Williamtown Special Activation Precinct

NSW GOVERNMENT

Revised Draft Master Plan
January 2023

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Williamtown Special Activation Precinct Revised Draft Master Plan

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Cover photo:
Indicative commercial core, Williamtown Special Activation Precinct (Hatch RobertsDay)

Photo above: Stars and the Milky Way shining over the Stockton Sand Dunes in Port Stephens. Credit: Destination NSW

Acknowledgement of Country

We acknowledge Country and pay respects to the Worimi people as the Traditional Owners and Custodians of the land and waters on which the Williamtown Special Activation Precinct is situated and connected to via a broader landscape.

We recognise their continued connection to Country and that this connection can be seen through stories of place and cultural practices such as art, songs, dances, storytelling and caring for the natural and cultural landscape of the area.

We also recognise the continuing living culture of Aboriginal people, and the significance of Williamtown in that living culture. We recognise the contemporary stories of displacement and the cultural significance of Worimi in the continued journey of self-determination in Australia.

We acknowledge all the people who have and will contribute their stories of Williamtown and their connection to this place.

We recognise the importance of telling the First Story, first. All other stories of place come from and are woven into the First Story. We recognise the importance of truth-telling, a reckoning and the telling of the whole story. We acknowledge that the land on which the Williamtown Special Activation Precinct stands was, is and always will be Aboriginal land.

Contents

Executive summary

The NSW Government is exhibiting a revised draft of its master plan for the Williamtown Special Activation Precinct. The government is consulting the community because it has reduced the size of the Precinct. It has also changed its approach for enabling development, as well as mitigating and managing flooding and drainage.

The revised draft Master Plan has also been informed by submissions received during the exhibition from April to June 2022. The Department of Planning and Environment (the department) would like to give the community and stakeholders an opportunity to comment on the revised draft Master Plan.

Economic analysis and detailed engineering found that a reduced Precinct can provide the necessary land required to activate change, whilst still providing a significant number of jobs in defence and aerospace industries. Additional analysis concluded that it was unlikely that the whole precinct, as originally exhibited, would have been developed. The infrastructure to develop a precinct of that size would be too costly.

The NSW Government would like to continue to collaborate with community, industry and other stakeholders before finalising the Master Plan in 2023. It is giving the community and stakeholders an opportunity to comment on the revised draft master plan.

The precinct forms part of the Hunter region's global gateway of Newcastle Airport and is next to RAAF Base Williamtown. As it is strategically located near one of Australia's most important defence bases and the associated $60 billion F-35 Joint Strike Fighter program, the precinct represents a unique opportunity for industries in Williamtown that will generate employment. These include high-tech, advanced manufacturing, defence, aerospace and STEM-related (science, technology, engineering and mathematics) industries.

The challenge is overcoming existing environmental constraints, which include but are not limited to:

- regional and local flooding, tidal inundation, groundwater surcharge and designing for climate change
- areas sacred to the Worimi people, including significant artefacts
- high-value biodiversity communities
- protection of the drinking water catchment
- existing per-and poly-fluoroalkyl substances (PFAS) contamination
- aeronautical constraints associated with an operational airport.

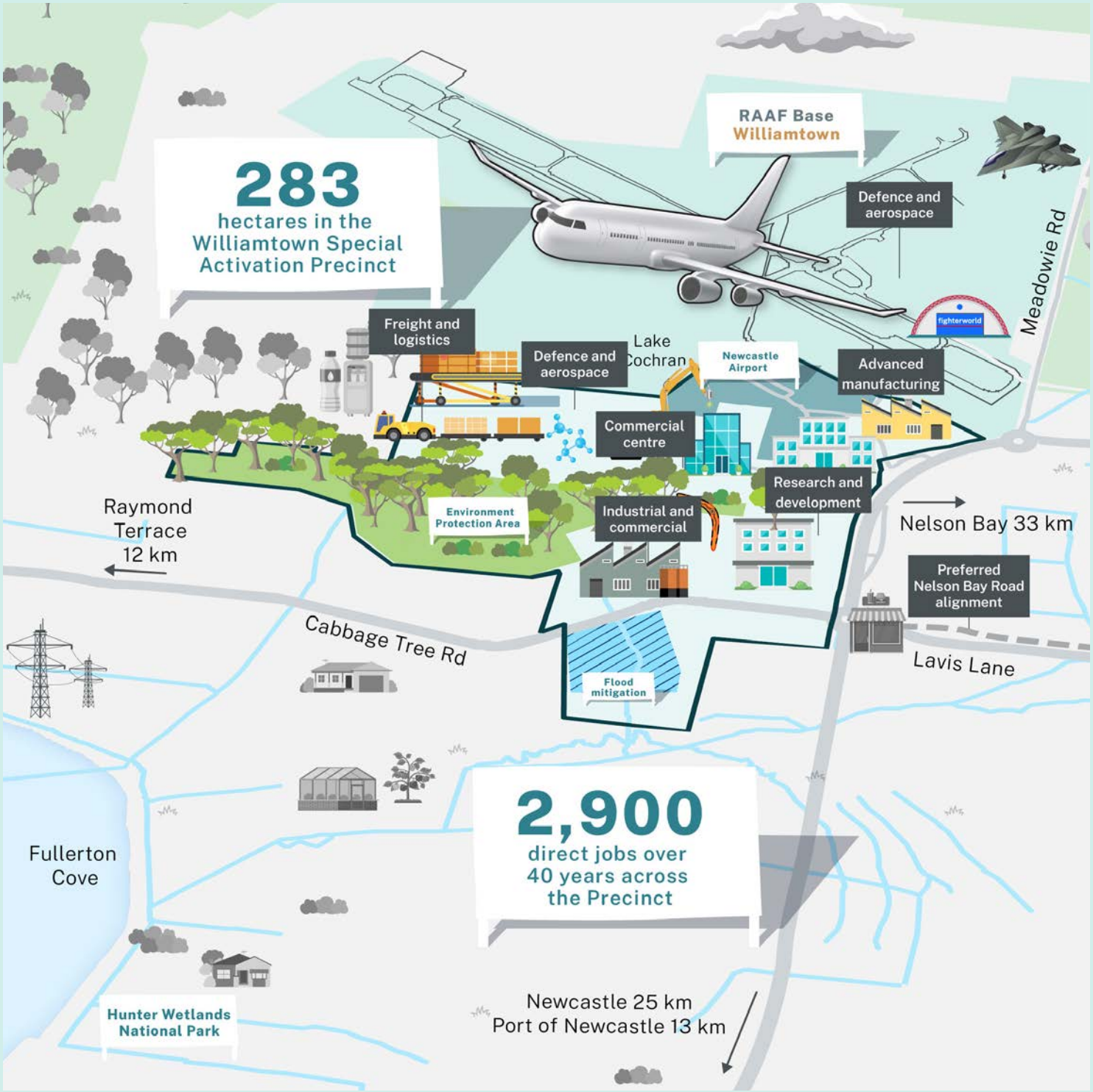

Figure 1: Illustration of Williamtown Special Activation Precinct (SAP)

Williamtown has an established community who utilise the land for small agricultural holdings, rural residential uses and small businesses. This community has been impacted by PFAS contamination over the years and managing conflicting land uses is a sensitive issue within the Precinct.

The Master Plan is an important part of the planning framework for the delivery of the Precinct. Once made, it will be a statutory planning document that supports the State Environmental Planning Policy (Precincts–Regional) 2021 (also known as the Precincts–Regional SEPP). It is a 40-year plan that seeks to rezone 283 hectares (ha) of land for the following land uses:

- **Regional Enterprise Zone** – most of the Precinct is proposed to be zoned as Regional Enterprise Zone under the Precincts–Regional SEPP, which will enable a wide range of employment-generating uses to achieve the vision of the Precinct
- **Environmental Protection** - a central environmental area to provide flood storage during certain flood events and for the protection of high-value biodiversity areas in perpetuity, including providing habitat for the swift parrot and koala
- **Infrastructure** – an area located south of Cabbage Tree Road that is required for infrastructure purposes to mitigate flood impacts and manage water quality within the Precinct.

Port Stephens Council's standard for flood planning in the local government area is the year 2100 (1% Annual Exceedance Probability or AEP) plus climate change. The design criteria for flooding in the Precinct considers future sea level rise prediction to the year 2100 and is best practice across NSW. Given the low-lying nature of Williamtown, its proximity to Fullerton Cove has been adopted in the criteria for the precinct. Designing for flood resilience is a priority for the NSW Government as it responds to the recommendations of the *2022 Independent NSW Flood Inquiry*. This approach makes the Precinct attractive for potential sensitive and high-value industries.

To enable the development of the Precinct, significant bulk fill is required to raise the proposed development above the flood planning level and accommodate climate change impacts. These earthworks to construct the development pads will be substantial and require further detailed assessment before development can occur.

Because of this, we propose to identify the precinct as a state-and regionally significant site under the State Environmental Planning Policy (Planning Systems) 2021 (also known as the Planning Systems SEPP). This means an environmental impact statement (EIS) will be prepared, exhibited, and assessed for the Precinct providing details of these early enabling works. The preparation of the EIS will be led by the Regional Growth NSW Development Corporation (the corporation) and will be exhibited in 2023.

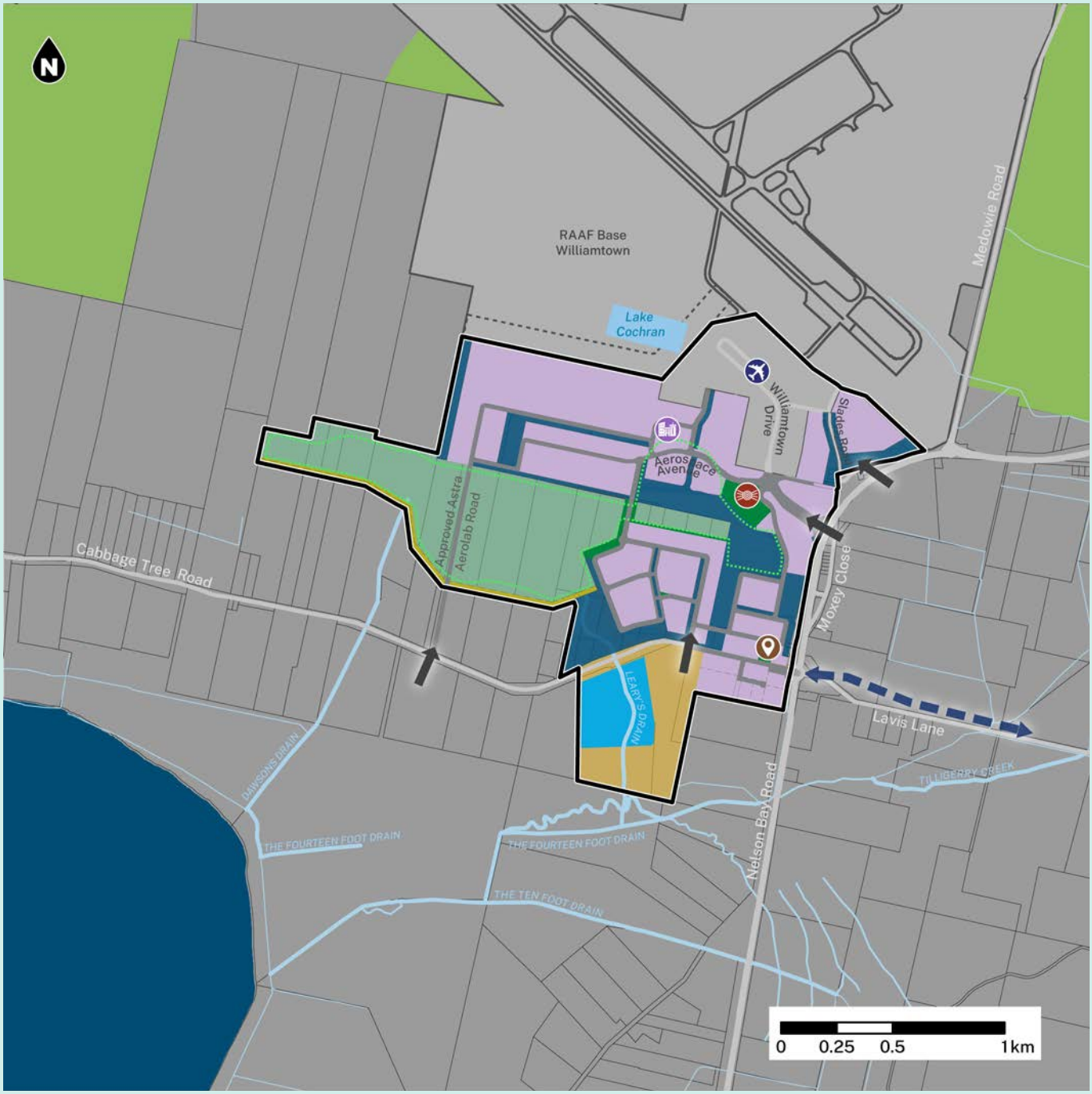

Figure 2: Map of Williamtown Special Activation Precinct (SAP)

- Williamtown SAP boundary (283 hectares)
- RAAF Base Williamtown and Newcastle Airport
- Waterway
- Waterbody
- Roads
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Heritage or green space
- Newcastle Airport
- Commercial Centre
- Local heritage item
- Aboriginal Keeping Place
- Future alignment of Nelson Bay Road
- Access points
- Proposed road
- Existing runway and taxiway
- Proposed unapproved taxiway G
- Proposed health loop
- Regional enterprise zone
- Flood mitigation - shallow flood storage
- Drainage and wetlands
- Environmental protection area
- SP2 Infrastructure
- Earth Bund

1

Williamtown Special Activation Precinct


AIR LAB
Defence
Aerospace
Precinct
AIR
LAB

1.1 What are special activation precincts?

The creation of special activation precincts is part of the NSW Government's economic vision for regional NSW and will be delivered as part of the $4.2 billion Snowy Hydro Legacy Fund. Special activation precincts are a coordinated way of planning and delivering industrial and commercial infrastructure projects in regional NSW to attract and grow businesses, provide more employment opportunities and stimulate the regional economy.

The NSW Government is supporting this approach by:

- leading the master planning that streamlines planning pathways
- funding and delivering enabling infrastructure
- facilitating and supporting the establishment of new industries and businesses.

This means that businesses can establish and grow with certainty and confidence because the streamlined planning framework fast-tracks approvals and enabling infrastructure.

Key elements of a special activation precinct

Figure 3: Key elements of a special activation precinct

1.2 Governance

Department of Planning and Environment

The master planning of special activation precincts in regional NSW is the responsibility of the Department of Planning and Environment (the department). The department leads the master planning process and any changes to planning legislation, including the technical studies and community and stakeholder engagement.

Department of Regional NSW

The Department of Regional NSW (Regional NSW) is the lead agency for the Special Activation Precincts Program, as part of the $4.2 billion Snowy Hydro Legacy Fund, overseeing the funding, planning and development of each precinct. The departments of Regional NSW and Planning and Environment, as well as the Regional Growth NSW Development Corporation, work closely to create master plans for each special activation precinct, identify and invest in shared enabling infrastructure, and provide ongoing concierge services to help investors establish and grow.

Regional Growth NSW Development Corporation

The Regional Growth NSW Development Corporation (the corporation) is a NSW Government agency created to support economic development and job creation opportunities in regional NSW by facilitating the development of the special activation precincts. The Corporation is working with all levels of government, the private sector and the community to secure economic development and investment attraction opportunities to these unique areas. The corporation will be responsible for the ongoing enhancement, coordination, implementation and delivery of economic development and job growth in these specialised enterprise hubs across regional NSW.

The corporation is a one-stop shop to support investors and will lead the delivery of enabling infrastructure, support the attraction and facilitation of investment in the Precinct, provide support on planning and environmental approval processes, and create strategic partnerships to foster education, training and collaboration opportunities.

The corporation will also be the applicant for the proposed state-significant development (SSD) application for the Precinct.

Port Stephens Council

The Precinct is located wholly within the Port Stephens local government area. Regional NSW, the department and the corporation have worked closely with Port Stephens Council to ensure that the Master Plan is consistent with the strategic vision of council and aligns with the Port Stephens Local Strategic Planning Statement (LSPS) and extensive strategic planning work already undertaken by council in Williamtown in previous years.

Port Stephens Council will continue to play an integral part in the approval and certification process for future development (including local roads). Council will continue to collect and use local infrastructure contributions from developers to provide local infrastructure and facilities under section 7.11 and 7.12 of the *Environmental Planning and Assessment Act 1979*.

Commonwealth Department of Defence

The Australian Government owns land within the precinct. More importantly, it owns and operates the airfield and Newcastle Airport is a tenant on the airfield.

The Australian Government Department of Defence operates RAAF Base Williamtown, which is next to the precinct boundary. The Department of Defence will continue to play a critical approval role in the future of land uses within the precinct.

Furthermore, a significant portion of the Precinct is impacted by aeronautical limitations that will continue to require referral to the Department of Defence for consideration prior to the issue of an Activation Precinct Certificate under the Precincts–Regional SEPP. It is anticipated many of the future investors and businesses within the Precinct will be related to the defence and aerospace industries.

Hunter Water Corporation

The *Hunter Water Act 1991* (HW Act) establishes and assigns functions to the Hunter Water Corporation (HWC) to provide, construct, operate, manage and maintain systems and services for supplying water, providing sewage and drainage services and disposing of wastewater. A portion of the Precinct is located within the Hunter Water drinking catchment and therefore Hunter Water Corporation will continue to play a role in the consideration of development in the catchment to ensure no significant or adverse impacts on the corporation's works, operations or water quality.

Consultation and referral of relevant development and building applications to HWC and the requirement for the issuing of compliance certificates under the HW Act will remain.

Project Control Group

A Project Control Group was established for the Precinct during the master planning stage and includes many other government agencies not listed above who have played a key role in the development of the draft Master Plan.

Williamtown Aerospace Centre. Credit: Goodthanks Media.

1.3 How we got here

Over 40,000 years ago - present

Traditional owners: Worimi People

The traditional landowners of the Williamtown area are the Worimi people who have lived on land within the Port Stephens area for more than 40,000 years. The knowledge, traditions and beliefs of the Worimi people continue to be handed down from generation to generation.

1839

Early settlement

The first land grants within the Precinct were in 1839 and 1840, and there were also several mineral leases in the area in the 1880s for coal. In the late 19th century, Williamtown was home to many dairy farms and small factories.

1935

Establishment of Newcastle Airport and RAAF Base Williamtown

In 1935, Newcastle Airport was opened, and in the 1940s the airport was requisitioned as an auxiliary wartime base for the Royal Air Force. When RAAF Base Williamtown was established in 1940, it had 4 runways with hangars and camp areas located off Medowie Road. After 1945, the RAAF re-examined its priorities and determined that RAAF Base Williamtown was one of 12 bases of critical strategic importance. Newcastle Airport is now Australia's largest combined defence and civilian airfield.

2006

Defence and Airport-Related Employment Zone (DAREZ)

In 2006, the department, in partnership with Port Stephens Council, prepared the Williamtown Defence and Airport-Related Employment Zone (DAREZ) Strategy for land adjoining Newcastle Airport. The strategy recommended the rezoning and development of a business park adjacent to the Newcastle Airport and RAAF Base Williamtown and subsequently rezoned Stage 1, known as Astra Aerolab. The special activation precinct builds on this existing work.

2011

Approval of Astra Aerolab

In 2011, Port Stephens Council approved a 103-lot subdivision (since modified) for the development of Astra Aerolab over 76 hectares in the north of the special activation precinct. The approval is for a 6-stage development for employment-related uses, with Stage 1 currently under construction.

2018

Greater Newcastle Metropolitan Plan (GNMP) 2036

In 2018, the department released the Greater Newcastle Metropolitan Plan (in conjunction with the Hunter Regional Plan). The GNMP identifies Williamtown as a Catalyst-Precinct, with a focus on growing the airport, aerospace and defence precinct.

2020

Williamtown Special Activation Precinct

In May 2020, the NSW Government announced Williamtown as a special activation precinct. Technical studies to support the development of the Precinct commenced in late 2020.

2021

Federal funding

In 2021, the Australian Government announced a contribution of $66 million to the upgrade of RAAF Base Williamtown runway, to accommodate longer-range domestic and international passenger services to destinations such as North Asia, the Middle East and the United States, as well as associated freight opportunities. In addition, in 2022 an additional $55 million was announced for the upgrade of the Newcastle Airport terminal.

2022

Exhibition of draft Master Plan

The department exhibited the draft Master Plan, technical studies and discussion paper for the Williamtown Special Activation Precinct for 56 days from April to June 2022 including consultation sessions with the community and stakeholders.

2023

Exhibition of revised draft Master Plan

The department exhibited a revised draft master plan (this document) and updated the relevant technical studies and discussion paper for a smaller Williamtown Special Activation Precinct.

1.4 The vision

Australia's leading defence and aerospace precinct, a tourism gateway and a supply chain hub connecting the world to the Hunter Region. An innovative employment precinct that services workers, visitors and the existing community, and that demonstrates the values of resilient design, environmental protection and respect for Aboriginal culture.

Leading defence and aeronautical Precinct in Australia, creating **2,900 new jobs**

Campus-style Precinct with **153 ha land zoned for Regional Enterprise**

An environmental protection area covering 70 ha, providing a central green heart for the Precinct

A high-amenity, well-connected, vibrant precinct that is an attractive place to work, visit and play, with high-quality urban form, leading architectural solutions and open space

Tourist and supply chain hub connecting the Hunter region domestically and internationally

Resilient precinct design and climate change adaptation

Landmark gateway development in Port Stephens local government area

Respect and celebrate Worimi Aboriginal cultural heritage and **create employment opportunities**

1.5 Principles

Economic development

- A unique offering enabling direct airside access (subject to approval and Department of Defence agreement) for certain uses where this is a critical component of operations connecting to the proposed new taxiway.
- Benefiting from the Precinct's strategic location adjacent to Newcastle Airport and close to the M1 Pacific Motorway and the Port of Newcastle – the key air, road and sea gateways to the Hunter region – the precinct will focus on freight and logistics opportunities.
- The campus-style Precinct will become an innovation hub that encourages defence, aerospace, advanced manufacturing, research and development, industrial and commercial activities, increasing job prospects and up-skilling the local community.
- A strategic approach to managing growth with developers and businesses, with certainty about the planning process and streamlined assessments underpinned by coordinated management of environmental constraints.

Place and landscape

- By designing with Country, the Precinct respects cultural sites within a walkable, natural setting including the existing Keeping Place, an environmental protection corridor and health loop.
- High-quality public realm, connecting businesses, people and visitors through meaningful design into the natural landscape and built form that responds to the topography and landscape.

Environment and sustainability

- Embracing the principles of the United Nations Industrial Development Organisation (UNIDO) for eco-industrial precincts, including the United Nations Sustainable Development Goals.
- Goal of a net-zero precinct, via methods such as sourcing 100% of the Precinct's energy from renewable energy.
- Protecting high-value biodiversity and cultural heritage areas in an environmental protection corridor connecting to adjoining vegetation.
- An integrated, best-practice approach to flooding, drainage and water quality management through a system of wetlands and channels to deal with both quantity and quality aspects including designing for flood resilience, climate change and protecting the adjoining Tomago sandbeds drinking water catchment.
- Precinct-scale approach to managing environmental constraints including support for Department of Defence's PFAS remediation activities.

Community

- Provide connections for the Williamtown community including a range of new cultural, social and commercial activities where people will want to work, visit, play and remain throughout the day.
- Designing a world-class defence and aerospace precinct that attracts investors, boosts the region's economy, and improves the quality of life for the surrounding community.
- Respect the Worimi people's rights, obligations, roles, and connections to Country as Traditional Custodians of the land and water by embedding Aboriginal cultural values in the project's design and delivery. Working with local Worimi community to create economic opportunities including management of areas with high biodiversity value.

Infrastructure and transport

- Leverage transport connections with Newcastle Airport, Port of Newcastle, and the M1 Pacific Motorway.
- Safe and equitable access for all road users with rational heavy vehicle access that provides for efficient access and appropriate separation from commuters, workers and airport-related traffic.
- Utilities and services that meet the current and future servicing needs of the Precinct, whilst also minimising land impacts and maximising reliability, efficiency and sustainability.
- Quality, secure digital infrastructure that can support high-functioning, competitive businesses.

1.6 Worimi cultural heritage

The Precinct is located on Worimi Country and the Worimi people are the original custodians of the area today known as Port Stephens, the Hunter River to Forster and inland to Barrington Tops. The registered Aboriginal stakeholders include Worimi Local Aboriginal Land Council (LALC), Mur-Roo-Ma Inc, Nur-Rn-Gee Pty Ltd and Karuah Indigenous Corporation.

Connecting with Country framework

The NSW Government Architect's Connecting with Country framework has the objective that all government projects commit to helping support the health and wellbeing of Country by valuing, respecting and being guided by Aboriginal people, who know that if we care for Country, it will care for us. As such, the Master Plan has been designed around the objectives of:

- reducing impacts of natural events through sustainable land- and water-use practices
- valuing and respecting Aboriginal cultural knowledge with Aboriginal people leading co-design and development of NSW infrastructure projects
- ensuring Country is cared for appropriately and sensitive sites are protected by Aboriginal people having access to their land to continue cultural practices.

The department has listened to the local Aboriginal community during the master planning process and recognises the need for an agreement with Worimi people to work together on the journey of realising the Precinct vision. The intent is to ensure Country is cared for, culturally significant sites are appropriately protected, and Aboriginal culture is recognised. This is in keeping with the Opportunity, Choice, Healing, Responsibility, Empowerment Plan (OCHRE) NSW Government framework.

Some specific opportunities identified by Worimi LALC include exploring the concept of 'Culture in the Air' with jobs for Aboriginal people in the defence, aerospace, aviation and associated sectors; education for Aboriginal and non-Aboriginal people meeting on Country; and utilising existing Worimi LALC and Aboriginal Education Consultative Group (AECG) to provide training and education for opportunities.

Enabling opportunities for Aboriginal-owned and operated suppliers and businesses during the delivery phase and for the long-term operation is critical to the success of the Precinct. The corporation is committed to continuing to lead in this space, in the spirit of the government-wide Aboriginal Procurement Policy.

A partnership agreement between the corporation and Worimi LALC will be pursued during the delivery phase of the project, with the corporation to continue the close working relationships that have been fostered during the master planning phase. Engagement and partnerships with traditional custodians, local Aboriginal knowledge holders and others who are not directly involved with the LALC will also be important to the delivery phase.

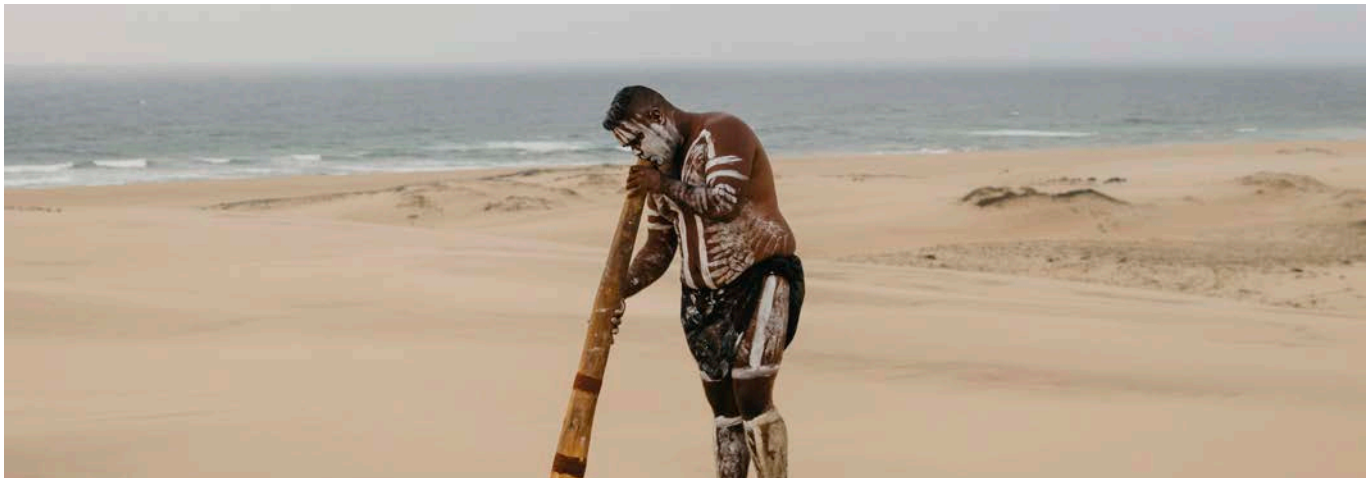

Figure 4: Aboriginal man playing the didgeridoo on the Stockton sand dunes, Port Stephens. Credit: Destination NSW.

1.7 What is the Master Plan?

The Master Plan is a key part of the planning framework for the delivery of the special activation precinct. It is a statutory planning document that provides the vision and principles for the Precinct. It is supported by a structure plan and performance criteria provisions to ensure the vision of an innovative, productive and resilient employment precinct is achieved.

The Master Plan details how the current barriers to development in the Precinct can be overcome, and subsequently unlocks the economic potential of Williamtown to deliver jobs in the Hunter region.

The Master Plan also identifies matters that need to be addressed in further detail in both the delivery plan and state-significant development (SSD) application for the Precinct.

The Master Plan reflects significant coordination from NSW Government to enable streamlined planning and provide a precinct-wide approach to managing the existing constraints that will attract world-class investors to the Precinct. The Master Plan will be reviewed every 5 years, or as required.

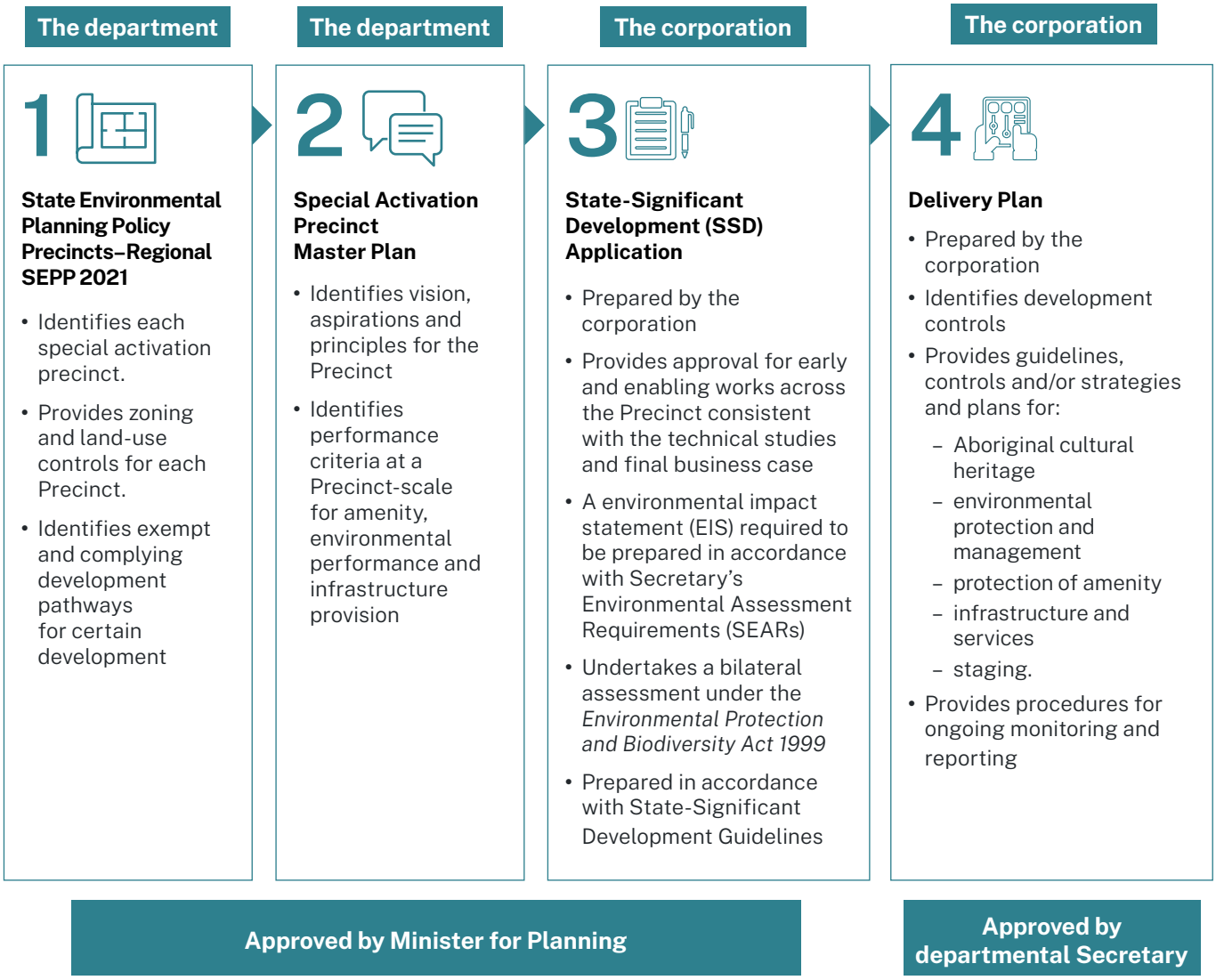

Figure 5: Planning Framework

1.8 Enabling streamlined planning

Given the significant constraints within the Precinct, complying development could not proceed (even after rezoning) on the majority of the land within the Precinct. Constraints within the Precinct include:

- biodiversity
- flooding and drainage
- bushfire prone land
- aeronautical constraints
- areas of heritage significance (Aboriginal and non-Aboriginal)
- contamination (per-and poly-fluoroalkyl substances – PFAS – and non-PFAS contamination)
- potential impacts on internationally significant Ramsar wetlands.

To ensure a streamlined planning pathway can still be achieved for this precinct, we will need to take an approach that is different from other special activation precincts. An SSD application will be lodged by the corporation for enabling works in the Precinct.

Subject to approval, and in accordance with any relevant conditions required by the department, most of the development in the Precinct could be considered as complying development once the SSD is approved.

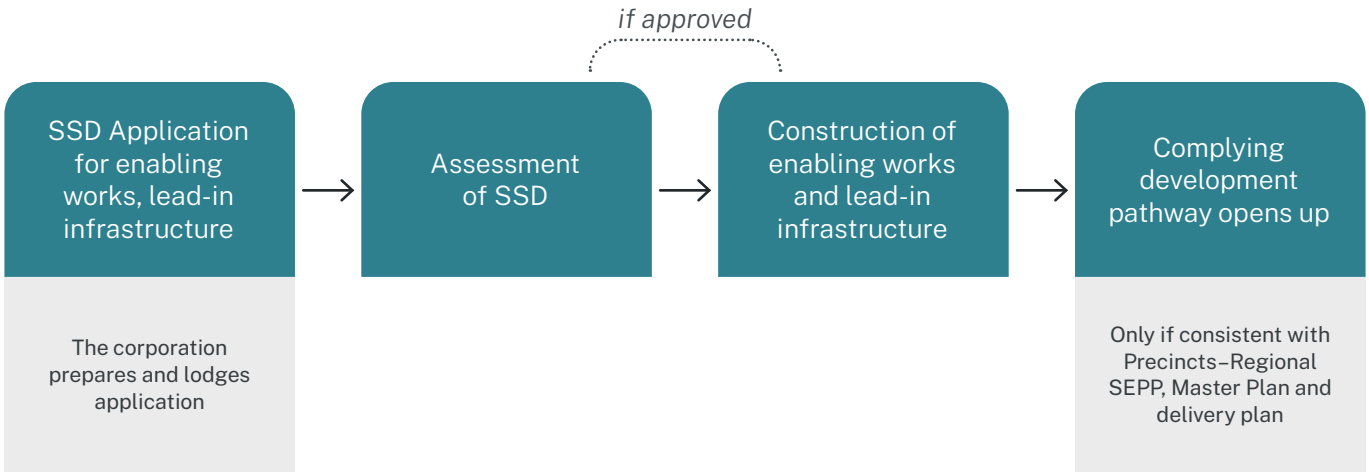

Figure 6: Streamlined planning in the Precinct

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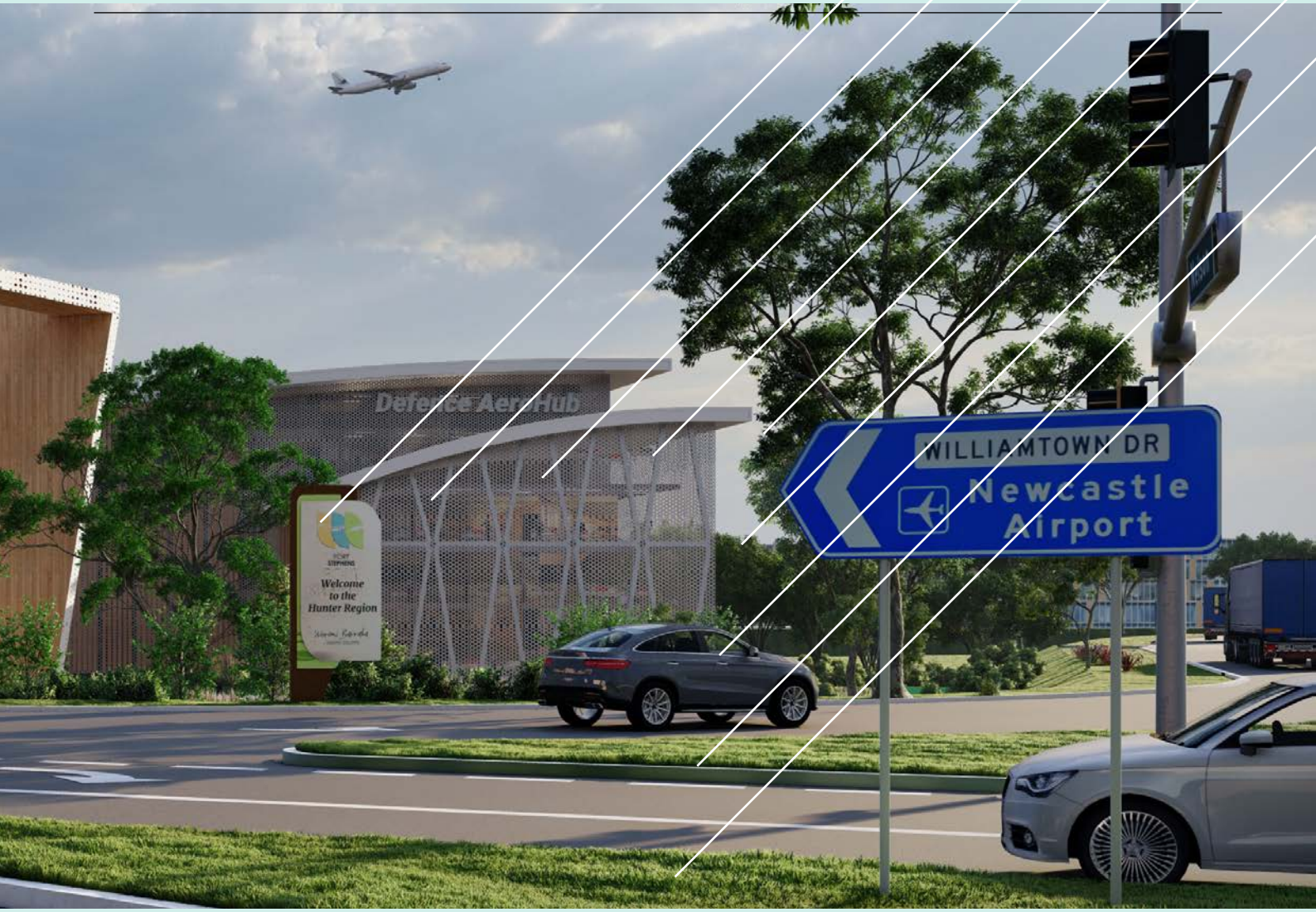
Strategic context


Defence Aero Hub
Welcome to the Hunter Region
WILLIAMTOWN DR
Newcastle Airport

2.1 Why Williamtown?

Australia's leading regional economy

The Hunter region is the leading regional economy in Australia and is currently experiencing significant growth and economic diversification. The Hunter region represents 30% of the gross regional product (GRP) of regional NSW and is the largest regional contributor to NSW's gross domestic product (Draft Hunter Regional Plan 2041).

The Hunter region has many advantages as an employment location, including a skilled workforce, lower property costs than capital cities, excellent transport infrastructure via road, rail, sea and air, proximity to major Australian markets, strong industry networks and well-established health and education facilities. The Hunter region is well placed to continue growing and benefit from increased exposure to the global markets.

Global gateways

The precinct is strategically located between the 2 global gateways of Newcastle Airport, RAAF Base and the Port of Newcastle. Newcastle Airport will unlock the potential of the Hunter region's tourism industry and provide an opportunity for the region to export services, goods, and skilled labour throughout Australia and internationally (Hunter Regional Plan 2041). Newcastle Airport has recently received funding for the upgrade of the runway and terminal, which is discussed further in Section 2.2

The Port of Newcastle provides another key piece of trade infrastructure and is connected to the national rail network. Funding has been announced to facilitate the construction of Phase 1 of the Port of Newcastle's green hydrogen hub in partnership with the Australian Government and private sector. The hub will generate energy to power the Hunter region as well as export hydrogen as a tradable energy commodity. This reflects the momentum of diversification of the Hunter region's export markets beyond mineral resources.

These 2 global gateways support the continued diversification of the region's economic growth into tourism and advanced manufacturing, which the Precinct can facilitate.

National road network

The precinct is strategically connected to the national road network and the M1 Pacific Motorway is 20 kilometres to its west. The M1 provides connections to Sydney and Brisbane and beyond for the movement of goods, services and visitors. The Hunter Expressway also provides fast connections to the Hunter Valley and central and north-west regional NSW. There are also a number of recently approved road upgrades in the vicinity of the Precinct including Nelson Bay Road upgrades and the M1 Motorway interchange, which are discussed further in Section 8.1. Given the expansion of Newcastle Airport and strong connections to the national road network, this provides significant opportunities to freight time-sensitive products from regional NSW to global markets.

Local centres

Williamtown is 25 kilometres north of Newcastle and is surrounded by a network of local centres including Raymond Terrace and Maitland to the west, Medowie to the north, Nelson Bay to the east and Fern Bay and Stockton to the south. These centres are experiencing residential growth, particularly Maitland and Medowie, which generates demand for local jobs. The Master Plan seeks to provide improved connections to these local centres.

Fast rail

Transport for NSW has identified a fast rail connection between Sydney and Newcastle with a one-hour travel time, to be developed over a long-term horizon (Future Transport Strategy 2022). As such, the Precinct will be well placed to benefit from significant improvements in travel times between Sydney and Newcastle and will make the Precinct an even more attractive place to work.

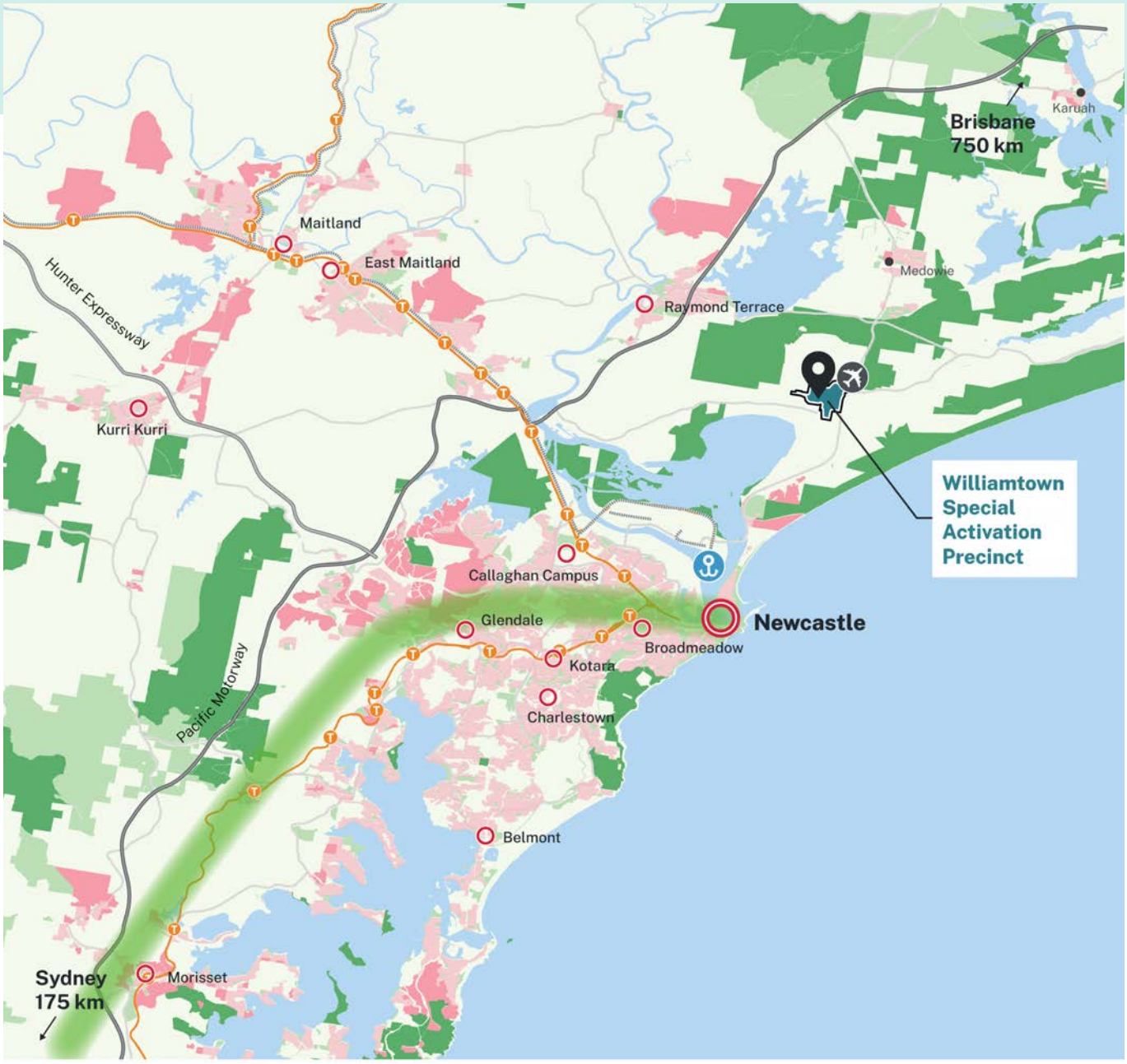


Figure 7: Regional context

2.2 Existing economic drivers

A number of existing operations, industries and infrastructure at Williamtown provide a strong foundation for continued employment growth. There are opportunities for expansion of supporting sectors to grow the Precinct into an economic powerhouse and to utilise the existing skills base within the Hunter region. The decline in coal industries in the Hunter region presents a number of opportunities for the Precinct in relation to the defence and aerospace industries.

RAAF Base Williamtown

RAAF Base Williamtown is Australia's premier fighter pilot training facility, employing 4,500 people directly. Aircraft operated by the RAAF out of Williamtown include the Hawk Mk127, PC-21, E-7A Wedgetail and, the F-35 Joint Strike Fighter.

RAAF Base Williamtown is also a tourist destination. Thousands of patrons visit the adjoining Fighter World, the Aviation Heritage Centre and its collection of 15 original and replica Australian and international fighter aircraft each year, as well as the viewing platform of the airfield.

Over $270 billion will be invested in the Australian Defence Force (ADF) over the next 10 years in Australia, with $65 billion attributed to air domain capabilities (Deloitte, 2021). The economics report for the Precinct estimates that $62 billion of the air domain allocation may be directed through RAAF Base Williamtown in programs such as F-35 Joint Strike Fighter, additional air combat capability and Wedgetail upgrades (Deloitte, 2021). These programs are the catalyst for the development of Williamtown into a national defence and aerospace precinct.

There are 2 drivers for demand within the Precinct including:

- demand driven by existing defence programs that may grow substantially over time in response to federal investment in defence; and
- demand driven by existing infrastructure.

The Master Plan aims to attract business including defence primes and SMEs to Williamtown by providing suitably zoned land with supporting lead-in infrastructure, strategically located adjacent RAAF Base Williamtown, with an offering of direct airside access. Whilst only some companies may require direct airside access, this is a distinct advantage of the Precinct to secure land for Department of Defence sustainment programs and land uses requiring airside access. To achieve this, the Precinct aims to establish enabling infrastructure including roads, public transport, social and community infrastructure and land suitable for commercial and employment uses. It also aims to provide amenities to support and attract workers and investment in the precinct.

Figure 8: F35 Aircraft at RAAF Base Williamtown. Credit: Department of Defence

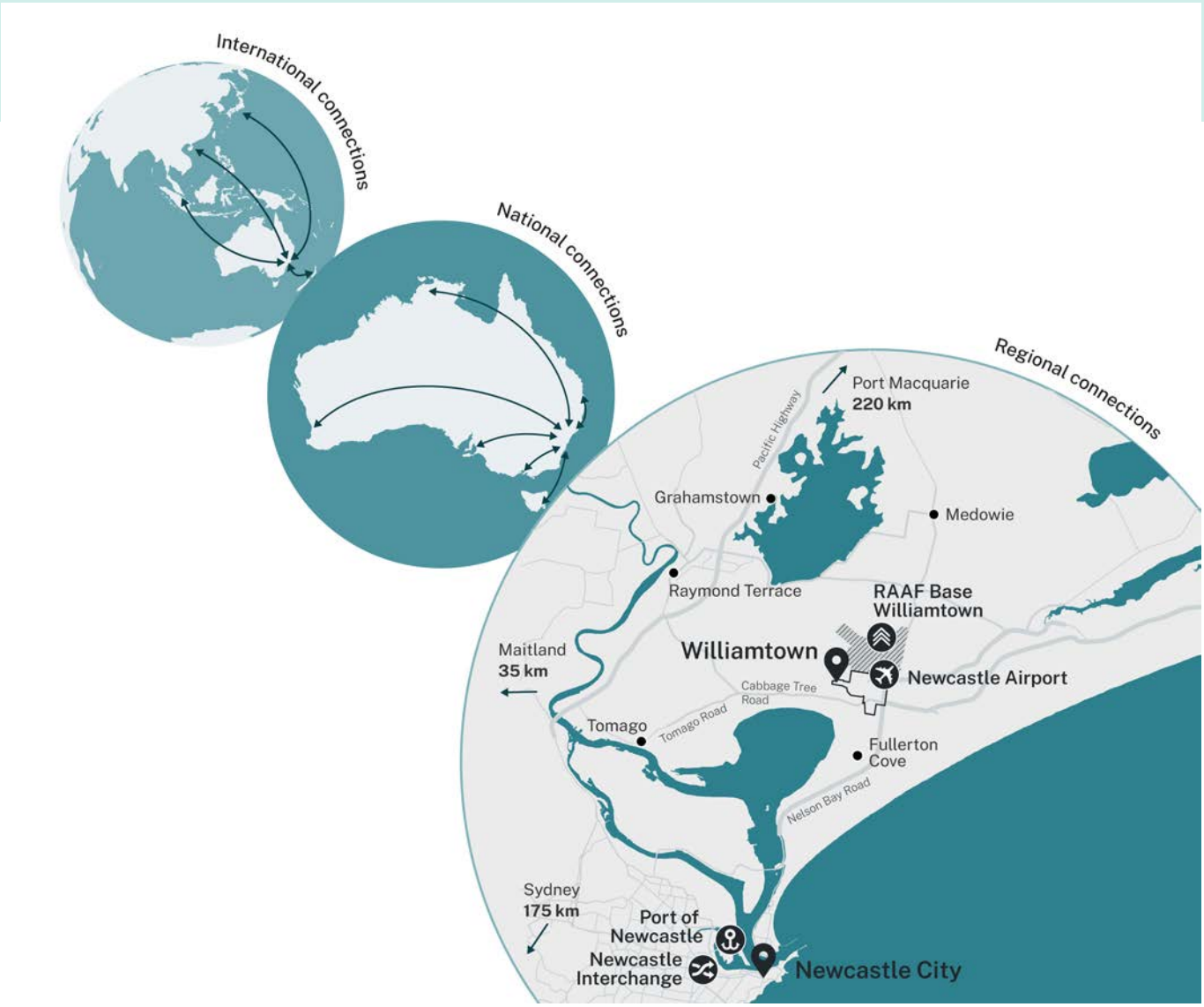


Figure 9: International and domestic context

In order to anticipate demands for defence and aerospace, freight and logistics, research and development, industry and commercial mixed uses, market sounding analysis and economic demand modelling was completed. The Master Plan has adopted the recommendations of the economics report and provides sufficient land within the Precinct over the long-term horizon to cater for aforementioned uses.

The Precinct's clear competitive advantage and opportunity are to establish the Precinct as a national and international defence precinct supported by RAAF Base Williamtown, the existing presence of defence primes (that is. BAE Systems) and investment opportunities provided by ongoing and future defence programs.

Figure 10: An aircraft technician at RAAF Base Williamtown. Credit: Department of Defence

Figure 11: Newcastle Airport. Credit: Goodthanks Media

Newcastle Airport

Newcastle Airport is a gateway to the Hunter region, contributing nearly $1.2 billion annually to the national economy. The airport provides direct access to national and international markets, and connects regional NSW with agriculture, health, education and tourism sectors throughout the Hunter region.

Newcastle Airport catered for 1.4 million passengers in 2021 and is forecast to grow to 2.6 million by 2036 (2036 Newcastle Airport Vision, 2018). The airport provides direct connections to Adelaide, Auckland, Brisbane, Ballina, Cairns, Canberra, Cobar, Dubbo, Gold Coast, Lord Howe Island, Melbourne, Port Macquarie, Sunshine Coast, Sydney and The Whitsundays. The list of destinations is expanding regularly.

In 2021, the federal government announced a $66 million contribution to upgrade the Newcastle Airport runway. The runway will be widened to accommodate longer range domestic and international passenger services to destinations such as North Asia, the Middle East and the United States. In addition to tourism, the upgrade will also significantly increase large freight capabilities with a potential increase from 100 tonnes per annum of air freight to 500 tonnes per annum by 2036 (Newcastle Airport, 2021). This will maximise the benefits of already completed terminal upgrades for international arrivals and departures processing.

Newcastle Airport estimates these improvements could create around 4,400 full-time jobs, deliver an additional 850,000 visitors to the region and add $12.7 billion to the local economy over the next 20 years (Deloitte, 2022).

Population growth

The Hunter region's population is growing. It had 760,000 residents in 2021 and this is forecast to increase by almost 200,000 by 2041 (NSW Government Population Projections, 2022). The Precinct is close to many areas experiencing residential growth such as Medowie, Maitland and Newcastle, which generates demands for jobs and services.

2.3 Long-term strategic planning

Long-term strategic planning has identified the Precinct as an economic hub with opportunities for growth by leveraging established defence operations and airport infrastructure and expanding supporting and complementary uses in a business-park-style development.

Hunter Regional Plan 2041

The Hunter Regional Plan 2041 identified Australian Government commitments to upgrading RAAF Base Williamtown and the emergence of a cluster of aerospace knowledge industries in both civil and defence. It also identified the growth and diversification of manufacturing, which will facilitate research partnerships between tertiary education and business, and ensure compatible land uses adjoining defence establishments.

The Hunter Regional Plan 2041 recognises the Precinct as a jobs hub, and lists a planning priority for new housing development within 30 minutes' drive of the Precinct. It also recognises the need for improved public transport connecting residential growth areas with the Precinct. These objectives have been carried through and built upon in Master Planning for the Precinct, providing a clear line of sight between regional planning and the special activation precinct.

Future Transport Strategy and draft Hunter Regional Transport Plan 2041

Future Transport Strategy is the NSW Government's long-term vision for transport. It identifies fast rail as a key component of transforming connections between metropolitan cities, with the Northern Route including Newcastle and a reduced travel time to Sydney of an hour. The strategy identifies opportunities from the expansion of Newcastle Airport to include freight of perishable and time-sensitive products from regional NSW to global markets.

The draft Hunter Regional Transport Plan 2041 recognises that the Precinct will boost the regional economy as a 'region-shaping gateway' and industrial precinct. It identifies government investment in major freight routes such as the M1 Pacific Motorway and protection of the Lower Hunter Freight Corridor to support the growing freight task in the region. This infrastructure directly supports growth at Williamtown. The draft plan identifies strategic road upgrades to support the Precinct, including the Pacific Highway intersection at Medowie Road. Other projects identified for potential improvements include Nelson Bay Road (Fern Bay to Williamtown) and Tomago Road (Pacific Highway to Williamtown), both of which would support connectivity to and from the Precinct.

The draft plan includes an objective to improve connectivity to jobs, health, education and visitor attractions, all of which are existing and/or envisioned in the Precinct. Public transport links and infrastructure to Williamtown has been considered, in order to facilitate end-to-end multimodal journeys and support tourism.

Greater Cities Commission

In 2022, parts of the Hunter region were incorporated into the Greater Cities Commission (GCC) to form part of the Six Cities Region. The GCC will be preparing draft city plans for both the Lower Hunter and Greater Newcastle in 2023-24. The special activation precinct is likely to be identified as a significant catalyst for employment growth in the Hunter region.

Figure 12: View of the Hunter River at Newcastle, near the Port of Newcastle.

2.4 Economic challenges and opportunities

There are a number of economic challenges and opportunities within Williamtown Special Activation Precinct.

Market failure

It is acknowledged that there has been market failure within the Precinct, with landowners unable to fully realise the vision of previous employment strategies for Williamtown and develop within the Precinct. Numerous transport, utility, environmental and amenity barriers have been impeding Williamtown from reaching its full potential. In addition, there have been challenges with the lack of available skilled workforce in the region.

To attract investors to the Precinct, it is recognised that significant upgrades to enabling infrastructure, as well as the management of environmental constraints, are required to attract high-value defence, aerospace and advanced manufacturing businesses.

The fragmented land ownership within the Precinct means the incentive for any one landowner to undertake these enabling works previously has been low. The special activation precinct program provides an opportunity to address all of these constraints and to help incentivize the acceleration of economic activity in Williamtown through 2 key functions:

- government investment for early and enabling works to provide infrastructure and services that will help attract new investors to the Precinct and to grow the impact of existing businesses in Williamtown
- government-led, coordinated planning with landowners to develop a Master Plan and governance arrangements that drive greater certainty, transparency, and coordination across the Precinct.

Agglomeration benefits

Adjacent and ancillary industries can benefit from being located in proximity to the anchor industries of defence, aviation and aerospace in the Precinct. Figure 13 illustrates the agglomeration benefits which Williamtown is in a unique position to offer, and which will contribute to the growth of the Hunter Region's economy.

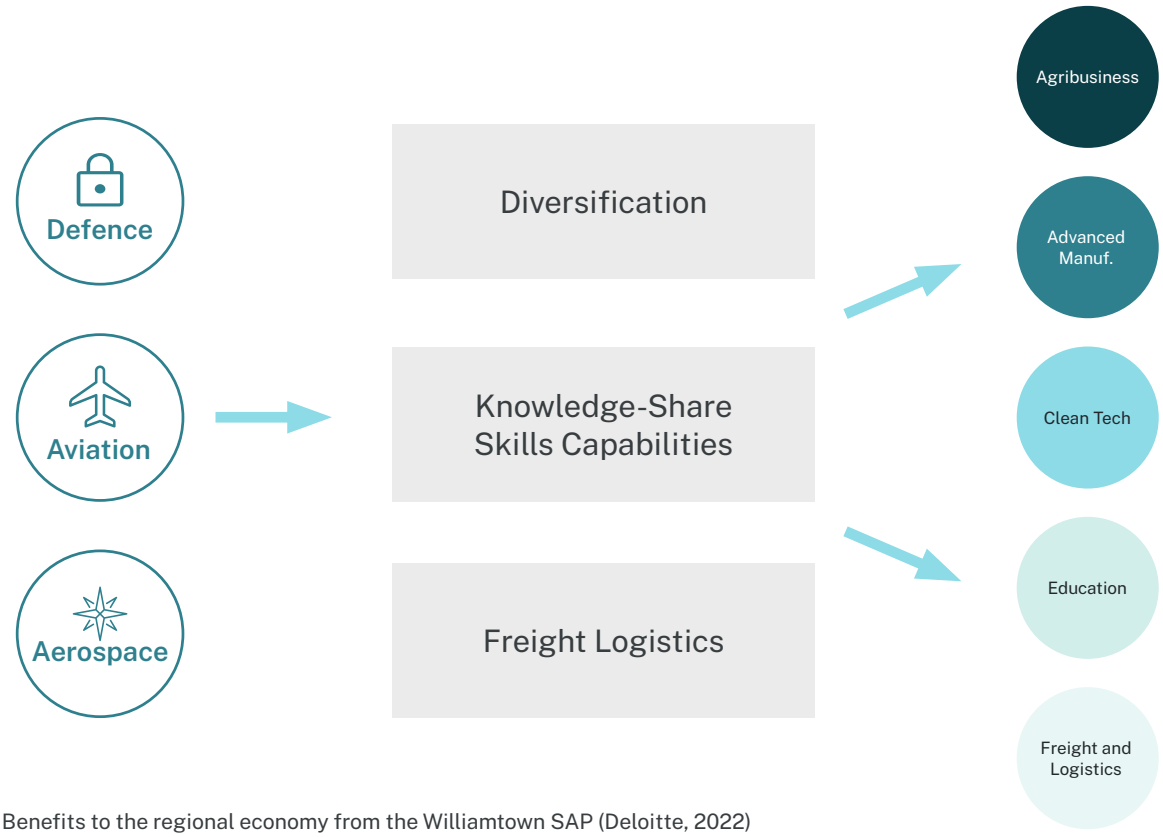


Figure 13: Benefits to the regional economy from the Williamtown SAP (Deloitte, 2022)

Horizons approach

The horizons approach can be used to guide development of the Precinct over time regarding the evolution of businesses seeking to retain market presence and relevance (see Figure 12).

Horizon 1 (short term to 2026) represents core business within the Precinct and the foundation tenants with a strong focus on defence that supports the growth of the special activation precinct. The next horizon, Horizon 2 (medium term to 2036) represents emerging opportunities and will see the Precinct transform into the first choice for targeted adjacent businesses and include new high-value jobs.

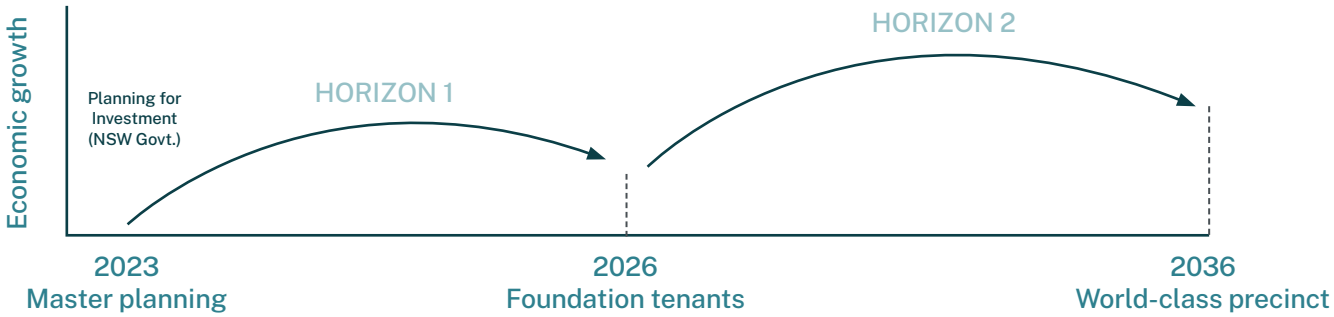


Figure 14: Horizons approach (Deloitte, 2022)

Figure 15: A F35A aircraft from No. 3 squadron taxis out of RAAF Base Williamtown. Credit: Department of Defence

3

Structure plan

3.1 What we have heard

From 13 April 2022 until 8 June 2022, the department exhibited the draft Master Plan, suite of technical studies and discussion paper for the Williamtown Special Activation Precinct for an extended period of 56 days. The documents were all made available on the department's website, and were also advertised locally including via local press and radio.

During this time, the department, Regional NSW and the corporation held face-to-face consultation sessions with landowners, local community and key stakeholders. This included targeted small-group consultation sessions with landowners within the Precinct. A large proportion of landowners within the Precinct attended the consultation sessions and the department appreciates the time the community took to attend and provide feedback.

At the conclusion of the exhibition period, the department received 46 submissions.

The submissions were from a mix of landowners within the Precinct, local community, developers within the Precinct, community organisations, business organisations, Port Stephens and Newcastle City councils and state government agencies.

The department has reviewed the submissions as well as the feedback received at the consultation sessions, and where appropriate the Master Plan and relevant technical studies have been revised to address the feedback.

There were a number of common key themes emerging form the submissions that are described in Table 1 and Table 2.

Table 1: Summary of areas of concern

Theme	Areas of concern
Flooding and drainage impacts	• Precinct is currently flood affected • Very high rainfall over past 12 to 18 months that has been slow to dissipate; unable to use part of properties for stock currently • Existing drains are not maintained and insufficient • Development of Precinct will exacerbate flooding and drainage issues • Clarification on who is responsible for managing flood and drainage impacts • Object to land being zoned for drainage infrastructure
Property impacts and acquisition	• Mixed response to potential acquisition: – Some landowners would like to remain in their properties and do not want to be acquired – Some landowners would like to be acquired however have concerns about how market value will be considered • Concerns about finding a like-for-like property in proximity to current location • Concerns about loss of property value due to PFAS contamination and flooding • Confirmation of acquisition process, staging and timing

Theme	Areas of concern
Environmental and amenity impacts	• Concerns about loss of biodiversity due to land clearing • Concerns about impacts on Ramsar Wetlands • Concerns about construction noise and visual impact of new buildings • Potential for land use conflict
Per-and poly-fluoroalkyl substances (PFAS)	• Concerns about new development potentially mobilising existing PFAS contamination • Responsibility for remediation
Fill and earthworks	• Concern at the volume of fill required • Concerns that fill and earthworks will affect water flows and flooding
Amendments to Precinct boundary	• Requests to reduce and expand the precinct boundary in various locations
Staging	• Staging should allow flexibility, noting some sites are suitable for development in the short term whilst others may be developed in the long term
Public transport and traffic	• Master Plan should provide stronger, long-term public transport connections • Precinct should better connect to surrounding centres • Clarify how increased workers and airport passengers have been accommodated • Proposed land uses will generate additional traffic and roads will need upgrading
Land uses	• Specific comments regarding permissible land uses within the Regional Enterprise Zone • Bulky goods premises are not suitable in the Precinct and are better located in centres that have been strategically planned for.

Table 2: Summary of areas of support

Theme	Areas of support
Jobs and economic opportunities	• Recognition of the positive impact the Precinct will have on Port Stephens and Newcastle local government areas and the Hunter Region • Supportive of the vision to drive business and investment
Alignment with strategic planning documents	• Alignment with state and local strategic planning documents to support the growth of strategic centres and major employment areas
Streamlined planning	• Support for the streamlined planning process • Supportive of the state-significant development process to assess the impacts of early works and enabling infrastructure
Cultural heritage	• Empowerment of the Worimi community and connections to Country are positive • Appreciate the consultation to date with the Registered Aboriginal Parties and support the 'Designing with Country' principles • Support the ongoing site management and protection of artefacts and recognition of the Aboriginal Keeping Place • Explore the implementation of a Reconciliation Action Plan
Improved connections	• Improved road, public and active transport connections to the Precinct
Sustainability and resilience	• Support the inclusion of sustainability, resilience and climate change adaption in the design of the Precinct
Protection of operation airfield	• Support the controls protecting existing airport and defence operations
Collaboration	• Supportive of the collaboration between government agencies and stakeholders.

3.2 What has changed

Reduction of precinct boundary

The special activation precinct boundary has been reduced from 395 ha to 283 ha, a reduction of 112ha. The area that was previously referred to as the Western Catchment is no longer included in the Precinct in its entirety, as only part of these lots are included (see Figure 14). In addition, the area south of Cabbage Tree Road in the south-west corner of the Precinct is also no longer included.

For land located west of Leary's Drain, the front of lots facing Cabbage Tree Road will retain the existing zoning and landowners can continue rural residential uses under the existing RU2 Rural Landscape zone in Port Stephens local environmental plan. The rear of these properties are still proposed to be rezoned to C2 Environmental Conservation (as per previous draft Master Plan) for the environmental protection area. The environmental protection area will need to be in common ownership for the purpose of flood mitigation, detention and biodiversity protection and management.

A new earth bund will be constructed at the rear of the properties and will provide a divide between the RU2 Rural Landscape and C2 Environmental Conservation zones and will ensure the properties will have no worse flood impacts.

Key reasons for the reduction in Precinct size include:

- economic, engineering and environmental analysis determined that the cost of the enabling earthworks and infrastructure (as per the originally exhibited Master Plan) was cost prohibitive and not economically feasible
- a smaller Precinct would provide sufficient land over the next 40 years to meet market demand for defence-and aerospace-related jobs
- detailed engineering investigation refined the water cycle management strategy and has resulted to changes to the flood and drainage infrastructure
- the existing approved Astra Aerolab development covering 76 hectares can meet a large proportion of the initial market demand.

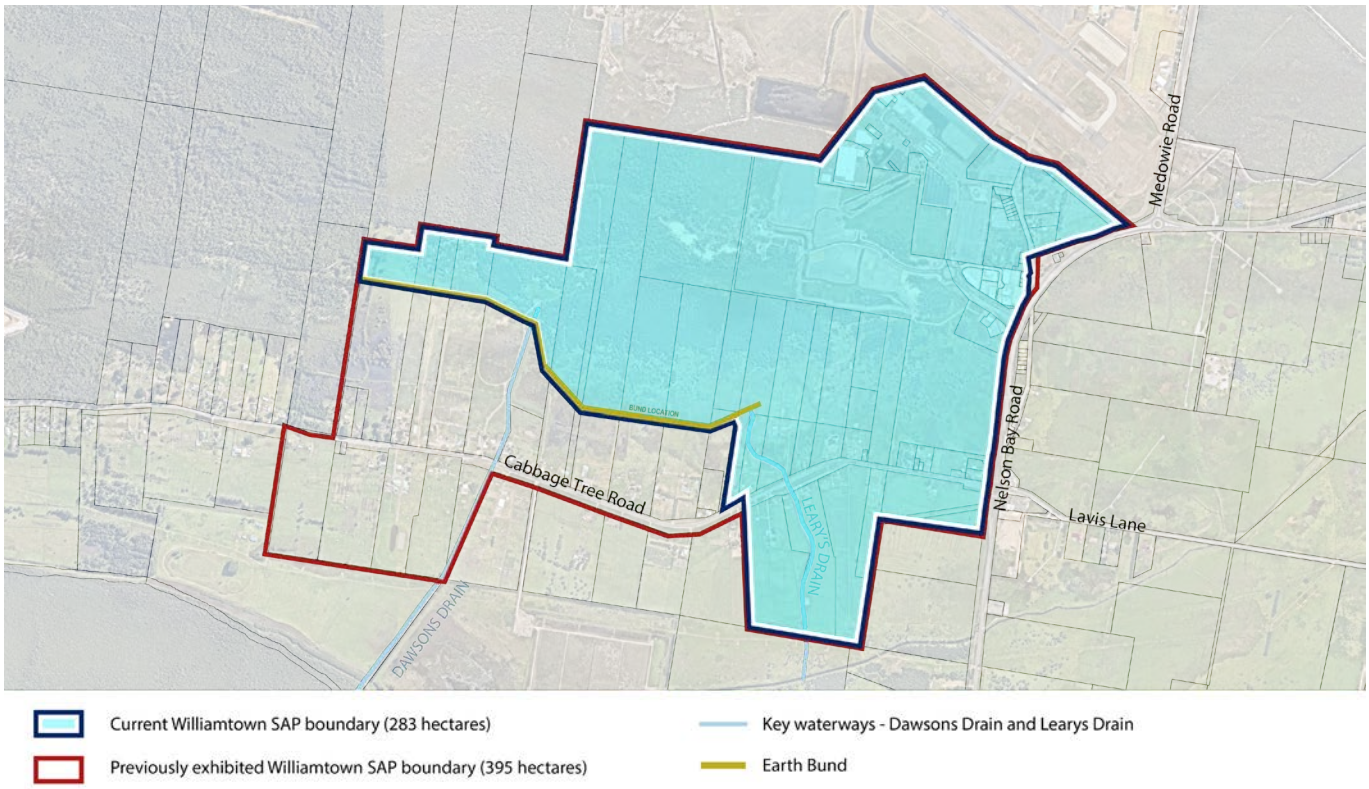


Figure 16: Reduction in precinct boundary

New earth bund

To ensure that the properties that are no longer included in the Precinct have no worse flood and drainage impacts, an earth bund will be constructed between the Precinct boundary and the environmental protection area.

The earth bund will have a footprint of approximately 20 m and an example of what it could look like is shown in Figure 17.

The environmental protection area is a key enabler to development in the Precinct as it forms a critical part of the water cycle management strategy for the Precinct.

Internal road layout

Due to the smaller Precinct size, the internal road layout and road hierarchy was reconfigured. A new north-south access road connecting Cabbage Tree Road to the airside-access land provides an alternate access road to Williamtown Drive and also addresses emergency evacuation requirements for flooding and bushfire.

The Master Plan also strengthens the provision of public transport within the Precinct recommending a number of locations for future bus stops (subject to Transport for NSW approval) and recognising strategic links to surrounding centres.

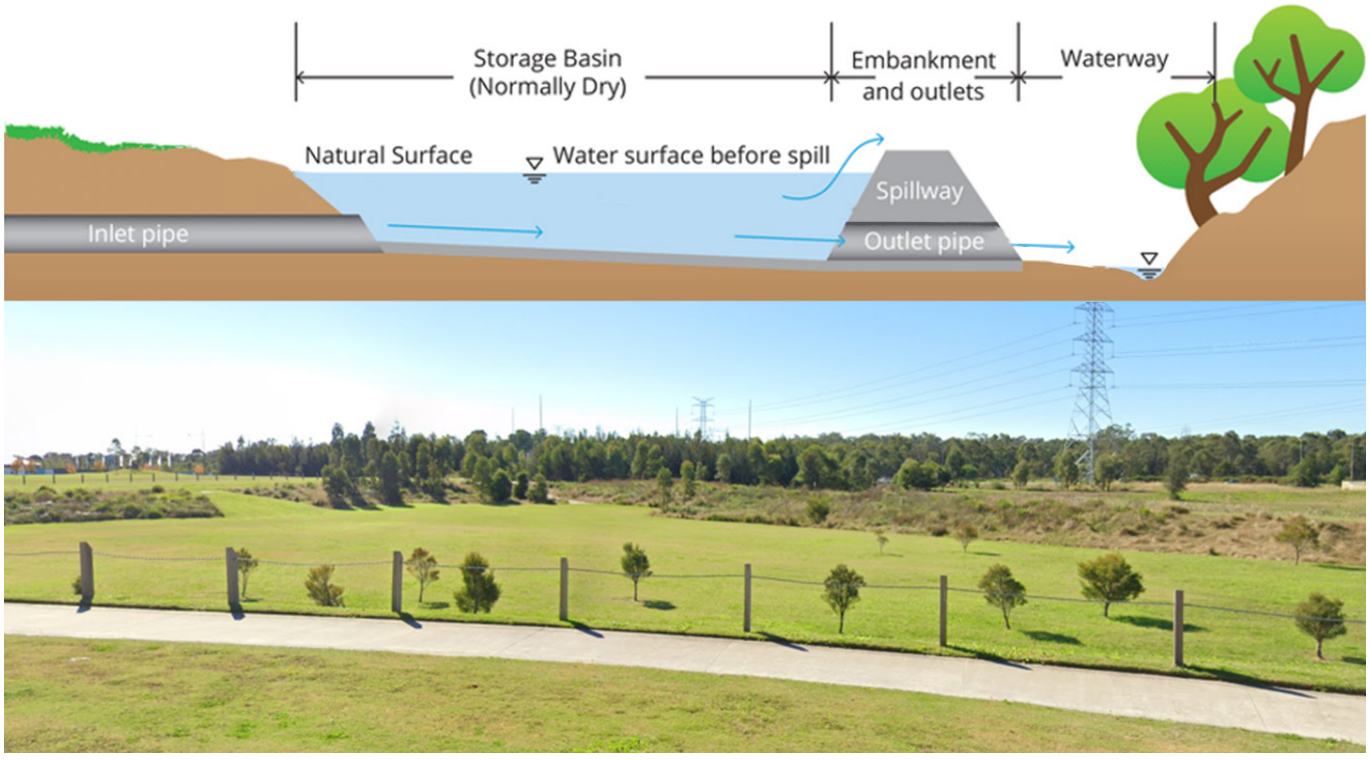


Figure 17: Indicative earth bunding visualisation. Credit: Aurecon

Land acquisition strategy

Concerns around the land acquisition strategy was a common theme raised during exhibition. The draft Master Plan responds to feedback received from landowners and community regarding minimising impacts on existing properties and businesses.

The smaller precinct enables landowners west of Leary's Drain to continue to live in their rural properties as the portion fronting Cabbage Tree Road will no longer be in the Precinct.

Some properties within the Precinct will still need to be acquired and be in common ownership; however, this area has significantly reduced. Decisions regarding acquisition will be confirmed following the finalisation of the Master Plan.

Water cycle management strategy

Flooding is a significant constraint in the Precinct and it experiences groundwater surcharge, local flooding, regional flooding and tidal inundation. The existing drainage network in Williamtown includes drains such as Dawsons, Leary's, 10-Foot, 14-Foot Drains and the Ring Drain which are ageing and in some instances are undersize for existing flows, in poor condition and constrained by tidal processes which limit capacity, efficiency and ongoing maintenance. The Precinct is also located within the Tomago sandbeds drinking water catchment for the Hunter Region and is close to Fullerton Cove, which is a Ramsar wetland of international importance.

To facilitate the development of the Precinct, significant bulk filling is required and needs to appropriately balance floodplain management measures to mitigate and offset flood impacts. The measures are documented in Section 7.4 and include flood detention, floodplain storage offsets, augmentation of existing drainage infrastructure and accommodating flood impacts within the Precinct boundary.

The drainage approach for the Precinct has been revised following exhibition of the original Master Plan. Further detailed engineering was undertaken to appropriately balance the volume of bulk fill flood management and mitigation, and risk of mobilising existing PFAS contamination.

The revised draft Master Plan continues to achieve the objective of no impact on private land outside of the Precinct (except for minor impacts on Hunter Water owned land) and will ensure private landowners have no worse flooding impacts. To achieve this objective, an area south of Cabbage Tree Road in the south-east is required to assist with managing adverse impacts in more frequent flood events. This area will be zoned SP2 Infrastructure and be in NSW Government ownership. The corporation will determine any potential land that is to be acquired as part of the delivery plan.

Following the exhibition of the original Master Plan, the *2022 Independent NSW Flood Inquiry* recommendations were released. This provided the department with an opportunity to ensure the Master Plan was consistent. Best-practice flood planning requirements have been adopted for the Precinct that factor in rising sea level to ensure the Precinct is flood resilient and responds to climate change. This draft Master Plan acknowledges significant fill will still be required to enable development to be above the flood planning level; however, it has significantly reduced the volume of fill through detailed engineering. The impacts of the earthworks and fill strategy will be assessed as part of the SSD application.

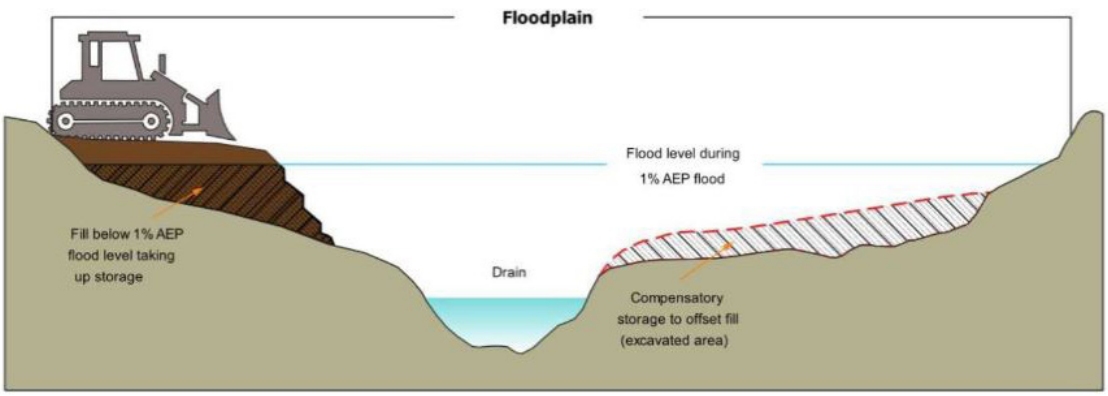


Figure 18: Indicative concept showing floodplain storage offsets. Credit: Aurecon

Environmental protection area

The Precinct contains vegetated areas that comprise high-value biodiversity areas including the critically endangered swift parrot and vulnerable koala, squirrel glider, wallum froglet and Earp's gum. The netted bottlebrush may also occur within the Precinct.

The Precinct also contains 2 threatened ecological communities (TEC) under the *Biodiversity Conservation Act 2016* (BC Act): Swamp Sclerophyll Forest on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner Bioregions and Freshwater Wetlands on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner Bioregions. The Precinct aims to continue to protect a large proportion of the existing native vegetation and biodiversity values through the expansive central environmental protection area.

The size and configuration of the environmental protection area has been modified to accommodate the revised water management cycle strategy and road layout, new earth bund and reduced Precinct boundary. Whilst the environmental protection area has been reconfigured, it has only been reduced by 1 ha and covers a total area of 67 ha.

The environmental protection area continues to provide a key function for the detention of water during certain flood events to ensure private landowners are not impacted. The impact of increased water inundation on the existing native vegetation has been considered as part of the Master Plan.

Management of PFAS

Soil, sediments, surface water and groundwater within the Precinct are impacted by PFAS. In 2017, the NSW Environment Protection Authority (EPA) issued the Williamtown Management Area Map, which identified 3 management zones–primary, secondary and the broader management zones.

The proposed water cycle management strategy has considered the management of PFAS as this forms an integral part of the management strategies to ensure any future development within the Precinct will limit PFAS mobilisation and limit the exposure for future industry and the public.

Whilst the Precinct is not a remediation project, it will not create additional impacts and will continue to prevent the mobilisation of PFAS through mitigation measures and strategies informed by industry experts. The NSW Government seeks to work closely with and support the Department of Defence, which is currently undertaking an extensive remediation program both on and off base. Whilst the structure plan remains unchanged in this respect, the Master Plan actively facilitates and enables the Department of Defence's remediation program to continue.

Department of Defence held a community consultation session in October 2022 regarding the Groundwater Strategy Review and next steps in the remediation process. The Department of Defence has completed remediation of the major source area and is installing a remediation system at the base boundary to capture remaining PFAS. New treatment systems are being commissioned as well as increasing capacity of the Moors Drain remediation system.

Impacts on local heritage item

St Saviour's Anglican Church is locally heritage listed and will be impacted by the proposed flood mitigation strategy. Further work is required to determine if the church could be relocated or integrated within the Precinct. NSW Government will consult with the local community on this issue.

Credit: Goodthanks Media

3.3 Revised structure plan

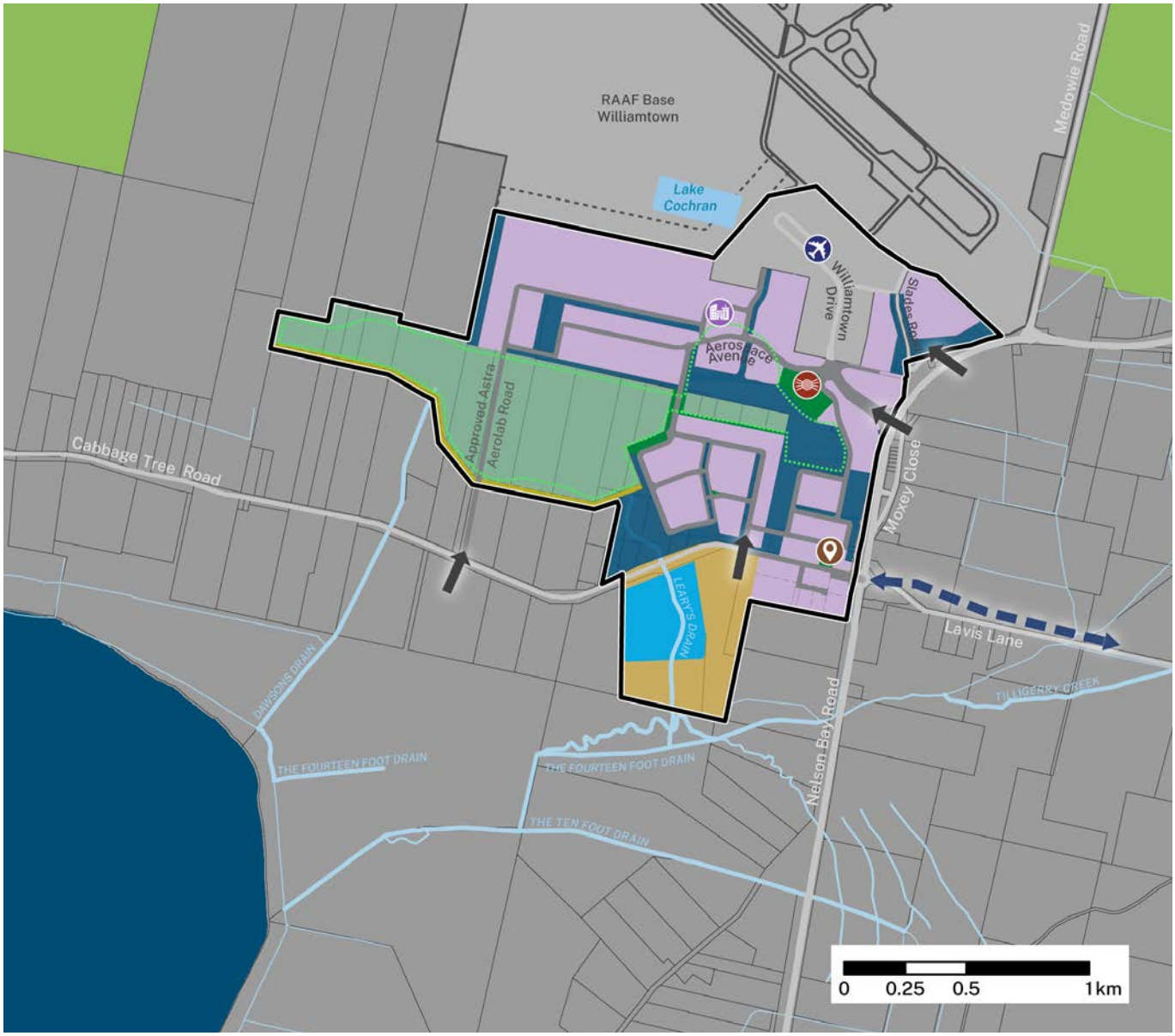


Figure 19: Revised structure plan

- Williamtown SAP boundary (283 hectares)
- RAAF Base Williamtown and Newcastle Airport
- Waterway
- Waterbody
- Roads
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Heritage or green space
- Newcastle Airport
- Commercial Centre
- Local heritage item
- Aboriginal Keeping Place
- Future alignment of Nelson Bay Road
- Access points
- Proposed road
- Existing runway and taxiway
- Proposed unapproved taxiway G
- Regional enterprise zone
- Flood mitigation - shallow flood storage
- Drainage and wetlands
- Environmental protection area
- SP2 Infrastructure
- Earth Bund

The purpose of the structure plan is to illustrate the strategic land uses and vision for the Precinct over the next 40 years. It guides future development and identifies the footprint and context of future development, infrastructure and other key features. Key elements of the Structure Plan include:

Employment

The Precinct will be Australia's leading defence and aerospace precinct leveraging from significant investment associated with RAAF Base Williamtown and the upgrade of Newcastle Airport. The structure plan proposes a Regional Enterprise Zone that allows a range of employment uses to support defence and aerospace industries, advanced manufacturing, training, innovation research and development, commercial, freight and logistics, industry and tourism opportunities and the up-skilling of the local community.

The Regional Enterprise Zone is a flexible zone that allows a wide range of employment uses, whilst also safeguarding the airport and Australian Defence Force operations and seeks to embrace a 'beyond business-as-usual' approach. The zone also allows for ancillary uses to support the local working population, minimising the need for out-of-precinct travel for day-to-day necessities.

The precinct is envisaged to have a campus style that includes a high-quality public realm, connecting businesses, people and visitors through meaningful design into the natural landscape and built form that is representative of a nationally significant defence and aerospace employment precinct. It will be designed for people of all abilities and provide quality and innovative secure digital infrastructure to support high-functioning competitive businesses.

Airside access

The Precinct provides a unique offering by enabling direct airside access (subject to Department of Defence approval) for certain uses where this is a critical component of operations. This remains unchanged from the previously exhibited Master Plan.

The proposed Taxiway G (unapproved) is located on land owned by the Department of Defence. This area is attractive for defence primes and potentially SMEs that require direct access to the taxiway to interact with aircraft and base activities. This land must only be utilised by organisations that require direct interface. Any land with airside access will require approval from the Department of Defence, given the security and safety sensitivities associated with this area.

Providing airside access is a response to market demand for maintenance operations, hangar facilities relating to defence programs and freight and logistics opportunities capitalising on the upgrade of the runway. Due to both the high commercial value of airside access areas, safety and defence and aviation security risks, a coordinated approach is required for uses within the airside access areas (see Section 5.4).

The north of the Precinct builds on the existing Astra Aerolab approval and has a primary focus on airside access. These areas can either be a secure area or integrated into the proposed road network, noting the specific security requirements for individual buildings or businesses. Market sounding confirms strong interest from those investors requiring direct airside access and it is envisaged the initial focus of development will be in this area.

Aeronautical considerations

The National Airports Safeguarding Framework (NASF) consists of a set of principles and guidelines regarding aircraft noise, windshear, wildlife strike, wind turbines, lighting distractions, protected airspace, communication equipment, helicopter landing sites and public safety areas which have been reflected in the design of the structure plan.

The Master Plan seeks to ensure future development within the Precinct (including airside access land) safeguards the Newcastle Airport and ADF operations and ensures they are protected from inappropriate development whilst still supporting the development of employment uses within the Precinct.

Commercial centre

The structure plan includes a new commercial centre located in the north that will be the heart of the Precinct with cultural, social, commercial activities and open public space infrastructure to improve the amenity and enjoyment of people who work in and visit the Precinct.

It will provide an interface between built form and infrastructure such as the airport and create a well-connected, pedestrian-friendly campus-style environment. The commercial centre aims to provide day-to-day services for workers and also the local community.

The commercial centre also presents opportunities for both training and education facilities in the centre of the Precinct. This may include shared collaboration spaces at the ground floor level of commerical buildings.

Management of flooding and drainage

The structure plan provides an integrated, best-practice catchment-wide approach to flooding, drainage and water quality management initiatives through a system of wetlands and channels to deal with both quantity and quality aspects including designing for flood resilience, climate change and protecting the adjoining Tomago sandbed drinking catchment. Where safe and practical, it is envisaged that this infrastructure can be dual-use for passive recreation opportunities within the Precinct.

Environmental protection area

The Structure Plan includes a central environmental protection area for high-value biodiversity and cultural heritage areas in a central location. The retention of this native vegetation area connects to adjoining vegetated areas, providing important habitat connection as well as providing amenity, a green heart and passive recreation opportunities for the Precinct.

The Structure Plan identifies an education and health loop centred around the environmental protection area and the existing Aboriginal Keeping Place. This will encourage passive recreation opportunities, as well as providing educational opportunities associated with connecting to Country and understanding the existing natural environment.

Transport and movement

The Precinct leverages the strategic transport connections to Newcastle Airport, Port of Newcastle and the M1 Pacific Motorway and builds on significant regional road upgrades in the area including the upgrade and duplication of the Nelson Bay Road (Bobs Farm to Williamtown) and the M1 Pacific Motorway to Raymond Terrace upgrade.

The Precinct is envisaged to become a 'region-shaping gateway' to the Hunter region with the entrance from Nelson Bay Road providing an opportunity to deliver a high-quality, urban design gateway entrance to the Precinct and for visitors arriving by air.

The structure plan creates a legible street, walking and cycling network within the Precinct by establishing highly connected recognisable routes, intersections, and landmarks to help people find their way around. Whilst private vehicle usage has been the predominant form of transport in the Precinct, the structure plan provides significant improvements to both the public and active transport networks to better connect to surrounding centres including a number of proposed bus stops.

The structure plan identifies new access points to the Precinct, including access points from Cabbage Tree Road and the main entrance point to the Precinct via Williamtown Drive. The indicative road network provides safe and equitable access for all road users with rational heavy vehicle access that provides efficient and appropriate separation from commuters, workers and airport-related traffic.

Connecting with Country

The structure plan seeks to retain, protect and celebrate Williamtown's proud Aboriginal culture and heritage and respects the Worimi people's connection to Country as Traditional custodians. A key feature of the structure plan is the recognition of the Aboriginal Keeping Place and integrating it with the environmental protection area, and providing an education and health loop that connects these cultural places.

The structure plan seeks to promote development in the Precinct that recognises the connection to Country and a focus on embedding Aboriginal cultural values in the Precinct's delivery to support the empowerment of the local Worimi community through jobs and business opportunities. These mechanisms are discussed further in Section 6.1.

3.4 Technical studies

The structure plan has been informed by a suite of technical studies listed below.

To inform the revised draft Master Plan, a number of technical studies have been revised to reflect the new structure plan. A list of the technical studies (including those that have been revised) is included in Section 9.

- Structure plan
- Aboriginal cultural heritage
- Aeronautical limitations and bird strike
- Air quality and odour
- Biodiversity
- Bushfire
- Climate change adaption
- Contamination (PFAS and non-PFAS)
- Economics
- Flooding and water cycle management
- Geotechnical
- Historic heritage
- Hydrogeology
- Land-use safety
- Noise
- Renewable energy
- Social infrastructure
- Statutory planning
- Sustainability
- Traffic and transport
- Utilities and infrastructure

3.5 Provisions of the revised draft Master Plan

Currently, the Precinct is primarily zoned RU Rural Landscape, and B7 Business Park under the *Port Stephens Local Environmental Plan 2013*.

Following the outcomes of the technical studies and stakeholder engagement, a planning framework for the delivery of the Precinct was developed. The revised discussion paper for the Precincts–Regional SEPP provides a land-use table and objectives for each zone. A summary of the proposed zones is provided below.

New Regional Enterprise Zone (REZ)

This is a flexible land-use zone that applies to special activation precincts, allowing a wide range of employment and industrial uses within the Precinct whilst safeguarding the airport and ADF operations. As such, no additional residential uses will be permitted in this zone and sensitive land uses will be located appropriately to limit potential adverse impacts.

The Regional Enterprise Zone includes a wide range of employment uses to support defence and aerospace industries, advanced manufacturing, training, innovation, research and development, commercial, freight, logistics, industry and tourism opportunities. The employment uses will support the local working population, minimising the need for out-of-precinct travel for day-to-day necessities.

Infrastructure zone (SP2)

The SP2 Infrastructure zone covers physical infrastructure provision including road corridors, land required for flood and drainage mitigation, Newcastle Airport and associated land in Commonwealth ownership to support ADF operations.

Environmental Conservation (C2)

The C2 Environmental Conservation zone protects areas of high biodiversity and cultural value within the centre of the Precinct and ensures it is protected in perpetuity.

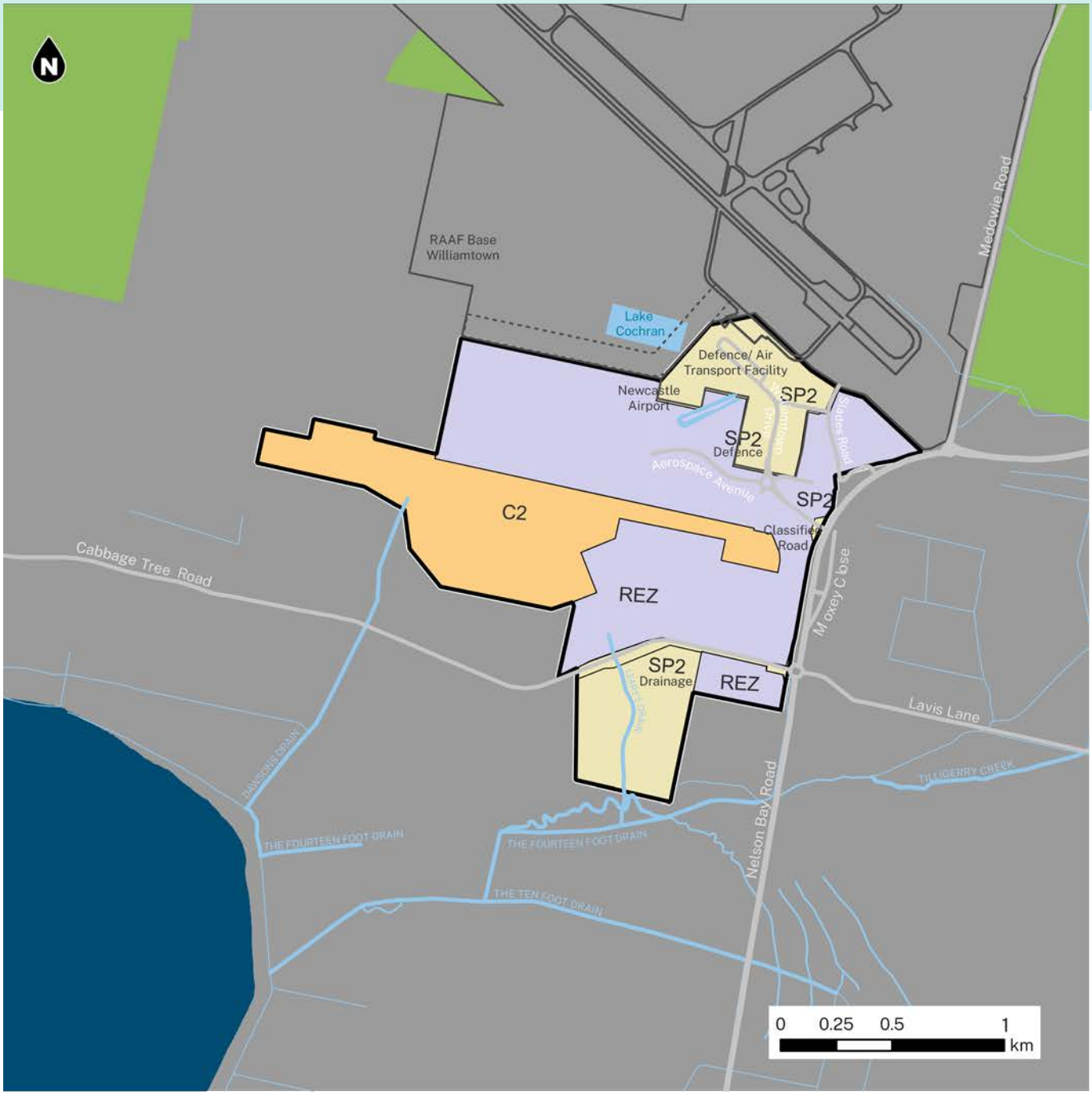


Figure 20: Proposed zoning

- Williamtown SAP boundary
- Waterway
- Roads
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Waterbody
- RAAF Base Williamtown and Newcastle Airport
- Runway and Taxiways
- C2 - Environmental Conservation
- REZ - Regional Employment Zone
- SP2 - Infrastructure

4

Implementing the Master plan


NELSON BAY ROAD
863
Nelson
Bay

4.1 Existing Astra Aerolab approval

Astra Aerolab is an existing site within the precinct that is owned by Newcastle Airport Pty Ltd. It has development approval and is currently zoned as B7 Business Park. In 2011, Port Stephens Council approved a 103-lot subdivision for a 6-stage development over 76 hectares. The development consent has since been modified, and Stage 1 is now under construction (see Figure 21). The special activation precinct, if adopted, would require modification to the later stages of this development consent.

Balancing the existing Astra Aerolab approval with the overall Master Plan vision is a key challenge and an opportunity for the Precinct. Astra Aerolab was approved in 2011, prior to existing policy requirements around flood planning levels, and therefore later stages of the Astra Aerolab that have not yet been constructed will need to increase flood immunity and climate change resilience to align with the design criteria for the special activation precinct.

The revised Master Plan has changed the drainage and flooding strategy for Astra Aerolab. This provides a more a more strategic approach that applies to the entire Precinct. The revised drainage approach has also enabled an additional 2.5 ha of developable area.

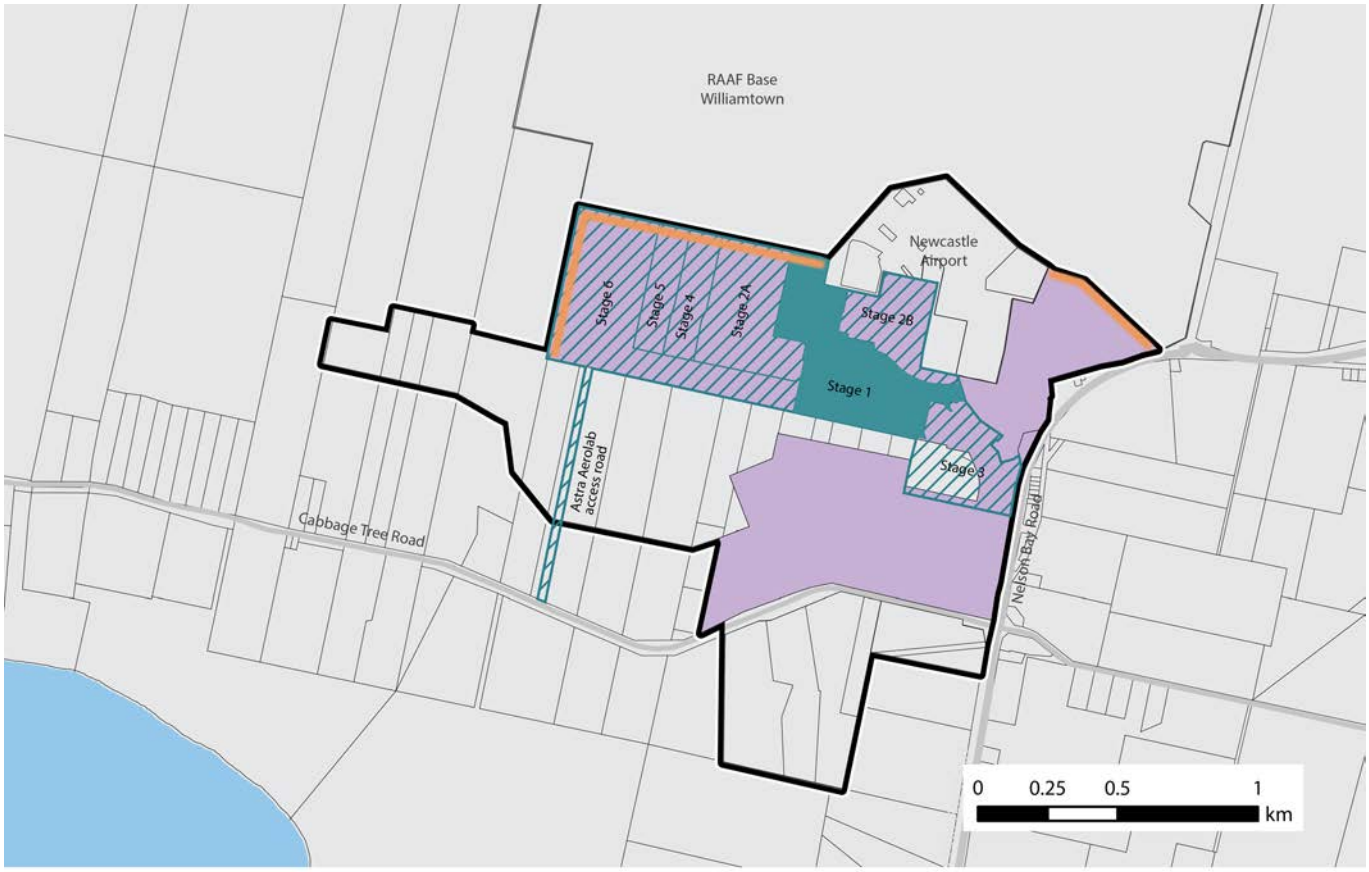


Figure 21: Employment land and existing Astra Aerolab approval

Williamtown SAP boundary (283 hectares)

Roads

Regional enterprise zone

Astra Aerolab development consent

Stage 1 (under construction)

Stages 2-6

Airside Access

This results in water flowing in both an easterly and westerly direction, whereas the existing Astra Aerolab approval has all water flowing east towards Nelson Bay Road.

Stages 2 to 6 of the Astra Aerolab approval will require a higher level of fill for subdivision pads and will result in approximately 400 mm of additional bulk fill across the Astra Aerolab approval in addition to existing approved fill levels. The change in level has been considered in the overall flooding and drainage strategy for the Precinct in order to minimise impacts on private landowners outside of the Precinct.

Figure 22: Proposed earthworks within the Precinct. Credit: Hatch RobertsDay

4.2 Land assembly

The staging and land assembly of the Precinct will be influenced by several factors, including planning considerations, constructability and investment drivers.

Stage 1 of the Astra Aerolab development has provided land suitable for development now and provides opportunities for commercial activities.

Beyond Stage 1 of Astra Aerolab, development within the Precinct will be accelerated by catalytic investment in enabling infrastructure. Key enabling works and infrastructure will provide certainty on the nature and location of development for the life of the Master Plan and includes:

- **Taxiway G** – located on land owned by the Commonwealth Department of Defence, the approval and construction of Taxiway G will be a critical investment in Stages 2 to 6 of Astra Aerolab and for the Precinct becoming a world-class defence, aerospace and innovation hub
- **Drainage and bulk fill strategy** – bulk fill and drainage infrastructure is required for land south of the environmental protection area to ensure development pads comply with current policy requirements, are resilient and respond to the findings of the *2022 Independent NSW Flood Inquiry*
- **Earth bund and environmental protection area** – construction of an earth bund on the southern side of the environmental protection area is critical to ensure flooding and drainage impacts are managed within the Precinct and adjoining private land is not impacted. The environmental protection area will provide a key function in containing and managing flood water within the Precinct
- **Water quality** – ensuring that there is adequate land available and appropriate measures are in place to mitigate water quality and additional flood impacts downstream of the Precinct, particularly given the proximity of the Hunter Water Drinking Catchment and Ramsar wetlands, which will include the delivery of the detention basins area south of Cabbage Tree Road
- **Road network** – provision of new and upgraded roads that provide separation between the tourism activities at Newcastle Airport and future employment activities in the Precinct, including freight and logistics, as well as secondary access to the Precinct to address flood and bushfire evacuation requirements
- **Utilities and services** – whilst some of the initial stages can be enabled through existing infrastructure, the development of the entire Precinct will require significant augmentations to existing utility networks to ensure the orderly release of serviced land and to avoid the requirement for temporary infrastructure.

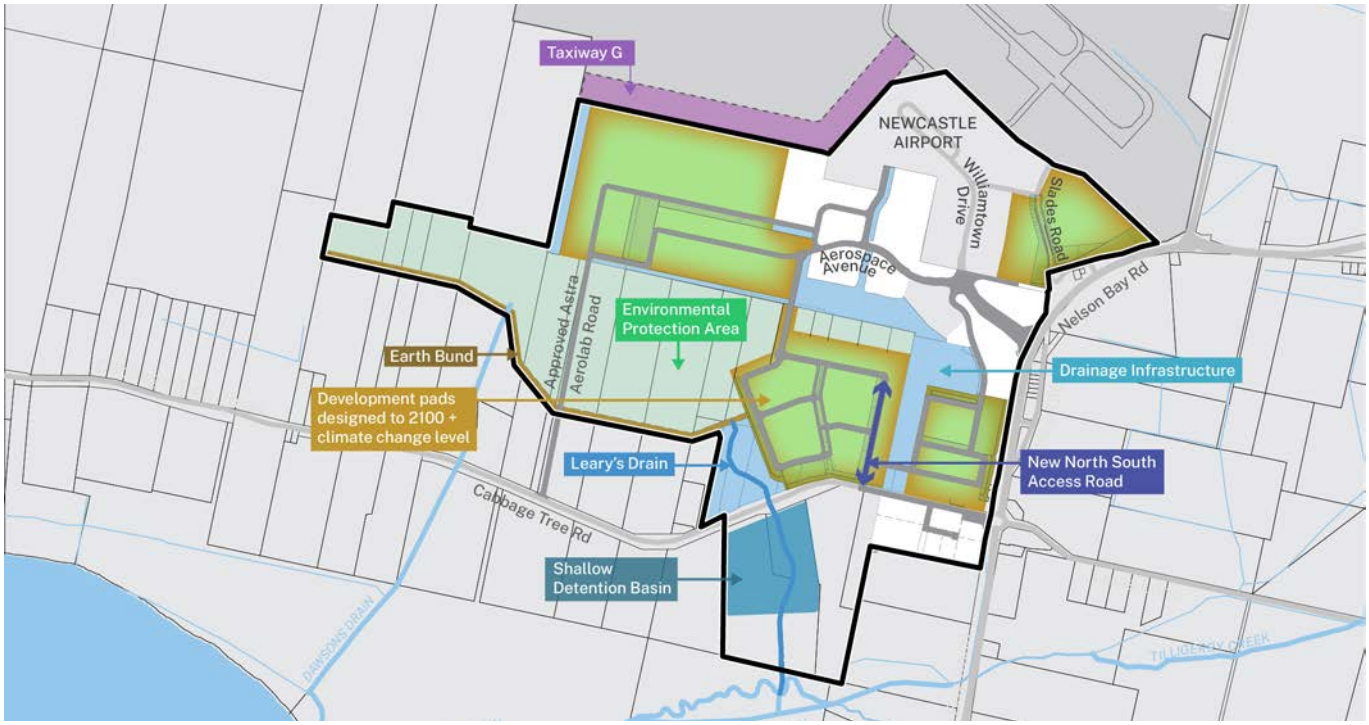


Figure 23: Key enabling infrastructure

4.3 Future built form and flood levels

In relation to constructability, the finished level of Stage 1 of Astra Aerolab that is already under construction will be at a lower flood planning level than the remainder of the Precinct. This will result in new buildings having a higher finished floor level in Stage 1 of Astra Aerolab.

For the remainder of the Precinct including the later stages of Astra Aerolab development, development pads will be required to be constructed to the 2100 (1% AEP) plus climate change flood planning level, as adopted by Port Stephens Council. This flood planning level responds to the *2022 Independent NSW Flood Inquiry*, considers future sea level rise given the vulnerability of the Precinct and makes the Precinct more attractive for sensitive and high-value industries. This will reduce the burden on future investors and industries and ensure that developable land within the Precinct is flood free.

To develop land south of the environmental protection area, a substantial quantum of fill is required in this part to create development pads above the flood planning level as this is the lowest part of the Precinct. To ensure the Precinct does not impact downstream flows and water quality, water will be stored within the environmental protection area before being slowly released through the shallow retention pond south of Cabbage Tree Road conveyed via Leary's Drain. This is a significant change to the existing catchment and will require substantial civil works. The average fill depth across the area that can be developed will be between 2 m to 3 m, although there will be some locations where up to 4 m of fill is required to ensure development is protected and can occur on flood-free land. The benefits of the special activation precinct and streamlined planning approvals can be demonstrated through the precinct-wide approach to flood management and assessment. Complying development will be available in the REZ without the need for additional site-based flood assessment, significantly streamlining the approvals process.

The enabling works for development pads will implement the Precinct's vision for NSW Government intervention to address constraints in a coordinated way and to overcome the existing barriers. The initial stages of development will focus on land that is close to Newcastle Airport and the regional road network, and in accessible locations where there is market demand. This will allow early movers to establish themselves in the precinct. This is time-critical to capitalise on momentum and ensure investment occurs in the Precinct, rather than losing defence and aerospace opportunities interstate or overseas. Enabling early movers will deliver economic growth and jobs for the Hunter region.

The full details of this enabling work, in particular the bulk fill and drainage strategy, will be guided by the delivery plan and the SSD application to be lodged by the corporation. The SSD application is anticipated to be lodged in 2023, and the community will have an opportunity to provide comment during the exhibition of the EIS.

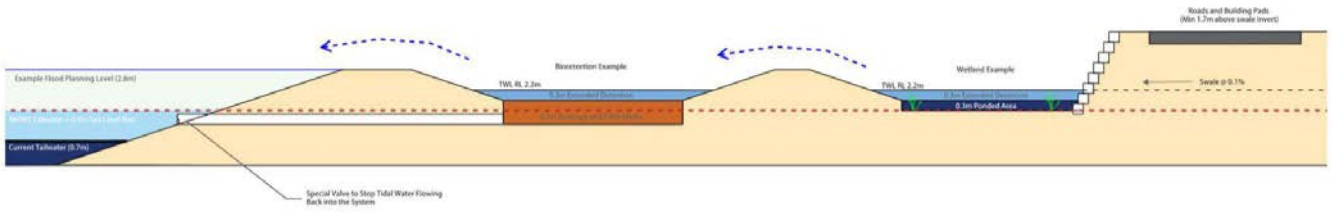
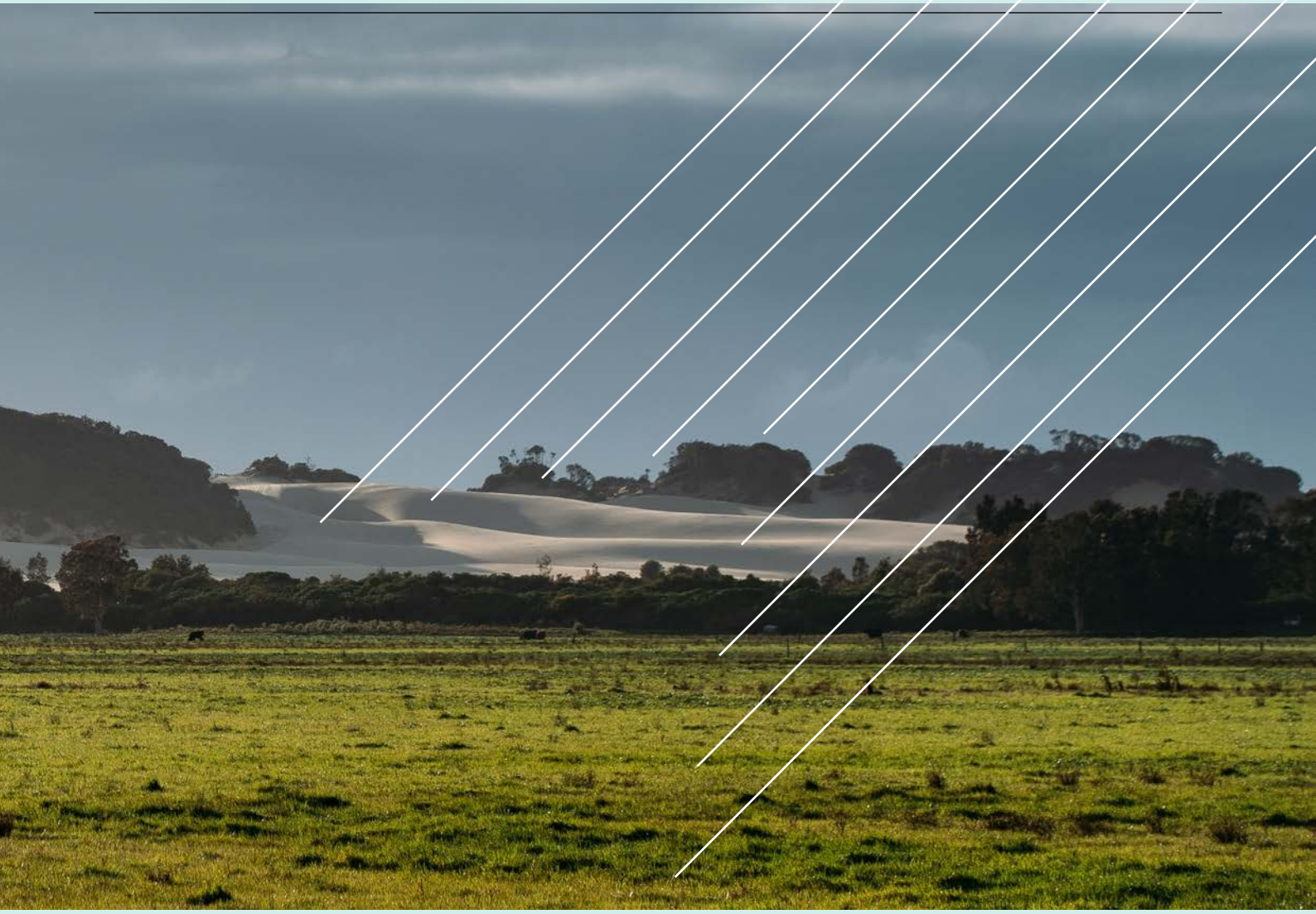


Figure 24: Indicative cross-section of bulk fill and flood levels. Credit: Aurecon

5

Built form and landscape



Stockton sand dunes. Credit: Goodthanks Media.

5.1 Built form and landscape

Existing character

The Precinct provides an opportunity to raise the standard for employment areas in the Hunter region. Traditional industrial estates offer limited amenity for workers and restrict the opportunity for collaboration and interface with other organisations located in the vicinity. Most of the Precinct is currently rural in nature, except for the north where the Williamtown Aerospace Centre is located, adjacent to the Mercure Hotel, and the approved Astra Aerolab development.

Stage 1 of Astra Aerolab has responded well to the natural environment with high-quality landscape, utilising native vegetation, protection of Aboriginal cultural heritage and incorporating water-sensitive urban design solutions that positively contribute to the local character of Williamtown.

A key feature of Stage 1 of Astra Aerolab is the public park/node (shown in Figure 25) located adjacent to the Aboriginal Keeping Place, which preserves Aboriginal artefacts and places of significance and provides high-quality amenity for future workers. This has significantly enhanced the characteristics of the existing supporting commercial activities that are adjacent to Newcastle Airport.

The existing landscape and topography contribute significantly to the character of the Precinct as it is very flat with gentle undulation of sand dunes in the north. There are also areas that are heavily wooded within the Precinct, the majority of which will be contained in the environmental protection area.

Most of the Precinct is not highly visible from surrounding areas due to the flat nature of the catchment and is currently inward-facing as it does not front either Nelson Bay Road or Cabbage Tree Road. Therefore, future development will not be highly visible from the majority of surrounding areas. It is envisaged that the Master Plan will significantly change the character of the built form within the Precinct.

Figure 25: Stage 1 of Astra Aerolab. Credit: Greater Newcastle Aerotropolis Pty Ltd

Desired future character

The Precinct will transform Williamtown into Australia's leading defence and aerospace hub, becoming a well-connected, vibrant campus style employment precinct, that is an attractive place to work, visit and play with high quality urban form with leading architecture solutions and open space.

Aims

- Provide a campus-style employment precinct where buildings respond to open space and a well-connected, pedestrian-friendly environment with integrated public and active transport (refer to Figure 24 - 27)
- Ensure a mix of contemporary, high-quality building types and sizes to support employment opportunities that evolve in line with changing economic drivers
- Built form to be of high quality, with facades that address the street and that have articulation, modulation, passive surveillance and street activation
- Retain and continue the landscape treatment established in the Stage 1 of Astra Aerolab, which utilises native vegetation to assist with water-sensitive urban design
- Provide connections to the environmental protection area including the integration of the health loop showcasing the Williamtown's existing landscape and protecting native vegetation
- Act as a catalyst for design excellence for employment areas in the Hunter region

Performance criteria

Land use

A. Encourage defence, aerospace and advanced manufacturing industries that leverage:
   - the unique offering of access to RAAF Base Williamtown and Newcastle Airport via Taxiway G
   - access to freight transport networks including the M1 Pacific Highway and the Hunter Expressway
   - the diversification of the Hunter region's economic growth in export markets beyond mineral resources, and focus on tourism, agribusiness and advanced manufacturing

B. Facilitate a variety of employment opportunities including encouraging research, development and education opportunities

C. Ensure that land use is responsive to aeronautical operational constraints

D. Establish high-quality urban design and landscaped gateways along Nelson Bay Road and Cabbage Tree Road

E. Ensure appropriate interface between built form and existing infrastructure (that is. potential conflicting land uses of operational airport and business park)

F. Ensure land uses that are sensitive to the adverse effects of aircraft noise are managed appropriately to limit impacts.

Built form

G. Buildings should be efficient, well designed and incorporate generous landscaping

H. All buildings should:
   - be accessible by pedestrians via a safe, clear walkway
   - contribute positively to the character, landscape and topography of Williamtown
   - integrate with the public domain
   - use low-emission building materials that manage urban heat impacts
   - be designed to present to the street and the environmental protection area

I. Buildings should be sited to consider the following:
   - commercial areas should be oriented towards the primary street frontage and provide street activation
   - front setbacks should provide generous planting to screen industrial activities
   - multiple car entries should be avoided
   - car parking and hardstand areas in the front setback should be avoided
   - flexibility of design outcomes for other uses in the future

J. Built form should integrate social infrastructure in strategic locations where appropriate

K. Roof areas should be optimized for cooling, amenity and energy conversation

Figure 26: Len Waters Building at RAAF Base Williamtown. Credit: Department of Defence

Figure 27: University of Wollongong Innovation Campus. Credit: Dee Kramer

Figure 28: Brindabella Business Park, Canberra. Credit: Capital Airport Group

Figure 29: Macquarie Park Innovation District. Credit: Macquarie Park Innovation District website

Figures 26 - 29: Campus-style built form in Australia

Streets and parking

L. Ensure that car parks servicing a separate land use on the site are not visually prominent

M. Encourage centralised parking structures that can be adapted over time

N. Use native planting and tree canopy to create favorable microclimates around development to provide relief during hot summer weather

O. Provide separation for cyclists and pedestrians with footpaths throughout the Precinct, and provide connections to the environmental protection area

Landscape

P. Retain existing sand dunes and existing native vegetation where possible and integrate into open space networks

Q. Encourage the integration of wetlands and open space with commercial or community spaces to create natural gathering spaces that are well connected

R. Trees that attain a significant height should be avoided due to the risk of penetrating the Obstacle Limitation Surface (see Section 7.9).

S. Aboriginal design elements to be integrated into public spaces including native planting, dual language signage and cultural education opportunities

T. Landscaping should complement the proposed drainage network with opportunities identified for dual use of this infrastructure where appropriate

U. Landscaping does not attract wildlife which would create a safety hazard to the operations of the airport (see Section 7.5).

V. New development must:

- provide vegetated front, side and rear boundaries where appropriate and connect to habitat corridors, increase tree canopy and improve quality of streets
- increase the amount of pervious and green spaces by utilising shared roads and access roads

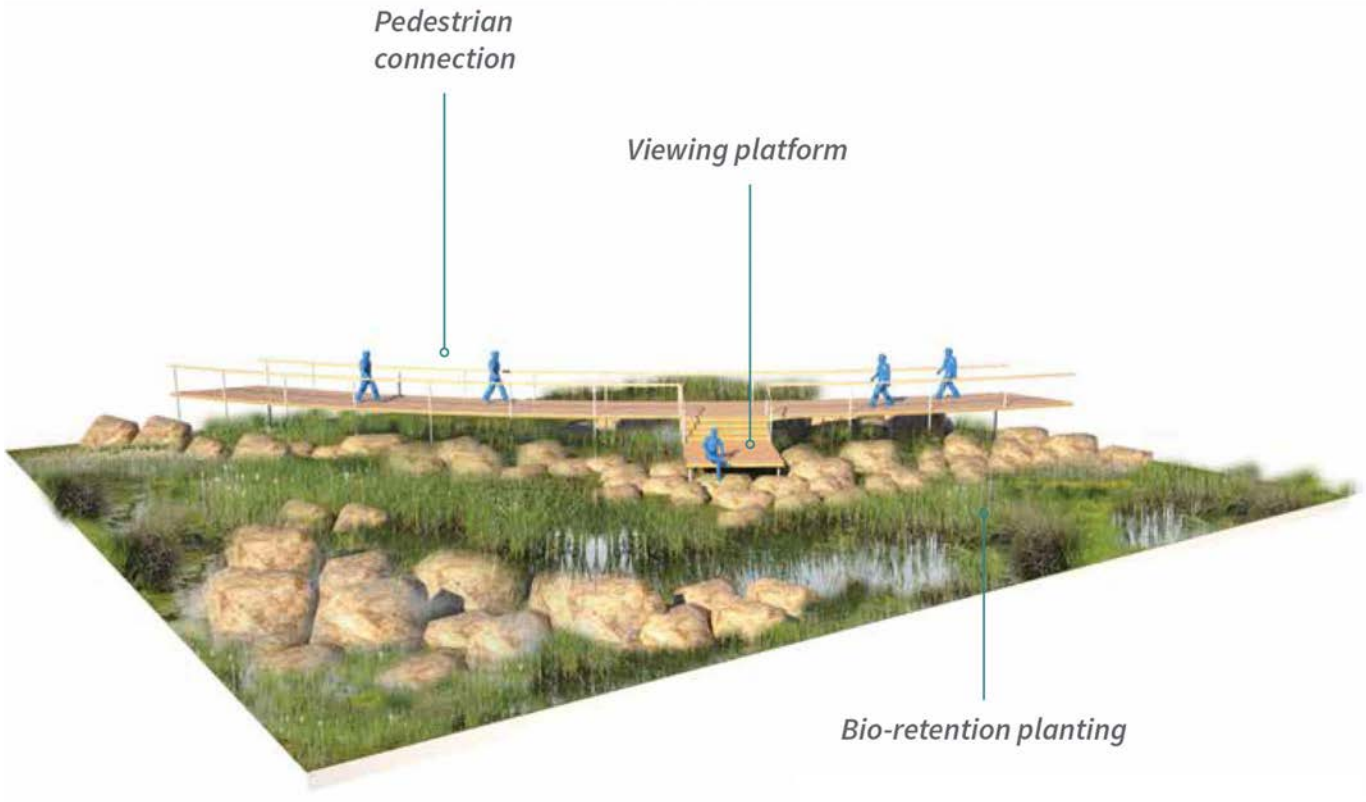


Figure 30: Indicative open public space in Precinct. Credit: Hatch RobertsDay

5.2 Bulk and scale

Aims

- Ensure a mix of contemporary, high-quality building types and sizes are provided to support employment opportunities within the Precinct
- Ensure built form is appropriate for its use and provides high-quality architectural design that responds to the existing topography and local context

Performance criteria

Commercial centre

A. Taller buildings between 5 to 6 storeys would be appropriate in the commercial centre subject to obstacle limitation surface requirements

B. Modulate building height on larger blocks to reduce the overall bulk and scale within the commercial centre

C. Locate the lower height buildings in the northern part of the Precinct (having regard to airside access areas) to optimise solar access to open space and locate social infrastructure and taller buildings to the south.

Industrial and employment areas

D. Encourage innovation and a high standard of architectural design, utilising quality materials and finishes that are sensitive to the local environment

E. Where practical, facades are to be primarily glazed, when fronting a street or open space to encourage active street frontages

F. High bay warehouses or larger floorplates should be orientated north-south and located on larger blocks

G. Buildings that require larger floor plates should be articulated

H. Appropriate building separation should be provided between buildings and sharing of common infrastructure such as car parking is encouraged

I. Taller buildings can be encouraged on larger blocks

J. On Nelson Bay Road and Cabbage Tree Road, larger frontages to the road are encouraged

K. Side setbacks to provide sufficient space for wayfinding between buildings as required

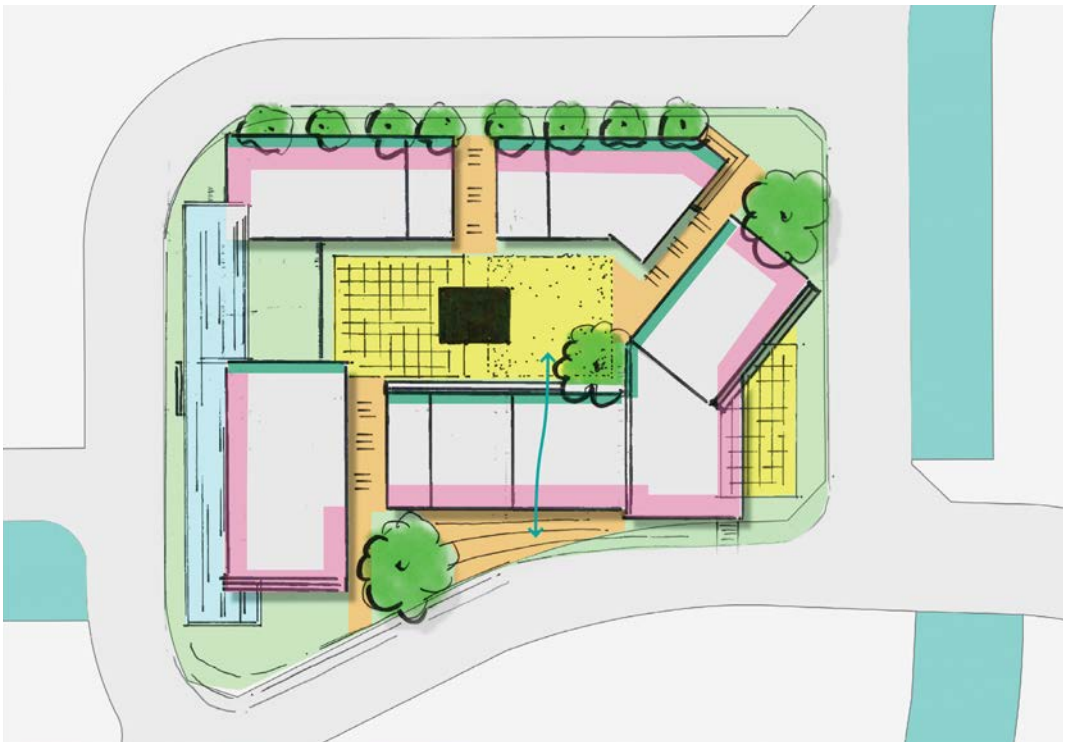


Figure 31: Lot layout typology for commercial centre. Credit: Hatch RobertsDay

5.3 Open public space

Aims

- Provide a range of open public spaces that respond to the existing environment, protect existing native vegetation and provide opportunities for connection to Country
- Provide a high-amenity, campus-style employment Precinct that is an attractive place to work, visit and play
- Create a highly accessible, vibrant, pedestrian-friendly environment where built form is integrated with open public space and where there are opportunities for meeting places in the natural environment

Performance criteria

A. Street layout is to emphasise sight lines to existing landscape features such as the Aboriginal Keeping Place, open public space, places of key cultural significance, and civic buildings.

B. Utilise flood mitigation and environmental features as opportunities to enhance the urban environment through co-design.

C. Open space is to have access to sunlight, canopy trees and seating for passive recreation

D. Footpaths, appropriate planting and separation from vehicles allow pedestrians to move around the precinct

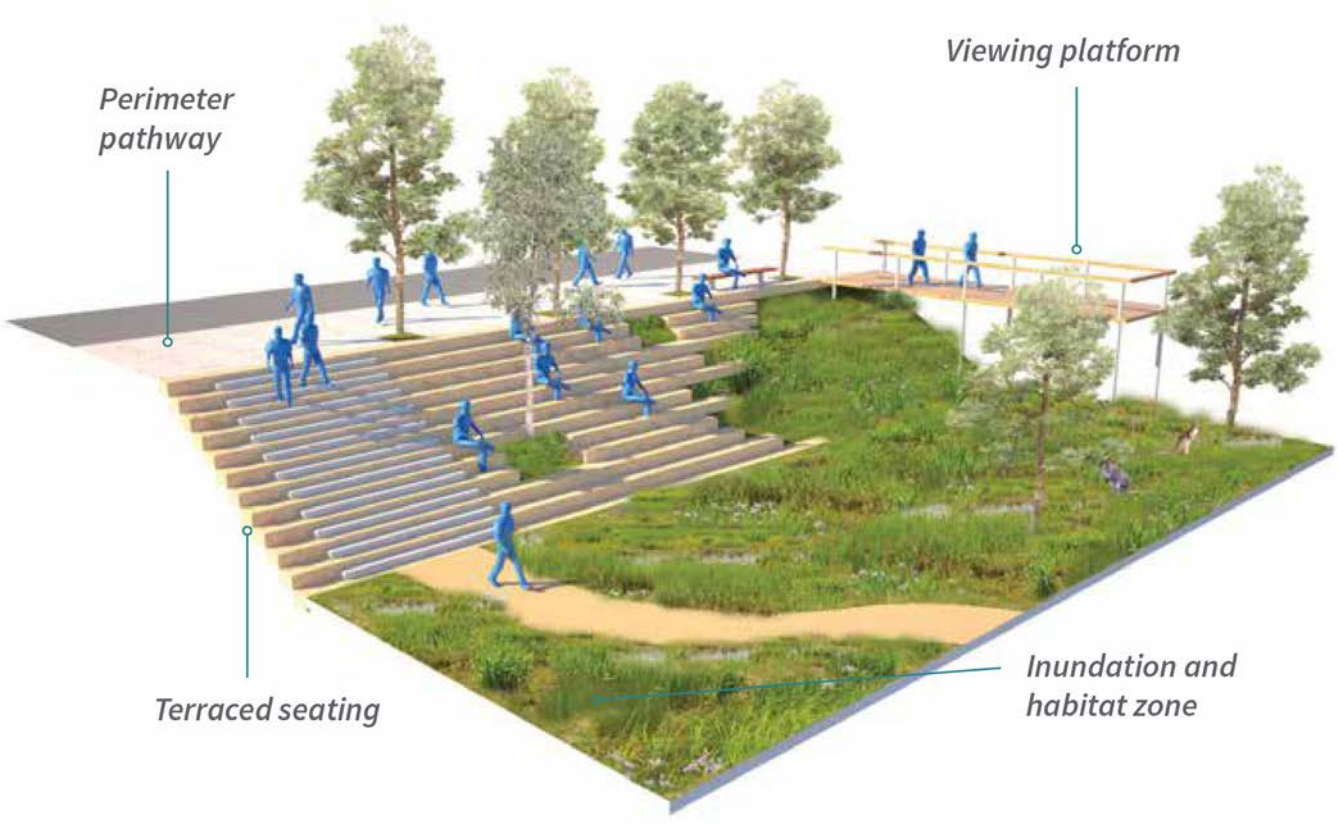


Figure 32: Indicative open public space in Precinct. Credit: Hatch RobertsDay

5.4 Airside access interface

Secure airside access to the airfield will be provided through the potential new Taxiway G.

To protect the security and operations of RAAF Base Williamtown and Newcastle Airport, a set of performance criteria has been developed for lots with direct airside access. These performance measures aim to ensure that future development responds to the likely forecasted high market demand for airside lots and flexible lot arrangements.

Any use within the secure airside access area would need to comply with the Department of Defence's requirements in relation to access to the airfield via the proposed taxiway, if approved.

Aims

- Protect the operations of RAAF Base Williamtown and Newcastle Airport whilst meeting the market demand for industries that are located off-base but require direct airside access
- Leverage opportunities associated with the upgrade of the runway, significant defence investment and a potential new Taxiway G
- Ensure only appropriate uses that meet the relevant security requirements and approved by Department of Defence are located within airside access sites
- Safeguard 2 access points to the secure airside access area for optimal traffic circulation and for emergency access purposes

Performance criteria

Land use

A. Development on land adjoining to or with proposed direct access to RAAF Base Williamtown and Newcastle Airport must ensure:

   i. that relevant Department of Defence and aviation security requirements are met

   ii. appropriate delivery and emergency vehicle access is provided to airside access in the secured area

   iii. only land uses that require airside access are to be located in this location.

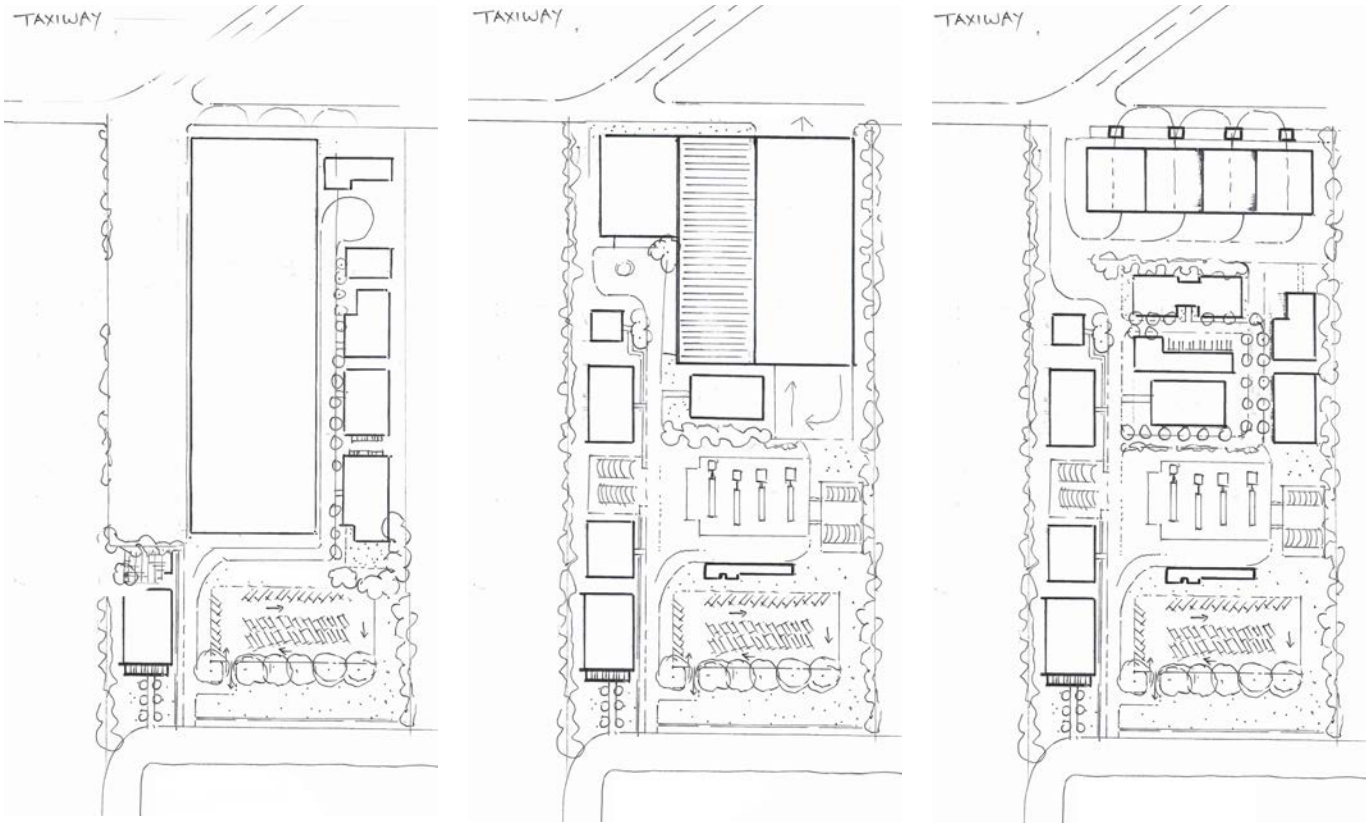
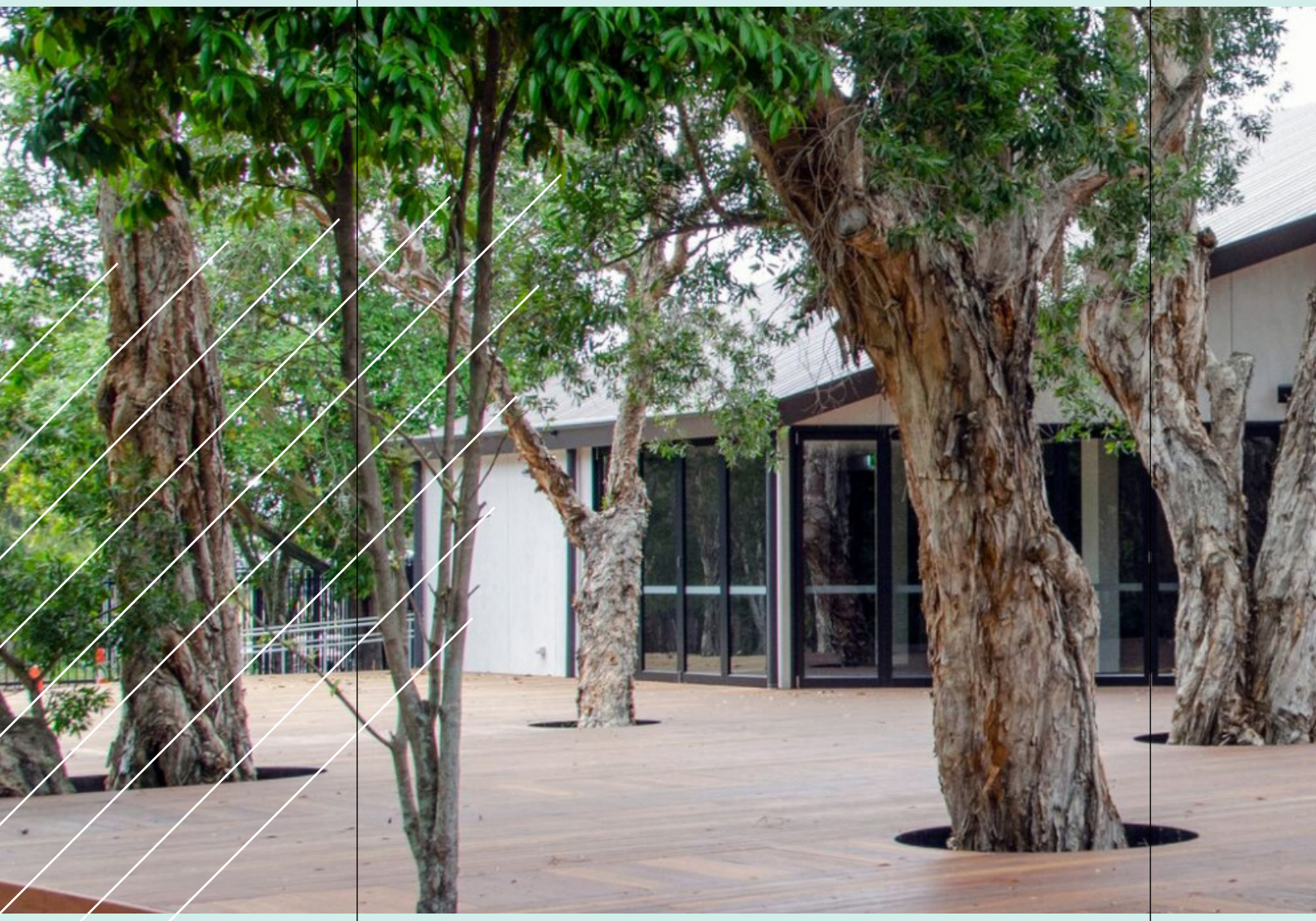


Figure 33: Indicative lot layout for airside access interface. Credit: Hatch RobertsDay

6

Culture and social infrastructure



Murook Cultural Centre. Credit: Port Stephens Council

6.1 Aboriginal heritage

Worimi people are the custodians of the land in the Precinct. Their responsibility to care for Country is respected and accepted as a responsibility that must be upheld.

Whilst land comprising the Precinct has undergone significant modification since European settlement, Aboriginal cultural heritage sites have survived in the sand dunes in the north of the Precinct.

The type of artefacts and their location is consistent with the broader Aboriginal cultural heritage of Williamtown, which features numerous artefacts, potential Aboriginal deposit, hearths, shells and burials in undisturbed areas along creeks, amongst remnant vegetation and in the extensive sand dune system. Other unrecorded sites are likely to exist within the Precinct.

The existing Aboriginal 'Keeping Place' within the Precinct forms part of the Astra Aerolab development and is a place of importance that is recognised and protected.

Aims

- Retain, protect and celebrate Williamtown's proud Aboriginal cultural heritage through the contribution of the local Aboriginal community
- Ensure Aboriginal culturally significant places and artefacts are protected, maintained and enhanced
- Promote development and Precinct design that recognises the connection to Country
- Involve the local Indigenous community including empowering Indigenous people in the planning and delivery of the Precinct
- Consideration of cultural land management practices within the Precinct

Performance criteria

A. For land mapped as a place of high potential for Aboriginal heritage significance (Figure 34) development must avoid adverse impacts to Aboriginal heritage values. Where adverse impacts to Aboriginal heritage values are unavoidable, undertake a salvage program in accordance with an Aboriginal cultural heritage management plan (ACHMP)

B. Protect and mitigate incidental harm to unrecorded Aboriginal heritage values in accordance with the *National Parks and Wildlife Act 1974* (NSW), *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth) and the *Coroner's Act 2009* (NSW)

C. For development on land mapped as a place of Aboriginal heritage significance, the development must seek to interpret Aboriginal heritage values in collaboration with the Aboriginal community with the aim of enhancing significant values and creating a sense of place.

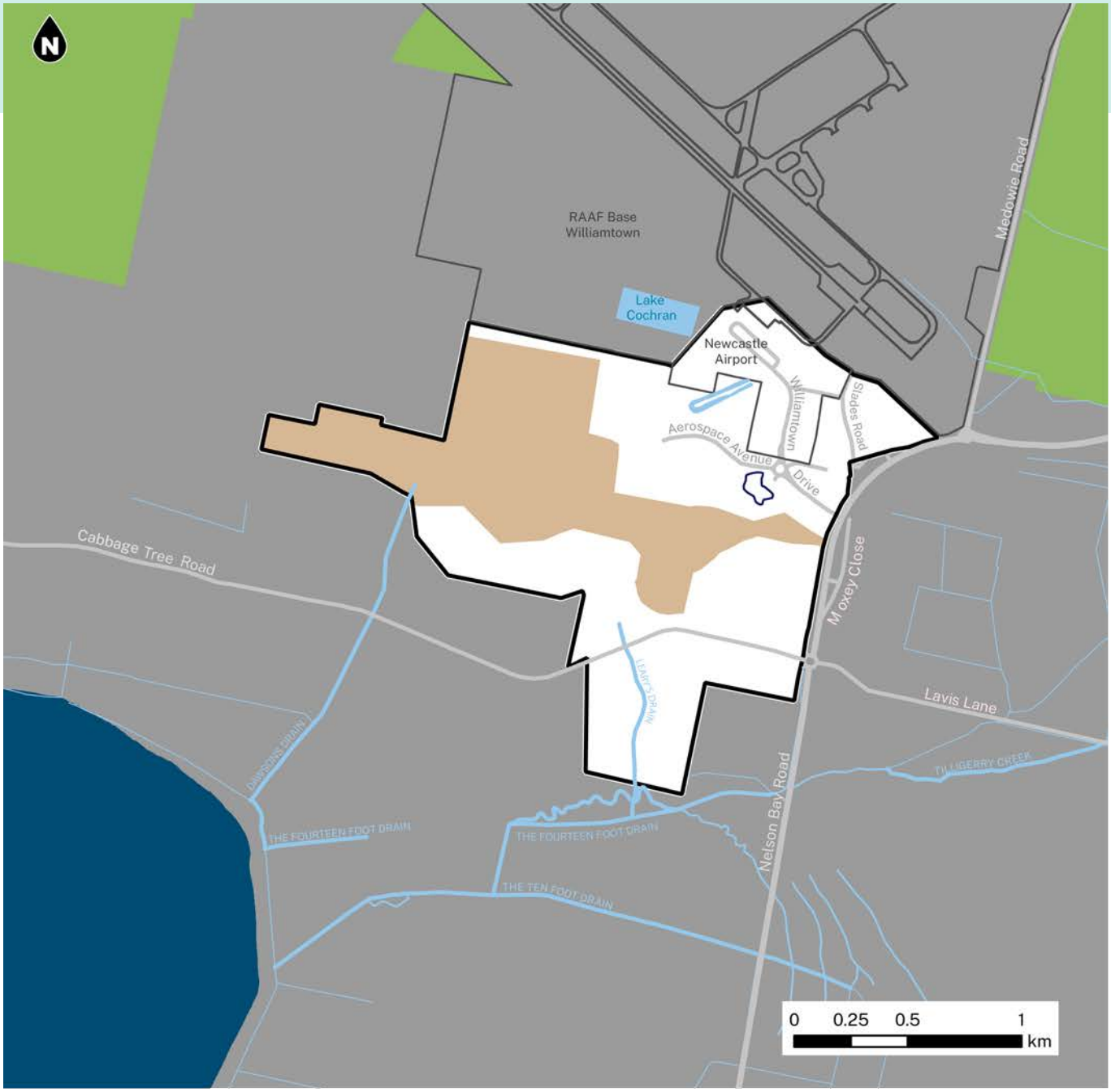


Figure 34: Aboriginal heritage items

- Williamtown SAP boundary
- Waterway
- Roads
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Waterbody
- RAAF Base Williamtown and Newcastle Airport
- Runway and Taxiways
- High Potential
- Aboriginal Keeping Place

6.2 European heritage

The Precinct has been transformed considerably since colonial settlement. Early pastoral and agricultural activities, as well as the later construction of the RAAF Base Williamtown and Newcastle Airport, reshaped the local terrain.

Following revision of the Precinct boundary, the Precinct contains a site of local heritage significance – St Saviour's Anglican Church. RAAF Base Williamtown is also Commonwealth heritage listed (see Figure 36). The Precinct also partly includes the rear of the portion of the land mapped as containing Devon House, a locally listed heritage item. The heritage item itself is located outside of the Precinct.

The church will be impacted by the proposed flood mitigation strategy. Further work is required to determine if the church could be relocated or integrated within the Precinct. The Department will work closely with the local community on this issue.

Aims

- Places of cultural significance should be conserved for present and future generations in accordance with the principle for inter-generational equity, where possible
- Ensure that development in the vicinity of heritage items is designed and sited to protect the heritage significance of the item and its setting
- Any changes to places of cultural significance that may impact their heritage values should consider how to both minimise those impacts and reflect on ways to enhance the significance and understanding of these places or provide suitable alternatives
- The interpretation of the known places of cultural significance within the Precinct should be woven into the design principles for the Precinct

Performance criteria

A. For development on land on which a heritage item is located, or on land that is within the vicinity of land on which a heritage item is located:

   i. Encourage heritage items to be used for purposes that are appropriate to their heritage significance, including adaptive reuse where appropriate

   ii. Maintain the setting of the heritage item including the relationship between the item and its surroundings

   iii. Where possible, minimise the impact of new development adjacent to or within the vicinity of a heritage item

   iv. Consider the importance of setting, views, access and the visual and landscape context during the construction of the Precinct

   v. Protect and interpret non-Aboriginal heritage sites in collaboration with community with the aim of enhancing significant values and creating a sense of place

Figure 35: St Saviour's Anglican Church. Credit: ERM

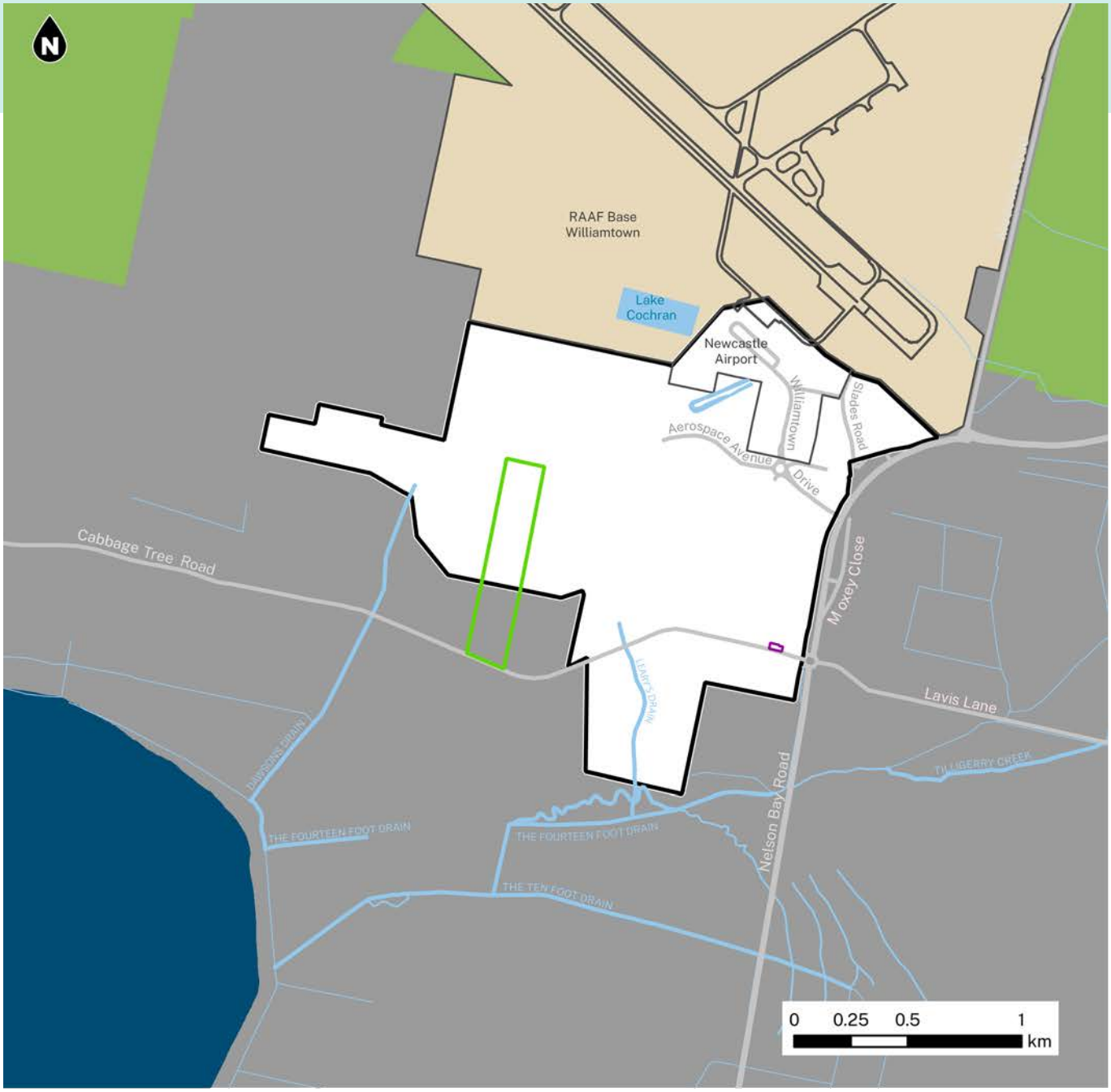


Figure 36: Non-Aboriginal heritage items

- Williamtown SAP boundary
- Waterway
- Roads
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Waterbody
- RAAF Base Williamtown and Newcastle Airport
- Runway and Taxiways

Commonwealth Heritage List Place

- Area Under Assessment

Local Environmental Plan Heritage

- Devon House
- St Saviours Anglican Church

6.3 Social infrastructure

Recreation and open space, together with social and community infrastructure, establishes place-based planning that will create desirable and functional places for workers, visitors and surrounding residents. It is acknowledged that additional social infrastructure is required to support future workers, visitors and the existing population in Williamtown.

The Master Plan recommends key social infrastructure to support the Precinct and the community as illustrated in Figure 38.

Aims

- Ensure appropriate provision of social and community infrastructure to support job creation and economic development in the Precinct
- Establish a health loop connecting the environmental protection area to key places of interest
- Provide for a range of integrated, functional, educational, attractive and accessible open space and recreation areas (both indoor and outdoor) that are connected via walking and cycling paths to the central environmental protection area, Keeping Place and other natural and cultural assets that encourage workers and visitors to meet, connect and foster the community values
- Create various common gathering spaces (active nodes) within the Precinct that enable workers and the community to meet and connect and collocate with employment uses to foster inclusion, amenity, health and wellbeing
- Incorporate and celebrate Designing with Country principles from the Worimi people's local stories in the public spaces, the built environment and activities.
- Create shared collaboration spaces for training and innovation in the ground floor of commerical buildings

Figure 37: View of Fighter World. Credit: Goodthanks Media

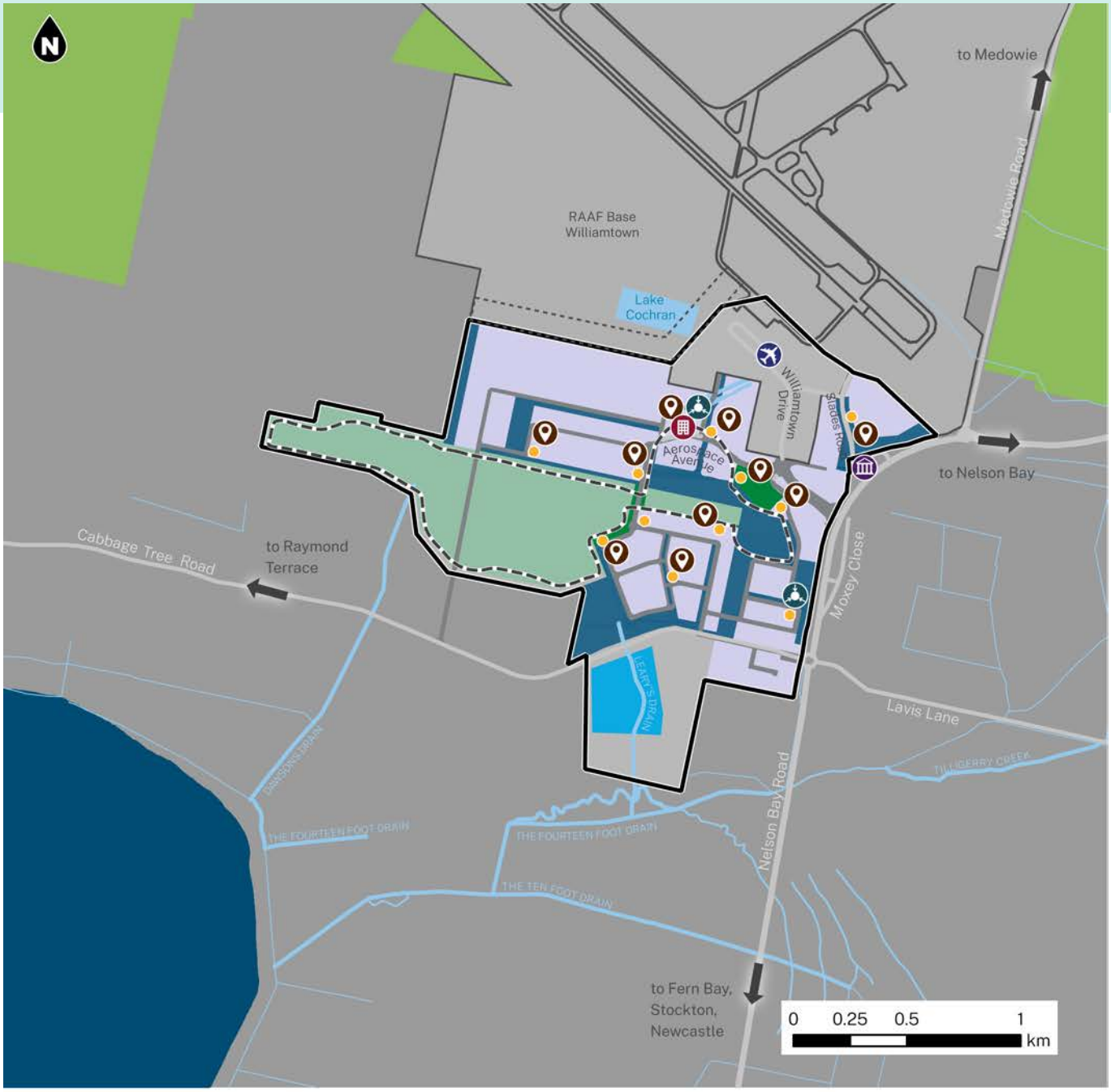
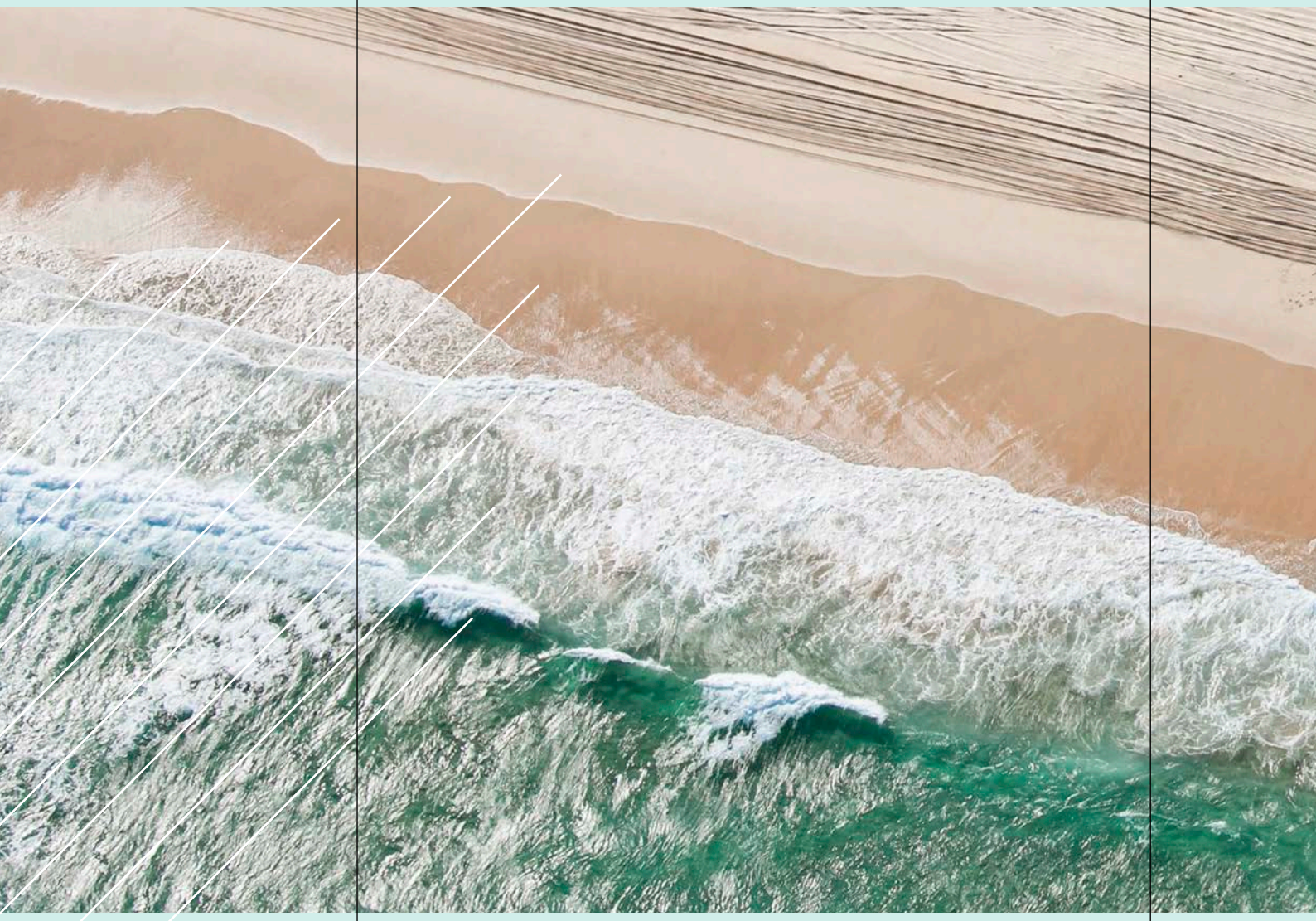


Figure 38: Social infrastructure

- Williamtown SAP boundary (395 hectares)
- Health loop (shared path)
- RAAF Base Williamtown and Newcastle Airport
- Waterbody
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Heritage or green space
- Newcastle Airport
- Williamtown Public Hall
- Activity nodes
- Regional enterprise zone
- Flood mitigation - shallow flood storage
- Drainage and wetlands
- Environmental protection area
- Roads
- Runway and taxiway
- Proposed road
- Proposed unapproved taxiway
- Waterway
- Indoor/outdoor gathering spaces/active recreation spaces
- Future start-up and community spaces
- Commercial centre

7

Environment and sustainability



Stockton Bight sand dunes, Port Stephens. Credit: Destination NSW

7.1 Groundwater and stormwater

Groundwater

The Precinct is underlain by the Tomago Sandbeds, which is managed by Hunter Water Corporation. The Tomago Sandbeds are a critical water source for the Hunter region and provide 20% of drinking water in the Lower Hunter and are important for both ongoing and backup water supply.

Key hydrogeological components of the Precinct include groundwater recharge, presence of groundwater-dependent ecosystems (GDEs), groundwater level variations and flow paths, groundwater quality including contamination, aquifer vulnerability and the discharge to local waterways.

A design challenge of the Master Plan is to not exacerbate the migration of the existing PFAS contamination plume. The Master Plan seeks to ensure that any future development should result in a neutral or beneficial impact (NorBE) on groundwater recharge, quality, and flows.

Stormwater

The existing catchment for the Precinct is predominantly rural and open drains provide stormwater drainage for frequent storm events. These existing drains have limited capacity and overbank flooding occurs in events as frequent as the 50% AEP (1 in 2-year AEP event) during local storm events. The flat terrain of the floodplain within the Precinct also results in significant long periods of inundation (up to 6 to 8 days). Coincidental flooding in the Hunter River and Port Stephens can cause long periods of flooding.

The revised stormwater strategy for the Precinct adopts a distributed approach with Precinct-scale stormwater detention, gross pollutant traps, wetlands and drainage conveyance swales. The water quality system is designed to capture and treat runoff from new development prior to entering the existing waterways, ensuring there is no impact to surrounding sensitive ecosystems and drinking water catchments.

Aims

- Development within the Tomago Sandbeds drinking water catchment is to have a NorBE impact on drinking water quality
- Preserve recharge where feasible and minimise impact on the drinking water catchment
- Minimise water quality and quantity impacts from surface water runoff to sensitive receiving environments including GDEs and sensitive Ramsar wetlands and tidal waterways
- Replicate existing groundwater recharge where possible (with consideration of NorBE requirements) to avoid influencing local groundwater conditions which may impact the existing PFAS plume
- Manage the impacts of additional runoff volumes to drains located within sandy soils and any potential increased exfiltration from drains that may influence the PFAS plume and any influx of PFAS-contaminated groundwater into the drainage system
- Ensure water-sensitive urban design (WSUD) practices are implemented to achieve urban water cycle management objectives
- Ensure that the design and location of drainage infrastructure does not result in a heightened risk of bird strike
- Sediment and erosion control measures are implemented to protect downstream sensitive receptors.

Performance criteria

A. Development located on sandy soils (as defined by council's hydrological soil mapping) to recharge a minimum of 80% of pre-development mean annual recharge, where possible

B. To achieve groundwater quality targets within the drinking water catchment, development must:

   i. Meet or exceed the adopted sensitive catchment targets for mean annual pollutant load reduction (TSS -90%, TP -65%, TN -50%, Gross pollutants -90%)

   ii. Achieve a NorBE impact on drinking water quality

   iii. Satisfy *Guidelines for Development in the Drinking Water Catchments* (HWC, 2017)

   iv. Not permit infiltration from the WSUD devices for the north of the Precinct

   v. ensure treated stormwater will be released to the receiving drainage lines downstream of the drinking water catchment

C. Ensure that stormwater management measures appropriately respond to the potential for these measures to mobilise PFAS impacted groundwater, sediment, soil and surface water

D. Protect high-priority GDEs in accordance with the *Aquifer Interference Policy* (Department of Primary Industries, 2012)

E. Ensure that new development implements WSUD to minimise hydrological impacts to downstream sensitive receptors and treat frequent storm events (generally up to around the 3-month Annual Recurrence Interval event)

F. Ensure that the WSUD features that function as wetlands do not present an unacceptable risk of increased bird strike for airport operations including minimisation of open water zone lengths and steepening banks where appropriate to reduce foraging habitat for animals.

Figure 39: Drainage channel, Williamtown. Credit: Goodthanks Media.

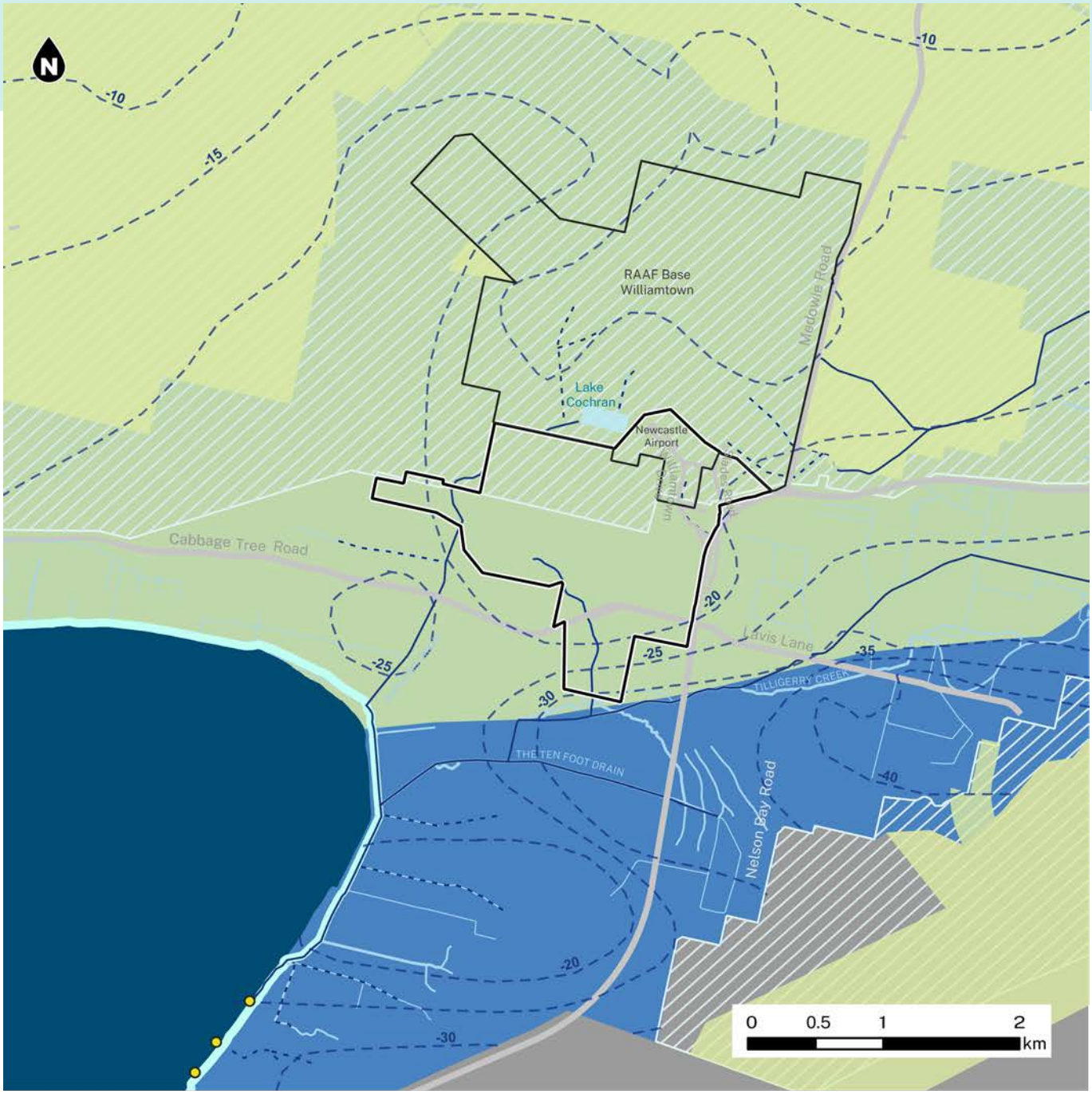


Figure 40: Existing groundwater and stormwater

- Williamtown SAP boundary
- Waterway
- Roads
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Waterbody
- RAAF Base Williamtown and Newcastle Airport
- Flood gates
- Fullerton Cove Levees
- Major Drainage System
- Minor Drainage System
- Aquifer thickness (m)
- Drinking Water Catchments
- Stockton Aquifer
- Tomago Aquifer

7.2 Geotechnical, earthworks and acid sulfate soils

Geotechnical and earthworks

The geological profile and soil landscape of the Precinct present a moderate to high risk to development. Acid sulfate soils (ASS) will likely present a high risk for development in the south-east of the Precinct, while the areas in the north present a lower risk. Figure 42 provides an overall representation of the geological constraints ranking for the Precinct.

A considered approach will be required to balance geological constraints with the inherent environmental challenges including proposed bulk filling, PFAS management, flood impacts, high groundwater levels, foundational depths, utility construction, pavements and roads and acid sulfate soils.

Acid sulfate soils

ASS are natural sediments that contain iron sulphides and are common along the NSW coast. When disturbed or exposed to air these soils can release acid, damaging built structures and harming animals and plants.

The majority of the Precinct is located in a high-risk ASS area. This can potentially impact the durability of buried concrete and other foundation types. The costs associated with safe management of excavations and removal of construction spoil is significantly increased if ASS are present. As bulk filling of the Precinct is required, it is unlikely to encounter ASS or remove off-site unless doing piling over 4 m into newly placed fill.

Aims

- Ensure no additional PFAS migration in soil, groundwater or surface water because of land forming activities as part of the development of the Precinct
- Geotechnical studies must inform issues associated with earthworks and fill staging, ground improvement and settlement, acid sulfate soils, constructability, drainage and basin design and pavement and should utilise existing data available within the Precinct
- Ensure that development minimises the disturbance or exposure of ASS that may cause environmental damage

Performance criteria

A. All earthworks works must, where practical:
   i. prioritise the use of Virgin excavated natural material (VENM) and use fill the subject of a resource recovery order or exemption as necessary
   ii. be carried out in a staged manner to ensure a holistic response to flood mitigation
   iii. prioritise shallow foundations as far as possible
   iv. protect newly placed fill from PFAS migration through an impermeable layer

B. Buildings that require deep foundations should consider the use of methods that minimise the amount of excavated soil and groundwater material treatment required compared to bored piles

C. Underground utilities must be designed to respond to groundwater, PFAS and ASS in accordance with the applicable risk profile

D. Environmental and amenity impacts associated with the transportation, placement, formation and stabilisation are to be managed in accordance with industry best practice – that is, the requirements of *Managing Urban Stormwater Soils and Construction Volume 1* (Landcom, 2004) and Volume 2 (DECC, 2008)

E. Works on land shown in Figure 41: Acid sulfate soils must ensure that they are managed so as to not disturb, expose or drain ASS and cause environmental damage.

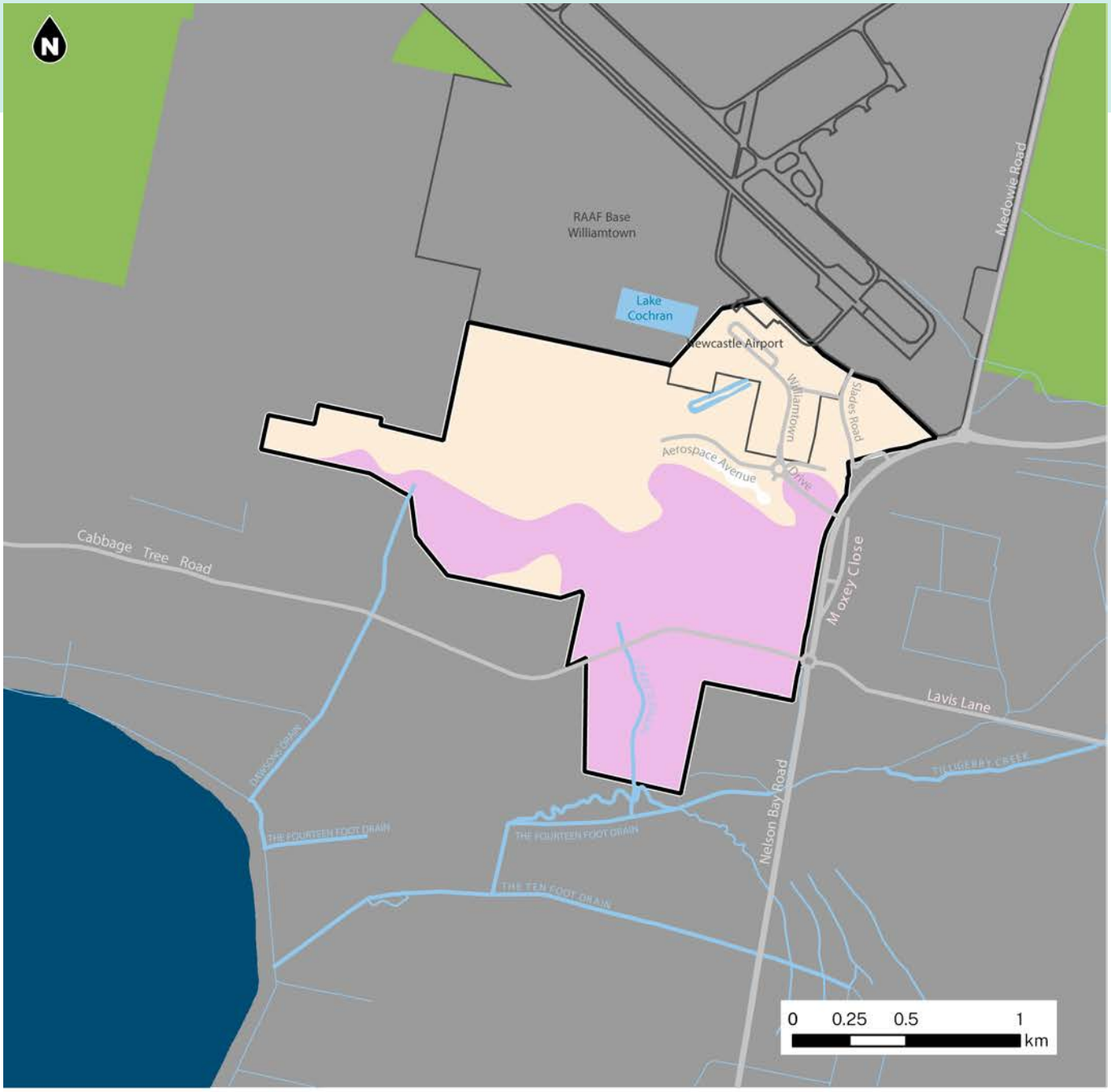


Figure 41: Acid sulfate soils

- Williamtown SAP boundary
- Waterway
- Roads
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Waterbody
- RAAF Base Williamtown and Newcastle Airport
- Runway and Taxiways

Acid Sulfate Soil Risk

- High Risk 2-4 m
- Low Risk above 4 m

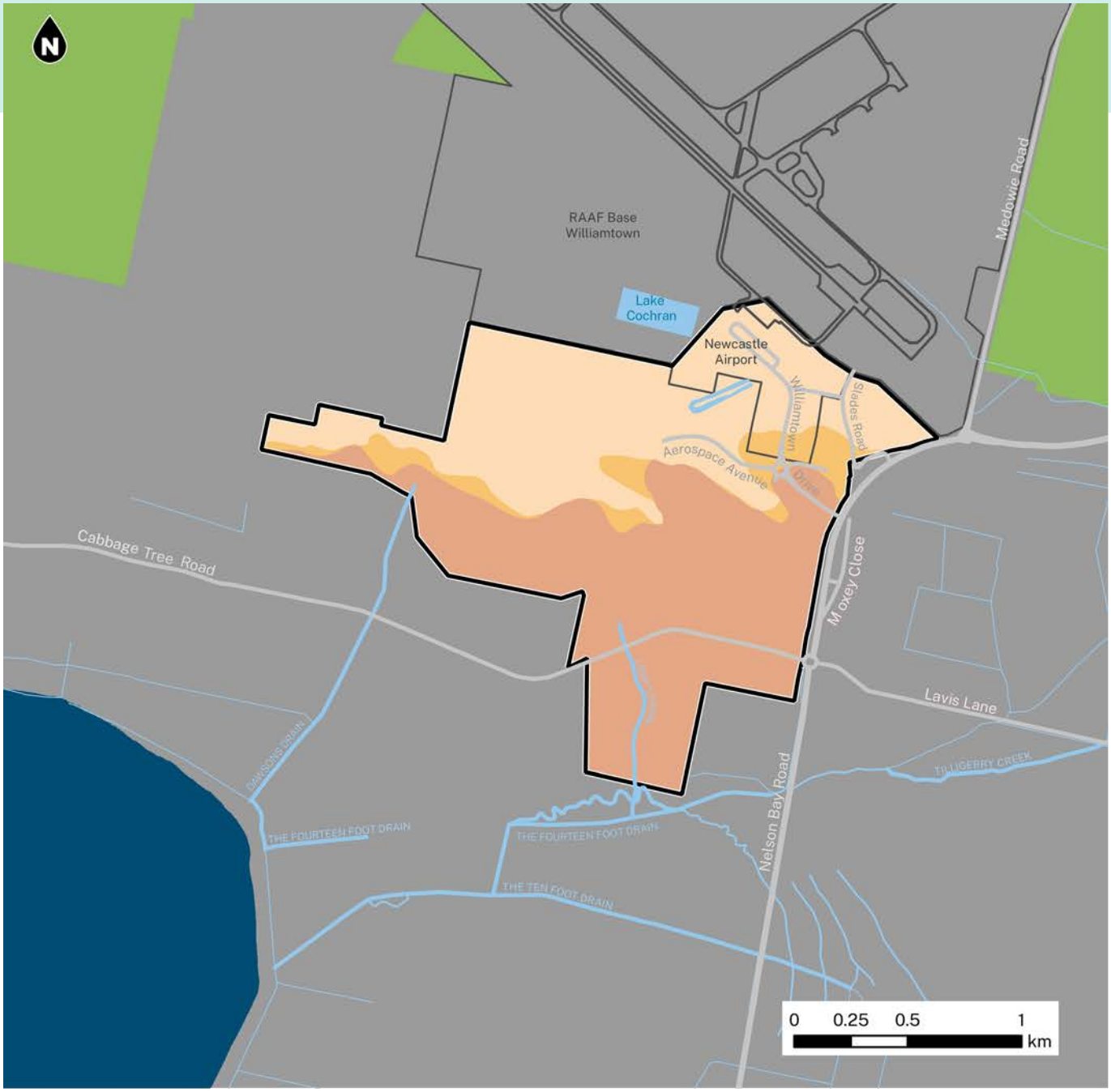


Figure 42: Geotechnical constraints

- Williamtown SAP boundary
- Waterway
- Roads
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Waterbody
- RAAF Base Williamtown and Newcastle Airport
- Runway and Taxiways

Overall Constraints Rating

- 2 Moderate
- 2.5
- 3 High

7.3 Contamination

Per-and poly-fluoroalkyl substances (PFAS)

Soil, sediments, surface water and groundwater are impacted with PFAS within the Precinct.

In 2017, the Williamtown PFAS Management Area Map was issued by the EPA and divided the PFAS impacted region into 3 'Management Areas' where certain activities were prescribed or not recommended (see Figure 43).

The Department of Defence continues to undertake a range of remediation and management activities at RAAF Base Williamtown, to remove PFAS from the environment and to further minimise PFAS migration from the base.

While the Precinct is not a remediation project (as this is the responsibility of the Department of Defence) PFAS-affected soil, sediment, groundwater and surface water will need to be managed within the Precinct during the staged development. Mitigation measures are to be implemented in conjunction with the flooding water cycle management and geotechnical mitigation strategies and serve as a comprehensive approach to these Precinct constraints. The objective of the management measures is to minimise the potential that PFAS is mobilised to areas where it is not currently located.

PFAS contamination within the RAAF Base Williamtown is not regulated by NSW state or local government agencies as it is Commonwealth property.

Non-PFAS contamination

Non-PFAS contamination within the Precinct is managed and monitored by the EPA and planning authorities, including the department and, Port Stephens Council. The EPA regulates the investigation, remediation, and ongoing monitoring of contaminated land to protect human health and the environment where there is a significant risk to these.

Aims

- Ensure PFAS and non-PFAS contamination is managed to prevent harm and avoid unnecessary restrictions on land use by implementing a precautionary approach to dealing with contaminated land
- Ensure all that development adequately addresses contaminated land

Performance criteria

A. As the risk of encountering PFAS is high, passive treatment options will need to be considered downstream of Leary's Drain or the wetlands outlet to treat any trace levels of PFAS that have entered the drainage system prior to release to local waterways

B. Contamination mitigation measures are to be implemented consistent with the flooding, drainage and geotechnical strategies for the Precinct

C. Where required, development in the Precinct is staged in a manner that enables any Department of Defence ongoing management and remediation of PFAS to proceed unimpeded.

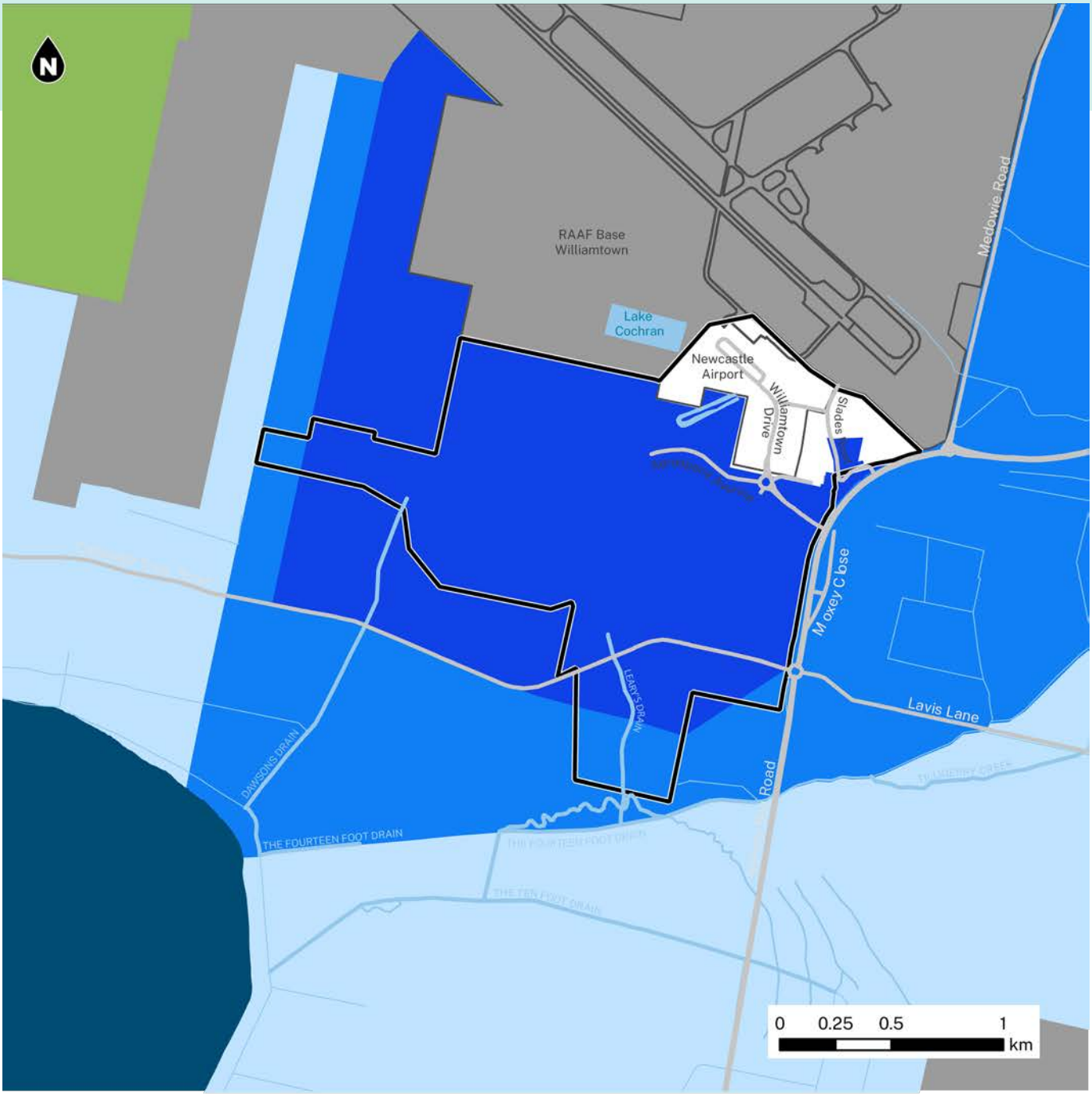


Figure 43: NSW EPA PFAS Management Areas

- Williamtown SAP boundary
- Waterway
- Roads
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Waterbody
- RAAF Base Williamtown and Newcastle Airport
- Runway and Taxiways

NSW EPA PFAS Management Area

- Primary Management Zone
- Secondary Management Zone
- Broader Management Zone

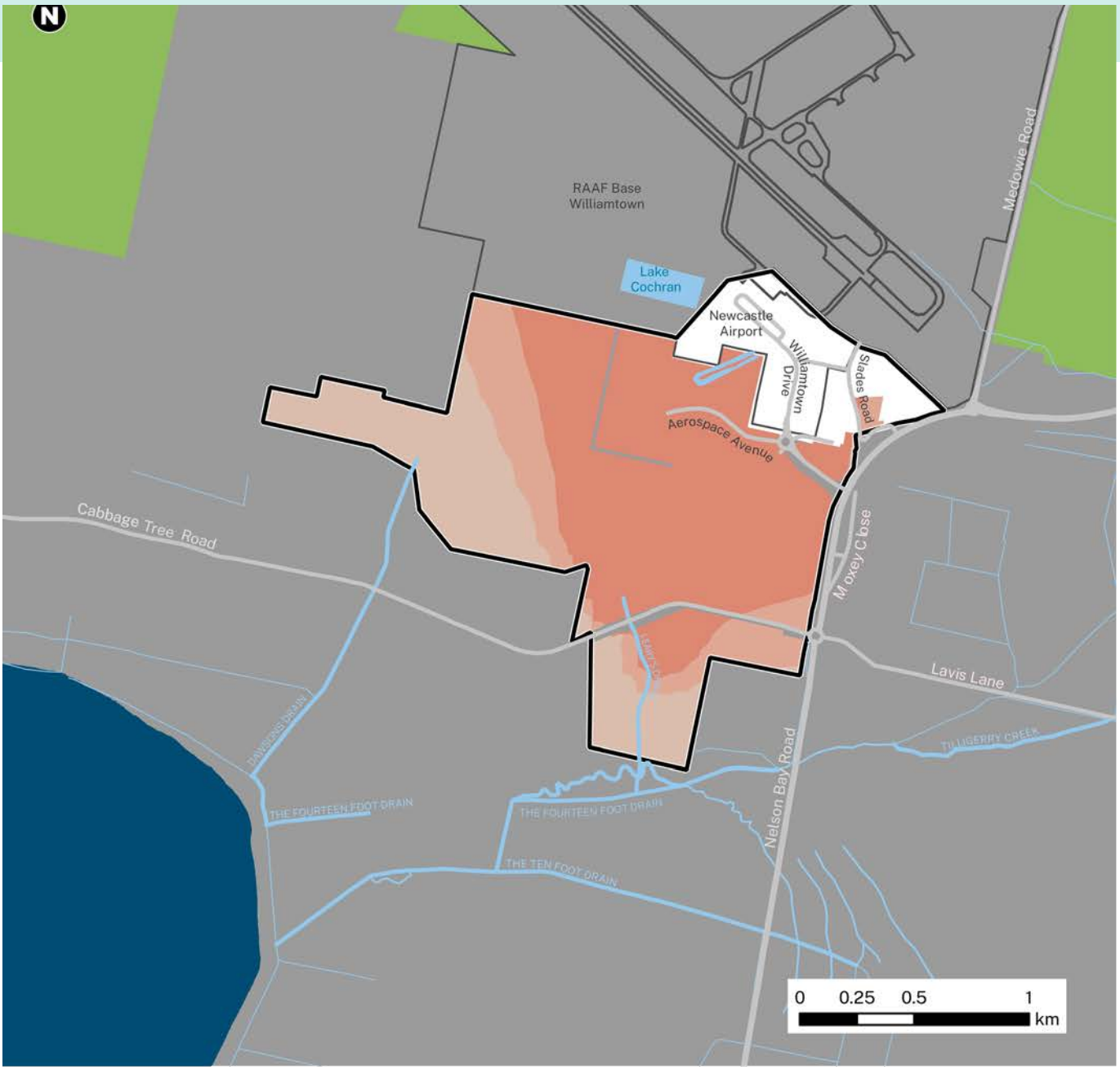


Figure 44: PFAS constrainted areas

- Williamtown SAP boundary
- Waterway
- Roads
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Waterbody
- RAAF Base Williamtown and Newcastle Airport
- Runway and Taxiways

PFAS Constraints

- Highly constrained
- Minimally constrained
- Moderately constrained

7.4 Sustainability and climate change

The Precinct maximises sustainability opportunities to operate as an eco-industrial precinct in accordance with performance requirements set out in the *International Framework for Eco-Industrial Parks* (World Bank, 2021). An eco-industrial park is where businesses work together to achieve enhanced environmental, economic and social performance through collaboration. This collaboration could involve the physical exchange of materials, energy, water and by-products, creating a circular economy where one business' 'waste' becomes another's input.

Climate change has the potential to have a significant adverse impact on the Precinct, including temperature increases with increased hot days, increased rainfall intensity, sea-level rise, increased bushfire risk/ intensity and loss of biodiversity unless adequate mitigation measures are implemented.

To minimise the potential adverse impacts associated with climate change, a set of performance criteria has been developed to reduce this and aid in the Precinct's climate change resilience.

Aims

- Establish the Precinct as an eco-industrial park and adhere to the performance requirements set out in the International Framework for Eco-Industrial Parks (World Bank, 2021)
- Ensure industries within the Precinct maximise efficiencies, reduce emissions and target net-zero emissions
- Encourage a circular economy framework with closed looped systems that maximise resource efficiency where practical and that are in accordance with the *Circular Economy Policy Statement* and *NSW Waste and Sustainable Materials Strategy 2041*
- Maximise active transport mode share across the Precinct through landscape and asset design (for example. active transport corridors) and cycle paths
- Consult with the Worimi LALC regarding the integration of cultural land management practices

Figure 45: Credit: Destination NSW

7.5 Flood risk management

Existing flood impacts

Flooding is a key constraint that impacts the Precinct via 3 different mechanisms:

- **Local flooding** (rain within the Precinct or conveyed into the site from higher land to the north or backing up from lower lands to the south)
- **Regional flooding** (rain falling in the Upper Hunter, conveyed to the Precinct via the Hunter River)
- **Tidal inundation** (tides in Fullerton Cove and Port Stephens)

Enabling works to alleviate flood impacts

To facilitate development within the floodplain, bulk filling to above the regional 1% AEP plus year 2100 climate change additional flood level (varying between 2 to 4 metres within the Precinct) will be required. The filling must strike a balance with not creating flood impacts whilst not mobilising PFAS. This will require the design of floodplain management measures to mitigate and offset flood impacts.

The structure plan has been configured to facilitate a flood detention function, where floodwaters north of the development are discharged across Cabbage Tree Road via internal road crossings on Leary's drain in a controlled manner. This allows for attenuation of peak flows and flood volumes within the Precinct boundary prior to discharge downstream. This concept forms the key component of the flood management strategy for the Precinct.

The design of flood plain management measures to mitigate and offset flood impacts includes a series of flat longitudinal wetlands and channels that convey floods while providing detention. An area to the south of Cabbage Tree Road is proposed to offset any residual flood impacts that cannot be managed on site.

The environmental protection area will also act as a detention basis and flood storage offset area in certain flood events. Any displaced water will be distributed to the environmental protection area and drain through designated floodways. This will limit the distribution of impacts to the floodplain south of Cabbage Tree Road.

Aims

- Minimise the flood risk to life, property and the environment associated with the use of the land in the Precinct
- Allow development on land that is compatible with the flood hazard and flood function of that land considering projected changes as a result of climate change
- Limit post-development peak flood levels flows to pre-development conditions beyond the Precinct boundary
- Maintain or improve the existing flood behavior and flood function
- Create safe and appropriate uses of land in the Precinct and enable safe evacuation from land in a flood event

Performance criteria

A. The Flood Planning Level is the 2100 (1% AEP) plus climate change to ensure land is set aside for the managing of the existing and future flood risk associated with climate change

B. Post-development flood levels match the pre-development peak flood levels, in flood events up to and including the 1 in 100 AEP flood event with climate change

C. The development must adhere to the flood management strategy as proposed in the *Flooding and Water Cycle Management Report* (Appendix 8). If an alternative strategy is proposed, conformance with all relevant performance criteria is required

D. Development must be sited, designed and located to avoid or mitigate the flood risk to people, property and infrastructure such that:

   i. Precinct-wide infrastructure will generally use the regional detention basin to manage flooding events up to the 1 in 100 AEP with climate change

   ii. Flood risks are managed through site-specific built form and design

   iii. Sensitive, vulnerable and critical land uses are avoided in the flood plain

E. Development and uses which involve the storage or disposal of hazardous materials must not be located in the flood planning area unless sufficient information can be submitted to demonstrate that materials are totally isolated from floodwaters.

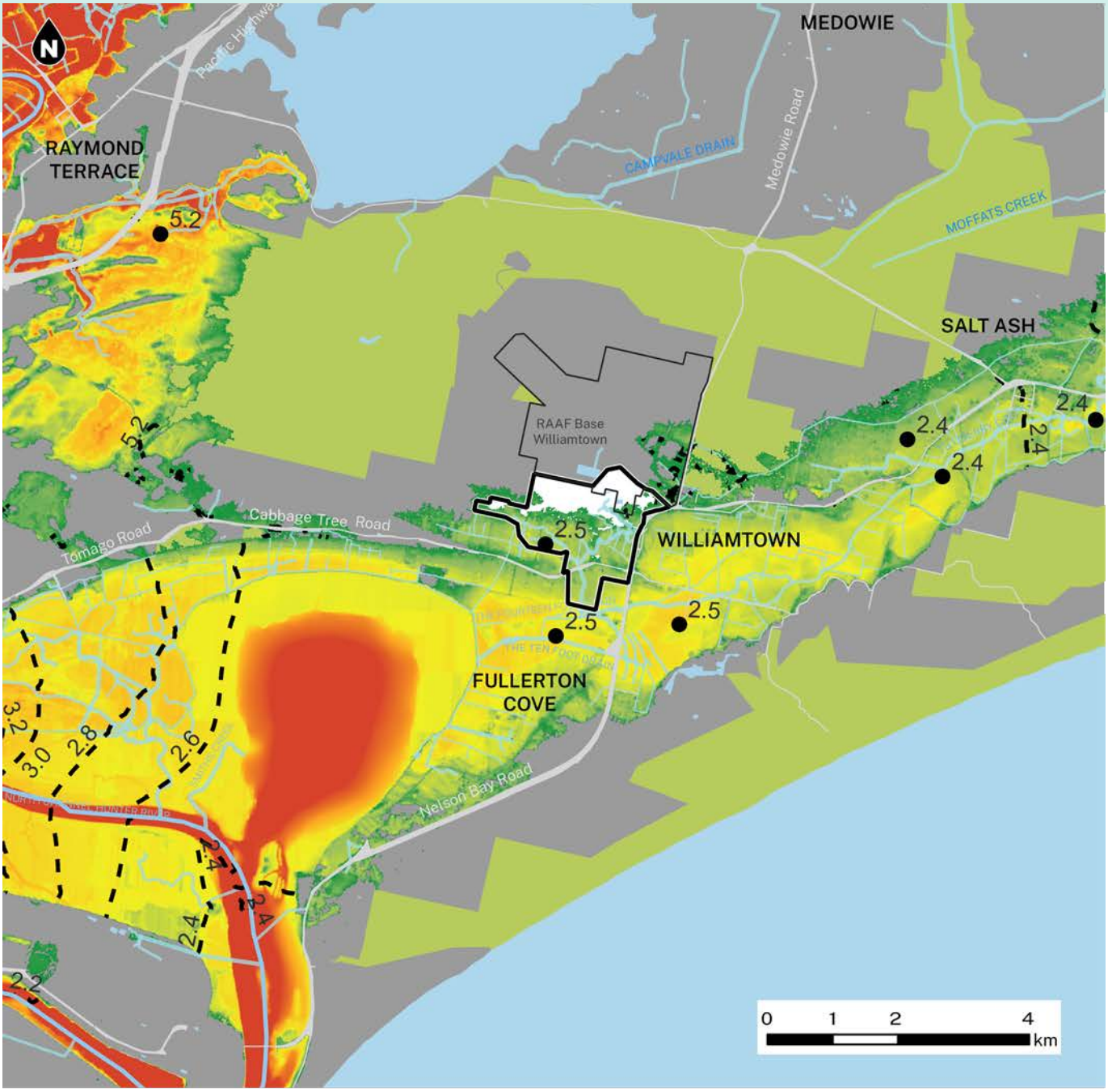


Figure 46: Flood-prone land

- Williamtown SAP boundary
- Waterway
- Roads
- NPWS Reserves
- Waterbody
- RAAF Base Williamtown and Newcastle Airport
- Water Level Spot height
- Water Level Contour (mAHD)

Peak Flood Depth (m)

High : 4

Low : 0.2

7.6 Biodiversity conservation

The Precinct includes areas of high biodiversity values including the critically endangered swift parrot, and the vulnerable koala, squirrel glider, wallum froglet and Earp's gum. The netted bottlebrush may also be present within the Precinct.

The Master Plan protects a large proportion of this native vegetation and the associated biodiversity values through the retention of an expansive environmental protection area in the centre of the Precinct. This will provide an important habitat connection. For those areas of high biodiversity value that are to be retained, strict controls on development are recommended to protect these values.

Existing vegetation forming the developable land north of the environmental protection area will be cleared to facilitate development adjacent to the airfield as this was approved as part of the Astra Aerolab council approval. Appropriate offsetting mechanisms will be required as part of the Astra Aerolab approval.

Aims

- Protect and enhance biodiversity, landscape, cultural and heritage values within the Precinct
- Provide a central environmental protection area that delivers amenity, biodiversity protection, flood mitigation, health benefits and education opportunities
- Preserve and rehabilitate natural and man-made watercourses and GDEs (consistent with drainage and flooding strategy)
- Ensure that surrounding wetlands (including Hunter National Park – Ramsar wetlands) and the hydrology of the Tomago Sandbeds are protected from direct and indirect impacts of development

Performance criteria

A. Development on land within the Precinct and mapped as containing high biodiversity values (see Figure 47: High value biodiversity areas) is to maximise retention of existing biodiversity values including incorporating into development design, landscape and drainage features

B. All development is to:

   i. apply the avoid, minimise and offset methodology, noting some high-value biodiversity areas in the north of the Precinct will need to be modified to facilitate development within the Precinct (as approved as part of the Astra Aerolab approval)

   ii. enhance the biodiversity values of cleared and developed areas by using local native species for landscaping and constructed wetlands, and species that are important to threatened native species including the creation of microhabitats using items removed during development

C. Establishment of long-term objectives and protection mechanisms for the environmental protection area, including:

   i. ongoing monitoring and management of biodiversity values

   ii. establishment of management measures to prevent impacts (that is, release of pollutants and spread of weeds)

   iii. development of controls to decrease the impact of development such as wildlife safe fencing, retention of vegetated buffers and directing artificial lighting and noise away from the area

D. Riparian corridors (see Figure 48: Riparian corridors), are protected and revegetated where possible, whilst ensuring consistency with the proposed flooding and drainage strategy for the Precinct

E. Development within the Precinct and identified as containing wetlands (see Figure 49: Wetlands) must consider whether or not the development is likely to have any adverse impact on:

   i. condition and significance of the existing native fauna and flora on the land

   ii. provision and quality of habitats on the land for indigenous and migratory species

   iii. surface and groundwater characteristics of the land, including water quality, natural water flows and salinity.

Figure 47: High-value biodiversity areas

- Williamtown SAP boundary
- Waterway
- Roads
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Waterbody
- RAAF Base Williamtown and Newcastle Airport
- Runway and Taxiways
- Hunter Water Corporation Owned Land
- High Biodiversity Values
- Astra Aerolab Approval

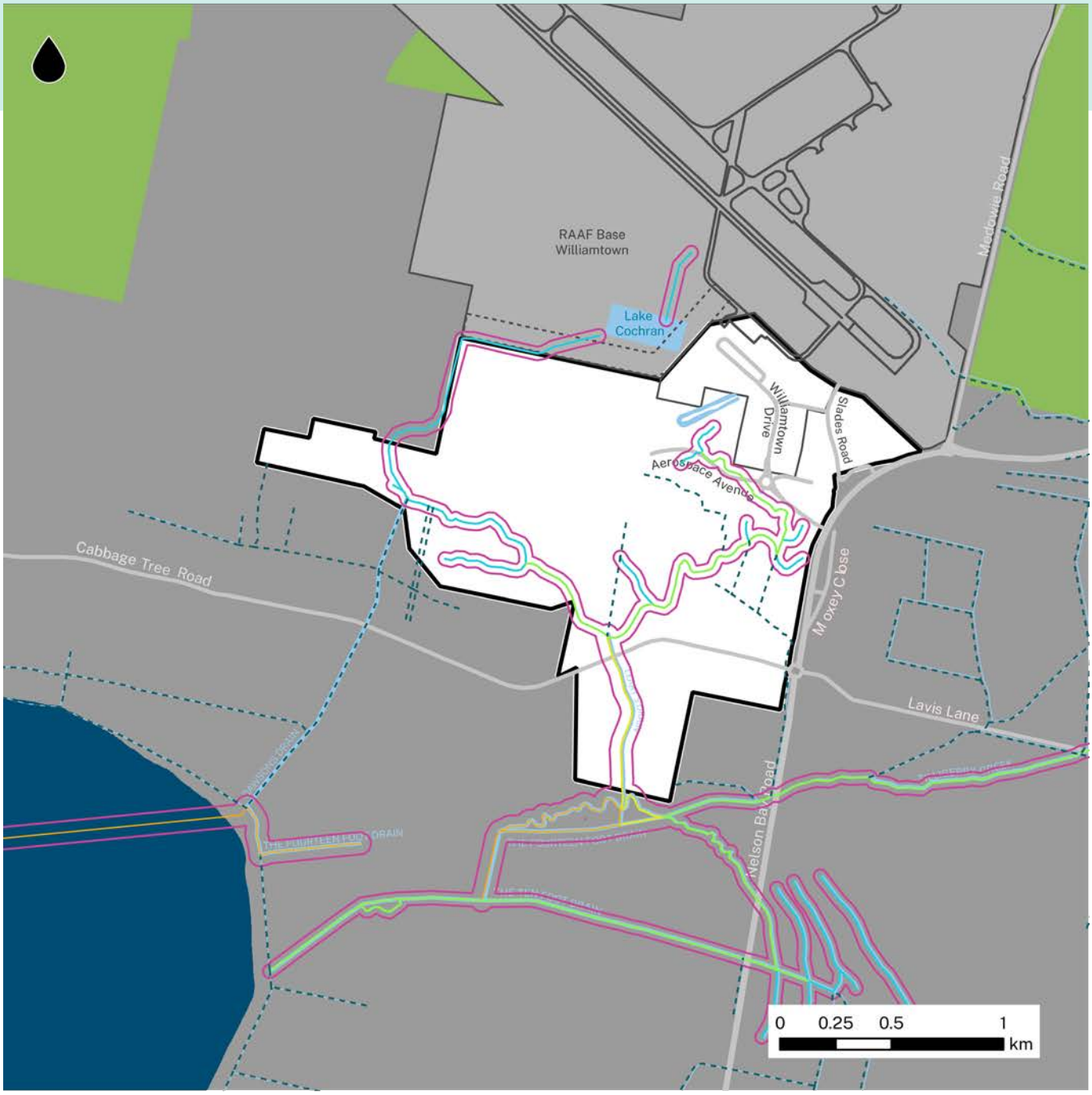


Figure 48: Riparian corridors

- Williamtown SAP boundary
- Waterway
- Roads
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Waterbody
- RAAF Base Williamtown and Newcastle Airport
- Runway and taxiways
- Preliminary Riparian Corridor Extent

Strahler Stream Order

- 0
- 1
- 2
- 3
- 4

**The Strahler stream order applied in this figure is indicative only and Strahler stream order classification is to be determined by reference to Schedule 2 of the Water Management (General) Regulation 2018, to determine the stream order of a stream for the purpose of the Regulation.*

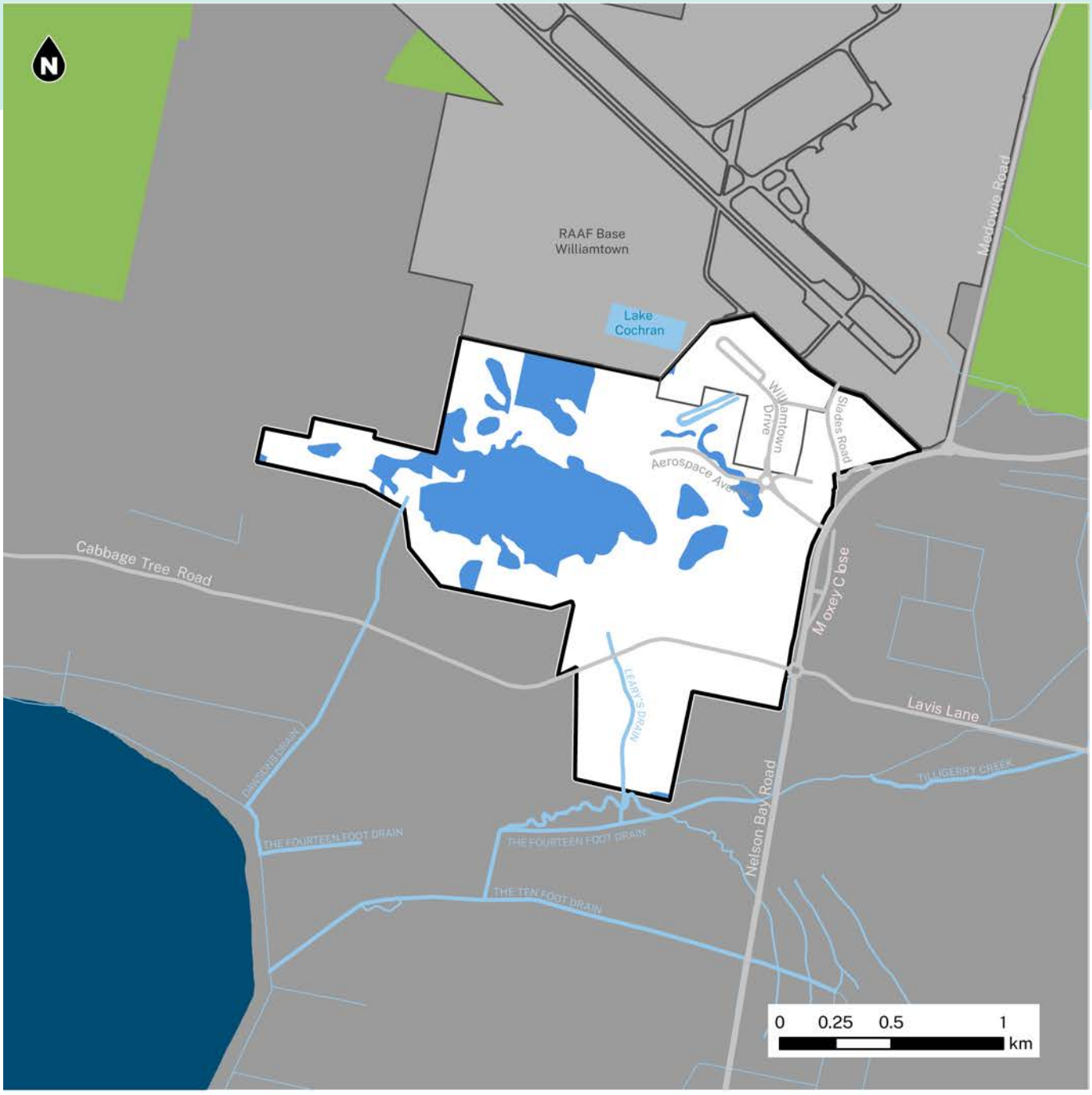


Figure 49: Wetlands

- Williamtown SAP boundary
- Waterway
- Roads
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Waterbody
- RAAF Base Williamtown and Newcastle Airport
- Runway and taxiways
- Wetlands

Note: Source of wetland mapping within the SAP is PSLEP

7.7 Bushfire

The Precinct is mapped as wholly bushfire prone land (excluding the Newcastle Airport), containing category 1, 2 and 3 vegetation (Figure 50: Bushfire prone land) or their associated buffer zones (Figure 51: Bushfire protective measures). The bushfire prone land map is the trigger for consideration of bushfire protection measures for all development. It is acknowledged that existing bushfire prone land mapping certified by the Commissioner of NSW Rural Fire Service will be required to be updated as the Precinct develops.

The vegetation that will have the greatest influence on bushfire behaviour are the areas of retained Coastal Swamp Forest within the environmental protection area and the large areas of Forested Wetlands within the Hunter Water-owned lands outside of the Precinct to the north-west. They are characterised as being generally continuous and highly combustible. The regional climatic conditions may support crown fires.

Vegetation at the centre of and in the northern portion of the Precinct is identified as Category 1 whilst the remainder of the Precinct is primarily identified as Category 3 under the Port Stephens Council Bushfire Prone Land Map. Cleared lands to the east, south and west are similarly identified as Category 3.

Aims

- Protect life, property and community assets from bushfires
- Minimise the impacts of development in relation to bushfires
- Development must conform to the specifications and requirements of Planning for Bushfire Protection (NSW RFS 2019)
- Consideration of cultural land management practices including traditional cultural burning practices were considered appropriate.

Note: The Rural Fires Act 1997 will prevail over the Precincts–Regional SEPP, which means that special fire protection purpose (SFPP) developments such as childcare facilities cannot be complying development on bushfire prone land.

Performance criteria

A. All development is to comply with *Planning for Bushfire Protection 2019* (NSW RFS 2019) and relevant environmental approvals required under the BC Act and/or *Environment Protection and Biodiversity Conservation Act 1999* (Cth)

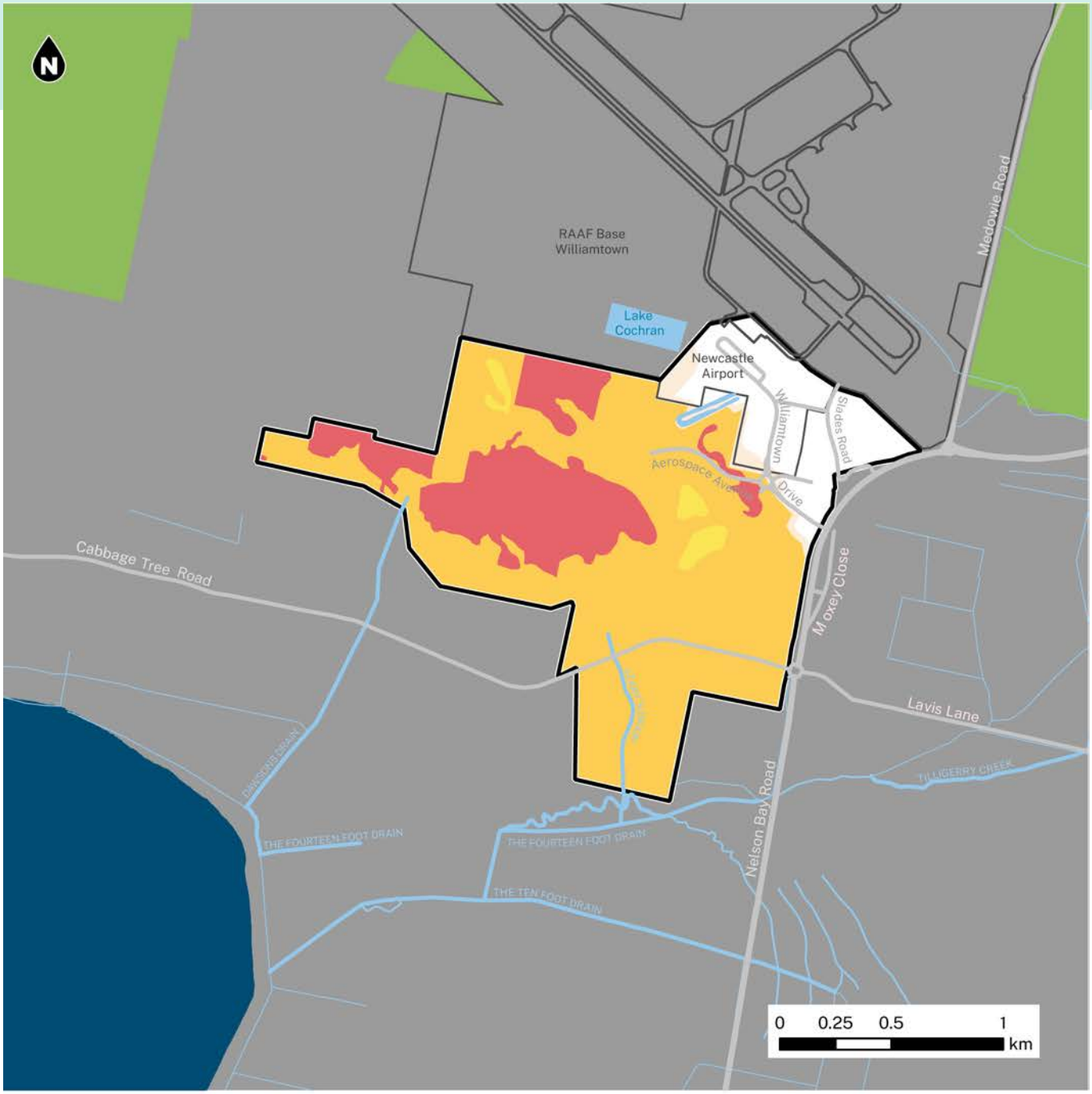


Figure 50: Bushfire prone land

- Williamtown SAP boundary
- Waterway
- Roads
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Waterbody
- RAAF Base Williamtown and Newcastle Airport
- Runway and Taxiways

Bushfire Prone Land

- Vegetation Buffer
- Vegetation Category 1
- Vegetation Category 2
- Vegetation Category 3

Note: The bushfire Prone Land is prepared as a visual presentation of land that can support a bus fire or is subject to bush fire attack and is not bushfire prone land map certified by the Commissioner of the NSW Rural Fire Service for Section 10.3(2A) of the Environmental Planning and Assessment Act 1979.

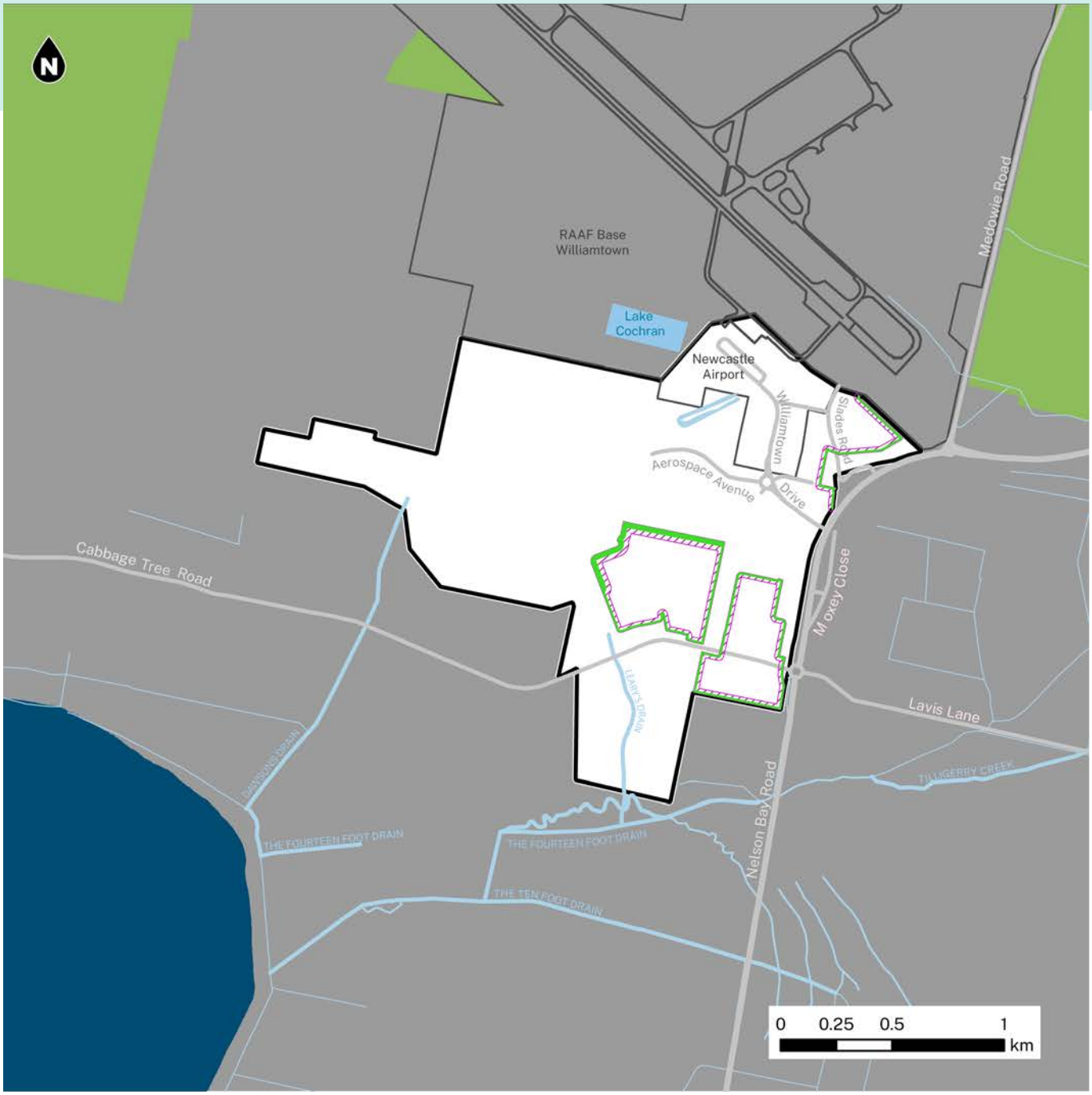


Figure 51: Bushfire protective measures

- Williamtown SAP boundary
- Waterway
- Roads
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Waterbody
- RAAF Base Williamtown and Newcastle Airport
- Runway and Taxiways

Asset Protection Zones

- BAL 12.5
- BAL 29

7.8 Air quality and odour

RAAF Base Williamtown, Newcastle Airport, and future industrial uses are the main emission sources that will impact air quality and odour in the Precinct. The proposed expansion of the airport has been considered as part of the Master Plan including additional aircraft movements and larger aircraft in 2036; however, ongoing monitoring at the airport will remain the responsibility of Newcastle Airport.

To mitigate and manage air quality and odour impacts from existing sources and proposed uses within the Precinct, site-specific controls have been developed as well as a cumulative precinct performance measures. This approach provides certainty, aids in monitoring emissions, accounts for cumulative impacts and may avoid the need for individual modelling for each development and will provide greater protection from unacceptable impacts.

Aims

- Maintain air quality and amenity for people who work in the Precinct and live near the Precinct and its surrounds
- Ensure that development within the Precinct minimises air quality and odour impacts
- Ensure appropriately scaled uses that do not adversely impact the RAAF Base Williamtown and Newcastle Airport operations
- Ensure the ongoing monitoring of the air quality and odour for development within the Precinct

Performance criteria

A. Air emissions resulting from development must not:

   i. cause environmental harm or nuisance

   ii. expose surrounding land uses to concentrated levels of air contaminants or unreasonably affect the amenity and environmental quality of the locality.

B. Proposed sensitive land uses are adequately separated from existing land uses (RAAF Base Williamtown and Newcastle Airport) that produce air and odour emissions.

C. Development is to be in accordance with *Protection of the Environment Operations Act 1997* (POEO Act) and other EPA guidelines for air quality and odour and technical framework: *Assessment and management of odour from stationary sources in NSW*.

7.9 Noise and aeronautical limitations

Noise

Noise sources within and surrounding the Precinct are well documented and include the existing aircraft noise from the RAAF Base Williamtown and Newcastle Airport and several surrounding quarries and sand mining operations. These sources have the potential to impact health, amenity, and land-use compatibility if existing noise mitigation strategies to achieve noise goals are not implemented.

Future employment uses within the Precinct (in addition to existing noise sources) have the potential to generate noise from construction, operation and transportation. To minimise any impacts, a set of performance criteria has been developed to mitigate any future noise impacts from the Precinct. These performance measures aim to ensure that future uses located proximate to the existing high-noise activities are sited and designed such that all internal spaces are in accordance with the current Australian Standards.

To ensure the cumulative impacts of any development within the Precinct are considered to meet noise goals, a noise management precinct (NMP) as defined by the EPA's Noise Policy for Industry 2017, is a recommended management approach. An NMP allows noise impacts from multiple premises within a defined area (that is. the Precinct) to be managed as a single area. This mechanism increases flexibility in how noise impacts are managed without stifling future development. This would apply to the Precinct only, and not the existing uses outside of Precinct, including the airport where noise monitoring would continue to be the responsibility of RAAF Base Williamtown and Newcastle Airport.

Aeronautical limitations

The Precinct has specific aeronautical constraints related to the RAAF Base Williamtown and Newcastle Airport. These include constraints associated with aircraft noise, bird strike risk (landscaping and waste), extraneous lighting, obstacle or height limitations and windshear.

The National Airports Safeguarding Framework (NASF) developed in 2012 includes a set of guiding principles relating to aircraft noise, windshear, wildlife strike, wind turbines, lighting distractions, protected airspace, communication equipment, helicopter landing sites and public safety areas. The guiding principles of NASF that relate to the Precinct are reflected in the design and land uses in the Precinct.

The federal, state and local government regulatory frameworks recognise the need to protect the land and airspace around air transport facilities and limit the potential adverse impacts that these facilities may have on amenity and health.

Aims

- Manage the emission of noise from development within the Precinct for people who work and visit the Precinct and its surroundings
- Ensure the ongoing monitoring for noise performance within the Precinct
- Ensure all development within the Precinct is in accordance with the POEO Act and the EPA's *Noise Policy for Industry 2017*
- Ensure that the RAAF Base Williamtown and Newcastle Airport are not compromised by development that constitutes an obstruction, hazard or potential hazard to aircraft flying in the vicinity

Performance criteria

A. Land uses that are sensitive to the adverse effects of aircraft noise are appropriately located within the Precinct to limit adverse impacts as far as possible (that is. Australian Noise Exposure Forecast (ANEF) -25 -30 ANEF contour band in the south of Precinct). Noise-sensitive land uses are to be positioned appropriately within the Precinct to limit exposure to existing noise-generating sources

B. Provision of buffer distances (where required) should be prioritised between a particular industry and sensitive land uses, or between industrial uses and sensitive land uses, to avoid or minimise land-use conflicts both inside and outside of the Precinct. Where it is not practical to provide a buffer, the acoustic design of the building envelope must be employed

C. All development (including construction works) is to ensure that the generation of noise and vibration does not cause environmental harm or nuisance to adjoining properties or other noise-sensitive land uses

D. Future development within ANEF contours (see Figure 52: ANEF contours) is required to adhere to the compatibility guide included in the Noise Assessment Report (Section 8) and in accordance with Australian Standard *AS2021–2015 Acoustics — Aircraft noise intrusion — Building siting and construction* (AS2021-2015).

E. Development is constructed to achieve indoor design sound levels as per the Indoor Design Sound Levels for Determination of Aircraft Noise Reduction in AS 2021–2015

F. The operation of RAAF Base Williamtown and Newcastle Airport is protected by ensuring:

   i. The height of buildings, structures (including stacks), landscaping and cranes do not create a hazard to the safe navigation of aircraft, refer to Figure 53: Obstacle limitation surface

   ii. Land uses that are sensitive to the adverse effects of aircraft noise are appropriately located

   iii. Development (including drainage and landscaping), does not attract wildlife which would create a safety hazard to the operations of the airport

   iv. Lighting and reflective surfaces must not cause distraction or confusion to pilots due to its configuration, pattern or intensity or prevent clear reception of aerodrome lights or signals (see Figure 55: Extraneous lighting)

   v. Windshear implications are considered with any future development within the Precinct for all development within the Windshear Map (Figure 54: Airport windshear assessment trigger)

G. Development must not:

   i. Create a permanent or temporary physical or transient obstruction in the protected operational airspace and must comply with the *Airports Act 1996* and *Airports (Protection of Airspace) Regulations 1996*

   ii. Generate turbulent emissions or impact visibility or engine operation in the operational airspace

   iii. Have an adverse impact upon communication, navigation and surveillance systems.

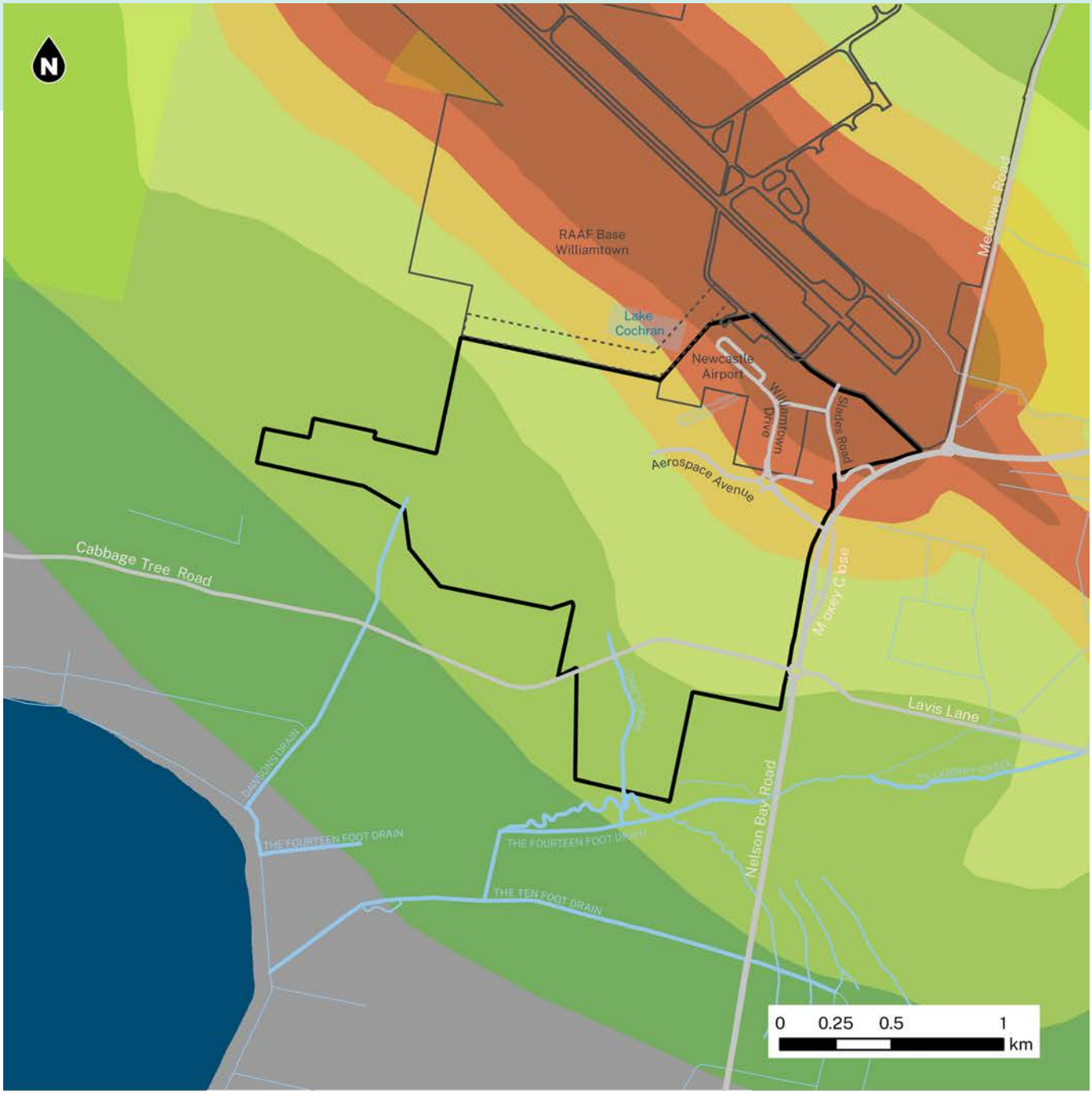


Figure 52: ANEF contours

- Williamtown SAP boundary
- Waterway
- Roads
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Waterbody
- RAAF Base Williamtown and Newcastle Airport
- Runway and taxiways

ANEF Contour Band

- 20-25 ANEF
- 25-30 ANEF
- 30-35 ANEF
- 35-40 ANEF
- 40-45 ANEF
- 45 ANEF

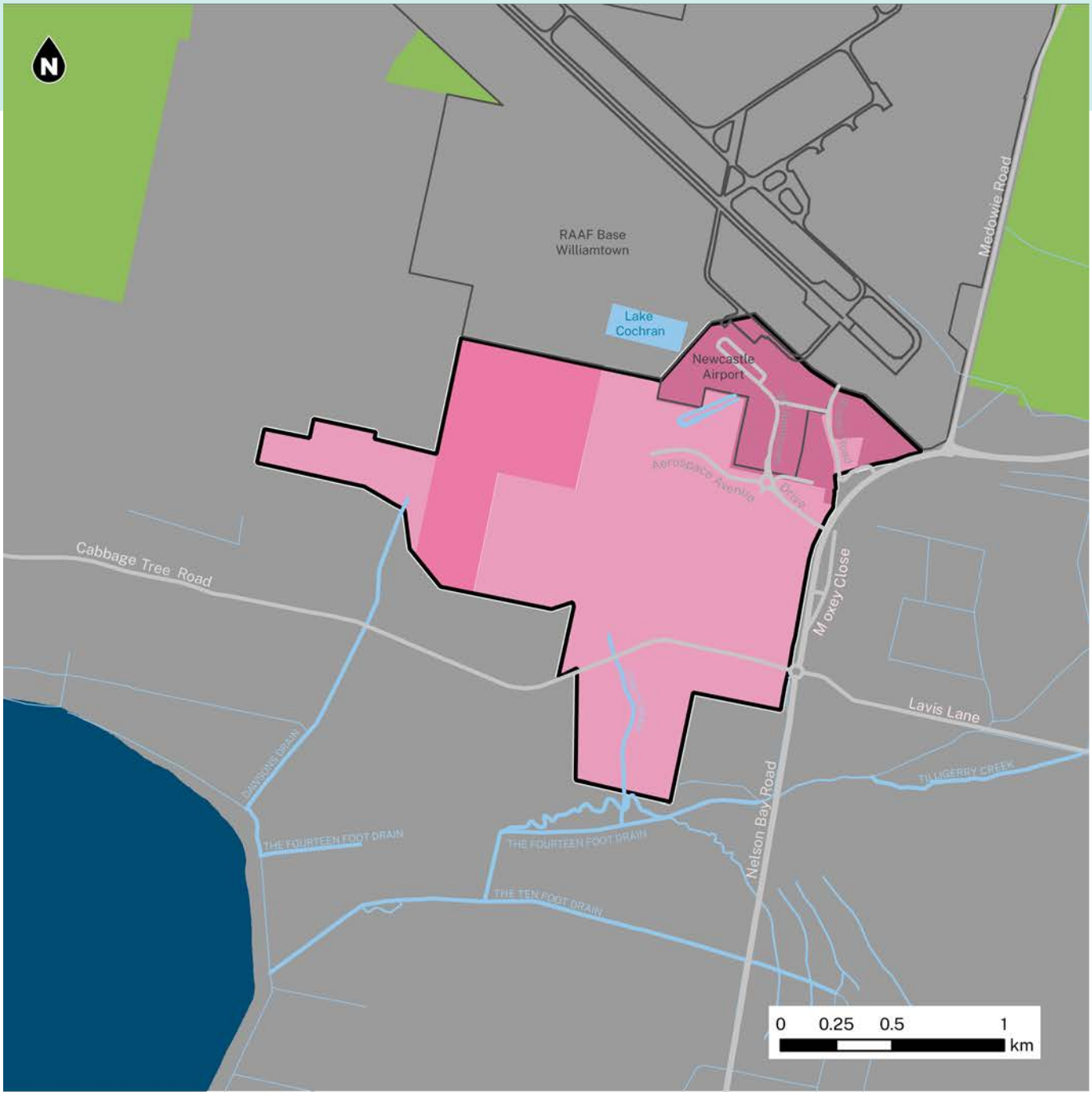


Figure 53: Obstacle limitation surface

- Williamtown SAP boundary
- Waterway
- Roads
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Waterbody
- RAAF Base Williamtown and Newcastle Airport
- Runway and Taxiways

Height Trigger

- Commonwealth (Defence) Owned Land
- Refer all structures
- Refer structures higher than 7.5m

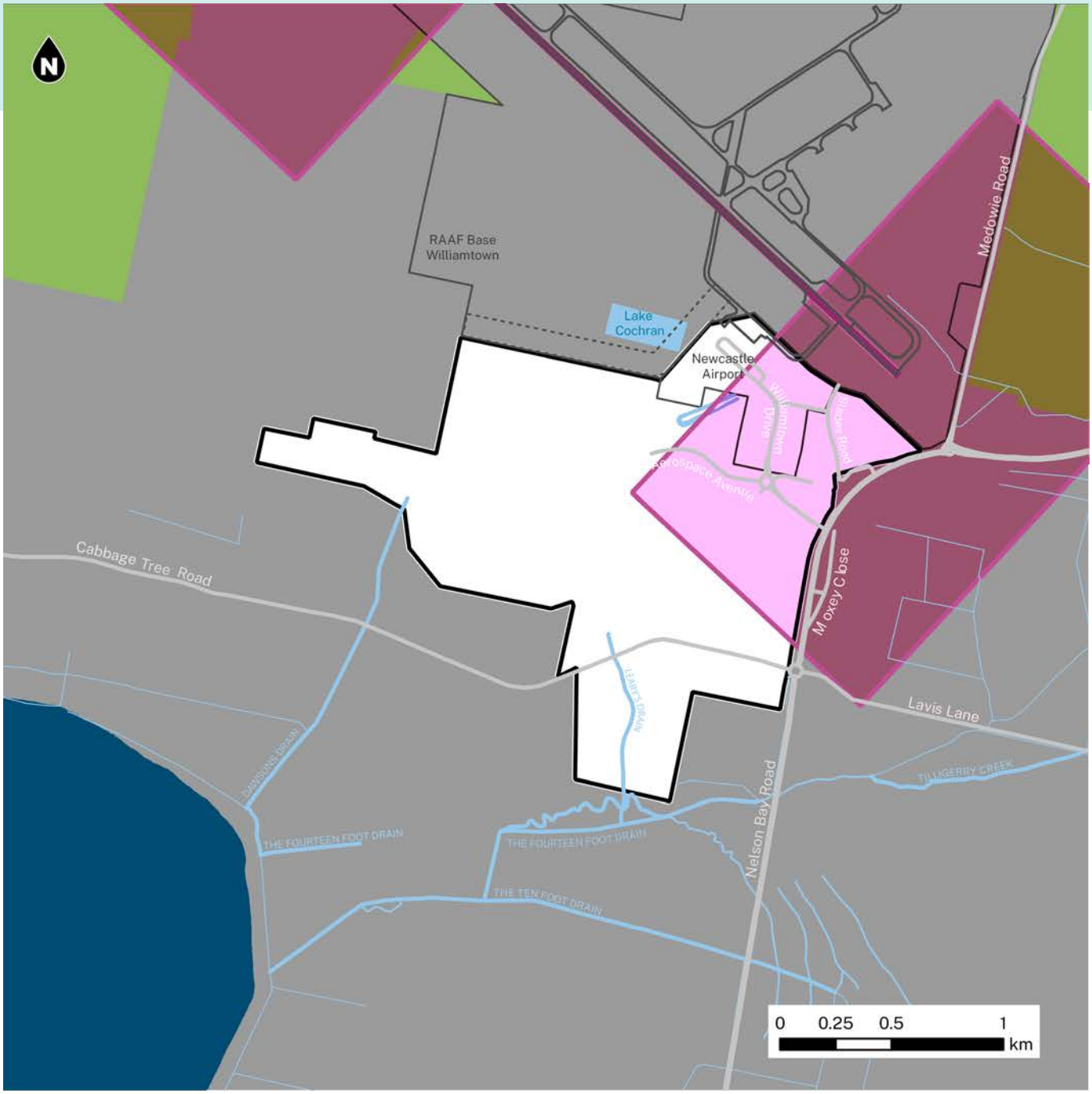


Figure 54: Airport windshear assessment trigger

- Williamtown SAP boundary
- Waterway
- Roads
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Waterbody
- RAAF Base Williamtown and Newcastle Airport
- Runway and Taxiways
- Runway
- Trigger Area

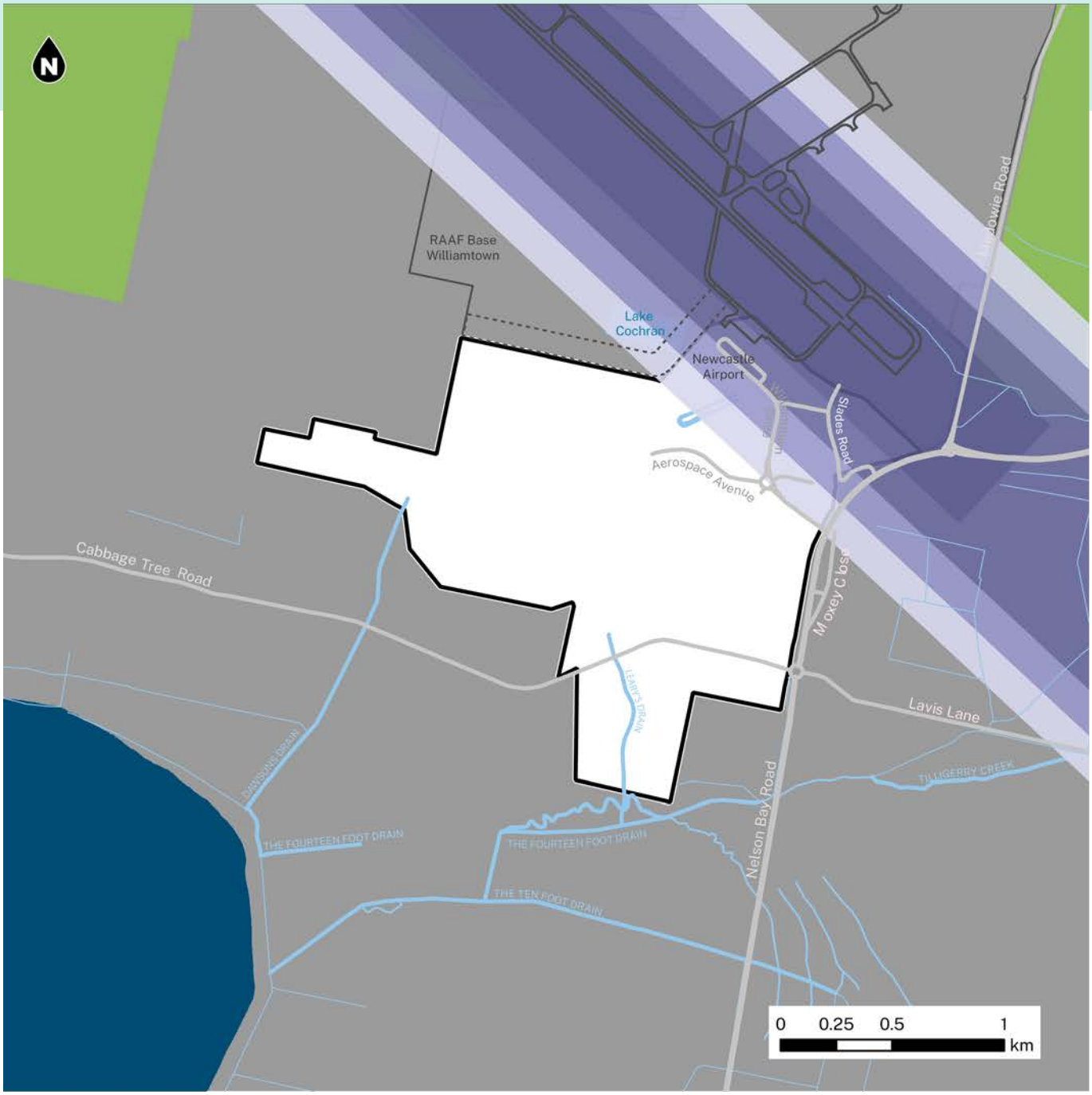


Figure 55: Extraneous lighting

- Williamtown SAP boundary
- Waterway
- Roads
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Waterbody
- RAAF Base Williamtown and Newcastle Airport
- Runway and Taxiways

Civil Aviation Safety Authority (CASA)

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

7.10 Land-use safety

To support streamlined planning, and to minimise the potential for land-use safety conflict as the Precinct develops, careful consideration and detailed land-use safety assessment has guided the Master Plan.

Ensuring the Precinct is a safe place for workers and the community and preventing the introduction and spread of diseases or animal and plant pests, given the proximity to Newcastle Airport and freight and logistics uses, are key outcomes for the Precinct.

For any potentially hazardous and offensive development, Chapter 3 Hazardous and offensive development of the State Environmental Planning Policy (Resilience and Hazards) 2021 applies and provides the framework for assessing and managing risks. For any potentially hazardous and offensive development that is proposed to be undertaken as complying development, the development must meet the requirements that are set out in the Precincts–Regional SEPP and the Master Plan.

Any development that is determined to be hazardous or offensive, is prohibited in the Precinct.

Aims

- Ensure that potentially hazardous and potentially offensive industries are appropriately managed to protect human health and the biophysical environment.

Performance criteria

A. Prior to an Activation Precinct Certificate being issued, potentially hazardous development must be identified as either low, medium or high risk by the department

B. Potentially hazardous development that is high risk is not to be complying development and will require a development application

Koala sanctuary, Port Stephens, Credit: Destination NSW

8

Transport and infrastructure

Stockton Bridge looking north towards Fullerton Cover. Credit: Defence Housing Australia.

8.1 Transport network

The upgrade of RAAF Base Williamtown runway to a Code E runway will enable larger aircraft with higher passenger numbers, will increase both air freight and passenger capacity, and will open up the Hunter region to a number of new global destinations such as North Asia, the Pacific, the Middle East and North America. The Precinct seeks to capitalise on the opportunities associated with freight and logistics, new export opportunities, defence and aerospace and also increased tourism potential with Newcastle Airport being the gateway to the Hunter Region.

Future Fast Rail providing a high-speed rail connection between Sydney and Newcastle could also form part of the future transportation mix in the Hunter region. The Precinct will benefit from the significant improvements in travel times and regional connectivity, and frequent transport connections to any future station location would be encouraged.

With private vehicle usage the predominant form of transport in the Precinct, the Master Plan seeks to encourage improvements to both public and active transport networks, predominantly more frequent bus services to better connect the Precinct to surrounding centres.

Enabling infrastructure

Cabbage Tree Road upgrade

- Improvements were undertaken for a 600 m section of Cabbage Tree Road at Williamtown between Barrie Close and Nelson Bay Road by Port Stephens Council on behalf of Transport for NSW
- The works improved the pavement condition and increased the design life of the road

Williamtown Drive

- Construction of a 5-way roundabout at Williamtown Drive to enable Stage 1 of the Astra Aerolab development

Nelson Bay Road upgrades

- Several sections of Nelson Bay Road corridor connecting to the Precinct have been upgraded by Transport for NSW including:
  - Bobs Farm to Anna Bay section completed in 2015
  - Medowie Road intersection upgrade completed in 2019
  - Lemon Tree Passage Road intersection upgrade completed in 2020
- An additional upgrade to Nelson Bay Road between Bobs Farm and Williamtown is detailed below and is in the planning phase

Stockton Bridge upgrade

- Stockton Bridge provides a critical link over the Hunter River on the main transport route between Newcastle and the RAAF Base Williamtown and Newcastle Airport
- Stockton Bridge underwent a $6m upgrade in 2020–21

Planned infrastructure

Nelson Bay Road upgrade (Bobs Farm to Williamtown)

- $275m Transport for NSW project that includes improvements to Nelson Bay Road corridor including duplicating the road between Williamtown and Bobs Farm
- In December 2021, the preferred alignment was announced for constructing a new 11 km off-line route from Bobs Farm to the Cabbage Tree Road/ Lavis Lane roundabout at Williamtown following community feedback
- The preferred route links to the 1 km stretch of Nelson Bay Road upgrade at Bobs Farm
- The alignment will significantly reduce travel time and will reduce congestion in this stretch of Nelson Bay Road
- Nelson Bay Road is the major connection between Newcastle and the RAAF Base Williamtown and Newcastle Airport and is used by 25,000 vehicles per day with increased peaks during holidays

The upgrade will provide better connectivity for residents, businesses and the community to the RAAF Base Williamtown and Newcastle Airport, improve traffic flow and journey times, improve active transport, promote freight efficiency, support tourism and existing industries and improve road safety.

M1 Pacific Motorway to Raymond Terrace

- The Australian and NSW governments have committed $2 billion to an extension of the M1 Pacific Motorway between Black Hill and Raymond Terrace
- The upgrade includes constructing 15 km of dual carriageway motorway with 2 lanes in each direction, bypassing Hexham and Heatherbrae
- The project includes 4 new interchanges at Black Hill, Tarro, Tomago and Raymond Terrace. It also includes a 2.6 km viaduct over the Hunter River and floodplain, the Main North Rail Line and the New England Highway
- Construction is expected to occur between mid-2023 and mid-2028

Figure 56: Nelson Bay Road at Fern Bay. Credit: Port Stephens Council

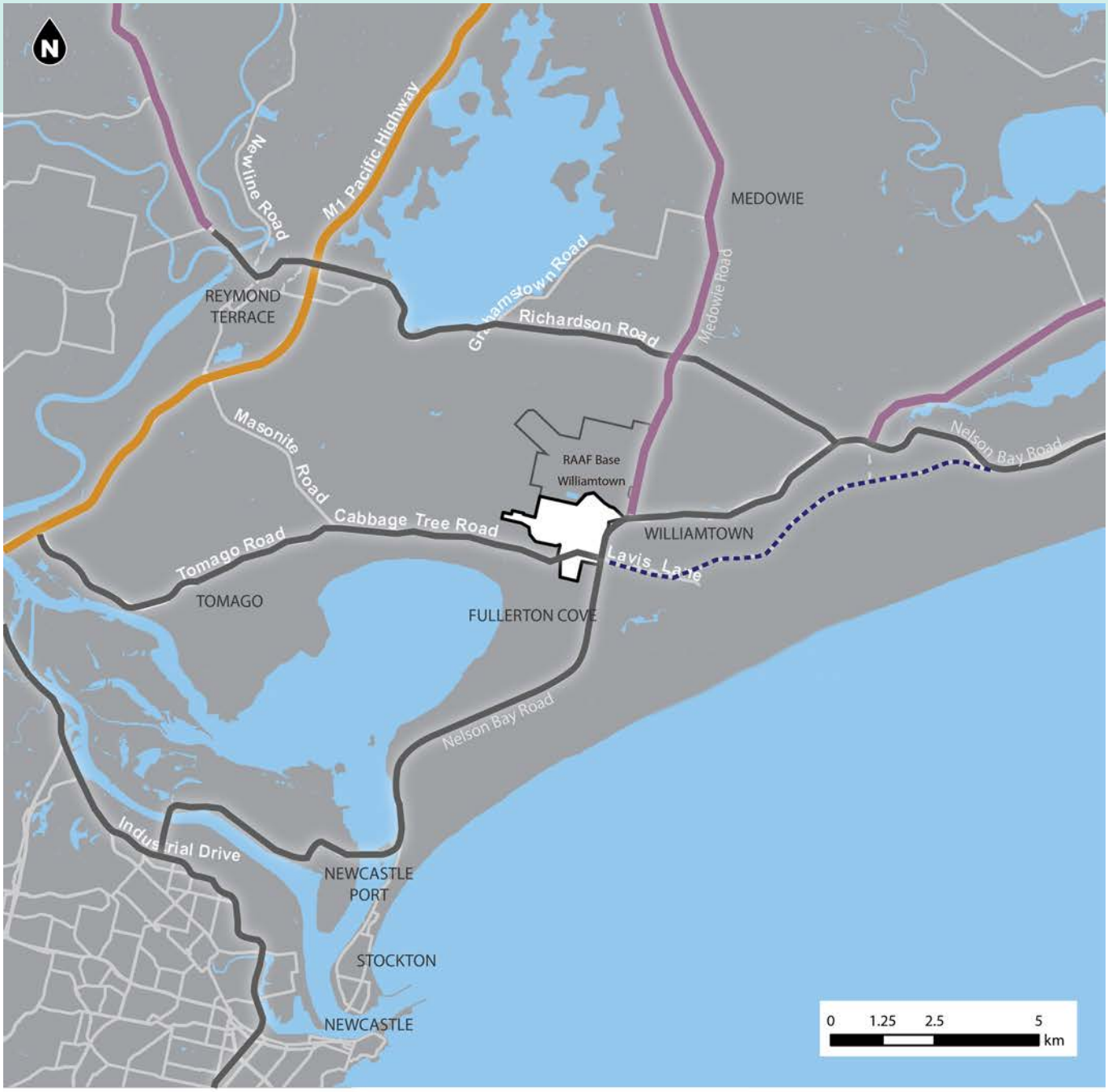


Figure 57: Road connections

- Williamtown SAP boundary (283 hectares)
- RAAF Base Williamtown and Newcastle Airport
- Waterbody
- Waterways
- Roads
- Preferred Nelson Bay Road Alignment
- Motorway
- State Roads
- Regional Roads

8.2 Road network

Aims

- Maintain safe and efficient freight and transport function whilst providing a movement framework that recognises the Precinct as a gateway to the Hunter region
- Ensure the Precinct aligns with the objectives of the Future Transport Strategy, draft Hunter Regional Transport Plan 2041 and NSW's Heavy Vehicle Access Policy Framework
- Improvement to public transport services, particularly bus services, by introducing new stops along key roads or introducing new services.
- Identify the transport network infrastructure components required to facilitate development over the life of the Precinct
- Protect key transport corridors including Nelson Bay Road and Cabbage Tree Road and provide safe access for all users
- Provide the appropriate separation of traffic and people between tourists at Newcastle Airport, freight and logistics freight movement and workers and visitors to the employment Precinct
- Ensure secure access opportunities through separation of public access and secured access areas adjoining the Newcastle Airport
- Provide an efficient freight network in Williamtown that supports new export opportunities associated with existing and emerging supply chains in the Hunter
- Promote and encourage safe, sustainable, healthy and active transport movement within the Precinct, minimising internal vehicle movements

Performance criteria

A. The internal street network and connections to existing roads including Nelson Bay Road and Cabbage Tree Road are to be augmented and expanded over the life of the Precinct to ensure the effective servicing and orderly operation of the Precinct (Figure 58: Road hierarchy)

B. Developments should provide operational access and egress for emergency services and occupants, and ensure all roads are through roads

C. The internal street network provides safe operation access for heavy, oversize and dangerous good vehicles and minimises introducing conflict points for pedestrians

D. Access points to the Precinct are to be provided in accordance with Austroads Guide to Road Design

E. Active transport linkages should be implemented to connect the sub-precincts

F. All transport infrastructure should seek to avoid, minimise or offset impacts on biodiversity values

G. Pedestrian and cycle connections should be provided as early as possible in the development of the Precinct

H. Allow for sufficient road width to accommodate oversize mass vehicles (OSOM) along the collector roads and some of the industrial access roads

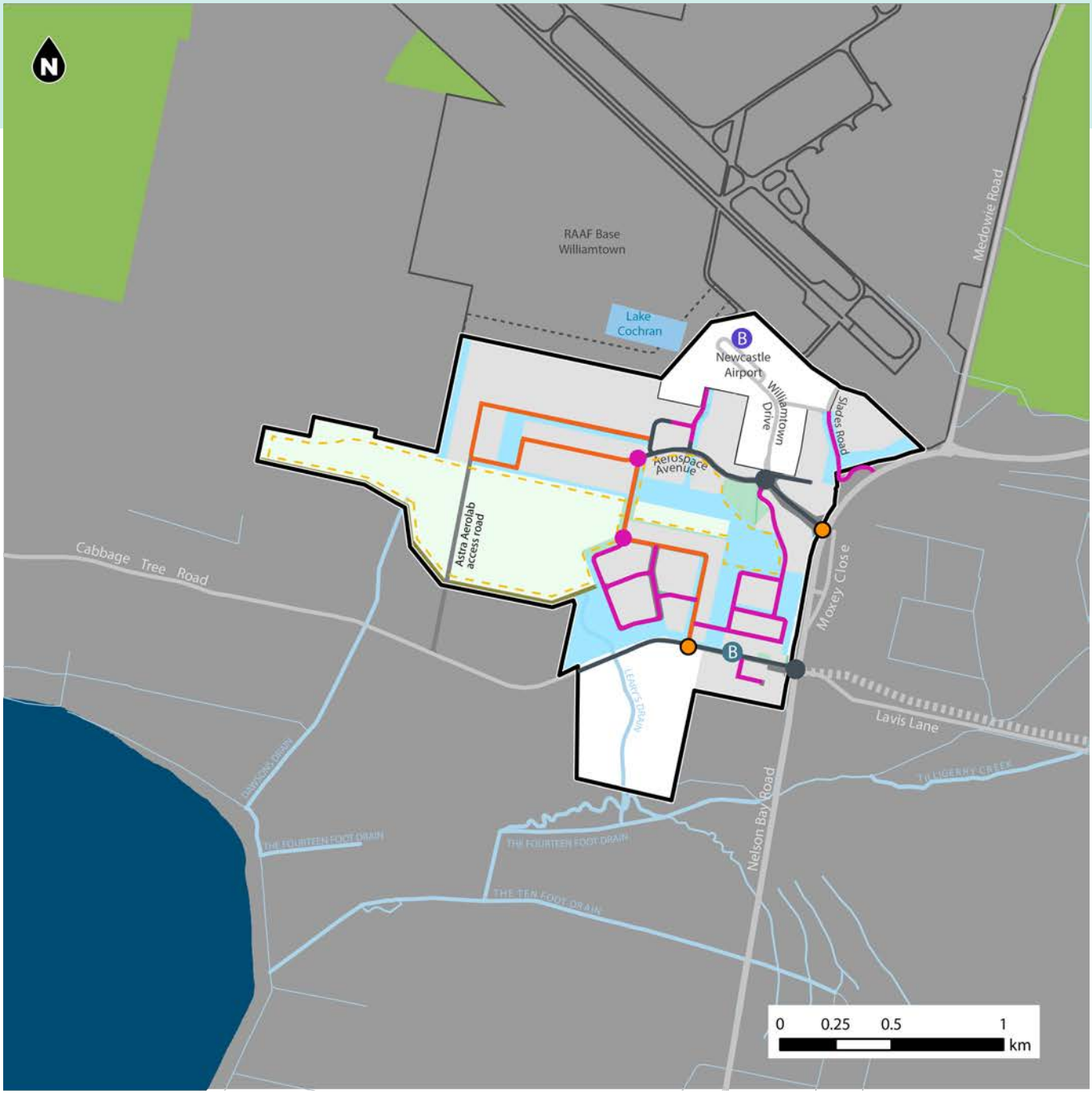


Figure 58: Road hierarchy

- Williamtown SAP boundary (283 hectares)
- RAAF Base Williamtown and Newcastle Airport
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Roads
- State Roads
- Signalised Intersection
- Existing Roundabout
- Proposed Roundabout
- Existing Bus Stop
- Indicative Bus Stops
- Collector Road
- Local Industrial Road
- Existing Road
- Health Loop
- Nelson Bay Road Alignment

8.3 Active and public transport

Aims

- Provide long-term public transport options for connections to Newcastle, Medowie, Raymond Terrace, Fern Bay, Stockton and other surrounding centres
- Provide a cohesive walking and cycling network to support active transport and local amenity
- Provide safe access for all users to the Precinct including active transport measures on higher-order roads that provide the gateway to the Precinct
- Support multi-modal connections with a focus on integrating active transport opportunities with the environmental protection area, the health loop and other natural assets that provide amenity for the Precinct
- Develop a place-making and wayfinding strategy for the Precinct to enhance the visitor experience

Performance criteria

A. Active transport linkages should be implemented as early as practical

B. Pedestrian and cycle connections should be provided in the general locations. These connections should be provided as early as possible in the development.

8.4 Utilities and services

Utilities and infrastructure requirements are a critical component to enabling the vision of the Precinct. The Precinct is generally well serviced by enabling utilities and services. The initial stages of the development can be enabled through existing infrastructure. However, full development of the Precinct will require augmentations to the existing utility networks to provide reticulated sewer and water, electricity, gas, telecommunications and solid waste disposal.

Water supply

Reticulated water is supplied by Hunter Water through an existing network along Cabbage Tree Road and Nelson Bay Road to the Williamtown, Medowie and Port Stephens areas. The Hunter Water network is supplied from Grahamstown water treatment plant (WTP) at Tomago and can meet the predicted future demands of the Precinct without augmentation or additional raw water supply. The ultimate projected demand from the Precinct will likely require construction of 9 km of transfer main from Grahamstown water pump station (WPS).

Wastewater

Reticulated sewer for the Precinct is serviced by Hunter Water's network via the Williamtown wastewater pumping station 1 (WWPS) transferring flows to Raymond Terrace wastewater treatment works (WWTW). The Precinct is proposed to be serviced by a pressure sewer system that discharges to WWPS. Initial development is capable of being serviced by the existing system with an approved servicing strategy. The ultimate projected demand may trigger an upgrade of Williamtown 1 WWPS and Tomago 1 WWPS. An upgrade of Tomago 1 WWPS may also trigger an upgrade of Raymond Terrace WWTW.

Electricity

Electricity is provided by Ausgrid's local 33 kV and 11 kV distribution network, primarily from Williamtown Substation. The Ausgrid network is supplied via 33 kV feeders from TransGrid's bulk electricity supply at Tomago sub transmission substation (STS). There is limited residual capacity at Williamtown for further development and Ausgrid has identified that a new 33 kV substation south of Cabbage Tree Road would be required to service the projected ultimate demand. Ausgrid is currently planning for provision of a new substation south of Cabbage Tree Road (in the land proposed to be zoned SP2) and provision to service the projected precinct demand should be incorporated into Ausgrid's regional strategy. The ultimate projected demand for the Precinct is likely to exceed the residual capacity of Tomago STS and will trigger the upgrade of the Tomago STS and existing 33 kV feeders from Tomago to Williamtown.

7.4.4 Gas

Reticulated gas is supplied by Jemena's 1,050 kPa gas main along Nelson Bay Road and Medowie Road. The expected demand of the Precinct is within the capacity of Jemena's network and augmentations to the bulk gas supply to the area are not expected. The Precinct will be serviced through a connection to the existing high-pressure gas main near the intersection of Nelson Bay Road and Williamtown Drive. Required works to enable gas supply to the Precinct will include a distribution main and district regulator set.

7.4.5 Telecommunications

Several telecommunication providers including NBN, Telstra and Optus currently service the area. The Precinct will be serviced by a rollout of a NBN fibre network or suitable provider as the development incrementally expands. The ultimate projected demand of the Precinct is likely to trigger an upgrade to one of the 5 existing mobile facilities or the installation of a new mobile facility will be required. The adoption of 'smart poles' throughout the Precinct's road network is a key opportunity to increase the digital connectivity and security of the area and build on the initial 'smart pole' network developed at Stage 1 of Astra Aerolab's development.

7.4.6 Waste

Commercial waste production from the Williamtown is currently serviced by private waste facilities in the region. Newline Road Waste Facility (NRWF) in Raymond Terrace is located 20 kilometres to the north-west of the Precinct. The facility is an EPA-licensed facility that has the infrastructure in place to process organic and general waste, and to recycle.

Individual developments within the Precinct will be required to engage in commercial agreements for waste management by private providers for the collection of waste within the Precinct.

Aims

- Ensure appropriate utilities and services are planned and delivered to meet future demand
- Protect existing utility infrastructure, including the Tomago Sandbeds, which serves as the water supply for the Lower Hunter
- Contribute to and support a circular economy
- Ensure utilities and services are undertaken in a manner that is safe, efficient, cost-effective and does not negatively impact on livability and the environment

Performance criteria

A. Utility services/infrastructure provisioning is to occur in a logical and staged manner, and in sequence with development

B. Encourage innovative and sustainable utility and servicing across the precinct to promote effective and efficient delivery of services

C. Encourage the use of smart infrastructure

D. Ensure utilities designs and locations consider space for alternative future services

E. Design and provide utility infrastructure to integrate with, and not negatively impact, use of the public realm, liveability, and the environment

F. Ensure that development will adequately deal with potential risks to the integrity of any gas pipeline or electricity transmission and distribution networks within the Precinct

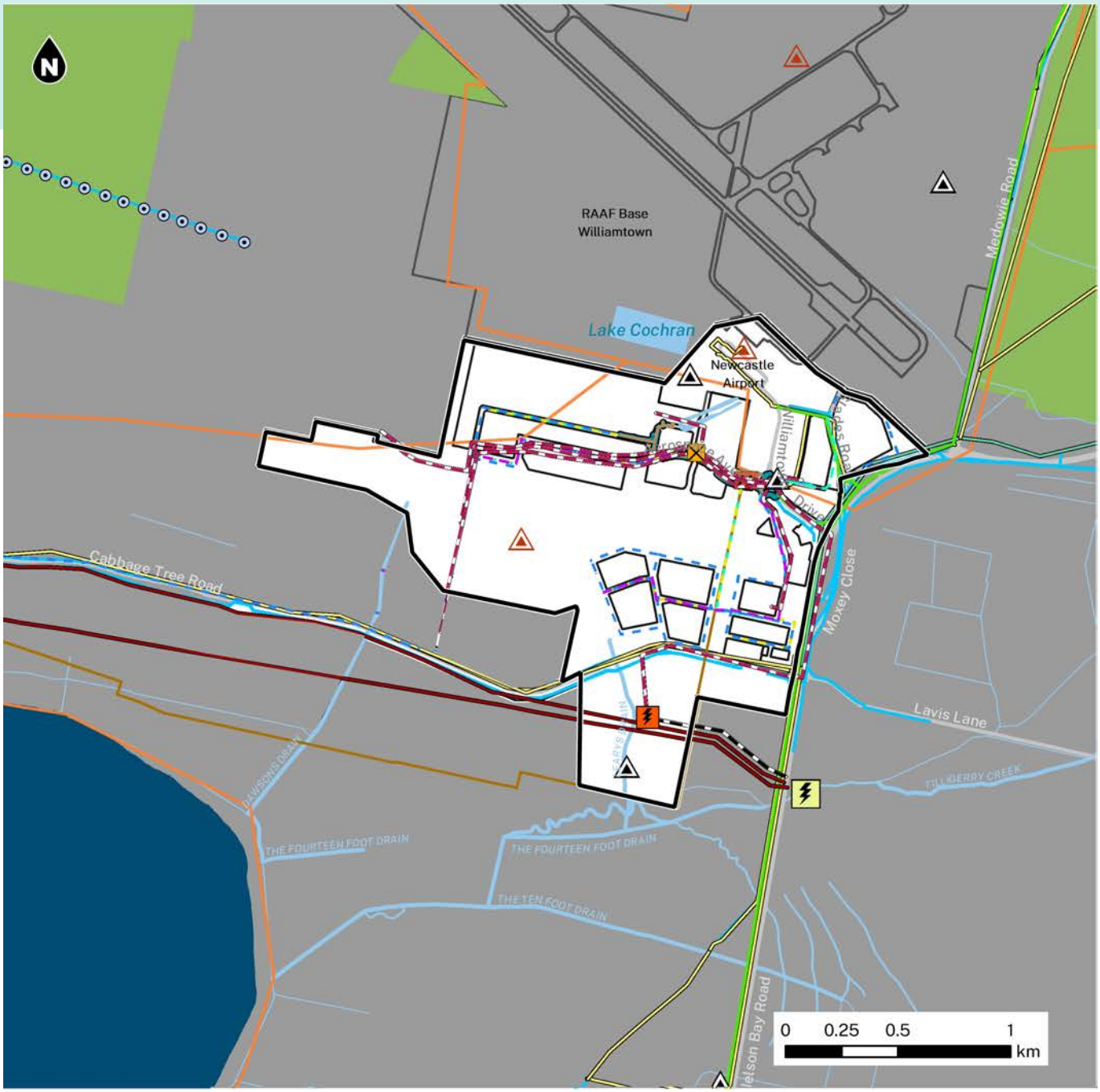


Figure 59: Utilities and services

- Williamtown SAP Boundary
- Waterway
- Roads
- Hunter Wetlands National Park
- Tilligery State Conservation Area
- Waterbody
- RAAF Base Williamtown and Newcastle Airport
- Runway and Taxiways
- Developable Block
- Hunter Water Bore Pump
- Existing Water Mains
- Existing Sewer Pump Station
- Existing Sewer Mains
- Existing Jemena Pipeline (Gas) - Main and Secondary Networks
- Exisiting Substation Locations
- Existing 33kV feeders
- Existing Telecommunication Sites - Fixed Wireless and Mobile
- Existing comms service line
- Existing Fibre
- Existing Copper
- NBN Coverage Fixed Line and Wireless
- Proposed Water Main
- Proposed Sewer Main
- Proposed Gas Network Main Extension (MP) - 210 kPA MOP
- Proposed Telecommunication Sites
- Proposed comms service line
- Proposed 11kV switchroom
- Proposed zone substation
- Proposed 33kV feeder
- Proposed Electricity 11kV Feeder

Note: for specific utilities infrastructure and servicing arrangements refer to the Utilities Infrastructure Report (Appendix 8)

9

Appendix

No. 3 Squadron F-35A. Credit: Department of Defence

Supporting documents

A. Structure Plan **(updated)**
B. Aboriginal Cultural Heritage **(updated)**
C. Aeronautical Limitations and Bird Strike
D. Air Quality and Odour **(updated)**
E. Biodiversity **(updated)**
F. Bushfire **(updated)**
G. Climate Change Adaption
H. Contamination (PFAS and Non-PFAS) **(updated)**
I. Economics **(updated)**
J. Flooding and Water Cycle Management **(updated)**
K. Geotechnical
L. Historic Heritage **(updated)**
M. Hydrogeology
N. Land-Use Safety
O. Noise **(updated)**
P. Renewable Energy
Q. Social Infrastructure
R. Statutory Planning
S. Sustainability
T. Traffic and Transport **(updated)**
U. Utilities and Infrastructure **(updated)**

10

Have your say

The department welcomes your feedback during the exhibition of the:

- revised draft Master Plan for the Williamtown Special Activation Precinct
- revised technical studies
- discussion paper for the Precincts–Regional SEPP amendment and Planning Systems SEPP.

We acknowledge that many people have already provided a submission on the first exhibition period from April to June 2022. You do not have to resubmit these, as we will continue to consider them as we finalise the master plan. However, if you have more comments to give on the revised master plan and exhibited documents, the department encourages you to submit this feedback.

Your feedback will help the departments of Planning and Environment and Regional NSW and the Regional Growth NSW Development Corporation better understand the views of the community. This will inform the final master plan and Precincts–Regional SEPP amendment. The Department of Planning and Environment will publish all individual submissions and a submissions report when it finalises the master plan.

To make a submission online, please follow the steps below:

1. View the re-exhibited documents at: planning.nsw.gov.au/williamtownsap
2. Read our Privacy Statement and decide if you will include your personal information in your submission.
3. Complete the online submission form. You can type your submission or upload it as a PDF. Please include:
   a. The name of the proposal: Williamtown Special Activation Precinct
   b. Do you want your personal details to be published? Make this clear.
   c. A brief statement – Do you support the proposal or object to it?
   d. The reasons why you support or object to the proposal.
4. Ensure you disclose reportable political donations. Anyone lodging submissions must declare reportable political donations (including donations of $1,000 or more) made in the previous 2 years.
5. Agree to our online statement and lodge your submission.

You may also lodge your submission by posting it to:

Executive Director
Key Sites and Regional Assessments
Department of Planning and Environment
Locked Bag 5022,
Parramatta NSW 2124

We will make all submissions public to promote an open and transparent planning system. If you do not want your personal details published, please state this clearly at the top of your submission.

To find out more, please visit:

planning.nsw.gov.au/williamtownsap

Planning & Environment

planning.nsw.gov.au

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