

Department of Primary Industries
and Regional Development



South Jerrabomberra Regional Job Precinct

Master plan

March 2025

nsw.gov.au





Acknowledgement of Country

We acknowledge Country and pay respects to the Ngunnawal and Ngambri people as the Traditional Owners and Custodians of the land and waters on which the South Jerrabomberra Regional Job 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 the area as a resource gathering location and travel route. We recognise the contemporary stories of displacement and the cultural significance of Ngunnawal and Ngambri in the continued journey of self-determination in Australia.

We acknowledge all the people who have and will contribute their stories of South Jerrabomberra 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 South Jerrabomberra precinct stands was, is and always will be Aboriginal land.

Cover image: Aerial view of the South Jerrabomberra Regional Job Precinct site, with earthworks underway.

Left: 'On Country', Charmaine Mumbulla, 2022

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All area calculations were made using MGA Zone 56, rounded to the nearest whole number and are approximate.

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Executive summary



Aerial looking north-west across Village Building residential estate in South Jerrabomberra



The NSW Government identified South Jerrabomberra as a suitable location for an employment precinct, due to its location near leading technology industries, education institutions and skilled workforce.



Aerial view North Poplars local centre, looking towards Queanbeyan

The South Jerrabomberra precinct encompasses approximately 950 hectares and is located in the Queanbeyan-Palerang Local Government Area (LGA).

The Master Plan sets out the strategic merit of South Jerrabomberra as an employment precinct and summarises the key development opportunities.

The South Jerrabomberra Regional Job Precinct (South Jerrabomberra precinct) Master Plan has been informed by a suite of technical studies and has been prepared by NSW Government, in consultation with Queanbeyan-Palerang Regional Council, NSW and ACT Government agencies and key stakeholders.

The Master Plan

This master plan is focused on driving long-term economic prosperity through the generation of up to 4,000 jobs in a variety of industries including advanced manufacturing, defence, aerospace, cyber security, and light industrial, as well as jobs and services that support these industries and their workers.

The precinct will also provide up to 1,500 homes, a local centre, green spaces, a high school, and a Regional Sports Complex, providing further jobs in the education and sports sectors.

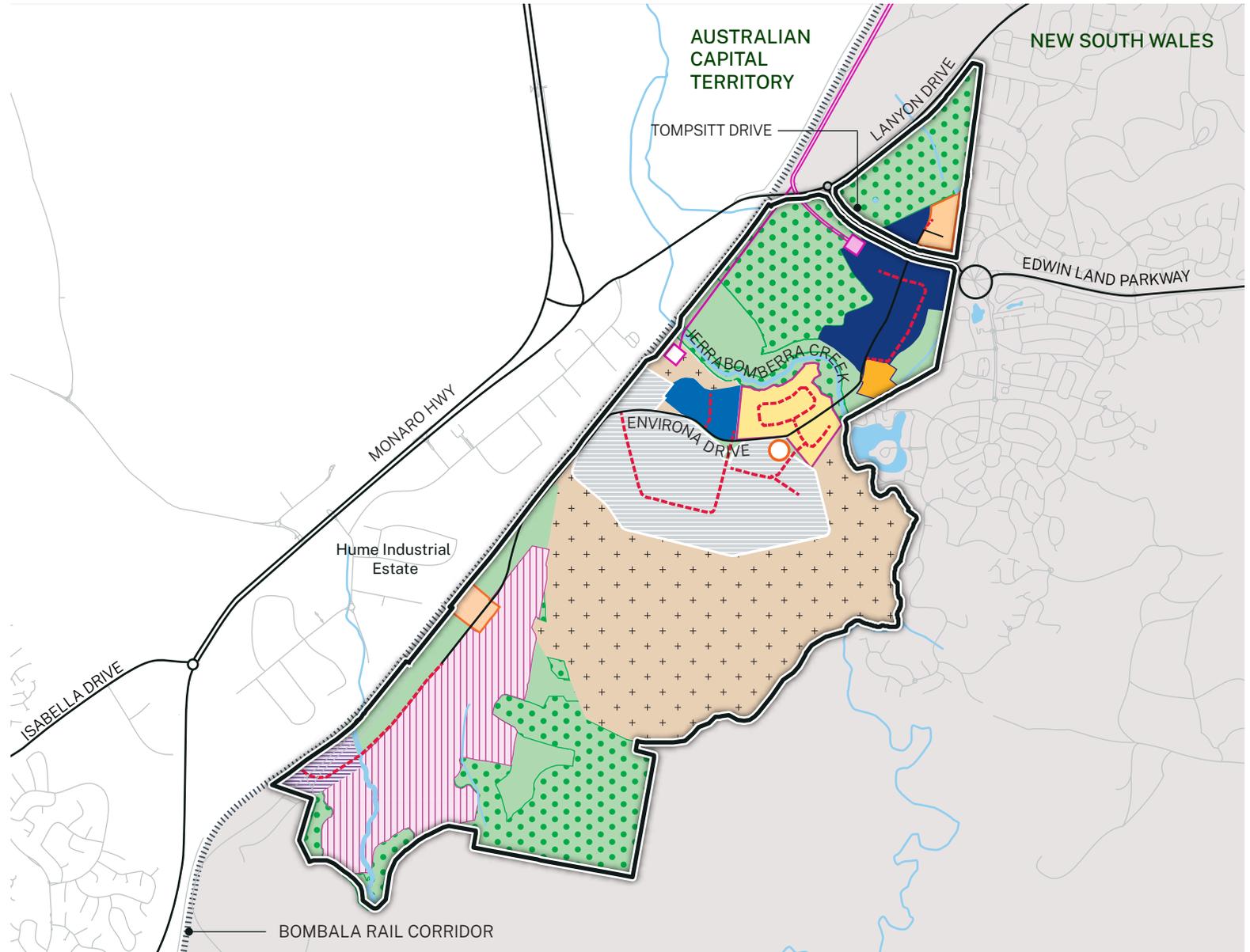
The precinct has a strong focus on amenity and liveability to ensure the South Jerrabomberra precinct will be a place where business will want to establish, and people will want to live and work. Key heritage sites will be preserved and integrated into the new development, and the rural character of the area will be preserved through areas of conservation and green open space.

A network of cycling and walking paths will also contribute to the liveability of the precinct and will create a network that will offer access between homes, jobs, and services. Sustainability and climate resilience has also been a focus, and opportunities to manage emissions, conserve water and green the environment have been considered.

The master plan provides a clear strategic direction for the South Jerrabomberra precinct to be an employment powerhouse that provides distinct opportunities.

Figure 1 South Jerrabomberra Regional Job Precinct Master Plan

-  South Jerrabomberra Regional Job Precinct
-  Local centres sub precinct
-  Environa sub precinct - future land for space, defence, cyber security, high tech and supporting industry, subject to the delivery of water, sewer and road infrastructure
-  Rural landscape
-  Residential sub precinct
-  Regional sports complex
-  Education sub precinct
-  Local business and industry sub precinct
-  Poplars innovation sub precinct
-  Conservation
-  Open space and recreation
-  Cross border investigation areas
-  Rail corridor
-  Major roads
-  Local road connections for investigation
-  Indicative telecommunications towers
-  Substation under construction
-  Substation (proposed)





1

Introduction

Aerial view of road construction at
Poplars innovation sub precinct



This section introduces the South Jerrabomberra Regional Job Precinct and outlines the purpose of this master plan.

The South Jerrabomberra Regional Job Precinct plays an important role in achieving the NSW Government’s vision for Regional NSW.

1.1 What are Regional Job Precincts

Regional Job Precincts are focused on providing local councils with planning support to help drive new investment and growth opportunities and deliver on the NSW Government’s Vision for Regional NSW.

The NSW Government is leading the master planning to provide local councils, regional communities, industry, and businesses with greater confidence around future investment and development.

Figure 2 Regional Job Precincts process



Figure 3 South Jerrabomberra Regional Job Precinct Context

1.2 South Jerrabomberra Regional Job Precinct

The South Jerrabomberra precinct is located within the Queanbeyan-Palerang Local Government Area (LGA), is 950 hectares in size and adjoins the Australian Capital Territory.

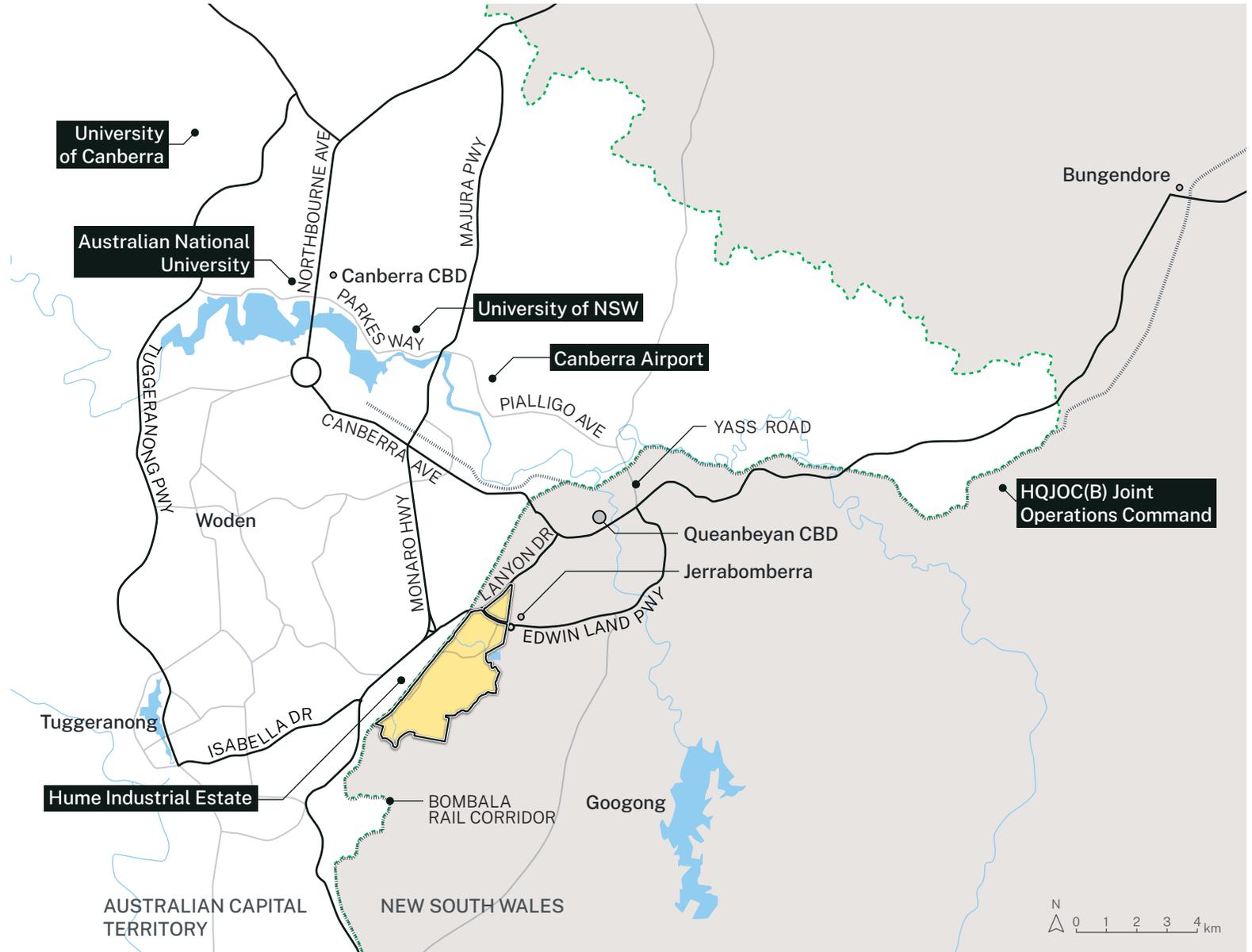


Figure 4 Capital subregion

1.3 Capital subregion

The Capital subregion has a strong presence, and there has been significant State and Federal Government investment to grow and diversify the defence, space, and cyber security industries. The South Jerrabomberra precinct can contribute to and leverage from the existing and growing clusters of defence, space and cyber security industries and the increased funding in these fields.

\$29.9 billion
in the Australian defence budget

\$195 billion
under the Defence Integrated
Investment Program

\$1.67 billion
over ten years to cyber security

\$12 billion
in the Australian Space sector

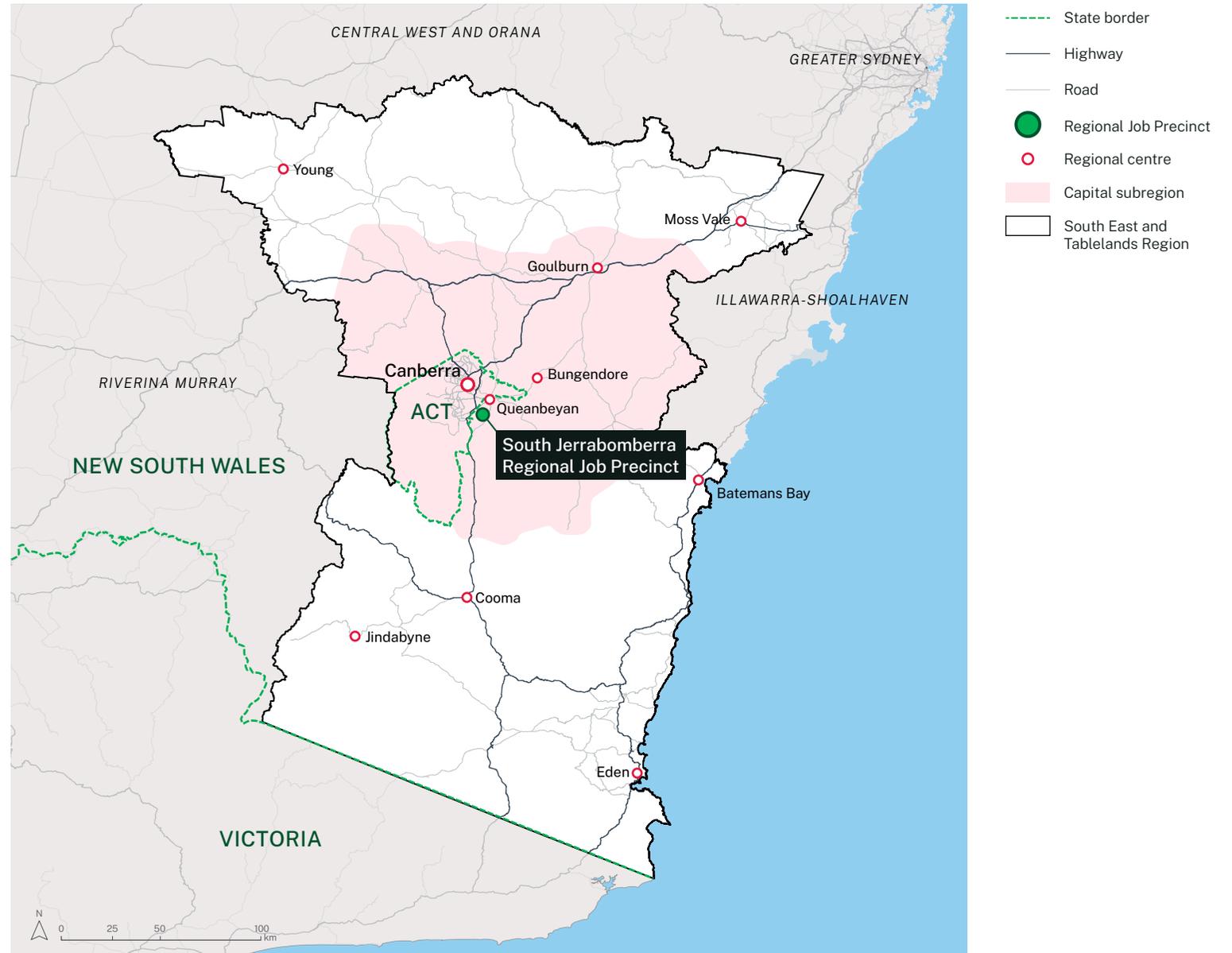
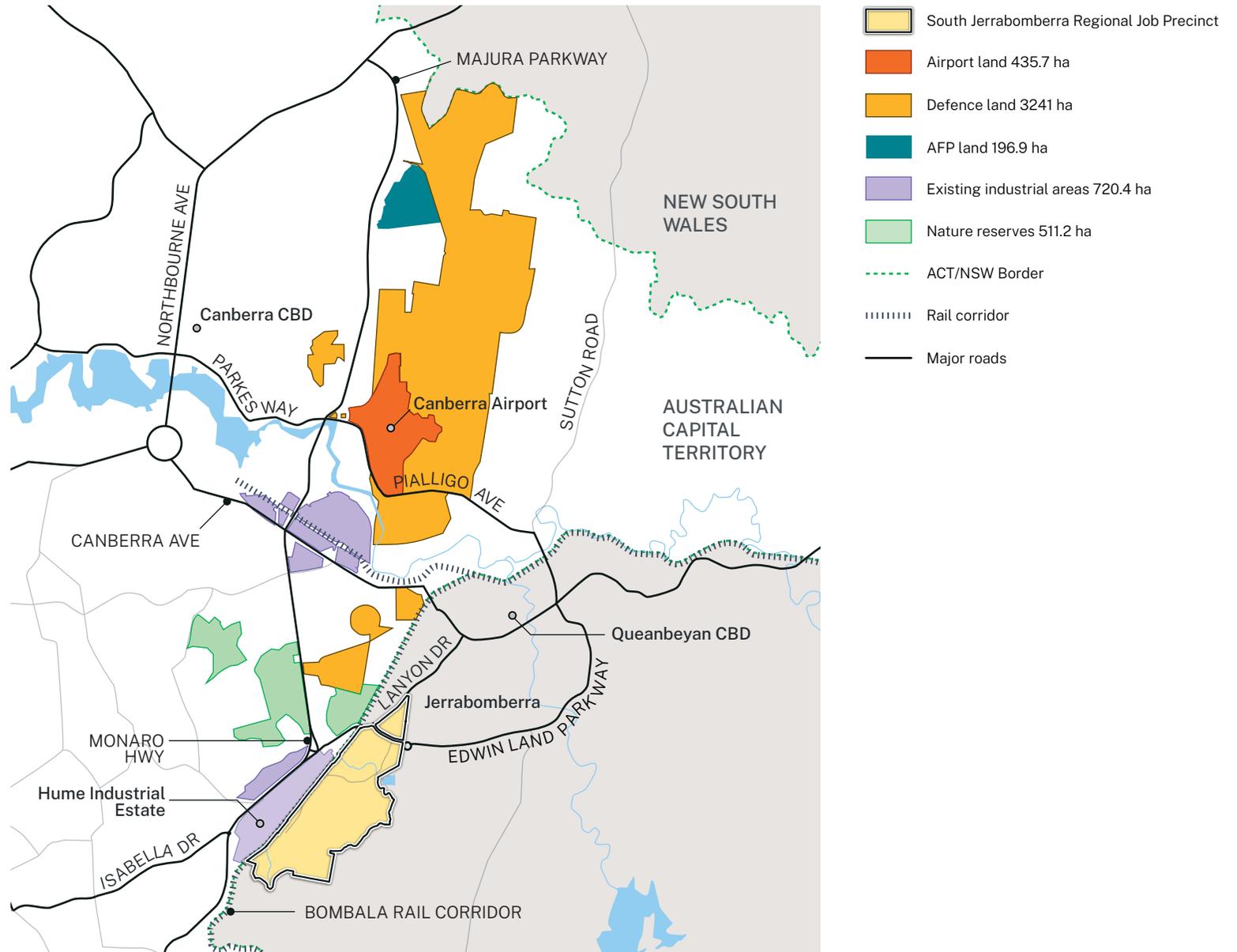


Figure 5 Collaborative cluster corridor



Collaborative cluster corridor

The Hume Industrial Estate adjoins the South Jerrabomberra precinct to the west. The Hume estate is 318.5 hectares and comprises manufacturing, sawmilling, warehousing, storage, and recycling businesses on large blocks. Land currently available in Hume is largely un-serviced.

The South Jerrabomberra precinct's location adjoining the Hume Industrial Precinct provides an opportunity to leverage from the co-location of industries that provide opportunities for businesses to cluster, benefitting from existing operations, technology and the transport networks. Co-location also provides opportunities for collaboration, knowledge and resource sharing and can assist to attract businesses, investors and skilled workers in a cost effective way. Further, successful innovation precincts deliver benefits to the local economies from higher wages, quality employment, superior products for consumers and higher tax revenue for governments.

Improving the area's transport network and cross-border connections will be imperative to realising the full benefits of the co-location of industries.

The Capital subregion is leading Australia's space, defence and cyber security industries

Space Industry



The Australian National **Space Mission Design Facility** (UNSW Canberra) combined with **National Space Test Facilities** (ANU)



Geoscience Australia's **Positioning Australia** program



Space Environment Research Centre at Mt Stromlo



CSIRO **Centre for Earth Observation**



The **Canberra Deep Space Communication Complex** managed on behalf of NASA by CSIRO, is one of only three NASA Deep Space Network Facilities in the world



The space industry is supported by a number of co-located **government, industry, education and research** organisations



Key **government partners for the space industry**

Defence and Cyber Security Industry



Department of Defence



Australian Signals Directorate



Australian Secret Intelligence Organisation (ASIO)



Australian Cyber Security Centre



Australian Defence Force operational level headquarters at Bungendore



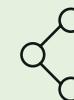
Airforce and **administrative headquarters** of the Australian Defence Force – Russell



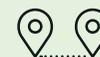
Army Office **training establishment** at Duntroon



Private military suppliers



Prime defence contractors



The cyber security industry is supported by a number of co-located **government, industry, education and research** organisations

1.4 Governance

The draft *'Southeast and Tablelands Regional Plan 2041'* recognises the importance of taking a region-wide and cross border approach to environmental protection, economic investment, infrastructure delivery, service provision and housing development, to enable sustainable growth and optimise economic prospects.

Successful implementation of the South Jerrabomberra precinct will depend on strong partnership, collaboration, and a shared vision for the Capital subregion.

A coordinated approach to the provision of cross-border infrastructure and road connectivity is required to accommodate anticipated employment and housing growth on both sides of the border.

The NSW Government is committed to collaborating with the Queanbeyan-Palerang Regional Council and the ACT Government to create a healthy, connected, and prosperous community, with a strong environmental and sustainability focus.

Queanbeyan-Palerang Council

The South Jerrabomberra precinct is located within the Queanbeyan-Palerang local government area (LGA).

The Department of Primary Industries and Regional Development (DPIRD) and the Department of Planning, Housing and Infrastructure (the department) have worked closely with Queanbeyan-Palerang Regional Council to ensure that the Master Plan is consistent with Council's strategic vision, the Local Strategic Planning Statement (LSPS) and the extensive strategic planning work already undertaken by council. Council's advocacy, influence and understanding of local infrastructure will play a key role in realising the vision of the South Jerrabomberra precinct.

Department of Primary Industries and Regional Development

Department of Primary Industries and Regional Development is the lead agency for the master planning of Regional Job Precincts and is committed to working closely with the community and ensure ongoing engagement with the public and key stakeholders.

DPIRD has worked closely with Queanbeyan-Palerang Regional Council, the department, and ACT Government to prepare the technical studies required to develop the master plan.

NSW Department of Planning, Housing and Infrastructure

The department is responsible for leading the development and implementation of any required changes to the planning framework, to realise the master plan vision.

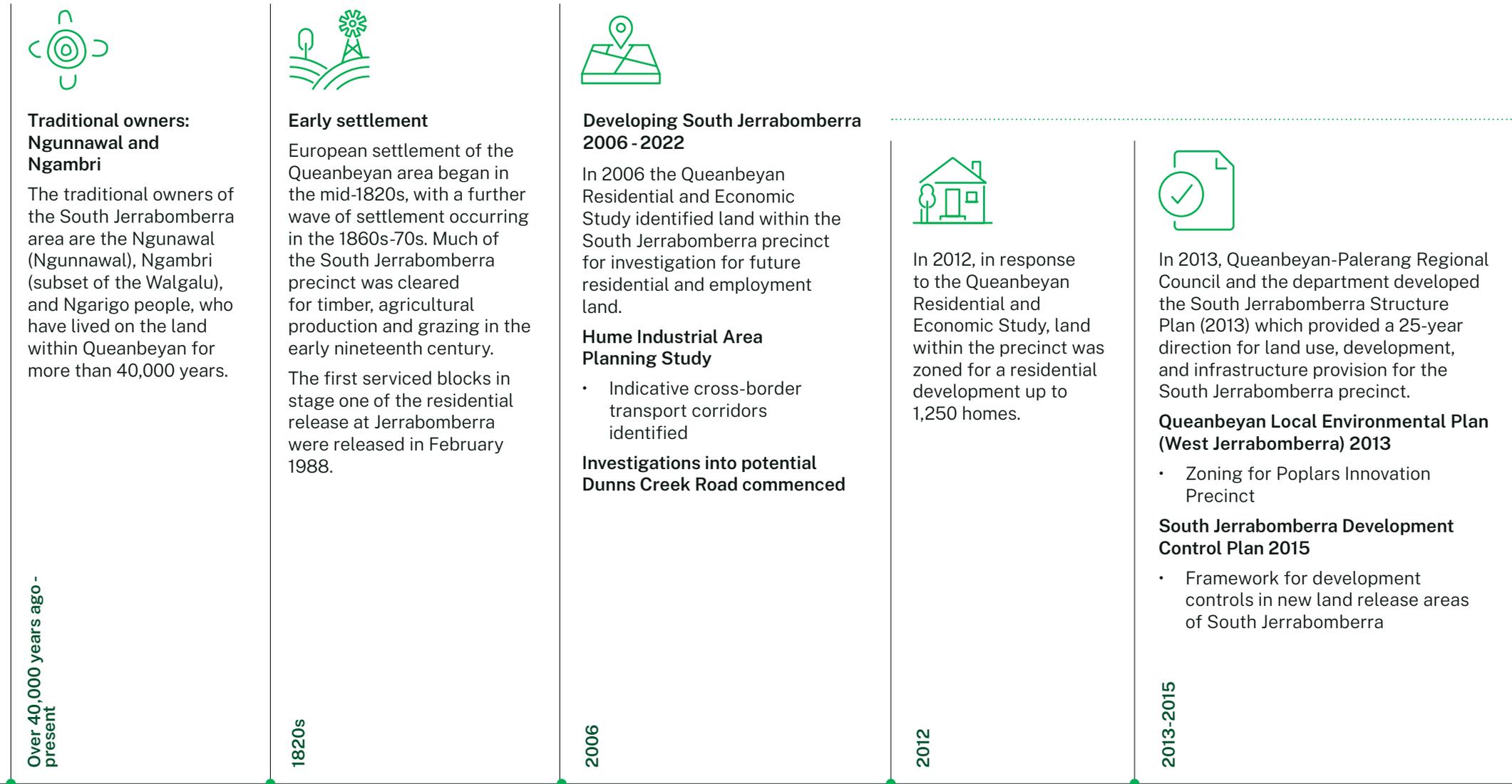
ACT Government

The *ACT-NSW Government Memorandum of Understanding (MoU) for Regional Collaboration* recognises the close, interdependent economic relationship between the two jurisdictions and the mutual benefits of collaborating on a range of focus areas to achieve better service delivery and facilitate regional growth. The guiding principles seek to advance the vision of achieving a connected and borderless Capital subregion.

The ACT Economic Development priorities 2022-2025 can be complemented by the South Jerrabomberra Precinct through the attraction of key industries to the region.

1.5 How we got here

Figure 6 summarises the key planning and development milestones in the South Jerrabomberra precinct





In 2017, the department released the South East and Tableland Regional Plan which identified South Jerrabomberra as having capacity for new dwellings and noted the need for Queanbeyan-Palerang Regional Council to continue to identify opportunities for economic growth leveraging from the activities of the ACT, NSW, and Australian Federal government.

2017



In 2019 the subdivision of Poplars Stage 1 (the Poplars Innovation sub precinct) was completed and construction on the residential estate at South Jerrabomberra commenced.

**Construction of Environa Drive completed
Regional Sports Complex approved,
and construction commenced**

2019-2021



**South Jerrabomberra
Regional Job Precinct**

In 2021 the NSW Government announced South Jerrabomberra as a Regional Job Precinct. Technical studies to support the development of the Precinct commenced in 2021.

**Queanbeyan-Palerang Local Strategic Planning
Statement**

- Reinforces strategic vision for South Jerrabomberra as an innovation precinct

**Queanbeyan-Palerang Regional Local
Environmental Plan 2022**

- Consolidates land use planning controls that apply to the local government area

2021-2022



**Jerrabomberra High School
approved, and construction
commenced**

**Jerrabomberra High School
opened**

**South Jerrabomberra master
plan adopted and associated
Queanbeyan-Palerang Local
Environmental Plan 2022
amendments made**

2022-2024

2

Strategic context



A woman works on her laptop at a park in Jerrabomberra



This section sets out the strategic context and current employment focused landscape of the region. The South Jerrabomberra precinct is in a prime location with connectivity into Queanbeyan and Canberra.

This section also identifies the various government organisations working in collaboration to achieve the vision for the region.



Aerial view of Environa Drive, looking across Jerrabomberra Creek to the Education sub precinct



2.1 Site details

The South Jerrabomberra precinct is 950 hectares in size, is located approximately 5.5km south of Queanbeyan, and borders the ACT and existing Hume Industrial Estate. The precinct includes land that is already developed or approved for development.

The newly constructed Environa Drive has allowed for development to occur within the precinct, including the South Jerrabomberra residential estate to the southwest, the construction of a comprehensive high school, and the Regional Sports Complex.

The Poplars Innovation Precinct is located in the northern part of the South Jerrabomberra precinct and comprises local retail and services. The Poplars Innovation sub precinct development is also underway with a focus on high-technology, space, defence, and cyber security.

Large areas of the precinct are also undeveloped, comprising a mixture of woodlands, grasslands, and pastures. Jerrabomberra Creek dissects the northern part of the site.

An operational, but disused section of the Bombala railway line runs along the western boundary of the South Jerrabomberra precinct. The established residential suburb of Jerrabomberra adjoins the site to the east and north.

Lanyon Drive is located to the north and provides connectivity into Queanbeyan or joins the Monaro Highway providing connectivity to Canberra's central business district (Canberra CBD) or Tuggeranong.

2.2 Site context

Key regional statistics

By air Canberra is:



55 mins to Sydney

1h 5mins to Melbourne

1h 40mins to Brisbane

Queanbeyan-Palerang
local government area

63,304
population in 2022



\$2.8 bn
Gross Regional Product
2020-21



Capital subregion

717,000
population in 2022



\$14.81 bn
Gross Regional Product
2020-21



Employment growth is occurring in:



public administration



defence



transport



professional, scientific
and technical services



Approximately two-thirds
of employed Queanbeyan
residents work in Canberra



Around one third of
Queanbeyan's jobs are held
by Canberra residents

↑ 18% since the previous year

The South Jerrabomberra precinct is located approximately 5.5 kilometres southwest of Queanbeyan, 10 kilometres southeast of Canberra's CBD and 14 kilometres from Canberra Airport.

The Hume Industrial Estate located on the western side of the South Jerrabomberra precinct was identified in the Eastern Broadacre Report as being suitable for a range of businesses including industrial, mixed with associated retail and commercial uses.

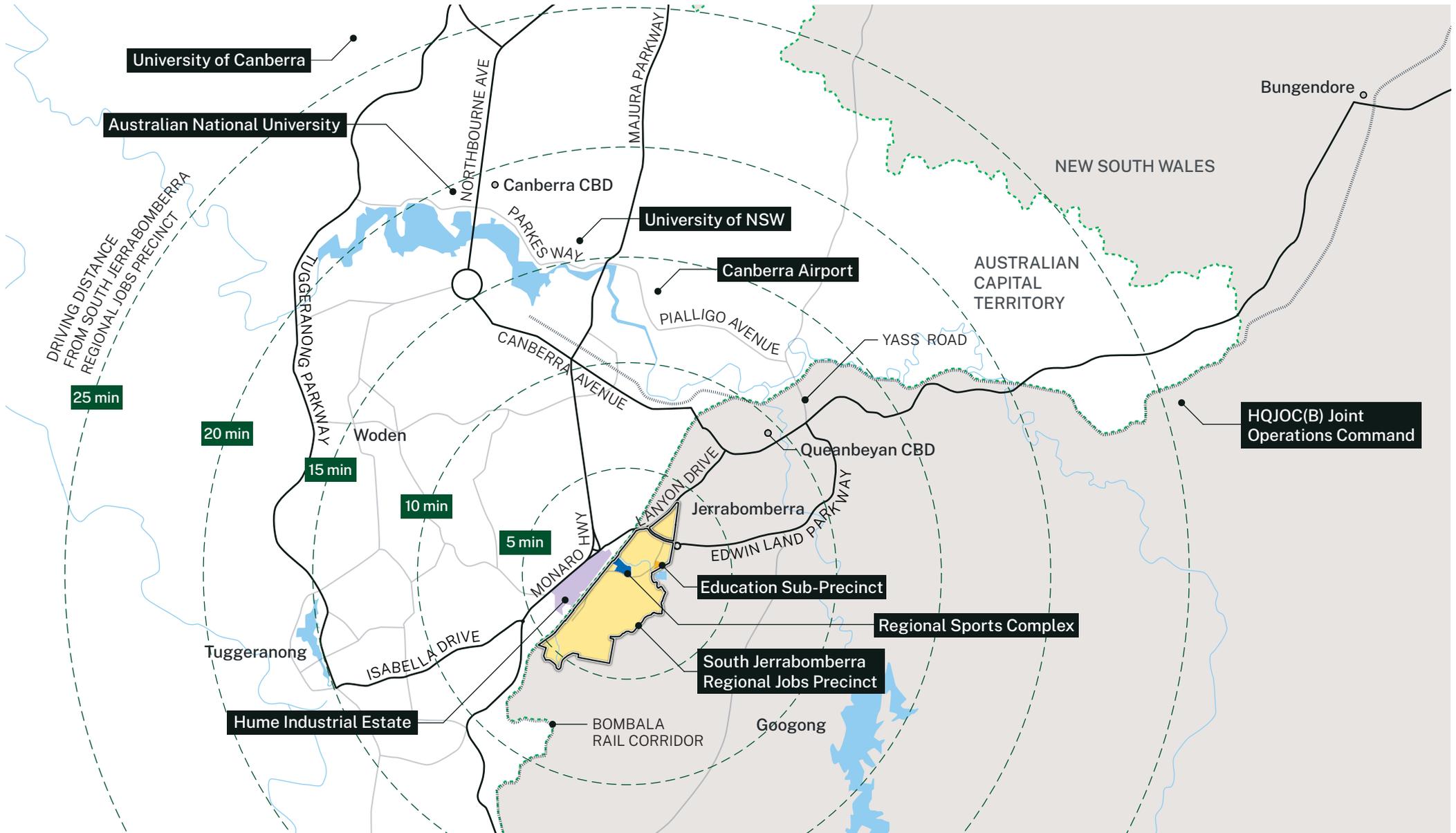
The report also notes the increasing storage requirements for the Government and large-scale private industry as evidenced by the Hume data centre proposal.

The South Jerrabomberra precinct is also situated within 30 minutes drive of Canberra's three major universities, the Australian National University, the University of Canberra, and the University of NSW.

The Monaro Highway runs along the western border of the adjoining Hume Industrial Area which provides connections to Canberra and its surrounding suburbs, and to key freight routes to Sydney and Melbourne.

The Capital subregion provides residents with access to a variety of employment, education, health, and higher order services. The South Jerrabomberra precinct will complement and support the ACT, and strategic centres like Queanbeyan promoting a liveable and productive region.

Figure 7 South Jerrabomberra precinct site context



2.3 Long term strategic planning

Draft South East and Tablelands Regional Plan 2041

The draft South East and Tablelands Regional Plan 2041 (draft Regional Plan) acknowledges the NSW Government's commitment to create jobs close to where people live and the regional significance of the South Jerrabomberra precinct for the creation of employment in the South East and Tablelands Region. The draft Regional Plan also identifies that there is an emerging cluster of defence, aerospace and cyber security knowledge industries within the Capital subregion and recognises that Canberra is intrinsically linked to the region. It identifies the need for a region wide cross border approach to economic investment, infrastructure delivery, servicing provision, environmental protection, and housing development. These points have been carried through and built upon in the master planning for the precinct, providing a clear line of sight between regional planning and the South Jerrabomberra precinct.



Poplars innovation flag flying at the site of the new sub precinct



Draft South East and Tablelands Transport Strategy

The draft South East and Tablelands Regional Transport Strategy (draft Transport Strategy) is the NSW Governments' long term regional transport vision for the South East and Tablelands region. The draft Transport Strategy seeks to deliver a safer, more efficient, and accessible network to support local communities, business and industries which rely on transport to grow and connect.

The draft Transport Strategy identifies growth in the region is being led by regionally significant projects including the South Jerrabomberra precinct and acknowledges that investment in services and infrastructure will make sure these projects are effective. The draft Transport Strategy also identifies the importance of collaboration and notes Transport for NSW will work with the NSW Office of Cross-Border Commissioner, the Department of Primary Industries and Regional Development, and Queanbeyan-Palerang Regional Council to investigate opportunities to improve connectivity between the ACT and neighbouring communities.

Queanbeyan-Palerang Regional Council's Local Strategic Planning Statement

The Local Strategic Planning Statement (LSPS) sets out the 20-year vision, long term priorities and actions for the management and delivery of land use in the Queanbeyan-Palerang Local Government Area. The LSPS acknowledges Queanbeyan is one of the fastest growing areas in NSW and that its location adjacent to the ACT brings economic and employment opportunities which Council will seek to leverage from. The LSPS recognises the South Jerrabomberra Structure Plan and the significance of South Jerrabomberra as an innovation precinct focussed on defence, space and cyber security. Planning Priorities under the LSPS include maintaining a supply of appropriately serviced employment land to create opportunities for new industrial development, and continued dialogue with the ACT Government and Commonwealth Government on all planning matters, including consultation on development near the border.

3

Master planning



Aerial view of construction at the residential sub precinct



This section establishes the master plan that will support the future growth of the South Jerrabomberra precinct.

3.1 What is a master plan?

A master plan is a key part of the planning framework, it considers the opportunities and barriers to development and provides a long-term vision and framework to guide future growth and development.

The South Jerrabomberra precinct master plan consolidates the vision and opportunities for development identified for the precinct, through the co-design workshops, Urban Design Analysis Report, and technical studies.

3.2 Developing the South Jerrabomberra Regional Job Precinct master plan

The master plan evolved in three stages over an eighteen-month period.

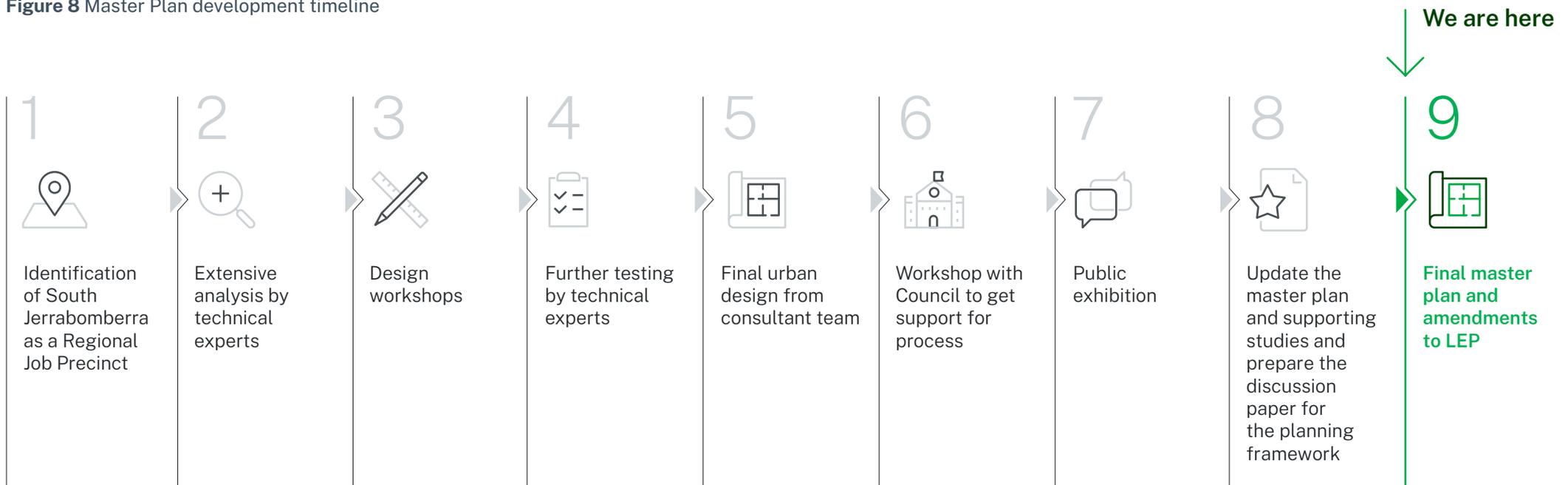
Stage 1 involved initial analysis, engagement with key stakeholders and field investigations. The outcomes of this stage were used to help develop the vision and guiding principles for the precinct.

Stage 2 included co-design workshops with subject matter experts and agency representatives, which provided an opportunity to seek information and feedback on potential Structure Plan options for the South Jerrabomberra precinct.

Stage 3 comprised a final analysis of the preferred Structure Plan and presents a consolidated vision for the South Jerrabomberra precinct

Key milestones in the South Jerrabomberra precinct process are described in Figure 8.

Figure 8 Master Plan development timeline



3.3 Preliminary Stakeholder Engagement

As part of the master planning process collaboration was undertaken with key agencies from the NSW and ACT governments, Queanbeyan-Palerang Regional Council, technical consultants, Registered Aboriginal Parties, developers, Canberra Airport, and prospective businesses.

Figure 9 Stakeholder Engagement Process

	Site visit	Attended by technical consultants, Queanbeyan-Palerang Regional Council, Department of Primary Industries and Regional Development, and other stakeholders, to understand the site's context and identify potential constraints and opportunities.
	Visioning workshop	Held in December 2021, to assist in fostering collaboration between key agencies. The South Jerrabomberra Precinct's constraints and opportunities were considered, and a vision, and guiding principles for the precinct were developed. These are included in Section 4.
	Market sounding	Consultation with prospective business, developers, the NSW and ACT governments and industry organisations to understand business needs to inform the master plan.
	Design workshops	The workshop was held over two days in March 2022. The primary purpose of the workshop was to collaboratively develop a preferred master plan option that aligns with the South Jerrabomberra precinct program's goals and the precinct vision.
	Ongoing stakeholder engagement	Throughout the master planning process, the Department of Primary Industries and Regional Development has been engaging with Queanbeyan-Palerang Regional Council, the Department of Planning, Housing and Infrastructure, technical consultants, key landowners, and other key stakeholders to provide updates and work through issues collaboratively.

3.4 Technical studies

The master plan has been informed by a suite of technical studies, as follows.

A summary of the technical study findings can be found at Chapter 7.



Air, noise and odour
(Todoroski Air Sciences
2024)



Biodiversity Report
(ERM 2024)



Bushfire Assessment Report
(ERM 2024)



Soils, Geology and
Contamination
(ERM 2024)



Economic Analysis of South
Jerrabomberra Masterplan
(SGS 2024)



Historic & Aboriginal
Cultural Heritage
Assessment Report
(ERM 2024)



Regional Jobs Precincts:
Intermodal Feasibility Study,
South Jerrabomberra
(george stanley consulting
2022)



Land Use Considerations
(Sherpa 2024)



Traffic and Transport
Technical Report
(SMEC 2024)



Infrastructure Assessment
-Utility Infrastructure
Technical Report
(SMEC 2024)



Infrastructure Assessment-
Hydrogeology, Water
Quality and Water Demand
Technical Report
(SMEC 2024)



South Jerrabomberra
Regional Jobs Precinct
Urban Design Report
(Jensen Plus 2024)



4

Vision

Project managers on site at South Jerrabomberra



This section outlines the vision and supporting principles to guide future development and growth for the South Jerrabomberra precinct. The overarching vision seeks to leverage opportunities to expand high-technology development.

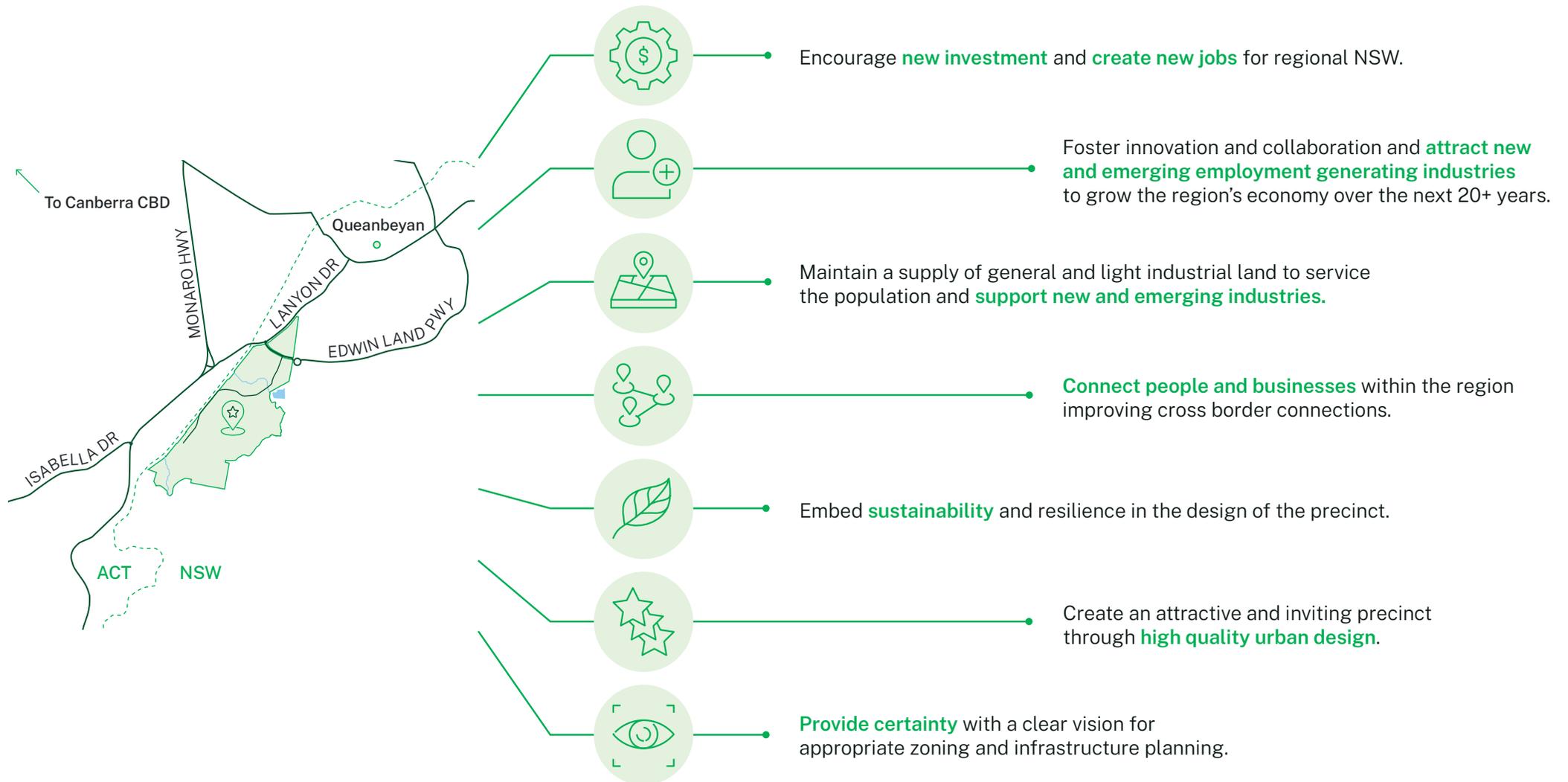
4.1 Vision

To enable an agglomeration of high-technology economic development, supported by complimentary light industrial uses, in a well-designed, well-connected, and well-supported location.



4.2 Objectives

The key objectives of the South Jerrabomberra precinct are:



4.3 Principles

The following guiding principles were developed for the South Jerrabomberra precinct collaboratively with key stakeholders during the Integrated Analysis Workshop.

-
- 1 Innovation and high technology jobs precinct** → *A forward-thinking and innovative business precinct full of opportunities*
 - Create jobs for regional NSW.
 - Provide certainty to industry and the community with a clear vision for appropriate zoning and infrastructure planning.
 - Leverage from the Intra-government Communications Network (ICON) network.
 - Attract university, research, and development.
 - Benefit from lower costs of development and doing business in NSW.
 - Enable general / light industries and supply chains.

 - 2 Seamless precinct and cross border connectivity** → *A precinct that promotes connectivity and safety*
 - Provide a well-connected precinct for business and community.
 - Investigate additional cross-border connection alignment and funding options.
 - Provide safe transport by separating freight, business, and local users where possible.
 - Plan future public and active transport links.

 - 3 High quality urban design and placemaking** → *Enhanced urban design and placemaking outcomes*
 - High-quality urban design outcomes at building, site, street, and precinct scales, that respect landscape and heritage values.
 - Contemporary design within a landscape setting to create identity.
 - Design to meet national security requirements.
 - Minimise visual impact.

4 **Leading sustainability outcomes**



Creating a precinct that gives back.

- Sustainably designed and resilient precinct.
- Green grid to protect, enhance and connect biodiversity and riparian values.
- Circular economy links.
- Carbon positive precinct.
- Investigate the need for strategic biodiversity certification for the precinct.
- Celebrate cultural heritage.
- Water sensitive urban design.

5 **Be a good neighbour**



Minimise impacts on residential neighbours and on workers

- Consideration of and protection of nearby communities, residential areas, schools and workplaces from development, construction, and business impacts.
- Work with communities to maintain social licence.

6 **Collaborative Cluster**



Innovation led by collaboration and planning

- Collaborate with all landowners, agencies, and the ACT government to envision, plan and develop the South Jerrabomberra precinct.
- Encourage collaboration between businesses and developers to maximise potential.

5

Structure Planning

Canberra Deep Space Communication Complex
Image courtesy of CSIRO





South Jerrabomberra's location on the doorstep of Queanbeyan and its proximity to the Australian Capital Territory, provides an opportunity to leverage off the significant investment and development already occurring in the area.

With innovation and emerging growth in the defence, cyber security and high-technology industries, the South Jerrabomberra precinct is uniquely positioned to maximise and expand on the existing investment and leverage off its existing key industries.

The provision of existing infrastructure and access to a technical and highly skilled workforce also contributes to the site's suitability as a Regional Job Precinct.

Benefits of the South Jerrabomberra Regional Job Precinct

The key benefits of the South Jerrabomberra precinct are, as follows:



Its proximity to existing and emerging **high-tech industries** of defence, cyber security, space, advanced manufacturing, and information technology sectors already operating or looking to establish in the Capital subregion.



Its ability to leverage **State and Federal Government investment** in defence, cyber security, and aerospace.



Its location near **federal government agencies** and **university** and **research facilities**.



Its proximity to the **aviation precinct** at Canberra Airport.



Its access to a **highly skilled and diverse** workforce.



Its connectivity to the ICON **secure fibre optic communications** network.



Lower operating costs than Canberra, Sydney, and Melbourne.



Evidence of **investor interest**, including a digital data centre, aerospace technology and recycled plastics, and a MoU with the University of Canberra.



Competitive advantages from leveraging the existing Hume Industrial Estate.

Australian Defence

The Federal Government has committed \$29.9 billion to the defence budget up to 2025-2026, with \$195 billion under the Defence Integrated Investment Program, which seeks to invest \$35 billion on intelligence, surveillance, reconnaissance, electronic warfare, space, and cyber security.

While defence spending is generally spread across Australian defence establishments, there is a strong defence presence in the Capital subregion including the head offices in Russell, the Army Office training establishment at Duntroon, the Australian Defence Forces operational level headquarters at Bungendore and several private military supplies choosing to locate in Canberra to maintain close ties with the Federal Government.

The defence industry is a significant proportion of the Queanbeyan-Palerang economy and is currently seven times larger than the rest of the defence industry in NSW.

The increased willingness to invest in defence suggests the demand for private business to supply this sector is likely to grow in the future.

Cyber Security

The ACT has a number of government agencies and organisations which specialise in cyber security including:

-  CNN (a node of the national Cyber Security Industry Network)
-  The Department of Defence
-  The Australian Security Intelligence Organisation (ASIO)
-  The Australian Signals Directorate.

The Australian Federal Government agencies are subject to more cyber security incidents annually than all other states and territories combined.

Consequently, it has committed \$1.67 billion to combatting cyber security, positioning Canberra as the national security node of the Cyber Security Industry Growth Network.

The increases in government funding provides an opportunity to attract and grow the cyber security sector in the high-tech precinct.

Advancing Space Strategy 2019-2028

The aero-space industry has a strong presence in the Capital subregion with a range of space capabilities operating in the area, including:

-  The Department of Industry, Science and Resources
-  Australian Space Agency division
-  The CSIRO which manages the Deep Space Communications Centre under contract to NASA
-  Geoscience Australia which is responsible for Australia's position, navigation and timing and earth observation capabilities
-  The Attorney-General's Office which is responsible for space law
-  The Department of Infrastructure, Transport, Regional Development and Communications which has responsibility for satellite communications and spectrum management, in addition to Canberra's contributions to Australia's space capabilities.

NSW is home to 41% of Australian space-related businesses, generating around half of all revenue nationally.

The Federal Government also aims to triple the size of the Australian space sector with a commitment of \$12 billion and an additional 20,000 jobs in this industry.

The South Jerrabomberra precinct's dedicated high-tech sub precinct will provide a desirable location for this expanding space sector.

Proximity to tertiary education institutions and other key establishments

The South Jerrabomberra precinct is located within 30 minutes of world class tertiary research and education institutions such as the Australian National University (ANU), the University of New South Wales, and the University of Canberra, which specialise in technology, cyber and computational analysis.

The University of New South Wales and the Australian University specialise in education and research in space capabilities and provide Australia's only end-to-end facilities for the design, building and testing of spacecraft. Further, Geoscience Australia's Positioning Australian program incorporating Australia's Satellite-Based Augmentation System, National Positioning Infrastructure Capability and Digital Earth are all managed in Canberra, supported by the National Computation Infrastructure at ANU.

The South Jerrabomberra precinct is located near a range of Federal Government Agencies including: the Department of Defence, The Department of Industry, Science and Resources, and The Department of Infrastructure, Transport, and Regional Development and Communications.

The South Jerrabomberra precinct is situated in proximity to other businesses which specialise in technology, cyber and computational analysis and deliver a range of cyber security capabilities to the public and private sectors and other defence and cyber security business.

The co-location of high-tech industries can assist in:

-  attracting investment
-  connectivity and collaboration
-  innovation and expansion.
-  improved network security
-  knowledge and idea sharing

Access to the Intra-government Communications Network (ICON)

The Intra-government Communications Network (ICON) provides a cost effective, secure, and unmetered telecommunications network, linked by 3000 fibre links within the ACT. The network extends to the South Jerrabomberra precinct and access to this network is likely to be appealing for businesses connected to Federal Government Agencies in the Defence, cyber security, and space capabilities sectors.

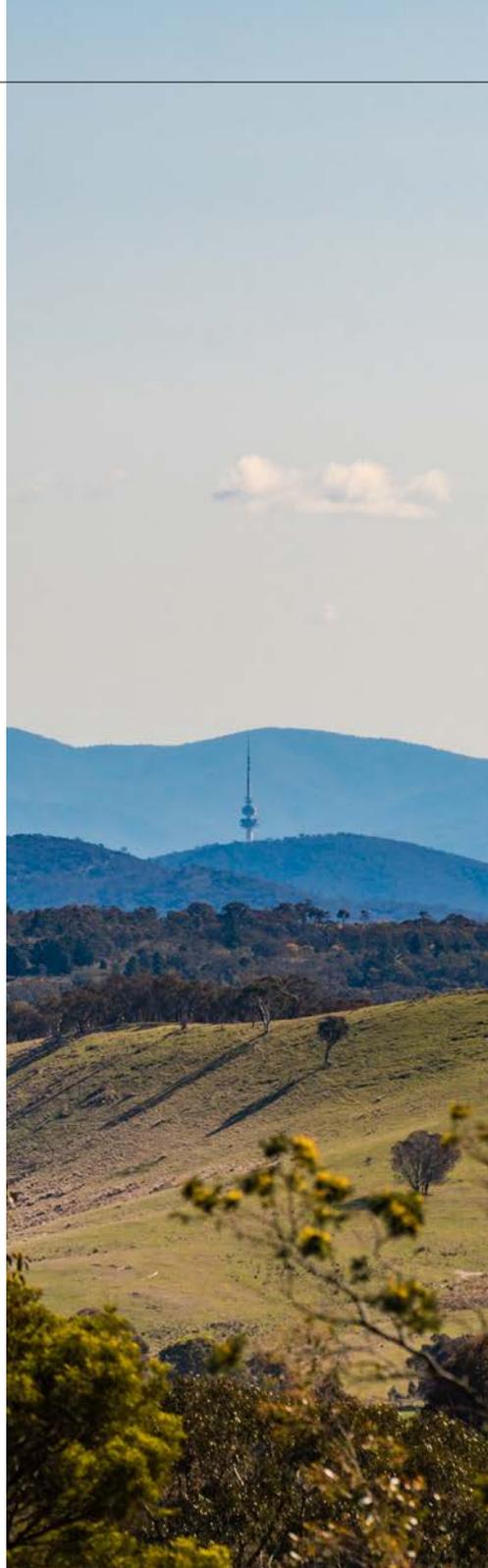
Access to the Capital subregions educated and skilled workforce

The Capital subregion is home to a technical and highly skilled workforce, which has experience and training aligned with the precinct's target industries. Approximately 123,000 workers are located within a 45-minute drive of the South Jerrabomberra precinct, which will benefit from access to this labour pool.

Access to key road freight routes

The South Jerrabomberra precinct is near key transport routes that connect the precinct to Canberra, Sydney, and Melbourne, as well as major ports including Port Kembla.

The South Jerrabomberra precinct does not have direct road connectivity into the adjoining Hume Industrial Estate. The provision of cross border, local road connections will improve traffic movements, increase road efficiency, and reduce congestion by allowing industrial related traffic to move easily between the two precincts reducing demand for heavy vehicle movements through the South Jerrabomberra precinct and local road network. It would also allow the two precincts to fully maximise the benefits of the co-location, including opportunities for businesses to cluster, collaborate, and benefit from shared workplace practices, technology, and a skilled workforce.



Creating new opportunities for those that live, work, and play in the Capital subregion

The Capital subregion is an attractive place to live with access to housing, education, health, community, recreational and cultural facilities. Currently, the Capital subregion has a population of around 717,000 residents and is expected to be home to approximately 940,000 residents by 2041, creating a need for more places to live and work and increased demand for jobs and services.

The South Jerrabomberra precinct can support the growth of the Capital subregion by offering a location for high-tech manufacturing, defence, cyber security and supporting general industrial businesses to establish, providing jobs in a location that is directly supported by places to live.

The connection to the ACT and the Queanbeyan-Palerang local government areas through transport connections, educational institutions, and health services, are likely to attract new and existing businesses to the area boosting economic development.

Lower land prices and operating costs

The demand for industrial and employment land is driven by population growth and with the projected population growth, the Capital subregion is expected to need 10–15 hectares of new employment lands per year to support the growing population. However, when advanced manufacturing, aero-space, defence and cyber security and technology industries are targeted, the demand for employment land significantly increases and between 10–35 hectares of employment land will be required per year.

For businesses looking to establish or relocate, land prices and operating costs are significantly lower in Queanbeyan, with industrial land starting at \$250 per square metre, compared to over \$500 per square metre for comparable land in Canberra. For similar sized establishments, business and property rates, electricity and workers compensation are all indicated to be lower in NSW than the ACT.

Lower land prices and operating costs are likely to be attractive to businesses looking to establish or reduce overheads, providing the South Jerrabomberra precinct with a competitive advantage over land in the ACT.

Evidence of investor interest

There is investor interest in the South Jerrabomberra precinct, including catalyst investors in recycled plastics, sustainable aerospace technology, a digital data centre, and wind technology.

The University of Canberra, Queanbeyan-Palerang Regional Council and Poplars Developments have entered into a MoU agreement which seeks to explore a range of educational partnership opportunities within the South Jerrabomberra precinct. The University of New South Wales (UNSW) have also expressed interest in hypersonic capacity in the South Jerrabomberra precinct.

Institutions such as universities, defence facilities or key tenants are often the catalyst of precincts as they indicate industry interest in the precinct. They act as an anchor to attract and retain other businesses, capital, and talent, and can be critical to the success of a precinct.



5.1 Sub precincts

The purpose of the master plan is to provide a setting and context for the South Jerrabomberra precinct. The master plan identifies the location of major land uses, roads, and open space.

The South Jerrabomberra precinct comprises sub precincts that are being developed for employment and residential uses now and land that will be suitable for employment uses in the future, subject to the provision of supporting infrastructure.

The master plan also sets out the existing and future character and key outcomes for the ten sub precincts that make up the South Jerrabomberra precinct (refer to Figure 10).



Poplars Innovation sub precinct



Local Business and Industry sub precinct



Local Centres sub precinct



Education sub precinct



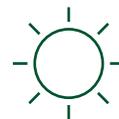
Regional Sports Complex sub precinct



Residential sub precinct



Rural Landscape sub precinct



Open Space and Recreation sub precinct

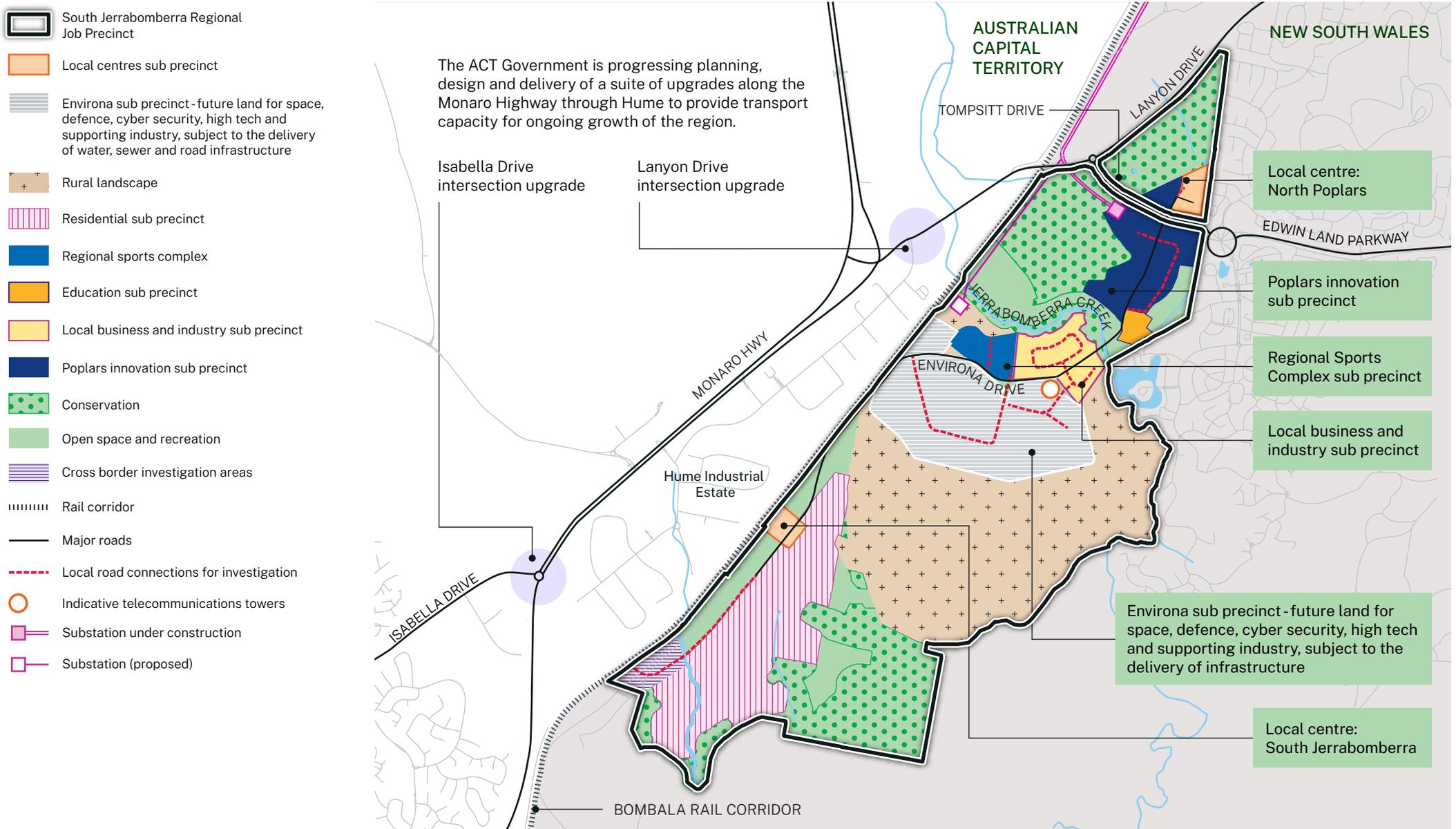


Conservation sub precinct



Environa sub precinct

Figure 10 South Jerrabomberra Regional Job Precinct Sub-precinct Plan



Poplars Innovation sub precinct

The Poplars Innovation sub precinct is approximately 39 hectares in size and is located between Tompsitt Drive and Jerrabomberra Creek, situated on either side of Environa Drive. This sub precinct has been identified as an area to create partnerships and collaboration opportunities between industry, education, research institutions and investors, with the potential to create around 1,150 jobs.

The development of the Poplars Innovation sub precinct is underway. The South Poplars Innovation sub precinct has undergone extensive planning, and stage 1 subdivision works (located on the western side of Environa Drive) were completed in 2022. Planning for Stage 2 (located on the eastern side of Environa Drive) is underway and enabling infrastructure along Environa Drive has recently been completed.

The Poplars Innovation sub precinct is proposed to deliver advanced manufacturing and light industry and will provide a range of small allotments as well as approximately 17 larger allotments of 5,000–12,000 square metres. The Poplars Innovation sub precinct is expected to be in a business park style layout. Building form will most likely be one to two storey, stand-alone buildings, with individual off-street parking and loading and landscaping. Site fencing is likely to be required to provide security.

It will be home to a digital data centre, sustainable aerospace technology, wind technology and recycled plastics. The University of Canberra, Queanbeyan-Palerang Regional Council and Poplars Developments have entered into a MoU agreement which seeks to explore a range of educational partnership opportunities and the University of New South Wales (UNSW) has expressed interest in hypersonic capacity within the South Jerrabomberra precinct. The Poplars Innovation sub precinct will benefit from these initiatives.

A business innovation hub has been earmarked for development by Queanbeyan-Palerang Regional Council, which will be an incubator for start-ups and emerging businesses that can leverage connections to the Education sub precinct and create pathways between education and industry.

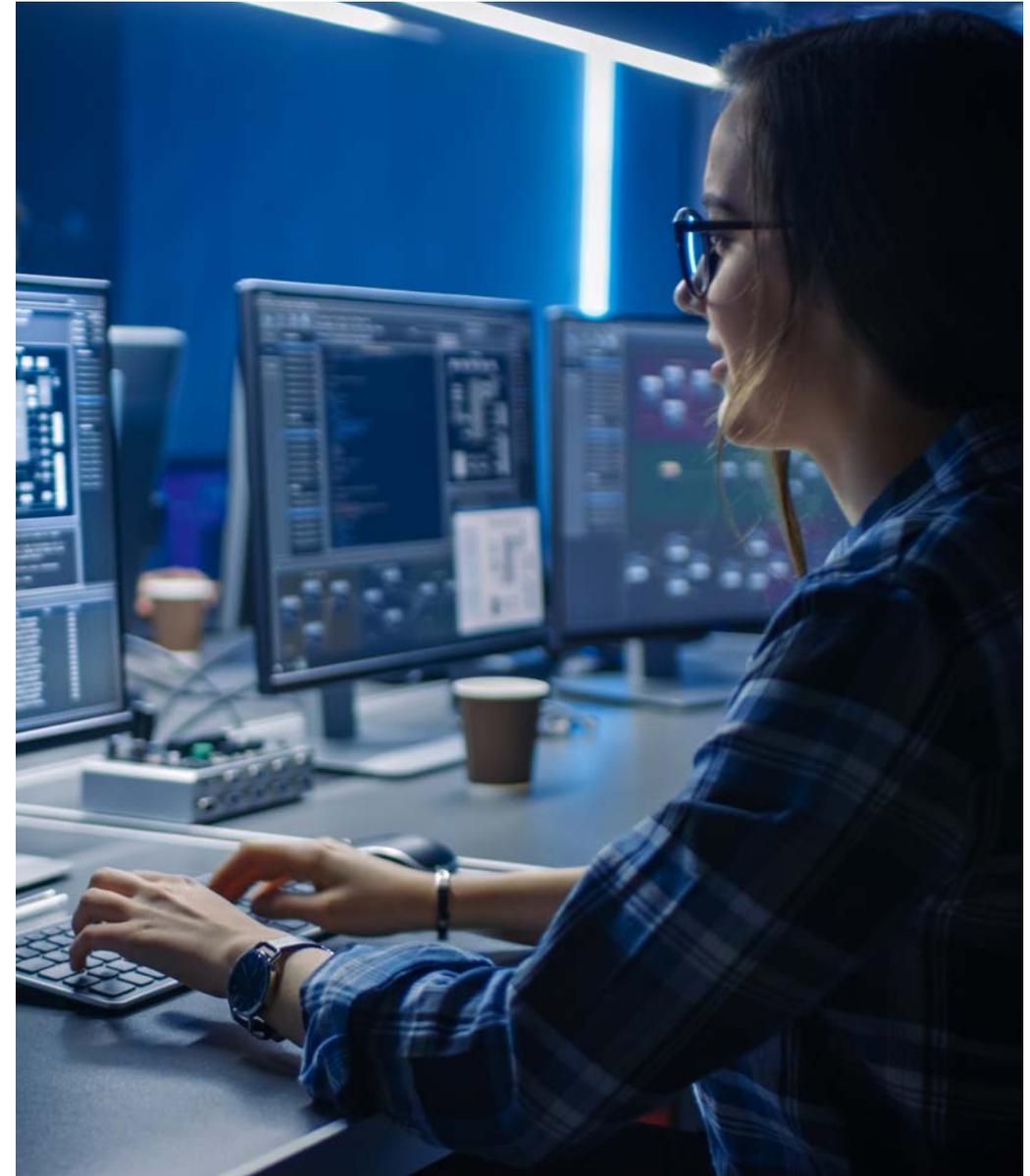
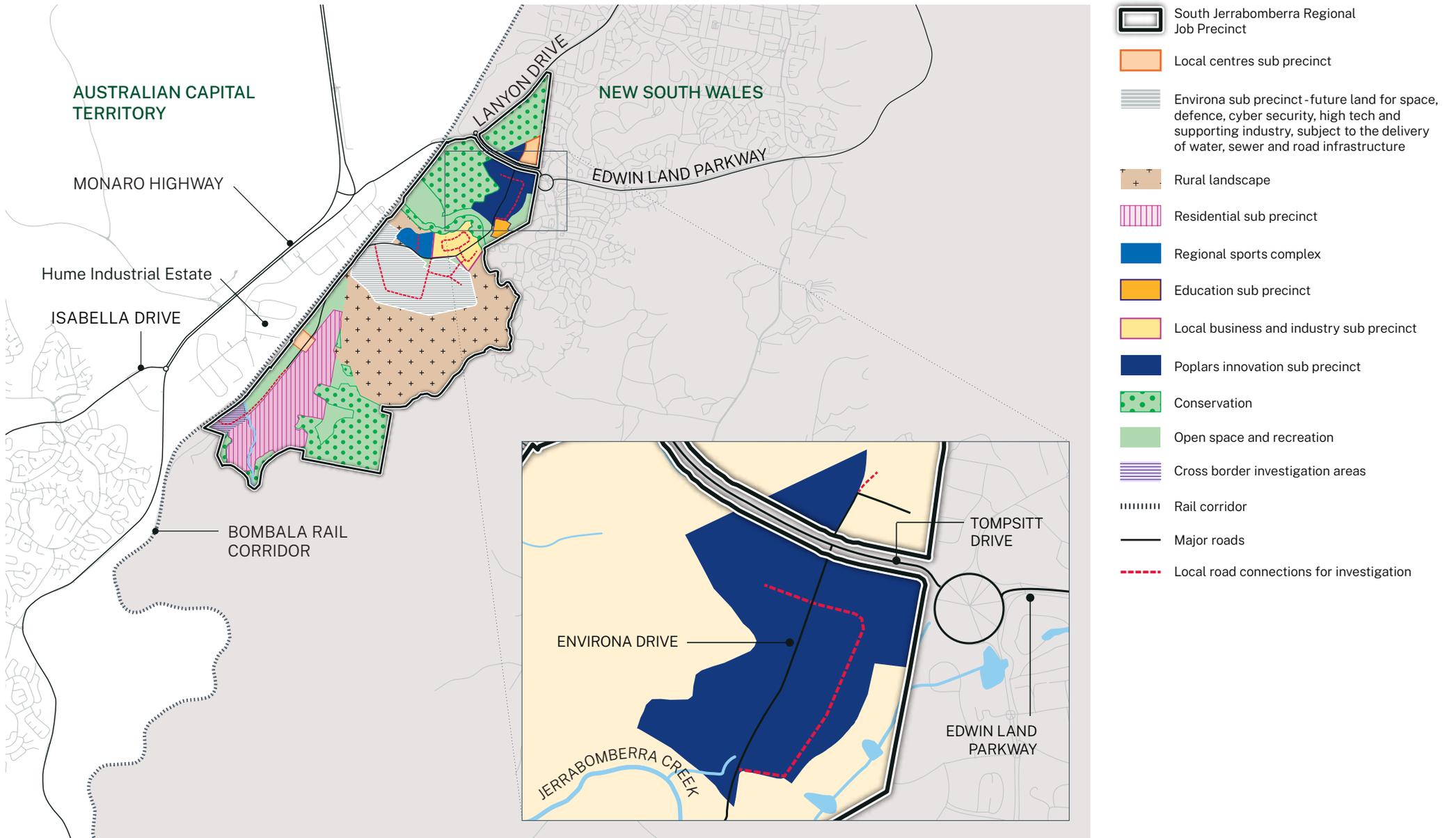


Figure 11 Poplars innovation sub precinct



Local Business and Industry sub precinct

The Local Business and Industry sub precinct is approximately 24 hectares in size. It is bordered by Jerrabomberra Creek to the north and is located on either side of Environa Drive.

The Local Business and Industry sub precinct will provide land for a wide range of light industries and local business activities such as:

- general and light industries
- local manufacturing
- construction
- vehicle repairs
- warehousing
- bulky goods
- food and drink premises; and
- self-storage.

The provision and supply of general and light industrial land is essential for population servicing, creating places where people can have their car serviced, houses built, and food and drink manufactured or warehoused after transport.

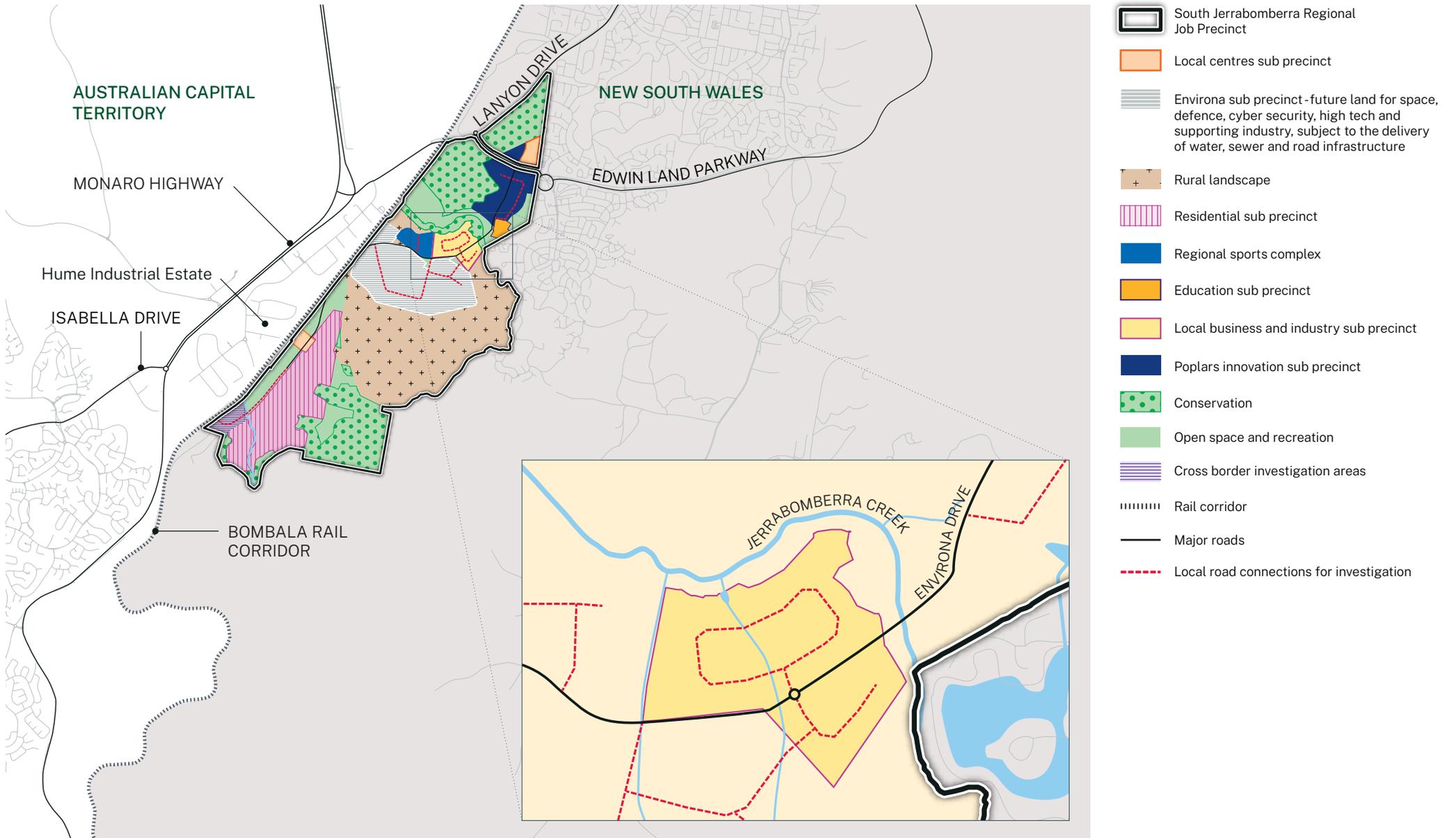
Additionally, the provision of cafés, parks, public and active transport paths, and small shops will assist to create a desirable place for businesses to locate and can facilitate shared spaces where workers can meet, share ideas, collaborate, and network. The market sounding undertaken during the master planning process reiterated the need and desire to create amenity.

The supply and maintenance of light industries and the provision of amenity will assist to:

- attract businesses and their employees to the South Jerrabomberra precinct
- provide a high standard of living; and
- support local innovation and business development.



Figure 12 Local Business and Industry sub precinct



Local Centres sub precinct

The master plan identifies the provision of two local centres in the South Jerrabomberra precinct. The North Poplars local centre is located in the north of the South Jerrabomberra precinct and the South Jerrabomberra local centre is located adjacent to the residential development in the south of the precinct.

These local centres will provide for the everyday needs of residents, improve walkability and liveability, and will provide the amenity required to support successful innovation precincts.

North Poplars

The North Poplars Local Centre is approximately 12 hectares in size and is situated between Lanyon and Tomsitt Drive and the existing Jerrabomberra suburb boundary. The North Poplars local centre comprises approximately 7.5 hectares of land zoned B1 Neighbourhood Centre and 5 hectares of land zoned B7 Business Park. The North Poplars local centre will service the immediate needs of those working within the South Jerrabomberra precinct.

Stage 1 of the North Poplars Local Centre is complete, comprising a supermarket, service station and fast-food restaurants. These are accessible from Ferdinand Lane, a new access street that connects to Tomsitt Drive and Environa Drive, at a new signalised four-way intersection.

Approximately 7.5 hectares of land for stage 2 remains undeveloped, with development of stage 2 expected to commence shortly.

The North Poplars sub precinct is expected to play a significant role in supporting the South Jerrabomberra precinct. The local centre will provide shops and retail uses, cafés, bars, and restaurants as well as wellbeing facilities for people living and working in the South Jerrabomberra precinct and surrounding areas.

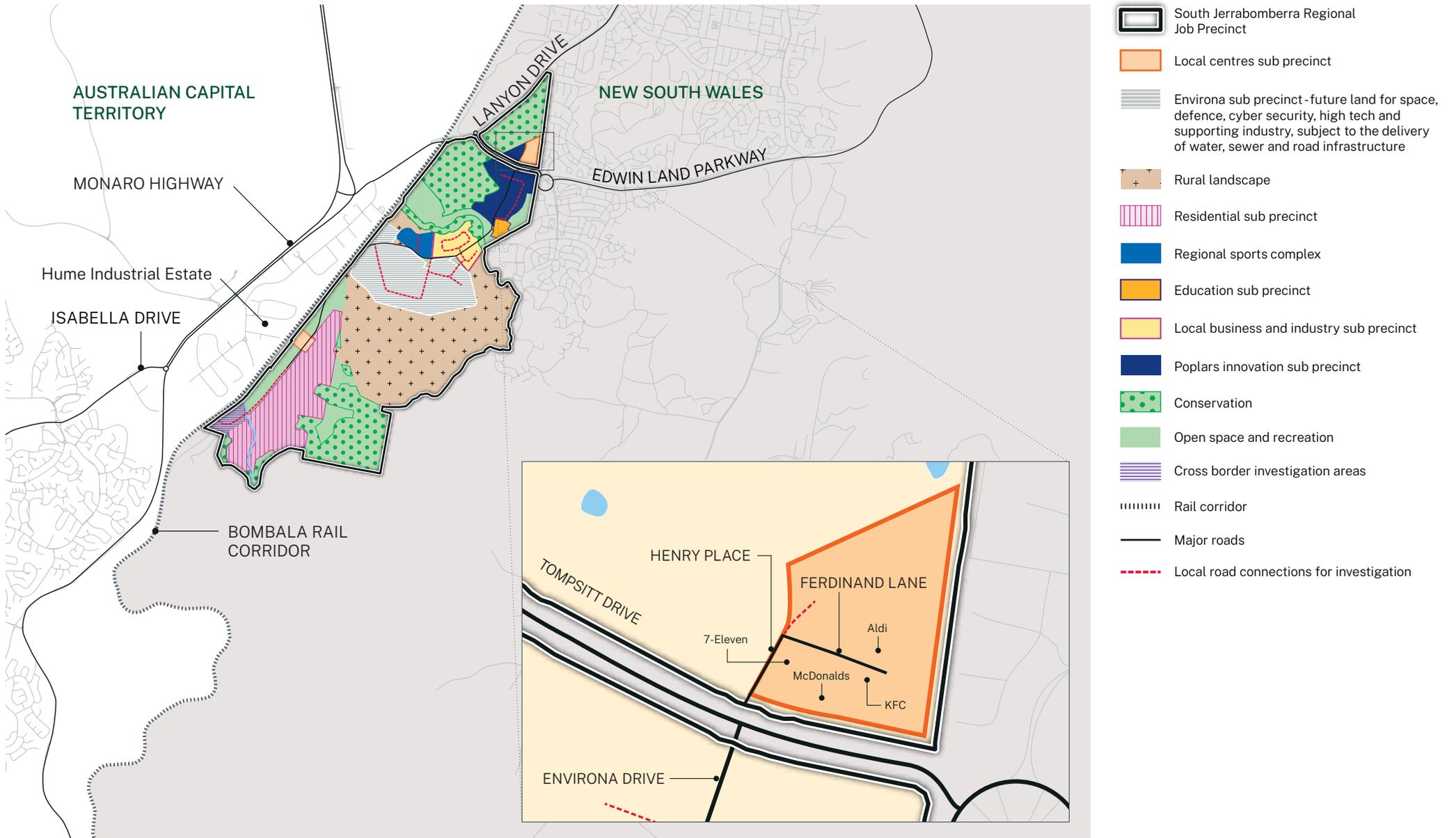
Travelling between Queanbeyan and Canberra using public transport and point to point services can be challenging. Both jurisdictions have separate bus operators with limited services.

Most cross-border trips require changing between the two services whose timetables are not always aligned and can result in two separate fares. Council, Transport for NSW (TfNSW) and the ACT Government are investigating ways to improve cross border connections including public transport and walking and cycling connectivity.

The provision of a Park and Ride facility in North Poplars would provide additional options for residents of Googong and Jerrabomberra to travel to Canberra. Locating this facility close to the local centre at North Poplars would allow travellers to do minor shopping or eating out without having to make an additional trip.



Figure 13 North Poplars local centre



South Jerrabomberra Retail Precinct

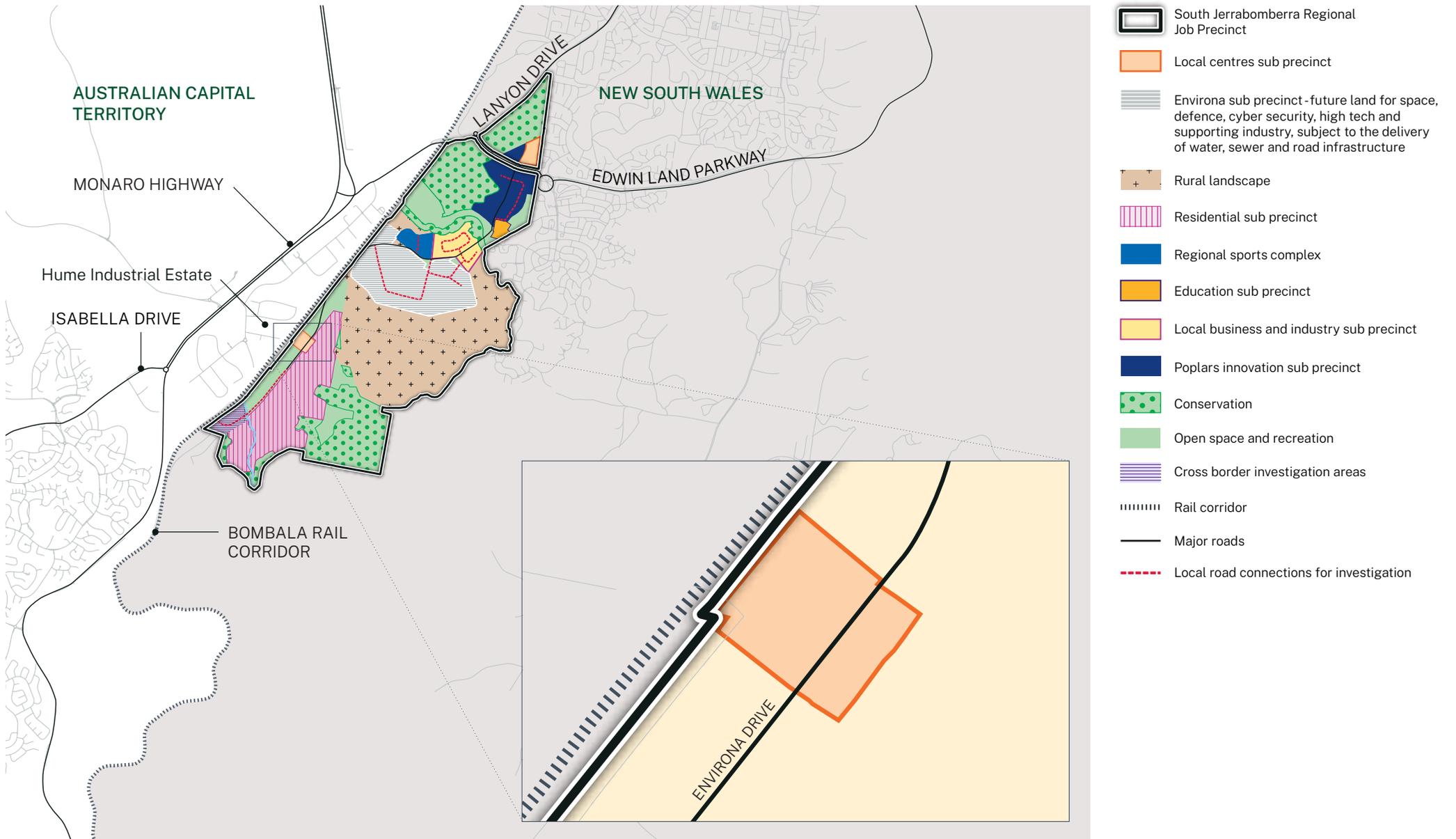
The South Jerrabomberra local centre is approximately 5 hectares in size and adjoins the residential development located in the south of the South Jerrabomberra precinct. The South Jerrabomberra local centre is situated between the residential development and the Hume Industrial Estate and is designed to provide a buffer between the more sensitive residential development and the Hume industrial area to the north and west.

The South Jerrabomberra local centre will provide a town centre for the adjoining residential development and will include retail, commercial and mixed-use opportunities. The South Jerrabomberra local centre will provide for the day-to-day needs of the people who live, work, or visit the area and will include eateries, small businesses such as hairdressers, and convenience shopping.



Artists impression view of the South Jerrabomberra local centre, courtesy of The Village Building Co.

Figure 14 South Jerrabomberra local centre



Education sub precinct

The Education sub precinct is on the eastern side of the South Jerrabomberra precinct and is approximately five hectares in area.

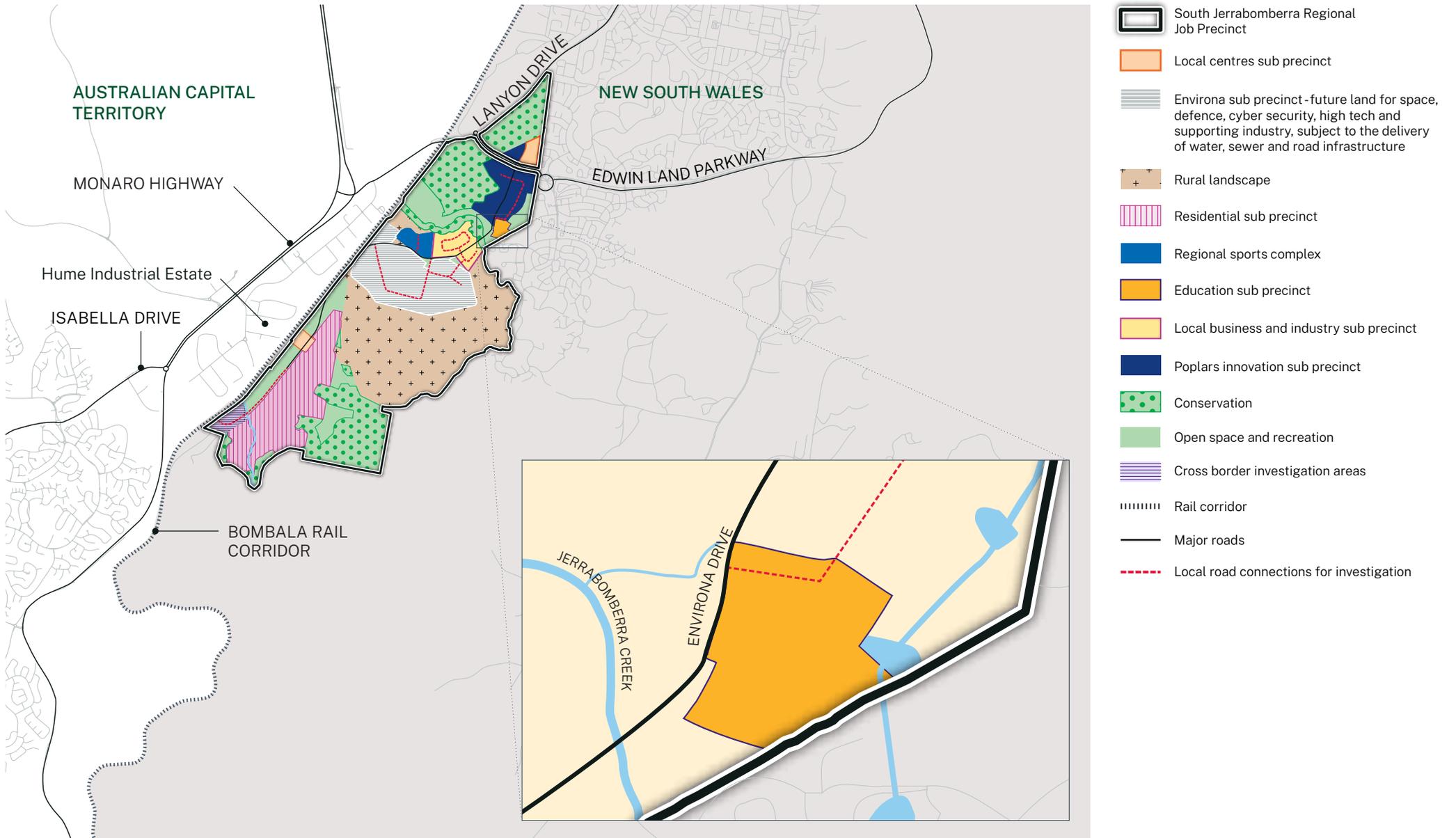
Jerrabomberra High School opened to Years 7, 8 and 9 for Day 1, Term 1 in 2024 in the new permanent modern facility on Environa Drive with the capacity for 500 students.

The new high school provides 24 flexible classrooms including 3 support classrooms and includes a library, multi-purpose hall, sports courts, covered outdoor learning areas, outdoor space, canteen and administration facilities.

Stage 2 of the school development, when complete, will have capacity to cater for up to 1,000 students.



Figure 15 Education sub precinct



Regional Sports Complex sub precinct

The Jerrabomberra Regional Sports Complex sub precinct is located in the centre of the South Jerrabomberra precinct, on the western edge, and is situated between Jerrabomberra Creek to the north and Environa Drive to the south. The precinct is approximately 12 hectares in size.

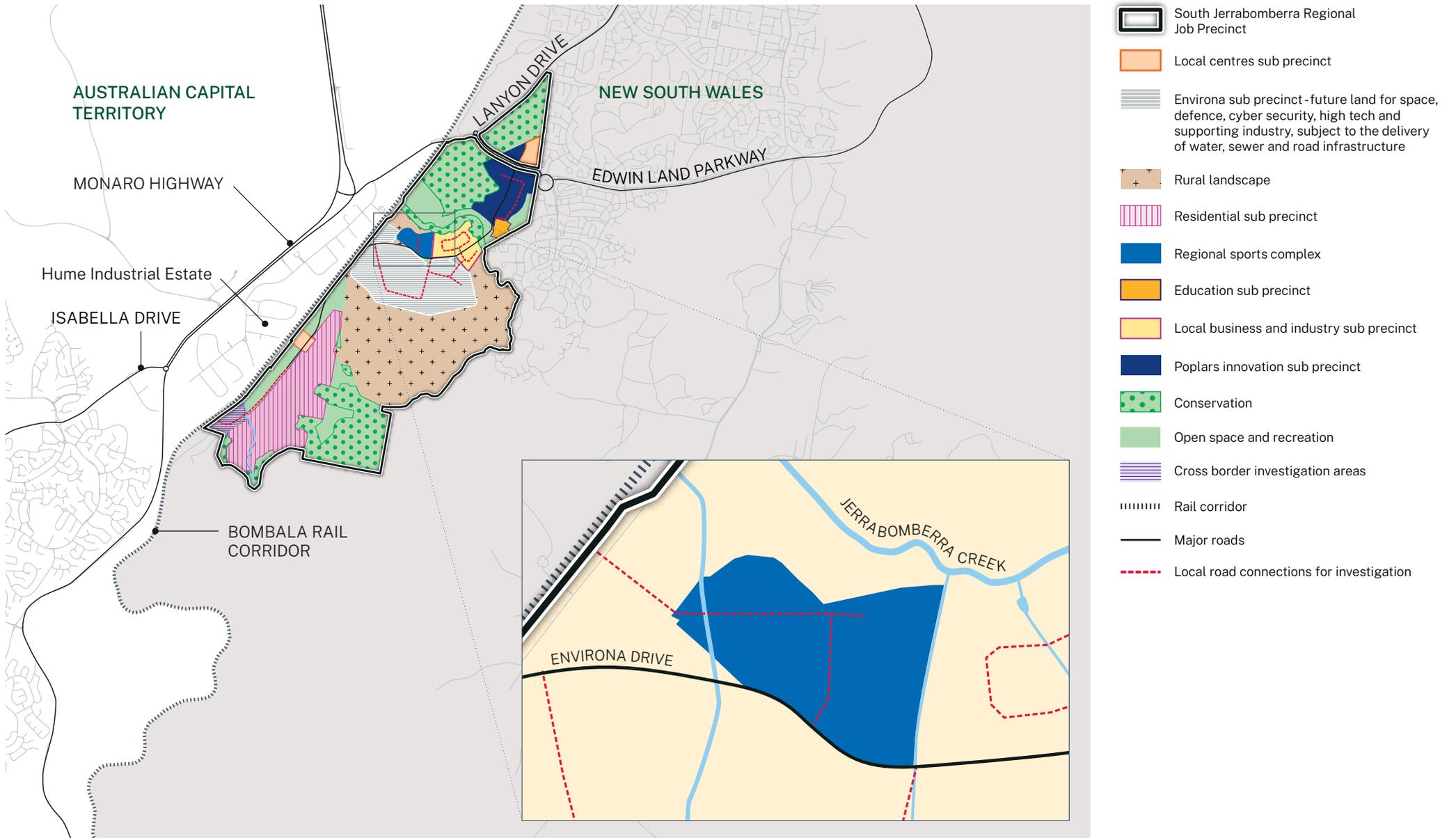
Construction of the Jerrabomberra Regional Sports Complex has commenced. The Regional Sports Complex will be accessed from Environa Drive and will be a multi-disciplinary facility comprising of:

- four outdoor soccer fields
- two hockey fields and pavilion
- club rooms and amenities
- indoor aquatic centre
- indoor seated basketball stadium; and
- six cricket pitches, two of which will be turf.



New synthetic turf hockey field at the Regional Sport Complex

Figure 16 Regional Sports Complex sub precinct



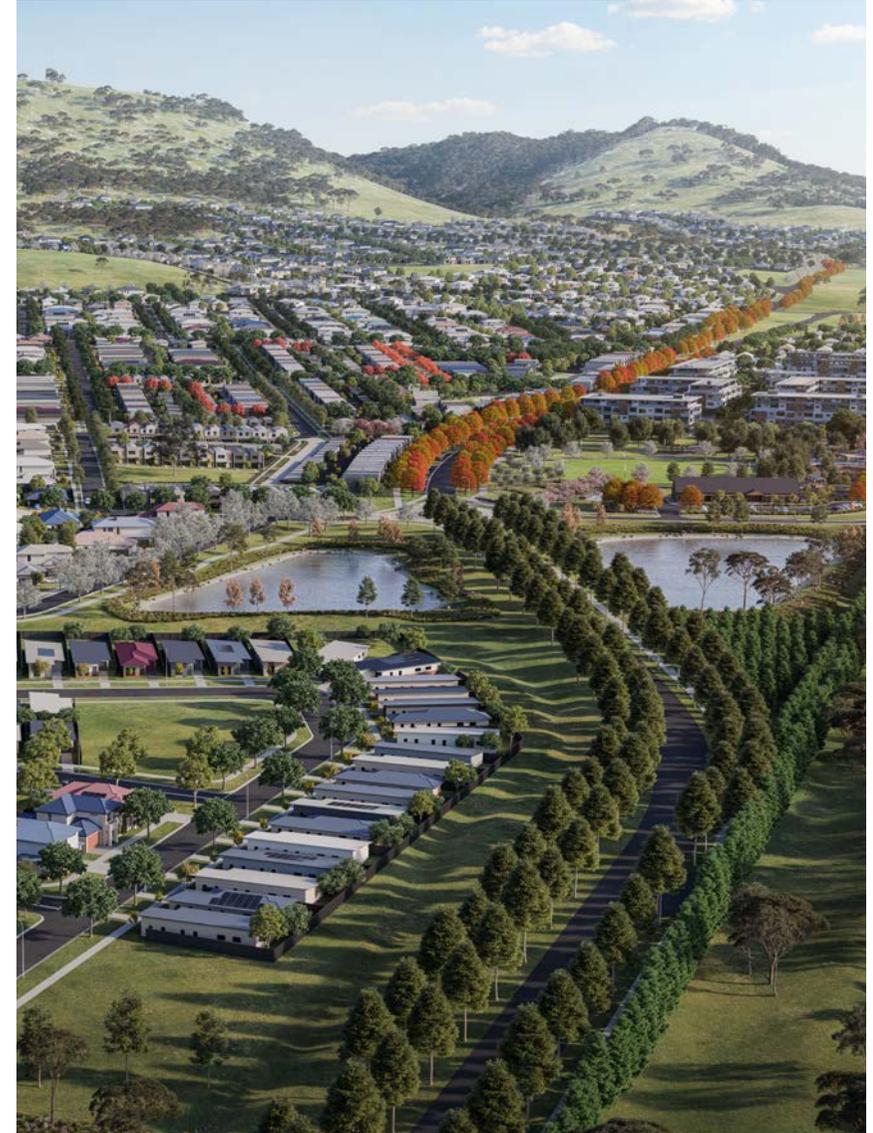
-  South Jerrabomberra Regional Job Precinct
-  Local centres sub precinct
-  Environa sub precinct - future land for space, defence, cyber security, high tech and supporting industry, subject to the delivery of water, sewer and road infrastructure
-  Rural landscape
-  Residential sub precinct
-  Regional sports complex
-  Education sub precinct
-  Local business and industry sub precinct
-  Poplars innovation sub precinct
-  Conservation
-  Open space and recreation
-  Cross border investigation areas
-  Rail corridor
-  Major roads
-  Local road connections for investigation

Residential sub precinct

The Residential sub precinct, located in the south of the South Jerrabomberra precinct, is approximately 110 hectares in size and is zoned for low density residential development, with the potential to accommodate 1,500 new homes.

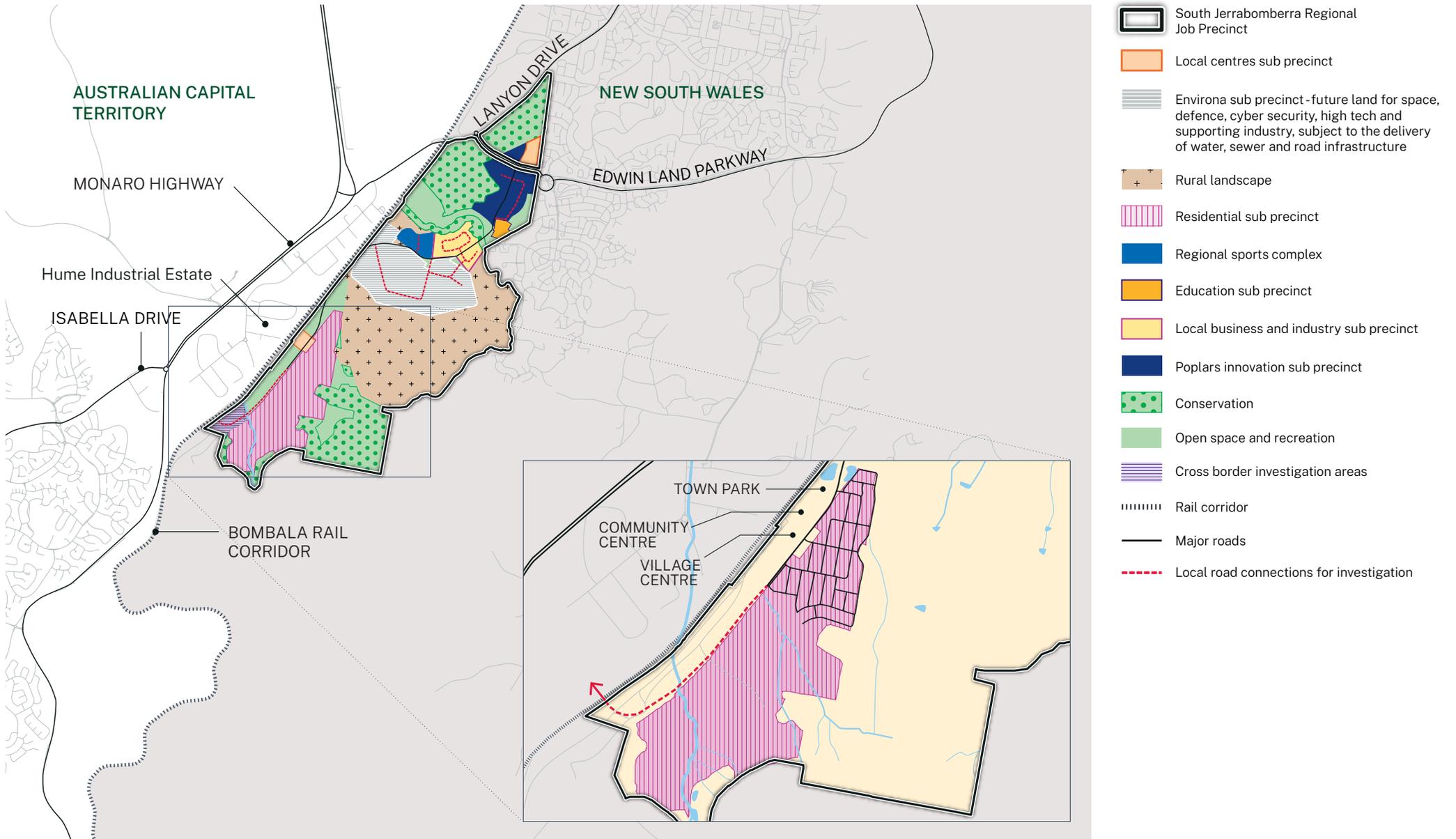
Construction in the Residential sub precinct commenced in 2019 and is expected to be completed over the next ten to twenty years. Water, sewer and road infrastructure are provided from the north via Environa Drive.

Local infrastructure planning will cater for 1,500 homes within the precinct. Further housing opportunities would need precinct wide infrastructure planning to increase infrastructure capacity.



Artists impression view across the residential sub-precinct, including residential streets, town park and ponds. Courtesy of The Village Building Co

Figure 17 Residential sub precinct



-  South Jerrabomberra Regional Job Precinct
-  Local centres sub precinct
-  Environa sub precinct -future land for space, defence, cyber security, high tech and supporting industry, subject to the delivery of water, sewer and road infrastructure
-  Rural landscape
-  Residential sub precinct
-  Regional sports complex
-  Education sub precinct
-  Local business and industry sub precinct
-  Poplars innovation sub precinct
-  Conservation
-  Open space and recreation
-  Cross border investigation areas
-  Rail corridor
-  Major roads
-  Local road connections for investigation

Rural Landscape sub precinct

The Rural Landscape sub precinct comprises approximately 259 hectares of rural land.

The rural land in the centre of the South Jerrabomberra precinct is elevated and steep in places, with a large area of protected Box Gum Woodland. The land is also partly used for grazing and includes a prominent central homestead on a high point.

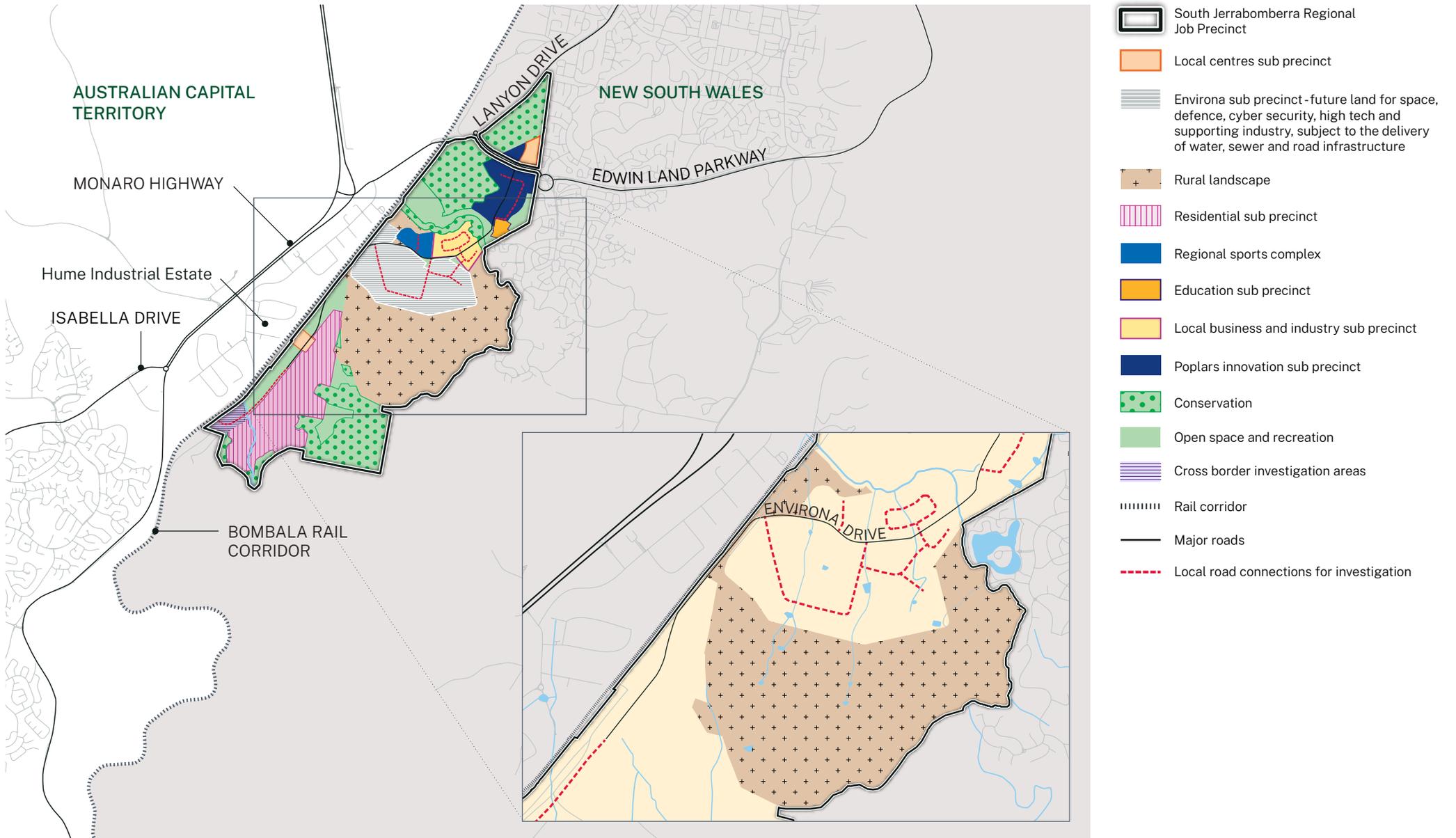
The Rural Landscape sub precinct contains two dwellings and also Aboriginal and European items of heritage value.

The rural land in this precinct is proposed to maintain its rural landscape character and form a rural landscape buffer, separating businesses and industry areas from residential development.

The retention of the rural landscape character will assist to minimise visual impacts, retain view lines and deliver connected environmental areas and habitat corridors.



Figure 18 Rural Landscape sub precinct



Open Space and Recreation sub precinct

The Open Space and Recreation sub precinct comprises approximately 79 hectares of open space situated in several locations across the South Jerrabomberra precinct. Land identified for open space is located north of Jerrabomberra Creek, west of the residential development and in two parcels of land east of the residential development. Land identified for open space is zoned RE2 Private Recreation.

Most of the open space is undeveloped grazing or grassland with a scattering of trees and will provide parks, opportunities for active recreation, as well as land for passive recreation, revegetation, and stormwater management.

To the west of the residential development, a 180–205 metre wide

corridor of open space separates the South Jerrabomberra Residential sub precinct from the Hume industrial estate to provide a transition from industry to residential and protect residential amenity. This corridor has been developed between Council and ACT Government.

The corridor will include a town park, community centre and open space.

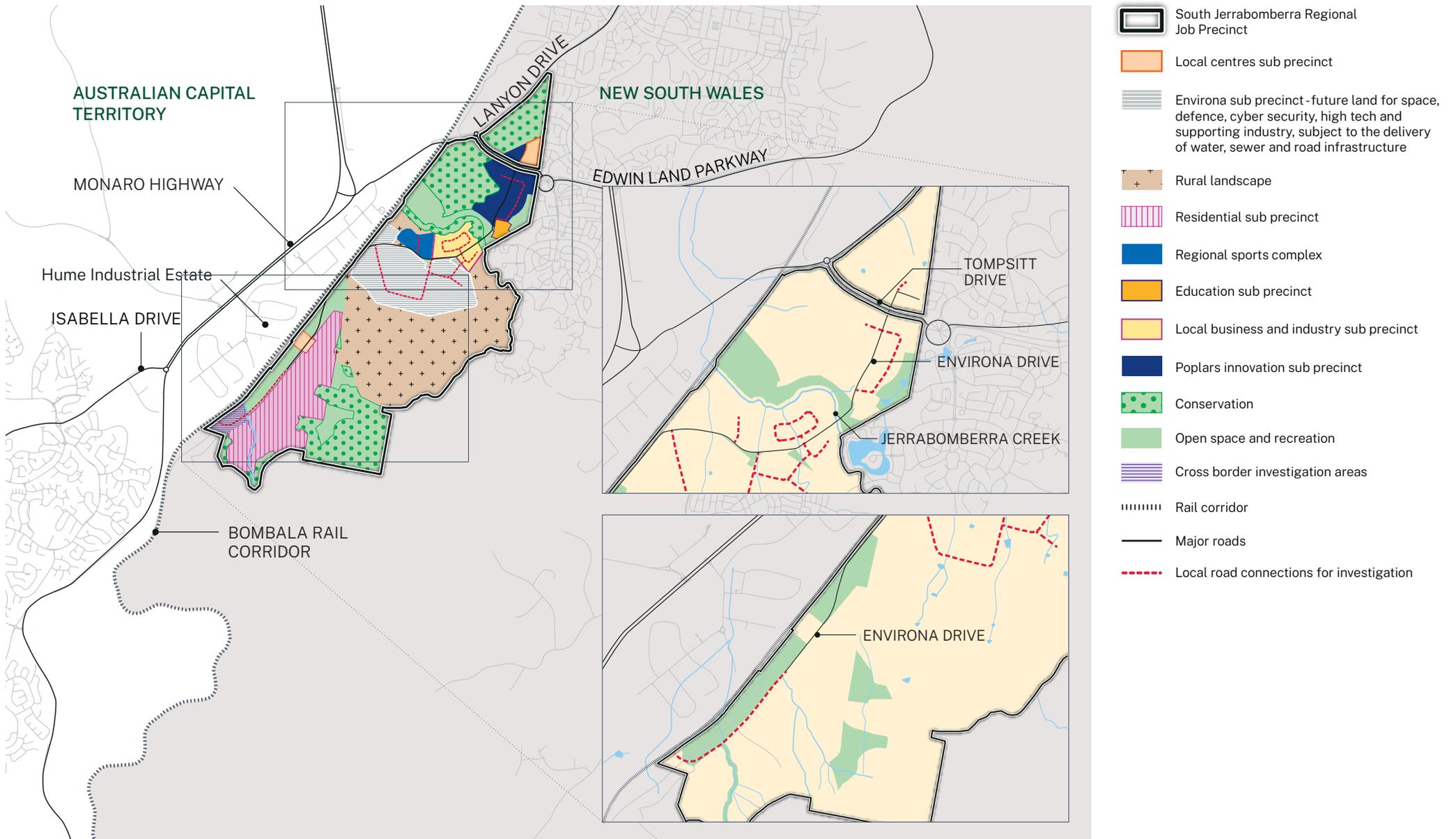
To the east of the residential development, land identified for open space will include a dog park and community orchard.

The land north of Jerrabomberra Creek is not identified for development at this time.

The inclusion of open space will provide the community and workers with active lifestyle opportunities that can benefit health and wellbeing. Open spaces also contribute to the local character of the area, and provide visual amenity.



Figure 19 Open Space and Recreation sub precinct



Conservation sub precinct

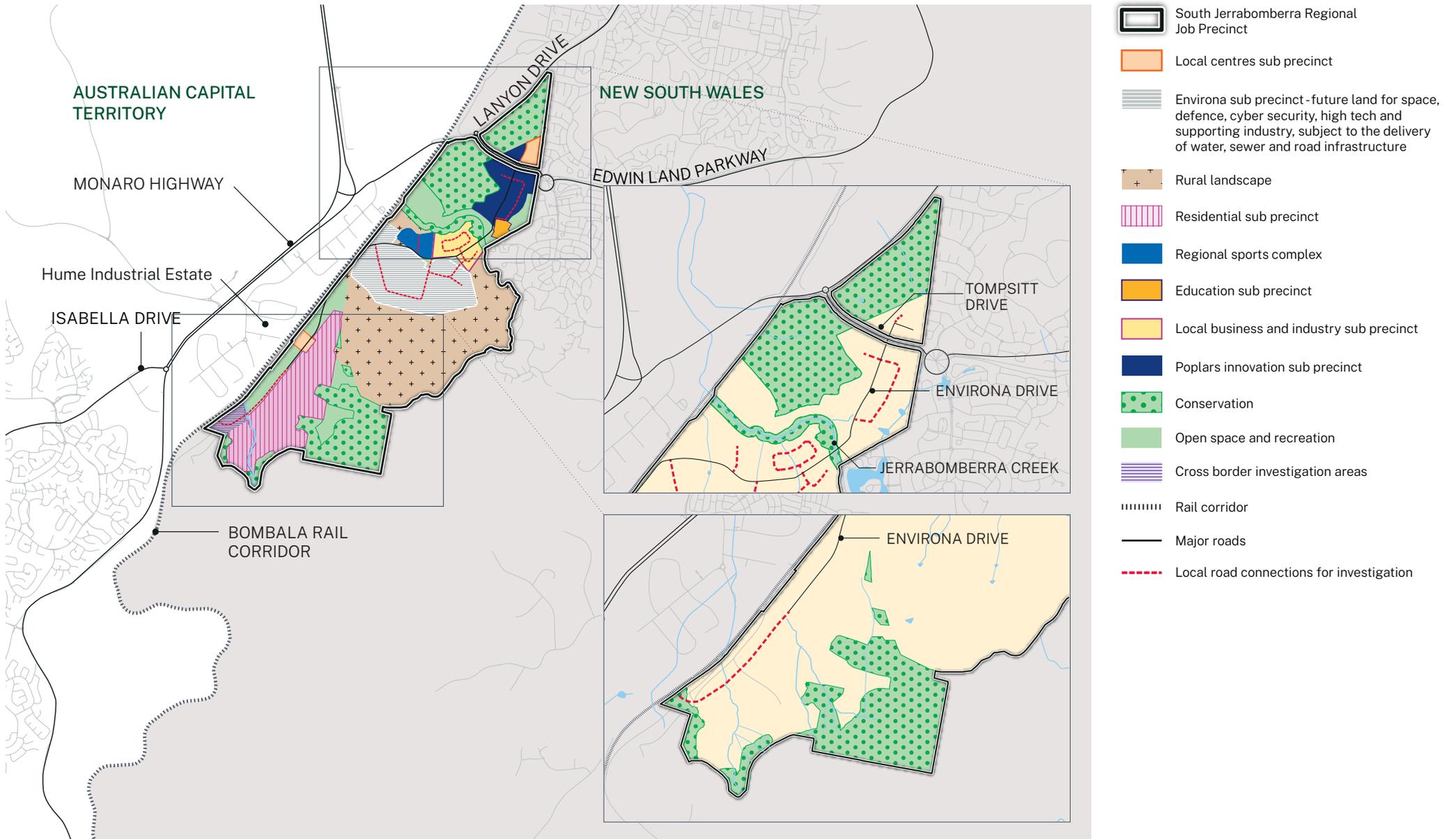
The Conservation sub precinct is approximately 219 hectares in size, comprising parcels of land in the north and south of the South Jerrabomberra precinct and along the Jerrabomberra Creek Line. The Conservation sub precinct is generally undeveloped and is known to contain areas of high biodiversity grassland and woodlands which support a number of protected species.

The precinct benefits from a large area of conservation land contributing to the landscape and preserving biodiversity values. Areas of high biodiversity between this area and the Jerrabomberra Creek may be rezoned for conservation purposes to align with the Biodiversity Certification outcomes for the Poplars sub precinct.

Land within the Conservation sub precinct may be utilised for low impact recreation such as walking trails where the land is not protected through bio-banking agreements and biodiversity certification orders.



Figure 20 Conservation sub precinct



Expected land use and employment projections for the sub precincts to 2031.

The sub precincts are expected to be completed and fully operational by 2031 providing a total of 1,602 jobs in freight and logistics, light industry, and high-tech manufacturing businesses.



South Poplars

Land use mix		Land (Ha) ex roads	Building + site cover	GFA (sqm)	Jobs
Business park	80%	26	119,680	134,640	920
High tech manufacturing	20%	6	29,920	33,660	230
Total		32	149,600	168,300	1,150

North Tralee

Land use mix		Land (Ha)	Building + site cover	GFA (sqm)	Jobs
Light industrial	50%	9	45,612	34,209	226
Freight and logistics	20%	4	18,245	13,683	90
High tech manufacturing	10%	2	9,122	6,842	45
Big box retail	20%	4	18,245	13,683	90
Total		19	91,224	68,417	451

Source: SGS Economics and Planning 2022

Figure 21 South Jerrabomberra Regional Job Precinct future sub precinct

5.2 Future sub precinct

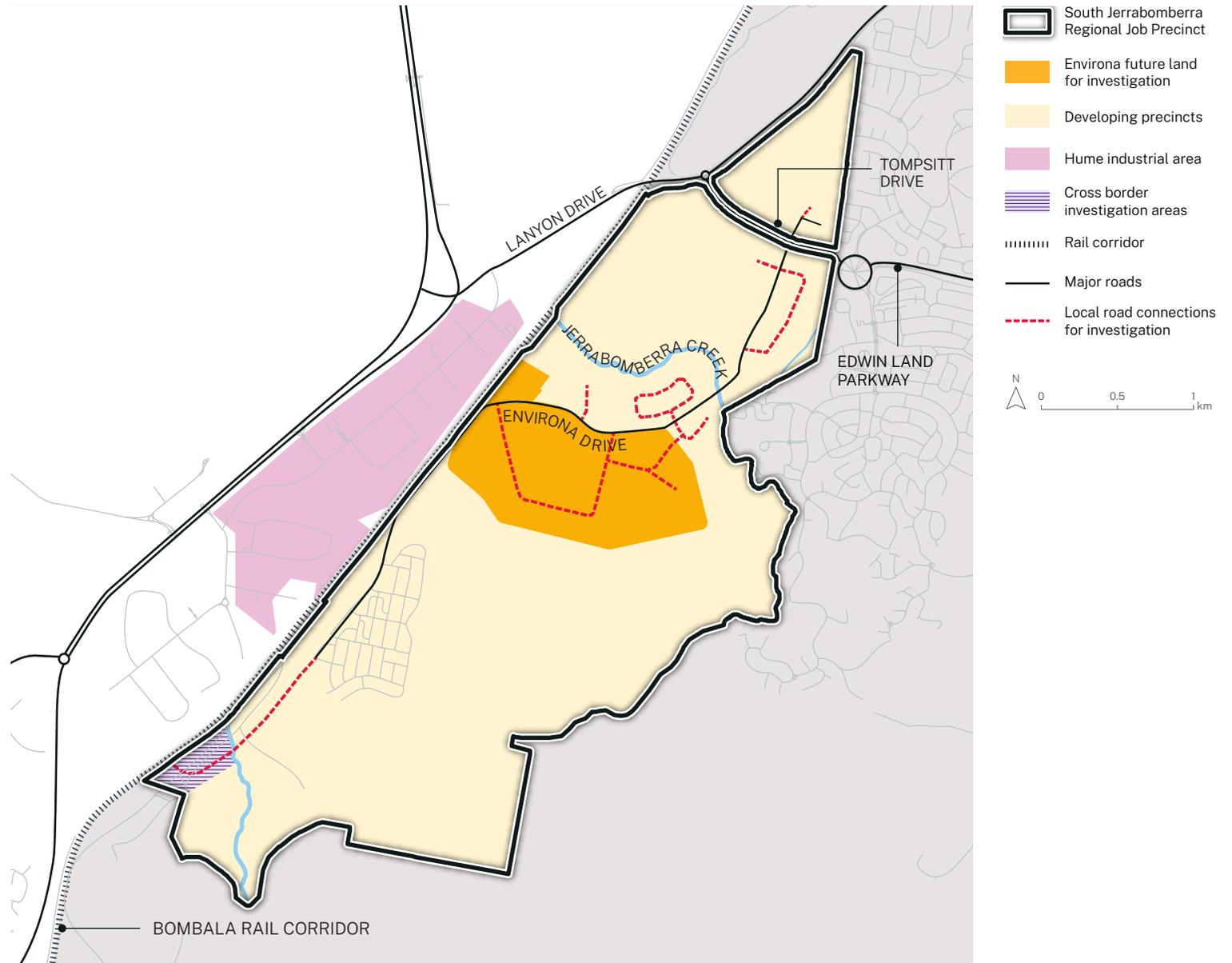
Environa sub precinct

The Environa sub precinct is located on the southern side of Environa Drive and is approximately 102 hectares in size. The land is undulating and is currently used for grazing and has low biodiversity values.

The Environa sub precinct was part of the historic (undeveloped) Environa residential subdivision and contains several unprotected items of historic value, including the bandstand, stone pillars, and gateways. The area is also affected by aircraft noise constraints.

The Environa sub precinct has been identified for future development in high-tech, space, defence, and cyber security industries. Light industrial uses are recommended to be permitted as they are essential in supporting the high tech, space and defence industries. The provision of light industry will assist to encourage a range of businesses within the Environa sub precinct. Business diversity will support business expansion, employment growth and a range of services to support the local population.

The Environa sub precinct will provide a range of other supporting uses such as business hubs, cafés, and open space to create amenity, and enable opportunities for networking and information sharing. It will create a place where businesses want to locate, and people want to work.



Desired cyber security, defence, and space	Desired light industry businesses	Desired other business types	Undesirable
Space manufacturing	Local manufacturing	Take away food and drink	Residential
Defence and research manufacturing	Construction	Cafe	Accommodation
AI and cyber security centres	Automotive	Office premises	Child care
Data centres	Hardware, landscape supplies	Gyms	Community uses
Other advanced manufacturing	Industrial and construction training services		Heavy industry
Research and development	Warehousing		Hazardous industry

The Environa sub precinct has been identified for future business and employment growth. Development will be deferred until precinct wide infrastructure planning is completed and satisfactory arrangements are in place for the provision of key enabling infrastructure, such as road, footpaths, drainage, water, sewerage, and stormwater.

The provision of water, sewerage and road infrastructure will be critical to the future development of the Environa sub precinct. The Queanbeyan Sewerage Treatment Plant is operating at peak capacity and the Jerrabomberra Trunk Main is approaching capacity. The upsizing of existing mains will be problematic as there is only one connection to the wider water and sewer networks, and no space within the newly created road reserve to accommodate additional water or sewer infrastructure. Development of the Environa sub precinct is reliant on satisfactory arrangements and provision for Queanbeyan Sewerage Treatment Plant upgrade and trunk main upgrade.

Future development will be reliant on a detailed infrastructure strategy that details planning, provision, funding and implementation of required works and augmentation of water and sewer infrastructure.

Currently, there is only one arterial connection into the South Jerrabomberra precinct, Tomsitt Drive and one primary internal road. Tomsitt Drive is at capacity and cannot cope with any additional load generated by further development in the South Jerrabomberra precinct.

The provision of secondary access points will ensure the precinct can deliver:

- an efficient local road network
- improved access and egress for all residents, workers, and visitors
- a variety of travel routes within the precinct
- the movement of people, business, freight, supplies and goods
- reduced congestion
- improved egress during times of emergency; and
- assist to ensure the South Jerrabomberra precinct and the Hume Industrial Estate are complimentary and can leverage from each other.

It is anticipated that the Environa sub precinct could provide approximately 2,300 jobs through a mix of high-tech manufacturing, light industry, and supporting uses such as cafés and business hubs.

Expected land use and employment projections for future sub precinct



Environa		2031	2036	2041
Land use mix		Jobs	Jobs	Jobs
Light industrial	25%	71	235	334
High tech manufacturing	50%	142	475	668
Business Park	25%	71	240	334
Total		284	950	1,336
Local business and industry				
Land use mix		Jobs	Jobs	Jobs
Light industrial	50%	160	272	514
Freight and logistics	20%	64	109	206
High tech manufacturing	10%	32	54	103
Big box retail	20%	64	109	206
Total		320	544	1,029

Source: SGS Economics and Planning 2022

5.3 Infrastructure and development staging

Staging Plan

Staging is a critical consideration in master planning and the release of stages is designed to align with the delivery of key transport and utilities infrastructure.

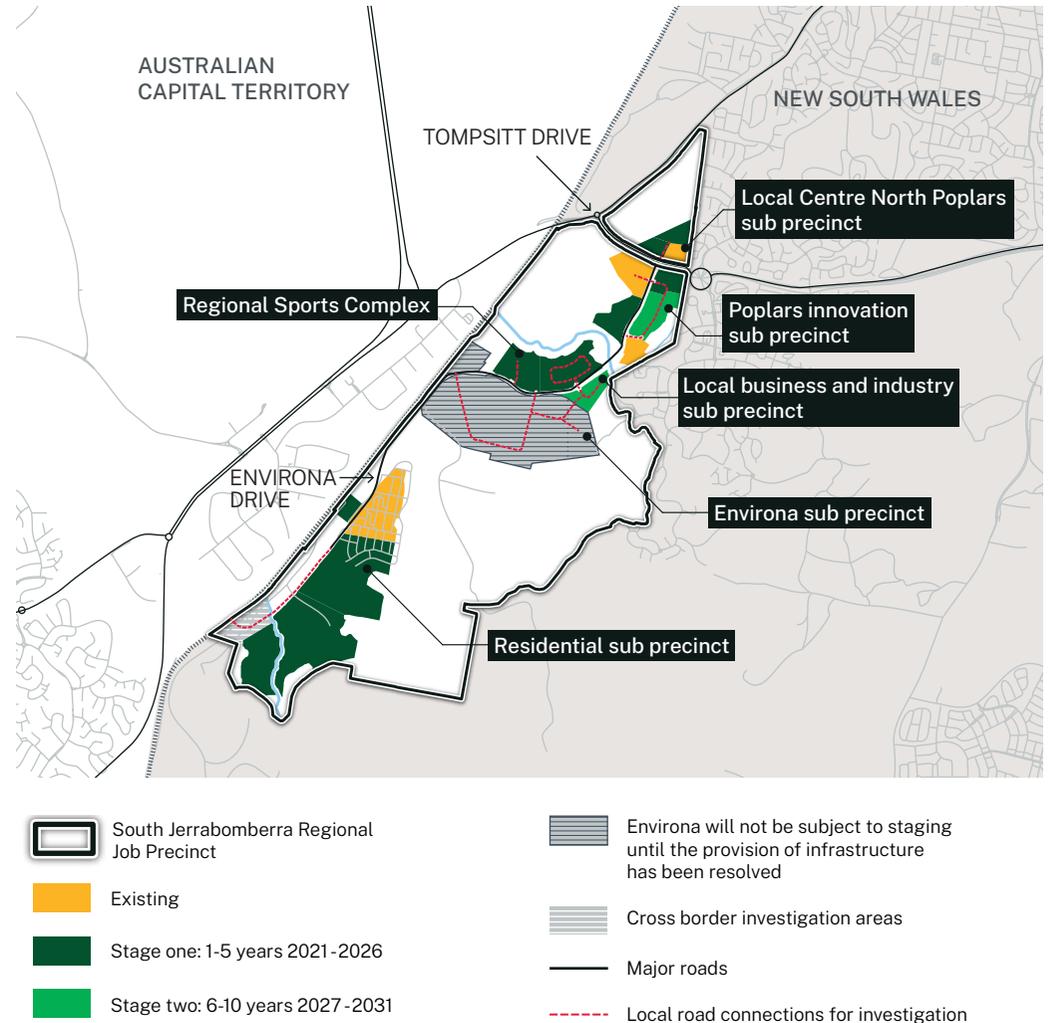
The South Jerrabomberra precinct master plan proposes indicative development staging in 5-year increments. The staging is ambitious and based on developers intentions to develop land over the next 5-10 years.

The existing zoned land will leverage off existing road and utility infrastructure which has been planned for and contributions agreed.

Future sub precincts will need to demonstrate, through feasibility studies, detailed design work, and funding mechanisms, how the additional demand on traffic, potable water, sewer, power, telecommunications, and additional access points into the South Jerrabomberra precinct can be satisfied. The provision of additional road connections into South Jerrabomberra precinct are also critical to enable the development of the Environa sub precinct.

There is no direct funding from NSW Government for infrastructure associated with the South Jerrabomberra precinct. Consequently, investment in increasing capacity of utility infrastructure will be tightly linked to the potential release of land in the precinct. Development in the Environa sub precinct should not occur until there is a clearly defined and identified strategy for funding and construction of required road, water, sewer, power, telecommunication and additional cross-border connections.

Figure 22 South Jerrabomberra precinct staging plan



5.4 Bombala rail line and intermodal investigations

The Bombala Rail Line runs along the western boundary of the South Jerrabomberra precinct for approximately 5 kilometres and is a branch line from the Main Southern line. The line is owned by TfNSW, with the operation and maintenance contracted to engineering company, UGL. The line section south of Queanbeyan is a commissioned line, however, the line is non-operational and has fallen into disrepair. There are no current plans in place for its reinstatement.

Queanbeyan-Palerang Regional Council's Local Strategic Planning Statement, 'Towards 2040', included a vision for a rail intermodal facility along the railway line between Queanbeyan and Hume. Consequently, an intermodal facility was considered as part of the master planning.

Intermodal facility investigations

The following studies have considered the reinstatement of the Bombala Rail Line and determined that the reinstatement of Bombala Rail Line is not viable:

- Canberra to Port of Eden Feasibility Study prepared by TfNSW in May 2022.
- Intermodal Terminal Investigation, prepared by George Stanley Consulting in May 2022.

Canberra to Port of Eden Feasibility Study

The NSW Government investigated the feasibility of creating a rail link between Canberra and the Port of Eden. However, the Canberra to Port of Eden Feasibility Study analysis concluded the project would not be viable due to the environmental and infrastructure/engineering constraints, high costs and low delivery benefits.

South Jerrabomberra Intermodal Feasibility

As part of this master planning process a feasibility study was undertaken for an intermodal terminal to support the South Jerrabomberra precinct. The Intermodal Terminal Investigation determined that an intermodal facility would not be feasible for the following reasons:

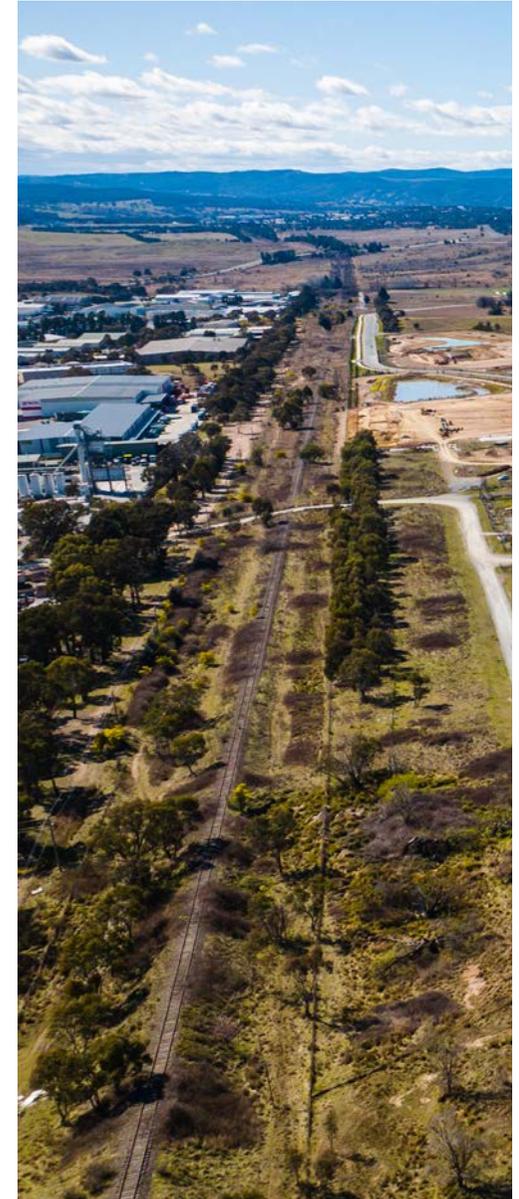
- TfNSW does not have plans to invest in reinstating the line.
- There is not enough rail contestable freight to support the development and operation of a rail intermodal facility in this location.
- Road transport has a greater cost advantage for freight movements in the region and road transport tends to be the mode of choice as rail transportation is limited by proximity of the freight generating organisations to rail loading points.

- Road transport also offers greater flexibility in moving consignments as trains travel according to fixed timetables and road avoids the need for additional coordination and transaction costs through intermediaries such as freight forwarders.
- Road access to the proposed intermodal site is limited and would require costly upgrades.
- Significant investment would be required to upgrade the 6 kilometres of line to make it operational.

Further, TfNSW's draft South East and Tablelands Regional Transport Plan commits to working with relevant councils and the Department of Primary Industries and Regional Development to investigate the feasibility of repurposing the disused rail line between Queanbeyan and Bombala as a part of the Monaro Rail Trail.

Monaro Rail Trail investigations

Investigations are under way to repurpose the disused Bombala Rail Line between Queanbeyan and Bombala for a 208km rail trail. The State Government has provided almost \$273,000 in funding to complete the development plan for the Monaro Rail Trail between Queanbeyan and Cooma.



6

Key Opportunities



Aerial view of the NSW and ACT border at South Jerrabomberra



This section discusses the opportunities and advantages in the South Jerrabomberra precinct. The South Jerrabomberra precinct is unique as it provides opportunities for innovation and growth in the defence, cyber security and high technology industries.

6.1 Planned ACT infrastructure upgrades

The planned ACT infrastructure upgrades are an important component of providing connections between South Jerrabomberra and the ACT.

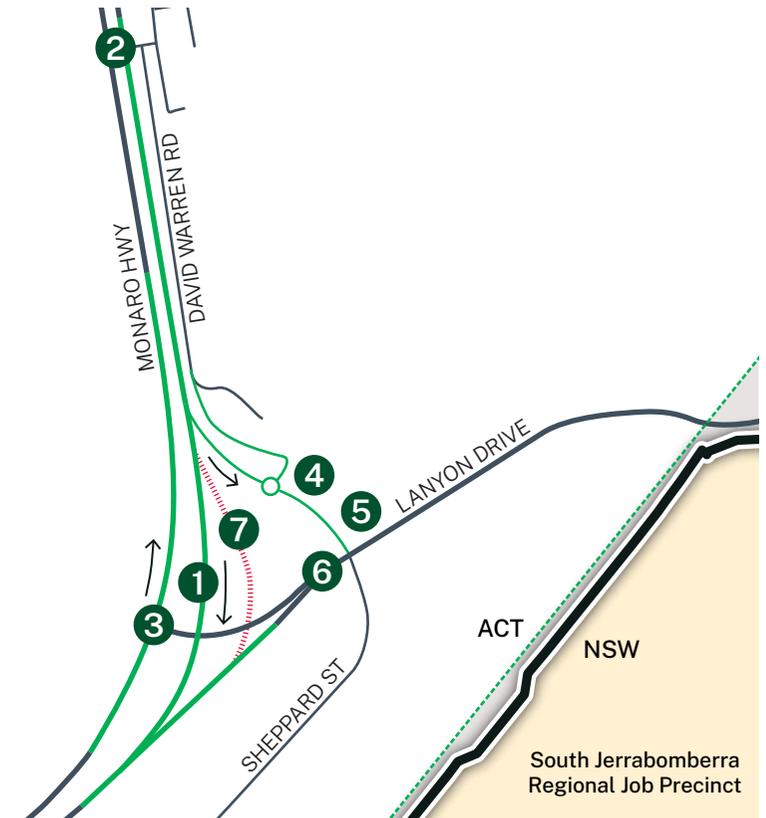
Coordination of infrastructure provision between NSW and ACT provides benefits to the cross-border community and delivers economic growth and services in a more efficient manner.

Monaro Highway Upgrades

In 2022 the ACT Government announced, design work is underway for safety improvements and intersection upgrades at two key locations along the Monaro Highway, as follows:

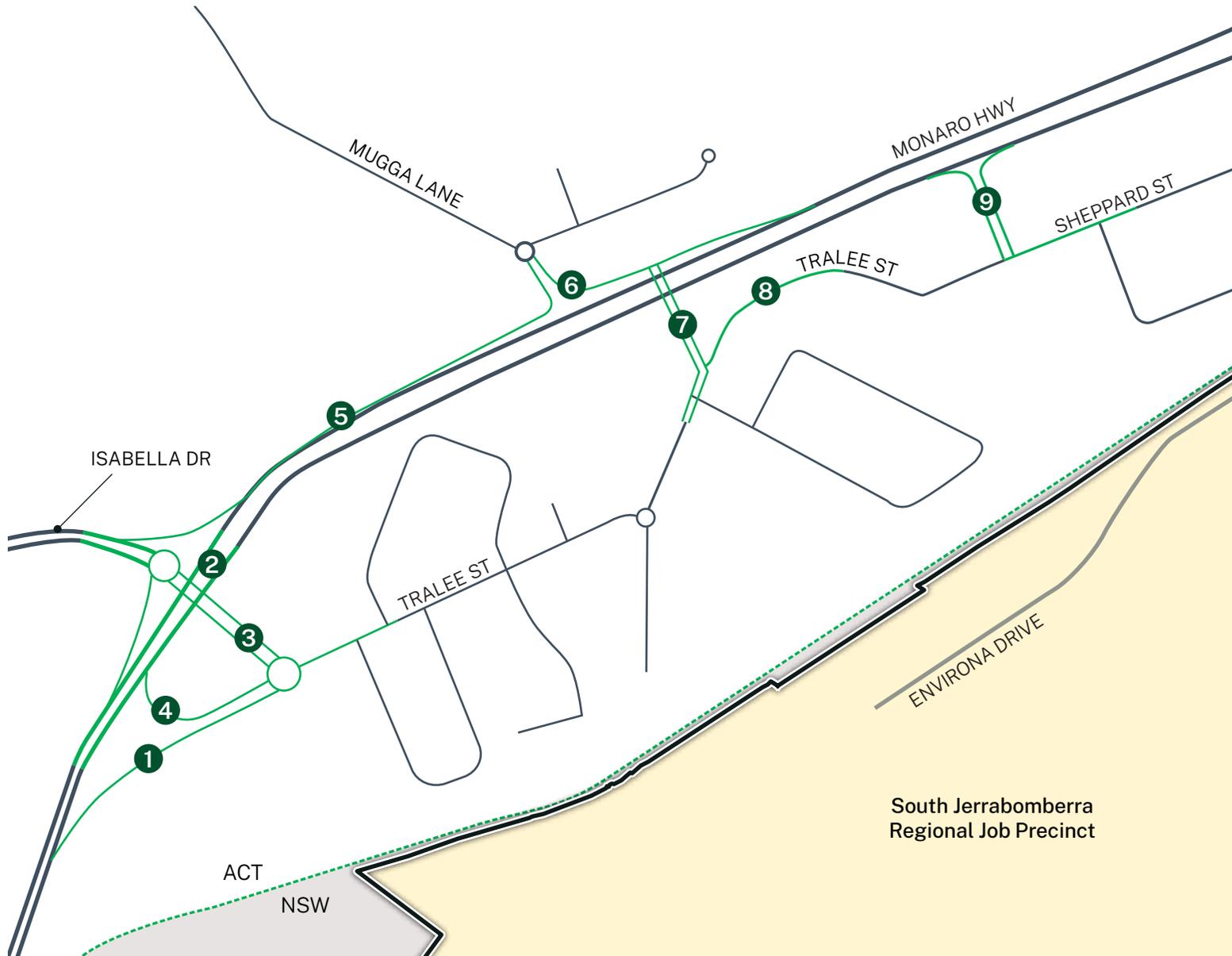
- Lanyon Drive Interchange is currently in detailed design and construction of the first stage of works are expected to commence in 2024.
- Preliminary design work is continuing for the Isabella Drive interchanges.

Figure 23 Monaro Highway upgrades



- 1 New southbound flyover on the Monaro Highway over Lanyon Drive.
- 2 Removal of the traffic lights at the Alexander Maconochie Centre intersection. Access to David Warren Road only from the Monaro Highway southbound carriageway.
- 3 Upgrade northbound carriageway including improved northbound merge from Lanyon Drive onto the Monaro Highway.
- 4 Roundabout at the intersection of the new Monaro Highway southbound off-ramp and David Warren Road extension.
- 5 Upgrading the signalised intersection at Lanyon Drive and Sheppard Street to four ways to include a direct connection to David Warren Road and the southbound off-ramp.
- 6 Provide two right-turn lanes from Lanyon Drive eastbound into Sheppard Street.
- 7 Existing southbound carriageway removed and landscaped.

Figure 24 Southwest connection



Southwest connection

Queanbeyan-Palerang Regional Council has received funding to investigate a southwest connection into the South Jerrabomberra precinct, between Googong from Old Cooma Road to Hume. This connection would provide a direct link from Googong to Canberra.

- 1 New southbound on ramp from Isabella Drive/ Tralee Street onto the Monaro Highway.
- 2 New Monaro Highway flyover, over the Isabella Drive extension.
- 3 Isabella Drive extension from the existing Monaro Highway roundabout to new Tralee Street south roundabout.
- 4 Southbound off ramp exit from the Monaro Highway to Isabella Drive (extension) and Tralee Street.
- 5 On-off lane parallel to the northbound Monaro Highway between Isabella Drive and Mugga Lane.
- 6 New Mugga Lane to Hume flyover lanes and northbound on ramp to Monaro Highway.
- 7 New Hume flyover over the Monaro Highway connecting Mugga Lane and Tralee Street (the existing Monaro Highway right turn into and out of Mugga Lane will be closed off).
- 8 Tralee Street upgrades at the approach to the new Hume flyover.
- 9 Modify the existing Monaro Highway - Sheppard Street intersection to allow only left-in and left-out movement.

6.2 Improving cross border network connectivity

To support the growth of the South Jerrabomberra precinct a new cross border road connection to the main arterial thoroughfare the of Monaro Highway intersection at Isabella Drive have been identified for investigation.

The provision of connection to the Monaro Highway via Isabella Drive would require the following:

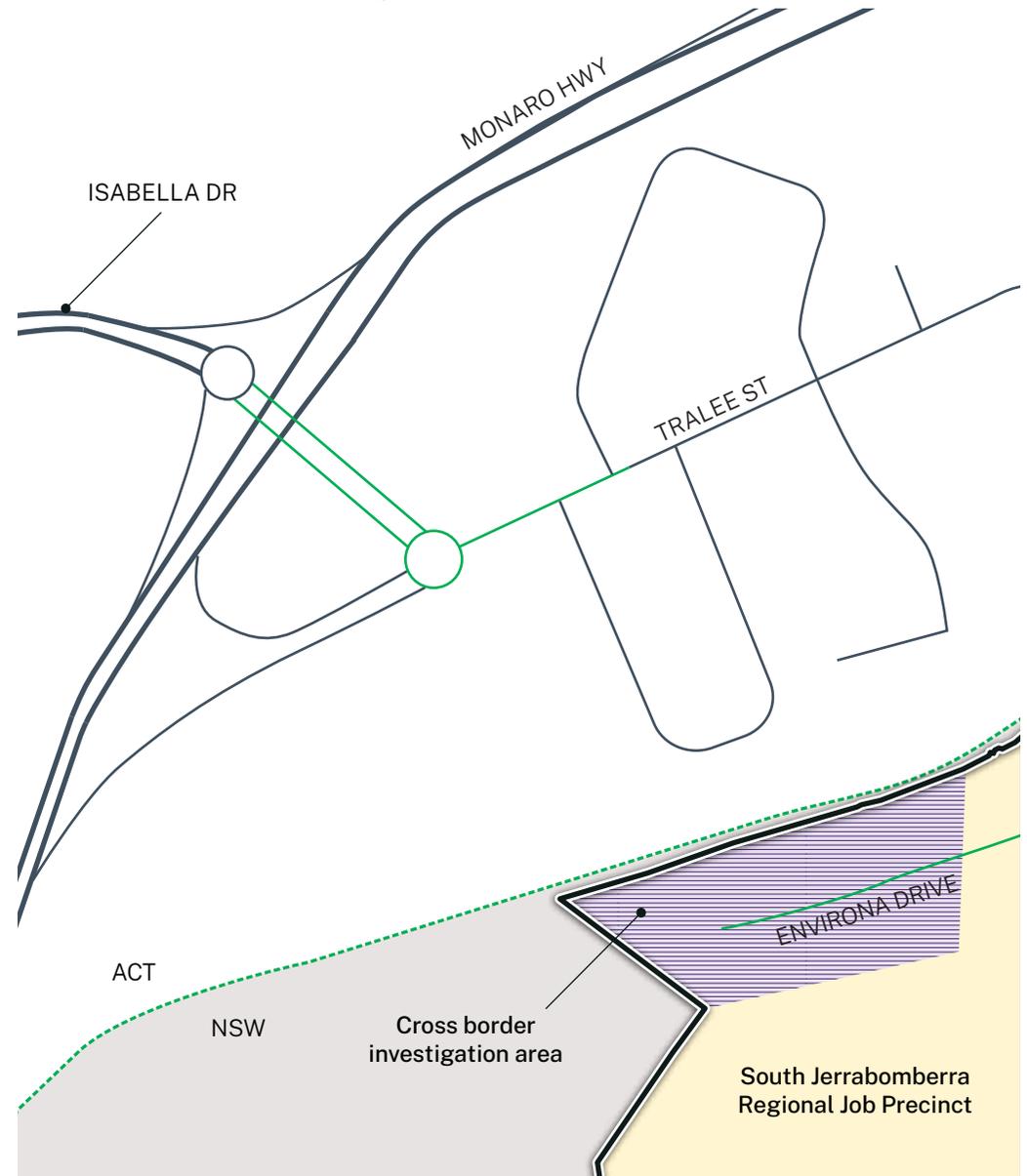
- Collaboration with key stakeholders including NSW Government, ACT Government and Queanbeyan-Palerang Regional Council.
- Investigations to understand potential traffic and transport impacts, heritage, biodiversity, and flooding.
- Feasibility studies and detailed design work for the configuration of any proposed new roads including funding and alignment.

A new link road from Environa Drive to the Isabella Drive Interchange

A new link road between Environa Drive and Isabella Drive would provide an additional connection into the precinct. This would provide access to and from the southern part of the South Jerrabomberra precinct and would provide the following benefits:

- Direct access from the residential areas in the south of South Jerrabomberra Regional Job precinct to the surrounding arterial road network.
- The provision of direct access will assist to keep residential traffic and freight movements separated.
- Reduced travel times and distances for residents and workers.
- A reduction in residential traffic travelling through the business and industrial precincts along Environa Drive.

Figure 25 Potential location of a link road between Environa Drive and the Isabella Drive Interchange



6.3 ACT-NSW Government MoU for Regional Collaboration

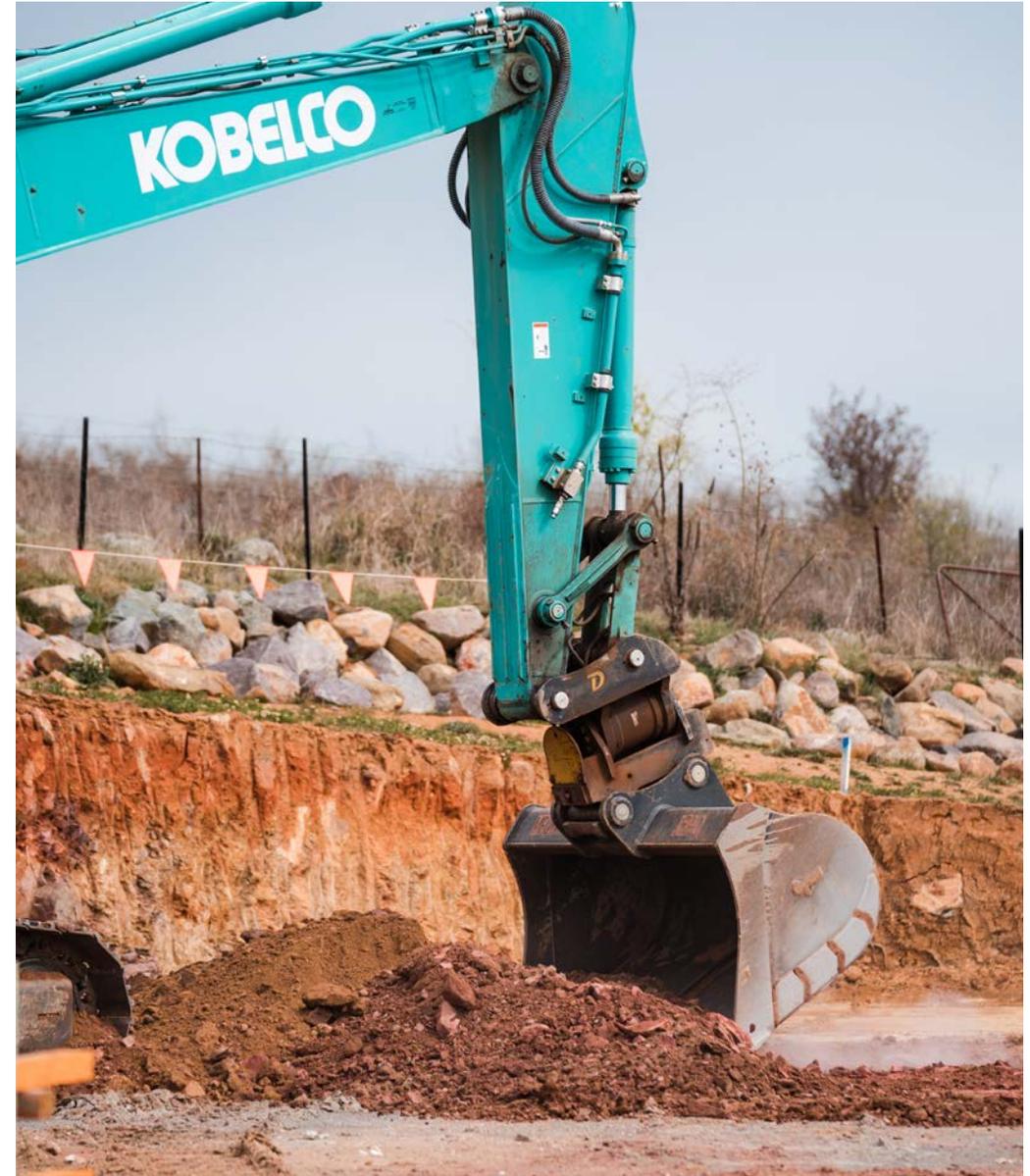
The ACT-NSW Government MoU for Regional Collaboration is a cross border arrangement between the ACT and NSW Governments, which provides a mechanism for collaboration, action, and delivering economic growth and improved outcomes and services for border communities and to the Capital subregion.

The agreement was renewed in June 2020, and identified a number of priorities, including the need to align infrastructure and transport planning across the region, drive collaboration between the ACT and NSW, and identify infrastructure investment priorities for the Capital subregion.

Queanbeyan-Palerang Regional Council, the NSW and ACT governments and utilities authorities are working collaboratively to identify road and utility infrastructure requirements for the delivery of the South Jerrabomberra precinct. Council will continue to have a central role in coordinating infrastructure to ensure the South Jerrabomberra precinct is accessible and serviced for development.

The existing agreement provides the opportunity to ensure the integrated delivery of infrastructure to support the full development potential of the South Jerrabomberra precinct. This includes:

- upgrades wastewater treatment facility and associated pipe network and pump stations
- increasing capacity within the water reservoir and supply network
- new substations; and
- telecommunications tower





7

Key planning matters

Artists impression view across the town park towards residences in the residential sub precinct.
Courtesy of The Village Building Co



Technical studies were prepared to inform the preparation of the master plan. This section summarises the key findings of these reports and outlines how this has informed the master plan and how the planning framework could be updated to optimise outcomes within the precinct.

Figure 26 Surrounding road network

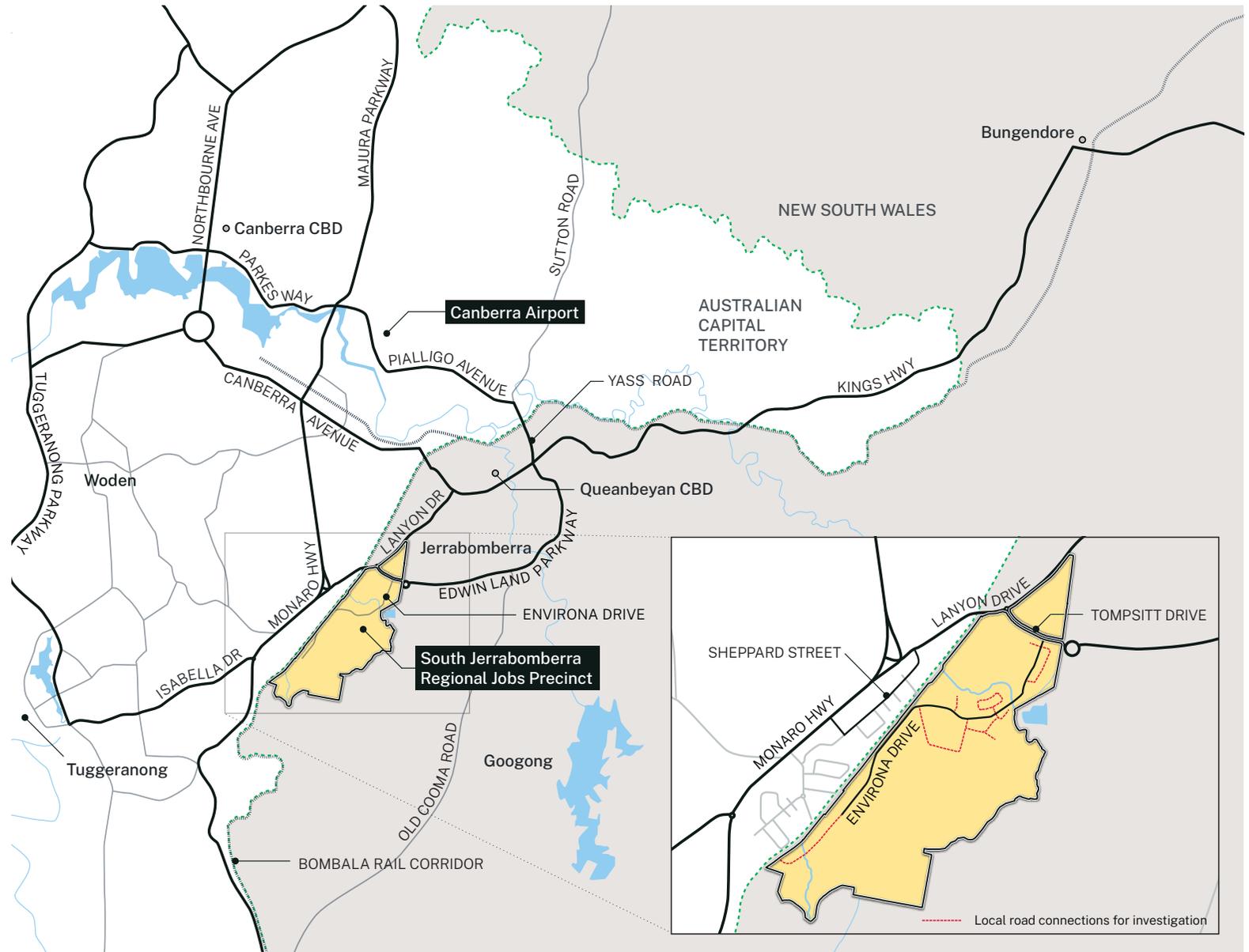
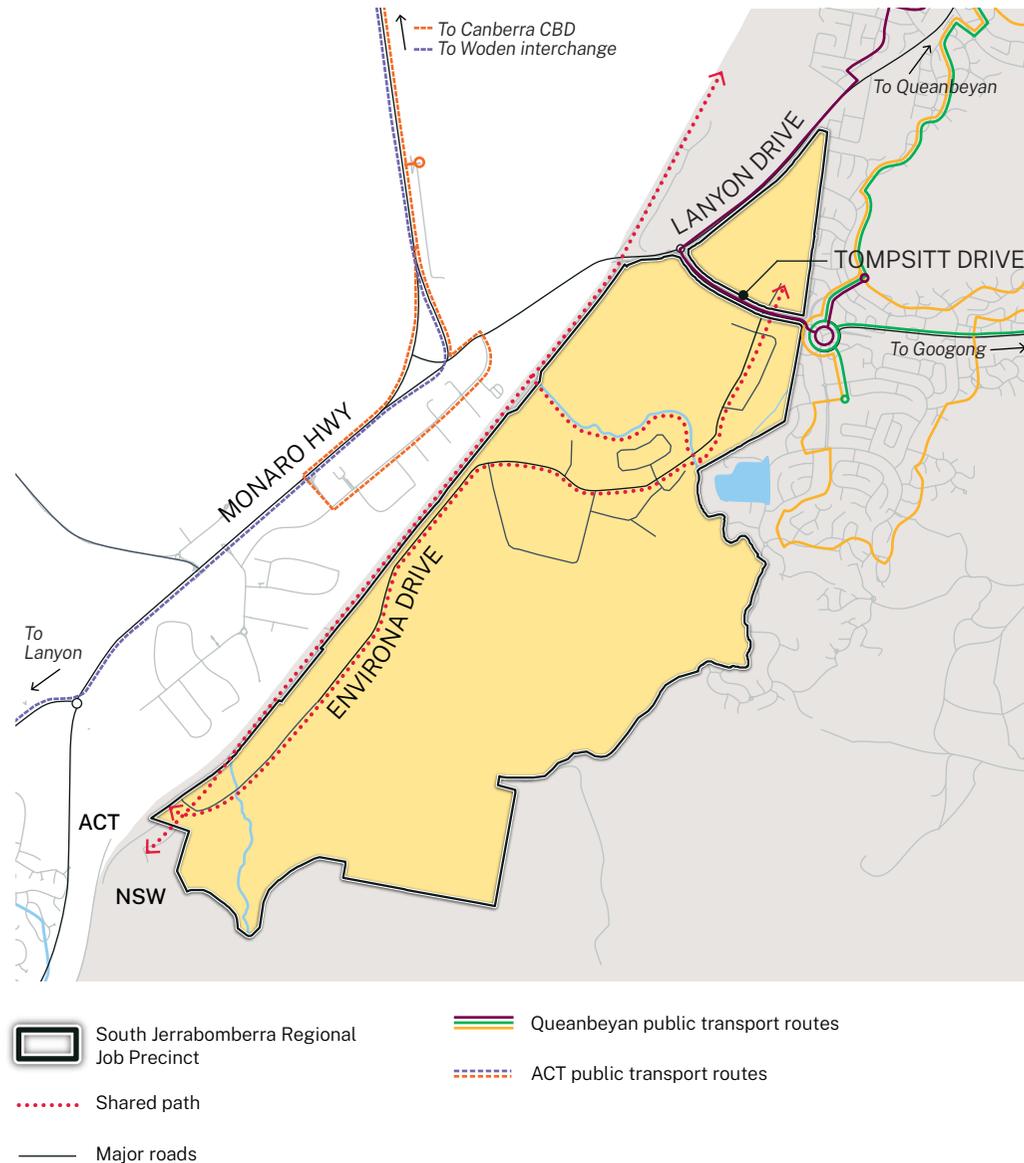


Figure 27 Active transport and public transport



7.1 Transport and road network

Road connections

The Master Plan highlights the need to improve road connections to the Monaro Highway through additional cross-border connections. With the existing road network nearing capacity, further development within the precinct will be deferred until enabling infrastructure is established, including additional cross-border connections.

Ongoing collaboration between the Cross Border Commissioner, NSW Government, Council and ACT Government will be critical to resolve cross-border connection requirements.

Dunns Creek Road

Queanbeyan-Palerang Regional Council are investigating the delivery of the Dunns Creek Road project to connect Googong Township and Tralee to the ACT.

Council is looking at delivering the project in two stages. The first stage is the connection between Tralee and the ACT or towards the Isabella Drive intersection.

Council has been working with NSW, ACT and Commonwealth departments; road and infrastructure agencies to progress to concept and design.

Public Transport

Expanding the public transport offerings between NSW and ACT, supported by transfer/interchange opportunities will provide the required public transport connections within the precinct and more broadly to Queanbeyan CBD and ACT for workers, visitors, and residents.

Recent changes to the bus network, implemented as part of the NSW Government 16 Cities program included a bus route connecting Queanbeyan CBD to the South Jerrabomberra precinct and Jerrabomberra Village Shops. Expansion of this route to connect the precinct with Queanbeyan CBD and ACT will increase public transport opportunities.

Active Transport

Opportunity to build on the existing cycle lanes, shared paths, and wide road corridors has been identified to provide high quality active travel linkages within the precinct.

Active travel can be encouraged by providing well-lit and landscaped shared paths and the provision of end of trip facilities.

Recommendations for the planning framework

The planning framework needs to acknowledge the importance the road network has in unlocking development opportunities within the South Jerrabomberra precinct.

The existing transport network is nearing capacity and will not be sufficient to support the full potential and aspirations of the South Jerrabomberra precinct. Additional connections to the South Jerrabomberra precinct external to Environa and Tomsitt Drive must be provided to enable additional development. Failure to identify and provide new connections to the external network will prevent further residential and industrial / commercial opportunities.

Objectives	Recommendations	For investigation
<ol style="list-style-type: none"> 1. To provide a road network that supports employment and population growth within the South Jerrabomberra precinct 2. Encourage active transport within the South Jerrabomberra precinct through the provision of pedestrian and cycle routes that link key activities, residential development, community facilities, open space and employment areas 	<p>That Council consider updates to the South Jerrabomberra DCP to include controls that:</p> <ul style="list-style-type: none"> • require streets to be designed to facilitate legible, safe, and efficient pedestrian, bicycle, public transport and private car and industrial traffic movement • ensure subdivisions are designed to ensure active transport routes are provided that provide connectivity through to other parts of the precinct and to green space • ensure active transport routes include amenity features such as shade trees, adequate lighting, and street furniture • explore opportunities for a park and ride facility within the precinct to encourage active travel and provide additional options for residents to travel to Canberra via public transport • ensure subdivision design facilitates through roads and connections to adjoining land where required 	<p>Continue investigations on cross border connections, including:</p> <ul style="list-style-type: none"> • Timing and staging for additional road connection to the South Jerrabomberra precinct • Coordination of South Jerrabomberra cross-border road connection with upgrades to ACT road network • Investigation and confirmation of new link roads including consideration of funding, staging and delivery, as well as asset ownership • Appropriate funding solutions for required road infrastructure • Incorporation of South Jerrabomberra precinct outcomes within the ACT-NSW Government MoU for Regional Collaboration

7.2 Utilities

The provision, delivery, staging and resolution of utility infrastructure constraints is essential to support the delivery of the South Jerrabomberra precinct and to sustain economic development across the Capital subregion. The delivery of efficient and effective utility infrastructure for the South Jerrabomberra precinct will require a whole of government approach.

To enable further development of the South Jerrabomberra precinct, the master plan has identified new and upgraded utility infrastructure, including potable water supply, sewerage, electricity, and telecommunications will be required. Essential utilities will be required to be delivered in stages aligned with the utility agencies plans and the proponent's commitment to service the land.

Water and Sewer

It is understood there is sufficient water infrastructure and sewer capacity to service the existing residential and developing precincts.

However, development of the Environa sub precinct will require new or upgraded water trunk mains, enlargement of the Jerrabomberra Reservoir and augmentation and expansion of existing sewer networks. It has also been identified that Council's water network for the wider catchment needs to be updated including confirmation of demand, delivery and capacity constraints.

A detailed Infrastructure Strategy will be required for key infrastructure including water. The Strategy will need to consider design, staging, funding and delivery. The Strategy must be developed and endorsed by all infrastructure authorities prior to rezoning the Environa sub precinct.

Gas

The user profile within the South Jerrabomberra precinct is unlikely to require gas connections for industrial heating and manufacturing purposes and as gas supply and the establishment of new gas networks is on the decline in Australia, the provision of gas is not proposed.

Electricity

Essential Energy has confirmed a new substation is under construction in the North Poplars sub precinct. Essential Energy has identified a second substation will be required to service the precinct. The approximate location of the second substation is identified in Figure 28 and will be delivered by the developer in conjunction with Essential Energy.

Telecommunications

Attracting industries such as defence, space, cyber-security, information technology and scientific research will require reliable, resilient, and secure telecommunication networks with high speed and large capacity.

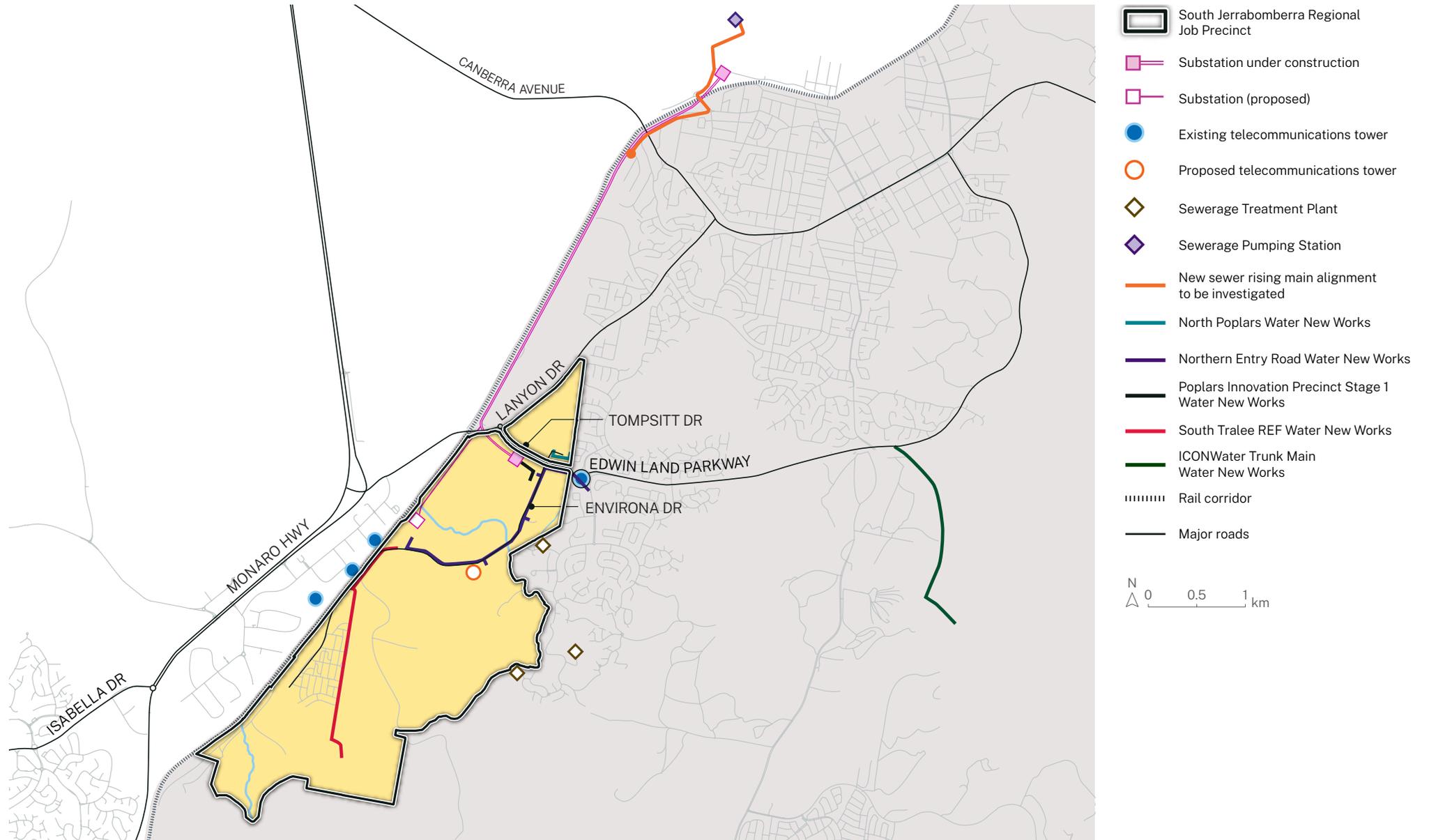
The present telecommunication network coverage will support mobile phones but is unlikely to be suitable for applications such as fixed broadband, video applications and temporary or staged office connectivity. To ensure future provision is appropriate the master plan has identified land suitable for the provision of telecommunications infrastructure.

Conduit for the Intra-Government Communications Network (ICON-GNS) has been laid along Environa Drive within the South Jerrabomberra precinct. The existence of the cable, believed to be the only location outside the ACT and removes a significant barrier to entry for Commonwealth Agencies that may be wishing to locate to the South Jerrabomberra precinct.

Environa Drive also contains pits and pipes for the installation of National Broadband Network (NBN) infrastructure. Businesses seeking to set up within the South Jerrabomberra precinct will be required to work with NBN to request cable/connection of Fixed line network, Fibre-to-the-node (FTTN) and Fibre-to-the-premises (FTTP).

The provision of infrastructure for the South Jerrabomberra precinct will require a staged and co-ordinated approach at a State and local level.

Figure 28 Utilities (Source: SMEC Utilities Report)



Recommendations for the planning framework

The planning framework needs to acknowledge the importance that upgrades to utilities has on the development potential within the South Jerrabomberra precinct. Existing infrastructure is at, or nearing capacity. Failure to plan for upgrades and expansion will significantly curtail or prevent the true potential of the South Jerrabomberra precinct.

The capacity of the existing water and sewer network is not sufficient to support the full development potential and aspirations of the South Jerrabomberra precinct. Costs to provide trunk infrastructure are substantial and these major assets have significant implications on the capacity, resourcing, and finances of local providers, namely Queanbeyan-Palerang Regional Council.

Accordingly, an Infrastructure Strategy is required to identify a clear way forward for the design, delivery and operation of infrastructure for the future. This strategy needs to ensure that development can be undertaken in a feasible and sustainable manner for all parties and that costs are shared appropriately without undue burden or impact on any one organisation or stakeholder.

Objectives	Recommendations	For investigation
<ol style="list-style-type: none"> 1. To have utility infrastructure that supports employment and population growth within the South Jerrabomberra precinct 2. Ensure development is staged appropriately to deliver orderly and sustainable provision of infrastructure and services 3. Ensure satisfactory arrangements have been made to guarantee that public utility infrastructure essential for the anticipated development is available or that adequate arrangements have been made to make infrastructure available when required 	<p>That Council consider updates to the South Jerrabomberra DCP to include controls that:</p> <ul style="list-style-type: none"> • ensure adequate utilities including water, sewerage, electricity, telecommunications, and public lighting will be available to cater for future development and peak demands • ensure all development is serviced by infrastructure designed to achieve sustainable outcomes • provide public utilities in a timely, efficient, and cost-effective manner 	<p>Develop an infrastructure servicing strategy that addresses and considers:</p> <ul style="list-style-type: none"> • Timing and staging for additional utility infrastructure that supports the development of the South Jerrabomberra precinct • Coordination of South Jerrabomberra utility infrastructure upgrades • Appropriate funding solutions for required utility infrastructure • Asset maintenance and management • Building on the outcomes of the master plan and technical reports to identify infrastructure costs and funding solutions

7.3 Aboriginal cultural and European heritage

Ngunnawal and Ngambri cultural heritage

Ngunawal (Ngunnawal), Ngambri (subset of the Walgalu), and Ngarigo people are the custodians of the land in the South Jerrabomberra precinct. Jerrabomberra Creek runs through the South Jerrabomberra precinct and is likely to have been a focus of Aboriginal occupation and a key travel route to Ngunawal, Walgalu and Ngarigo lands. Jerrabomberra Creek is a recognised spiritual pathway, guiding Aboriginal groups from the south to corroboree grounds for inter-tribal gatherings. The word Jerrabomberra is understood to originate from the Aboriginal place name meaning ‘boy frightened by storm’.

Whilst land within the South Jerrabomberra precinct has undergone modification since European settlement, evidence of Aboriginal activity has been found within the precinct, with isolated artefacts and potential archaeological deposits found across the site.

Sites with multiple artefacts are generally found along Jerrabomberra Creek. The type of isolated artefacts and potential archaeological deposits in the South Jerrabomberra precinct is consistent with the evidence of Aboriginal activity in the broader Canberra and Queanbeyan region, of larger and denser artefact scatters occurring in the vicinity of permanent creek lines and smaller less dense scatters around less permanent water sources.

Recommendations for the planning framework

It is vital to Aboriginal people and the richness of South Jerrabomberra’s history, that the planning framework conserves, protects, retains, and interprets places of Aboriginal cultural significance, in consultation with Aboriginal stakeholders.

Objectives	Recommendations
<ol style="list-style-type: none"> 1. Conserve and protect places of Aboriginal cultural heritage within the South Jerrabomberra precinct 2. Ensure relevant Aboriginal stakeholders are appropriately consulted through the site planning and design process 3. Maintain connections between cultural landscape features and identified elements of Aboriginal cultural heritage within the precinct and the surrounding area 	<p>That Council consider updates to the South Jerrabomberra DCP to include controls that:</p> <ul style="list-style-type: none"> • require areas identified as having high archaeological sensitivity to be prioritised for conservation, sited within parks or recreation areas • ensure development applications in areas of high to moderate archaeological sensitivity are required to submit a cultural heritage management plan with detailed measures to manage and preserve Aboriginal Cultural Values • considers naming of local roads, parks, and recreation areas in the precinct to feature references to local aboriginal culture and occupation of the land where relevant. The selection of names and locations should be identified in consultation with relevant Aboriginal stakeholders

European Heritage

The South Jerrabomberra precinct would have been a grassland-woodland mosaic, however with European settlement in the Queanbeyan area beginning in the mid-1820s and with a further wave of settlement occurring in the 1860s-70s, much of the precinct was cleared for pasture, timber, and agricultural production.

The South Jerrabomberra precinct comprises one item considered to have local heritage significance under the Queanbeyan-Palerang LEP 2022 (QPLEP 2022). This item is located at 360A Lanyon Drive and is identified as a 'Stone faced brick building'. The building will be restored and incorporated into the Regional Sports Complex as an interpretive feature.

The precinct contains a historic area known as Environa which was designed to be a suburb of Canberra and influenced by the Garden City model. Although the historic subdivision did not go ahead, the central homestead and various physical features associated with the subdivision remain, including a bandstand, stonework, tree plantings and survey marks. The South Jerrabomberra precinct's Heritage Assessment considered these items to be of local heritage significance that are to be recognised under the QPLEP 2022.

Recommendations for the planning framework

The planning framework must ensure development in the precinct integrates with and respects the European pastoral and agricultural heritage, rural landscape, and view lines of the South Jerrabomberra precinct.

Objectives

1. Conserve, protect and retain, the local heritage significance of the South Jerrabomberra precinct
 2. Ensure development in the vicinity of heritage items are designed and sited to protect the heritage significance of the item and its setting
 3. Heritage items are retained and conserved, in particular, significant features and original fabric
 4. Preserve known and potential European archaeological heritage
-

Recommendations

That Council consider reviewing heritage controls in the South Jerrabomberra DCP to reflect outcomes of the heritage report.

7.4 Sustainability

The master planning process has identified key initiatives to embed sustainability outcomes into the development of the South Jerrabomberra precinct to minimise potential adverse impacts and to assist the precincts climate change resilience. Key initiatives identified include:

- Energy
 - an all-electric or green hydrogen supply approach
 - the installation of solar photovoltaic (PV) systems (rooftop and ground mounted)
- Design
 - building design that maximises passive design principles and energy efficiency requirements
 - provision of vegetation buffers, planting, vegetated swales, and open spaces to reduce heat impacts and improve amenity and liveability

- Water conservation
 - rainwater harvesting
 - implementation of Water Sensitive Urban Design
 - stormwater management that reduces stormwater flows, erosion, and pollutants
- Waste to landfill
 - reducing waste to landfill
- Reduce transport emissions
 - provision of integrated walking and cycling networks
 - improve public transport access
 - install electric vehicle charging stations

Recommendations for the planning framework

Objectives

1. To embed sustainable design, practices, and management into the development outcomes of the South Jerrabomberra precinct
2. Promote increased energy efficiency
3. Encourage building design that maximises passive design principles and energy efficiency requirements
4. Reduce transport emissions by encouraging low and zero emission forms of travel such as walking, cycling or public transport
5. Ensure all development in the area incorporates water sensitive urban design

Recommendations

That Council consider updates to the South Jerrabomberra DCP to include controls that:

- incorporate Environmentally Sustainable Design into all future development within the South Jerrabomberra precinct
- maintain an all-electric precinct approach and incorporate fast EV charging stations in strategic locations
- support increased energy efficiency through passive design and minimum performance standards
- encourage the use of solar panels and batteries
- promote the capture and reuse of stormwater through basins, aquifer injection and rainwater tanks
- encourage development to achieve net zero emissions
- incorporate active transport pathways with amenity features such as shade trees, adequate lighting and street furniture
- explore opportunities for a park and ride facility within the precinct to encourage active travel and provide additional options for residents to travel to Canberra via public transport

7.5 Biodiversity

The master plan protects a large proportion of the biodiversity values through the provision of environmental protection areas in the north and south of the South Jerrabomberra precinct and along the Jerrabomberra Creek line, the retention of existing rural zoning across much of the centre of the precinct and the retention of private land north of Jerrabomberra Creek that is subject to BioBanking or Biodiversity Certification agreement.

The conservation and rural land which has been identified within BioBanking and Certification agreements provides important habitat corridors of continuous habitat large enough to enable flora and fauna movement across the South Jerrabomberra precinct and into land adjoining the precinct. Development opportunities and public access on this land will be limited.

Recommendations for the planning framework

The South Jerrabomberra precinct contains a range of habitat corridors which contribute to the resilience of the landscape in a changing climate. The master plan seeks to protect, conserve, and enhance areas with high and medium biodiversity, vegetation values, habitats, green and riparian corridors.

Retaining existing vegetation through the provision of conservation zones, development controls, habitat corridors, the creation of natural reserves, and weed management will promote biodiversity outcomes and ensure minimal adverse impacts on existing vegetation and riparian corridors. The retention of vegetation will contribute to the resilience of the landscape in a changing climate.

Objectives

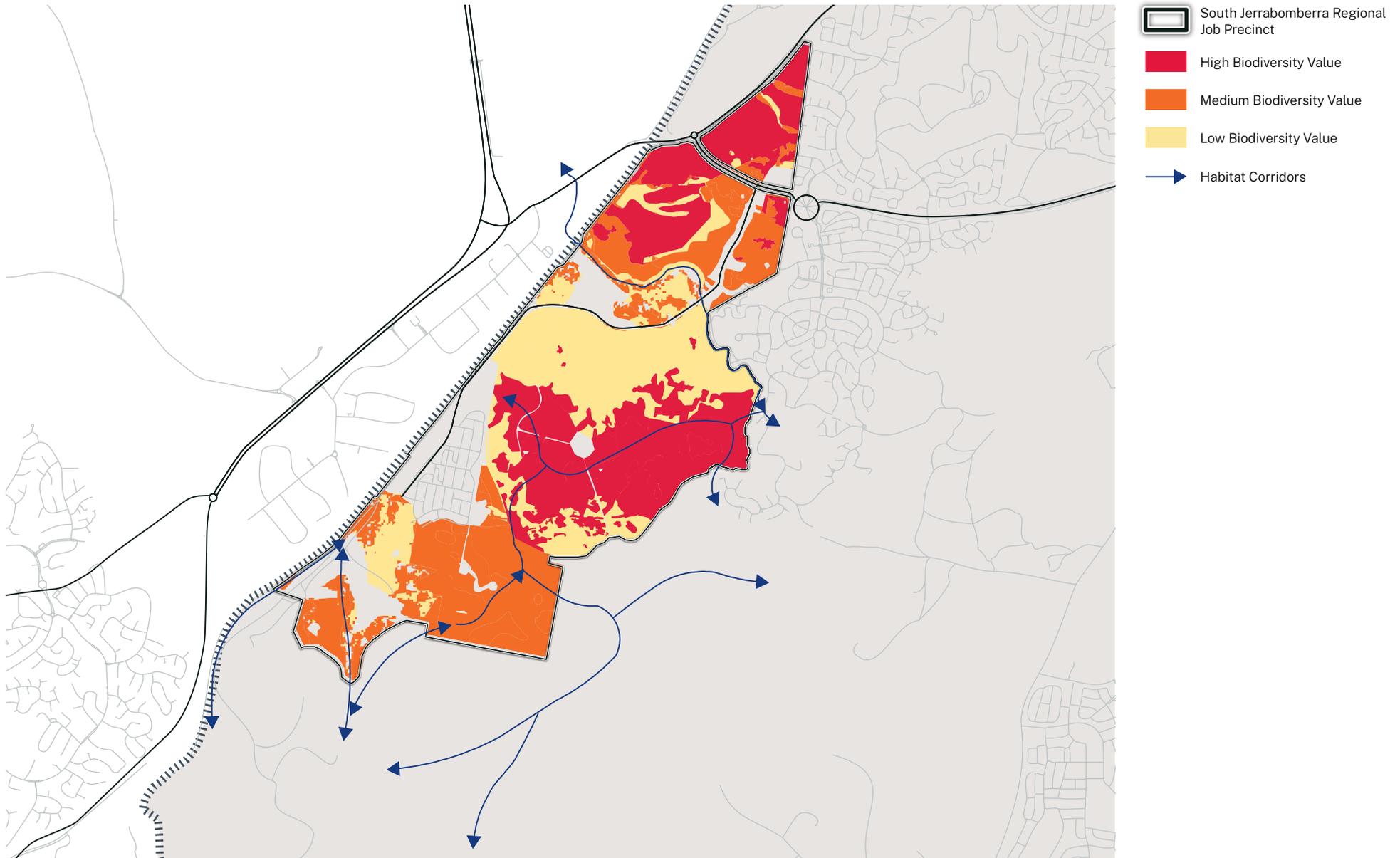
1. Protect, conserve, and enhance areas with significant biodiversity, vegetation values, habitats, and green and riparian corridors
2. Development should minimise the loss of high value vegetation and biodiversity values
3. Maintain or improve existing vegetation
4. Protect, conserve, and enhance biodiversity values, through design, siting, landscape, and drainage features

Recommendations

That Council consider updates to the South Jerrabomberra DCP to include controls that:

- retain areas of high biodiversity and habitat values
- promote site development outside of green corridors that provide linkages between areas of environmental values
- encourage planting of native species endemic to the region to enhance streetscapes
- retain existing significant trees and large hollow bearing trees where possible

Figure 29 Biodiversity values



7.6 Water

Flooding

The master plan has incorporated most of the flood prone land within the Conservation sub precinct and the local road network has been situated outside of the flood prone land. Development within flood prone land will be required to mitigate and offset flood impacts and satisfy planning and building requirements.

Flood planning should incorporate NSW Government recommendations to consider climate change impacts on flood behaviour and levels.

Stormwater and Groundwater

The precinct is dominated by fractured rock aquifers, predominately recharged by direct rainfall infiltration. Development of the precinct will increase the amount of impervious surface, reducing recharge of the groundwater system. The main water source for the precinct will be from reticulated water sources, however groundwater may form part of the overall water supply and management strategy.

Recommendations for the planning framework

The planning framework should be designed to minimise flood risk to life, property, and the environment, through site specific built form and design associated with the use of land.

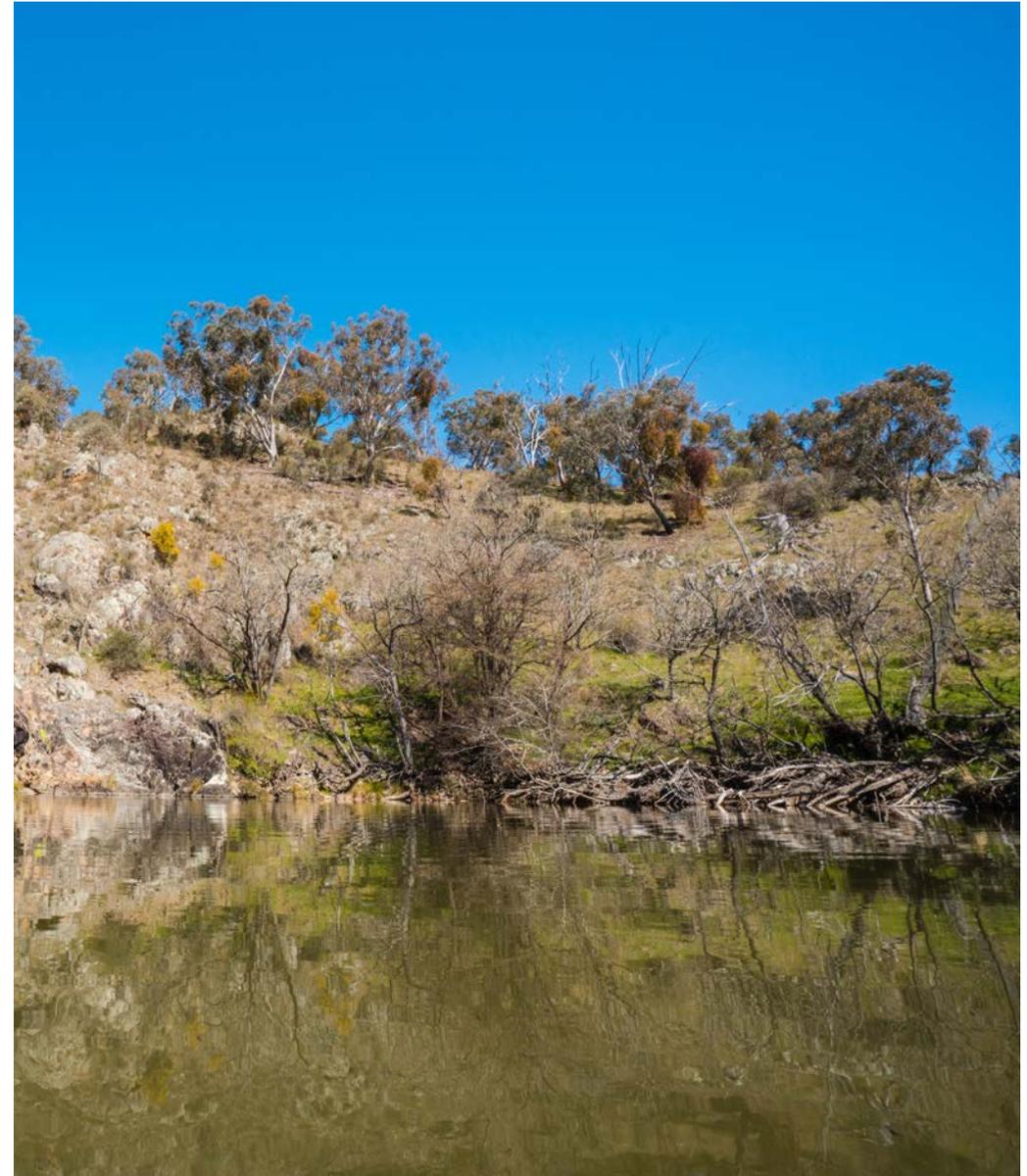
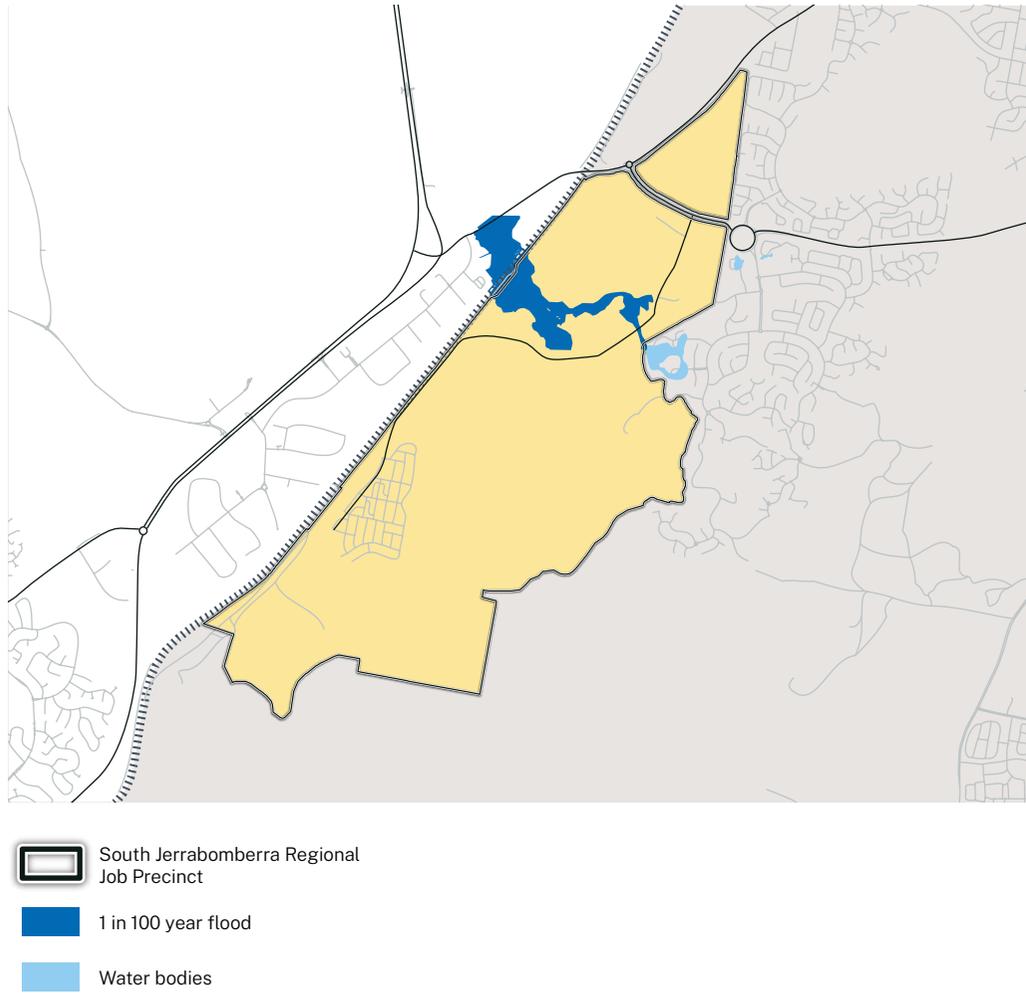
Objectives

1. Minimise the impact of development on Jerrabomberra Creek and minimise flooding impacts
2. To ensure future development is not exposed to or increases the risk of flood hazard
3. Conserve, re-use and improve water quality
4. Introduce water sensitive urban design (WSUD) practices.

Recommendations

- That Council consider updates to the South Jerrabomberra DCP to include controls that:
- ensure development considers the potential impact of flooding as part of design, including any forecast changes to flooding resulting from climate change predictions as recommended by NSW Department of Planning, Housing and Infrastructure
 - encourage water harvesting and the re-use of stormwater for non-potable business and industry use
 - encourage the use of natural basins and swales throughout the precinct and near riparian zones to reduce pollutant levels and improve water quality
 - require onsite detention within the lower parts of the terrain for drainage and overland flow management near riparian fringes

Figure 30 Flood prone land



7.7 Air, noise, and odour

The Hume Industrial Estate and the future high-tech, space, defence, and light industry uses will be the main emission sources that will impact air quality, odour, and noise in the South Jerrabomberra precinct. Air, noise, and odour risk impacts are influenced by the local terrain, wind distribution patterns and flows, and these impacts generally occur closer to the source.

An existing recreation corridor exists between South Jerrabomberra residential estate and Hume Industrial Estate to provide transition and amenity between industry and residents.

The South Jerrabomberra precinct layout is relatively well suited to the terrain and surrounding potential risks. However, modelling of likely noise, odour and air emissions from future business and industry areas show that some locations have increased potential to cause impacts on nearby residents. To mitigate and manage air quality, odour and noise impacts from existing sources and proposed uses within the precinct, site specific controls, including a high and medium amenity overlay and buffers will be developed to indicate locations where specific controls (in particular noise outputs) should be put in place over business development and operations to maintain residential amenity and to provide protection from unacceptable impacts.

The South Jerrabomberra precinct is located approximately 6 kilometres south and south west of Canberra Airport under the main runway flight path for approach and departure flights. The protection of airspace 15 kilometres around Canberra Airport is essential for ensuring that the airport maintains a safe operating environment and to facilitate future aviation growth.

Two sets of invisible surfaces above the ground around Canberra Airport form part of the airport’s protected airspace. These two surfaces are known as the Obstacle Limitation Surface and the Australian Noise Exposure Forecast (ANEF) and trigger certain development standards during development assessment. These standards are also an important consideration in determining suitable locations for sensitive developments such as new housing.

Recommendations for the planning framework

The planning framework should provide controls that ensure development minimises impacts on surrounding land uses and sensitive receptors, by locating low emitting land uses in high amenity areas.

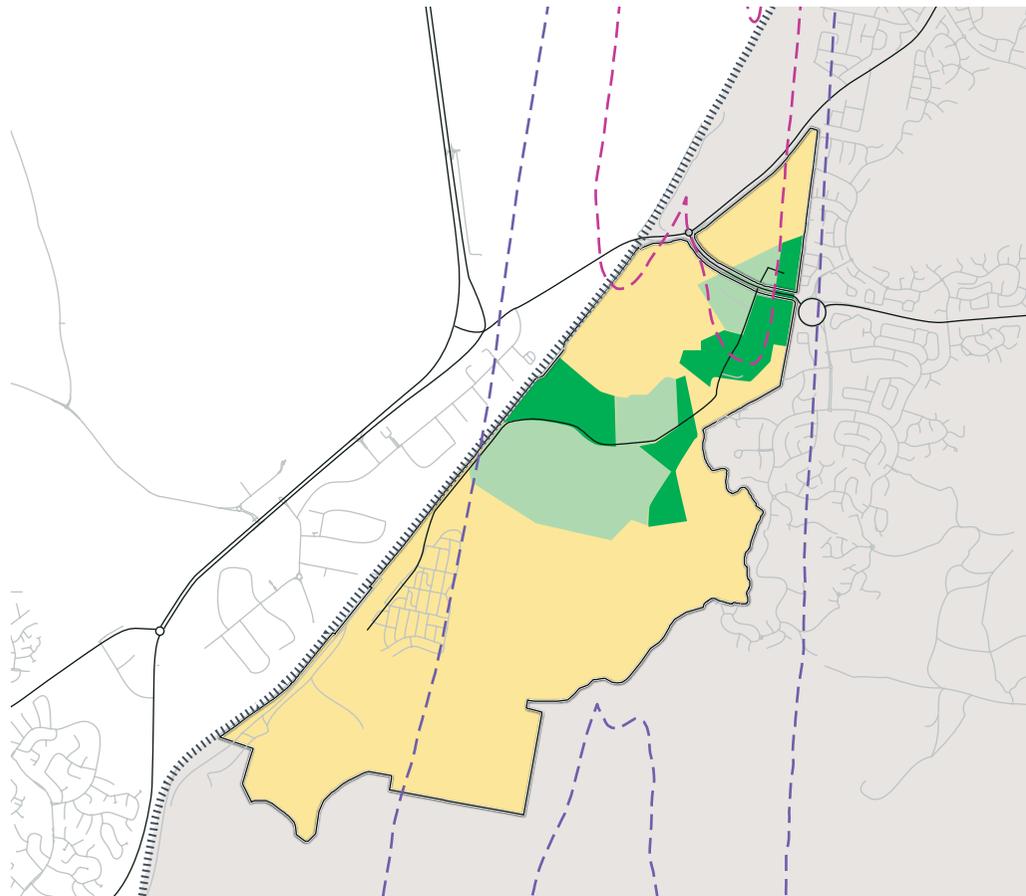
Objectives

1. Maintain air quality and amenity for people who live and work in the South Jerrabomberra precinct and its surrounds
2. Ensure that development within the South Jerrabomberra precinct minimises air quality, noise, and odour impacts
3. Minimise the impacts of air quality, noise and odour through subdivision layout and building design

Recommendations

- That Council consider updates to the South Jerrabomberra DCP to include controls that:
- define appropriate set back and buffer areas around existing sources of emissions
 - provide mitigation and amenity guidance for industries on mitigation of air, noise, and odour at the source as identified in the Air, Noise and Odour Report, Todoroski, 2023
 - direct low emitting uses to high amenity areas and high emitting uses to low amenity areas
 - maintain and manage buffer with Hume Industrial Estate
 - ensure appropriate consideration of mitigating land use conflicts under flight paths

Figure 31 Managing amenity and land use conflicts



-  South Jerrabomberra Regional Job Precinct
-  High amenity
-  Medium amenity
-  Canberra Airport ANEF 25 contour
-  Canberra Airport ANEF 20 contour



7.8 Bushfire

The site is mostly bushfire prone land, containing category 1, 2 and 3 vegetation with the majority identified as Category 3 (grassland) vegetation. The bushfire prone land map is the trigger for the consideration of bushfire protection measures for all development.

The vegetation that will have the greatest influence on bushfire behaviour within the South Jerrabomberra precinct are the areas of Grassy Woodland located in the conservation, open space, and rural landscapes. Grassland also includes pastures, crops, native tussock grasses, as well as grasses in and around open space and urban areas. Grassfires can start and spread quickly, have continuous fuels that are available to burn, and are highly combustible. Grassfires can travel up to 25km an hour, pulse faster over short distances and should not be underestimated.

To mitigate bushfire risk, 30m buffers have been placed around the Residential sub precinct and the local centres. The conservation lands provide well-defined buffers and asset protection zones between potentially bushfire hazardous areas and proposed development areas to protect development from vegetated areas and their associated bushfire risks. The master plan will further reduce bushfire risks by limiting development on steeper slopes.

The provision of additional road connections into the South Jerrabomberra precinct would assist to provide additional exit points during emergency events such as bush fires and would provide more avenues for emergency service vehicles to access the South Jerrabomberra precinct.

Recommendations for the planning framework

The planning framework needs to mitigate and manage bushfire risk hazard within the South Jerrabomberra precinct consistent with the guidelines for bushfire planning.

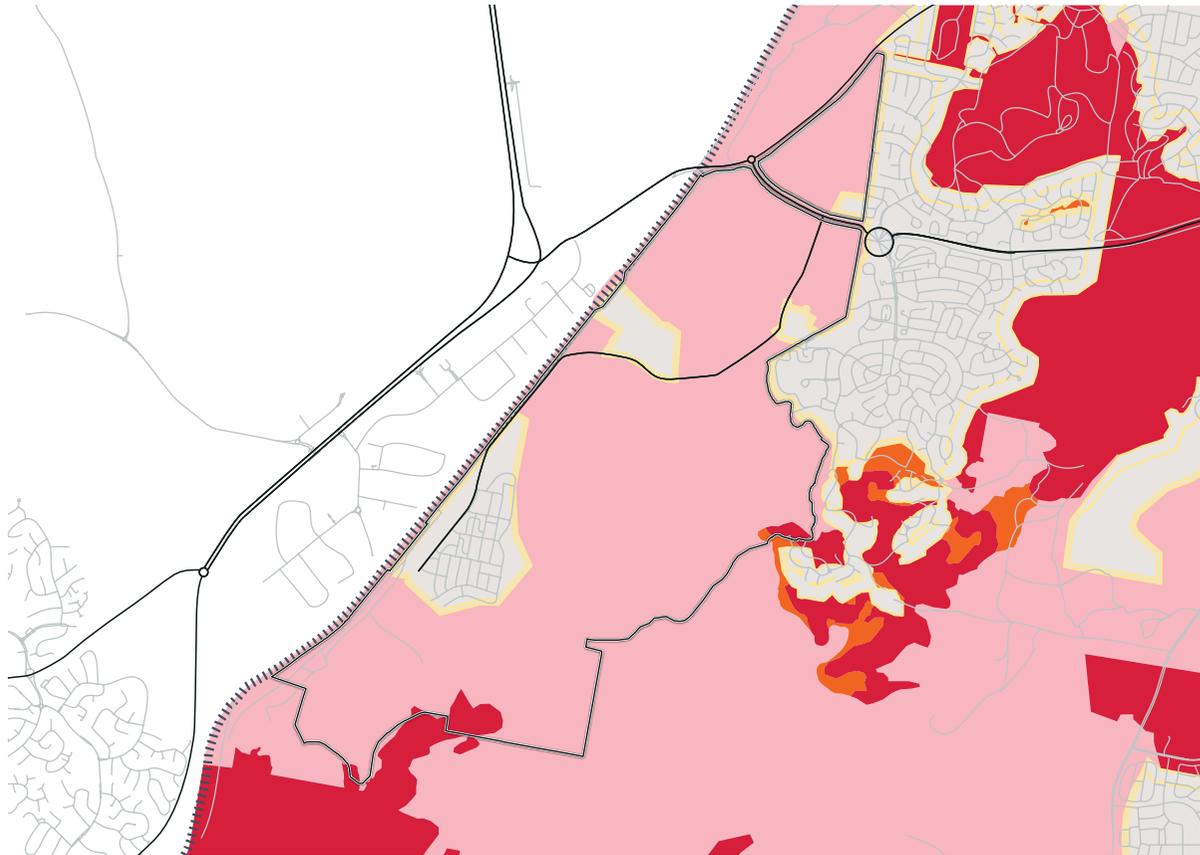
Objectives

1. Protect life, property, and community assets from bushfires
2. Minimise the impacts of development in relation to bushfires
3. Mitigate bushfire risk through development design, siting, access, and landscaping

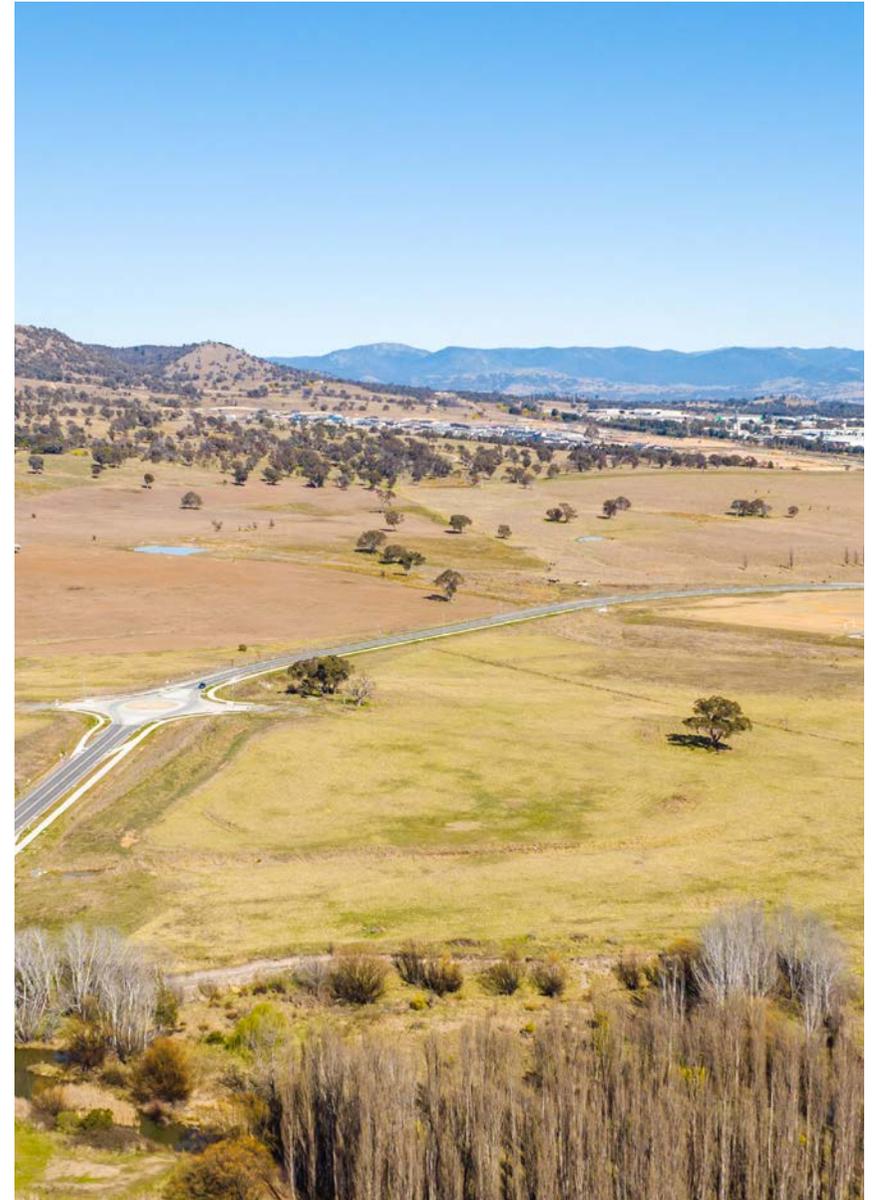
Recommendations

- That Council consider updates to the South Jerrabomberra DCP to include controls that:
- specify bushfire protection measures in relation to development on or adjacent to bushfire prone land
 - ensure development is designed to enable easy evacuation during a bushfire
 - ensure development does not result in increased risk or limitations to access and egress routes across the South Jerrabomberra precinct

Figure 32 Bushfire prone land



-  South Jerrabomberra Regional Job Precinct
-  Vegetation Category 1
-  Vegetation Category 2
-  Vegetation Category 3
-  Vegetation Buffer





8

Implementation

Construction worker at Regional Sport Complex



This section sets out the next steps for realising the full development of the South Jerrabomberra precinct.

8.1 Next Steps

The successful implementation of the South Jerrabomberra precinct depends on strong partnerships and collaboration for a coordinated approach to addressing enabling infrastructure requirements.

The importance of a co-ordinated approach to strategic planning between ACT and NSW governments and their recognition of cross border opportunities cannot be understated.

The master planning process has identified the need to further investigate priority road options, water and sewer solutions, with sufficient detail on land use opportunities, comprehensive design, feasibility, and funding. To achieve this, the following is recommended:

1. **An all of government approach led by the Cross Border Commissioner, with engagement and collaboration between:**
 - NSW Government, including Department of Primary Industries and Regional Development, Transport for NSW, and the Department of Planning, Housing and Infrastructure
 - ACT Government, including the Chief Minister, Treasury and Economic Development Directorate, Transport Canberra and City Services, and the Environment, Planning and Sustainable Development Directorate.
2. **Infrastructure Servicing Strategy**
 - Detailed design work, feasibility studies and funding mechanism are required to determine if there is a workable, satisfactory alignment for new water and sewer services.
3. **Traffic modelling, strategic road design and feasibility, as follows:**
 - Future sub precincts in the South Jerrabomberra precinct and future growth of the Hume Industrial Precinct
 - Consideration of a new road to connect the South Jerrabomberra precinct to the Monaro Highway
 - Consideration of environmental constraints and process associated with road connections across the railway line.
4. **Future use of Bombala Rail line**
 - The reuse of the Bombala Rail line.
5. **Funding mechanisms**
 - Funding mechanisms such as the use of government grants, planning agreements and council's local contributions plans are necessary to provide required road, water and sewer infrastructure.



9

Alignment with master plan vision principles

Aerial view of Envirova Drive crossing Jerrabomberra Creek



1

Innovation and technology job precinct

- The primary objective of the South Jerrabomberra precinct is to stimulate employment in targeted industries and utilise the Capital sub region's skilled and diverse workforce to create jobs in regional NSW.
- The master plan is designed to leverage off existing and emerging investment in defence, space, cyber security, and high-tech manufacturing occurring within the Capital subregion, as well as the precinct's proximity to Queanbeyan and Canberra, the Canberra airport, local universities, and the Intra-government Communications Network (ICON).
- By providing suitably sized lots, supporting services and amenity, and enabling infrastructure, the master planning process seeks to foster the co-location of businesses with a technological focus to create a high-tech innovation precinct that supports industry, research and education institutions, specialised suppliers, and small and medium complimentary businesses.
- The South Jerrabomberra precinct is part of a wider economic opportunity to develop innovative businesses and manufacturing along a corridor linking to Canberra Airport and the wider Eastern Broadacre area. The master plan is seeking to develop a precinct that compliments the Hume Industrial Estate, based on competitive advantage. The South Jerrabomberra precinct seeks to:
 - Provide a diverse range of employment lands and supporting infrastructure.
 - Include high quality amenity and urban design principles focused on future technologies, utilising the skilled workforce and lower business costs.
 - Increase business certainty through appropriate land use directions and infrastructure planning informed by the technical investigations.

2

Seamless precinct and cross border connectivity

- The master planning process has analysed and identified the need to investigate a new connection point from the South Jerrabomberra precinct to the ACT as a priority. This is a significant and major critical element in further expansion and intensification of the South Jerrabomberra precinct. New connection requires:
 - Coordinated approach between Cross Border Commissioner and NSW and ACT governments.
 - Detailed design work, feasibility and funding mechanism.
- The master planning process promotes active and public transport.
- Where possible, the road network should separate heavy vehicles and freight from general and residential traffic and pedestrians.
- Improvements to public transport links between the South Jerrabomberra precinct and ACT have been investigated by Queanbeyan-Palerang Regional Council and Transport for NSW as part of the 16 Regional Cities Services Improvement Program.

3

High quality urban design and placemaking

- The master plan recommends including urban design measures that incorporate green spaces, landscaping, local historical cultural heritage, and cafés and meeting places to assist in making the South Jerrabomberra precinct a highly desirable place for businesses to locate, employees to work and people to live.
- Providing opportunities for healthy activity through local spaces, places for activity centres and community spaces linked to the Regional Sports Centre.
- The master plan has considered the site's topography and has been designed to consider view lines from heritage sites and residential areas.
- Innovative building techniques that consider climate change and the urban heat island effect are recommended.
- Design requirements to meet industry standards such as Department of Defence are supported and promoted.

4

Leading sustainability outcomes

- The master plan recommends embedding sustainability and resilience into the sub precinct design by creating blue and green grids to protect and connect environmental and heritage values.
- Integrated water cycle management is proposed to improve the precinct's water security, water conservation, rainwater harvesting (e.g. rainwater tanks) and water sensitive urban design (e.g. vegetated swales).
- The master plan has investigated opportunities to reduce carbon emissions by increasing renewable energy (e.g. roof-top solar, potential for a battery grid or Battery Energy Storage System), installing electric vehicle charging stations, introducing design principles such as greening, and by promoting the use of locally sourced building materials and passive design guidelines.
- The master plan seeks to celebrate cultural heritage and has been developed with input from Ngunnawal and Ngambri people, and non-indigenous stakeholders. This could be achieved by public art, tours, language, and dual naming.

5

Be a good neighbour

- Provide opportunities for open communication with all relevant stakeholders throughout the development of the South Jerrabomberra precinct.
- The master planning process seeks to protect residential areas, schools and workplaces from business impacts and recommends directing land uses and applying specific controls (in particular noise outputs) to maintain residential amenity and protect surrounding residential and community uses.
- New developments are to consider surrounding locale and existing communities to protect and promote amenity and services and to enhance the area's liveability.

6

Collaborative Cluster

- The master plan provides a foundation for delivering cross border connectivity.
- The master plan has been developed collaboratively between the Queanbeyan-Palerang Regional Council, Department of Primary Industries and Regional Development, ACT Government, and other government agencies.
- Good communication will strengthen cross border connectivity and strategic policy alignment between the ACT and NSW.
- The South Jerrabomberra precinct's proximity to surrounding areas will assist to establish a supportive industry cluster.



For more information
nsw.gov.au/regionaljobprecincts