runway strength at each planned maintenance resurfacing to suit expected aircraft types for each subsequent period	Periodically (each c.10-15 years)
Possible airport boundary changes and land acquisition	Required for runway extension to full length envisaged. Need and timing subject to runway extension trigger.	10+ years
Construct new passenger terminal, passenger and freight apron	Required to facilitate introduction of Code C aircraft for passenger or freight services	10+ years
Runway extension to 2,200m with possible additional 150m starter extensions. Strengthening to A321 capability	Potentially required to facilitate introduction of Code C aircraft for freight operations. Need and timing subject to detailed business case.	10+ years
Upgrade TWY C and Code C taxiway access to Future Development Area	Required to activate aviation opportunities in the Future Development Area	10+ years
Review Master Plan	Every 5 years or significant change in circumstance	5 years

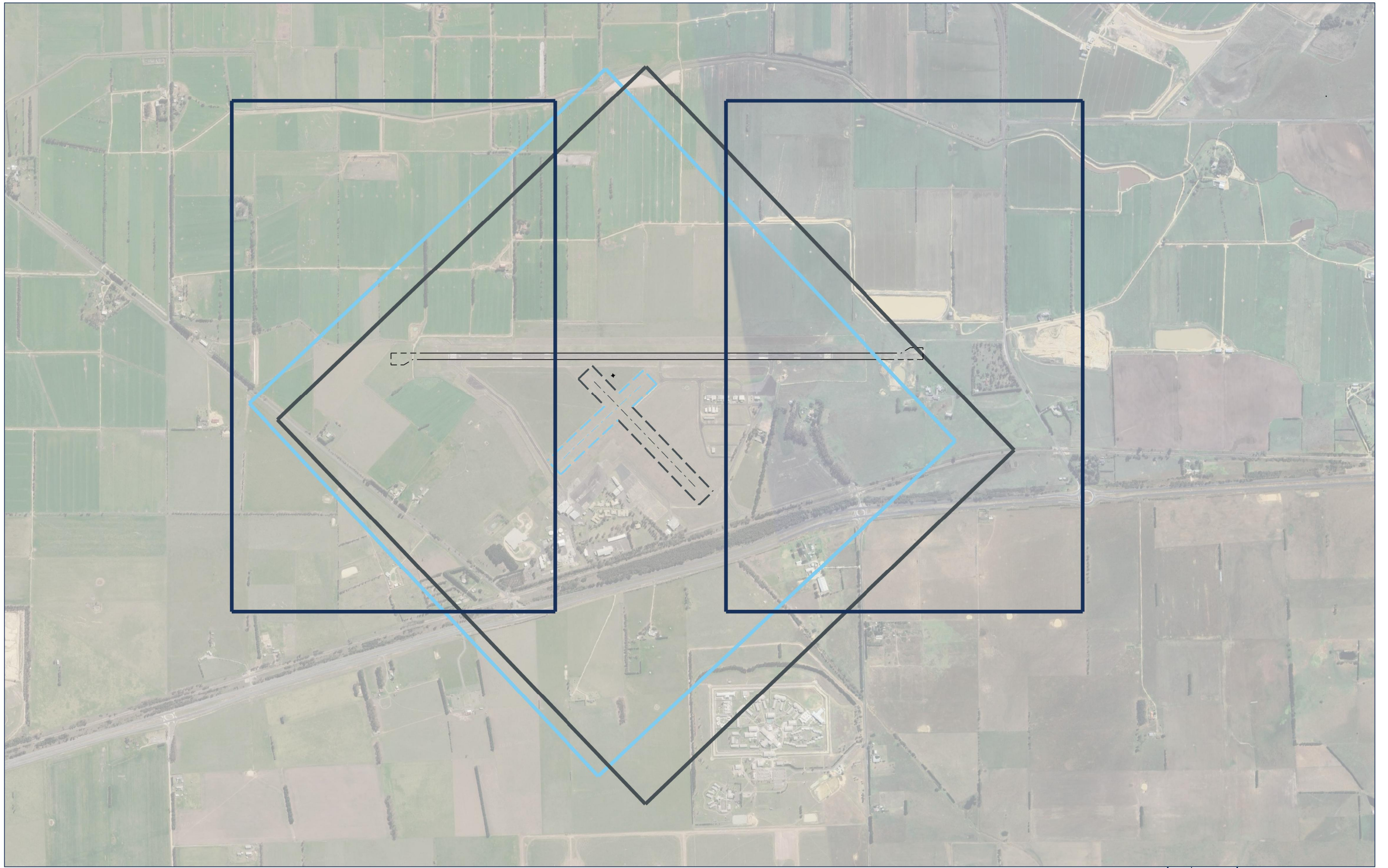
Appendix

CONTOURS ARE SUBJECT TO CHANGE AS A RESULT OF MODELLING CHANGES WHICH MAY BE REQUIRED BY AIRSERVICES AUSTRALIA AS PART OF THE TECHNICAL REVIEW AND ENDORSEMENT PROCESS. FINAL ANEF CONTOURS MAY DIFFER FROM PRELIMINARY ANEC CONTOURS.

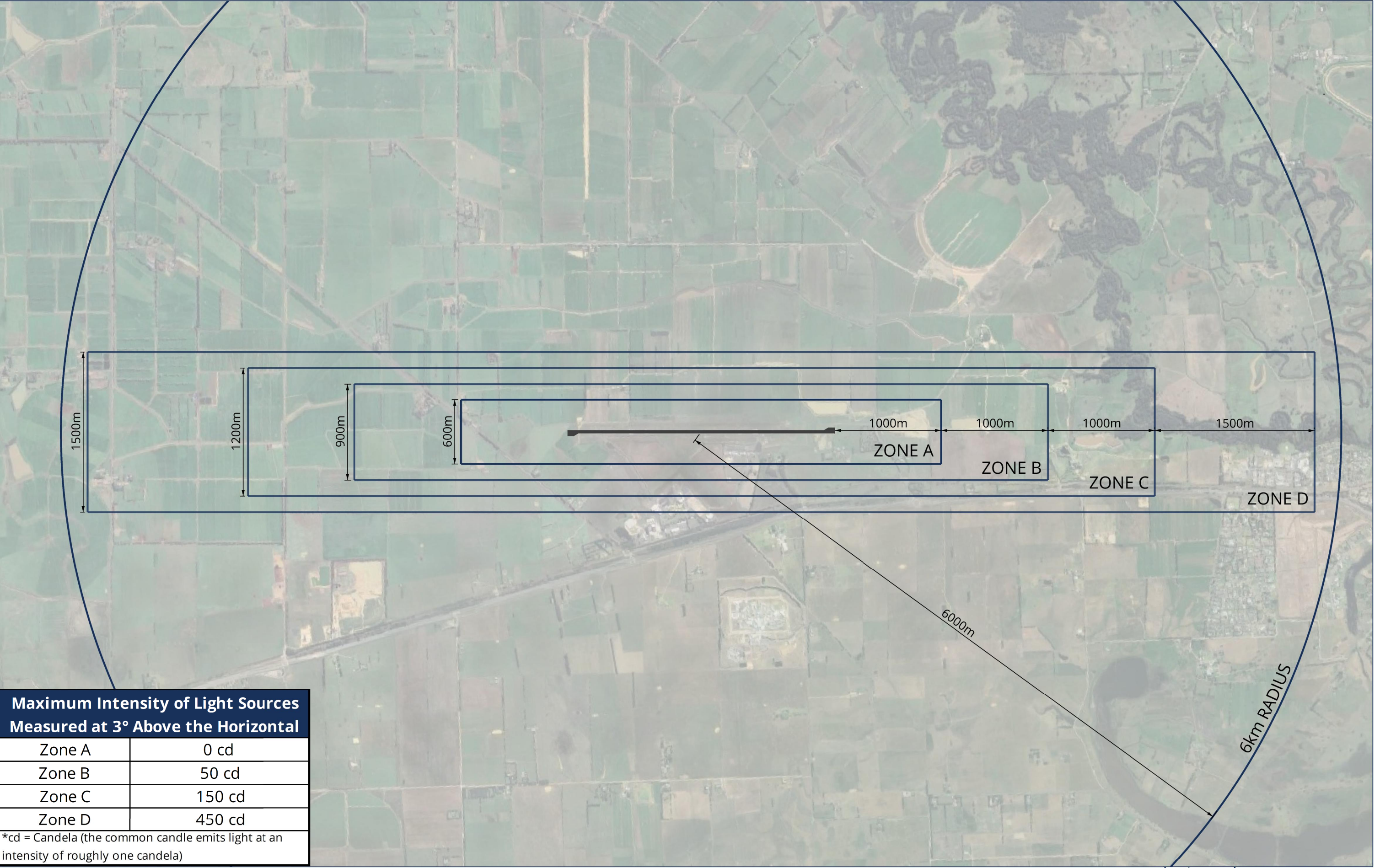


AS 2021:2015 Table 2.1 - Building Site Acceptability Based on ANEF Zones

BUILDING TYPE	ANEF ZONE OF SITE		
	ACCEPTABLE	CONDITIONALLY ACCEPTABLE	UNACCEPTABLE
House, Home Unit, Flat, Caravan Park	<20 ANEF	20 - 25 ANEF	>25 ANEF
Hotel, Motel, Hostel	<25 ANEF	25- 30 ANEF	>30 ANEF
School, University	<20 ANEF	20 - 25 ANEF	>25 ANEF
Public Building	<20 ANEF	20 - 30 ANEF	>30 ANEF
Commercial Building	<25 ANEF	25 - 35 ANEF	>35ANEF
Light Industrial	<30 ANEF	30 - 40 ANEF	>40 ANEF
Other Industrial	Acceptable in all ANEF Zones		







**Maximum Intensity of Light Sources
Measured at 3° Above the Horizontal**

Zone A	0 cd
Zone B	50 cd
Zone C	150 cd
Zone D	450 cd

*cd = Candela (the common candle emits light at an intensity of roughly one candela)



LEVEL 2, 272 ROSSLYN STREET
WEST MELBOURNE VIC 3003

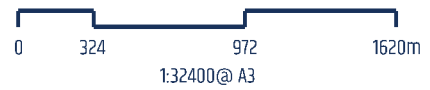
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WELLINGTON SHIRE COUNCIL
WEST SALE AIRPORT MASTER PLAN 2045
MAXIMUM LIGHTING INTENSITY ZONES



DRAFT

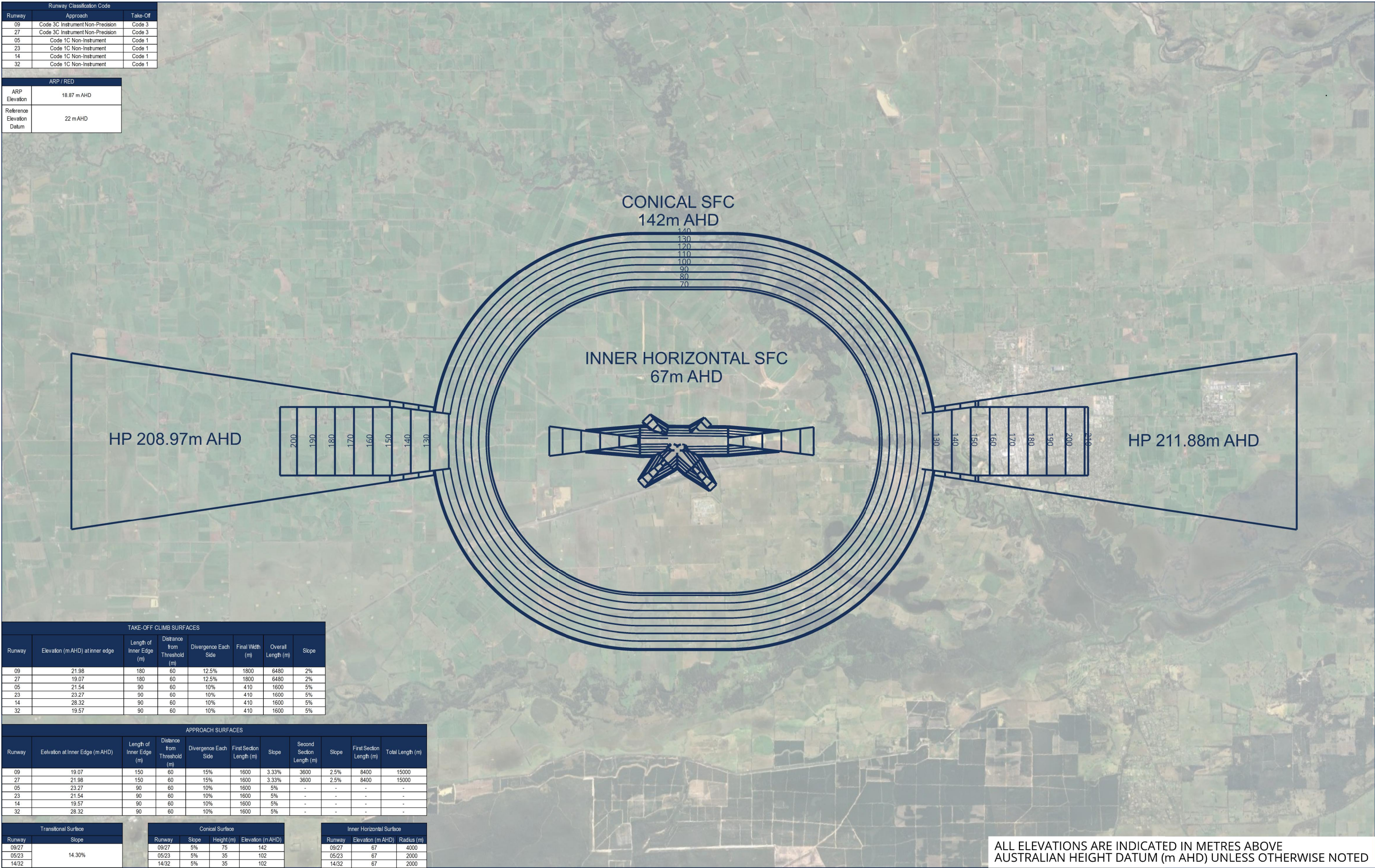


0	26.06.26
Rev.	Date

FIGURE:
M25058/07
Drawn: HD
Checked: BMW
Approved: BJH

Runway Classification Code		
Runway	Approach	Take-Off
09	Code 3C Instrument Non-Precision	Code 3
27	Code 3C Instrument Non-Precision	Code 3
05	Code 1C Non-Instrument	Code 1
23	Code 1C Non-Instrument	Code 1
14	Code 1C Non-Instrument	Code 1
32	Code 1C Non-Instrument	Code 1

ARP / RED	
ARP Elevation	18.87 m AHD
Reference Elevation Datum	22 m AHD



TAKE-OFF CLIMB SURFACES							
Runway	Elevation (m AHD) at inner edge	Length of Inner Edge (m)	Distance from Threshold (m)	Divergence Each Side	Final Width (m)	Overall Length (m)	Slope
09	21.98	180	60	12.5%	1800	6480	2%
27	19.07	180	60	12.5%	1800	6480	2%
05	21.54	90	60	10%	410	1600	5%
23	23.27	90	60	10%	410	1600	5%
14	28.32	90	60	10%	410	1600	5%
32	19.57	90	60	10%	410	1600	5%

APPROACH SURFACES									
Runway	Elevation at Inner Edge (m AHD)	Length of Inner Edge (m)	Distance from Threshold (m)	Divergence Each Side	First Section Length (m)	Slope	Second Section Length (m)	Slope	Total Length (m)
09	19.07	150	60	15%	1600	3.33%	3600	2.5%	15000
27	21.98	150	60	15%	1600	3.33%	3600	2.5%	15000
05	23.27	90	60	10%	1600	5%	-	-	-
23	21.54	90	60	10%	1600	5%	-	-	-
14	19.57	90	60	10%	1600	5%	-	-	-
32	28.32	90	60	10%	1600	5%	-	-	-

Transitional Surface	
Runway	Slope
09/27	14.30%
05/23	
14/32	

Conical Surface			
Runway	Slope	Height (m)	Elevation (m AHD)
09/27	5%	75	142
05/23	5%	35	102
14/32	5%	35	102

Inner Horizontal Surface		
Runway	Elevation (m AHD)	Radius (m)
09/27	67	4000
05/23	67	2000
14/32	67	2000

ALL ELEVATIONS ARE INDICATED IN METRES ABOVE AUSTRALIAN HEIGHT DATUM (m AHD) UNLESS OTHERWISE NOTED



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WELLINGTON SHIRE COUNCIL
WEST SALE AIRPORT MASTER PLAN 2045
OBSTACLE LIMITATION SURFACES



0	26.06.26
Rev.	Date

FIGURE:
M25058/08

Drawn: HD
Checked: MK
Approved: BJH

