

ETHOS URBAN

Albury Regional Job Precinct
Urban Design Assessment Report
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Figure 1. 'Gura Bulga' artwork commissioned by Belanjee. Gura Bulga translates to warm green Country and represents the state of New South Wales.

Acknowledgement of Country

We wish to acknowledge the Traditional Custodians of the land which we reference in this report, the Wiradjuri people. We pay our respects to their Elders past, present and emerging.

Ethos Urban wishes to acknowledge the Traditional Custodians of Country throughout Australia and recognises their continuing connection to land, waters and culture. We acknowledge the Gadigal people, of the Eora Nation, the Traditional Custodians of the land on which our physical office is located, and all peoples and nations from lands affected.

We pay our respects to their Elders past, present and emerging.

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1.0 Executive Summary

Executive Summary

The Department of Regional New South Wales engaged Ethos Urban to prepare an Urban Design Assessment Report for the Albury Regional Job Precinct (RJP), one of four precincts identified within the RJP program within New South Wales.

Albury is a modern vibrant city located within the Murray Riverina, the most significant agricultural region within New South Wales. Together with its neighbouring Victorian city of Wodonga, Albury is the 20th largest city in Australia and is ideally placed in the Sydney-Melbourne-Canberra triangle, drawing on a regional catchment population in excess of 200,000 people. Albury is the major commercial, retail, administrative, and cultural centre for the region. The city has a diverse economy with strengths in the manufacturing, construction, retail, health and Government services sectors. The Albury Regional Job Precinct is unique to other employment and industrial precincts within the Albury-Wodonga region, distinguished by a focus on higher intensity industry, overall capacity, circular economic practices, sustainable activity, and access to the existing major transport freight infrastructure - including the public rail intermodal (the Ettamogah Rail Hub), national road and rail network. It incorporates the existing Nexus Industrial Precinct and extends the precinct to a total of 1,200 hectares. It has a resulting land use capacity for job generating land of more than 750 hectares.

The development of this Urban Design Analysis Report occurred in three (3) stages. Stage one (1) involved an initial analysis and baseline reporting for the precinct. Stage two (2) included two stakeholder workshops involving subject matter experts and government body representatives, which provided an opportunity for information gathering and feedback on potential structures for the Regional Job Precinct. This report marks the conclusion of Stage three (3), which includes final analysis of the preferred structure plan and crystallisation of a solution for the precinct, considering urban design, natural environment, infrastructure, connectivity, land use, economic and planning constraints and opportunities. The structure planning process and time-line is described in Figure 3.

The vision for the structure plan incorporates the findings of the first two stages. This vision was developed, tested and verified in consultation with the wider consultation group and government stakeholders. Five principles and associated sub-principles accompany this vision to provide a strong direction for delivery. This vision and principle framework has provided structure to the options development stage of the structure plan and was utilised as a framework for assessment and analysis of these options and the preferred structure plan. The vision and principles are described in Figure 2 (refer to Section 8.0 for more detail and identification of sub-principles).

The structure plan seeks to support the generation of jobs through considered proposal of appropriate employment land within the subject site area, defined by a previous investigation undertaken by Albury City Council and the Department of Regional New South Wales. The resulting plan establishes a structure and a planning framework underpin a strong future for the Albury Regional Job Precinct.

The precinct prioritises heavier intensity land uses - where appropriate to the context, with easy access to transport infrastructure - in order to embed flexibility and amenity for existing and future proponents. Lower-emissions job generating land uses are prioritised in areas that require sensitivity to existing and future contexts. Some of these lower intensity uses may include businesses that may provide shared benefit between the employment precinct and neighbouring residential communities.

The division of land uses proposed in the resulting structure plan includes the following:

1. Higher intensity industry - 30% (252 ha).
2. Lower intensity industry - 50% (421 ha).
3. Conservation - 9% (78 ha).
4. Productivity support - 10% (86 ha).
5. Rail intermodal - <1% (4 ha).
6. Service station - <1% (3 ha).

Albury Regional Job Precinct Vision:

The Albury Regional Job Precinct will redefine the nature of employment within the Albury-Wodonga region. The Precinct will differentiate itself as an industrial hub for the future, focusing on highly sustainable production, circular economies and value-add industry within a productive and safe ecosystem.

The Precinct will be defined by its unique landscape and terrain, utilisation of surrounding amenity and services, and strong transport infrastructure linking to materials and markets in the region, interstate and overseas. The Precinct will not only be a highly desirable destination for businesses but offer a place to connect with nature.

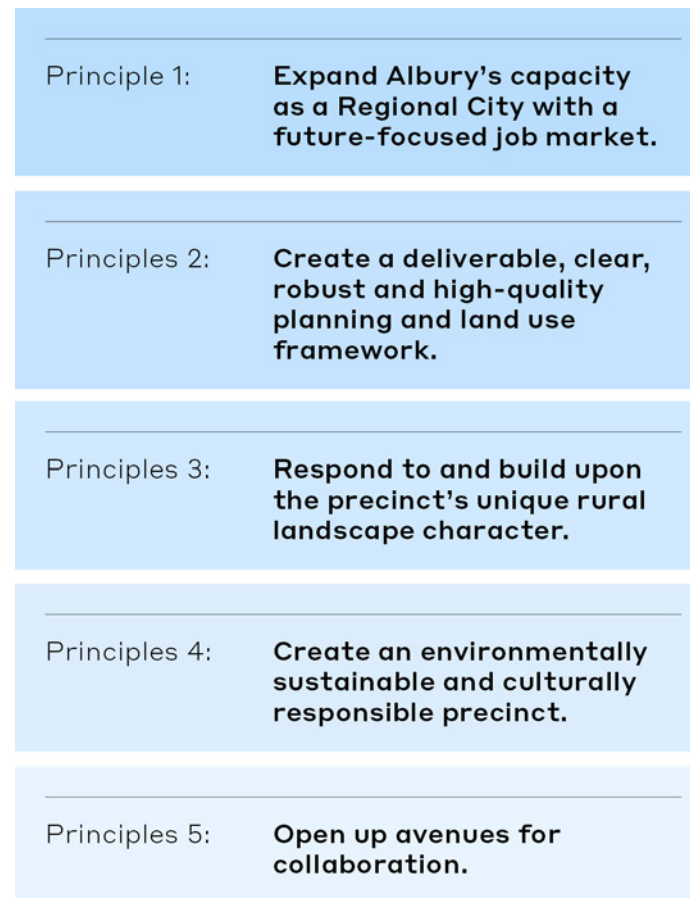


Figure 2. Albury Regional Job Precinct Vision and Principles

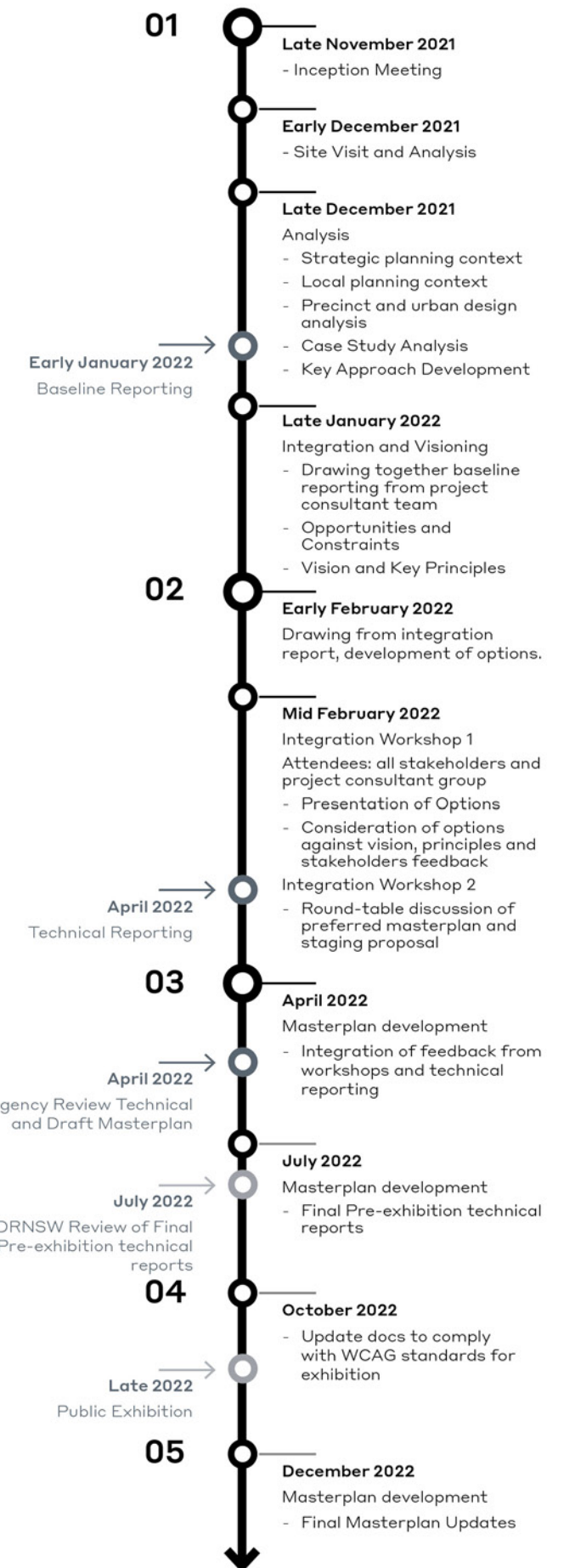


Figure 3. Structure Plan development timeline

- Legend**
- Albury RUP Boundary
 - Proposed Cycle Paths
 - Existing Cycle Paths
 - National Rail
 - Heritage Items
 - Crown Land, Australian Government, NSW Government
 - Creeks, Rivers
 - Water Bodies
- Masterplan Infrastructure (subject to future investigation)**
- Waste Water Treatment
 - Proposed Zone Substation Options for Further Testing
 - Existing Zone Substation
 - Possible Communications Tower

- Recommended LEP Environmental Overlays**
- High Value Fragment
 - Medium Value
 - Potential Offset Area
 - Offset Investigation Area

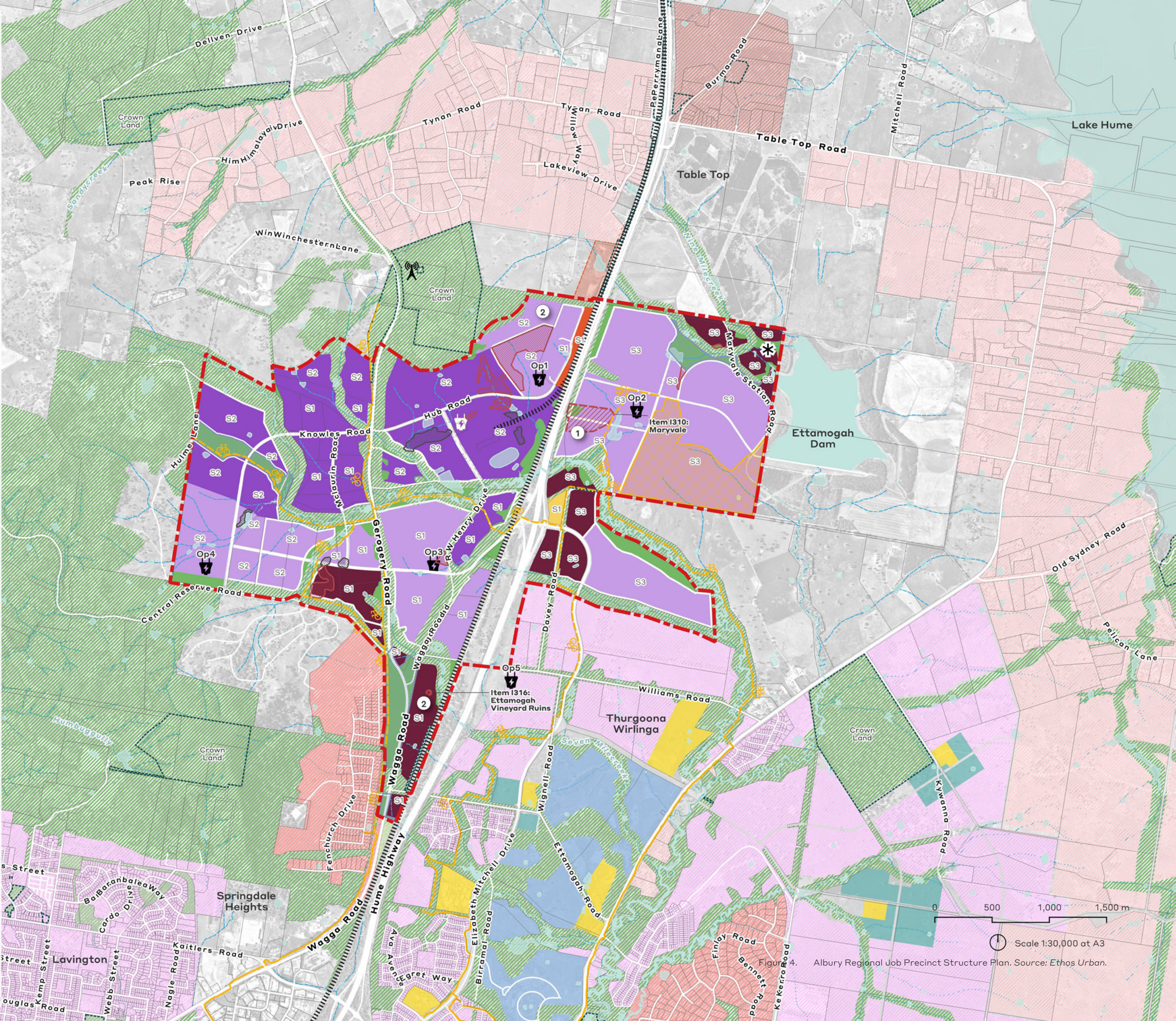
- Land Use Direction**
- Productivity support
 - Conservation
 - Lower intensity industry
 - Higher intensity industry
 - Rail intermodal
 - Service station
 - Opportunity for future industrial land to support intermodal

- Thurgoona Wirilinga Structure Plan**
- Centres - Neighbourhood & Village Centres including Commercial and Residential
 - Future Proposed Schools
 - Movement Network (Roads)
 - Higher Education

- Existing Zones (sensitive land uses)**
- C2 - Environmental Conservation
 - C3 - Environmental Management
 - C4 - Environmental Living
 - R1 - General Residential
 - R2 - Low-Density Residential
 - R3 - Medium Density Residential
 - R5 - Large Lot Residential
 - RE1 - Public Recreation
 - RE2 - Private Recreation
 - RU5 - Village

- 1 Adaptive re-use existing rural historic homestead
- 2 Possible locations for transport and logistics land uses
- S1 Stage 1
- S2 Stage 2
- S3 Stage 3

Note:
 1. Renewable Solar Energy Generation is proposed to be located on all possible warehouse rooftops.
 2. Potential new substation location to be determined by Essential Energy and Transgrid.



Scale 1:30,000 at A3

Figure 4. Albury Regional Job Precinct Structure Plan. Source: Ethos Urban.



2.0 Introduction

Ethos Urban was commissioned by the Department of Regional NSW to prepare an Urban Design Assessment Report for the Albury Regional Job Precinct. This report draws upon information gathered during a site visit (undertaken week of the 6th December 2021), preliminary technical studies, options development process, stakeholder workshops and specialist technical analysis. Workshop participants included Albury City Council, Department of Planning and Environment (DPE), Environmental Protection Agency (EPA), Essential Energy, Department of Regional New South Wales (DRNSW), Transport for New South Wales (TfNSW) and the consultant project group. This report documents a process of collating, consolidating, analysing and drawing from this base of information with the aim to establish a coordinated plan for employment lands development and infrastructure staging for the Albury Regional Job Precinct (RJP).

Regional Job Precincts

Albury RJP is the first of four precincts announced by the NSW Government in January of 2021.¹ The RJP program builds on the success of the Special Activation Precinct (SAP) program, having similar intended outcomes that focus on stimulating economic growth and diversification in key regional hubs. The Regional Job Precincts are differentiated from the Special Activation Precincts with the development of a localised planning framework specific to the region and precinct. The SAPs are also supported by direct government investment in enabling or catalyst infrastructure necessary to support economic outcomes. An RJP is intended to benefit the community by creating jobs, providing opportunity for economic growth and stability. Each RJP will be crafted differently, tailored to the individual location through identification of an approach that is most appropriate to the specific region.

The program aims to achieve this outcome by improving certainty for the private sector to invest in new or expanded businesses that will strengthen the economy of the targeted region. This Structure Plan and the associated technical reports aim to provide recommendations and identify opportunities for:

- Targeted funding for delivery of infrastructure projects that may act as catalysts for private sector investment.
- Investigation of precinct-specific statutory planning controls including zoning and local provisions that recognise the significant and unique economic development opportunities of the RJP, and structure planning to simplify and improve certainty in approval processes by undertaking assessments on a precinct-wide scale.

Figure 5. 'Maya' Fish Trap, West Albury Installation as part of the Yindyamarra Sculpture Walk. Artists: Uncle Ken (Tunny) Murray, Darren Wighton and Andom Rendell.

¹ NSW Government, 'Albury Regional Job Precinct', www.nsw.gov.au/sites/default/files/2021-08/Albury_20Regional_20Job_20Precinct_20community_20newsletter.pdf

Albury

Albury is a major regional hub, providing a base for employment, housing, community services and a focus for economic activity in southern inland NSW. It services areas stretching from the western edge of the Snowy Mountains across productive irrigation precincts to the west. It is strategically located with the twin border town of Wodonga on the Hume Highway, Sydney-Melbourne rail line and the Murray River. Agricultural production, resources including timber, and proximity to national transport networks mean it is well placed to cater for a range of economic activities.

Federal, state and local governments (in both Victoria and NSW) have committed to growing the economy, improving opportunities, amenity and resilience in the Albury-Wodonga area through a Statement of Intent and progress on developing a Regional Deal for the area. Funding generated through this deal and the coordinated efforts of Albury and Wodonga will support opportunities for jobs growth as well as an improved social infrastructure network to support those moving to the region for employment.

The Albury RJP is centred around the existing Nexus Industrial Precinct, and includes a 1,200 hectare investigation area with substantial potential to leverage off existing large-scale industrial facilities and activity, connections to the intermodal at the Ettamogah Rail Hub and the Hume Highway, and the diverse economy of the region. Albury sits within a context of existing industries, including manufacturing, agriculture and growing examples of the circular economy. This project presents the potential to draw from these strengths and provide access to new customers and markets.

The precinct will make a positive contribution to the regional economy, differentiated from other employment and industrial areas in Albury-Wodonga in its ability to grow the capacity of the region and build on existing sectors that underpin the economy, including transport freight and logistics, manufacturing and value-adding to primary production.

Precinct Key Drivers and Principles

We understand that many of the drivers that will ultimately shape the Albury RJP not only relate to the existing physical attributes of the site but come down to the economic and political drivers. The **key drivers** were identified during the site analysis stage of the project, in summary they are listed below:

1. Developing a precinct plan which is flexible and robust.
2. Take advantage of a unique landscape setting for an Industrial Precinct of the Future.
3. Working with the unique terrain to match compatible land uses.
4. Consolidating existing road and rail infrastructure as part of a robust movement network is crucial for long term success.
5. Connecting the precinct to the community - uses and links to Albury to ensure long term success.
6. Infrastructure investment into the precinct to accommodate IT services, energy + water needs.
7. Engaging Visy and neighbouring landowners as part of the RJP process.

Following greater investigation of the opportunities and constraints of the precinct, as well as a workshoping process with key stakeholders, a series of **principles** were generated. These principles provided guidance to the development of the final structure, but also aim to support a common understanding of the precinct as it becomes further embedded into the fabric of Albury.

1. Expand Albury's capacity as a Regional City with a future-focused job market.
2. Create a deliverable, clear, robust and high-quality planning and land use framework.
3. Respond to and build upon the precinct's unique rural landscape character.
4. Create an environmentally sustainable and culturally responsible precinct.
5. Open up avenues for collaboration.

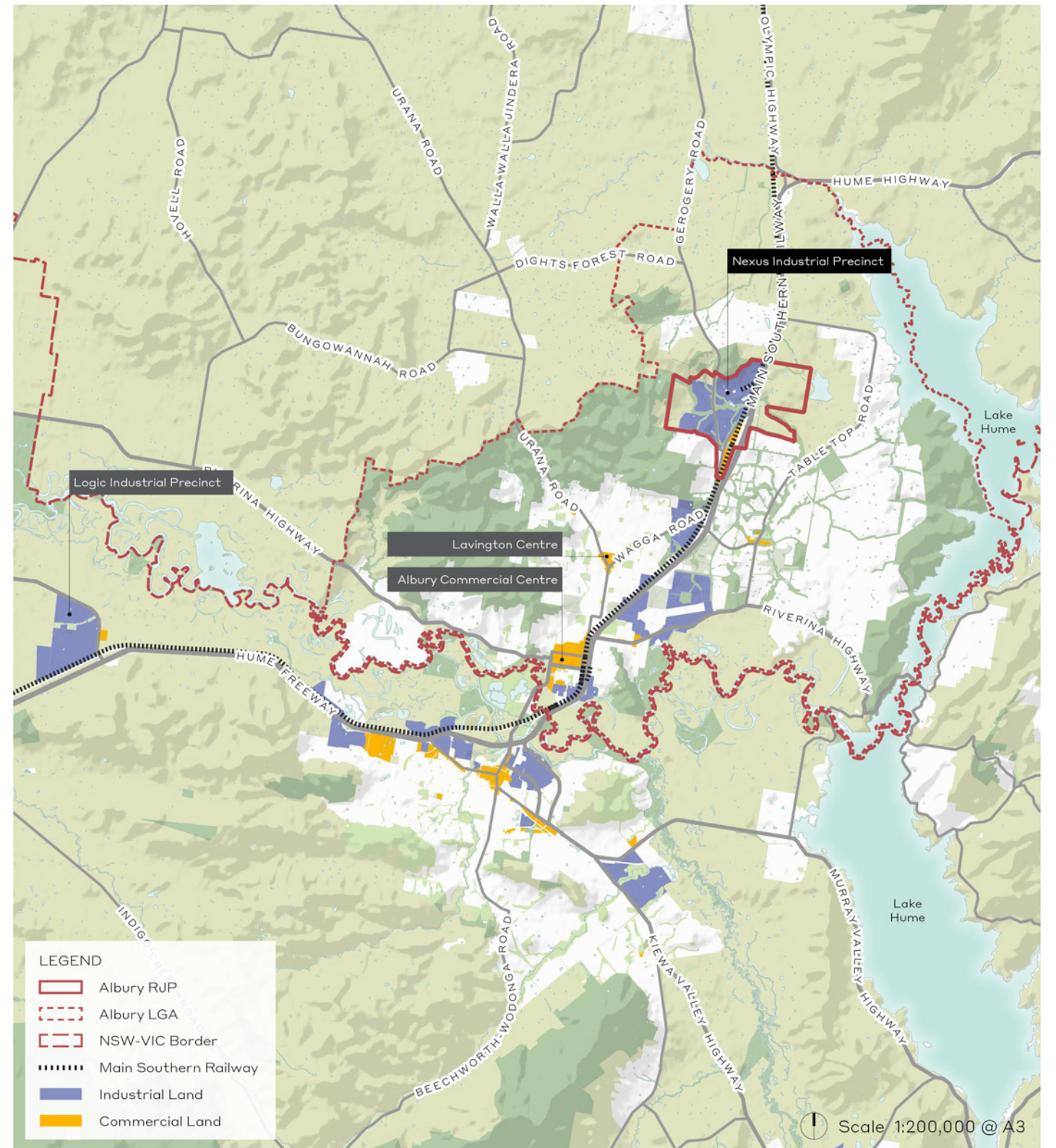


Figure 6. Employment Lands Context Review. Source: Ethos Urban using DPIE shapefile data.





STRATEGIC CONTEXT

3.0 Strategic Context

Summary

International, national, state and local government strategic planning and economic development policies can influence the future location and composition of economic activity across NSW. These policies set the planned economic role and function of areas that are to be reinforced by planning controls and infrastructure delivery.

A range of regional and local strategic plans and policies exist which collectively outline the future growth and development vision for the community of Albury City. Analysing this framework provides an understanding of the strategic objectives for the area, and identifies potential growth drivers, opportunities and policy settings that will influence the demand and supply of employment land and drivers of the local and regional economy that the Albury RJP can leverage.

To focus the analysis of this framework, and best determine how it might influence the future scale, composition and timing of economic development within Albury City (and the role and function of the Albury RJP in this context), the following types of plans and policies have been reviewed and outlined in the remainder of this chapter:

- Selective and relevant international strategies.
- National government strategies and plans.
- State government strategies and policies.
- Region and local strategic plans.
- Council's Community Strategic Plan.
- Employment and economic development plans and policies.

Note that policies, strategies, plans and other strategic or statutory documents were current at the time of report preparation and may since have been superseded or undergoing review and updates. Refer to the most current policy for more information.

United Nations Sustainable Development Goals

The Sustainable Development Goals (SDGs) were adopted by the United Nations in 2015 as a universal call to action for achieving global development, while balancing social, economic, and environmental sustainability. The goals guide strategic planning at the local level to ensure a unified approach to employment, the environment, education, and transport needs of local communities.

Development of the Albury RJP links directly to Goal 9: Industry, Innovation, and Infrastructure.

Investment in infrastructure and innovation are crucial drivers of economic growth and development. Embracing new technologies, research methods and innovation, are key to finding lasting solutions to both economic and environmental challenges, such as providing new jobs and promoting energy efficiency.

Other Sustainable Development goals which can be applicable to the Regional Job Precinct are show in Table 1.

3.1 International Planning Context

Goal	RJP application
Goal 5: Gender equality	Consideration of wider conditions including ability to access childcare for workers, access to residential land, proximity to home for commuters, improving these outcomes has benefits to gender equality.
Goal 6: Clean water and sanitation	Development of integrated water cycle management.
Goal 7: Affordable and clean energy	Planning for increased energy efficiency, precinct generation of renewable energy and use of renewables to support growth in the precinct.
Goal 8: Decent work and economic growth	Sustainable economic growth and job creation, consideration of local population and training.
Goal 9: Industry, innovation and infrastructure	Key role of the RJP.
Goal 11: Sustainable cities and communities	Resilience to climate change and natural disasters including recognition of flooding conditions, consideration of existing population, growth and social infrastructure.
Goal 12: Responsible consumption and production	Ambitions towards generating circular economic patterns.
Goal 13: Climate action	Climate responsiveness in master planning, consideration of energy use, reduce of carbon footprint.
Goal 15: Life on land	Consideration of ecological corridors and biodiversity within the crafting of the structure plan.

Table 1. RJP application of United Nations Sustainable Development Goals. Source: United Nations, 2015.



Figure 7. Sustainable Development Goals from the United Nations. Source: United Nations, 2015.

United Nations International Guidelines for Industrial Parks

The United Nations promote the development of competitive and sustainable industrial parks. The guidelines set high level strategic objectives for change and improvement, as informed by case studies of international industrial park practices and literature reviews. The guidelines include the following five objectives:

- Support industrial park decision-making.
- Improve industrial park efficiency.
- Enhance industrial park competitiveness.
- Promote industrial park sustainability.
- Ensure industrial park inclusiveness.

Some of these objectives may be linked to development opportunities at the Albury RJP. Changing industrial practices, including hydrogen production and waste treatment, could promote cleaner production practices, reduce reliance on fossil fuels, and make a greater contribution to the circular economy.

The location of Albury RJP on the Hume Highway and rail line, provides access to airports, seaports and rail terminus in Sydney, Melbourne, and Brisbane. The development of the precinct creates opportunities for better integration with land use and infrastructure, to improve the region's competitive advantage in freight and logistics.

The development of the precinct is also crucial to ensuring the long-term improvement of economic outcomes and job opportunities. Investments in Albury RJP is essential for employment creation and progression towards the knowledge-economy. This will enable increases in household income and promote stable and higher-skilled manufacturing jobs.

This guideline makes specific reference to the changing nature of manufacturing industry, away from a 'linear' production process typical of traditional manufacturing towards a circular economy focused approach. The traditional method is identified as undesirable due to the resulting by-products and wastes which require disposal and produce impact on the natural environment through storage or pollution. The circular economy model is based on an aspiration to 'as much as possible' ensure practices of reusing and recycling or using waste outputs as a source of energy, with disposal 'a last resort'. Circular economy practices also include:

- Extending product lifespan through more sustainable designs.
- Resource-efficient cleaner production.
- Efficient industrial waste, water and energy management.
- Re-purposing at the factory or through common on-site or off-site exchange systems and infrastructure.

Working with Albury City Council may enable some of these practices to take place within the precinct. The structure plan considers possible locations for resource sharing and maximises the road network to enable cross-connection between operators to facilitate resource sharing practices where possible.

An Eco-Industrial Park (EIP) is an example of an industrial park that includes businesses which agree to common performance outcomes in line with environmental sustainable practices, including circular economy activities. Feedback from stakeholders and the market research indicates that limiting and placing additional obligations on new operators is unlikely to support the primary goal of establishing a thriving jobs precinct in this current condition.

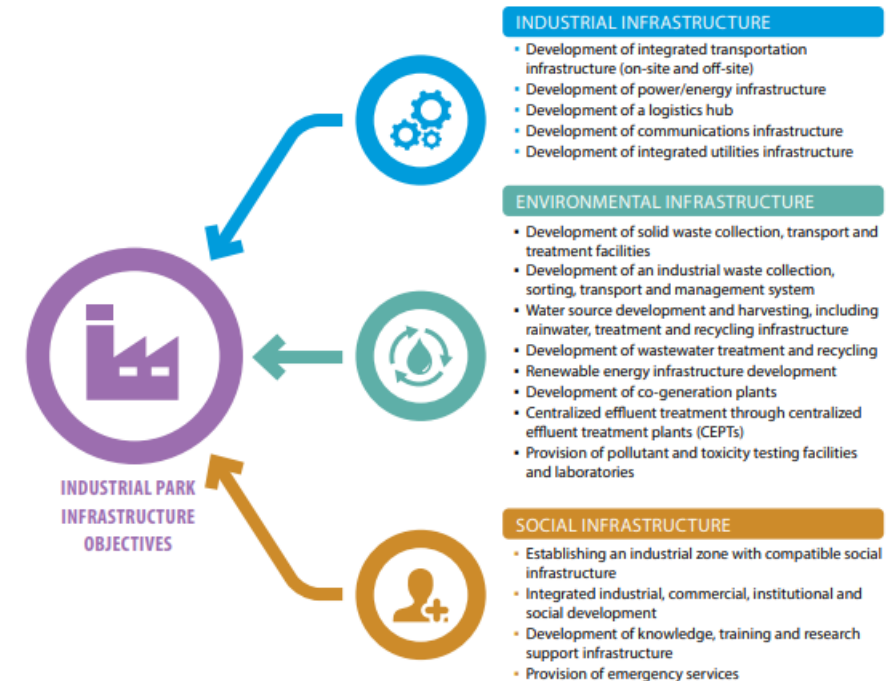


Figure 8. Illustration of Industrial Parks Infrastructure Objectives as proposed by the International Guidelines for Industrial Parks. Source: United Nations, 2019, p 54.

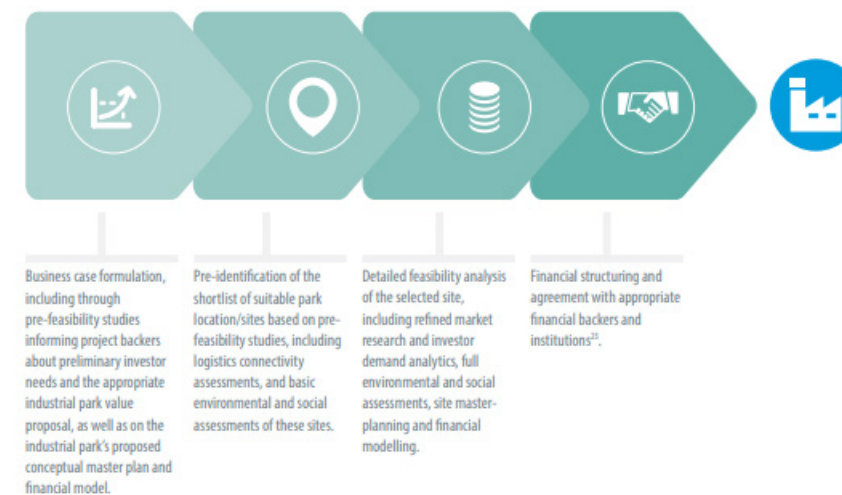


Figure 9. Industrial park development principle steps in planning as recommended by the International Guidelines for Industrial Parks. Source: United Nations, 2019, p 38.

3.2 National Planning Context

National Food Plan

The Plan identifies priorities to support Australia's food system, with a focus on growing exports, thriving industries, sustainable food production and people. Key points in the Plan relevant to this project are as follows:

- The value of Australia's agriculture and food-related exports is predicted to increase by 45%, contributing to an increase in our gross domestic product. The anticipated increase in food-related exports justifies the need for additional industrial land in Albury, where there is an existing food manufacturing hub.
- The plan highlights the contribution of regional and local supply chains for productivity. This promotes job opportunities in the region and helps attract employees.
- There is a strong emphasis on environmental sustainability to promote a cleaner and more resourceful industry, while responding to changing environmental circumstances, particularly those linked to agricultural production.



Figure 10. Vision to 2025 goal categories. Source: Australian Government, 2013, National Food Plan, p16.

- Introducing initiatives at the local level, can help achieve policy objectives to reduce food waste, as set out in the NSW Government's *Love Food Hate Waste* campaign.
- Building stronger partnerships between the private sector, Local Government and research institutions creates opportunities for collaboration to improve agricultural productivity.
- The promotion of local firms to new domestic and international markets is underpinned by infrastructure investment, a strong biosecurity system and transport access. Road and rail networks in Albury connect to major freight terminals in the major cities to enable the transfer of goods to domestic and international markets.
- Highlighting the development of the Murray Darling Basin Plan, applicable to Albury which sits within.



Figure 11. How the National Food Plan is supporting Australia in the Asian Century White Paper, identifying prosperity for Australia as part of the Asian region. Source: Australian Government, 2013, National Food Plan, p18.

Freight and Supply Chain Strategy

The Strategy outlines a range of possible long-term enhancements to lift the capacity of freight and supply chains across Australia. The national framework treats freight and supply chain networks as an integrated whole, and focuses on expanding opportunities for all freight modes including road links, regional airports and coastal shipping. Key points in the Plan relevant to this project are as follows:

- Freight volumes in Australia are expected to grow by over 35 per cent between 2018 and 2040, an increase of 270 billion tonnes (bringing the total volume to just over 1,000 billion tonne kilometres). This indicates that there will be a significant growth in demand for freight-related services and supporting land use surrounding Albury RJP into the foreseeable future.
- The Strategy highlights the role of regional and remote Australia in responding to increasing demand from Asian and other international markets. Albury is centrally located on the domestic freight route between Melbourne and Brisbane and connects agricultural regions to major cities and seaports.
- The Strategy calls for action from all tiers of government to increase understanding and acceptance of freight operations. It is crucial that future freight corridors are identified through land use and transport planning to safeguard the long-term requirements of the freight sector.

The Action Plan sets an agenda to achieve industry action for freight systems and supply chains. It sits alongside the Strategy and details key actions to be delivered by government over the next four years. The Plan focusses on the following priority areas:

- Smarter and targeted infrastructure investment.
- Enable improved supply chain efficiency.
- Better planning, coordination, and regulation.
- Better freight location and performance data.

The plan will guide workforce development, technological change, capacity building and infrastructure investment. It will also guide land use and transport planning and support the private sector to provide new infrastructure to respond to freight demands.

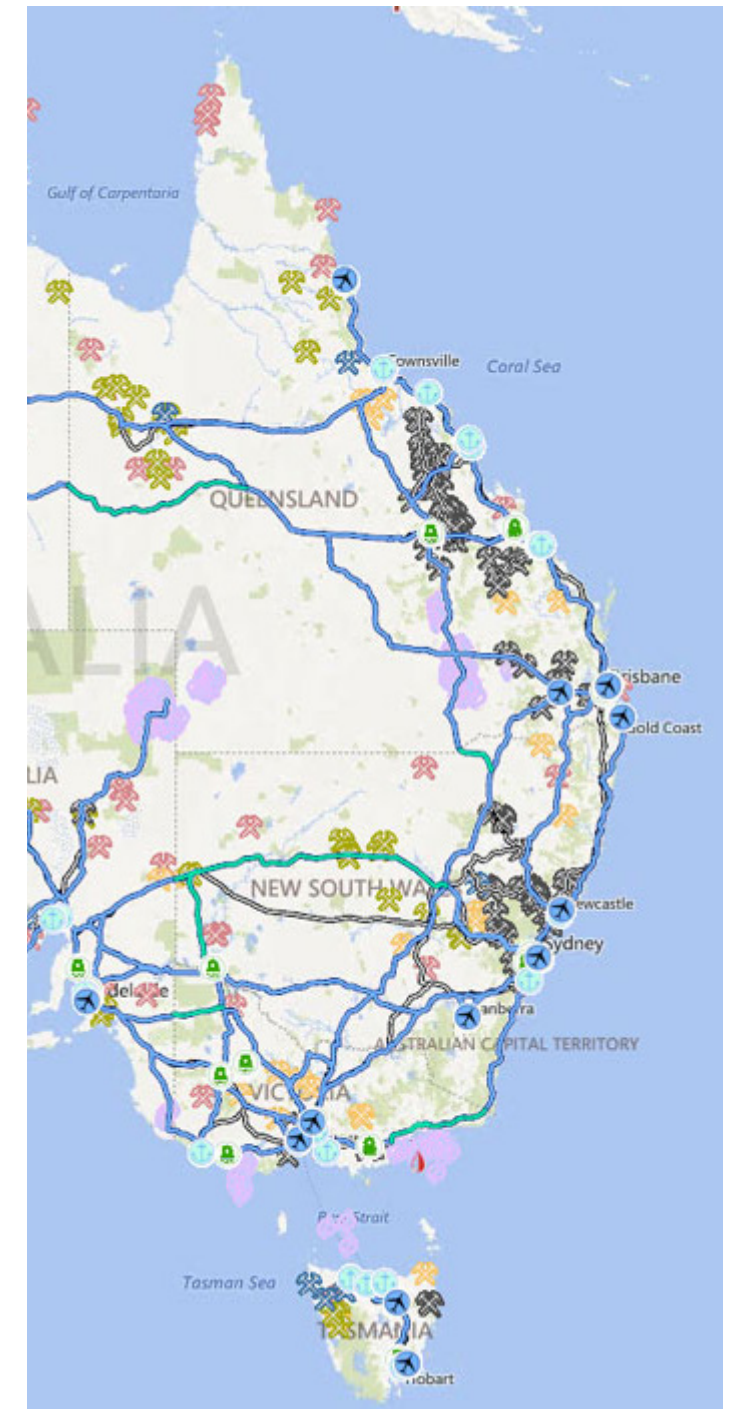


Figure 12. National Key Freight Routes, Department of Infrastructure, Transport, Regional Development and Communications. Source: Department of Infrastructure, Transport, Regional Development, Communications and the Arts, 2019, www.infrastructure.gov.au/infrastructure-transport-vehicles/transport-strategy-policy/freight-supply-chains

Australia's Strategy for Nature 2019-2030

A nation-wide plan was developed to manage nature in all landscapes, from cities to rural and natural environments on land and at sea. It sets a national framework for government, non-government, and community action to regulate, fund and manage nature conservation. This is designed to link to broader government planning, including the economy, climate, and health and well-being outcomes.

Further development of Albury RJP can support the delivery of this plan, by changing industry practices to become more environmentally friendly, embracing technological advancements, reducing manufacturing waste and recycling more materials. Initiatives such as these can help reduce carbon emissions, increase energy efficiency, and build resilience to climate change.



Figure 13. Australia's Strategy Goals for Nature. Source: Australian Government, 2019, Australia's National Strategy for Nature 2019-2030, p 11.

National Climate Resilience and Adaptation Strategy 2021-2025

The Strategy positions Australia to better anticipate, manage and adapt to climate change. It supports Australia's ongoing commitments to the Paris Agreement to achieve a climate-resilient community and economy. The key findings are summarised below:

- The climate adaptation response is underpinned by four domains: Natural, Built, Social and Economic. The four domains promote cross-sectoral efforts, including the strength of the economy, national security, the resilience of our society and operation of natural systems.
- The need to adapt infrastructure to withstand the effects of climate change, including extreme heat, sea level and flooding changes.
- Climate adaptation requires coordinated efforts across all tiers of Government, businesses, communities, and individuals. These partnerships will harness the knowledge, skills, and perspectives from different sectors to support adaptation.
- Local governments are well positioned to deal with the on-the-ground needs of local and regional communities and have a direct line of communication to better understand the needs of local communities.
- Infrastructure investments can benefit the agricultural industry, by improving productivity levels, maintaining international competitiveness, and providing access to secure jobs.

In developing a framework which supports Climate Resilience and Adaptation in regional areas, such as Albury, communities can better respond to bushfire events, ensure connection to local green and blue corridors, and aid in the promotion of locally sourced food production and distribution; including support for agribusiness.

Albury RJP can support resilience and adaptation in a number of ways:

1. Reducing the precinct's carbon footprint by implementing opportunities for renewable energy production and use, as well as prioritising operators who utilise rail over road freight.
2. Prioritise maintaining tree cover and habitat in appropriate and impactful areas.
3. Consideration of flooding impacts and prioritise development away from flood prone areas.
4. Consideration of bush fire prone areas, establishment and maintenance of important egress paths for populations within bush fire prone areas and pathways into bushfire prone areas for fire fighting vehicles and equipment.
5. Employing a structure which is flexible to adapt to future needs and technology growth.
6. Creating a road network and vehicle facilities which is flexible and future-proofed for future vehicle forms and technologies.
7. Consideration of urban water management and protection of natural water ways and water bodies within and adjacent the site as well as catchments down stream.
8. Consideration of infrastructure which has redundancy to maintain business operation during incidence where infrastructure may be impacted by extreme weather events.

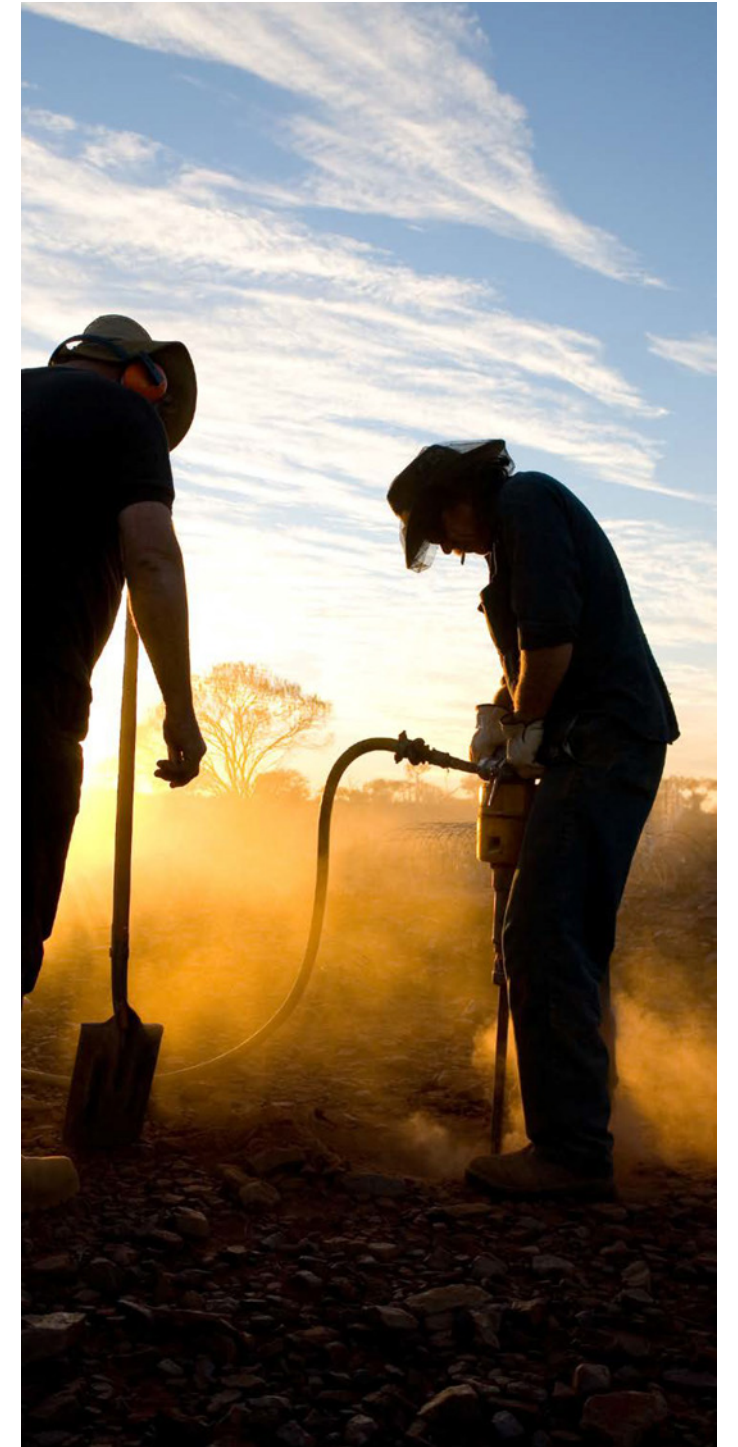


Figure 14. People working in the sun to build a fence at Muggon Station, Nanda Country, Western Australia. Source: Australian Government, 2019, National Climate Resilience and Adaptation Strategy 2021-2025, p 44.

National Hydrogen Strategy

The Strategy promotes the uptake of hydrogen to enhance Australia's energy security, create local jobs and build and export industry. The Australian Government has committed over \$146 million to hydrogen projects and is focused on building scale, infrastructure development, and encouraging global trade to emerge. There are significant advantages for developing the hydrogen sector in Australia, as it can be used to generate heat, transport, grid electricity, chemical feedstock and exported overseas as a commodity.

Technical reporting for the RJP indicates that hydrogen production will be typically co-located with renewable energy hubs. Established local production of hydrogen is taking place at the Murray Valley Hydrogen Park in Wodonga (SMEC, 2022, p29). Once operational it will likely increase the percentage of hydrogen within gas mains to 10%.

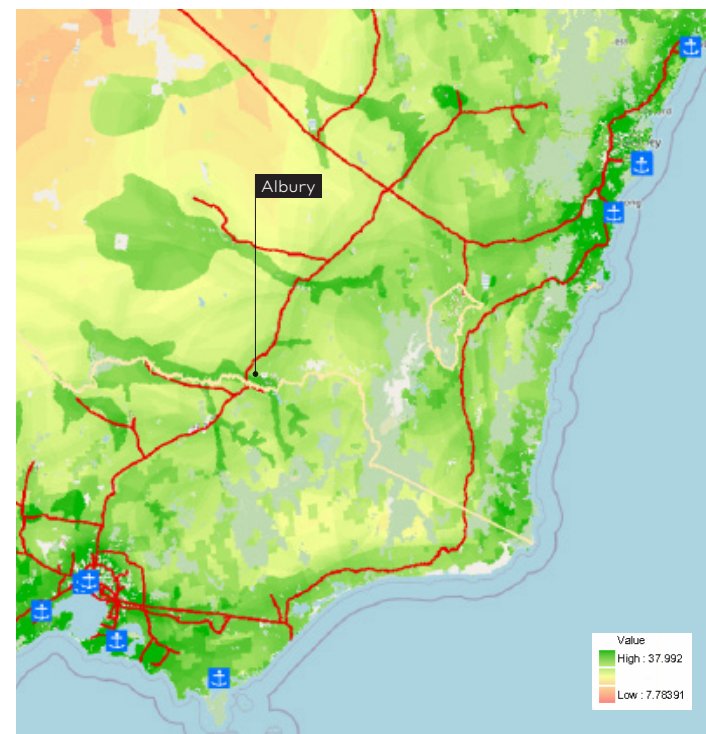


Figure 15. Potential Hydrogen Export Locations, Scenario 3 of the Hydrogen Production Prospectivity Scenarios: Renewable Hydrogen - Coastal or Inland Generation with Hydrogen Transported via Pipelines and Constrained by Existing Infrastructure with Existing Gas Pipelines overlaid. Source: Geoscience Australia, AusH2, portal.ga.gov.au/persona/hydrogen, 2022.

There is potential to expand the hydrogen sector in southern NSW region. AusH2 (Australia's Hydrogen Opportunities Mapping tool created by the National Government's Geoscience Australia) indicates that Port Botany, Kurnell, Newcastle, Port Kembla, Port of Melbourne, Port of Geelong, Port of Hastings and Altona are all potential hydrogen export locations with connections to existing gas pipelines to Albury.

However, there are a range of factors that determine the suitability of a location for hydrogen production, including proximity to renewable and fossil fuel energy sources, water, electricity power lines, gas pipeline easements, ports, and industrial zones, as well as consideration of land use conflict with sensitive receptors due to the combustible nature of hydrogen gas. There are no known locations for large scale underground hydrogen storage either existing or potential within proximity of the RJP. However, Albury is located within a location indicated by AusH2 with high prospectivity for renewable hydrogen production.

There is potential for regional areas, such as Albury to create a hydrogen hub and leverage from an established industrial base and extensive transport network. However, constraints will need to be overcome, including growth of existing infrastructure, water supply and address of land conflicts. Additionally, further investigation into the commercial viability of hydrogen production is required to establish suitability within the RJP.

The Victorian and New South Wales governments are investing \$10 million in grant funding to enable delivery of the Hume Hydrogen Highway (HHH) program.¹ It provides grants for private market delivery of at least four hydrogen refuelling stations to support long-haul freight vehicles travelling between Sydney and Melbourne (via Albury). The RJP's proximity to the Hume Highway provides opportunity to maximise the potential for this program and the associated grants. More information on the structure plan response to the potential for hydrogen is located in Section 10.2.

¹ www.energy.vic.gov.au/renewable-hydrogen/renewable-hydrogen/hume-hydrogen-highway

Circular Economy Road Map

The Circular Economy Road Map Strategy provides advice to the Australian Government about economic development, employment, waste reduction and pollution, to create opportunities for a circular economy. The Strategy recognises increasing amounts of waste plastics, glass, paper and tyres from industry and households in Australia. The key findings are summarised below:

- Raised responsibility across many industries for dealing with domestic waste in Australia, to avoid waste going to landfill, leaking into the environment, or being sent offshore.
- Planning for regional recycling facilities in areas with good transport links can support regional economic development, whilst attaining waste reduction.
- Transitioning material supply chains and business models to circularity relies on innovation in technologies, products, and processes and can occur at each stage of the supply chain.



Figure 16. Circular Economy Road Map. Source: Australian Government, 2021, *National Circular Economy Roadmap for Plastics, Glass, Paper, and Tyres*, p 10.

The Albury Regional Job Precinct has a noted focus on circular economic management. In consideration of this strategy, local industry can support the growth of the economy and technology in areas such as waste management, resource allocation, reuse and recycling. This strategic forward thinking approach may reduce costs within industry and engage industrial communities in collaborative and coordinated thinking fostering a culture of innovation.

The role of the Urban Design Analysis Report is to ensure that the structure of the RJP can accommodate circular economy activities. Consideration of the following components are therefore important:

- **Transport**
 - Ensuring efficient connection to main road arterials and national rail freight to ensure minimum transport carbon emissions and prioritisation of rail which has a smaller carbon footprint.
 - Efficient road network to enable easy waste collection for recycling.
 - Ensuring good inter-precinct connections between development sites to enable sharing of resources, reuse of outputs from one business to another, recycling opportunities.
 - Future proofing the precinct for future vehicle use and future fuel.
- **Utilities, Waste and Infrastructure**
 - Considered locations shared on-site waste and water treatment to minimise off-site impact.
 - Considered opportunities for internal energy grid networking for those producing renewable energy.
 - Considered opportunities for internal stormwater networking for those collecting roof and ground water for reuse or irrigation, including implementation of planning controls to support good urban water management.

Inland Rail

Inland Rail is a major national infrastructure project set to deliver more efficient, reliable and faster safe freight rail transport for eastern Australia. Inland Rail will connect Melbourne and Brisbane, and will provide new opportunities for regional industries to better access domestic and international markets.

The Inland Rail agreement was signed in 2018 between the NSW and Federal Government, and enables the delivery of new rail track and safeguards the proposed rail alignment (see Figure 17). There are multiple benefits of Inland Rail, including reduced congestion on roads and rail, reduced supply chain costs and local job creation.

The Regional Intelligence Report, prepared by Ernst and Young in 2020 for the Department of Infrastructure, Transport, Regional Development and Communications, identified a range of considerations and investment opportunities that could assist in developing opportunities for Inland Rail in Southern NSW Region, including Albury (Figure 17).

Key short-term and medium-term opportunities associated with Inland Rail in the Southern NSW Region, include:

- More efficient movement of goods to domestic and international markets, including flour, beef, fresh fruit, cotton, almonds and canola oil.
- Potential to establish an airport in the region to handle international aircraft and freight distributed by Inland Rail.
- Proximity of manufacturing near Inland Rail will improve connectivity to domestic export markets, specifically for timbre products in the Alpine regions.
- Potential to expand warehousing and logistics services in the region, linked to cotton output.
- Inland Rail will facilitate opportunities for the development of distribution centres to handle fast moving goods near population centres.
- Inland Rail will facilitate increased waste volumes from regional and major city centres for re-purposing, enabling economic and commercial viability. The population of Albury-Wodonga in the Riverina Murray region is forecast to increase by 27 per cent by 2036 to 117,000.

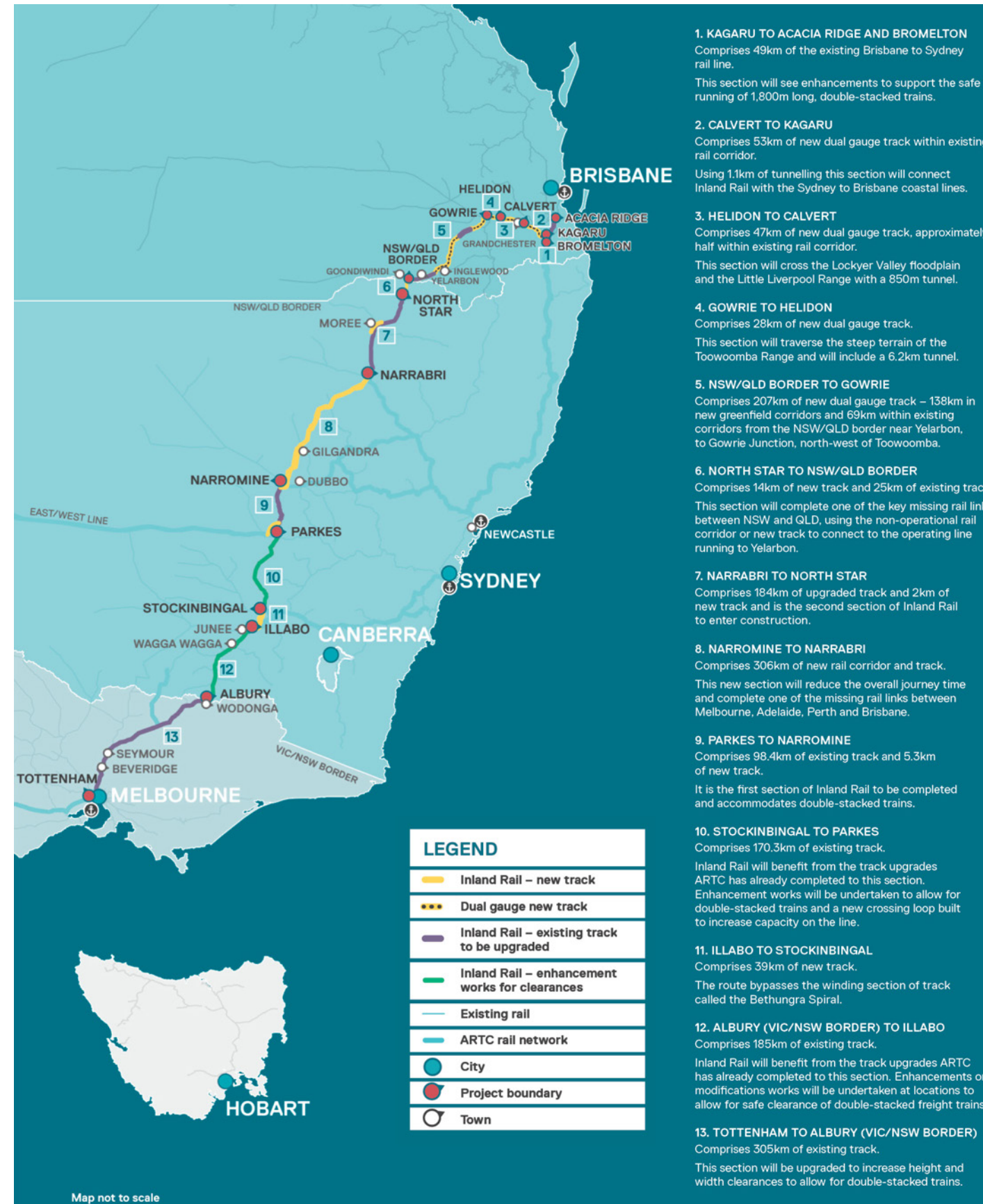


Figure 17. Inland Rail Route. Source: Australian Government, 2022, National Inland Rail Alignment Map, p 5.

3.3 State Planning Context

NSW Future Transport Strategy

A long-term infrastructure strategy for New South Wales, including a pipeline of initiatives to be delivered across the transport system. The Strategy provides recommendations for mobility and transport provision in greater Sydney and regional NSW.

The outcome 'Growing the economy' recognises the transport system as an enabler of economic activity. The key actions for regional NSW entail:

- Changes in the land use, population, and demand, including seasonal changes are served by the transport system.
- Economic development is enabled by regional transport services and infrastructure.

Regional cities and centres will be connected to outlying towns and centres by a 'hub and spoke' network. This will provide manufacturers and producers with the opportunity to participate in the global economy, by connecting them to domestic and international consumer markets.

Albury is a 'major gateway city' that is well-connected by road and rail infrastructure, providing access to major cities including Melbourne, Sydney, and Brisbane. The provision of high-speed rail is planned project and will connect Melbourne and Brisbane via Albury, to improve regional links in the east coast of Australia.

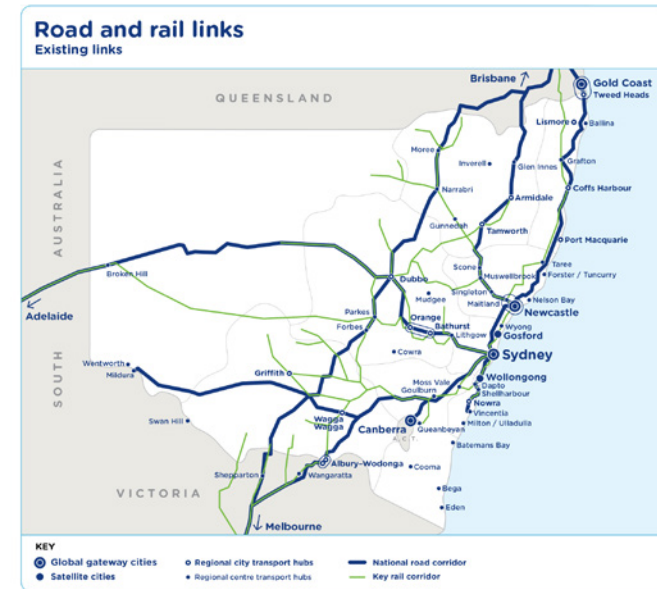


Figure 18. Road and Rail links from the NSW Future Transport Strategy. Source: NSW Government, 2018, p127.



Figure 19. New / improved regional links from the NSW Future Transport Strategy. Source: NSW Government, 2018, p128.

NSW Environmental Sustainability Strategy 2019-2023 (RMS)

The Strategy identifies priorities to support the delivery of road and maritime assets in New South Wales. The Strategy identifies 10 focus areas supported with objectives, supporting targets and initiatives. The focus areas address a range of environmental, social, and economic outcomes, associated with road and maritime projects:

- Energy and carbon management.
- Climate change resilience.
- Air quality.
- Resource use and waste management.
- Pollution control.
- Biodiversity.
- Heritage – Aboriginal and non-Aboriginal.
- Liveable communities.
- Sustainable procurement.
- Corporate sustainability.

This strategy empowers and directs the future of the Albury RJP, speaking to the Vision, and more specifically, Principle Four (identified in Section 8.0) which supports a successful industrial hub with a thriving community based on a foundation of sustainability, both future-focused and conservational.

NSW Waste and Sustainable Materials Strategy 2041 (DPIE, June 2021)

The Strategy was developed by the Department of Planning, Industry and Environment to enhance existing approaches to transitioning to a circular economy. The Strategy encourages a rethink of the traditional linear economy, which has a 'take, make, dispose' model of production.

The following three priority areas are listed as:

1. Meeting our future infrastructure and service needs.
2. Reducing carbon emissions through better waste and materials management.
3. Building on our work to protect the environment and human health from waste pollution.

Regional precincts that are located on arterial transport routes, have enormous potential to become circular economy precincts. Future consideration for Albury RJP, in consultation with the Environmental Protection Agency (EPA), is to consider recovering energy from waste, where it can deliver positive outcomes for the community and the environment (noting that the POEO (General) Amendment (Thermal Energy From Waste) Regulation 2022 only permits energy from waste facilities in four locations in NSW, this does not currently include Albury). It is noted that a new plastics recycling facility is being built in Albury, which will recycle the equivalent of 1 million PET plastic bottles every year. This will generate further investment opportunities, whereby Asahi Beverages and Pact will buy recycled plastic from the facility to use in new plastic packaging.

NSW 2040 Economic Blueprint

The blueprint contains a pipeline of initiatives to improve living standards in New South Wales. The document includes a range of recommendations that cover all infrastructure sectors and could assist in identifying development opportunities for Albury RJP.

New South Wales contributes to the national hydrogen supply chain and is expected to increase its production value. There is scope for Albury RJP to explore hydrogen opportunities and provide co-location benefits to other industries in the region, such as agriculture, manufacturing, and waste management.

The Strategy promotes the transition towards the circular economy for environmental and economic benefits. Supporting this transition in Albury RJP will help reduce waste, make sustainable recycling markets bigger and more efficient, and improve the waste infrastructure network.

NSW 2020 Electricity Infrastructure Roadmap

The Roadmap promotes the uptake of renewable energy sources to reduce carbon emissions, attract new investment and provide affordable energy prices. This document builds on the framework set out in the NSW Electricity Strategy, and commits to investing in infrastructure to replace four coal-fired power stations, that are set to close within the next 15 years.

The development of Renewable Energy Zones (REZs) will create opportunities for new energy projects and expand transmission capabilities. REZ projects will facilitate land-use planning, and increase the competitiveness and scale of existing industries to meet increased demand.

REZs will have flow-on benefits to local communities through developer contributions and new income streams to landholders that host electricity infrastructure (\$280 million to be allocated in the South West region). Developer contributions could amount to \$265 million and improve social outcomes, such as upgrading playgrounds and parks. In addition, major electricity projects will create opportunities to improve local infrastructure, including improvements to roads, telecommunication capacity and upgrades to local distribution networks.

NSW 2019 Electricity Strategy (DPIE)

The Strategy promotes a reliable, affordable and sustainable electricity future. New South Wales forms part of a National Electricity Market (NEM) comprising five eastern and southern Australia states, and allows electricity to flow and be traded across regions. The State's electricity has traditionally been powered by fossil-fuels, specifically coal-fired generators. The Strategy promotes the uptake of renewable energy sources, specifically hydro, solar and wind energy.

The NSW Government is investing in Renewable Energy Zones (REZs), across three locations. REZs will facilitate the uptake in wind, solar and hydroelectric energy, and are strategically located in areas with existing grid infrastructure. The Central-West Orana pilot REZ is located around Dubbo and Wellington, and will be delivered by 2022. The Central-West Orana

region will benefit from relatively low build costs, a strong mix of energy resources, and significant existing investment and investor interest.

The Strategy supports the development of the South-West REZ nearby Albury, as shown in Figure 20. The South-West REZ was chosen due to an abundance of high-quality solar resources, land-use compatibility and a strong pipeline of proposed projects in the surrounding region. It is noted that the development of the South-west REZ is a long-term project, that will require extensive stakeholder engagement with local councils, Aboriginal Land Councils and regional State Government agencies, to help inform the design and delivery.



Figure 20. Indicative location of South-West REZ. Source: Department of Planning, 2018), www.energy.nsw.gov.au/renewables/renewable-energy-zones

Rail Infrastructure Noise Guideline (EPA, 2013)

This guideline has been created to ensure noise and vibration impacts associated with rail development projects are evaluated appropriately to ensure feasible and reasonable noise mitigation measures are embedded within relevant rail projects in NSW.

This guideline would apply to the Inland Rail project, a new multi-state and national initiative, it will apply to those components of this larger project which sit within the state of NSW. The guideline looks to protect sensitive land uses from noise and vibration generated by rail projects. Inland Rail is a heavy rail project which will require upgrades and new construction projects along the existing rail corridor within Albury LGA. This rail corridor passes existing residential land, Albury's town centre, and urban expansion areas which have been rezoned for residential use. Some of these sensitive land uses are located in close proximity to the Albury RJP. The national rail project has the intended effect of increasing reliance on rail as a mode of freight movement through the East Coast of Australia, as a consequence there is anticipated to be a planned increase in rail traffic, movement and associated operations around the existing rail corridor, including through the RJP and, likely, having an impact on the operations of the Ettamogah Rail Hub. This increase in activity is a generator of noise and vibration which has the potential to impact sensitive land users surrounding the precinct.

There are other noise mitigation initiatives being developed to manage rail noise which would also apply to the increased use and activity on existing rail lines, such as the existing National Rail which runs through the Albury Regional Job Precinct.

3.4 Regional Planning Context

NSW Circular Economy Policy Statement - Too Good to Waste (NSW Government, 2019)

The intention of this policy is to guide governmental decision making, provide implementation plans for circular economy in the state, provide common language for circular economy practices, and establish seven principles:

1. Sustainable management of all resources.
2. Valuing resource productivity.
3. Design out waste and pollution.
4. Maintain the value of products and materials.
5. Innovate new solutions for resource efficiency.

6. Create new circular economy jobs

7. Foster behaviour change through education and engagement.

The policy objectives support the Premier's Priorities:

- **Creating jobs** - which includes supporting businesses, ensuring a skilled workforce, and supporting regional development.
- Keeping our environment clean - reduce the volume of litter by 40% by 2020.

The Albury Regional Job Precinct supports the creation of new jobs through generation of new employment land, supporting both the principles of the policy statement and the Premier's Priorities. The structure plan design can support the creation of circular economy jobs by proposing a structure attractive to operators invested in these practices.

This policy specifies state-based approaches, which contextualise the Commonwealth Government's National Waste Policy: *Less Waste, More Resources* 2018, for New South Wales. The NSW Environmental Protection Agency (EPA), in partnership with Infrastructure NSW have released Stage 1 of the NSW Waste and Sustainable Materials Strategy 2041, guided by this Policy Statement.

Product stewardship is identified as a key enabler of circular economy, this is legislated at a national level. Supporting a transition to a circular economy must therefore be a collaborative approach across many levels of government.

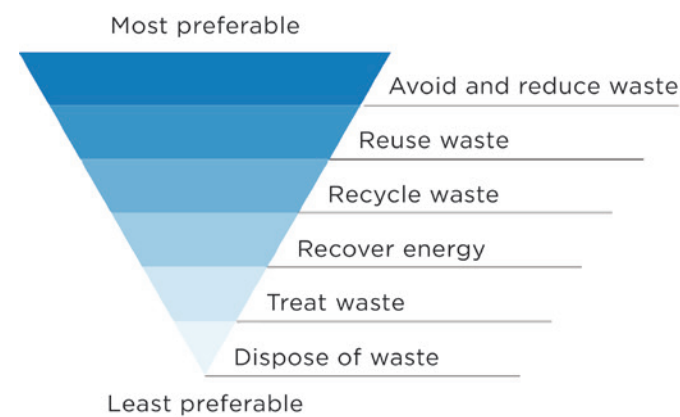


Figure 21. Priority of Waste Responses according to the NSW Circular Economy Policy Statement. Source: NSW Government, 2019, p 6.

Riverina Murray Regional Plan 2041

The *Riverina Murray Regional Plan 2041* (RMRP) is an update to the *Riverina Murray Regional Plan 2036*, and provides the NSW Government's strategic framework for land uses in the Riverina Murray region. Published in 2023, the RMRP sets the strategic framework for all facets of land use planning, including the natural environment, hazards, housing and related infrastructure, industry, employment areas and town centres. The RMRP establishes a vision for the region of a diversified economy founded on Australia's food bowl, iconic waterways and a network of vibrant connected communities for the wider region.

The RMRP emphasises the importance of environmental custodianship, climate change adaptation and resilience, circular economic development and industry diversification, and leadership in both production and manufacturing to achieve the state goal of net zero by 2050. Albury is one of three Regional Cities (with Wagga Wagga and Griffith, refer to Figure 22) that underpin the regional economy and service communities around the region. Key outcomes indicated for the city include:

- Capitalising on a changing regional economy through catalyst projects such as the Albury Regional Jobs Precinct.
- Aligning water and land use planning early, with industrial growth drawing from within existing water allocations.
- Ensuring the aims of the Biodiversity Conservation Act 2016 are considered early in the strategic planning and development process.
- Planning for efficient, sustainable and cost-effective infrastructure and services early in the development process.
- Supporting the transition to a net zero carbon emission State by 2050.
- Planning for the implications of climate change and the need for resilient and sustainable communities.

The RMRP makes several references to the Albury Regional Jobs Precinct, including the promotion of the precinct's opportunity to become a leading hub of manufacturing, agribusiness and freight whilst embedding circular economy principles through the optimisation of waste and material use. This hub has been identified as a key strategic location to ensure that the region is best placed to provide new and emerging manufacturing opportunities that have traditionally been undertaken overseas by leveraging the site's location and rural/agricultural production.

The vision for the region to 2041 is categorised by three sections (the environment, communities and places, and the economy) followed by a hierarchy of objectives, strategies and actions. The objectives and strategies from the Regional Plan that are most relevant to Albury are illustrated in Table 2.

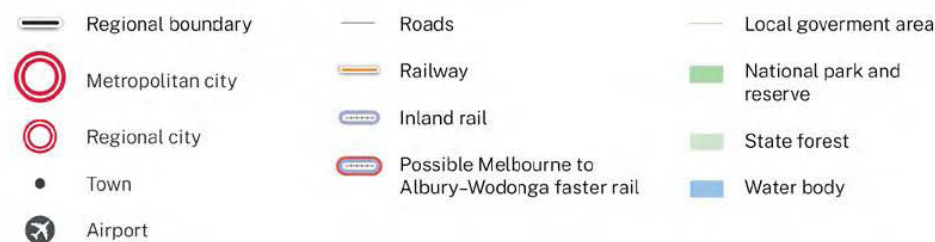
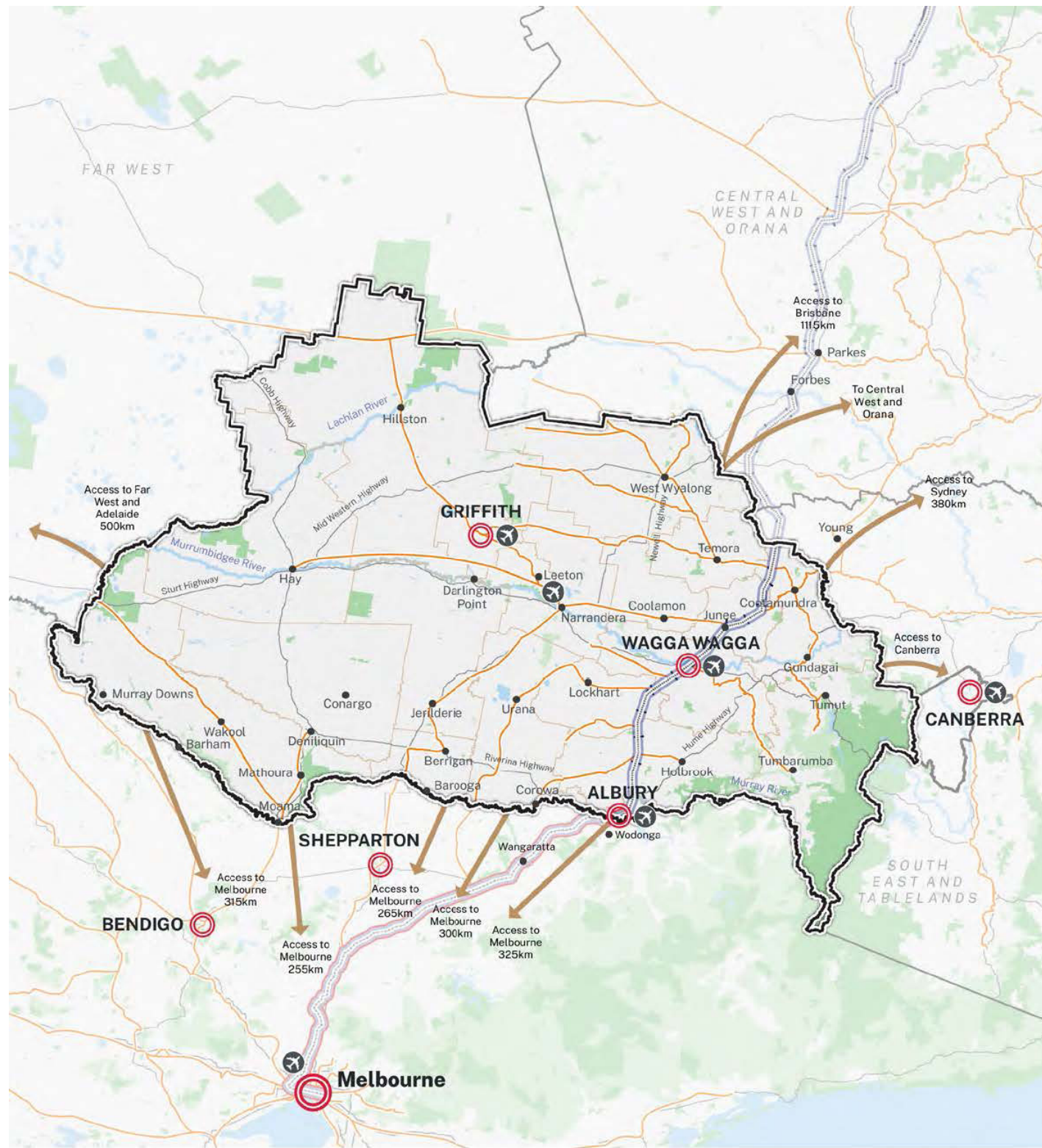


Figure 22. Riverina Murray Region Context as described by the Riverina Murray Regional Plan 2041. Source: NSW Government, 2023, p 11.

Regional Plan Objectives and Strategies	Relevance to Albury RJP
Part 1: Environment	
Objective 1: Protect, connect and enhance biodiversity throughout the region	
Strategy 1.1 Strategic and statutory planning should aim to first avoid, then minimise impacts on biodiversity and the natural environment.	<ul style="list-style-type: none"> - Identify and protect areas of remnant vegetation. - Retain and enhance riparian corridors and natural watercourses. - Retain and protect existing roadside vegetation and travelling stock routes.
Objective 2: Manage development impacts within riverine environments	
Strategy 2.1 Strategic and statutory planning for riverine environments will be consistent with the department's waterfront development guidelines.	<ul style="list-style-type: none"> - Ensure the supply of water is sufficient and of appropriate quality to meet the needs of industrial water users. - Facilitate stormwater harvesting and re-use where suitable to minimise potable water consumption by industrial processes and landscaping. - Facilitate and encourage treatment and re-use of wastewater within the Precinct.
Objective 3: Increase natural hazard resilience	
Strategy 3.1 Strategic and statutory planning will: <ul style="list-style-type: none"> • Be consistent with applicable NSW policies or guidelines. • Take a risk-based approach that uses best available evidence in consultation with the relevant stakeholders. • Ensure new development is located in a way that is commensurate to the risks of unacceptable bushfire, salinity and flooding. • Encourage opportunities for co-location of compatible land uses. • Provide easy to understand information to increase public awareness of potential natural hazard risks and climate change impacts. 	<ul style="list-style-type: none"> - Plan for natural hazards including flooding and bushfire to protect investments. - Use natural resources sustainably to minimise the impacts of economic development on the climate and environment.
Part 2: Communities and Places	
Objective 4: Support Aboriginal aspirations through land use planning	
No associated explicit strategy.	<ul style="list-style-type: none"> - Understand and integrate connections to Country and significant Aboriginal cultural places and archaeological items into the RJP structure plan.
Objective 10: Improve connections between Murray River communities	
Strategy 10.1 Local strategic planning statements for LGAs adjoining the Murray River should: <ul style="list-style-type: none"> • Overview cross-border issues including inter-relationships, inter-dependencies and drivers of change. • Recognise opportunities for a cross-border housing and employment lands market. • Identify infrastructure and servicing constraints and opportunities in a cross-border environment. 	<ul style="list-style-type: none"> - Build on the strengths of the cross-border community and economic activity in particular through key transport connections and access to workforce, skills and training, and complementary industries.
Objective 11: Plan for integrated and resilient utility infrastructure	
Strategy 11.1 Strategic and statutory planning will: <ul style="list-style-type: none"> • Focus development around existing infrastructure and/or promote co-location of new infrastructure, where appropriate. • Assist public and private providers in aligning infrastructure and service provision with strategically identified growth. 	<ul style="list-style-type: none"> - Plan for infrastructure needed to supply essential utilities with capacity to support businesses that establish in the Albury RJP. - Incentivise businesses that maximise the efficiency of consumption of water and power and minimise waste generation, including measures to re-use or otherwise reduce demand on trunk utilities supply. - Align utilities and transport corridors to minimise land take and the fragmentation of land holdings, and ensure all businesses have equitable access to services.

Table 2. Riverina Murray Regional Plan Actions and relevance to the Albury RJP. Source: Ethos Urban drawing on information NSW Government, 2023.

Regional Plan Objectives and Strategies	Relevance to Albury RJP
<p>Strategy 11.2</p> <p>Strategic planning will optimise water use by:</p> <ul style="list-style-type: none"> • Considering water supply and quality issues and opportunities throughout the planning process in the context of climate variability and change, planned growth, integrated water cycle management (or equivalent), and water-sensitive urban design and environmental needs • Locating, designing and managing new developments to minimise impacts on water, including downstream impacts and groundwater resources • Encouraging the re-use of water in existing and new development • Improving provision for stormwater management and green infrastructure 	<ul style="list-style-type: none"> - Use water wisely and avoid or minimise extraction from natural water bodies. - Minimise demand for potable water through on site collection and re-use of stormwater and wastewater to retain water in the catchment.

Part 3: Economy

Objective 12: Strategically plan for rural industries

<p>Strategy 12.2</p> <p>Rural land strategies should be tailored to each area and, where appropriate and data permits, assess:</p> <ul style="list-style-type: none"> • Relevant state, regional and local strategic planning policies and objectives . • Agricultural trends and opportunities, including agricultural productivity and land use (such as agricultural activities, manufacturing and value add industries, resource extraction, renewable and other energy), drivers of change, changes in farming practices and processes, and farm investment patterns. 	<ul style="list-style-type: none"> - Grow and diversify value adding industries that can leverage the wide variety of primary production in the region. - Provide efficient access to interstate and overseas markets through freight and logistics interfaces. - Expand the capacity of production of ancillary components to agricultural value add processes (packaging, other ingredients) through circular economy activities and by leveraging regional and interstate access for raw materials and products. - Leverage proximity to markets and sources of raw materials through Sydney and Melbourne. - Expand and diversify existing manufacturing activity through access to skilled workforce, improved training, and providing suitable land that is located to take advantage of supply chain efficiencies (Motorway and Rail Hub access). - Enable businesses that value add forestry products to establish/re-establish in the Albury RJP.
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Objective 13: Support the transition to net zero by 2050

<p>Strategy 13.1</p> <p>To prepare for the transition to net zero emissions, strategic and statutory planning will:</p> <ul style="list-style-type: none"> • Incorporate renewable energy into urban design and place-making projects; • Provide opportunities for future buildings and urban release areas to be renewable-ready; • Identify opportunities for potential high energy industries, including manufacturing, materials processing and; • Identify opportunities for renewable energy vehicle refuelling networks/infrastructure. 	<ul style="list-style-type: none"> - Investigate opportunities and future-proof the precinct infrastructure for renewable energy generation, storage and distribution within the Albury RJP where appropriate. - Facilitate and encourage renewable energy generation by individual operators within the RJP.
<p>Strategy 13.2</p> <p>Strategic planning and waste management strategies should align with relevant state strategies and guidelines and when planning for waste and resource recovery, including:</p> <ul style="list-style-type: none"> • A focus on precincts that support circular economy activities and industries. 	<ul style="list-style-type: none"> - Identify opportunities for development controls for the RJP to support operators working towards net zero targets and circular economy principles.

Regional Plan Objectives and Strategies	Relevance to Albury RJP
Objective 14: Protecting and promoting industrial and manufacturing land	

<p>Strategy 14.2</p> <p>Strategic planning for existing employment lands and new opportunities will:</p> <ul style="list-style-type: none"> • Locate new industrial land in areas accessible to inter-regional networks or in areas that could allow rail transport, unencumbered by natural hazards or environmental constraints while accessible to businesses and communities; • Provide for the supply of diverse industrial land to meet the changing demands of industry; • Encourage co-location and clustering of compatible industries to improve efficiencies and productivity, reduce land use conflict, maximise infrastructure investment and capitalise on supply networks; • Drive competitive advantage by leveraging strengths, assets and attributes while maintaining integrity of existing industrial precincts and; • Investigate bespoke industrial precinct planning using targeted responses. 	<ul style="list-style-type: none"> - Continue to promote the establishment of new businesses in the RJP through the availability of suitable and serviced land. - Establish a structure plan for the Albury RJP that is flexible and adaptable to specific business requirements. - Streamline approvals processes for businesses that are aligned with the vision and objectives of the Albury RJP to reduce establishment time and costs. - Maintain the supply of industrial land in other parts of Albury LGA that is suited to the needs of local service industries to avoid competition for land in the RJP from uses that are not strategically aligned.
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Objective 15: Support the economic vitality of CBDs and main streets

<p>Strategy 15.1</p> <p>Strategic and statutory planning for centres will:</p> <ul style="list-style-type: none"> • Maintain and strengthen the economic vitality and function of established commercial centres and focus future commercial and retail activity in these centres. 	<ul style="list-style-type: none"> - Grow the RJP into one of the key economic engines of the Albury regional city. - Utilise the RJP to promote Albury as an attractive place for businesses to invest, particularly leveraging regional accessibility, lifestyle and relative establishment costs for businesses considering where best to locate. - Diversify and grow the Albury economy so that it continues to support surrounding towns and villages by providing employment and access to services.
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Objective 18: Integrate transport and land use planning

<p>Strategy 18.2 Strategic and statutory planning will realise land use planning and transport integration by:</p> <ul style="list-style-type: none"> • Identifying and activating employment lands near freight infrastructure, using planning controls that support supply chain oriented land uses and limit incompatible land uses. • Ensuring development proposals for supply chain or logistics hub uses address urban amenity impacts, including the application of buffers where appropriate. • Addressing first mile and last mile freight limitations. • In consultation with Transport for NSW, identifying and investigating opportunities to reserve future heavy vehicle and town bypasses and associated road corridors. 	<ul style="list-style-type: none"> - Take advantage of direct access to the national highway network (Hume Motorway) and national rail network (Ettamogah Rail Hub) for the efficient movement of goods and materials imported and exported to meet the needs of businesses in the RJP. - Plan for internal movement networks within the Albury RJP that provide for the efficient movement of freight within the precinct and to regional and interstate transport corridors. - Ensure the safe and efficient movement of workers to, from and within the Precinct using a variety of transport modes including public transport, private vehicles and active transport. - Connect the Albury RJP with the surrounding Albury urban area to facilitate easy access for employees.
<p>Strategy 18.5</p> <p>Strategic and statutory planning will need to ensure development outcomes near the Inland Rail corridor or near the road/rail interfaces of Inland Rail do not undermine the function of the Inland Rail.</p>	<ul style="list-style-type: none"> - Maximise the efficient movement of goods to and from businesses in the Albury RJP via rail and road.

20 Year Economic Vision for Regional NSW 2021

A 20-Year Economic Vision for Regional NSW is a strategy which seeks to drive sustainable, long-term economic growth in regional NSW by delivering reliable transport and freight infrastructure, secure and sustainable water and energy, strong education and training, quality services and a stable business environment.

Albury-Wodonga is identified as a key growth area for regional NSW. A focus of the strategy for the key growth area of growth and development of Albury-Wodonga by:

- Manage vital energy and water resource sustainably to ensure supply will meet long-term regional needs.
- Provide an attractive environment for businesses to establish and invest in regional NSW.
- Build efficiency and redundancy in freight networks to improve supply, reduce disruptions and lower costs.
- Promote regional universities to attract students and retain expertise.
- Trials for on-demand public transport.

The strategy identifies several industries and sectors that will support the economic development of regional NSW which include:

- Advanced manufacturing.
- Renewable energy and gas.
- Technology-enabled primary industries.
- Critical minerals.
- Ecotourism.
- Recycling and waste management.
- High-quality food products.

Its important to note that while this strategy document does include Special Activation Precincts it does not include reference to the Regional Job Precincts, which followed publication of this report.



Figure 23. Transformational Change made in the past two years of NSW. Source: NSW Government, 2021, '20-year Economic Vision for Regional NSW', p 20.

Albury Wodonga Regional Economic Development Strategy - 2023 Update

Developed by Albury City Council, City of Wodonga Council, Federation Council, Greater Hume-Council and Indigo Shire Council, with the support of the NSW Government, the Albury-Wodonga Regional Economic Development Strategy (REDS) outlines the specific strategies and actions for growth in the region's economy. The vision for the region is that it will, 'leverage its endowments, building on its economic strengths and specialisation to grow the transport and logistics, manufacturing, agriculture, healthcare and social assistance and tourism sectors, growing the population and creating prosperity to set the region on a path for sustainable development supporting business development and enhancing quality of life for its residents'.

The REDS was updated in 2023 to reflect the progress made in the strategy's pursuit of growth, in addition to analysing the macroeconomic trends shaping the region's future such as digital transformation and changing migration patterns. The update also included an assessment of recent setbacks to the region's economic output and development including bushfires, a mouse plague, COVID-19 and flooding.

The six elements underpinning the strategy include:

- Support and grow agribusiness throughout the region;
- Support the softwoods industry throughout its bushfire recovery phase;
- Maximise growth opportunities in advanced manufacturing and the circular economy, including through initiatives leveraging transport and logistics specialisations;
- Continue to develop and grow the visitor economy;
- Grow the healthcare sector through the development of a health precinct in the region; and
- Attract and retain talent to sustain the supply of skilled workers by improving liveability throughout the region.

The update furthermore references the major public investment made since its publication in 2018, with the Albury-Wodonga Regional Deal delivering infrastructure such as the Albury Entertainment Centre Upgrade, NEXUS Industrial Precinct and Albury Regional Job Precinct.

Key actions and initiatives that relate to the Albury RJP and the industrial economy outlined in the strategy included:

- Complete Nexus Precinct Stage 1 enabling infrastructure projects including gas reticulation, completion of southern access ramps at Davey Road interchange and extension of rail siding at Ettamogah Rail Hub.
- The NEXUS and Wodonga Logic industrial precincts can support the growth of major transport and logistics hubs in the region.
- Investigate options for provision of reliable and affordable energy at industrial sites to support expansion and growth of food and fibre processors.



Figure 24. Albury Wodonga Regional Boundaries. Source: Albury City Council, 'Albury Wodonga Regional Economic Development Strategy', 2023, Figure 3.

Regional Economic Development Strategies - Bushfire Addenda

Following the bushfires in 2019 and 2020, the Department of Regional NSW undertook a review of the existing strategies for areas impacted most by bushfires, including the Albury-Wodonga Regional Economic Development Strategy (REDS). The intent of this document was to identify economic impact from the bushfires and help guide place-based bushfire recovery in NSW. It is noted that the Addenda did not identify any impact to the RJP area specifically although industry operators and associated businesses were impacted by these bushfire events which may lead to indirect implications for the precinct.

Direct impacts to the region included 333 square kilometres burnt by bushfires, 41 properties damaged or destroyed, 30% of the NSW plantation and 10% of the Victorian plantation in burn scar, 100% of vineyards affected by smoke.

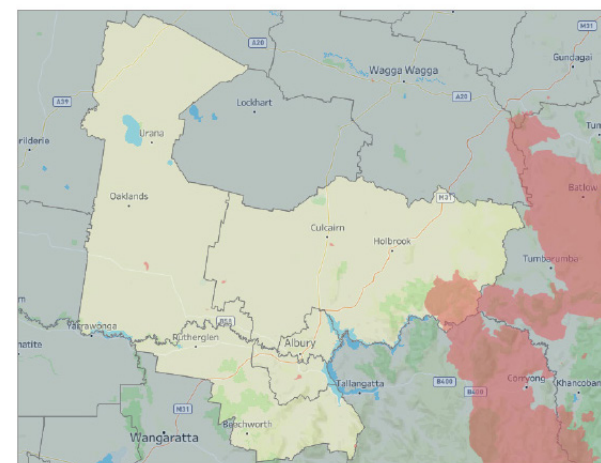
This resulted in an addenda issued which revised prioritise for economic recovery and development.

The Addendum summarised the following economic impacts of the fires for the Albury-Wodonga region included:

- **Tourism** (industry most affected) Impacted by perception of potential visitors that the 'entire region was fire affected and heavy smoke haze throughout', perception of safety and comfort based. *Long-term effects are deemed to be limited.*
- **Agriculture** Smoke impacted the 2020 viticulture harvest, yielding 45% of a standard year. *Effects following the 2020 year are deemed to be limited.*
- **Forestry** Loss of forest supply in adjacent regions resulted in loss of demand for forestry processing within the region. *Impact is likely 12-18 months, may extend beyond this period.*

Strategic Priorities:

The addendum identified low impact on the majority of the REDS strategic priorities with medium impact on the priority, 'Support and grow Agribusiness and softwoods industries throughout the region' due to significant disruption to the supply required for small forestry processing industry requiring continued support to this industry to source required supply.



Fire affected area LGAs: Albury, Federation; Greater Hume Shire; Indigo (VIC); Wodong (VIC)

Figure 25. Fire impacted area within Albury-Wodonga FER. Source: Department of Regional NSW, 'Regional Economic Development Strategies - Bushfire Addenda', 2020.

Albury Wodonga Regional Deal 'Statement of Intent'

The Statement of Intent provides direction for Albury Wodonga, to harness local opportunities and strengths. The Regional Deal recognises Albury Wodonga's strategic location and distinct lifestyle advantages that provide opportunities for growth. It seeks to expand the joint planning being undertaken by the Albury City Council and City of Wodonga Council through the Two Cities, One Community partnership, to further support strategic planning and projects.

Strategic priorities include:

- Economic Development.
- Harmonisation.
- Infrastructure and Connectivity.
- A liveable Community.
- Quality Regional Education and Health.
- Supporting the Indigenous Community.

The Regional Deal provides an opportunity for all tiers of Government to align with these strategic priorities. There is also an opportunity to engage meaningfully with the community and industry in the development and implementation of the Regional Deal, to support population growth and economic development.

The Albury Wodonga Regional Deal has recently announced new investment commitments for the region, on the 25th of March 2022.¹ The Australian Government has committed \$80 million, Albury Council has committed \$37.8 million and Wodonga Council has committed \$12.1 million. These announcements included funding for the Albury Entertainment Centre, funding includes:

- \$10 million from Australian Government.
- \$5 million from Albury City Council.

Other relevant projects and funding include:

- \$20 million for enabling infrastructure or other infrastructure projects informed by a Cross-Border Health Taskforce and/or Albury Wodonga Health Service.
- \$15 million for housing and accommodation for workers in the health sector.
- \$22 million for Wodonga TAFE's Heavy Vehicle Technology Program.
- \$1 million to support the Aboriginal community (pending business case).
- \$2 million for advanced manufacturing (pending business case).

The growth of heavy vehicle technology and advanced manufacturing technology in Albury may present opportunities for the RJP to accommodate adjacent private enterprise, support private partnerships with key institutions in the area. This partnership in research and training may trigger an investment in the population, producing a trained workforce for these industry, or industry-adjacent, operators.

Other investment in the region indicates a improving amenity for existing and future workforce and the growing population of the region.

¹ Albury Wodonga Regional Deal Announcement, 25 March 2022, <https://www.alburycity.nsw.gov.au/news/2022/mar/deal-partners#:~:text=Australian%20Government%20%2480%20million&text=%2410%20million%20towards%20the%20Albury,of%20a%20business%20case%20underway.>

3.5 Local Planning Context

Albury City Local Strategic Planning Statement (LSPS) 2020

The LSPS is a strategic plan under the *Environmental Planning and Assessment Act 1979* (NSW). It links to and demonstrates how the Riverina Murray Regional Plan will be implemented in Albury City. Along with the Community Strategic Plan, it is one of a suite of local strategies that guide growth, change and the protection of the environmental and community values in Albury:

The aim of the LSPS is to guide future land use planning and influence public and private investment so that it enhances the well-being of our community and environment – making Albury one of the most liveable places in Australia. To achieve this, the LSPS sets out:

- The 20-year vision for land use.
- Our special characteristics which contribute to our local identity.
- Our shared community values to be maintained and enhanced.
- How growth and change will be managed into the future.

The Albury LSPS identifies the following characteristics of Albury:

- A nationally significant regional city.
- Australia's 20th largest city as a cross-border twin city with Wodonga.
- Part of the Riverina Murray region – 'Australia's food bowl'.
- Strategically located, and the largest city, on Australia's busiest inland transport route (Hume Highway and Melbourne to Sydney railway).
- The largest city on the Murray River.
- Region's health, retail and education focus.
- Surrounded by agriculture, food production and growing tourism industries.
- Supported by a diverse and resilient economy and strong commercial centres.
- Liveable with good housing supply and affordability.
- Connected to our natural environment, including the Murray River, Lake Hume, hills and natural areas supporting an outdoor lifestyle.

Economic drivers identified in the LSPS that are of particular relevance to the Albury RJP include:

- Access to major freight and passenger corridors.
- Tertiary education institutions including Charles Sturt University, and UNSW Medical School.
- Master planned growth corridors for industrial and residential development.

- Amenities that contribute to liveability including the natural environment, arts and culture, commercial centres and tourist attractions.
- Key regional specialisations include manufacturing, transport, logistics and agribusiness, with construction and manufacturing in the top 5 for both employers and contribution to the Albury-Wodonga regional economy.
- Current land use is only 4% employment zones which includes both business and industrial zone, the Albury Regional Job Precinct will look to increase this percentage through an expansion of the NEXUS precinct.

The LSPS references several relevant areas:

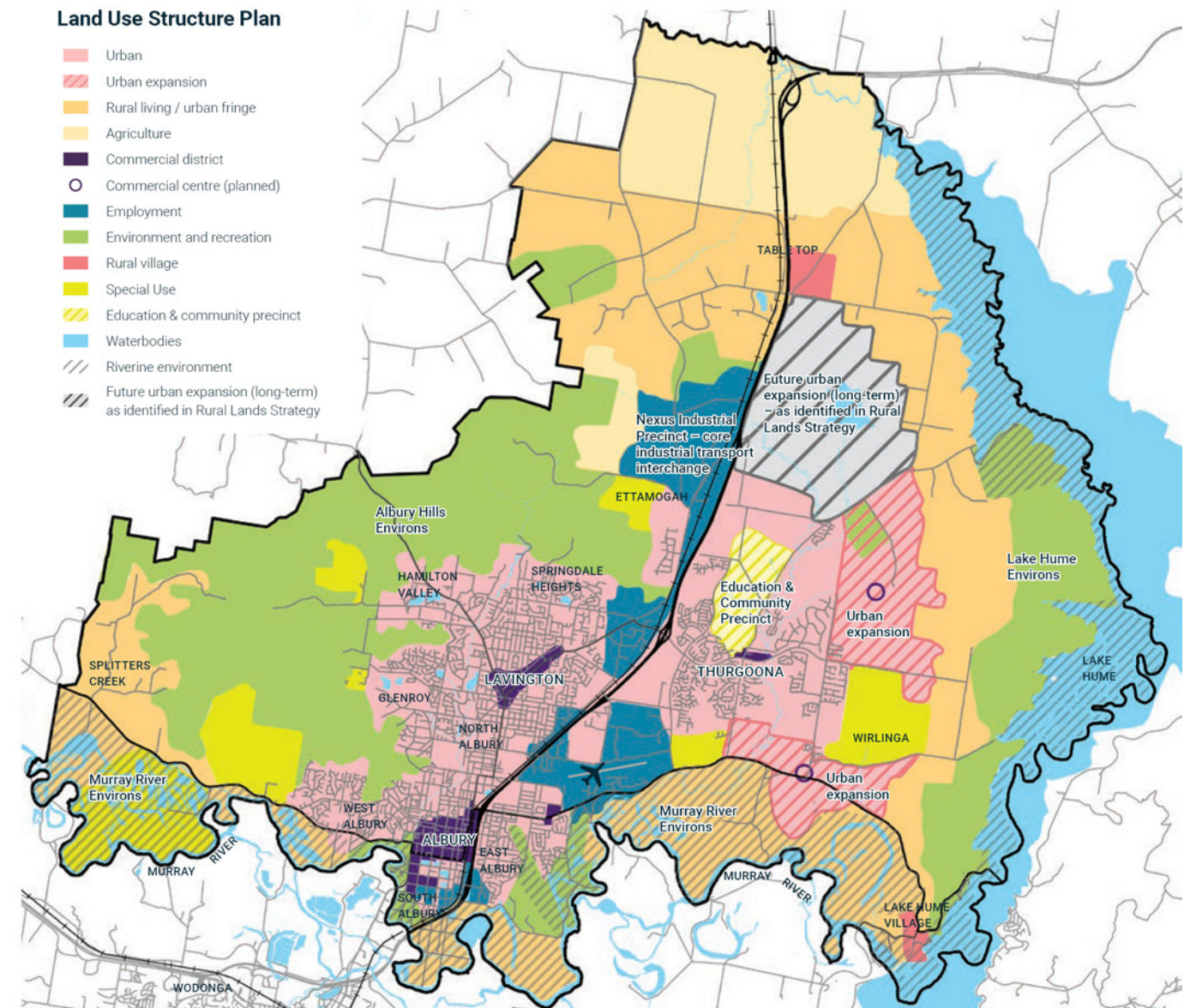
- Albury Industrial Hub (NEXUS) - part of the subject land in this master plan.
- Thurgoona Wirlinga Precinct - urban expansion to the South-East of the precinct.
- Ettamogah Development - residential development to the South-West of the precinct.
- Education and community precinct (within Thurgoona Wirlinga Precinct).

The Land Use Structure Plan (Figure 26) highlights an area of land to the East of the Hume Highway, adjacent the NEXUS precinct as 'Future urban expansion (long-term)'. Some of this land has been included within the Albury Regional Job Precinct which is subject land in this master plan. Any future Rural Lands Strategy or LSPS updates must consider this variation.

The LSPS highlights key infrastructure priorities which includes:

- Ettamogah Rail Hub siding extension (complete).
- Davey Road interchange (complete).
- Thurgoona link road.
- Significant infrastructure to support Thurgoona Wirlinga Precinct Structure Plan – \$550 million.

The NEXUS precinct is described as a 450 ha industrial precinct which is likely to generate 9,400 jobs over the next 30 years. It identifies exploration of special designation for the precinct as a Special Activation Precinct (SAP) or a Local Activation Precinct (LAP). The subsequent special designation of the precinct is as a Regional Job Precinct.



Land Use Structure Plan – indicative broad-scale mapping (not zoning) based on existing land use strategies and plans (e.g. Albury Land Use Strategy 2007, Albury Local Environmental Plan 2010, Thurgoona Wirlinga Precinct Structure Plan, Rural Lands Strategy 2015).

Figure 26. Land Use Structure Plan. Source: Albury City Council, 2020.

Albury LSPS Economic Strategies	Relevance to Albury RJP
Support and grow Agribusiness and Softwoods Industries throughout the region	
Affordable supply of industrial zoned land for value-add and support industries.	Continue to engage with Visy in relation to future plans for the paper mill at Nexus and intended uses of other land owned by them on both sides of the Hume Motorway within the RJP investigation area.
Opportunities for Transport and Logistics sector to link agriculture and forestry with manufacturing and markets.	Leverage existing transport infrastructure including the rail spur, Ettamogah Rail Hub and Hume Motorway interchanges to provide access for raw materials and products from paper recycling and manufacture.
Investigate reliable and affordable energy at industrial sites to support growth of food and fibre processors.	Consider the potential for precinct scale or individual industries to generate power on site.
	Better understand energy network constraints and identify actions to boost supply to service large scale, energy intensive industries.
Grow the transport and logistics sector	
Nexus Industrial Precinct provides significant opportunity to grow our transport and logistics sector.	Albury RJP structure plan and planning framework to facilitate freight and logistics businesses establishing in the precinct, and expansion of the Rail Hub to respond to demand.
Completion of Nexus Stage 1 infrastructure projects including gas reticulation, southern access ramps at the Davey Road interchange and extension of rail siding at Ettamogah Rail Hub is needed.	Identification of status of priority infrastructure projects and of Stage 2 and beyond infrastructure works required to support the structure plan and growth projections.
Retain and better utilise other industrial land located near freeway interchanges and Albury Airport.	Ensure the supply of industrial and other employment land across Albury City is appropriate to projected demand for local industries and local population serving semi-industrial uses so these do not compete for land in Albury RJP with more strategic industries.
Attract and retain talent to sustain the supply of skilled workers by improving liveability throughout the region	
Create and education precinct master plan in Thurgoona.	These considerations are peripheral to the Albury RJP structure plan but are related considerations in attracting investment to the RJP.
Review the cultural precinct masterplan.	Businesses will choose to locate in Albury RJP based on a combination of strategic locational considerations, establishment costs and access to resources including a suitable workforce. Access to local training and education opportunities is a critical step on the pathway to establishing a resident workforce. A high amenity lifestyle is a key consideration in where people choose to live, which also drives business decisions in relation to where to invest.
Investigate opportunities for clustering service industries to maximise productivity through increased networking, information sharing and conglomeration benefits.	
Encourage a variety of affordable housing to encourage skilled worker relocation.	
Capitalise on the region's opportunity to be a special economic zone	
Potential need to review planning provisions to accommodate any cross-border Special Economic Zone.	Albury RJP will compete with similar industrial precincts in Victoria.
	A structure plan that accommodates businesses that are aligned with the Albury RJP vision and objectives will be an investment attractor.
	The statutory planning framework needs to create a level playing field or competitive advantage for Albury RJP on a national scale, to reduce establishment time and cost and increase investment certainty, for aligned industries.

Table 3. Summary of key LSPS economic development strategies and their relevance to Albury RJP. Source: Albury City Council, 2020.

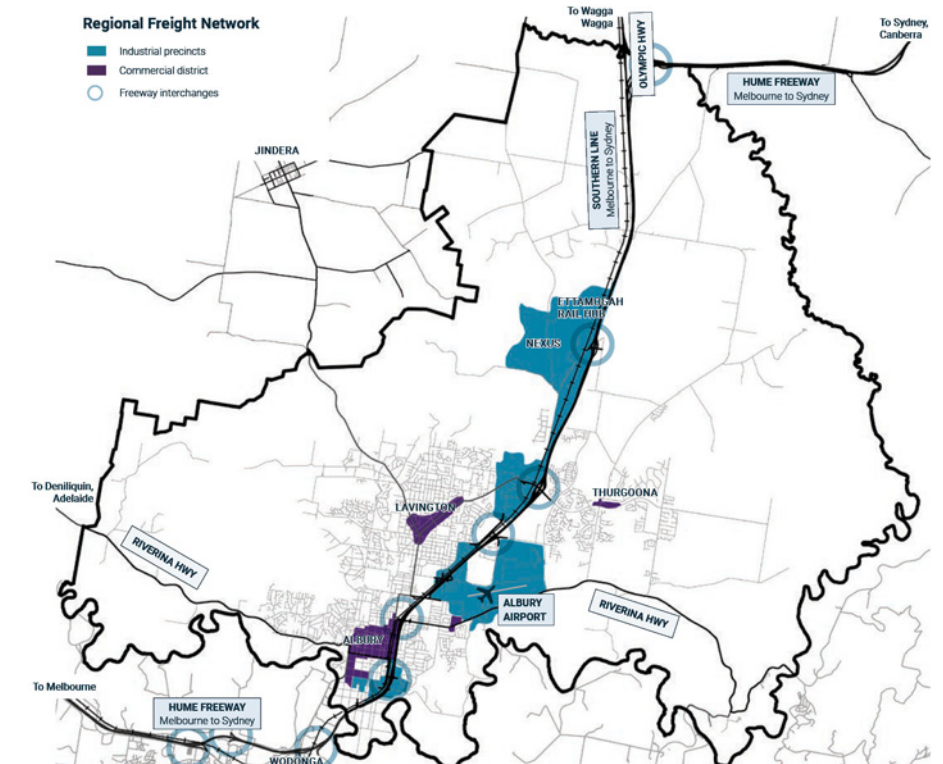


Figure 27. Regional Freight Network. Source: Albury City Council, 2020.

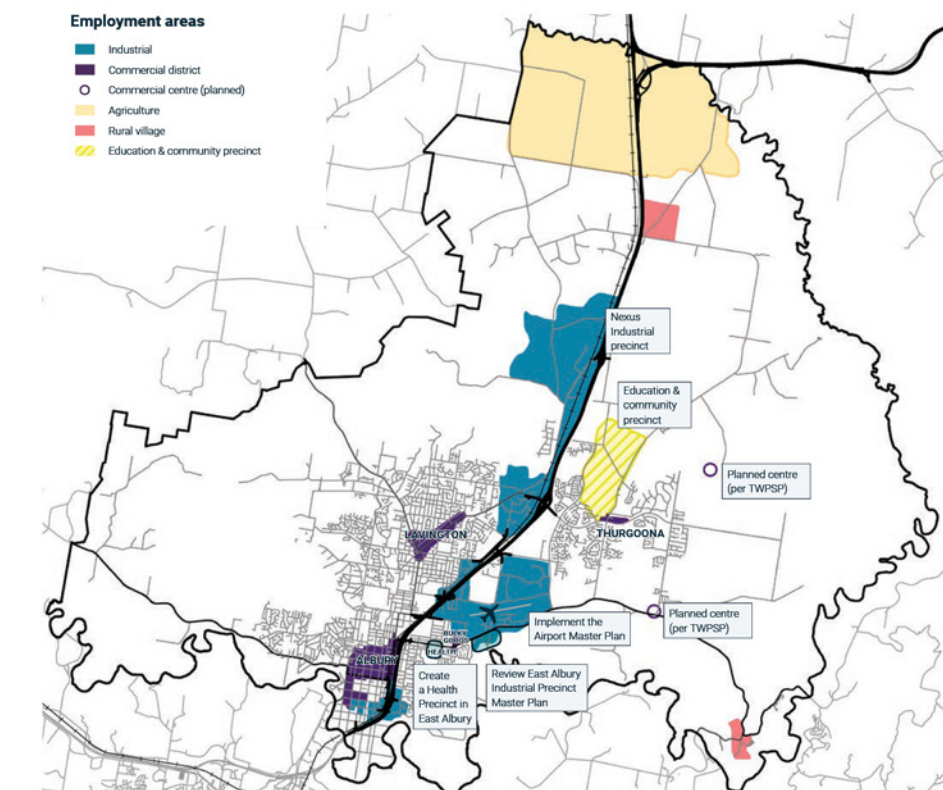


Figure 28. Key employment areas. Source: Albury City Council, 2020.

Albury Local Environmental Plan 2010

Albury Local Environmental Plan 2010 (LEP 2010) sets out the statutory planning framework for development across Albury City. It includes aims, land use zoning and land use tables, development standards and local provisions. The aims of LEP 2010 (clause 1.2) are:

1. This Plan aims to make local environmental planning provisions for land in Albury in accordance with the relevant standard environmental planning instrument under section 3.20 of the EP&A Act.
2. The particular aims of this Plan are as follows—
 - a. To protect and promote the use and development of land for arts and cultural activity, including music and other performance arts.
 - b. To give effect to the desired outcomes, principles and actions contained in the Council's adopted strategies and policy documents.
 - c. To promote sustainable urban development by providing for efficient management of urban growth and resource utilisation.
 - d. To promote a city for the people, with a high level of social and physical amenity and a diversity of activities and uses.
 - e. To maintain or improve biodiversity across Albury, and to avoid significant impacts on matters of environmental significance.

Land zoning under LEP 2010 in the Albury RJP investigation area and surrounds is shown in Figure 29. The investigation area includes a mix of zones but is predominantly industrial and rural, with some areas set aside for environmental conservation. Table 4 summarises land use zones that apply to the RJP investigation area.

The Urban Release Area provisions in Part 6 of LEP 2010 are relevant to the RJP. In summary, these provisions require that:

- State infrastructure is provided to meet the needs of new development in urban release areas.
- Essential utilities infrastructure is available or will be available when needed (this includes water, sewer and electricity).
- A Development Control Plan is prepared prior to granting development consent, that demonstrates how the land will be developed in an orderly manner and sets out staging requirements.

The Urban Release Area provisions principally apply to areas identified in LEP 2010 for residential expansion. They do not currently apply to the Albury RJP investigation area. There is potential for similar principles that apply above to be applied to the development of the Albury RJP, to ensure that development proceeds in a logical and efficient manner, there are appropriate design controls in place, and that staging is appropriately considered, particularly across land in multiple ownerships. The Albury Industrial Hub Masterplan (AECOM 2010) serves a similar purpose for the RJP investigation area, but does not have statutory weight.

Albury City Council Employment Zone Review and Employment Zone Reform

Albury City Council are in the process of translating their existing LEP to suit the new employment zone amendments. As a general approach Albury City Council are proposing a translation from B and IN zones to the new E zones. The likely outcome of this process is that all existing industry, except the RJP, will be E4 General Industrial zoning, which will permit all industry that is currently defined in the LEP. Additionally, special provisions and overlays will be used to identify areas that are currently zoned light industrial, with requirements to consider amenity impacts on nearby sensitive land uses. No other SP4 Enterprise zoning will be available in Albury, other than that which will be zoned in the RJP. This will make the land in the RJP distinct from other jobs and industrial land within the Albury LGA. Refer to preferred structure plan in Section 10.0 where recommended land use, zoning and planning controls, consistent with employment zone reforms, are discussed in more detail.

Albury City Conservation Zoned Land Review

Albury City Conservation Zoned Land Review is currently underway. This is an LGA wide review and may result in minor adjustments to Conservation zone boundaries within NEXUS precinct. The Planning proposal /rezoning is currently awaiting DPE gateway prior to public exhibition.

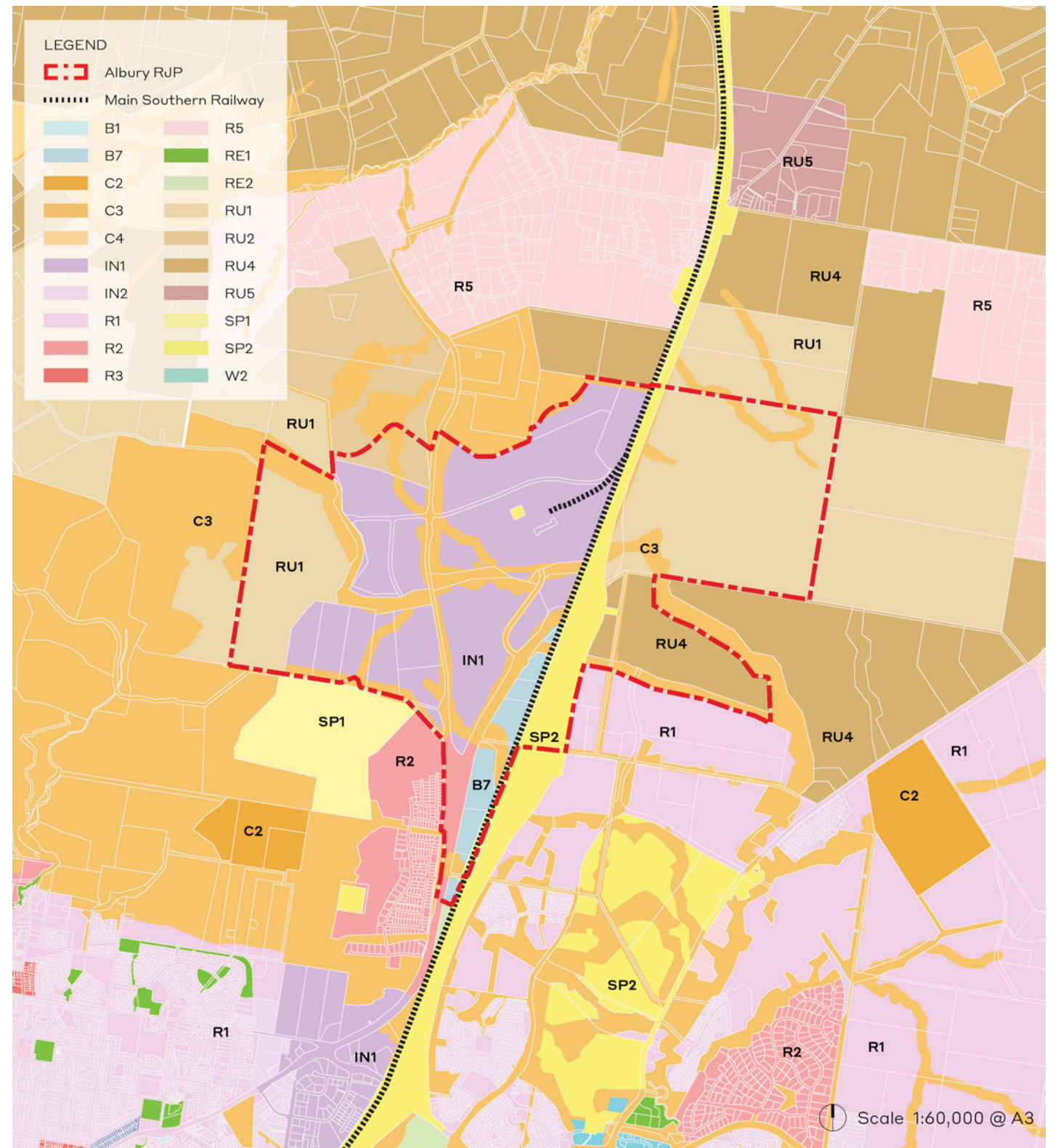


Figure 29. Existing Land Use Zoning within and in the immediate context of the RJP Investigation Area. Source: Ethos Urban using Department of Planning and Environment shapefile layers, 2022.

Zone Objectives	Permissible Land Uses	Key issues for Albury RUP
IN1 General Industrial Zone		
<ul style="list-style-type: none"> To provide a wide range of industrial and warehouse land uses. To encourage employment opportunities. To minimise any adverse effect of industry on other land uses. To support and protect industrial land for industrial uses. To provide for industrial uses in close proximity to transport infrastructure. 	Agricultural produce industries; Depots; Freight transport facilities; Garden centres; General industries; Hardware and building supplies; Industrial training facilities; Landscaping material supplies; Light industries; Neighbourhood shops; Oyster aquaculture; Places of public worship; Plant nurseries; Roads; Sawmill or log processing works; Take away food and drink premises; Tank-based aquaculture; Timber yards; Vehicle sales or hire premises; Warehouse or distribution centres; Any other development not specified in item 2 or 4.	<ul style="list-style-type: none"> Zone objectives are aligned with the strategic intent of the Albury including the enabling of a broad range of industrial uses and the relationship to transport infrastructure. Permissible land uses are broad and include in-nominate land uses which provides flexibility. Some prohibited uses may constrain growth in the RUP, including commercial premises, forestry and research stations.
B7 Business Park		
<ul style="list-style-type: none"> To provide a range of office and light industrial uses. To encourage employment opportunities. To enable other land uses that provide facilities or services to meet the day to day needs of workers in the area. To ensure development does not have an adverse impact on the amenity of adjoining residents or the Ettamogah Wildlife Sanctuary. 	Centre-based child care facilities; Food and drink premises; Garden centres; Hardware and building supplies; Kiosks; Landscaping material supplies; Light industries; Markets; Neighbourhood shops; Office premises; Oyster aquaculture; Passenger transport facilities; Plant nurseries; Respite day care centres; Roads; Self-storage units; Shops; Tank-based aquaculture; Timber yards; Warehouse or distribution centres; Water recycling facilities; Any other development not specified in item 2 or 4.	<ul style="list-style-type: none"> Zone objectives are potentially complimentary to the strategic intent of the Albury RUP. Limited application of this zone to manage interfaces with residential areas, activate road frontages and provide a buffer to Ettamogah Wildlife Sanctuary. Potential to consider expansion of zoning the better manage residential interfaces to the south of the RUP.
RU1 Primary Production		
<ul style="list-style-type: none"> To encourage sustainable primary industry production by maintaining and enhancing the natural resource base. To encourage diversity in primary industry enterprises and systems appropriate for the area. To minimise the fragmentation and alienation of resource lands. To minimise conflict between land uses within this zone and land uses within adjoining zones. 	Aquaculture; Bed and breakfast accommodation; Dual occupancies; Dwelling houses; Extractive industries; Farm buildings; Farm stay accommodation; Group homes; Intensive livestock agriculture; Landscaping material supplies; Open cut mining; Plant nurseries; Roads; Roadside stalls; Rural workers' dwellings; Secondary dwellings; Any other development not specified in item 2 or 4.	<ul style="list-style-type: none"> Zone objectives and permitted/prohibited land uses are not well aligned with strategic intent of the Albury RUP. Applies to the part of the investigation area east of the Hume Motorway and the western extent of the investigation area. Zone application reflects the existing or historical uses of the land.
RU2 Rural Landscape		
<ul style="list-style-type: none"> To encourage sustainable primary industry production by maintaining and enhancing the natural resource base. To maintain the rural landscape character of the land. To provide for a range of compatible land uses, including extensive agriculture. 	Agricultural produce industries; Aquaculture; Bed and breakfast accommodation; Dual occupancies; Dwelling houses; Farm buildings; Farm stay accommodation; Group homes; Hotel or motel accommodation; Intensive plant agriculture; Roads; Rural workers' dwellings; Secondary dwellings; Any other development not specified in item 2 or 4.	<ul style="list-style-type: none"> Applies to a small part of the north-western investigation area that is elevated and contains remnant vegetation, and is bisected by a corridor of E3 zoned land. Assists with managing the land use and visual interface between the industrial zone to the south and rural/residential uses to the north, and preserving the rural landscape character of elevated parts off the investigation area. Some permissible land uses (Agricultural produce industries) potentially permit value add industries that are aligned with the strategic intent of the RUP.
RU4 Primary Production Small Lots		
<ul style="list-style-type: none"> To enable sustainable primary industry and other compatible land uses. To encourage and promote diversity and employment opportunities in relation to primary industry enterprises, particularly those that require smaller lots or that are more intensive in nature. To minimise conflict between land uses within this zone and land uses within adjoining zones. 	Aquaculture; Bed and breakfast accommodation; Dual occupancies; Dwelling houses; Extensive agriculture; Farm buildings; Farm stay accommodation; Group homes; Hardware and building supplies; Intensive plant agriculture; Landscaping material supplies; Plant nurseries; Roads; Roadside stalls; Rural workers' dwellings; Secondary dwellings; Timber yards; Any other development not specified in item 2 or 4.	<ul style="list-style-type: none"> Zone objectives are not well aligned with the strategic intent of the Albury RUP. Applies to the south-east of the investigation area west of the Hume Highway. Provides an interface with planned residential growth areas to the south.
E3 Environmental Management (C3)		
<ul style="list-style-type: none"> To protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values. To provide for a limited range of development that does not have an adverse effect on those values. To ensure the long term viability of populations of threatened species, populations and ecological communities by protecting and improving the condition of wildlife habitats and wildlife corridors. To allow appropriate land uses in close proximity to the Landfill Buffer Area. 	Boat launching ramps; Boat sheds; Community facilities; Dual occupancies (attached); Dwelling houses; Environmental facilities; Extensive agriculture; Farm buildings; Group homes; Home-based child care; Information and education facilities; Jetties; Oyster aquaculture; Pond-based aquaculture; Recreation areas; Recreation facilities (indoor); Roads; Signage; Tank-based aquaculture; Water recreation structures.	<ul style="list-style-type: none"> Primarily focused on conservation of biodiversity. Applies to areas of remnant vegetation and watercourses/riparian zones throughout the investigation area. Is aligned with the biodiversity certification outcomes that enable development on industrial zoned land without further assessment under the Biodiversity Conservation Act.

Table 4. Summary of land use zones under LEP 2010 and the relevance to the Albury RUP. Source: *Department of Planning and Environment, 2010.*

Albury City Community Strategic Plan

Albury 2030 is the Albury City Community Strategic Plan. It was adopted by Council in 2017. It is based around four themes:

- A growing sustainable economy.
- An enhanced natural environment.
- A caring community.
- A leading community.

The following outcomes are documented in the Albury 2030 Community Strategic Plan and are specifically relevant to the Albury RJP:

Outcome 1.3: Plan and cater for increased population growth, by:

- Supporting diversity off residential and commercial development in the Albury and Lavington CBDs.
- Support and promote sustainable growth to provide employment opportunities.

Outcome 1.4: Albury has a secure and well managed water supply.

- Increase demand on water supply network will require improvements to infrastructure including:
 - Reticulation network expansion.
 - Reduce pressure value.
 - Upgrades to the water pumping station.
 - Water pipeline upgrades.
 - Table Top Reservoir Capacity Upgrade.
- Existing water line from paper-mill may be re-purposed as either as an alternative water source or as a potential main to increase supply if made redundant.

Outcome 1.5: Promote Albury for industry and business by:

- Advocating and exploring incentives for business expansion and job creation.
- Ensuring support services and infrastructure are available to facilitate industry and business growth.

Table 5. 'Outcomes' within the Albury City Community Strategy Plan relevant to the Albury RJP. Source: Ethos Urban drawing from AlburyCity, 2017.

Review and Update

Towards Albury 2050, the new Community Strategic Plan for the Albury City local government area, was endorsed by Council on 14 June 2022. At the time of preparing this Urban Design Report, Albury 2030 was the Community Strategic Plan adopted for the area.

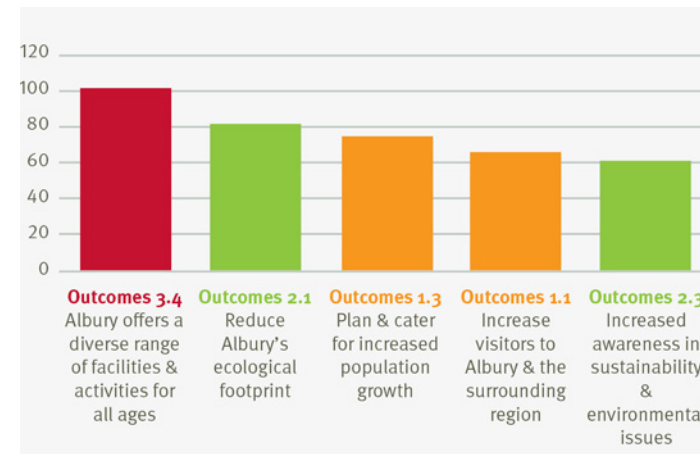


Figure 30. 5 highest responses received for Albury 2030 outcomes. Source: AlburyCity, 2017.

Outcome 1.6: Integrated transport network for Albury, through:

- Integrated transport opportunities to improve connectivity and access to housing, employment and services through a range of transport options.
- Developing and promoting the Inland Rail Freight Corridor and other rail freight improvements.

Outcome 2.1: Albury has improved environmental outcomes:

- Investigate and encourage energy saving initiatives for businesses and industry.
- Promote business and industry participation in opportunities in clean and renewable energy.
- Promote sustainable development that compliments and respects the natural environment.
- Minimise the impact of stormwater on natural systems.

Outcome 2.2: Albury is prepared for changing environmental conditions:

- Protect and enhance bushland areas and ensure connection between corridors and management of biodiversity.
- Support and promote regional food production and distribution, including agribusiness to maintain food supply chain resilience.
- Consideration of climate resilience to respond to increasing extreme climate conditions and events such as flood, bushfire and storms.
- Consideration of opportunities for environmentally sustainable design of the precinct and embedded sustainability infrastructure including response to waste, power and water in particular.

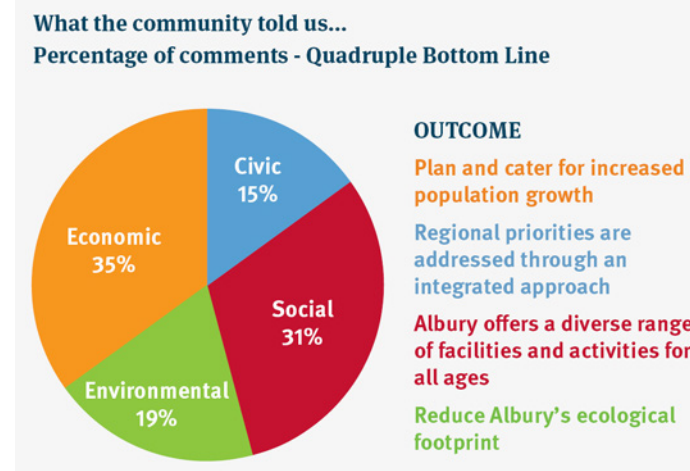


Figure 31. Percentage of comments categorised by outcomes. Source: AlburyCity, 2017.

Median age	37
Median household income	\$1,158 per week
Median mortgage repayment	\$1,452 per month
Average household size	2.36
Aboriginal & Torres Strait Islanders	1,111 people
Overseas born	4,883 people
Highest five-year age-group	15-19 years (7.4%) 20-24 years (7.2%)
2011 Internet connections	70% (2006: 54%)
Completed Year 12 or equivalent	38.6%

Table 6. Quick statistics of 2011 census. Source: Ethos Urban drawing from AlburyCity, 2017.

Top ten responses from 91 respondents were as follows:

Regional Priorities	%
Economic development, including investment and jobs growth	48%
Planning and Managing Growth	27%
Public Transport	24%
Health and Health Services	23%
Education and Training	22%
Liveability	22%
Sports and Recreation	21%
Infrastructure including roads, drains and footpaths	14%
Sustainability	13%
Water and water security	12%

Table 7. Top 10 regional priorities as chosen by 91 respondents. Source: Ethos Urban drawing from AlburyCity, 2017.

Albury Development Control Plan 2010

Albury Development Control Plan 2010 (DCP 2010) applies to the entire Albury City area. It sets out more detailed guidance for development in the various land use zones, and guidance for certain aspects of development that apply generally.

Part 12 of DCP 2010 applies to development in the Industrial zones and is most applicable to the Albury RJP. Part 12 includes development objectives, subdivision controls, design requirements for industrial development, and specific controls for certain classes of industrial development including hazardous and offensive industries, light industries, commercial activities in industrial zones, brothels and sex services premises in industrial areas and area specific development plans (including the Albury Industrial Hub Masterplan, refer to section 4.1 of this report).

Part 17 of Albury DCP sets out car parking rates and design requirements for different land uses. There are some specific rates for car parking for industrial and warehousing uses, and some rates (for example waste management facilities) are at Council's discretion. Some rates are applied based on the number of employees, and some are based on the gross floor area (GFA) of the proposed building.

There is scope to consider applying specific car parking rates for land uses in the RJP area that reflect the types of industrial and employment generating development that is appropriate for the precinct, and which takes into account the potential to access the precinct using different modes of transport.

The DCP controls are generic, as they apply to development across the whole Albury City area. There is an opportunity through the Albury RJP project to establish updated precinct-specific design guidance to supplement or amend the Albury Industrial Hub Masterplan and to reflect the specific objectives and outcomes of the RJP process.

Recommendations and enhancements of the existing DCP will be discussed in Section 10.8.





4.0

PREVIOUS STUDIES

4.0 Previous Albury Masterplans

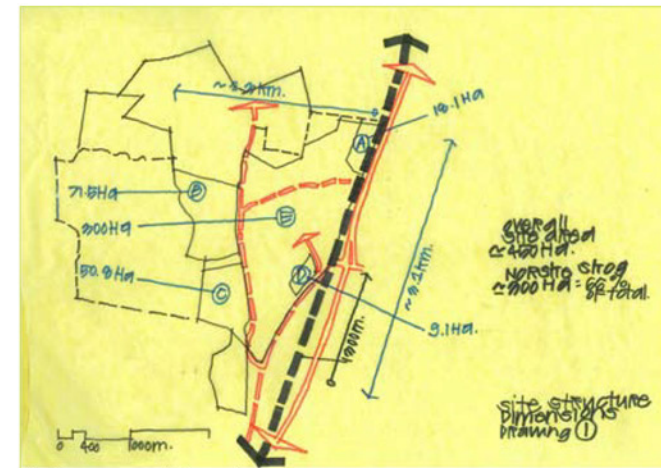
Albury Industrial Hub Masterplan 2010

This masterplan framework was developed by Aecom in 2010 to describe a long-term vision for the Industrial Hub precinct through consideration of detailed site analysis (including identification of opportunities and constraints) and testing of a series of potential scenarios and strategies.

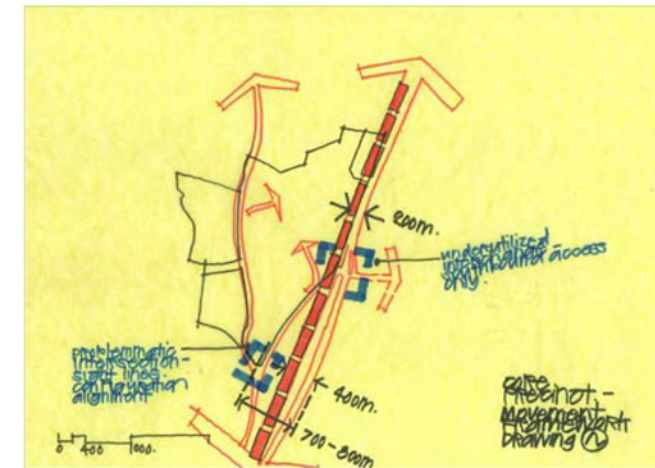
The objective was not just to identify the site's potential but to raise the profile of the study area.

The key take-aways from the masterplan were the benefits that are created through the inclusion of:

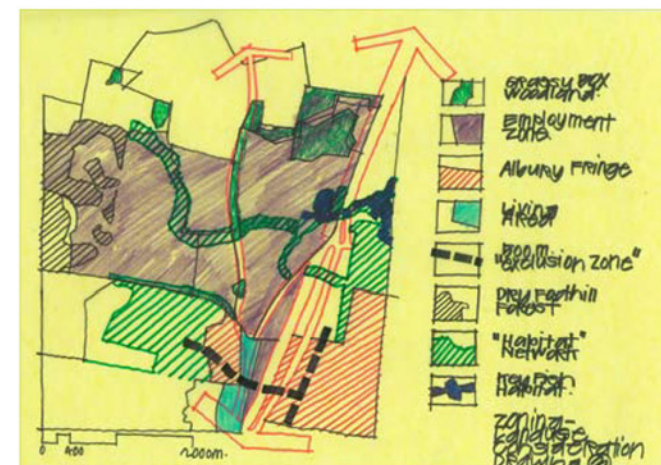
- Movement created through a ring-road.
- Range of lot sizes to respond to existing large-scale use and the crafting of lots appropriate to topography.
 - Small = 1 to 5 ha.
 - Medium = 5 to 12 ha.
 - Large = 12+ ha.
- Prioritisation of the north-south movement through the centre road.
- Taking into account some of the corridors through retention and enhancement of environmental and landscape features and attributes including the retention of a drainage corridor.
- Prioritisation of arrangement lots in a way to maximise the potential of the Ettamogah Rail Hub and works with the existing topography.



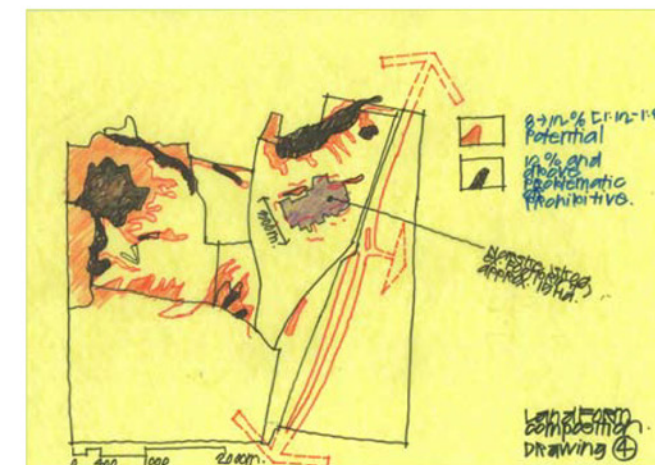
Site Structure and Dimensions



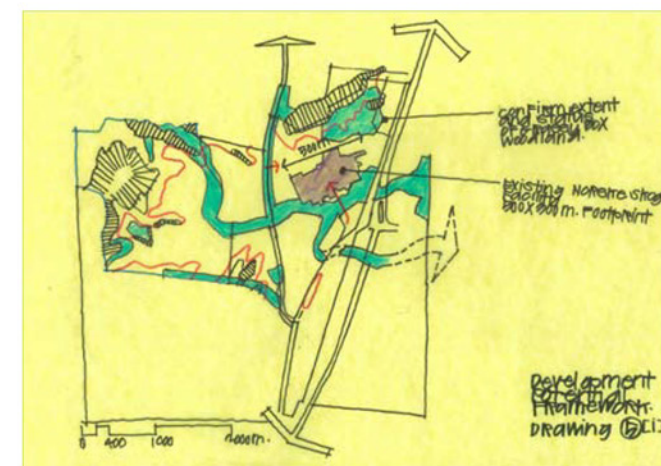
Movement



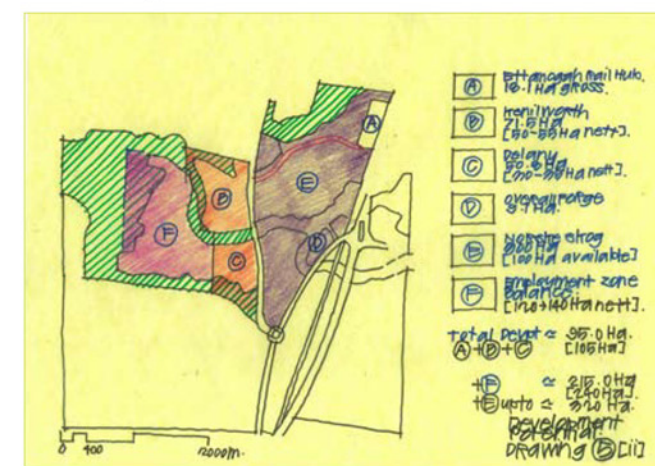
Zoning / Landuse Analysis



Landform Composition



Development Potential 1



Development Potential 2

STEP 1. SITE ANALYSIS

Figure 32. Site Analysis summary finding a structure for the Albury Industrial Hub Masterplan. Source: Aecom, 2010.

Strengths

- Considered topographic qualities in order to dictate where industrial land could be placed for visual requirements.
- Considers lot sizes, although unclear what these are based on.
- Considers constraints of ecology, slope, connectivity at high level, especially the 'drainage' corridor which dictates the shape of the masterplan.
- Identified potential benefits of the highway service station, although understanding the reason for the selection of the north-east position is unclear.
- Identified problematic route for entering NEXUS, attempts to reduce length of route.
- Considers at a high-level surrounding site amenity.
- Considers flexibility in growth and development, to allow for future adaptations to the structure.
- Identifies a topographic datum for development restriction, although it is unclear how this was selected.
- Identifies land for 'expansion' which provides the boundary of the current urban design investigation.
- Proposes an integrated shared zone through the site for utilities infrastructure to allow access for all land uses.
- Considers minimisation of carbon footprint through use of co-generation strategy in energy production on the site and rainwater harvesting.
- Landscape considered as buffering strategy.
- Proposed consideration of a co-generation plant involving generation of electricity locally in addition to supply from the grid through utilising waste heat from generation process, to be reclaimed for heating or cooling activity. This is proposed as a strategy employed to reduce the carbon footprint of the precinct.

Weaknesses

- Boundary restricted - Did not have the opportunity to include any land which is East of the Hume Highway or National Rail in the initial site analysis stage, nor in the development scenario options.
- Did not allow for opportunity to meet with stakeholders or specialist consultants to provide complex input from a number of specialisations:
 - Its unclear if habitat and ecological analysis was based on-the-ground study or if it is high level consideration.
 - Bushfire is not a consideration.
 - Noise and odour and land use conflicts is not a consideration.
 - Heritage and indigenous value is not a consideration in this masterplan.
- Flooding is not a consideration in this scope.
- Demand and economics is not a consideration in timing actions and it is unclear how realistic timeframes were determined.
- Options consider constraints at high-level resulting in en masse elimination of areas of land which may have development potential.
- Did not include topographic study of road network and it was not scoped to verify road network with traffic and transport to identify constraints, especially:
 - Suitability in connecting into existing interchange off the Hume Highway.
 - Proposed round-about structure.
- Does not integrate any wider strategic thinking.
- Does not consider the quality and experience of spaces from an occupants perspective.
- Does not define expansion areas in terms of use, access or function.
- Does not include any of the Norske Skog paper mill land as part of the staging (was undertaken prior to the sale of this land to Visy).
- No consideration of commuting alternatives such as public transport and active transport.
- No consideration of the site outside of industrial use, e.g. shared amenity or recreation.

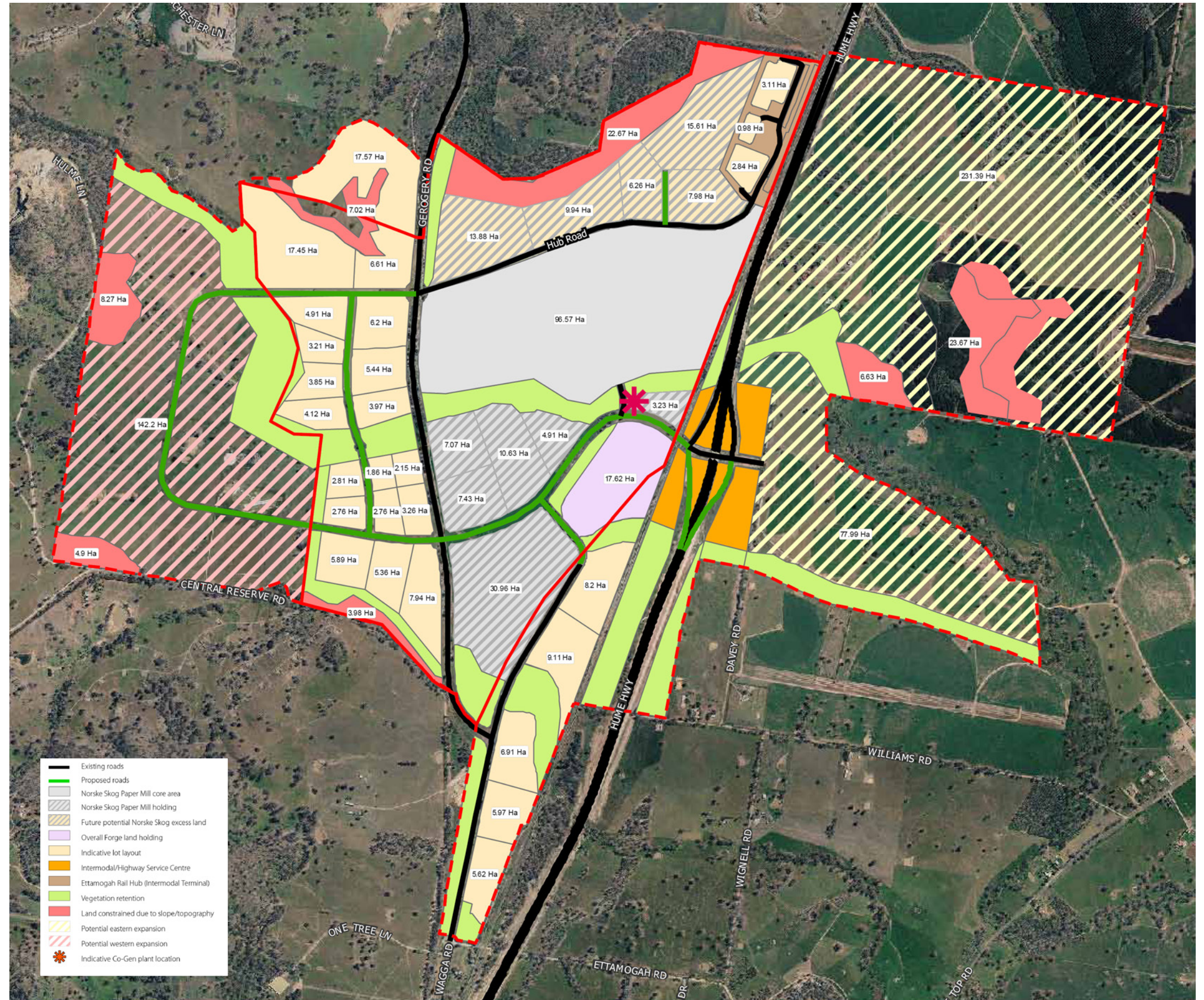


Figure 33. Previous Masterplan Structure. Source: Albury Industrial Hub Masterplan, Aecom, 2010.

Thurgoona Wirlinga Precinct Structure Plan (TWSPSP) 2013

This study was undertaken by RPS in 2012 to provide an urban development structure to inform amendments to statutory planning controls - DCP and LEP for the City of Albury.

The plan references the LGA's approach to land rezoning as a strategy of ensuring clear direction and guidance for future development for the city and "decreasing opportunities for land use conflict in rural and semi-rural areas", additionally it seeks to provide opportunity for improved housing affordability by "avoiding the potential for land banking" (p1).

The new road structure includes the extension of the Elizabeth Mitchell Drive up through the northern parcel of land above Williams Road and connection directly to the Davey Road Interchange, likely increasing the importance of the interchanges as an entry point to residential neighbourhoods to the East which will have impact on the use of the interchange for the industrial precinct; clarifying it as a landmark, traffic intensity and vehicle noise considerations.

The land above Williams Road and the residential neighbourhoods running along the Hume Highway sit on the boundary of the RJP, refer Figure 34. This land is primarily proposed as General Residential, consequently with be a sensitive receptor for the RJP. Land use at these boundaries must consider the potential off-site impact on these receptors. These neighbouring residential communities may benefit from certain land uses within RJP, consideration of these communities and their needs should form part of the RJP exploration.

The structure plan utilises a pattern of ecological corridors along road corridors, this may be a strategy that is drawn upon in the structure of the RJP.

The report provides recommendation to consider public transport and cycle routes which may also provide amenity to the RJP for commuters.

The structure plan has been informed by:

- Population and community needs.
- Services and facilities.
- Existing use and potential conflicts.
- Existing movement corridors and access networks.
- Public transport options.
- Open space and environmental corridors.

The report recommendations include:

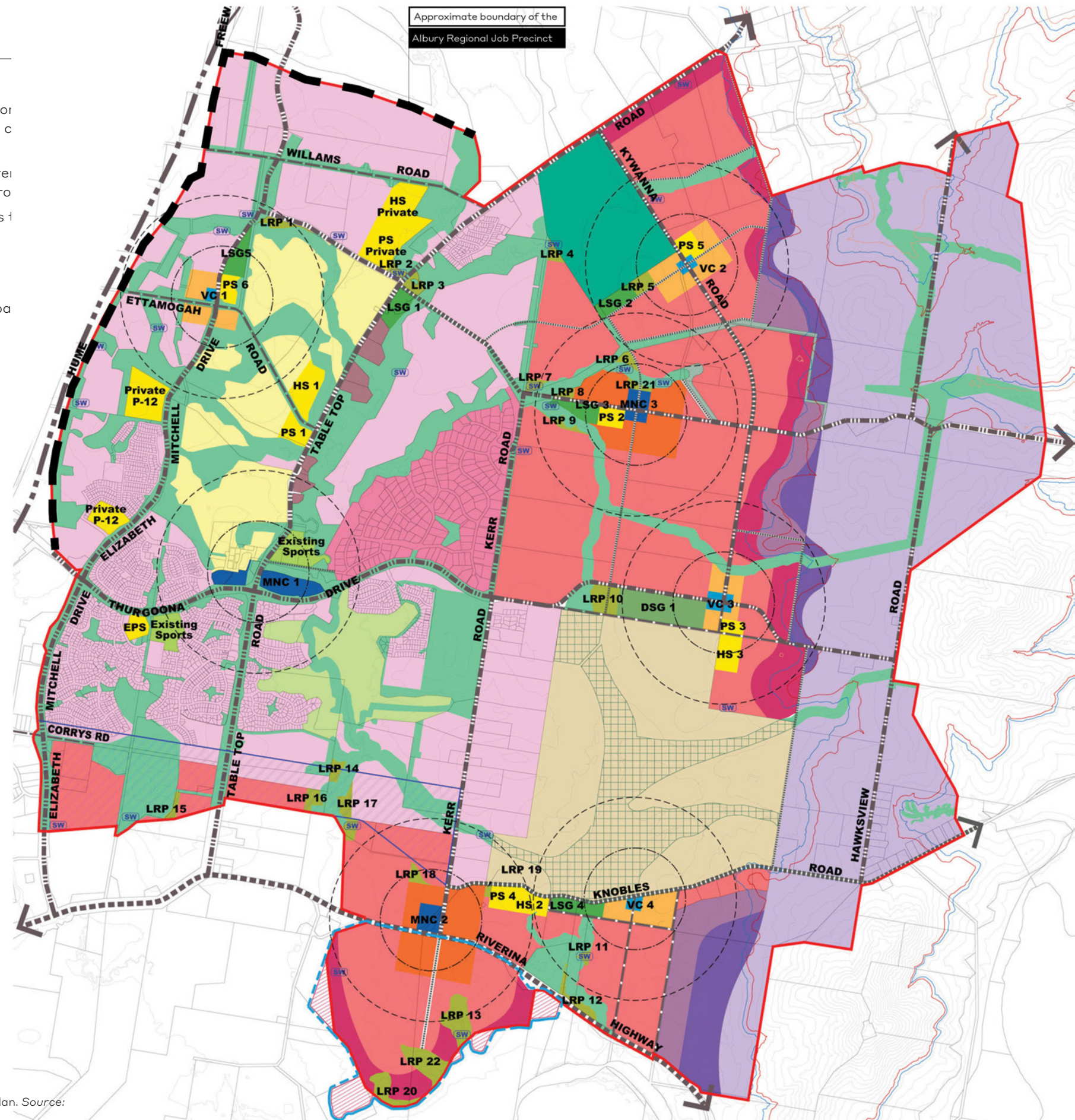
- Land adjacent department of defence land to be designated buffer and be allocated for any land use not noise sensitive.

- Future investigations into noise emission locations and noise informing planning frameworks.
- Transport corridors should follow current routes and appropriate setbacks be provided.
- Arterial, sub-arterial and interchanges require careful design consideration:
 - Low noise road surfaces.
 - Traffic engineering to limit volumes.
 - Provision of public transport / cycle paths.
 - Reduce speed limits.
 - Buffer zones to properties.
 - Compulsory setbacks on properties.
 - Larger residential blocks adjacent these roads to act as buffers.
 - Noise barriers.

LEGEND

- Study Area
- RL 230
- RL 225
- RL 220
- Neighbour Centre - Commercial
- Neighbourhood Centre - Residential
- Village Centre - Commercial
- Village Centre - Residential
- URA Rural Residential
- URA Interface Residential - Min 1ha
- URA Interface Residential - Min 5000m²
- URA Interface Residential - Min 2500m²
- URA Interface Residential - Min 2500m² Outside Study Area
- URA Residential
- Large Lot Residential (R5) - Min 2ha
- Low Density Residential (R2)
- General Residential (R1)
- Infrastructure (SP2)
- Education
- Special Activities (SP1)
- Public Recreation (RE1)
- Private Recreation (RE2)
- Environmental Conservation (E2)
- Environmental Management (E3)
- District Sport Ground (DSG)
- Local Recreation Park (LRP)
- Local Sport Ground (LSG)
- Proposed Environmental Management (E3)
- Future Proposed Environmental Management (E3)
- Area subject to further investigation for an East-West connector road
- Proposed Land Uses are draft only pending Planning Proposal
- Indicative Storm Water Treatment Area
- 400m Walking Catchment
- 800m Walking Catchment

Figure 34. Elements of the Precinct Structure Plan. Source: RPS, 2012.



East Albury Industrial Precinct Masterplan 2012

This study was undertaken by RPS in 2010 with the intention of preparing a masterplan for an different industrial precinct within Albury. This precinct is located on the Riverina Highway, 3km East of the city centre, adjacent to the Albury Regional Airport and the Airport Park (business park).

The area is approximately 31.4 ha and was (at the time of reporting) owned by the NSW Crown Lands Division and a private landowner in the form of three lots.

The masterplan includes 5 ha of land to be utilised by Council / Agency depot. The remaining area for light industrial purposes and / or bulky goods retailing.

This site as the locational benefit of being located adjacent the Albury Regional Airport and the Murray River - key potential transportation links. The Murray River link assists in making a strong argument for urban design elements which facilitate movement from Albury City to the river including for pedestrians, cyclists and cars.

The report recommends a masterplan which has a balance between public sector requirements, light industrial and bulky goods. It supports landscaped streets, water sensitive urban design and management of interfaces with surrounding environments.

The masterplan is designed to maximise development opportunity by fine-tuning easements within public land to facilitate servicing and access.

The report concludes that the site has the capacity for extending services for future land use in the precinct but that these service extensions must go through due-process with the local authority and paid for by the developer.

This industrial precinct can be seen to support a different kind of industrial use, one which is focused on its proximity to air-transport as opposed to the Regional Job Precinct (NEXUS) rail and road infrastructure connection. The land within this precinct is zoned IN1, General Industrial, while the RJP is anticipated to satisfy more higher intensity industrial uses.

These different qualities or industrial use and provision of transport facilities ensure that East Albury Industrial Precinct and the Regional Job Precinct (NEXUS) are likely not competing for the same kinds of land users and businesses. Hence they can support the image of Albury an industry-focused location while not reducing the value of one another.



Figure 35. East Albury Industrial Precinct Masterplan. Source: RPS, 2012.





5.0

PRECINCT ANALYSIS

5.0 Precinct Analysis

5.1 Albury's position within the broader region



Figure 36. Precinct Analysis - National connectivity. Source: Ethos Urban drawing from DPE data, Google travel distances, QGIS analysis.

1. A well-connected city by road, rail, and air

As a major inland city, Albury is well served by both rail and road. Albury is currently 3.5 hours from Melbourne and less than 6 hours from Sydney by road along the Hume Highway.

Albury is also home to one of the larger regional airports with regular services to Sydney, Melbourne, Brisbane, and Wagga Wagga daily.¹ The airport is undergoing an expansion of its capacity with a grant of \$2.675 million which will improve efficiencies in flight arrivals and departures.²

The current intermodal located within the RJP has direct access to the Port of Melbourne with additional capacity to move goods to Sydney and Brisbane.

The \$15 billion, 1,700 km Inland Rail project will increase Albury's freight connection to inland regional areas through Australia's four richest farming regions in Victoria, New South Wales and Queensland.³ Phase One of this project is currently under way. It will connect the ports of Brisbane and Melbourne via Albury, providing improved freight travel times. The project will allow trains of up 1,800 metres in length and 6.5 metres high that support the running of 'double stacked' freight. It is expected to be completed 2026.

¹ Based on 2021 total airplane movements excluding capital cities, Australian Government Department of Infrastructure, Transport, Regional Development and Communications, BITRE (Refer Appendix A)

² [https://www.alburycity.nsw.gov.au/news/2021/aug/Albury-airport-to-light-up-thanks-to-\\$2.675-million-grant](https://www.alburycity.nsw.gov.au/news/2021/aug/Albury-airport-to-light-up-thanks-to-$2.675-million-grant)

³ Australia New Zealand Infrastructure Pipeline, <http://infrastructurepipeline.org/project/inland-rail-freight-corridor>, April 2022

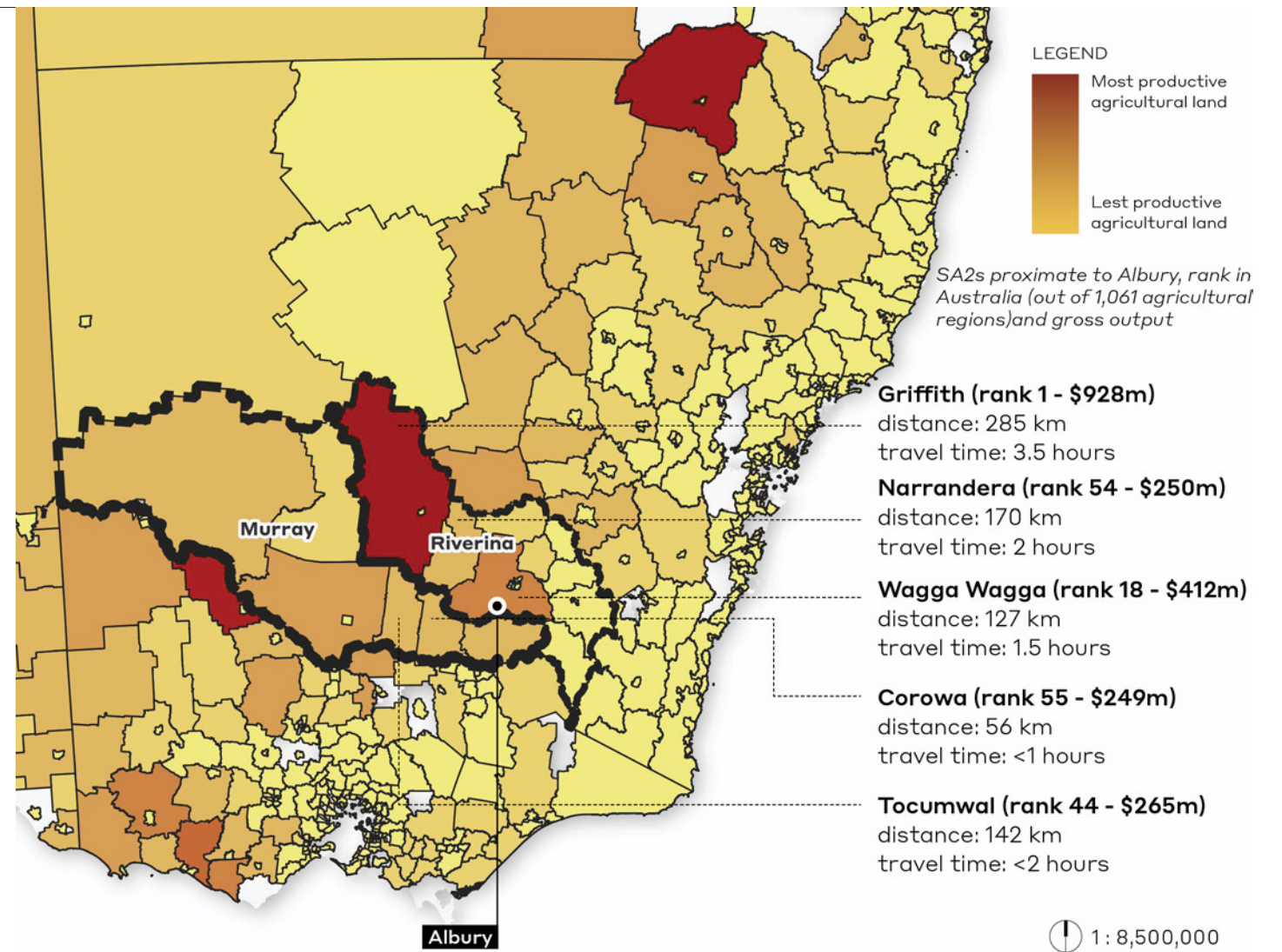


Figure 37. Precinct Analysis - Agricultural context identifying regions within a 3 hour drive of Albury with high gross value of production, 2015-2016 agricultural census. Source: Ethos Urban edited, original map via Agricultural Census 2015-2016, Department of Agriculture, Water and the Environment.

2. Positioned in the breadbasket of Australia

Albury sits within the Murray Darling Basin, Australia's most productive agricultural and drainage division, contributing \$22 billion to Australia's economy.¹ Albury acts as a gateway from Australia's major cities to the highly productive regions that surround within the Riverina and Murray regions,² the 'food bowl of NSW'³ - much of this a three hour drive.

The Murray region (in which Albury is located) is largely covered by agricultural land (87%) with the most common land use (by area) is grazing native vegetation, another 9% of this land is classified as conservation and natural environments.⁴ In 2018-19, the Murray's diverse agricultural sector contributed \$1.5 billion to the economy (9% of all farm business in NSW), important contributions⁵ include:

- Cattle and Calves - \$256 million.
- Wool - \$167 million.
- Sheep and Lambs - \$160 million.
- Grapes (exc. wine) - \$73 million - 94% of NSW production.

The Riverina region (directly accessible from Albury) is 78% agricultural land and 16% conservation or natural environments. The most common land use is grazing modified pastures - 39% of the land area. In 2018-19, it contributed \$2.5 billion to the economy, 21% of the total gross value agricultural production in NSW. Its most important contributions⁶ were:

- Cattle and Calves - \$334 million.
- Wheat - \$301 million.
- Poultry - \$272 million.
- Rice - \$22 million - 71% of NSW production.

¹ <https://www.mdba.gov.au/why-murray-darling-basin-matters>

² The agricultural census compiles data based on ABS defined 'Tourist Regions' which are based on a collection of Statistical Areas Level 2 (SA2s).

³ <https://www.investregional.nsw.gov.au/regions/riverina-murray/>

⁴ Department of Agriculture, Water and Environment, 'Catchment scale land use of Australia, Dec 2018', <https://www.awe.gov.au/abares/research-topics/aboutmyregion/nsw-murray#regional-overview>

⁵ ABS, cat. no. 7503.0, Value of agricultural commodities produced,

⁶ Australia, 2020, using 2018-2019 data
ABS, cat. no. 7503.0, Value of agricultural commodities produced, Australia, 2020, using 2018-2019 data

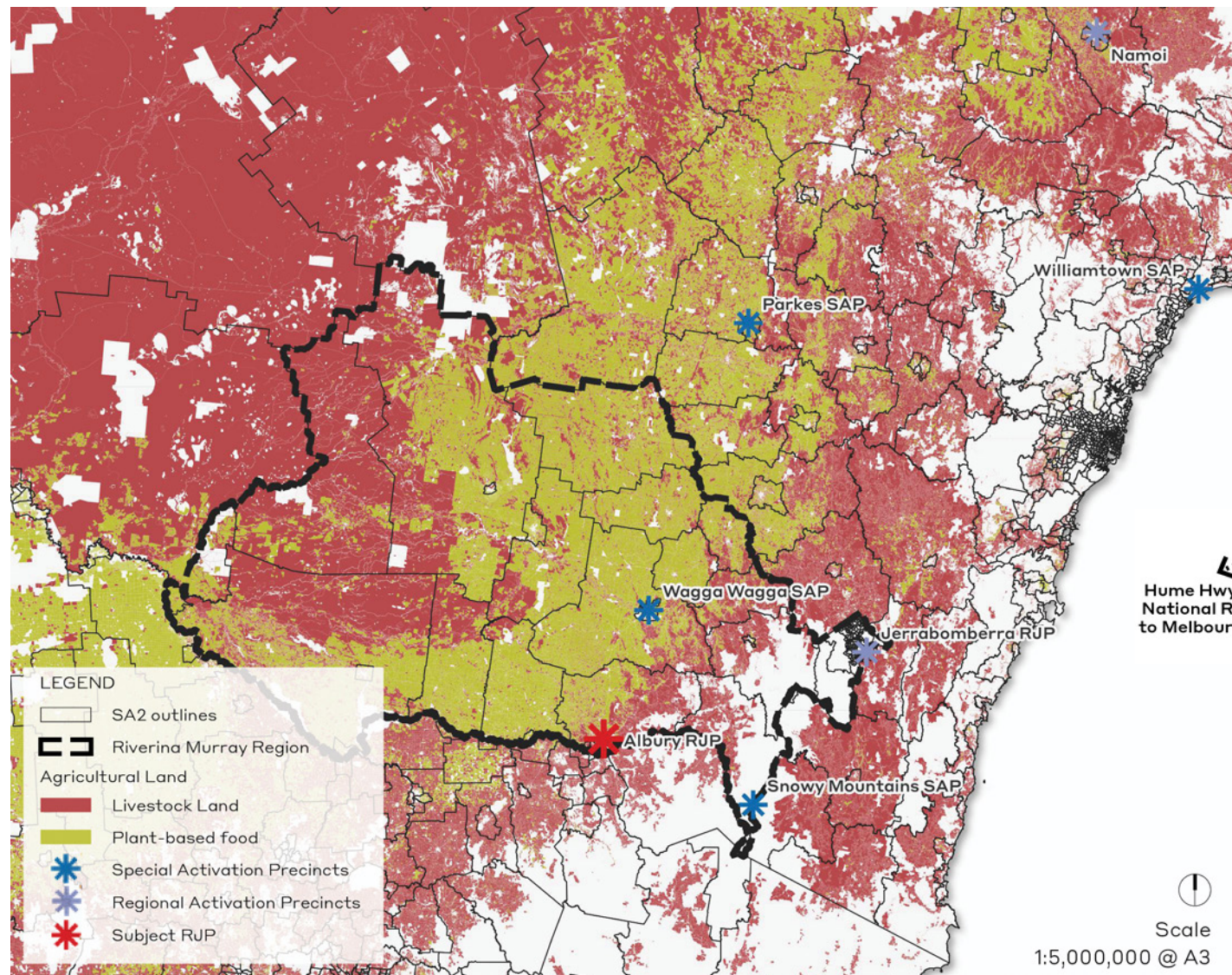


Figure 38. Precinct Analysis - Agriculture patterns as identified by Agricultural Census 2016. Source: Ethos Urban using data from Department of Agriculture, Water and the Environment.

2. Positioned in the breadbasket of Australia

An analysis of ABS 2016 Census found that the Riverina Murray Region has similar division of employment between population serving and trade-able,¹ while Albury (and Albury-Wodonga) contains more population servicing roles (81.6-81.7% versus 72.4-73%), typical of more urban centres.

A significant departure from the NSW average composition of trade-able industries is in the percentage of employment in food and agribusiness, for the Riverina Murray Region which is 50% food and agribusiness, against 12.1% for NSW average. The concentration of employment in food and agribusiness is reflective of the productivity of the land for agricultural purposes.

Looking at Albury and the Albury-Wodonga twin-city area, there is a significantly larger proportion

of tourism related employment and advanced manufacturing when considering Regional NSW and NSW as a whole. Albury LGA's tourism employment is 38.5% against 27.0% Regional NSW and 23.5% NSW. The concentration of employment in Tourism in Albury reflects the city's role as a major commercial centre along the Hume Motorway corridor.

In terms of employment specialisations, the Riverina Murray Region provides a high percentage of the overall jobs for NSW in some areas, this includes:

- 62% of Pig Farming.
- 53% of Citrus and Fruit Growing.
- 53% of Timber Resawing and Dressing.
- 50% of Apple and Pear Growing.
- 48% of Veneer and Plywood Manufacturing.
- 38% of Other Grain Growing.
- 37% of Pulp, Paper and Paperboard Manufacturing.
- 37% Explosive Manufacturing.

¹ Population serving refers to industries and businesses that primarily service the needs of the local community, while trade-able economy refers to industries and businesses that generate economic activity by trading goods and services (this includes agriculture).

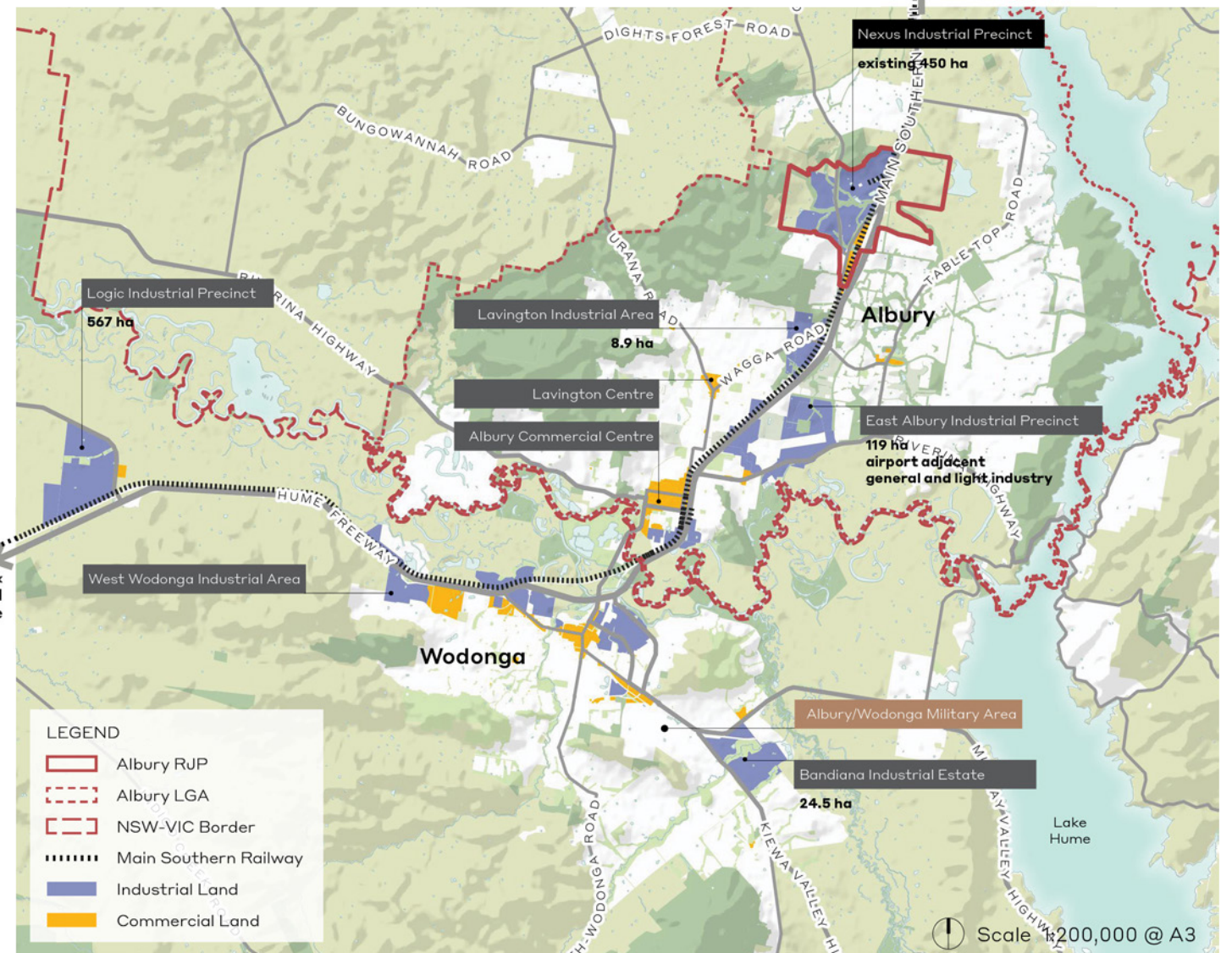


Figure 39. Precinct Analysis - Employment lands regional. Source: Ethos Urban using data from Department of Property, Industry and Environment, 2021.

3. A network of diverse industrial and commercial precincts

The NEXUS precinct is one of a network of industrial precincts situated along the high-value transport corridor running through Albury LGA, including direct access to the Hume Highway and the National Rail. Each precinct is unique in quality, value and facilities, making each a valuable contributor to Albury employment lands. The RJP will be the focus of high intensity industrial land, other precincts currently supplying general and light industry.

Existing industrial land includes areas within both Albury and Wodonga. Albury's industrial land is currently 40% vacant, 23% underutilised and 37% taken-up. Wodonga's industrial land is currently 47% vacant, 6% underutilised, 48% taken-up. Increasing Albury's industrial land within the RJP will bring its total zoned industrial land closer to Wodonga (currently 871.4 ha against 1,109.9 ha).

Albury's industrial land fetches marginally more in sales than Wodonga and Wagga Wagga, reflecting a more established market and strategic location.

Regional Investment

The planned Riverina Redevelopment Program is estimated to bring \$1.1 billion of investment to the Riverina region over 30 years. In particular it will focus on three areas including the Albury Wodonga Military Area. It will comprise of major upgrades and replacement of existing infrastructure and facilities.

This construction investment may present opportunity for the Albury RJP to act as a supplier for construction materials, machinery, vehicles and other services.

Industrial Employment

Albury's existing workforce is reflective of the agricultural setting, census reveals that employment in industry, in both manufacturing (9.2%) and construction (9.2%) is higher in Albury when compared to NSW average (manufacturing, 5.8%, and for construction, 8.4%).

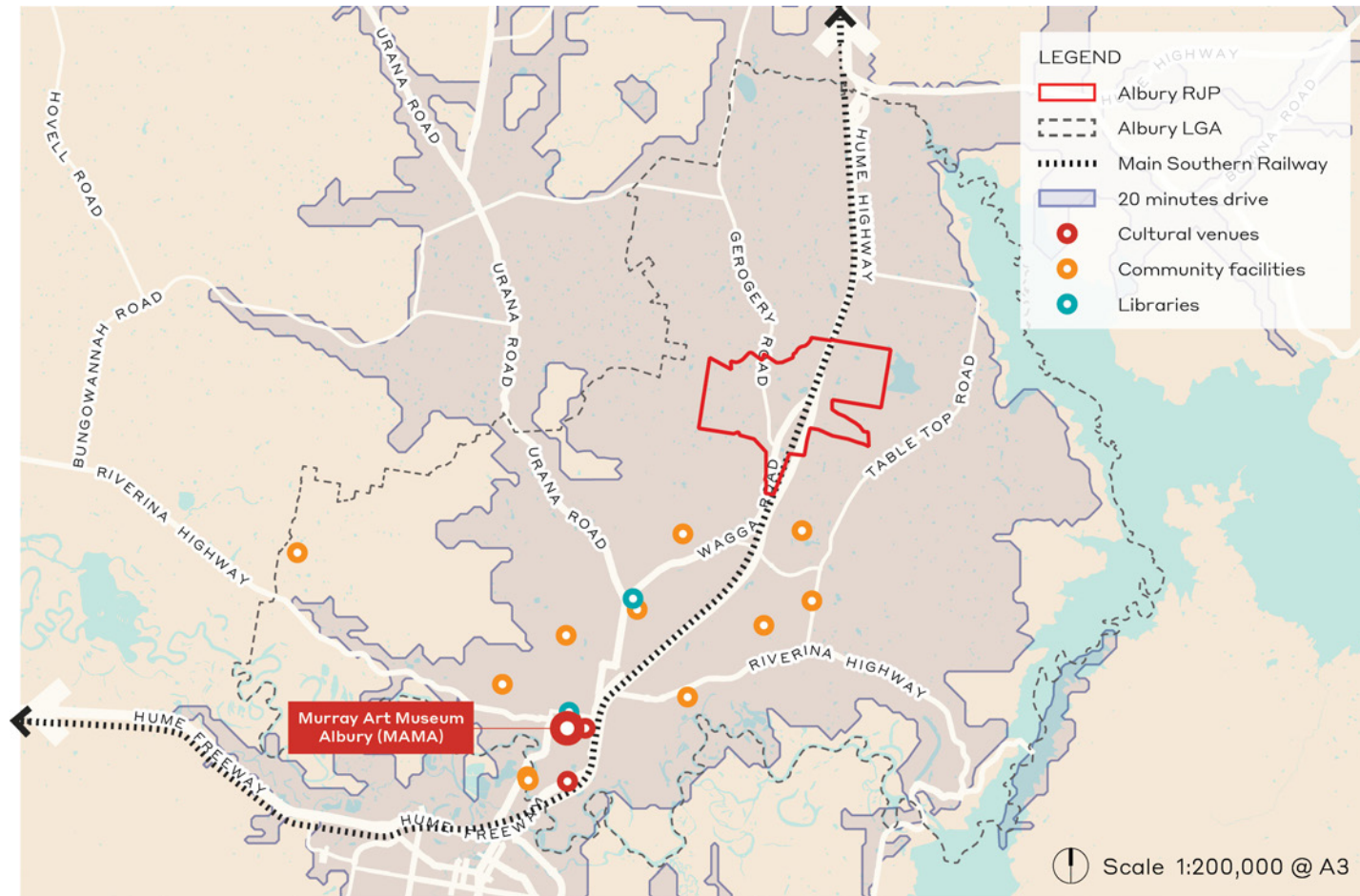


Figure 40. Precinct Analysis - Cultural and civic life regional. Source: Ethos Urban using data from DPE, Google Maps, TravelTime Plug-in to QGIS, Jan 2022.

4. A vibrant Hub for Cultural and Civic Life

Set within the backdrop of the Riverina Murray district, Albury is a thriving regional city that supports an incredible diversity of cultural life that is exemplified by the Murray Art Museum (MAMA), the award winning Library Museum and the soon to be redeveloped Albury Entertainment Centre.

The city supports an active creative arts scene which is visible through a number of independent galleries, the presence of nationally leading professional arts organisations including Hot House Theatre and the Flying Fruit Fly Circus and a growing public art program. The Yindyamurra Sculpture Walk is particularly exciting as a collection of contemporary Aboriginal sculptures lining the region's Wagirra Trail.



Figure 41. The Albury Town Centre has a fantastic street art program designed to complement the cultural offering of the gallery and attract visitors from around the town.

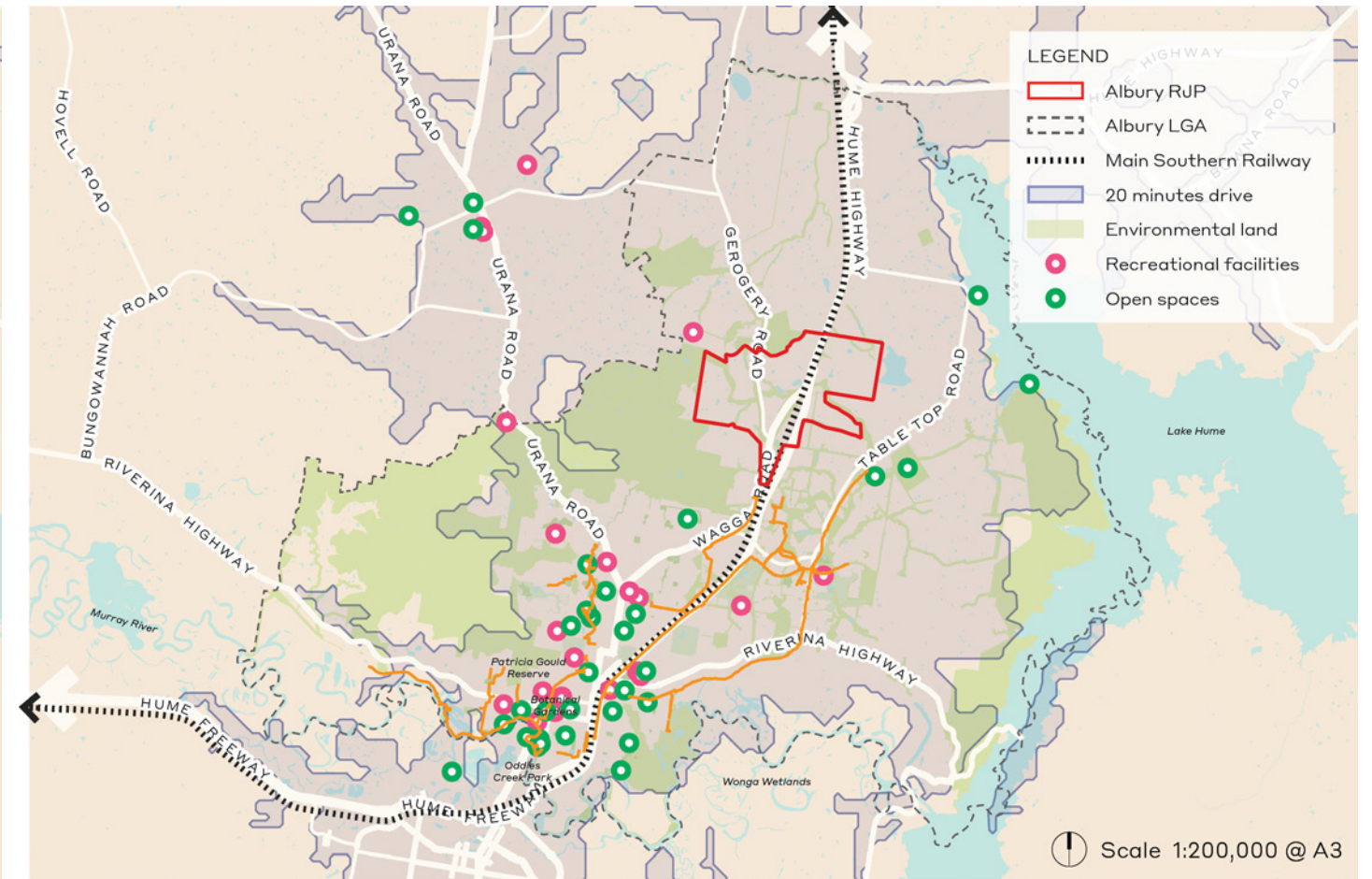


Figure 42. Precinct Analysis - Connectivity regional job precinct regional. Source: Ethos Urban using data from DPE, Google Maps, TravelTime Plug-in to QGIS, Jan 2022.

5. A springboard to regional recreation and leisure destinations

Albury is located close to a vast array of recreational and leisure activities around the Riverina region with many wineries to the west along the Murray River and the alpine national parks which include the Victorian ski fields less than 3 hours away. Lake Hume also offers a relatively untapped location for recreation. The lake is home to a few small holiday destinations along its banks and provides incredible backdrop for a getaway.

A great number of ecological corridors identified through Conservation zoned land runs through Albury LGA. Ecological corridors connecting open spaces presents a good opportunity for active recreation, cycling, running and walking. City of Albury has a number of active transport routes which primarily run parallel with existing road networks. However, sustainable commuting has a very low uptake in Albury with a very high dependency on commuting by car, at 94.5% (ABS, 2016).

Other forms of commuting include:

- 3.6% walking commuters.
- 1% cycling commuters.
- 0.9% public transport commuters.

There are currently 460 hectares of parks and reserves which include dog parks, 80 childrens' play spaces, wetlands, botanic gardens, skate and BMX parks and community gardens.¹



Figure 43. The Lakes and waterways around Albury are scenic and potentially a tourist draw for the area.

¹ <https://www.alburycity.nsw.gov.au/leisure/parks-and-public-spaces>

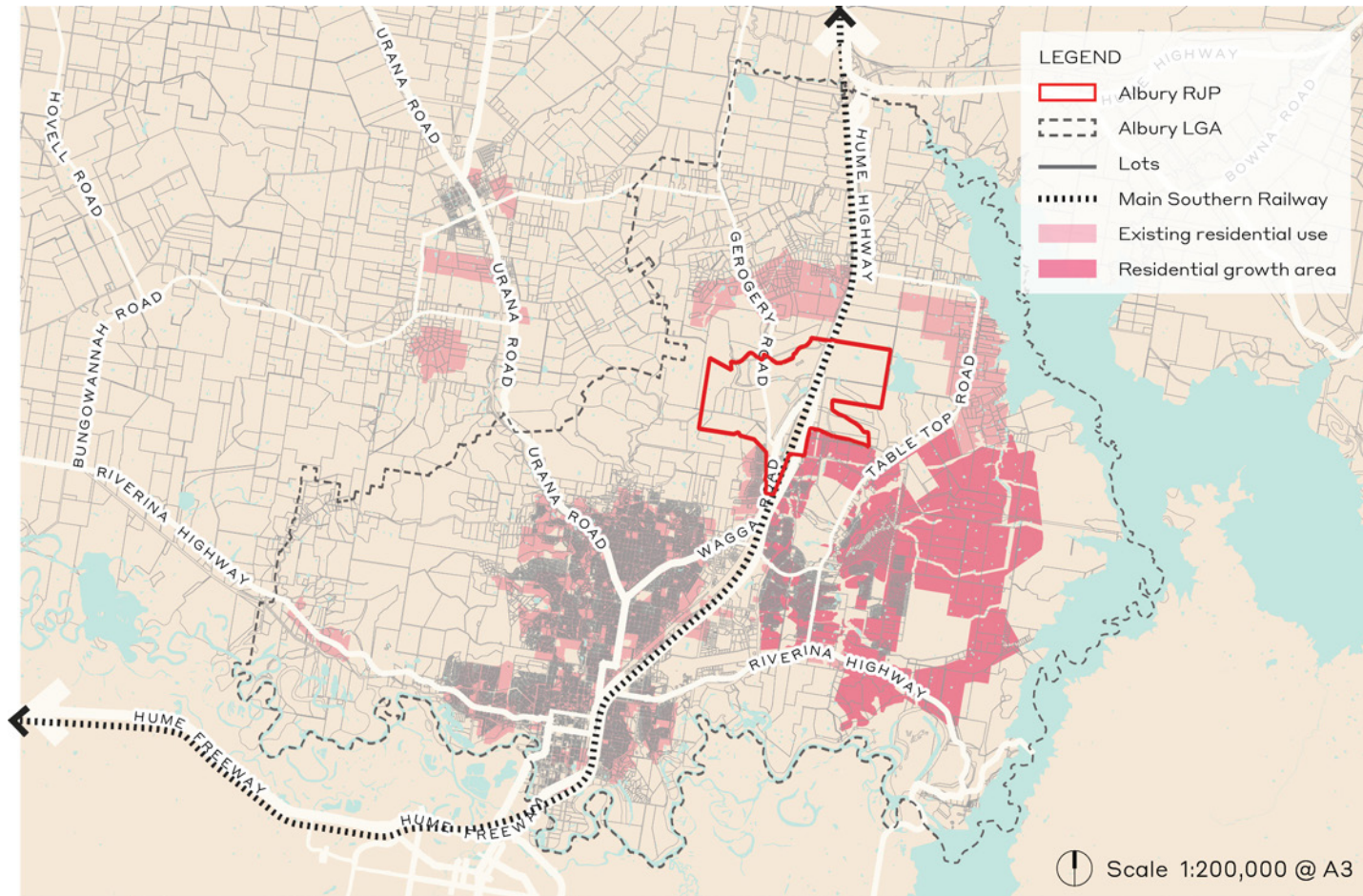


Figure 44. Precinct Analysis - Affordability regional. Source: Ethos Urban using data from DPE, Jan 2022.

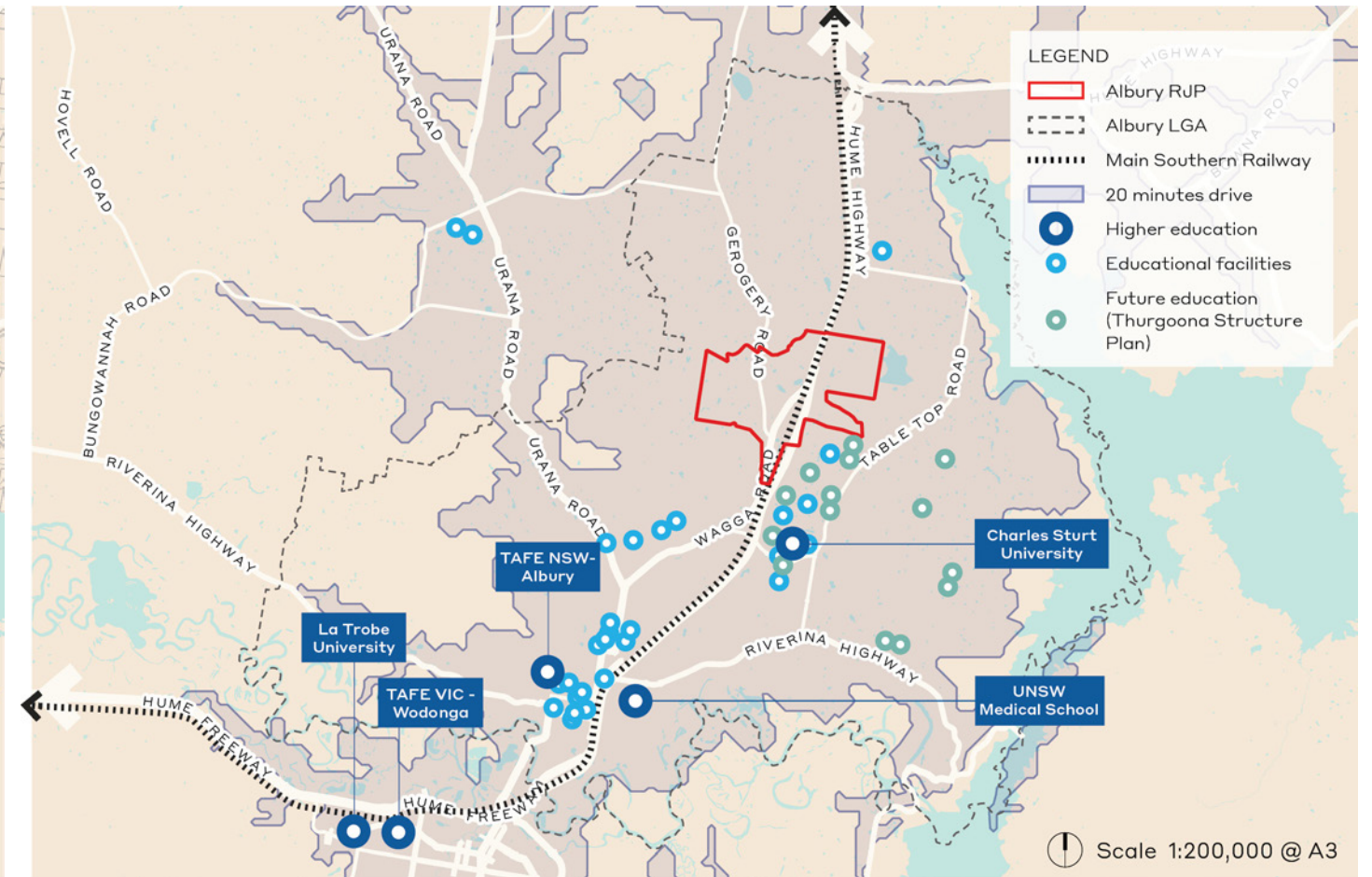


Figure 46. Precinct Analysis - Learning and growth regional. Source: Ethos Urban using data from DPE, Google Maps, TravelTime Plug-in to QGIS, Jan 2022.

6. An affordable place to buy a home

The median house price is significantly lower than dwellings in other city (as defined by ABS) Local Government Areas (LGA) such as Sydney, Wollongong and Newcastle as well as regional cities with similar

Only Broken Hill is found to deliver a significantly lower median price.

This presents an opportunity for businesses to draw in a potential workforce that may be enticed by a reduced



Figure 45. Median sales across LGAs against population within NSW Ethos Urban (data: NSW Property Sales, Valuer General, 2021 and ABS 2016 census population data for LGAs)

7. A centre for learning + growth

Albury-Wodonga has good access to tertiary education institutions including Charles Sturt University campus located in Albury, La Trobe University in Wodonga, Wodonga TAFE Logic Campus, UNSW Medical School and the TAFE NSW Albury campus both located in central Albury. Ethos Urban economics team have identified 43 programs and courses which are directly aligned with the industry sector suitable for the precinct. Partnering infrastructure with high education encourages innovation, knowledge sharing and growth as well as potential for training the future workforce for the RJP.

Albury also has a significant number of private primary and secondary schools in the area making it a suitable location for families who may internally migrate to the region.

8. Demographics

Albury is one-half of the twin-city Albury-Wodonga community with one (1) in four (4) workers crossing the border for work (ABS 2016 census).

Liveability index includes factors such as housing stress, access to employment, social infrastructure, and access to large public open spaces.

In an RMIT study Albury scores well on liveability, amongst the other 21 largest regional cities in Australia. However, Albury and Wodonga LGAs have marginally higher rates of housing stress, despite a lower than median dwelling price (as identified earlier), and a slighter higher provision of social infrastructure and access to large open space when compared to other regional cities.¹

In 2021, population of Albury was estimated to be 55,754 people,² identified growth of 1.27% in the last twelve months.

1 Australian Urban Observatory and RMIT University utilising information from 2018
2 <https://profile.id.com.au/albury/population-estimate>

5.2 Land ownership

The Ettamogah Rail Hub - 70 hectares

The CRT Bulk Haulage company originally operated its Rail Hub out of Wodonga, relocating in 2008 to the Ettamogah area in Albury. It first operated a Port of Melbourne service in 2009, then opened a service to Acacia Ridge, Brisbane in 2011. This site also includes a large-scale warehouse for communal storage as well as container storage for short or long term use.

The company's current demand is 80% import against 20% export. This condition has been consistent since the closure of the Paper Mill. Prior to this the demand was reversed. Operationally, future developments and operational changes to the land surrounding will have large impact on this pattern.

Three lots (of various sizes) have been identified to the North-West of the Ettamogah Rail Hub site which the company is intending to develop into warehouses for shared storage. This now includes the development of an e-waste recycling plant which has a \$1 million grant through the EPA.

Albury-Wodonga Land Development

Following aforementioned legislation changes, land in this region was purchased by private land owners. A particular lot of land grew over a period of several transfers of ownership until it partly sold to the Albury Wodonga Development Corporation (AWDC) in 1975.

The AWDC was a NSW government agency which had a 'unique' tripartite legal structure: 1) Commonwealth, 2) Victoria and 3) New South Wales. They operated as a single entity, amongst other responsibilities, its role was to acquire and manage land to encourage development of the Albury-Wodonga region. In 2004, the corporation ceased activity at which point it sold off its remaining 6,500 hectares.¹

Paper Mill + Adjacent Sites (Visy) - 300 hectares

Some of the AWDC land, as well as additional land that remained in private ownership neighbouring the site, was secured by Australian Newsprint Mills Holdings Limited (ANM) in 1975. In 1978, ANM announced their intentions to construct a paper mill in Ettamogah.

In 1981 the Albury Paper mill opened for operation (opened by NSW Premier Neville Wran). Early days saw challenges with electricity costs (doubling in cost). In 1988 ownership transferred to News Limited. In 1997 ownership was transferred to the Fletcher Challenge Group (a New Zealand company). In 1993, the paper machine was rebuilt and recycled fibre was added to the process. Additional machine developments continued.

In 2000 Norske Skogindustrier A. S. (a Norwegian company) purchased the Albury Paper Mill from Fletcher Challenge.

They rapidly upgraded many of the machinery used for producing paper, increasing annual production from 215k to 265k tonnes. In 2019 the mill was sold to Australian paper manufacturing company Visy who are yet to take any action on the site which currently is not operating.

The site is important in the context of development of paper within Australia. Technology was developed to use eucalyptus pulp, then softwood and finally incorporated recycled fibre.²

A large portion of the land in this ownership was utilised by the paper mill manufacturers to treat waste water which came out of the milling process. This includes the existing dam to the East. Alternative currently available treatment options such as reverse osmosis are less land intensive and enables water to be returned to the environment or re-used. This may reduce the requirement for Visy to retain this land for use. Visy holds an Environmental Protection Licence from the EPA for its current operations.

NEXUS Stage 1

A 55 hectares site formerly known as Kenilworth. It was acquired by council from the Albury Wodonga Development Corporation in 2006. This site forms part of a subdivision plan which is currently being undertaken by Council.

Overall Forge - 9 hectares

Overall Forge has been manufacturing in Australia for 100 years. They are a major supplier of forging to Asia Pacific region, in particular for mining and quarrying industries. The site within the RJP contains a facility which has capacity for sawing, forging, heat treatment, machining, testing and certification.³ They have indicated that expansion is likely to be required in the future.

Circular Plastics

Circular Plastics is a joint venture partnership between Pact Group, Cleanaway Waste Management Ltd, Asahi Beverages and Coca-Cola Europacific Partners (CCEP),⁴ a collaboration between some competitors in order to reduce their impact on the environment. The facility was opened in early 2022 and is the largest PET recycling plant in Australia, reducing the equivalent of 1 billion PET beverage bottles every year. It is a \$45 million plant and boosted the regional job and circular economy. It uses solar power and a water treatment unit and rainwater tanks.⁵ Circular Plastics holds an Environmental Protection Licence from the EPA for its current operations.

² alburyhistory.org.au/wp-content/uploads/2017/09/ADHS-Bulletin-486.pdf

³ www.overallforge.com.au/

⁴ www.packaging-gateway.com/projects/circular-plastics-australia-recycling-plant-albury-wodonga/

⁵ www.cleanaway.com.au/sustainable-future/cpa-opens-in-albury-wodonga/

¹ researchdata.edu.au/albury-wodonga-development-corporation/165932



Figure 47. Photograph of Visy site (previous Norske Skog). Source: Ethos Urban.



Figure 48. Photograph of Ettamogah Rail Hub. Source: Ethos Urban.



Figure 49. Photograph of Circular Plastics. Source: Ethos Urban.



Figure 50. Photograph of Ettamogah Rail Hub Future Warehouse sites. Source: Ethos Urban.



Figure 51. Photograph of Overall Forge. Source: Ethos Urban.



Figure 52. Photograph of Residential subdivision (outside of RJP) interface. Source: Ethos Urban.

Neighbouring Sites

Three quarries surround the site to the North and West:

- Delaney's quarry produces road base material.
- Burgess's quarry is looking for expansion.

To the southern edge of the precinct is a Department of Defence. Previously a test site for munitions, the site is deemed hazardous with unexploded ordinances still present. It has existing significant biodiversity and ecological value, including endangered ecological communities. The site is unlikely to be productive land in the future, it will likely become a conservation zone with indigenous significance - possibly C2 or C3 land zoning.



Figure 53. Photograph of Twin-Cities Model Airplane Club land. Source: Ethos Urban.



Figure 54. Photograph of Visy water treatment land. Source: Ethos Urban.

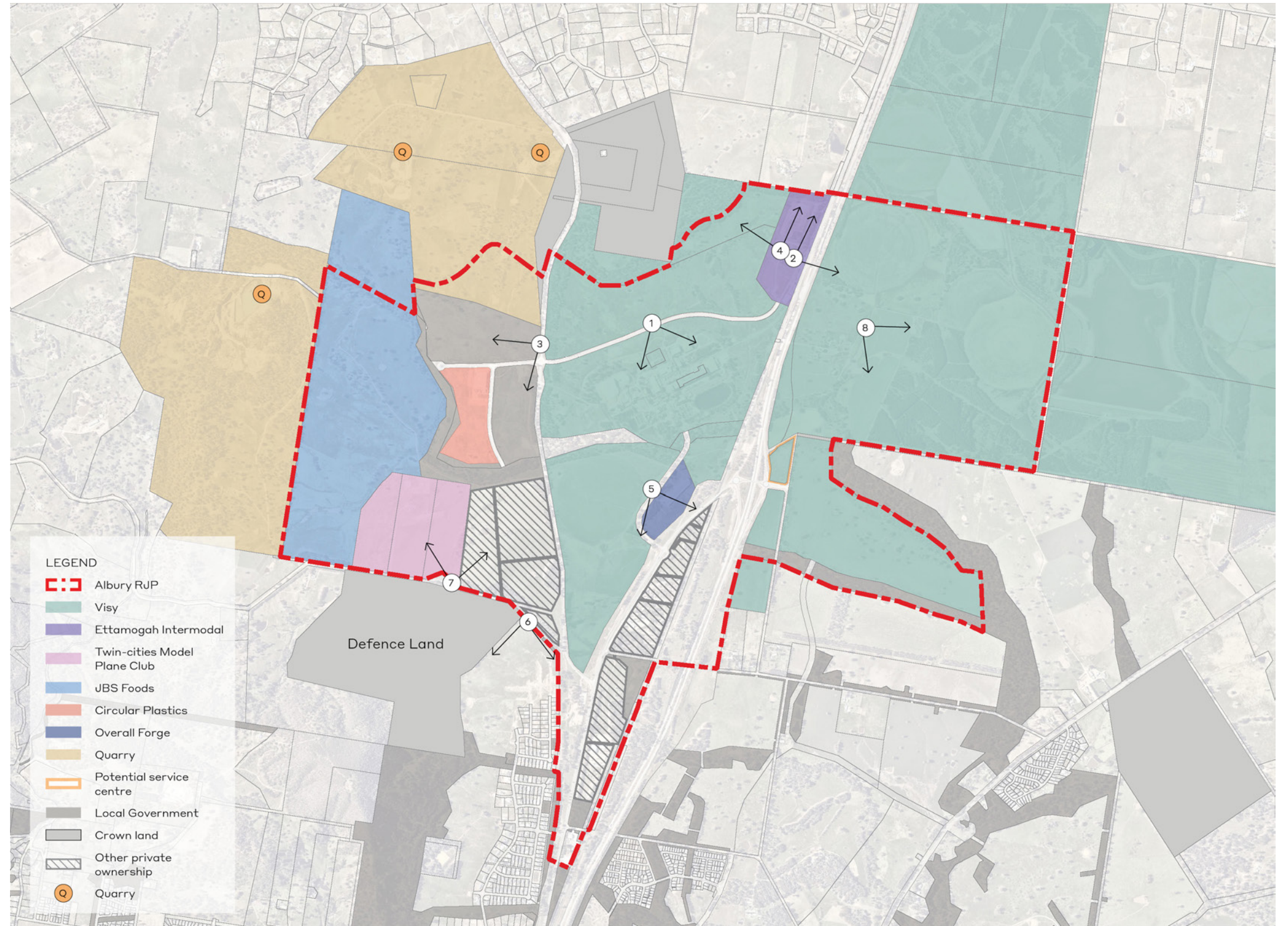


Figure 55. Precinct Analysis - Land ownership RUP. Source: Ethos Urban using data from site visit, DPE, DRNSW and AlburyCity.

Scale 1:30,000 @ A3

The two main modes of transport within the Albury RJP are predominantly rail and road regarding freight, goods, and commuter traffic.

Rail:

- The rail line running north-south is part of a broader national network connecting Albury to all the major rail ports in Sydney, Brisbane and Melbourne.
- The line serves as both goods and commuter line for regional services through Albury.
- The Ettamogah Rail Hub is located along the line and enables Albury to function as a hub for the transition of goods between rail and road lines, focusing on servicing Port of Melbourne and Brisbane.
- Its location on the western edge of the Hume Highway provides a strategic advantage for the Nexus Business Park but creates a challenge for the balance of RJP lands located to the east of the highway.
- The Rail Hub offers both road and rail logistical services, with a capacity to store and hold goods.
- Wodonga to the south has a similar operation (Logic) operated by SCT, a commercial competitor to the Ettamogah Rail Hub.
- It functions independently and provides similar logistics services on an exclusive basis.
- The rail spur located on the Visy site is currently not in use, and Visy has not disclosed the intended future use of the site.

Road:

- The Hume Highway is the primary north-south access that connects Albury to capitals such as Sydney and Melbourne.
- The Highway defines the structure of Albury, bisecting it into two portions, with the majority of residents living to the north of the precinct, or west side of the highway to the south of the precinct.
- Davey Road within the RJP provides the only east-west road connection to the eastern sections of the precinct
- Local road access to the western sections of the RJP is via Wagga Road, which connects to Gerogery Road and Central Reserve Road.
- Hub Road provides an important role in connecting the substantial Rail Hub asset to the Highway via the main internal road (Wagga Road).
- Gerogery Road and Central Reserve Road currently support a range of traffic movements, including many heavy vehicle movements from surrounding industry, including the Burgess and Delaney's quarries.

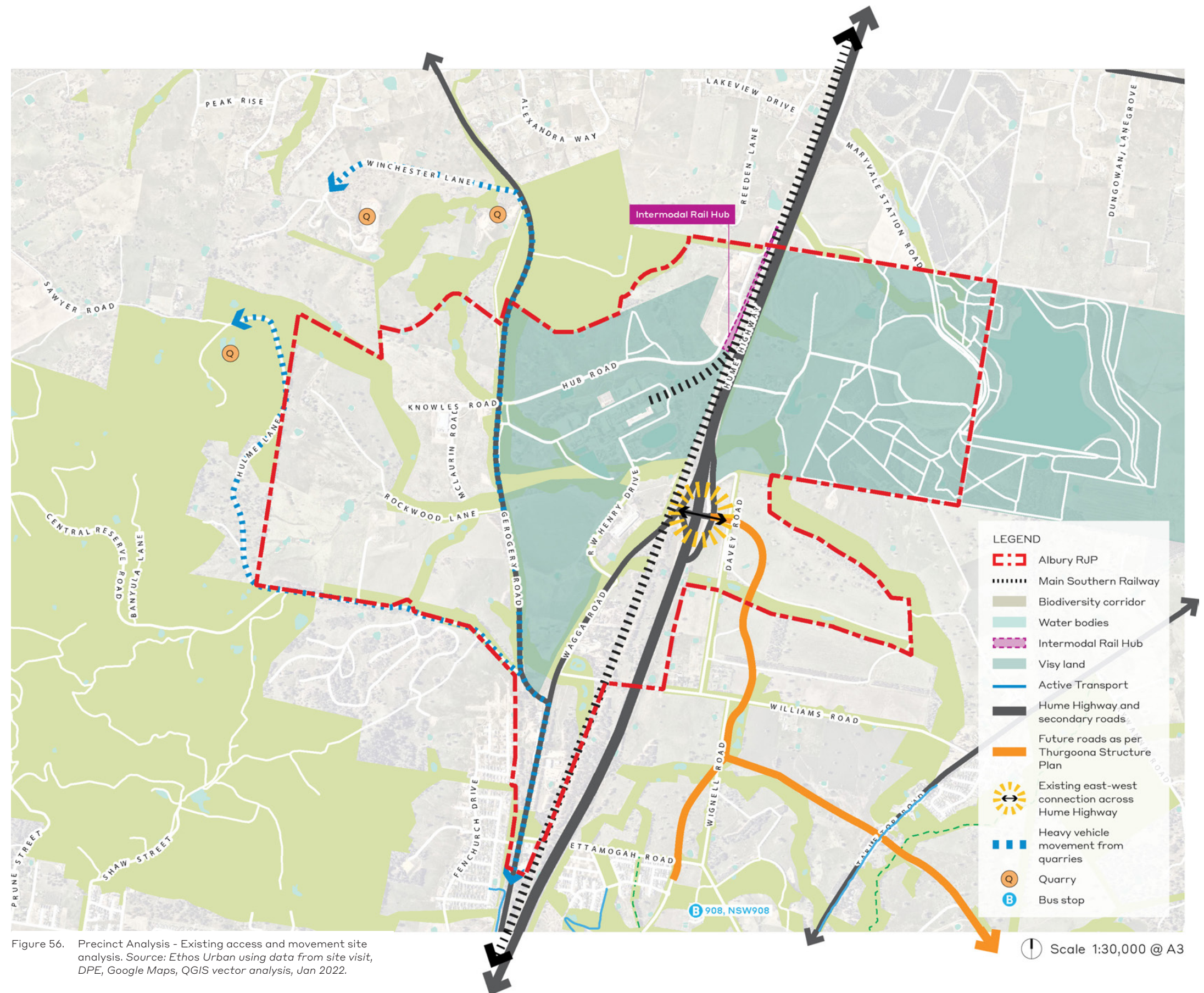


Figure 56. Precinct Analysis - Existing access and movement site analysis. Source: Ethos Urban using data from site visit, DPE, Google Maps, QGIS vector analysis, Jan 2022.



Figure 57. Photograph of Ettamogah Rail Hub in action. Source: Ethos Urban.



Figure 58. Photograph of storage facility adjacent the Rail Hub. Source: Ethos Urban.



Figure 59. Photograph of the old Paper Mill and disused rail siding. Source: Ethos Urban.



Figure 60. Photograph of Wagga Road off ramp along the Hume Highway. Source: Ethos Urban.



Figure 61. Photograph of the steep and hilly terrain of Central Reserve Road. Source: Ethos Urban.

5.3 Sensitive Receptors

The precinct contains sensitive receptors including biodiversity corridors, habitats, indigenous cultural artefacts, riparian corridors and historic heritage items. External and adjacent to the precinct sensitive receptors includes residential neighbourhoods, education precincts, village centres and major neighbourhood centres - as well as quite extensive nature reserves and larger bodies of water. All of these items are considered in the creation of the structure plan to ensure it responds appropriately.

Residential is the key sensitive land use in the vicinity. This includes:

- Existing residential subdivision and existing residential neighbourhoods.
- Zoned residential areas which anticipate future residential use - we need to ensure that future Albury RJP developments are not going to create conflict with future occupation of residential within these zoned areas.

Other sensitive receptors include:

- Community use areas.
- Natural features within the site including:
 - Higher order riparian corridors.
 - Conservation zoned areas.
 - Existing Plant Community Types which include sensitive vegetation as well as potential habitat for native wildlife.
 - Heritage items and culturally valuable artefacts, land and water must also be considered, including Indigenous and Historic Heritage items within the site.

At least two of the operators (Visy and Circular Plastics) within the precinct hold environmental protection licences (EPL) issued by the Environmental Protection Agency. Any amendments to operations which fall outside of these agreements would require due process through the EPA to support maintenance and management of compliance and to ensure protection of the sensitive receptors.

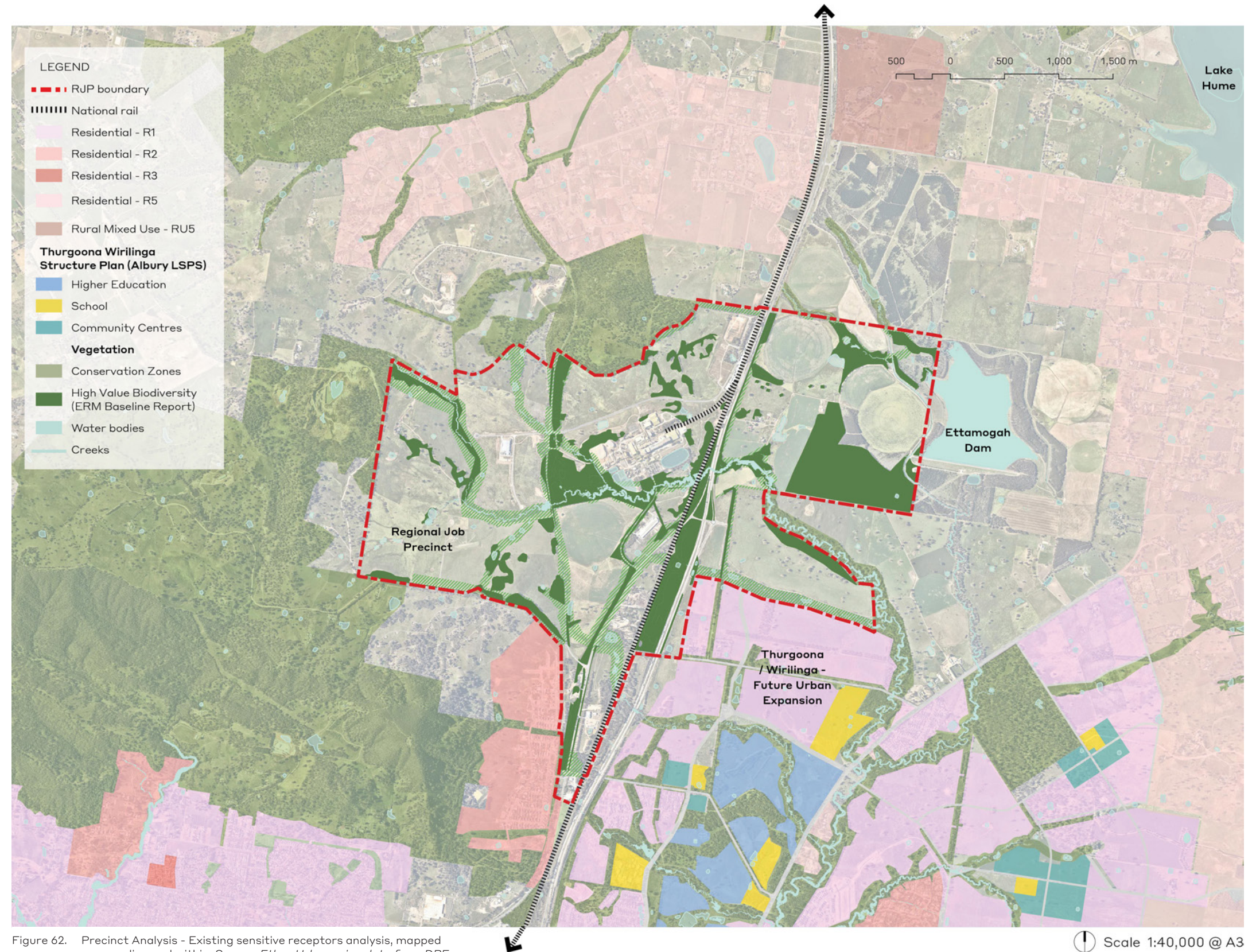


Figure 62. Precinct Analysis - Existing sensitive receptors analysis, mapped surrounding and within. Source: Ethos Urban using data from DPE, ERM, 2022.

Scale 1:40,000 @ A3

5.4 Topography / slope

In the early phases of the city's development, Albury was constrained by the inability to deliver sufficient water pressure to higher areas beyond the lower lying areas of the town.

As such development remained in lower lying areas, leaving many of the surrounding hills such as One Tree Hill, Rocky Hill and Roberts Hill largely untouched by development.

While this is no longer the case today and the expansion of industrial uses to higher lying areas is possible, the initial limits placed on development in this area has resulted in the preservation of the largely pastoral landscape.

The diagram is a composite of the existing topographic features of the RUP overlaid with the slope analysis undertaken using Department of Environment ELVIS data 2022. The findings include:

- Visy land is currently located on the flattest part of the site, with the least requirement for cut and fill, best suited for large buildings. Being at the low-point of a basin, the Visy land also has the greatest capacity for noise and air emissions due to its location central to the precinct and the nature of topography, protection to the surrounding areas.
- The NEXUS Industrial Precinct Master Plan (Aecom 2010) recommends minimising cut and fill through locating large-lots in the lower-lying, flatter parts of the precinct and smaller lots on steeper terrain. A slope analysis (below) shows the pattern of the terrain.
- The peaks surrounding the site are at a highpoint of 380m relative level (RL). The site boundary sits at a height of approximately 280m to 260m. The low-point of the site is between 220m to 240m. West of the highway and 210m to 220m East of the highway.

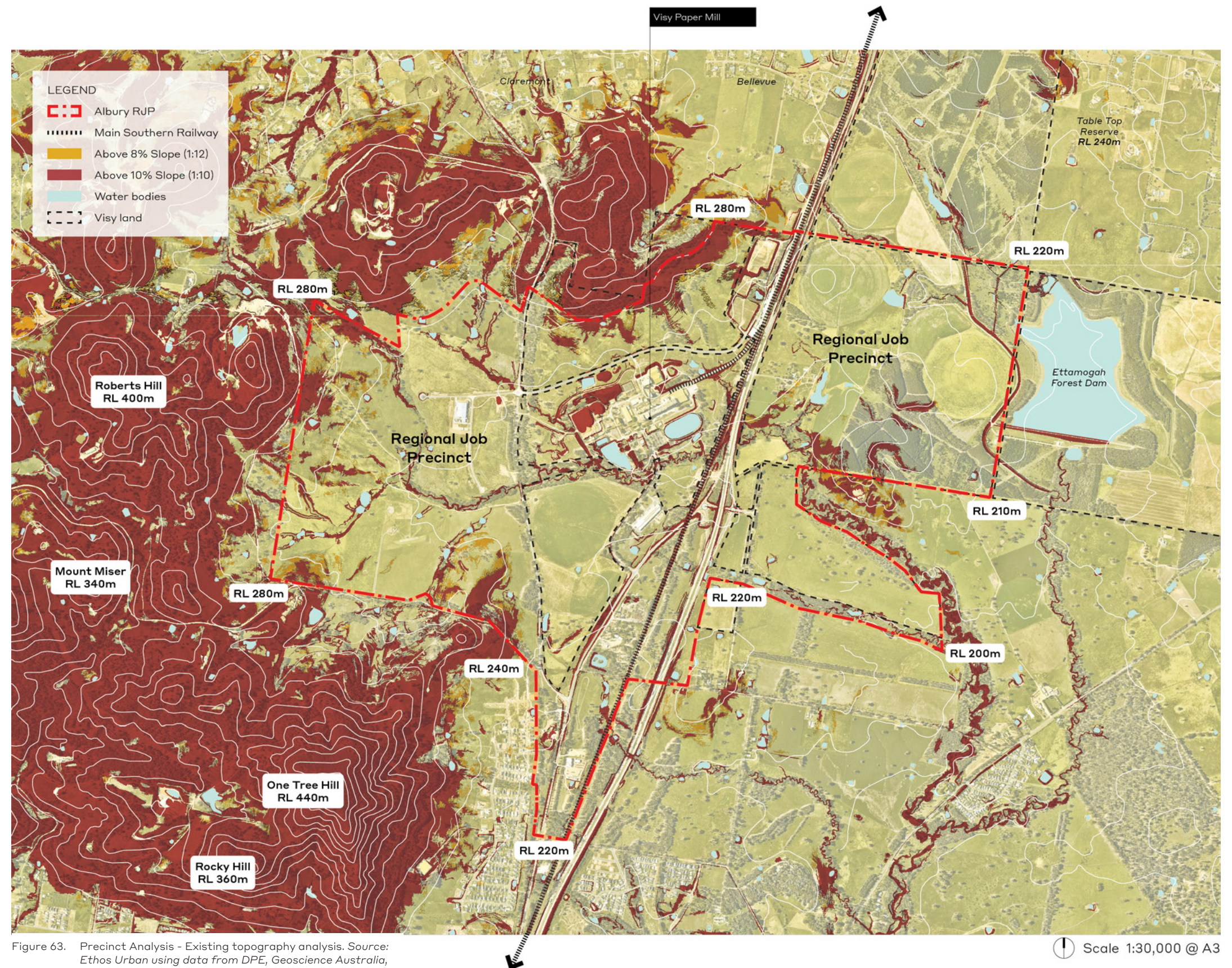


Figure 63. Precinct Analysis - Existing topography analysis. Source: Ethos Urban using data from DPE, Geoscience Australia, QGIS vector and raster analysis tools.

Scale 1:30,000 @ A3

5.5 Natural Vegetation, Riparian and Biodiversity Corridors

The precinct falls from ridges at the perimeter to a basin in the centre. Overland flow follows this journey, typically funnelling through existing stormwater creeks or channels which run through the site. Some of this collects in existing small-scale lakes and dams across the precinct. The largest body of water in the immediate vicinity of the precinct is the Ettamogah Dam which was historically used for waste water treatment.

A large riparian zone is identified to the South-East of the precinct. A portion of this riparian corridor associated with Eight Mile and Nine Mile creek is within the precinct boundaries. Protections must be considered in future development proposals.

Internal creek-lines and channels are frequently located within C3, Environmental Management, providing a structure to the site for water and wildlife movement.

A large C3 zone, to the West of the precinct, covers large area of habitat and forest along the ridgelines providing a buffer to other land uses which may be incompatible with industrial use.

The health of the water table and the Ettamogah Forest Dam must be managed to ensure that an increase in industrial activity is detrimental to water health.

A number of Species Credit Species utilise tree hollows in nesting and shelter. An on-site survey undertaken by ERM mapped locations of existing hollows on the site, these are shown in Figure 64. Whereas larger hollows may be used by Squirrel Gliders and Masked Owls, smaller hollows may provide roosting and nesting habitat for the Eastern Pygmy-possums and a wide variety of birds and bats.

The Plant Community Types (PCTs) providing important habitat for identified credit species are shown as hatched areas in Figure 64. These high value vegetated corridors (green grid) correlate strongly with riparian zones (blue grid) across the precinct. Future Master Plan development will need to consider this significant biodiversity values found within this blue-green grid.

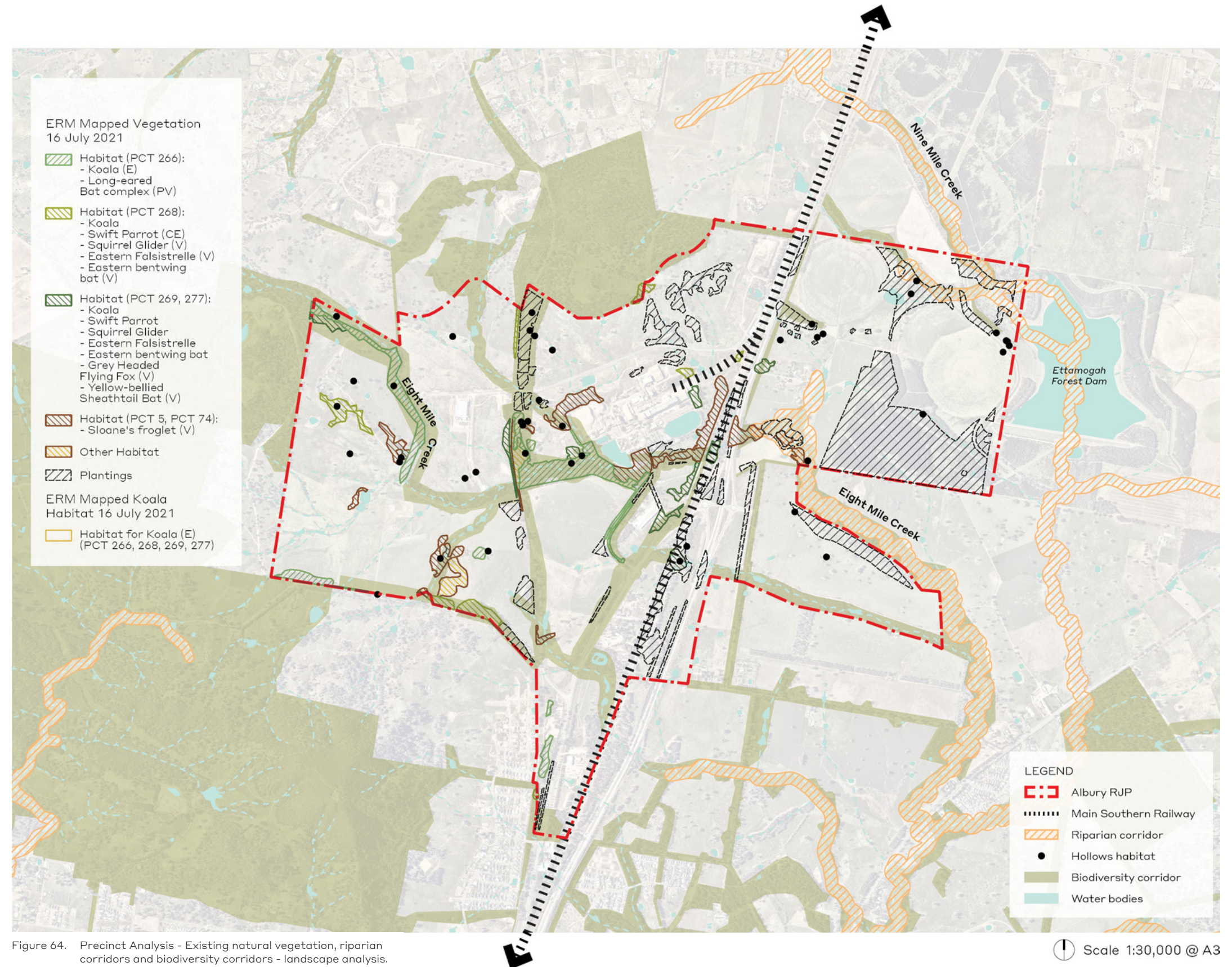


Figure 64. Precinct Analysis - Existing natural vegetation, riparian corridors and biodiversity corridors - landscape analysis. Source: Ethos Urban using data from DPE, ERM (2021).

Scale 1:30,000 @ A3

5.6 Services

Existing energy infrastructure

The site currently has several overhead high-voltage power lines which criss-cross the precinct. Feedback from several operators within the precinct have flagged challenges with power supply and their ability to work at capacity particularly in the summer months. This limitation was experienced by existing operator Overall Forge:

- Currently have insufficient power to operate at their current capacity in the summer months.
- Looking to expand their capacity into the future but will be limited by power infrastructure.

Another example: Ettamogah Rail Hub:

- Explored expanding their business to include refrigeration units, found insufficient power.

Visy has a large power station on their site. Depending on its final activity, there may be opportunity to reduce Visy's demand on the station and allow others to utilise the remainder.

Future of electricity in the region

There are two proposed significant solar arrays which in the nearby region. One of these is the Walla Walla Solar Farm proposed roughly 30km away from the precinct.

The 10MW Hydrogen Park (HyP) Murray Valley is currently under construction, co-located with the West Wodonga Wastewater Treatment Plant. This will improve the environmental sustainability of the existing gas network in Albury-Wodonga by reducing reliance on fossil fuel gas. Additionally, the by-product of the production of hydrogen gas is oxygen. This is being used by neighbouring industrial operators to speed up water treatment processes - a good example of circular economy.

Consideration of sustainable energy production within the RJP is discussed further in Section 6.6.1.

The previous Albury Industrial Hub Master Plan included a possible location for a co-gen plant site, discussed in Section 4.0.

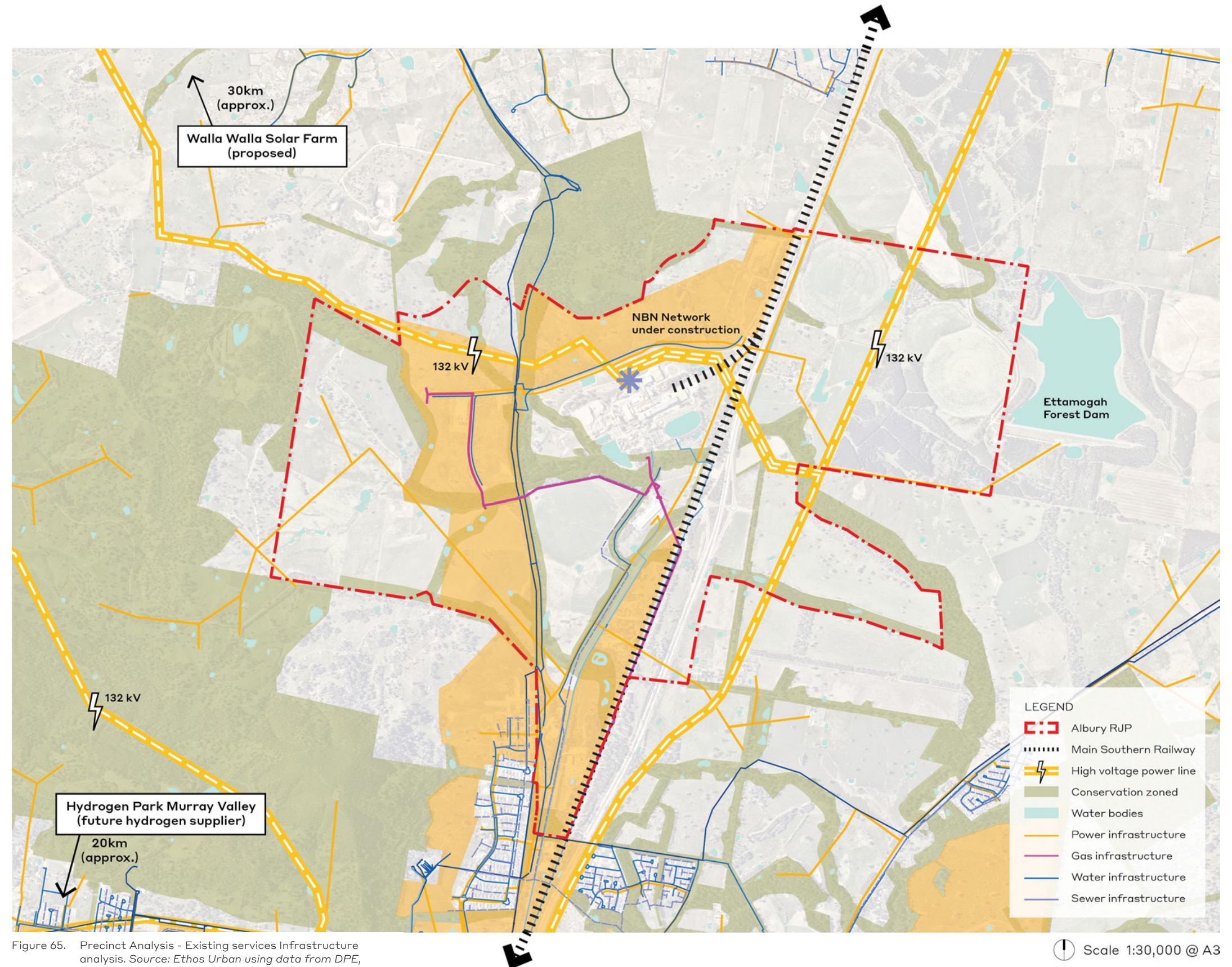


Figure 65. Precinct Analysis - Existing services Infrastructure analysis. Source: Ethos Urban using data from DPE, AlburyCity, SMEC baseline findings 2021.

Scale 1:30,000 @ A3

5.7 Flooding

Eight Mile Creek and the Ettamogah Dam are the main sources of flooding through the Regional Job Precinct which is most prominent at the crook of the creek to the West of the precinct. Some areas of the site are also subject to overland flow.

A Floodplain Risk Management Study and Plan was commissioned by the Albury City Council in 2016 and was prepared by WMA Water. One of the areas of investigation was Eight Mile Creek, which runs through the centreline of the site, West to East. It is also known as Woolshed Creek and has tributaries including Seven Mile, Nine Mile and Six Mile Creeks.

The RJP sits within the Murray River floodplain. The report found that Eight Mile Creek does not necessarily follow its creek line downstream of the highway and that flow behaviour may have changed in the last 10 to 20 years. Changes to flow may include urbanisation and changes to topography through agriculture.

Albury has a history of flooding, either from the Murray River, smaller creek systems and due to stormwater overflows. Flood hazard measures the overall adverse effects of flooding and risks of this flooding for the 1% AEP. Eight Mile Creek and its tributaries have been identified as a high hazard flow. The risk extends to Thurgoona Drive and downstream with breakouts through undeveloped land (riparian, pastures and Thurgoona Golf Course).

The hazard is High in terms of the rate of rise of floodwaters, medium for the size of the flood, depth and velocity of the floodwaters, evacuation problems amongst other issues. For a 5% AEP event, Eight Mile Creek will rise 0.3m to 0.5m in 30 minutes.



Figure 66. Photograph of flood measure at Lake Hume / Murray River. Source: Ethos Urban, 7 Dec 2021.

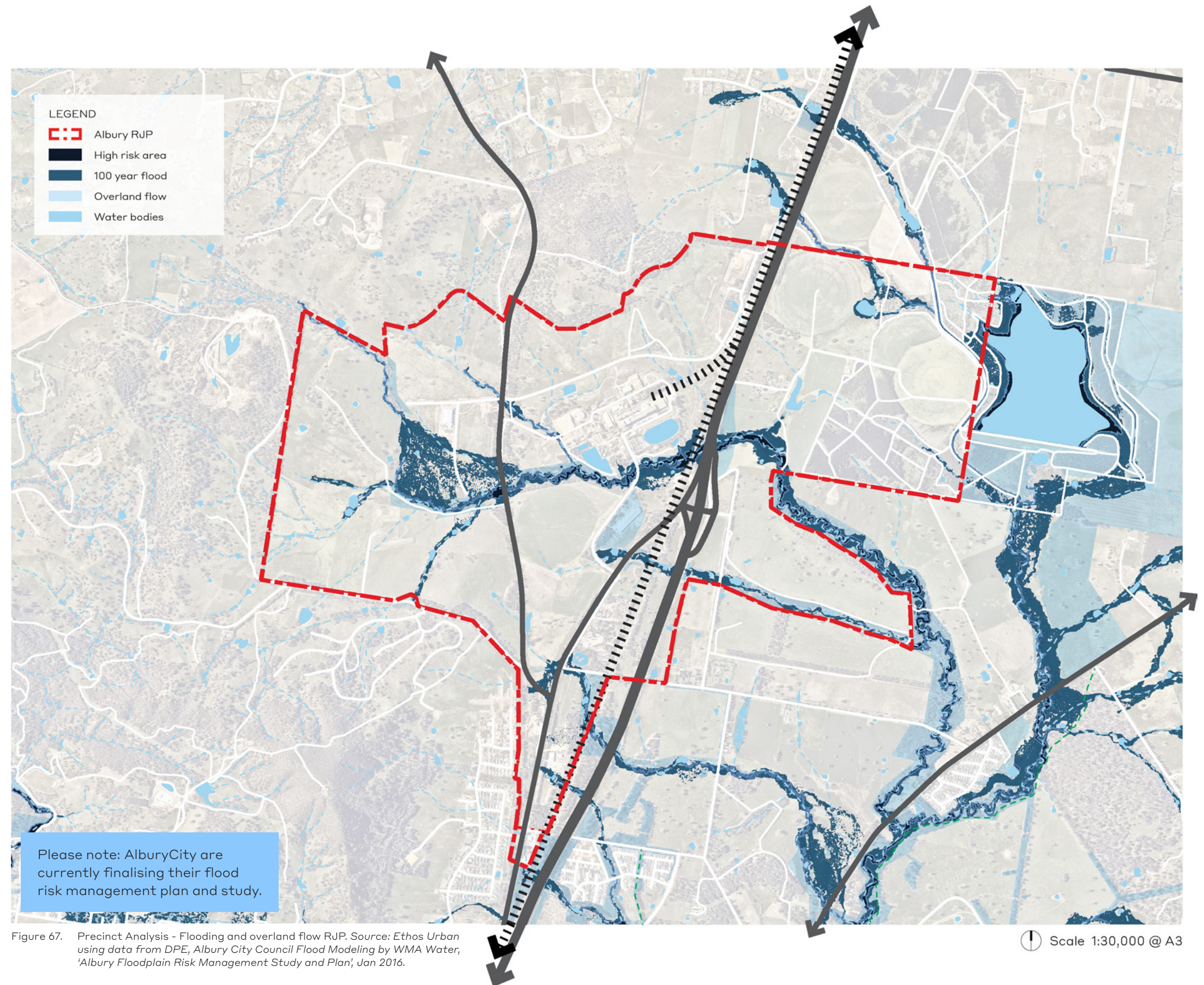


Figure 67. Precinct Analysis - Flooding and overland flow RJP. Source: Ethos Urban using data from DPE, Albury City Council Flood Modeling by WMA Water, 'Albury Floodplain Risk Management Study and Plan', Jan 2016.

Scale 1:30,000 @ A3

5.8 History

Indigenous / Pre European Settlement

The Wiradjuri people are the traditional owners of the land on which Albury sits. They were skilled hunter-fisher-gatherers, using the large water bodies as sources of activity. The local indigenous name for the river which runs South of Albury is Millewa Billa, today it is commonly known as the Murray River. The area was known as Bungambrewatha.

European Settlement / Occupation

The first European occupants of the area made the most of the early established Murray River crossing point, setting up stores for provisions for travellers in the 1840s. A bridge was constructed in 1860, solidifying its importance as a commerce and exchange point between Victoria and NSW.

Albury is now best known as one half of the twin cities, which straddle the Murray River. Its sibling city Wodonga is located just across the NSW-Victoria border. Many aspects of the cities are undertaken in collaboration.

Albury has long had a thriving industrial character and economy. In its early days it was a large contributor to the milk, wool and timber industries. Large-scale manufacturing company, exporting vehicle gearboxes to Ford, Holden and Maserati (later to Chinese manufacturers) operated from 1971 to 2009 (at varying scales). Today, the region is a manufacturing hub, 27.32% of its Albury's regional exports.¹

It was proclaimed a city in 1946 but its growth was evident earlier. It was nominated to be the country's capital by the *Royal Commission on Sites for the Seat of Government of the Commonwealth* (the competing contender being Tumut), which was opposed by residents.

Vineyards were established in the late nineteenth century. Wool, milk and meat industries in the area suffered from a number of years of drought in the 1890s through to 1902.

The Hume Weir was constructed between 1919 to 1936 which supplies water for irrigation, stock and domestic and urban consumption. Secondary roles of the dam today are hydroelectric power generation and flood mitigation.

Rail is an important feature of Albury with the city acting as the historic meeting point of two different railway gauges. Passengers from the broad gauge line from Melbourne changing trains at Albury to continue on the standard gauge line into NSW. Freight was transferred between the two rolling stock in Albury. The standard passenger gauge line was reconciled in 2011.

The area within the subject site was used by the Wiradjuri people, much of it was originally part of the squatting leases that made up the Mungabareena Run, Battery Hill and others. A period of private ownership followed legislative amendments.

The Regional Job Precinct, known as NEXUS, is located in the suburbs Table Top and Ettamogah. These suburbs were originally part of the Greater Hume Shire but were eventually integrated into the City of Albury, during the 2016 Council amalgamation activities. The identified RJP site has previously been known as the Albury Industrial Hub.

Table Top is historically formed from large agricultural productive land. In recent decades, it has slowly transformed into more rural landscape use.



Figure 68. Historic photograph of the milk industry in 1938, 'File 08: Albury town industries of milk and timber, 1938'. Source: Max Dupain, accessed via the NSW State Library Archives.



Figure 69. Historic photograph of Hume Weir, 'Beginning construction of Hume Weir', Albury. Source: NSW State Library Archives, 1920.



Figure 70. Historic photograph of timber industry in 1938, 'File 08: Albury town industries of milk and timber, 1938'. Source: Max Dupain, accessed via the NSW State Library Archives.

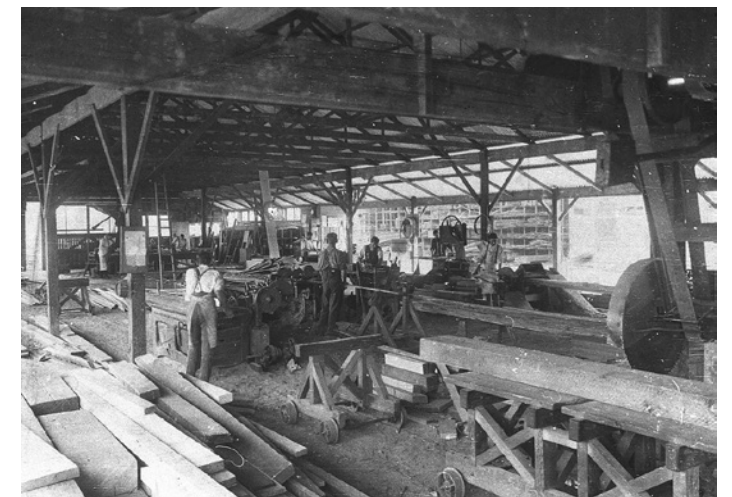


Figure 71. Historic photograph of the interior of Logan's Machine shop, 1915, Swift Street (Burned down 1918), Albury. Source: NSW State Library Archives, 1915.

¹ Data from REMPLAN, 14 December 2021



Ettamogah Rail Hub



MAERSK

tex

CRONOS

CRONOS

DMJU 0204
TOM HIGH
G.W 33 000 KGS 72 752 L
TAKE 2 710 KGS 5 975 L
PAYLOAD 30 290 KGS 66 777 L

YOU ARE PASSING ANOTHER FOX

WSP

TECHNICAL ANALYSIS



The following section summarises technical input from the specialist consultant team for the Albury Regional Job Precinct. These summarise draw from baseline report (which can be found in the Appendix) and is based on specialist analysis of the structure plan proposal which is described in greater detail in Section 10.0. These specialist consultants took part in the Options Development Workshops which are documented in Section 9.0. The inputs in this chapter will also be referenced in the Opportunities and Constraints summary in Section 8.0.

For further detail on the specialist consulting please refer to the individual reports for each referenced consultant. The specialist consultant team include:

- Biodiversity - Environmental Resource Management Australia Pty Ltd (ERM).
- Air, Noise and Odour - Todoroski Air Sciences.
- Economic - Ethos Urban.
- Heritage - Environmental Resource Management Australia Pty Ltd (ERM).
- Land Use Safety - Sherpa Consulting.
- Utilities and Infrastructure - SMEC.
- Geology, Soils and Contamination - Environmental Resource Management Australia Pty Ltd (ERM).
- Traffic and Transport - SMEC.
- Hydrogeology, Water Quality and Demand - SMEC.
- Bushfire - Environmental Resource Management Australia Pty Ltd (ERM).

6.0 Technical Analysis

6.1 Biodiversity

Summary

Environmental Resource Management Australia Pty Ltd was engaged to prepare a Biodiversity Report, delivered June 2022. The analysis included desktop review and field study results of the areas within the RJP and immediate surrounds.

The report concludes the following:

- Consultation with the Biodiversity, Conservation and Science Directorate (BCSD) in Department of Planning and Environment (DPE) confirmed preference to investigating new biocertification across the RJP.
- The site has approximate 268.7 ha of native vegetation - 11 vegetation zones including 8 Plant Community Types.
- Ecosystem credit species (predicted to occur based on vegetation and/or landscape features) include:
 - Long-Eared Bat complex - *Nyctophilus sp (geoffreyoi/gouldii/corbeni)*.
 - Yellow-bellied Sheathtail Bat - *Saccolaimus flaviventris*.
 - Diamond Firetail - *Stagonopleura guttata*.
- A total of 12 threatened fauna species have been recorded within the Investigation area, including:
 - Black-chinned Honeyeater - *Meliphreptus gularis*.
 - Diamond Firetail - *Stagonopleura guttata*.
 - Flame Robin - *Petroica phoenicea*.
 - Grey-headed Flying-fox - *Pteropus poliocephalus*.
 - Squirrel Glider - *Petaurus norfolcensis*.
 - Dusky Woodswallow - *Artamus cyanopterus*.
 - Grey Falcon - *Falco hypoleucos*.
 - Little Lorikeet - *Glossopsitta pusilla*.
 - Scarlet Robin - *Petroica boodang*.
 - Sloane's froglet - *Crinia sloanei*.
 - Swift Parrot - *Lathamus discolor*.
 - Turquoise Parrot - *Neophema pulchella*.
- Flora surveys and Plant Type Communities (PTCs) are recorded in Figure 72.
- Potential Series and Irreversible Impact (SAIL) is found across the whole development area and presents a risk for:

- Box Gum Woodland TEC¹
- Crimson Spider Orchid - *Caladenia concolor*
- Large-eared Pied Bat - *Chalinobus dwyeri*
- Regent Honeyeater - *Anthochaera phrygia*
- Swift Parrot - *Lathamus discolor*
- Supports a draft structure plan that is informed by environmental concepts:
 - Fosters the preservation of local biodiversity and threatened species
 - Proposes wildlife corridors which create a network of vegetation linkages throughout the investigation area, utilising riparian corridors and existing patches of vegetation (including a connection of vegetation near Douglas Gully to the west leading onto Nail Can Hill reserve in the south west and wetlands in the south)

Recommendations include:

- Areas within the RJP boundary that contain areas of high biodiversity value should be targeted for conservation, including:
 - Potential occurrence in NSW and federally listed Threatened Ecological Communities
 - Potential Sloane's Froglet habitat
 - Habitat for species credit species (Swift Parrot, Grey Headed Flying Fox, Squirrel Glider)
 - Threatened species habitat (Eastern Falesestrelle, Eastern Bentwing Bat, Southern Myotis, Long-eared Bat Complex, Yellow-bellied Sheathtail Bat, Diamond Firetail)
 - Vegetated habitat corridors and linkages
 - Potential Series and Irreversible Impacts (SAIL above)
- The next iteration of research will identify areas of high, medium and low environmental value relating to the vegetation integrity and habitat suitability (note that this mapping can be found in the Proposed Structure Plan).

¹ Woodland PCTs have the potential to include Box Gum Woodland TEC - identified as critically endangered.

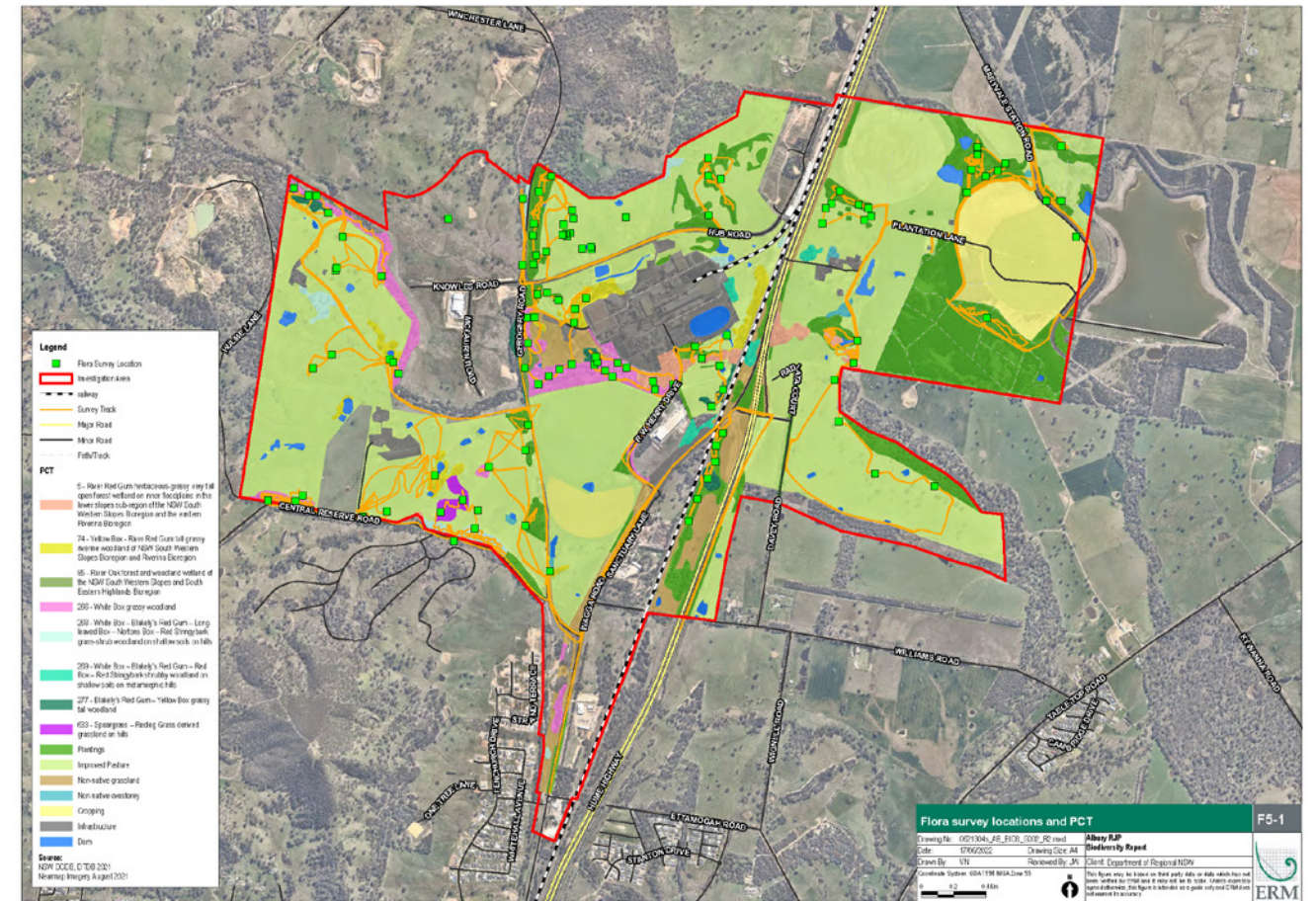


Figure 72. Flora survey locations and Plant Community Types (PCT). Source: ERM, June 2022, p 30.



Figure 73. Swift Parrot (Critically Endangered as per the EPBC Act). Source: Chris Tzaros via Morton, A. Feb 2022, "Its not rocket science: how the world's fastest parrot could be saved", *The Guardian*, www.theguardian.com/environment/2022/feb/27/swift-parrot-its-not-rocket-science-how-we-could-save-the-worlds-fastest-parrot.

6.2 Economics

Summary

Ethos Urban was engaged to prepare an Economics Assessment Report, delivered September 2022.

A key advantage of the Albury RJP is its proximity to major transport infrastructure including the Hume Motorway, the Albury Airport, the Melbourne to Sydney main train line, the future addition of Inland Rail, and Ettamogah Rail Hub. This is a significant competitive advantage which means the structure plan should emphasise efficient movement of goods and people. This can include issues relating to traffic, freight trucks and industries interacting with the railway line, layover spaces, road width, turning circles, speed, lighting, and rail sidings.

Food and Agribusiness is the dominant trade-able industry in Albury-Wodonga region. Albury-Wodonga also has a significant proportion of employment in Tourism, Knowledge and Corporate Services and Advanced Manufacturing. The scale, number and depth of these trade-able industries make Albury-Wodonga a competitive place for businesses to establish, relative to other parts of Regional NSW.

Forecast industrial growth expectations for Albury and Wodonga are positive, although relatively moderate in scale. Development of the Albury RJP will occur as a result of investment attraction efforts for large and sophisticated tenants with extensive supply chains, rather than localised demand growth only. Development of the structure plan, and supporting planning framework, should therefore focus on flexibility and adaptability to target significant investment by specific industries.

Some demand is already apparent for industrial development in Albury and Wodonga. This provides an opportunity for the Albury RJP to accommodate land intensive uses such as large-scale manufacturing and warehousing or uses which require greater buffers zones due to the nature of their production.

Both Albury and Wodonga markets have a much larger number of sales of lots over 10,000m² in size relative to both Wagga Wagga and Wangaratta. This indicates that Albury and Wodonga have a much more active market for large lot industrial land of the scale likely to be delivered by the Albury RJP.

Activity in the market is generally focused on smaller lots, from sub-1,000m² to 1ha, Albury sales are marginally more concentrated in sub-1,000m² lots (21%) and 2,000m² to 5,000m² lots (24%) compared to Wodonga (16% and 19%) respectively. Insights provided by Albury City Council outline a strong demand for small to medium sized lots in the area.

The significant volume of vacant industrial land across Albury-Wodonga presents a strategic opportunity to preserve the Albury RJP for land intensive and high intensity industry users. Demand for smaller industrial uses and operators can be absorbed in other locations to preserve this opportunity within the Albury RJP. An investigation into the planning implications and benefits of zoning part of the Albury RJP for higher intensity industries should be considered. This zoning may help the Albury RJP position itself as a strategic place for large scale industrial uses.

Access to skilled labour is one of the most critical issues facing target industries. The plan should consider how it can best provide workforce amenity for workers on site. This could include providing access to local goods and services, convenience retail, high quality open space and sports and recreation facilities inside or within proximity of the precinct.

The existing NEXUS brand and Invest Albury Wodonga campaign can be built upon in order to tell the provenance story of food manufacturing in the region. Development of the plan should consider how to reinforce the existing brand and avoid market confusion. This may extend to place branding such as improved landscaping around signage at existing entrances, and ensuring new precinct entry points feature appropriate large scale signage.

6.3 Air, Noise and Odour

Summary

Todoroski Air Sciences was engaged to prepare an Air, Noise and Odour Master Plan Report, delivered March 2022.

The report concludes the following:

- There is a portion of land surrounding the RJP which is currently not zoned residential which needs to be retained as non-residential land in order to maintain a buffer to industrial land within the RJP.
- Three studies focused on air emissions, noise and odour identify the threshold for each and the land which will be impacted for each, this is based on the full development of the RJP to the extent of the land uses identified (excepting the note below on stack locations).
- An important consideration is the assumed location of stack sources in the modelling undertaken by Todoroski Air Sciences. These assumed locations are utilised in the structure plan as a guide to indicate areas that are better suited for heavier emitting industrial activity.
- The proximity of sensitive receptors to the RJP boundary significantly impacts the scale of air and noise emissions that can be emitted from the RJP close to the boundary.
- Notably, the intermodal terminal is relatively constrained due to the potential for noise impacts at the receptor to the north (residential). The recommendation is that further investigation would be necessary prior to increasing industrial development in this location to avoid adverse impacts.
- Increasing sensitive receptors inside the modelled receptor boundary would introduce increasing constraints on the RJP. The planning framework needs to take into consideration this condition, in order to protect the RJP for its purpose of jobs generation and industrial development. Refer to Figure 74 for boundary.

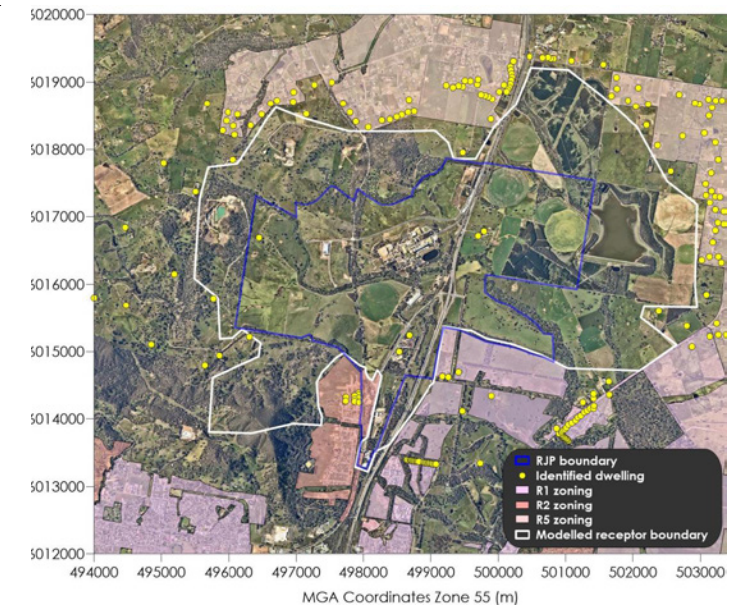


Figure 74. Modeled receptor boundary. Source: Todoroski Air Sciences, 2022, p 25.

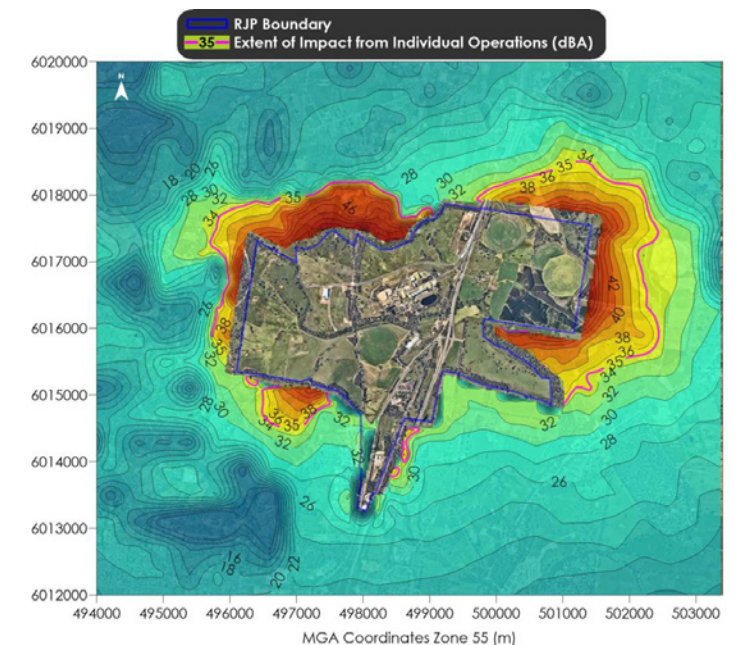


Figure 75. Received sound pressure due to noise emission from the RJP investigation area. Source: Todoroski Air Sciences, 2022, p 32.

6.4 Heritage

Summary

Environmental Resources Management Australia Pty Ltd were engaged to prepare an Heritage Report, delivered September 2022. It concludes:

Aboriginal Heritage

- 17 previously registered (and currently valid) AHIMS Aboriginal sites are located within the RJP:
 - 8 sites assessed as valid.
 - 6 sites assessed as potentially valid.
 - 3 sites assessed to have been destroyed.
- 11 new Aboriginal sites were identified.
- 8 areas of Aboriginal PAD identified.
- Structure plan works are anticipated to create potential or likely impacts at 29 of the 38 Aboriginal heritage features (assuming full development within the footprint of developable lands).
- Areas of high archaeological sensitivity include landscapes identified as:
 - Areas of PAD.
 - Land within 100m of existing watercourses.
 - Land within 50m of identified Aboriginal heritage sites.

- Areas of moderate archaeological sensitivity include lands which has not been identified to be subject to extensive disturbance but do not contain areas of known heritage values of PAD.
- Areas of low archaeological sensitivity have been identified to be located within highly disturbed landscape or in landscapes which have not been assessed to be conducive to the survivability of Aboriginal archaeological deposits.

Historic Heritage

- Two registered heritage items within the RJP, registered within Schedule 5 of the Albury LEP 2010, including:
 - Ettamogah Vineyard Ruins (LEP).
 - Maryvale (LEP).
- Potentially unlisted heritage item is the Wagga Road (former alignment) (unlisted).
- Two areas of historic archaeological potential have been identified, including:
 - Ettamogah Vineyard Ruins (LEP).
 - Rural Homestead (unlisted).
- Structure plan has potential to impact all three heritage items identified.

RECOMMENDATIONS

Aboriginal Heritage

- Consideration that land with high archaeological sensitivity for Aboriginal heritage be prioritised for conservation either through structure planning process or future development.
- Development within areas of moderate archaeological sensitivity should be supported by a due diligence assessment as part of future development applications.
- Undertake Additional Aboriginal heritage survey of un-surveyed lots within the RJP
- Site updates should be submitted for the AHIMS sites that have been assessed to have been destroyed by former works.
- Management policy should be developed for conservation areas which overlap identified heritage constraints (refer to Heritage Report for more detail).

- Areas of PAD that may be subject to harm as part of proposed land uses should be subject to archaeological test excavation. Results of this testing and feedback received during Aboriginal community consultation should be considered as part of assessment of future development applications (DAs).
- Preservation and management of Aboriginal sites and heritage values should form a key objective in future development controls.
- Future DAs should prioritise preservation and protection of Aboriginal sites.
- An AHIP will be required to harm sites which remain valid and are not currently subject to an AHIP, this would need to be supported by a stand-alone Aboriginal Cultural Assessment Report.
- Future development should be encouraged to incorporate mechanisms to acknowledge and incorporate Aboriginal cultural heritage values into design and development.

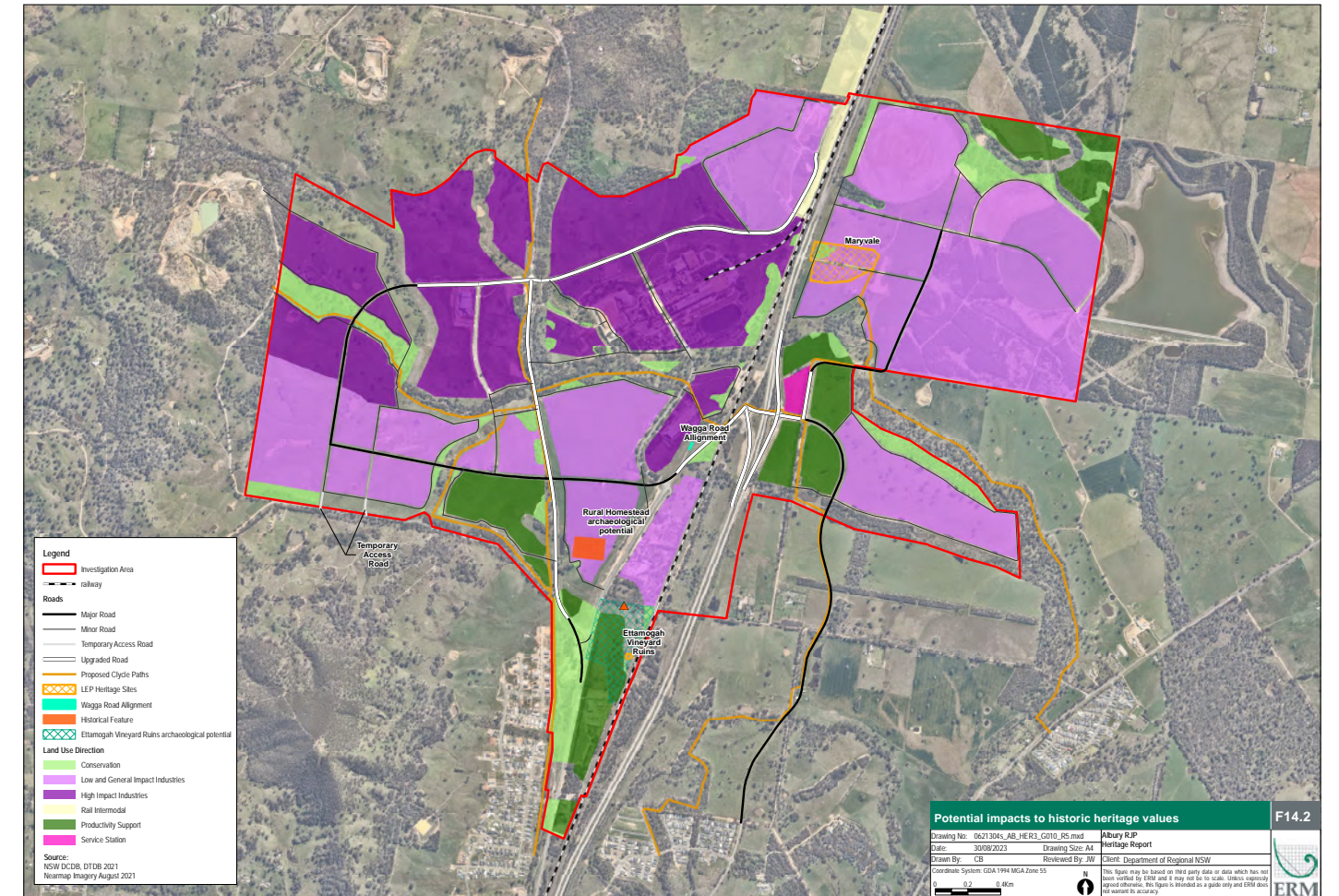


Figure 76. Potential impacts to historic heritage values. Source: ERM, August 2023, Figure 14.2.

Historic Heritage

- Proposed industrial land zoning within and immediately surrounding the Maryvale curtilage is not considered to be compatible with heritage values of the item.
- Adaptive reuse should be prioritised for the Maryvale homestead in future DAs.
- Future development within the curtilage should minimise direct and indirect impact to the existing structures and features of heritage significance, works within the curtilage would require further detailed assessment.
- Proposed developments within 500m of the Maryvale curtilage should include assessment of the potential for the proposed development to result in impacts to the prominence of the homestead in the landscape as part of the DA.

- Ettamogah Vineyard Ruins and the associated area of archaeological potential should be preserved as part of the conservation lands associated with Seven Mile Creek.
- Extant cellar of Ettamogah Vineyard ruins should be subject to a dilapidation assessment and managed in accordance with the recommendations of this assessment.
- Development within 100m of the Ettamogah Vineyard Ruins should include vibration assessment to identify the potential impact.
- Where impacts to Wagga Road (historic alignment) are identified - SoHI is required to assess the degree of impact.
- Areas of historic archaeological potential associated with the Rural homestead must be subject to a detailed Historic Archaeological Assessment, a historic archaeological test excavation may be required.

6.5 Land Use Considerations

Summary

Sherpa Consulting were engaged to prepare an Land Use Considerations Report, delivered August 2022. The report considers the potential land uses, existing land uses and existing infrastructure and advises the following:

- Higher intensity industry.
 - Separation distance to sensitive receptors required for hazardous developments.
 - Major Hazard Facility requires detailed assessment, unlikely to be efficient use of land.
- Lower intensity industry: Detailed assessment of level of risk for hazardous developments required - hazardous materials above SEPP33 levels unlikely to be accepted.
- Productivity:
 - Hazardous development may lead to safety conflicts - not recommended.
 - Logistics hub location - not ideal, should be limited to goods below SEPP33 threshold (refer Figure 79).
- Intermodal:
 - Dangerous goods (handling and storage) accepted with exceptions (above SEPP33 threshold) - in minor quantities
 - Logistics hub - dangerous goods may be accepted (refer Figure 77)
- Service Station:
 - Appropriate location.
 - Variety of fuel technologies, types, storage pressures and storage state means no single assessment or recommendation.
 - For planning purposes, separation distances or buffer zones of 50-100m to sensitive or residential off-site receptors.
- Model Aero Club
 - Assumes relocated outside of the precinct.
 - Its continued presence will constrain development of potentially hazardous facilities.

- Gas pipe line has a 104m buffer from the pipeline within which certain land uses or building forms are likely to trigger additional controls to manage the risk from the pipeline - none of these appear to conflict directly although the following should be considered:
 - Buildings with five or more storeys.
 - Day care facilities.
 - Large open air gathering spaces.
 - Difficult to evacuate facilities.
- Overall Forge: A separation distance of 200m from the Forge to the proposed transport / service centre is likely to be sufficient.
- Circular Plastics: Risks can be managed on-site.
- Food and Beverage.
 - High, medium and low risk have different off-site impact.
 - Developments that include toxic gas storage (e.g. Abattoir) may cause potentially land use safety conflicts with sensitive land uses (refer Figure 78).
- Energy: 25-50m buffer around high pressure gas or battery storage and transformers.
- Waste water and water recycling: Waste treatment facilities within close proximity to the productivity hub and the RJP boundary would require careful consideration of chemical use to avoid safety conflicts.
- Recycling: apply SEPP33 guidance including consideration of factors beyond screening against SEPP33 thresholds.
- Agribusiness.
 - Locate within the RJP to avoid 800m evacuation area reaching residential or sensitive land uses.
 - Differentiate between higher, medium and low hazard industries to maximise buffers to commercial or sensitive areas.
- Dam failure inundation profile of the Ettamogah Dam which sits to the east of the RJP shows that in the event of a dam wall failure, there would be no identified risk to the RJP.

LEGEND

- █ Likely to be acceptable for a typical installation up to 10% of MHF threshold.
- █ May require additional controls or limits on operations
- █ Advise against: development is not compatible with a streamlined planning process

Zones	Potentially hazardous including toxic gas	Potentially hazardous excluding toxic gas	Not potentially hazardous
Higher intensity industrial	█	█	█
Lower intensity industrial	█	█	█
Productivity precinct	█	█	█
Rail hub / intermodal	█	█	█
Service station	█	█	█

Table 8. Land use by SEPP screening level. Source: Ethos Urban using data from Sherpa Consulting, 2022, p 14.

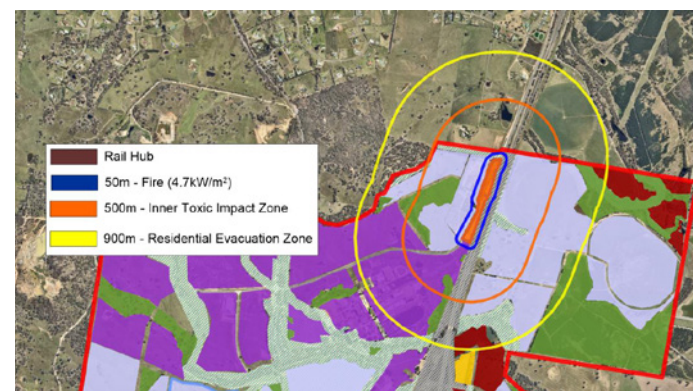


Figure 77. Rail hub zones of influence. Source: Sherpa Consulting, 2022, p 44.

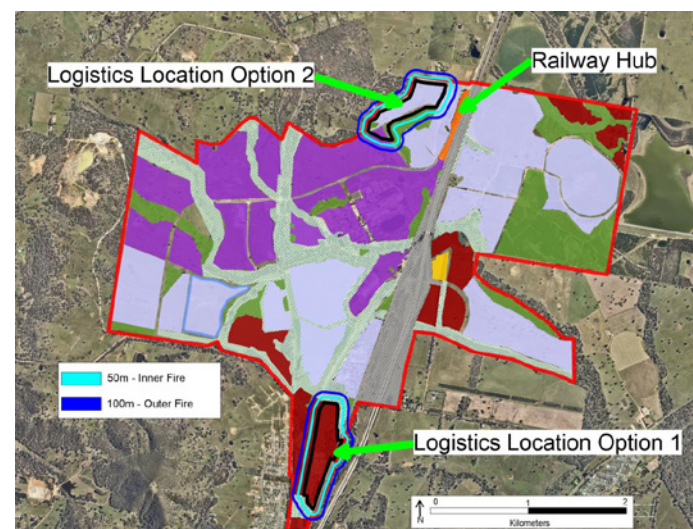


Figure 79. Logistics Hub. Source: Sherpa Consulting, 2022, p 45.

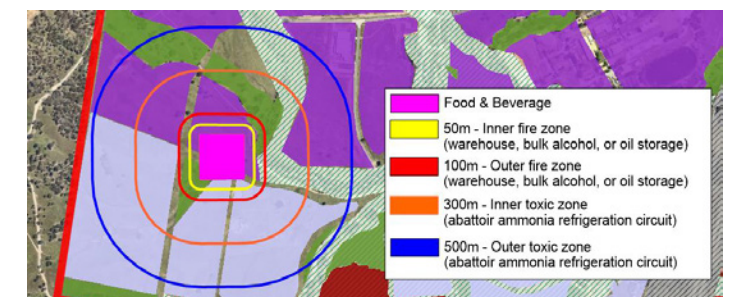


Figure 78. Food and beverage off-site impact. Source: Sherpa Consulting, 2022, p 47.

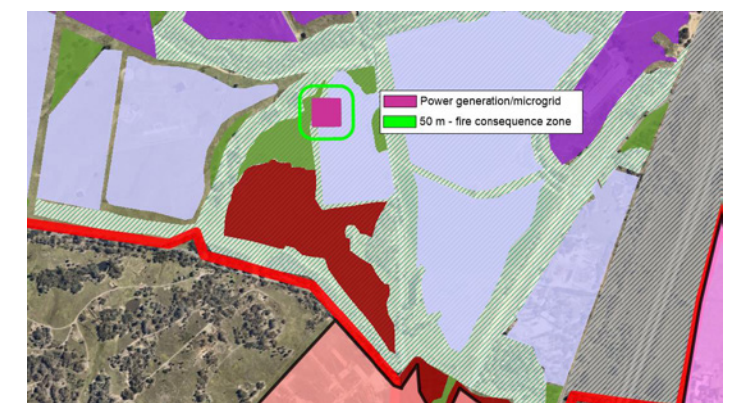


Figure 80. Microgrid consequences. Source: Sherpa Consulting, 2022, p 49.

6.6 Utilities and Infrastructure

6.6.1 Electricity, Gas, Communications

SMEC were engaged to prepare an Infrastructure Assessment - Utilities Technical Report, delivered August 2022. The report proposed a series of recommendations which are flexible and presented as a spectrum of options which can adjust to suite the complexity and innovative nature of the RJP.

Electricity and Power

General

Calculations are based on a mixture of potential land uses, noting that delivering potentially heavy-demanding land uses out of sequence will require amendments to the proposal. Five potential tenants have been built into calculations as a benchmark of energy use, including:

- Higher intensity industry type 1: Non-energy intensive, e.g. chemical manufacture.
- Higher intensity industry type 2: Energy intensive, e.g. paper manufacturing, value-add food manufacturer.
- Waste to Energy uses (x2).
- Abattoir.
- Refrigeration intermodal storage.

Stage 1

- New Essential Energy owned substation (proportionately customer funded) in one of the five recommended locations included in Figure 81.
- Any crossing of the Hume Hwy should be limited to 22kV to reduce cost and complexity.
- External substation spatial requirement is 2 hectares.

Stage 2

- Energy demand managed through:
 - Stage 1 substation .
 - Rooftop solar panels mandated through planning controls.
 - Private battery storage encouraged through grants.
 - Battery Energy Storage System (BESS) - negate the requirement of major capital and plant involved in a Zone Substation.

Stage 3

- Fully integrated network with a microgrid or virtual power plant - self-reliant and offers reduced operating costs for businesses.
- Presents similar significant initial infrastructure investment but may offer investment attraction opportunities in the RJP.
- Microgrids present an option for self-sufficiency.

Visy Option

- Optimal location for Stage 1 and 2.
- Local kiosk substations will be required to the final customer connections.

Recommendations

- Exhaust opportunities to augment the ANM / Visy substation as the location for new zone substation.
- Alternatively - 2 ha site for the construction of a new substation to service Stage 1 and 2.
- Encourage staging and sequencing of development along investment in new infrastructure.
- Upgrade feeders east of Hume Hwy - delaying large expenditure on a new substation.
- Mandate or encourage rooftop solar and battery storage to reduce demand and delay need for substation.

Funding

- A number of alternative funding models are possible to support delivery of these recommendations, including grants (for renewable power generation infrastructure), proportionately customer funded substations, privately owned and council owned infrastructure.

Telecommunications and internet services

General

- All new smart infrastructure should comply with state level Smart Infrastructure policy.
- Connectivity infrastructure potentially enables talent export via on-line jobs while retaining employees (young people) in the region.
- Council can take an active role in encouraging expansion of telecommunications through streamlining approvals and processes - there are a range of ways that council can assist and support.
- 5G capacity necessary for the precinct to thrive.

- Structure plan should allocate land for lease to the three major mobile operators or a shared tower operator, land should be:

- Near existing fibre and power assets.
- Centrally located.
- Setback from aesthetically significant areas.
- Away from childcare centres and schools.
- Access and operating areas for heavy vehicles including multiple cranes.
- Each tower needs to be around 400 square meters.

- Council can take lead role in testing coverage and capacity of 5G operators in order to provide transparency and confidence that the network is performing favourably.

- Implement public Wi-fi

- Signals to visitors / residents that the precinct is innovative and focused on technology.
- Used to measure movement and growth in the precinct to aid in decision making or provide valuable feedback on policy efficacy.
- Backup network to support business.
- Start-up network to allow business to operate from day zero before connected.
- Open networks for employees outside of business networks.
- Long term data on growth.

- Offer an accessible location, Internet connection and power source for a Helium node.

- Provide self-sustaining Internet-of-Things (IoT) network - used by industry and governments.
- Locate on rooftop of common-building (e.g. recycling centre).
- Benefits to locating within line-of-sight of Hwy

- Autonomous vehicles - later stages should include marking of footpaths, signs and roads to assist autonomous vehicles.

- The report identifies the appropriate staging recommendations of the above infrastructure updates and augmentations as well as funding opportunities including, for example, the City Deals Funding (Australian Government) and Department of Treasury funding under the Albury Wodonga Regional Deal.

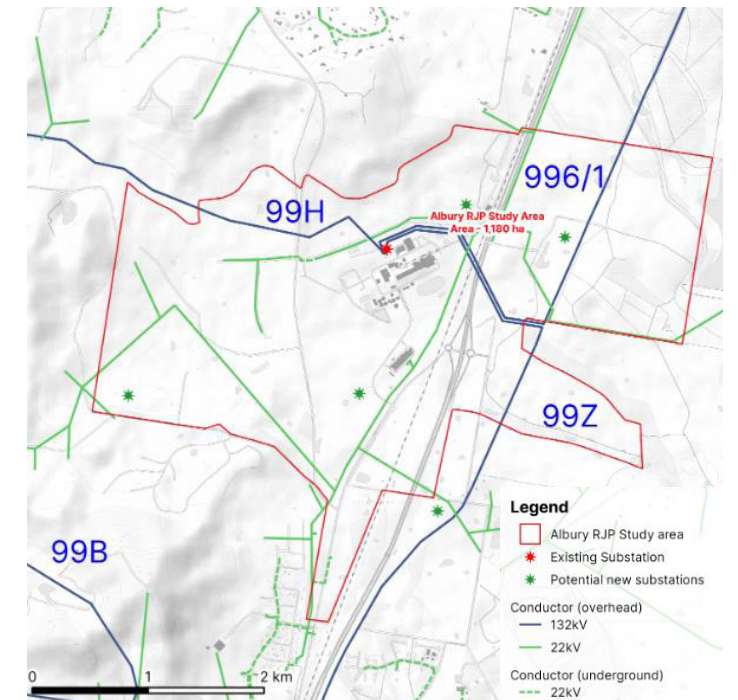


Figure 81. Potential locations for electrical substations. Source: SMEC, October 2023, p26.

Sustainable Energy Production

Stand-alone solar energy generators are not considered appropriate for the precinct due to the large areas of land required for a use that is a lesser generator of jobs when compared to other possible operators. However, roof top solar production is supported for the precinct. Large scale industrial buildings are a good format for production of energy assuming appropriate orientation and infrastructure.

Hydrogen production is not considered appropriate within the precinct, given its proximity to the HyP facility in Wodonga. However, preparing the precinct for a highway refuelling option at the service station would be beneficial, this would be reliant upon hydrogen produced off-site.

6.6.2 Water and Sewerage

Water Supply

Stage 1

- Extension of existing potable network into future subdivisions.
- Adopted through Development Contribution Plan - presents 'user pays' with minimal long-term infrastructure costs to Council.

Stage 2

- Additional infrastructure investment is required as demand outstrips existing capacity of potable water network.
- Incorporate site-specific water sources, e.g. roof water, to reduce demand.

Stage 3

- Innovative option to introduce an alternative water source, such as raw water, to reduce peak demand.
- Further upgrades:
 - Upgrade to pump station WPS24.
 - Upgrade to Table Top reservoir WR28.

Visy Option

- Does not form part of the strategy due to the uncertainty around the future operations of the Visy site.
- Visy's existing return water line from Visy presents opportunities for increasing either water or waste-water conveyance and may be a future consideration.

Identified Upgrades

- Extension of existing potable network into future subdivisions per Figure 82.
- Pressure reducing valve in order to address excessive pressures.
- Water pump station upgrades.
- Water pipeline upgrades.
- Table Top Reservoir upgrades.
- Other network upgrades - not yet known, to be determined in collaboration with Council.

Sewerage

Identified Upgrades

- Existing sewer network.
 - Insufficient pipework capacities and overflow issues for Stage 1 and 2, particular sections of the network require upgrading, downstream of the RJP.
 - New DN450 sewer provided to service the Nexus subdivision is exceeded by Stage 3 and would require augmentation - duplication is the recommended option.
 - These upgrades to not consider the residential growth associated with new developments in Thurgoona.

New Waste Water Treatment Plant

- Albury City Council has advised sewer servicing strategy is currently under review due to higher than anticipated growth in new developments.
- A new Waste Water Treatment Plant is being considered to the North - this could be positioned to service loads from the eastern and northern areas of the Albury catchment including the RJP.
- Further coordination with Albury City Council are necessary to identify sewer servicing strategy and its impact on the capacity to service the RJP.

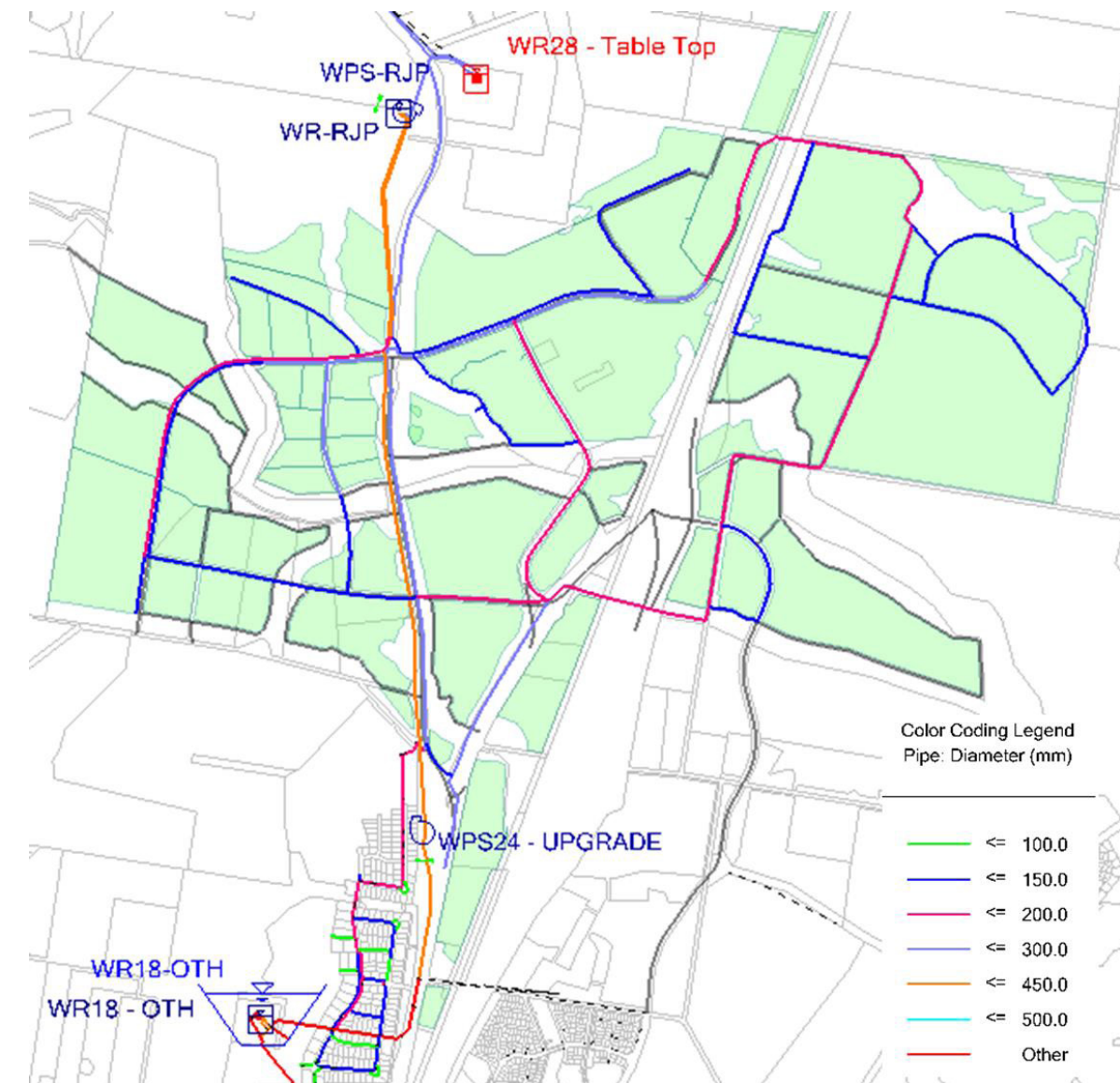


Figure 82. Proposed Water Reticulation Network - New and Existing Pipes. Source: SMEC, October 2023, p 56.

Sustainable Water Strategic Approach

The precinct has an intended focus on sustainable water management, as such the following should be considered:

Roof water collection and reuse on-site for non-potable uses.

A future Waste Water Treatment Plant would use a wetland for polishing of treatment effluent prior to discharge.

Recommendation for at-source treatment via Water Sensitive Urban Design (WSUD) throughout the precinct.

Drought tolerant species in the public domain would reduce the need for irrigation.

If the proposed Waste Water Treatment Plant is completed, irrigation could be satisfied partially or completely by treated water from this plant.

6.7 Hydrogeology and Water Quality

Summary

SMEC were engaged to prepare an Infrastructure Hydrogeology, Water Quality and Demand Technical Report, delivered August 2022. The report proposed a series of recommendations which are flexible and presented as a spectrum of options which can adjust to suite the complexity and innovative nature of the RJP.

General

- Intention of strategy includes offsetting increased impermeable surfaces which will impact groundwater system.

Stage 1

- Rainwater tanks incorporated into industrial development.
- Water Sensitive Urban Design features incorporated into future subdivisions - adopted through Development Control Plan (DCP), 'user pays' option for minimal infrastructure cost for Council.

Stage 2

- Roof water captured and reused, excess water directed into groundwater table in a managed aquifer recharge scenario.
 - Supports irrigation from groundwater if necessary.
 - Requires Council to own bores, established in construction within open space areas.
 - Provide water supply for fire-fighting.
- Prior to implementation of any of the above activities, future investigation is likely necessary to confirm and mitigate risk of contamination of groundwater.
- Increased investment in water sensitive urban design with landscape features on public and private land including infiltration through bio-retention swales and ponds.
 - Reduce urban heat island effect.
 - Improve aesthetics.

Stage 3

- Fully distributed managed aquifer recharge option with private recharge bores on suitable properties and council owned fire-fighting supply.
- Pending development of the northern Waste Water Treatment Plant, third pipe of recycled water may be supplied to the RJP.

Recycled Water

- Consideration of utilising recycled water for the RJP would be beneficial in carrying it towards the ambition of being water sensitive, benefits include:
 - Managed aquifer recharge.
 - Environmental offsetting.
 - Reuse for irrigation purposes (recreation areas, plantations, agricultural land, cropping, etc.).
 - Reuse as process or non-potable water for new industries.
- Use of recycled water is dependent on the Northern Waste Water Treatment Plant due to the undesirable proximity to the existing treatment plant.

Water Quality

- Total bio-retention basin of 39,050 square metres is required for the RJP (based on assumptions).
- Most effectively located along the riparian areas of the tributaries and creek.
- These areas will be determined based on the total developable area and the total GFA of the developed design for the precinct.
- Spill Management Strategy should be considered as part of a later design stage of development approvals.
- During implementation stages, water quality outcomes should be prioritised by reference to the principles from the *Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions* (Office of Environment and Heritage, EPA, 2017).

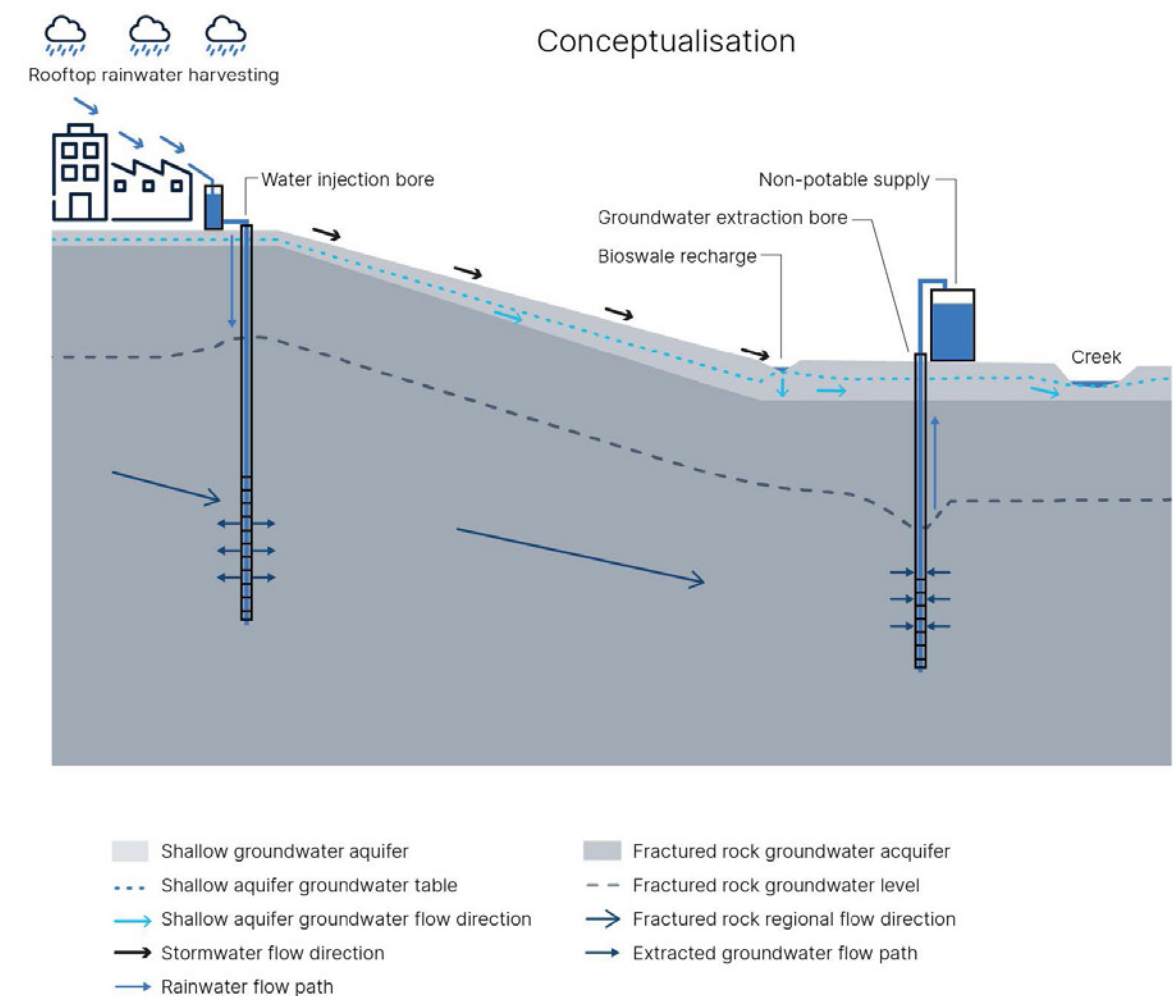


Figure 83. High level conceptualisation of managed aquifer recharge and water integration in the Albury RJP. Source: SMEC, 2022, p 27.

6.8 Contamination

Summary

Environmental Resources Management Australia Pty Ltd was engaged to prepare an Technical Report - Soils, Geology and Contamination Report, delivered September 2022.

The report concludes the following:

Salinity and Acid Sulfate Soils

- Salinity, sodicity and aggressivity soil conditions unlikely to represent significant constraint on the master plan.
- Geotechnical assessment at detailed design stage to identify appropriate construction materials and assess for presence of acid sulfate soil.
- Application of principles of WSUD should be considered in detailed design stage to mitigate potential changes to soil water levels and salinity conditions.
- Surface soils are typically non-aggressive or mildly aggressive to steel and concrete.

Contamination

- Existing sites are currently or formally potentially contaminating industries.
- Other areas may contain: built structures including building materials or infrastructure, as well as previously inappropriately demolished structures, which may include hazardous building materials (e.g. asbestos, lead paint, PCBs); chemical storage (rural use), uncontrolled waste dumping.

Review and Recommendations

- No sensitive land use is proposed - e.g. residential, educational, recreational, childcare, hospital - it is unlikely that further assessment would be triggered (under the SEPP).
- Where more sensitive land uses are proposed (e.g. RU1 to Recreation) this may trigger further assessment of contamination (under the SEPP).
- Potential contamination should be assessed further prior to approval of development.
- Council should consider following key principles from the Land Contamination Planning Guidelines (Draft) to pro-actively prevent future contamination from occurring.
- Broad potential for some contamination to be present on all lands across the RJP associated with hazardous building materials, small scale chemical storage and use and uncontrolled waste dumping which will require assessment further prior to approval of development to prevent potential exposure.

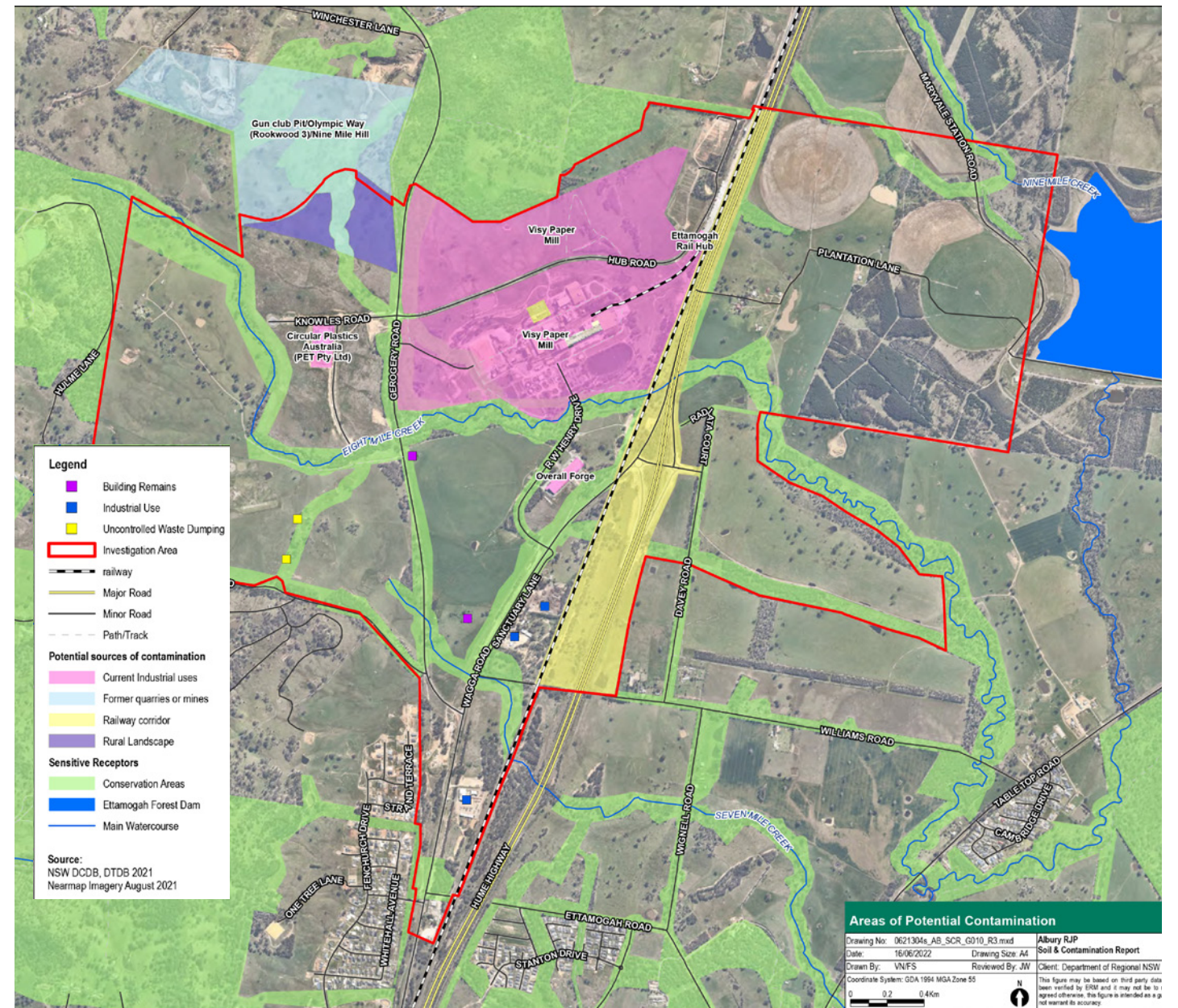


Figure 84. Areas of potential contamination. Source: ERM, 2022, figure 10.

6.9 Traffic and Transport

Summary

SMEC were engaged to prepare an Traffic and Transport Report, delivered September 2022. The report found and recommended the following:

Road

Road upgrades likely:

- Davey Road interchange ramps upgraded to two-lanes.
- Davey Road bridge across the Hume Hwy increased to double current capacity.
- Wagga Road - increases from both RJP and residential neighbourhoods likely to require intersection upgrades and duplication of the road.
- Wagga Road north - likely to require upgrade.
- Gerogery Road - provision of shoulders, increased verge widths, removal / protection road hazards, possible duplication to two lanes each way.
- Gerogery / Wagga Road intersection upgrades.
- Davey Road upgrades - dependent on the configuration / timing of the Thurgoona Link Road.

Internal roads configuration:

- Single, two way carriageways throughout the precinct, avoids no through roads.
- Road geometry and intersection layouts developed to sweep paths of PBS Level 3 vehicles.
- Grades are gentle and suitable for network, maximum grades are 10% or below.
- Minimise grades (< 5% for active transport).

Key connection 1: R W Henry - Gerogery Link Road:

- Significant reduction of journey times, shortening access from the Highway by approx. 1.3km.
- Avoids additional traffic to the Wagga and Gerogery Road intersection.

Key connection 2: R W Henry Drive Extension

- Providing access to high intensity industrial areas.
- Improves the network connectivity.
- Enhances access to the intermodal.

Rail

- Ettamogah Rail Hub - possible hard stand extension and pavement deformation repairs.

Private sidings into the Visy:

- Slightly degraded and not well maintained.
- May act as a form of direct competition to the very purpose of the Ettamogah Rail Hub.
- Consider decommissioning to benefit Ettamogah Rail Hub and private businesses.

Active Transport

- Barriers - Hume Hwy, Rail, distance.
- To RJP - establish active travel corridors along separated, landscaped, shared use path.
- Extend existing cycle path adjacent Wagga Road along Gerogery Road, Hub Road, to the Ettamogah Rail Hub.
- Internal roads to include footpaths and wide shoulders for cyclists to avoid conflicts with traffic.
- Thurgoona Drive bridge across the Hume Highway should be investigated as a cycling cross point - may be possible without widening.
- Additional crossing of Hume Hwy, possibly reconfiguring the existing fauna bridge crossing to couple for cyclists, connecting to the Thurgoona shared path (ends at Hargraves Road) and Wagga Road (near the Davey Road interchange).
- New path connecting Thurgoona to eastern RJP and Davey Road interchange upgrade to include active travel facilities.
- Active travel along conservation corridors and adjacent watercourses for recreation.

Public Transport

- Typical industrial workforce do not work standard business hours presenting challenges to public transport planning.
- Dedicated bus route, starting in the CBD, through North Albury (to service en-route) to the RJP.
- *Shared bike / e-scooter scheme* - couple with bus routes to reduce bus route length and extend overall public transport network.

Stage 1	Stage 2	Stage 3
Roll out of internal western RJP road network.	Roll out of internal western RJP road network.	Roll out of internal eastern RJP road network.
R W Henry – Gerogery Link Road (including upgrade of the R W Henry / Wagga Road intersection).	Upgrade of Davey Road interchange including bridge widening / duplication and signalisation of ramp terminals.	Duplication of R W Henry Drive and / or R W Henry – Gerogery Link Road (depending on pattern of development within RJP).
Duplication of Wagga Road between Thurgoona Drive – R W Henry Drive and associated intersection upgrades (Windsor Ave, private accesses etc.).	R W Henry Drive Extension.	Widening of Wagga Road to three lanes in each direction between Thurgoona Drive – Gerogery Road including intersection upgrades (Windsor Ave, private accesses etc.).
Upgrade and signalisation of Wagga Road / Gerogery Road intersection.	Duplication of Gerogery Road for extent within RJP.	Upgrade of eastern external roads including Davey Road, Wignell Road and upgrading or constructing the Thurgoona Link Road (depending on its level of development at the time).
Provision of shoulders on Gerogery Road for extent within RJP.	Extension of dedicated bus route from Albury CBD to RJP.	Provision of bi-directional loop bus service from Albury CBD to Thurgoona via RJP.
New bus route from Albury to RJP via North Albury and Lavington.	Implementation of Stage 2 path network and recreational paths along conservation corridors.	Provision of internal RJP shared mobility scheme linked to public transport.
Implementation of Stage 1 active travel network.	Inclusion of paths and shoulders on all internal roads.	Implementation of Stage 3 active travel network.
Inclusion of paths and shoulders on all internal roads.	Development of recreational network through conservation corridors.	Inclusion of paths and shoulders on all internal roads.

Table 9. Notional road upgrade stages. Source: Ethos Urban drawing from SMEC, September 2023, p 53-54.

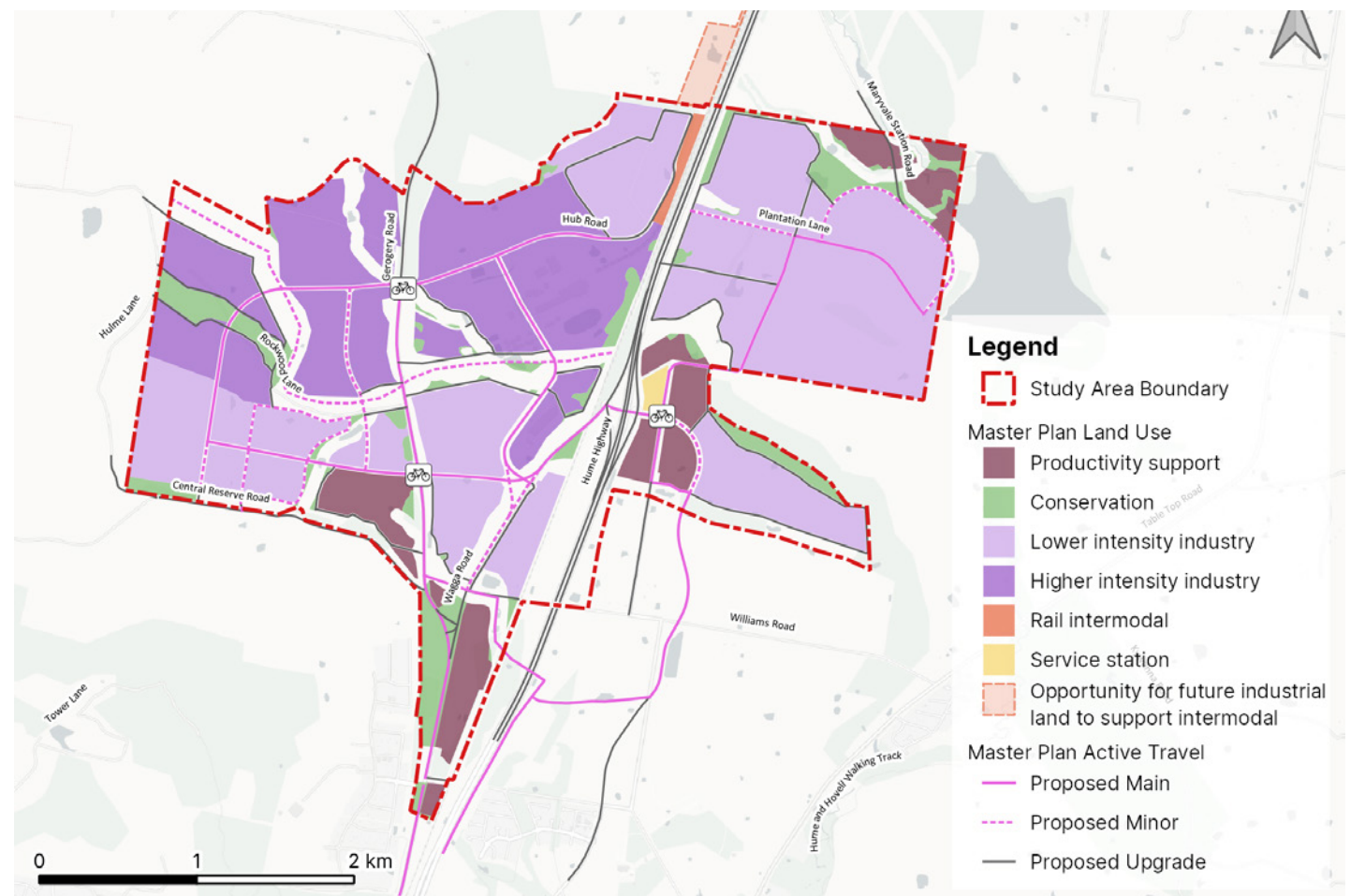


Figure 85. Active Travel Network Upgrades - Short, Medium and Long Term. Source: SMEC, September 2023, p 49.

6.10 Bushfire

Summary

Environmental Resources Management Australia Pty Ltd was engaged to prepare an Bushfire Assessment Report, delivered October 2022.

The report concludes the following:

- It is anticipated that new development within the precinct can meet the requirements of Planning for Bush Fire Protection 2019.
- It is important to consider the existing access and egress routes for the following:
 - NEXUS Industrial Precinct.
 - Ettamogah Rail Hub.
 - Overall Forge.
 - Visy.
 - Special Fire Protection assets including retirement villages, schools, hospitals and tourist attractions.
- The RJP may require the creation of APZs that need to be maintained sequentially until the final phase of development is completed to ensure appropriate level of bushfire protection at each stage.
- Areas of defendable space may include the perimeter road network, drainage channels and maintained public open space.
- Key specifications and requirements to assist in the development of the Master Plan are shown in Table 10.

Performance Criteria Description

- 1 Asset Protection Zones are managed and maintained to prevent the spread of a fire within the precinct in accordance with the requirements of Appendix 4 of *Planning for Bushfire Protection 2019* to result in a Bushfire Attack Level of BAL 29 or lower (not BAL 40 or BAL FZ) to all future building envelopes that are being assessed as complying development. This includes part of a staged or partial development of the Precinct.
- 2 Where referrals to NSW RFS is required (SFPP, potentially hazardous development and/or places of public worship), Asset Protection Zones should be managed and maintained to result in a Bushfire Attack Level of BAL 12.5 or lower (not BAL 29, BAL 40, or BAL FZ). These developments will not be assessed as complying development.
- 3 All landscaping is to comply with Appendix 4 of *Planning for Bushfire Protection 2019* and relevant environmental approvals required under the *Biodiversity Conservation Act 2016* (NSW) and/or *Environmental Protection and Biodiversity Conservation Act 1999* (Commonwealth). Where environmentally sensitive vegetation such as endangered ecological communities or threatened species habitat are to be cleared, the proposals will need to be carefully considered and may no longer be consistent with complying development.
- 4 Access roads are designed to allow safe access and egress for firefighting vehicles while residents are evacuating as well as providing a safe operational environment for emergency service personnel during firefighting and emergency management on the interface. The requirements for access identified in *Planning for Bushfire Protection 2019* must be met for all stages of development within the Regional Job Precinct.
- 5 Adequate water supplies are provided for firefighting purposes. Hydrants are to be installed to achieve compliance with AS 2419.1 - 2005 Fire Hydrant Installations - System Design, Installation and Commissioning (AS 2419 and must be located less than 70m from each building envelope).
- 6 The location and design of gas services will not lead to ignition of surrounding bushland or the fabric of buildings. Reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 and the requirements of relevant authorities, the metal piping is used.
- 7 The location of electricity services limits the possibility of ignition of surrounding bushland or the fabric of buildings and must comply with requirements of *Planning for Bushfire Protection 2019*.

Table 10. Proposed Performance Criteria - Bushfire. Source: *Ethos Urban* drawing from Table E.1, ERM, Oct 2022, p 8.

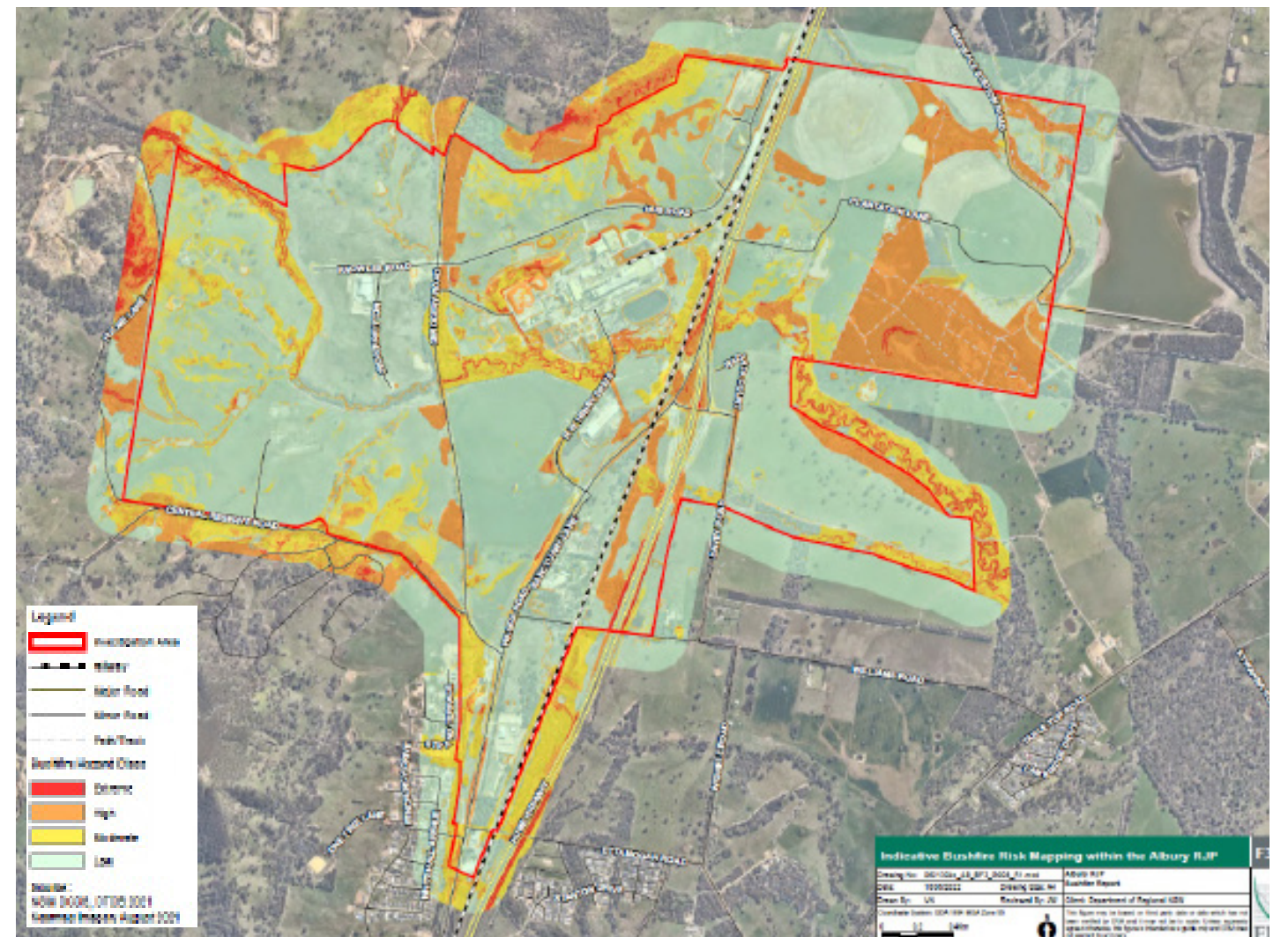


Figure 86. Indicative Bushfire Risk Mapping within the Albury RJP. Source: Figure 3-7, ERM, June 2022, p 29.



OPPORTUNITIES AND CONSTRAINTS

The following opportunities and constraints have been drawn from a context review of the precinct from strategic planning, urban design and technical analysis. These opportunities will inform the structure plan vision and principles, as well as guiding the future form of the proposed structure plan for the RUP. The summary of constraints provide an overview of contextual problems to overcome and existing site constraints to manage or mitigate. They will guide the testing of solutions through options testing stage for those relevant to the structure plan.

7.0 Opportunities and Constraints

7.1 Opportunities

REGIONAL OPPORTUNITIES

- A** 75% of Australia's population is reachable within 24 hours through well connected rail and road.¹
- B** Albury Wodonga Regional Deal improve utilisation of resources, connectivity & employment pool.
- C** Surrounded by highly productive agricultural land within a few hours drive - the 'food bowl of NSW'.
- D** Central Albury within a 20 minute drive.²
- E** Sufficient residential zoned land to allow for population growth supporting growth of worker population available within commuting distance.
- F** Existing social & civic infrastructure including libraries, schools, medical care, recreation facilities and open space, within a 20 minute drive.
- G** Inland Rail project will provide opportunity for direct Melbourne to Brisbane (via Albury) freight to bypass Sydney, in addition it will open up new and improved rail market-share opportunities from inland NSW.
- H** 15 mins from Albury Waste Management Centre, option to collaborate to expand centre for business use and support circular economy.

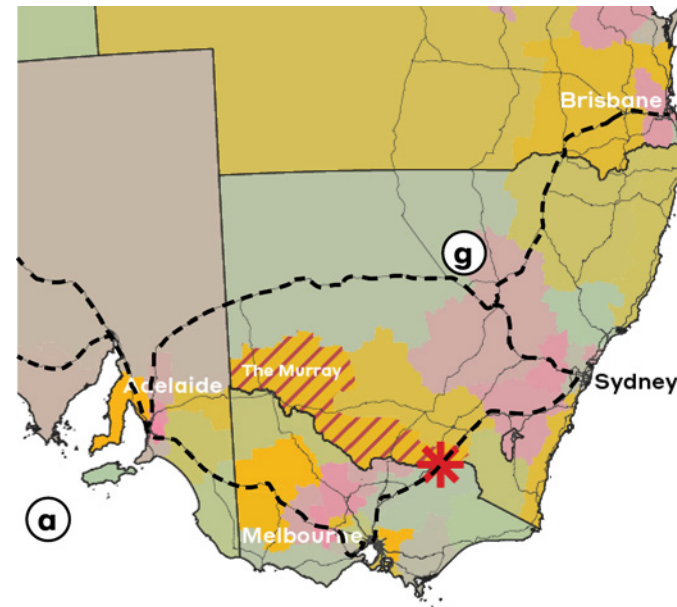


Figure 87. Opportunities - Regional areas. Source: Ethos Urban drawing data from Australian Bureau of Statistics, 'Tourism Areas - 2021 - Shapefile', Australian Statistical Geography Standard (ASGS) Edition 3, 2021, www.abs.gov.au.

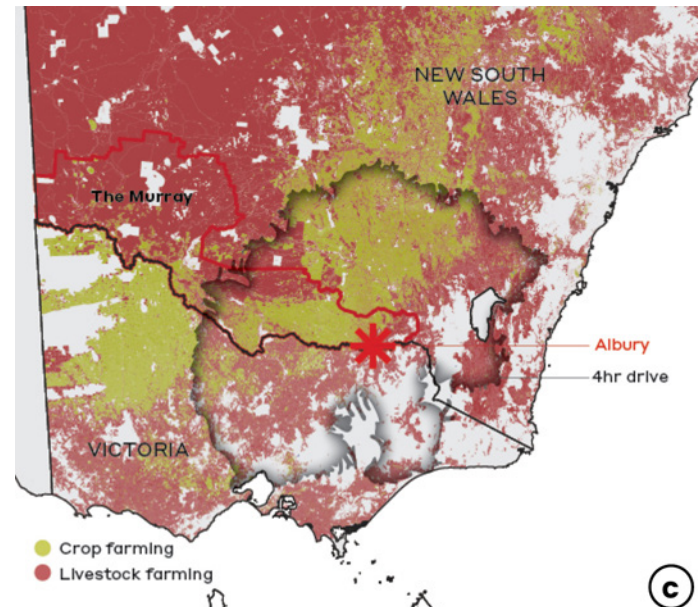


Figure 88. Opportunities - Food agriculture land. Source: Ethos Urban drawing data from [Department of Environment, Land, Water & Planning, 2018, Victorian Land Use Information System 2016-2017, discover.data.vic.gov.au] & [SEED, NSW Landuse 2017 v1.2, Department of Planning, Industry and Environment, State Government of NSW, datasets.seeds.nsw.gov.au].

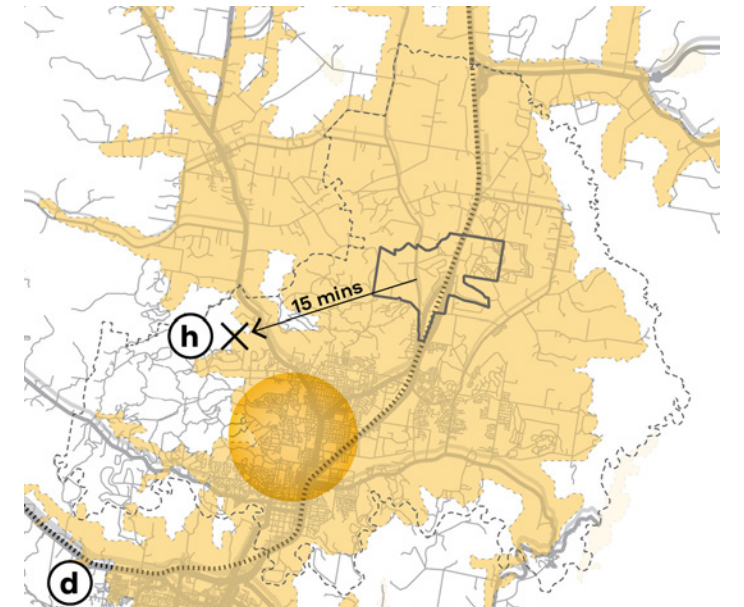


Figure 89. Opportunities - Proximity to central Albury. Source: Ethos Urban drawing data from DPE, TravelTime plugin for QGIS.

1 AlburyCity, https://investalburywodonga.com.au/___data/assets/pdf_file/0017/306350/NEXUS-Sales-Brochure.pdf
 2 Travel distances via TravelTime Api plug-in to QGIS, results as of June 2022.

Figure 87, Figure 88:
 Commonwealth of Australia (Geoscience Australia), EDG GDIB-LEY, Geodata Coast 100K 2004
 Australian Openstreetmap Major Roads December 2011 (NERP TE 13.1 eAtlas, source: Cloudmade), eatlas.org.au

Table 11. Regional Opportunities Summary

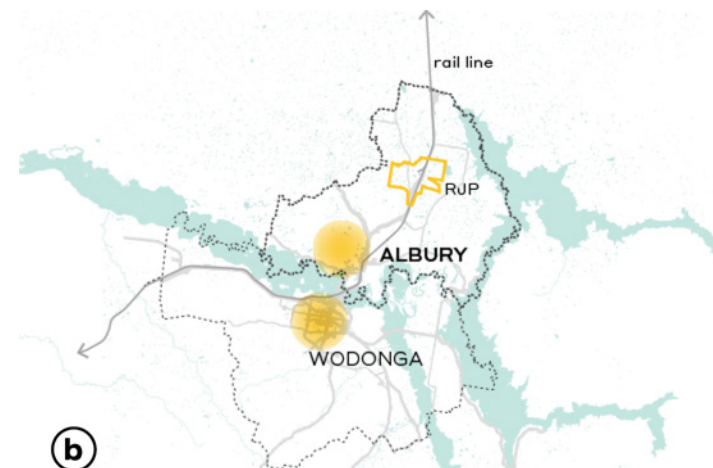


Figure 90. Opportunities - Albury-Wodonga Connection. Source: Ethos Urban drawing data from DPE, Google Maps.

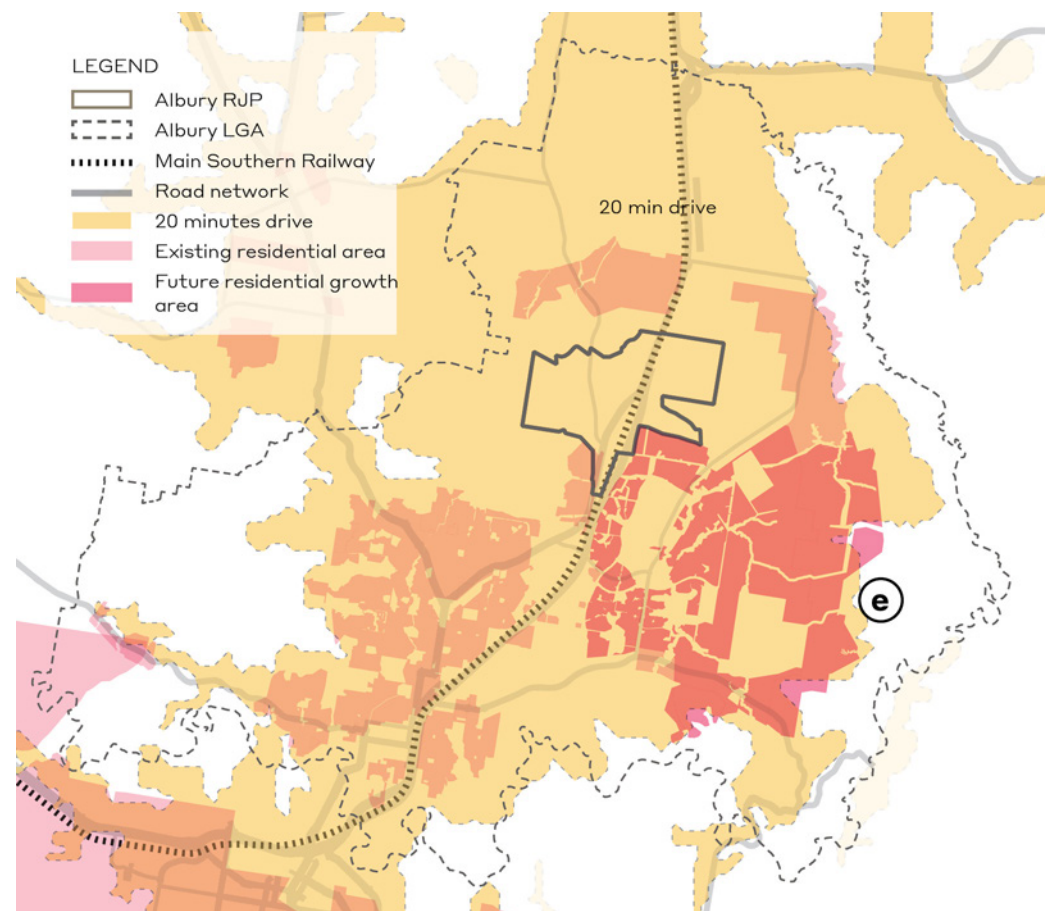


Figure 91. Opportunities - Residential zoned land. Source: Ethos Urban drawing data from DPE, TravelTime plugin for QGIS.

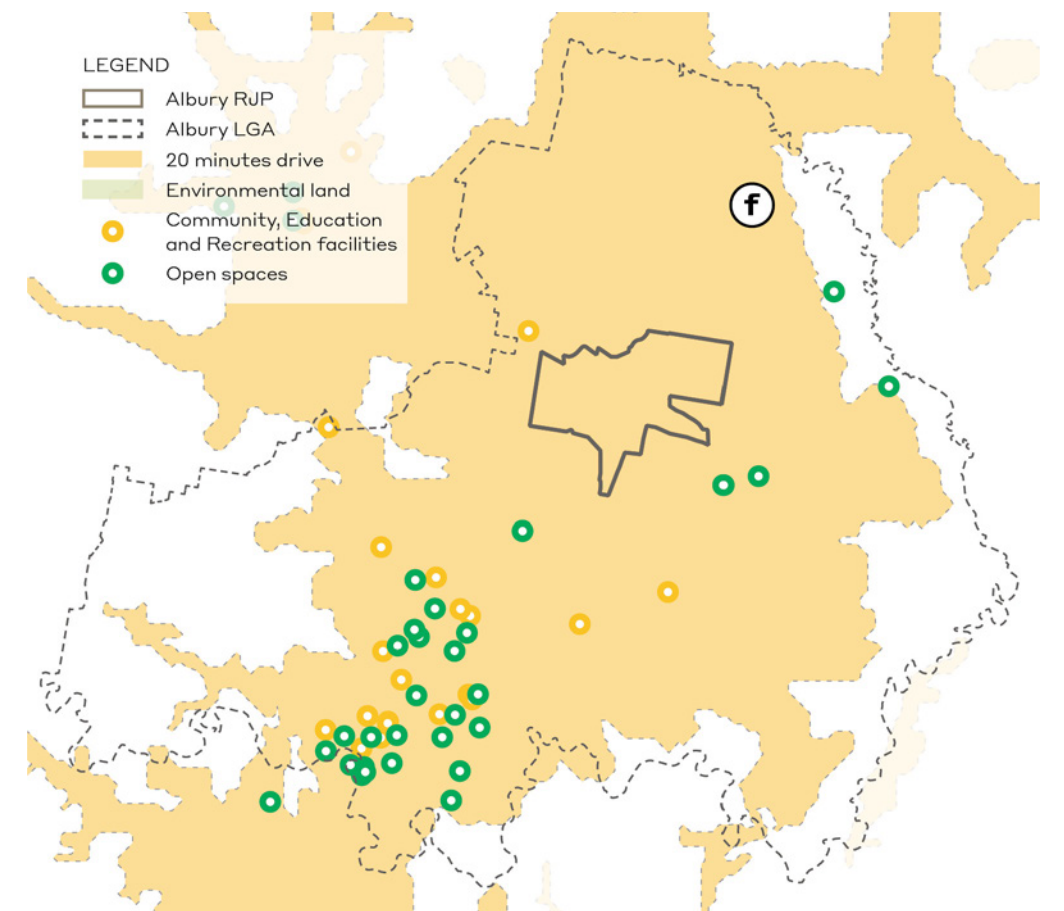


Figure 92. Opportunities - Social and civic infrastructure. Source: Ethos Urban drawing data from DPE, TravelTime plugin for QGIS.

SITE SPECIFIC OPPORTUNITIES

1	Existing national rail line & intermodal to service the site directly - including the Ettamogah Rail Hub.
2	Direct access to the Hume Highway with upgraded Davey Road Interchange, supporting movement directly to and across the highway.
3	Energy network has: <ul style="list-style-type: none"> • Potential for upgrades to underground power cabling to minimise physical & visual impact. • Number of suitable locations for a new substation. • Suitable opportunity for rooftop solar to generate renewable energy within precinct.
4	Existing operator with private services infrastructure, which if made redundant through operations changes, presents opportunity for re-purpose to enable common use by precinct: <ul style="list-style-type: none"> • Substation. • Pipeline to regional water source.
5	Possible north-western Waste Water Treatment Plant (WWTP) within the precinct presents an opportunity to provide localised treatment within the RJP, to reduce augmentation of trunk lines to existing WWTP at Waterview. In addition it provides habitat benefits through the inclusion of a wetland.
6	Natural water systems through precinct, opportunity for: <ul style="list-style-type: none"> • Celebration of heritage and indigenous cultural values and artefacts. • Embedded biodiversity corridors with habitat protection & protection of significant trees to support environmentally sustainable practices & sequestering of carbon within precinct. • Framework for East-West road network or active transport network. • Support for water sensitive urban design (WSUD).
7	Neighbouring residential land may open opportunities for shared facilities or services within walking distance (800m = 10 minutes walk).
8	Topography <ul style="list-style-type: none"> • Supports higher intensity industry - raised perimeter protects areas outside of the precinct to the north, south and west. • Provides opportunities for views and vistas.
9	Areas north, east and west are likely to be undeveloped, securing a perimeter with buffers for industry to sensitive receptors.

Table 12. Site Specific Opportunities Summary

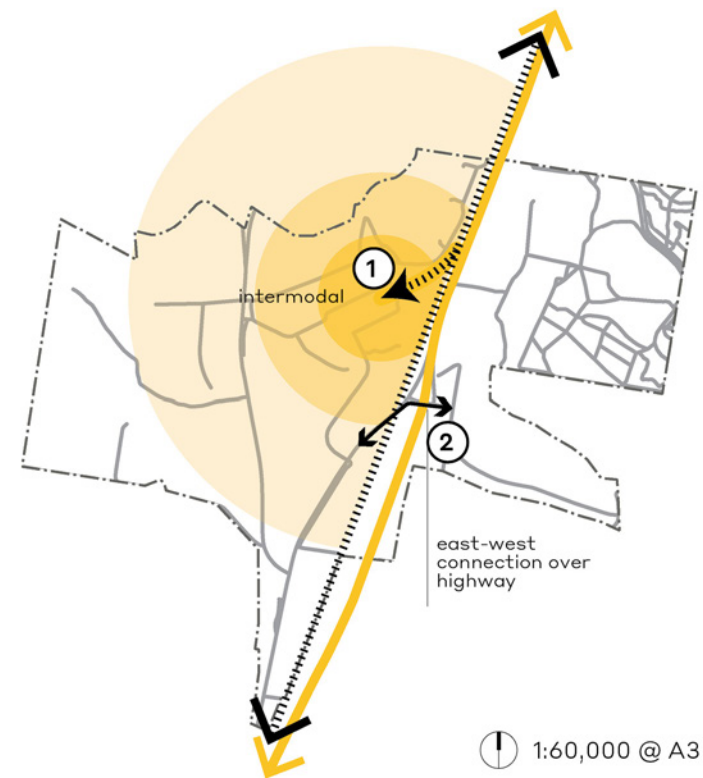


Figure 93. Opportunities - Transport connectivity. Source: Ethos Urban drawing from data by DPIE, Dec 2021.

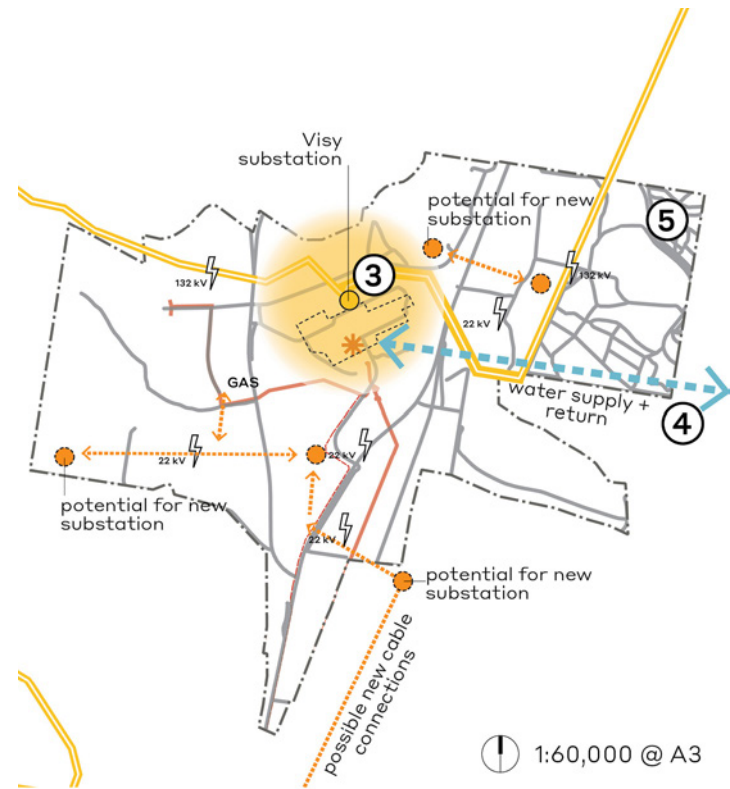


Figure 94. Opportunities - Power and water infrastructure. Source: Ethos Urban drawing from data by DPE and SMEC, Jan 2022.



Figure 95. Opportunities - Creeks and dam network. Source: Ethos Urban drawing from data by DPIE, Dec 2021.

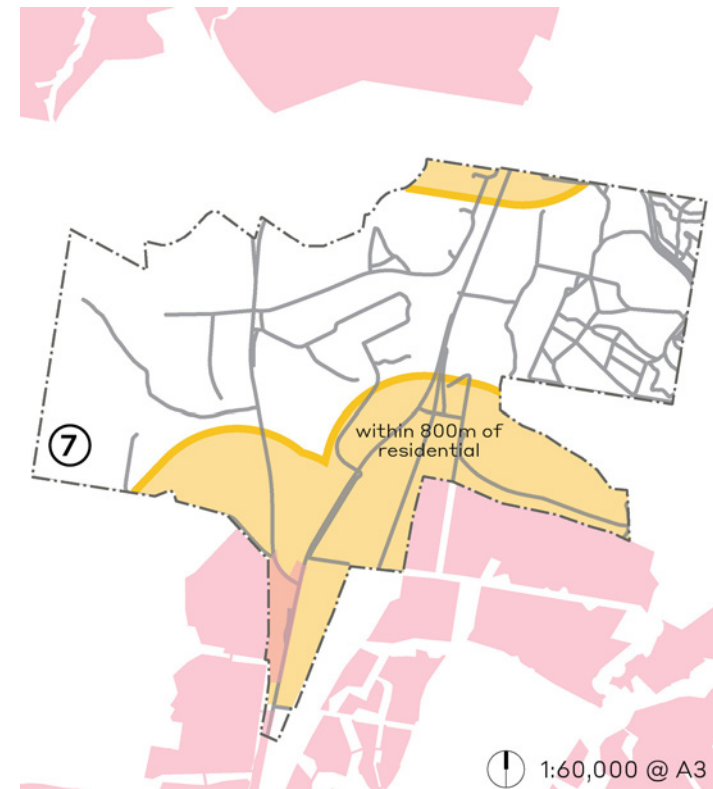


Figure 96. Opportunities - Residential interface. Source: Ethos Urban drawing on data by DPIE, Dec 2021.

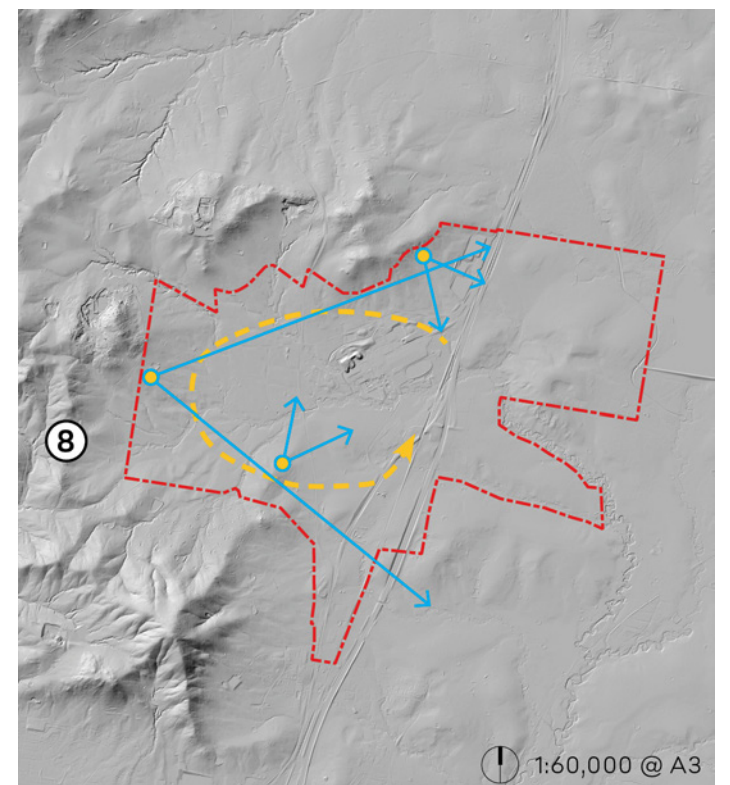


Figure 97. Opportunities - Protected topographic basin. Source: Ethos Urban drawing on data by ELVIS, Feb 2022.

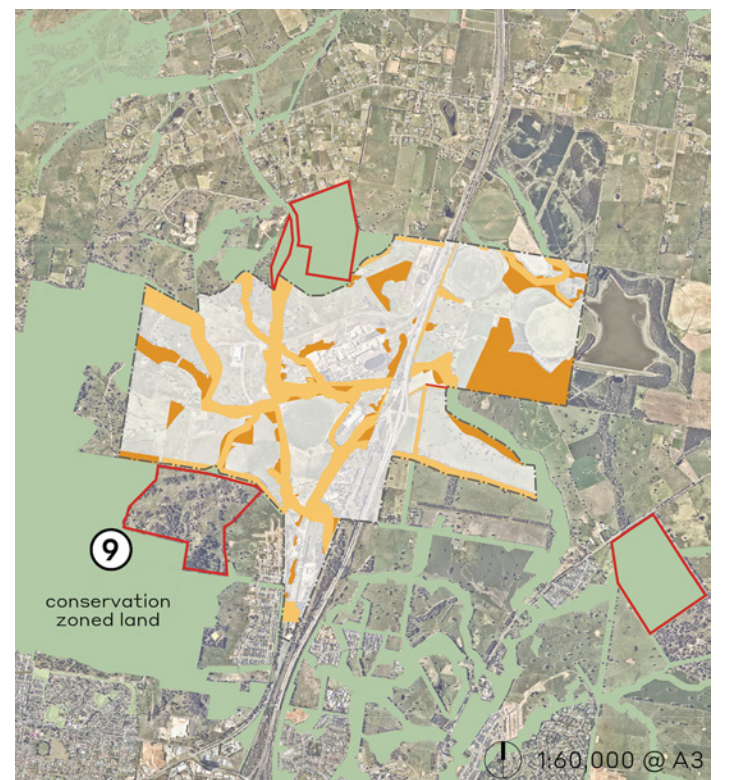


Figure 98. Opportunities - Protected perimeter. Source: Ethos Urban drawing on data from DPE, Dec 2021.

7.2 Constraints

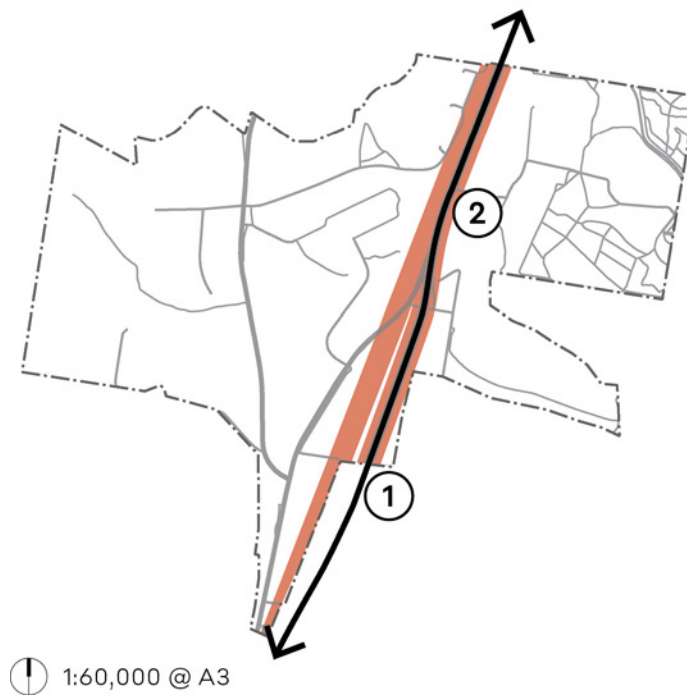
REGIONAL CONSTRAINTS

- A** A number of industrial precincts are located in close proximity, some are well established.
- B** Areas for 'future urban expansion' identified in the LSPS includes a portion of RJP. This, and buffer areas surrounding, will be unsuitable for urban expansion due to land use conflict, noise and odour.

SITE SPECIFIC CONSTRAINTS

- 1** Site is divided by heavy rail and highway infrastructure with limited East-West connectivity.
- 2** Limited ability for rail connectivity to the East.
- 3** Riparian pathways act as barriers through the site.
- 4** Portions of the site have been identified as not ideal for development due to slope.
- 5** Areas undevelopable due to conservation zoning & national road infrastructure.
- 6** Areas with valued vegetation, some of which require protection to preserve habitat for ecosystem credit species and plant communities.
- 7** Heavy quarry vehicle movement through the precinct. Upgrades required for multiple roads within and around the precinct.
- 8** Limited public transport services and cycle routes to the precinct. Risk of cycling is increased on roads where heavy vehicle movement is frequent.
- 9** Residential zoned land located within potential land-use conflict areas, refer Figure 107.
- 10** Large areas require consideration for heritage protection, including for possibility of Indigenous artefacts, in particular around Eight Mile Creek.
- 11** Potential adverse air quality, odour and noise impacts on current and existing sensitive receivers inside and in proximity to the precinct as a result of development inside the RJP.
- 12** Bushfire risk, shown moderate to high risk.
- 13** Visy owned land occupies large percentage of the precinct, reducing potential developable land.
- 14** Existing operators have Environmental Protection Licences (EPL) issued by EPA, need to be taken into consideration during any change to operations.
- 15** 100 year ARI flood risk and overland flow areas.
- 16** Existing infrastructure including sewer network, power and water does not extend across the entire precinct, additionally there is insufficient supply.

Table 13. Constraints Summary including Regional and Site Specific.



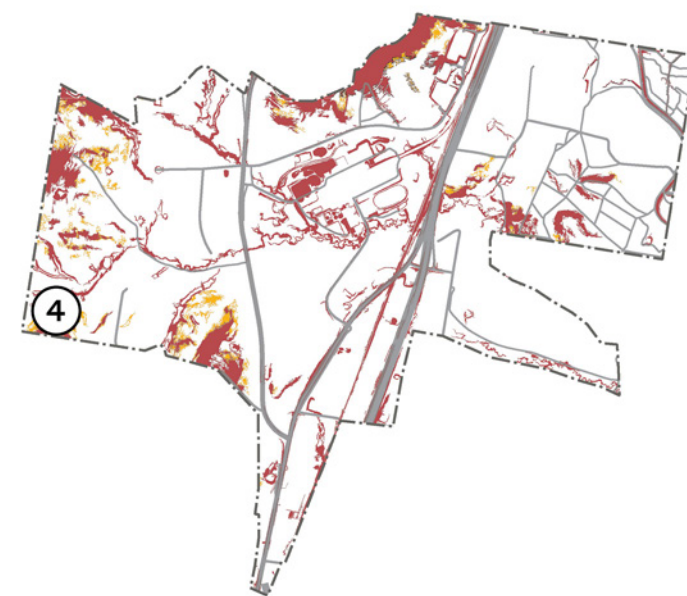
1:60,000 @ A3

Figure 99. Constraints - Infrastructure barrier. Source: Ethos Urban drawing on data from DPE.



1:60,000 @ A3

Figure 100. Constraints - Riparian pathways. Source: Ethos Urban drawing on data from DPIE, Dec 2021.



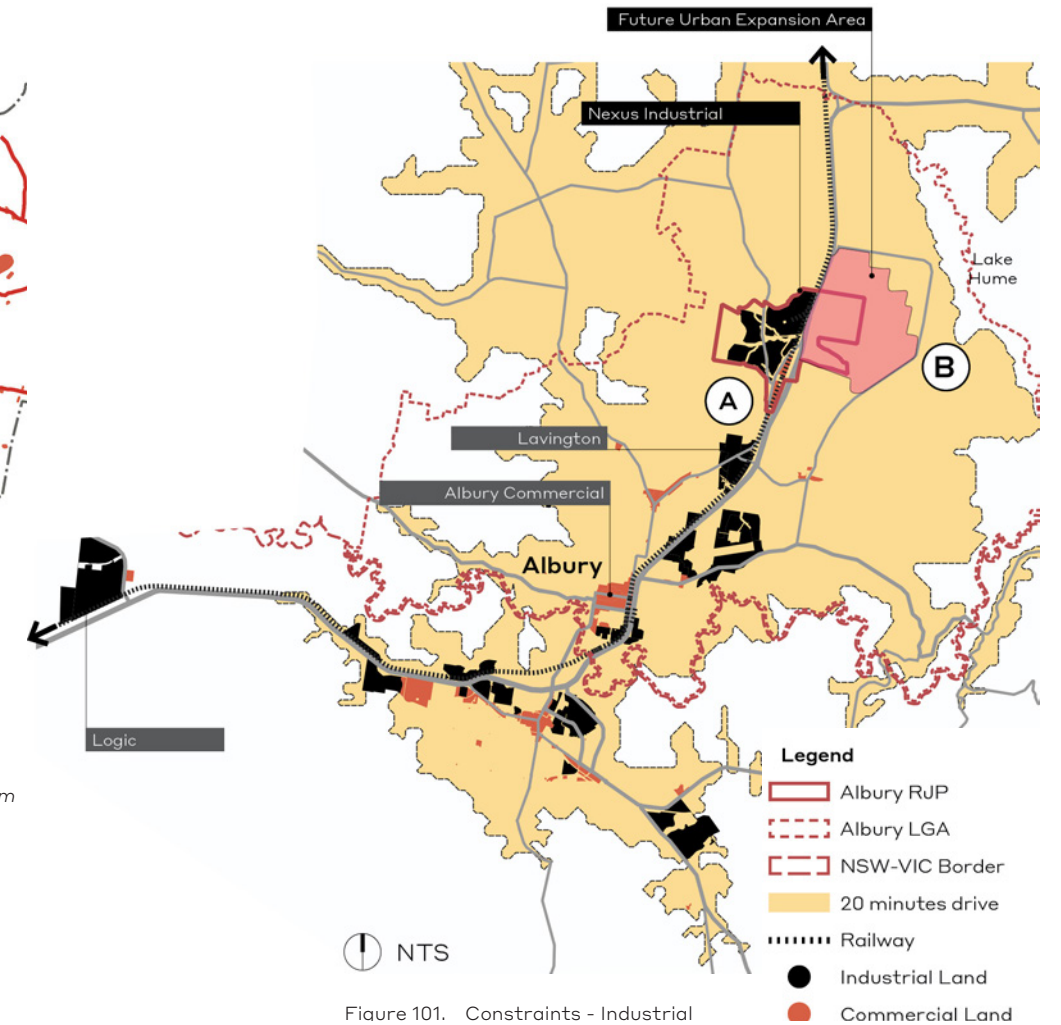
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Figure 102. Constraints - Slope analysis - above 8%. Source: Ethos Urban drawing on data from ELVIS, Feb 2022.



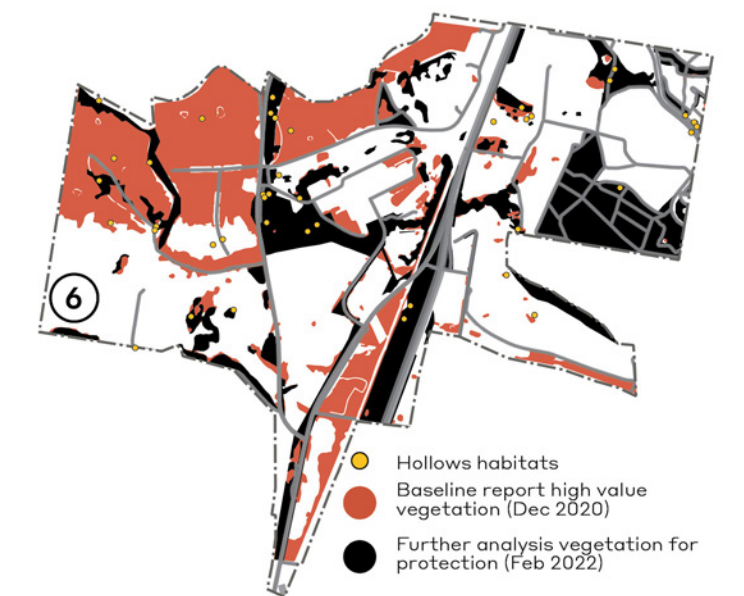
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Figure 103. Constraints - Existing non-employment land including conservation & infrastructure land. Source: Ethos Urban drawing on data from DPIE, December 2021.



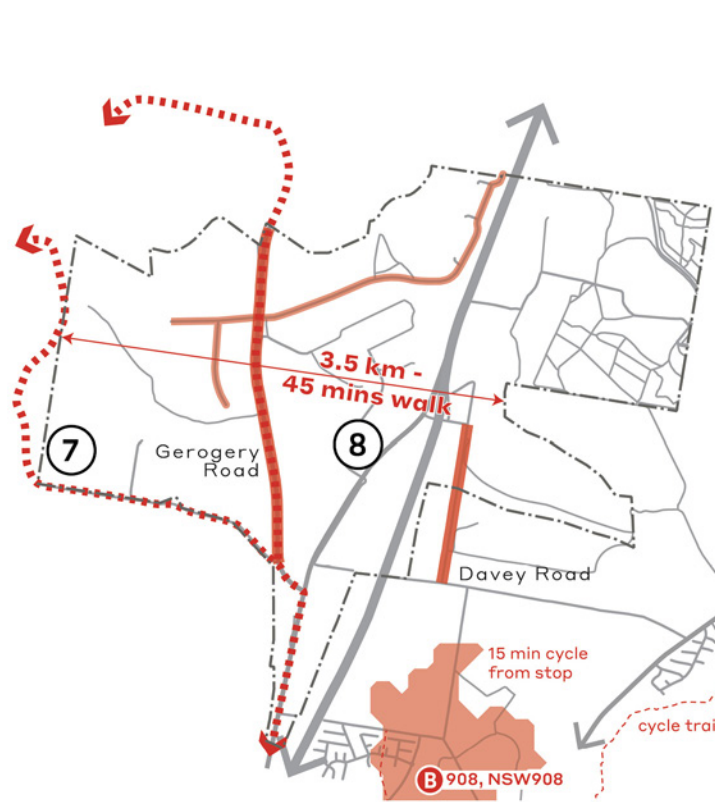
NTS

Figure 101. Constraints - Industrial



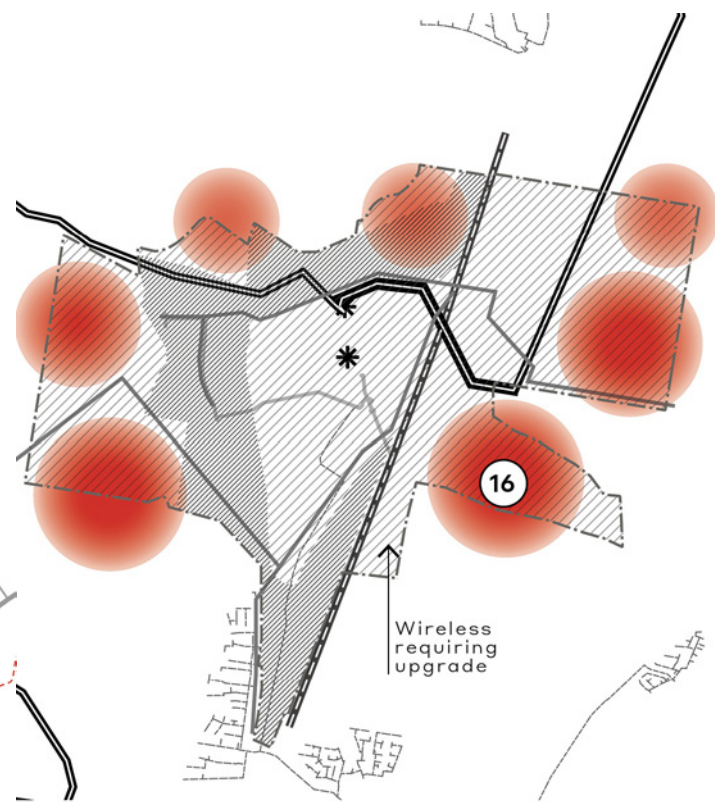
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Figure 104. Constraints - Vegetated valued areas. Source: Ethos Urban drawing on data from ERM Consulting, 2020 and 2022.



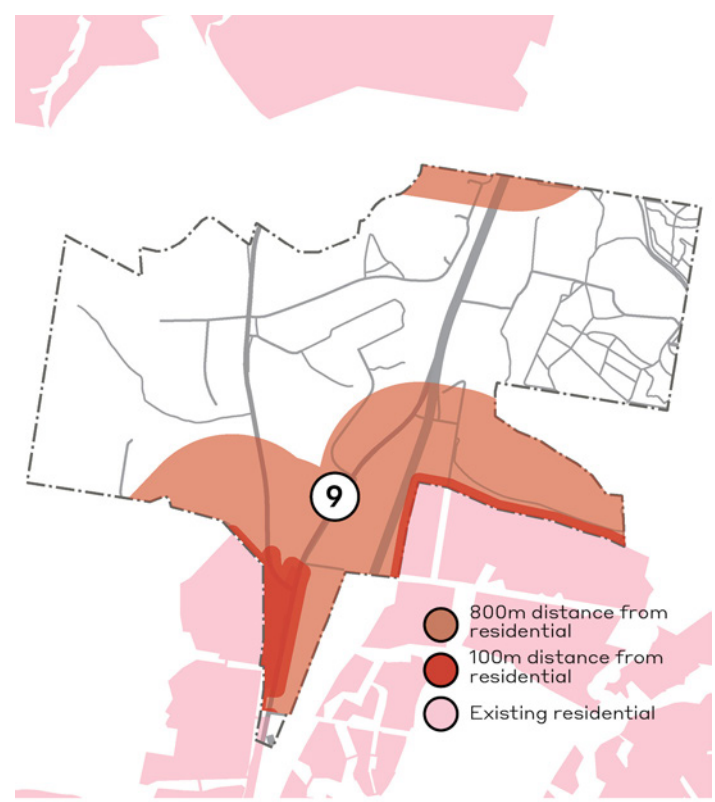
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Figure 105. Constraints - Heavy quarry vehicle movement & road upgrades & limited walkability. Source: Ethos Urban, data from SMEC, Jan 2022.



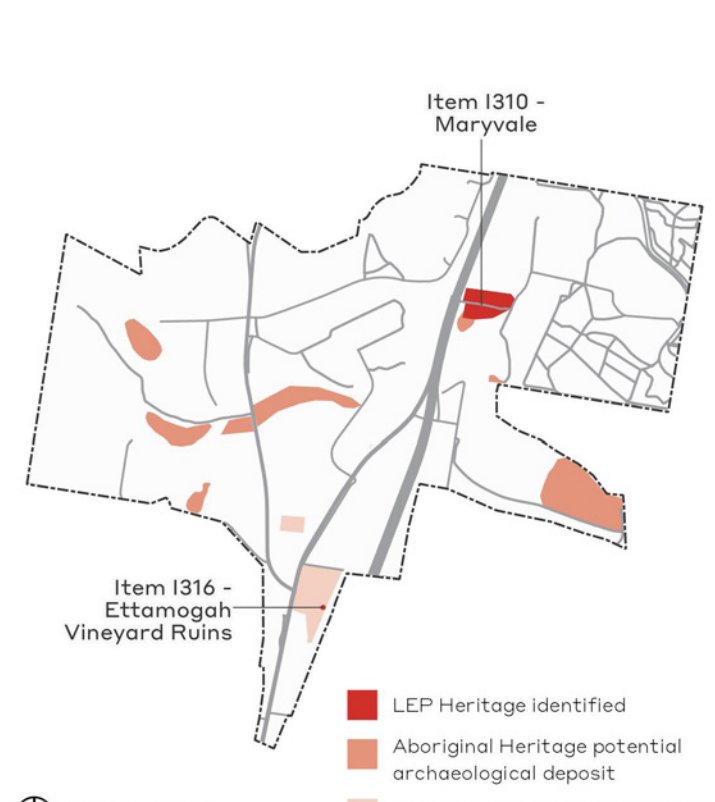
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Figure 106. Constraints - Power, gas, NBN, water infrastructure and areas with limited service. Source: Ethos Urban, data from SMEC, Jan 2022 - refer Section 5.6 for more detail on existing services, areas in the plan above are indicative for diagrammatic purposes only.



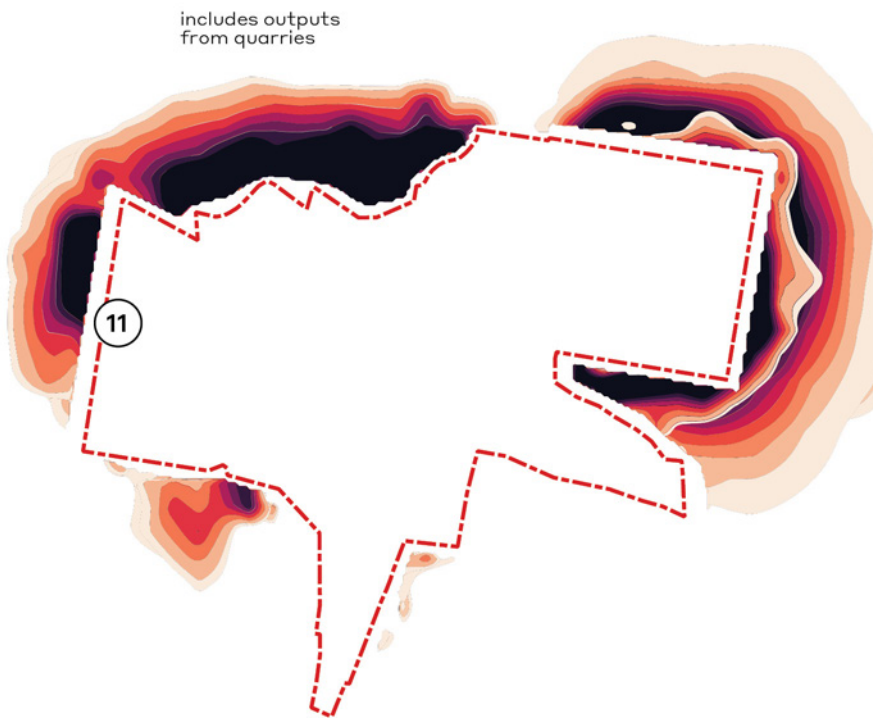
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Figure 107. Constraints - Offsets to residential land. Source: Ethos Urban, guidance from Sherpa, Dec 2021.



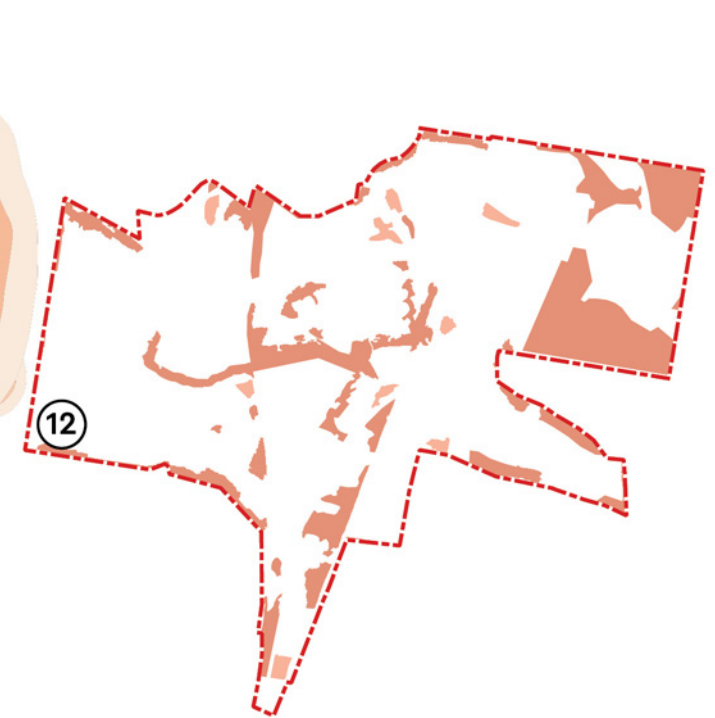
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Figure 108. Constraints - High to medium risk for historic heritage value. Source: Ethos Urban, data from ERM, Aug 2023.



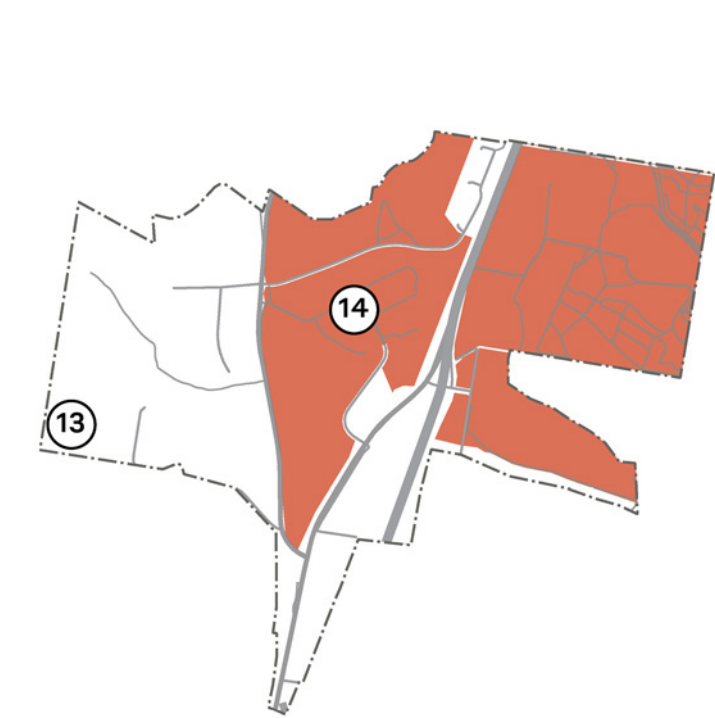
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Figure 109. Constraints - Impacts of odour, noise and stack emissions, prelim testing based on proposed structure plan as of 19 April 2022. Source: Ethos Urban, data from Todoroski Air Sciences, 2022.



1:60,000 @ A3

Figure 110. Constraints - Moderate to high-risk for bush fire. Source: Ethos Urban, data from ERM, Dec 2021.



1:60,000 @ A3

Figure 111. Constraints - Visy infrastructure current requirement of land for waste water treatment. Source: Ethos Urban, data from EPA License Agreement, May 2020.



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Figure 112. Constraints - 100 Year ARI flood risk, overland flow risk. Source: Ethos Urban, data from WMA Water, Jan 2016.





8.0

VISIONS AND PRINCIPLES

8.0 Vision and Principles

8.1 Vision

The Albury Regional Job Precinct will redefine the nature of employment within the Albury-Wodonga region. The Precinct will differentiate itself as an industrial hub for the future, focusing on highly sustainable production, circular economies and value-add industry within a productive and safe ecosystem.

The Precinct will be defined by its unique landscape and terrain, utilisation of surrounding amenity and services, and strong transport infrastructure linking to materials and markets in the region, interstate and overseas. The Precinct will not only be a highly desirable destination for businesses but offer a place to connect with nature.

8.2 Principles



Expand Albury's capacity as a Regional City with a future-focused job market.

Sub Principles

- Create regional jobs for NSW.
- Provide business certainty with a master plan vision and streamlined planning approvals.
- Provide business confidence in a strategy designed to satisfy demands on utilities and infrastructure.
- Prioritise industries grounded in innovation and advanced manufacturing, drawing upon existing strengths.
- Benefit from the strategic position between population, business and government centres of Sydney, Canberra and Melbourne with access to international markets and imported materials.
- Maximise the region's lower cost of development and doing business (when compared to capital cities).
- Leverage the surrounding 'food bowl', the Murray Darling basin and other regionally significant primary production including forestry.
- Leverage the existing intermodal access to the national rail network, national highway connections, as well as regional airport proximity.
- Collaborate with higher-education and research institutions (university and TAFE) to provide opportunities to up-skill and train the community in related trades and professions.



Create a deliverable, clear, robust and high-quality planning and land use framework.

Sub Principles

- Identify a clear and robust logic for the co-location and integration of industrial, recreational facilities, environmental conservation and community facilities.
- Establish a planning approvals framework that is tailored to assessment and facilitates establishment of industries that are consistent with the vision for the Albury Regional Job Precinct.
- Develop a robust movement framework to accommodate active transport and vehicle transport requirements including links to central and suburban Albury for workers and dedicated heavy vehicle corridors that minimise adverse noise and air quality impacts on surrounding communities, necessary existing movements and maximise freight efficiency.
- Enhance access to and from the site by utilising existing rail and road infrastructure.
- Ensure flexible urban structure to allow for future-adaptability, change, growth and longevity.
- Ensure high-quality urban design outcomes at building, site, street and precinct scales.
- Create urban identity with contemporary design within a landscape setting.
- Complement and reference existing specialised facilities and operators.



Respond to and build upon the precinct's unique rural landscape character.

Sub Principles:

- Protect current and future sensitive receivers both inside and outside the precinct from adverse air, noise and odour impacts as a result of precinct development and industrial outputs.
- Avoid or minimise land use conflict and any safety concerns, including between industrial uses and future residential development.
- Engage and collaborate with local communities to maintain social licence.
- Consider the needs of nearby communities - including planned or future communities - in proximity to the precinct.
- Celebrate the existing landscape and topography to enhance and expand opportunities for recreation, open space and visual amenity to create an attractive environment for investment and deliver sustainable development outcomes.
- Minimise visual impact of developments to the existing landscape.
- Find opportunity to provide open space, recreational, retail, educational and other community amenity to local communities while improving workplace environments within the new Job Precinct (where appropriate and in line with other sub-principles above).



Create an environmentally sustainable and culturally responsible precinct.

Sub Principles:

- Plan a precinct capable of environmental sustainability.
- Utilise the green and blue grids to protect, enhance and connect with biodiversity and riparian values.
- Identify and provide opportunity for circular economy links within the precinct.
- Identify opportunities for reducing carbon-reliance, seeking to establish net zero carbon emissions, within development, business and industry, identify opportunities for offsets.
- Celebrate cultural heritage, including protection, respect and recognition of indigenous value on and within the land through embedded process within planning framework including consultation.
- Preserve and protect found, documented and listed heritage items within the precinct.
- Maintain an approvals process for biodiversity that ensures appropriate conservation outcomes and manages impacts within a strategic framework. Consider a biodiversity certification for the precinct such as Infrastructure Sustainability Council of Australia (ISCA) certification.
- Explore opportunities for innovation and ideas for creative solutions across power, water and sewer.



Open up avenues for collaboration.

Sub Principles

- Consider flexible land use strategies to generate a functional precinct that can be delivered independent of, but with a clear understanding of, land ownership.
- Prioritise opportunities to deliver sustainable outcomes through collaboration between businesses - generate circular economy opportunities through co-location and fostering collaboration.
- Identify appropriate and relevant opportunities to foster the collaborative culture of the Albury-Wodonga twin-cities.
- *More than a precinct* - expand beyond the physical cluster by enhancing communication, transparency and feedback between businesses and various levels of Government, and explore the creation of a business facilitation organisation.
- Generate environments for innovation through connections with higher-education and research institutions (university and TAFE).
- Generate collaborative programming with higher education, universities and TAFE, to create a training pipeline to retain local jobs and young adults from Albury's community.
- Build good-will, weave social fabric, binding worker and resident populations by identifying opportunities to collaborate with local communities.







OPTIONS DEVELOPMENT



9.0 Options Development

9.1 Urban Design Framework

A number of urban design principles have been adopted in the development of the options that follow. These principles were arrived in consolidating thinking developed through the previous stages (site and context analysis, baseline reporting and identification of opportunities and constraints). They are guided by the overall vision and principles for the Albury Job Precinct but speak directly to urban design approaches for the site.

1. Protect biodiversity and high value vegetation

Albury has a significant network of wildlife and habitat corridors which connect through the local government area and cross through the Regional Job Precinct, the most significant of which is the Eight Mile Creek riparian corridor.

The aim of this principle is to prioritise protection and enhancement of the natural environment. This sustainable approach to site growth works to ensure that industrial and other uses introduced to the site can work side by side with these biodiversity values: enhance, protect and benefit from existing natural infrastructure.

2. Protect, enhance and support valued sensitive receptors

The site contains and is located in proximity to sensitive receptors.

Internal receptors include the existing habitats, higher order creeks, water sources and valued vegetation. Building on Principle 3 and 4 of the Albury RJP vision, these natural resources must be protected for future generations as well as current population's enjoyment.

External receptors take the form of existing residential neighbourhoods (north and south-west) as well as a future residential neighbourhood towards the south-east and east. Protection of existing local communities from potential externalities (including air, odour, noise emissions, traffic and other land use risks) which may be generated from industrial uses must be a priority.

There is a need to protect current and future sensitive receivers both inside and outside of the precinct from adverse air, noise and odour impacts as a result of the precinct development.

Development must consider areas of the precinct which might be best suited to higher emitting activity which can be positioned away from residential areas and valued natural features.

3. Prioritise easy connection to transport corridors and intermodal

A key move for this structure plan is to prioritise connectivity to the existing transport infrastructure within and crossing the precinct - the Hume Highway, the National Rail and the Ettamogah Rail Hub.

In order to maximise the benefits of this infrastructure, the internal road network must be enhanced to provide better links and to reduce drive time and distance. In particular, to improve the link between Hub Road and the Davey Road Interchange which connects onto the Hume Highway.

The structure plan should also prioritise vehicle movement from all areas of the site back to the intermodal and consider opportunities for improved use of this piece of infrastructure where possible.

4. Maximise the potential of Eight Mile Creek

Eight Mile Creek is a higher order, relatively intact, riparian creek - a natural corridor running West to East through the centreline of the site. This creek acts as potential habitat for wildlife, a location with indigenous value and potential heritage artefacts.

Greater consideration of the creek could beneficially contribute to the master plan. It may act as a pathway for active commuting and foot circulation through the site, removing human movement from heavy traffic corridors. This creek pathway, must have good urban design qualities.

Prioritise protection of Eight Mile Creek from water pollution events¹ through structure planning.

¹ Noting that any discharges to waterways must not result in water pollution unless permitted by an environmental protection license issued under the *Protection of the Environmental Operations Act 1997* (NSW).

5. Design to suit existing topography

It must be noted that the existing topography may be seen as unusual for an industrial precinct. Topographically it is a kind of basin, captured by a ridge running from the north to the west and to the south with low lying land in the centre.

Benefits to this topographic quality include protection of areas beyond these ridges from industrial emissions. Challenges of this topographic form are found in the conflict between the historically typical large industrial building footprint and the existing sloping and, in areas, steep terrain.

To reduce the requirements for large-scale earth moving (which would likely present significant economic and ecological impacts on the feasibility of industrial development), the proposal should take into consideration that industrial developments need not be large-footprint only. That increases in technology and changes in industrial forms might provide opportunity for industry to occupy smaller footprints and therefore smaller sites divided to best suit the terrain.

The structure plan should consider areas which are best suited to large-footprint industry and areas which are best suited to small-footprint industry.

6. Plan with embedded flexibility, resilience and robustness

The precinct should consider existing ownership, operations, existing property structures and infrastructure.

However, the precinct must be designed to accommodate changes to existing conditions, to manage changes in ownership and operations.

9.2 Options Development Approach

Intent

The intent of this stage was to:

1. Identify a vision for the precinct.
2. Identify principles to support that vision.
3. Develop options to enable selection of a preferred master plan.

The stage utilised a process of options development as a form of testing the findings from the baseline reports and urban analysis. This stage aimed to facilitate a preliminary review of potential structure plan arrangements by the project consultant team and other stakeholders. This preliminary review would allow for identification of any risks, opportunities, weaknesses and strengths and ensure that the correct structure and land use was selected for further testing in stage three.

This preliminary review was undertaken in the form of a series of workshops. To enable this collaborative analysis process, Ethos Urban (EU) prepared a series of options. These options were tested and considered through these workshops against the diverse specialist expertise of participants.

The ambition for the workshops was to identify a preferred structure plan scenario that aligned to the precinct's vision and principles.

Between the two workshops, EU integrated the feedback and findings from the first workshop into a revision of the preferred option. A diagram was posted on the Miro board and participants in the workshop invited to review and provide comments. This allowed for some intermediate feedback to assist in the development of a series of stages for Workshop 2. Refer to the Appendix for a record of this process.

Workshops Format

Two online workshops, facilitated by Ethos Urban were held on 14 February and the second was held on 17 February 2022.

The two workshops were formatted slightly differently to support a varied kind of conversation relevant to the structure plan development stage.

The first workshop enabled smaller group discussion, detailed analysis of each of the options presented

within groups broadly focused on a specialisation or technical focus. There were 5 breakout rooms facilitated by an EU representative, holding approximately 5 to 7 people. Each group was tasked with considering the options against the draft vision and a specific principle identified as most suited to the group's specialised knowledge.

Following specific discussion periods, each team reported back to the wider group, generating further round-table discussion and comparison.

The second workshop was formatted to enable larger round table discussion, again facilitated by EU representatives.

Workshop Attendees

A number of representatives from each of the organisations below were in attendance at one or both workshops:

Ethos Urban (facilitator)

Department of Planning and Environment (DPE)

- Local and Regional Planning
- Biodiversity and Conservation

Department of Regional New South Wales (DRNSW)

- Precincts
- Office of Regional Economic Development

Transport for New South Wales (TfNSW)

Environmental Protection Agency (EPA)

Albury City Council

Essential Energy

Todoroski Air Sciences

Sherpa Consulting

Environmental Resource Management (ERM)

- Biodiversity
- Heritage

SMEC

- Utilities - Electricity and Gas
- Utilities - Water and Sewer
- Traffic and Transport

Phase One

Workshop 1

The options developed in the first phase identified the challenge of the unknown future operations of the precinct's largest stakeholder (the paper mill land holdings owner). Three possible future scenarios based on varied future of the paper mill operator were utilised as a framework for testing. The intent was to:

1. Demonstrate how the future plan for the paper mill landholdings¹ will impact the growth of the precinct.
2. Test a variety of land uses across the site in order to generate a discussion around:
 - a. Suitability from various subject matter experts.
 - b. Alignment with the Vision and Principles for the Regional Job Precinct.

The process was to consider each option against the vision and principles to identify any misalignments and as a way of interrogating the vision and principles themselves.

¹ Please note that at the time that these options were developed, the complete land-holdings were unconfirmed and have since been updated. As such, the options are missing a some areas which have since been identified as under the paper mill land holding. Refer to the Section 5.2 for the most current understanding of land holders.

Phase Two

Workshop 2

Further development of the structure plan identified that while the future of the paper mill is currently unknown, a level of uncertainty could be managed through a staging of the master plan delivery.

This phase drew from findings of Workshop 1 and identified preferred land uses for the precinct which worked at all stages. Staging was considered against existing infrastructure, transport corridors, biodiversity protection, natural features of the site and an ambition to generate an active vibrant industrial centre.

Technology Utilised

Microsoft Teams

The workshops were run through an online meeting in Microsoft Teams. This enabled participants to engage virtually in the meeting and enabled online presentations through screen sharing. Teams tools, such as hand raising, were used as a way to ensure that equal opportunities were provided for each participant to comment or query where they desired. Facilitation was shared between all Ethos Urban team members. These meetings were not recorded, a record of the conversation was recorded by members of the Ethos Urban team and on the Miro board.

Miro

Miro was used in both workshops. Miro is online collaborative whiteboard platform which enabled all participants to participate equally in discussing the options (workshop 1) and stages (workshop 2). Miro enables distributed teams to work together effectively, and facilitates brainstorming with digital sticky notes, comments, sketches, annotations and labels.

Miro was set up to include the vision and principles for the precinct, opportunities and constraints and each proposed option and stage for the structure plan workshop. It also included reference materials to support development of ideas and thinking which had been considered in the development of the plans presented.

The benefit of the Miro board is the continued online collaborative nature of the tool. Comments and notes could be added by all workshop participants following the conclusion of the two sessions to ensure that comments that were not considered during the meeting were not missed from the options development process.

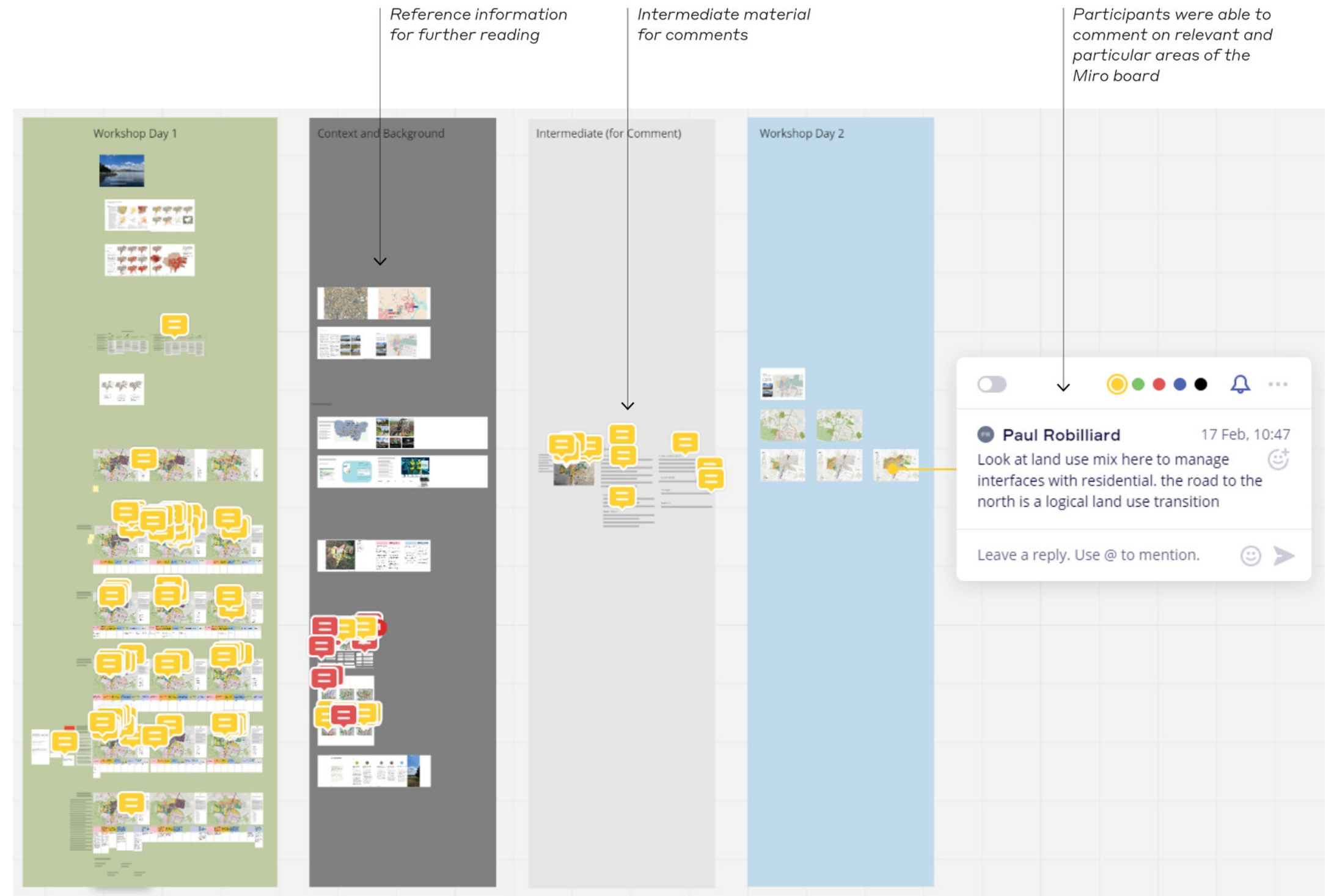


Figure 113. Screenshot of the Miro board used for Workshop 1 and 2. Source: Ethos Urban with contributions from Workshop participants.

9.3 Workshop 1 - Approach

9.3.1 Approach and Assumptions

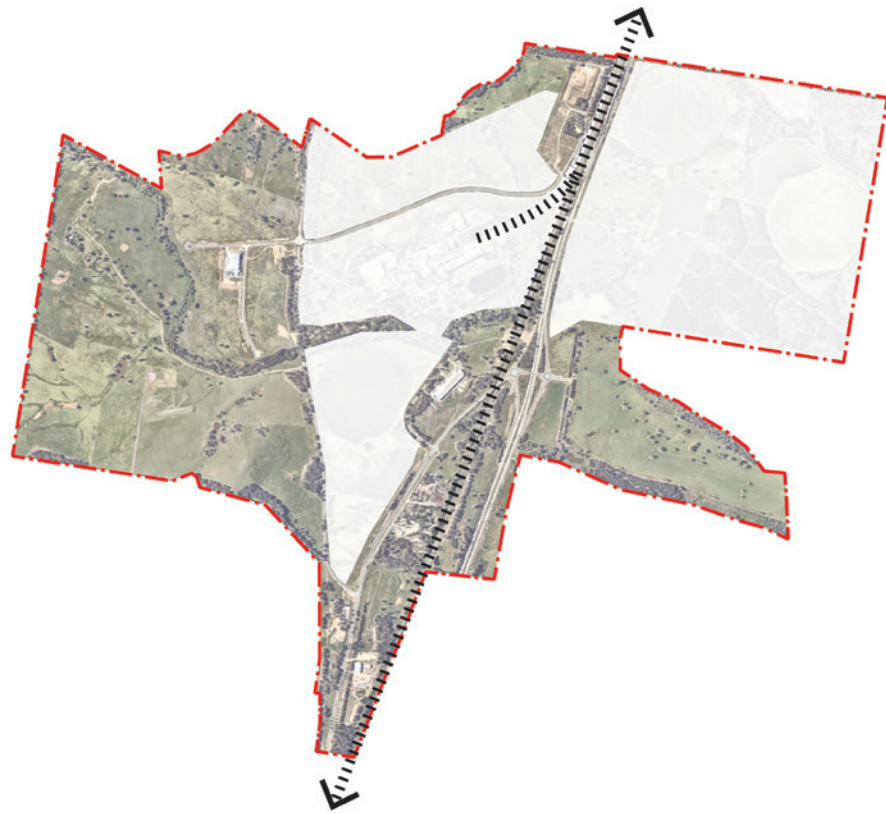


Figure 114. Workshop 1 - Scenario 1 - isolation diagram. Source: Ethos Urban.

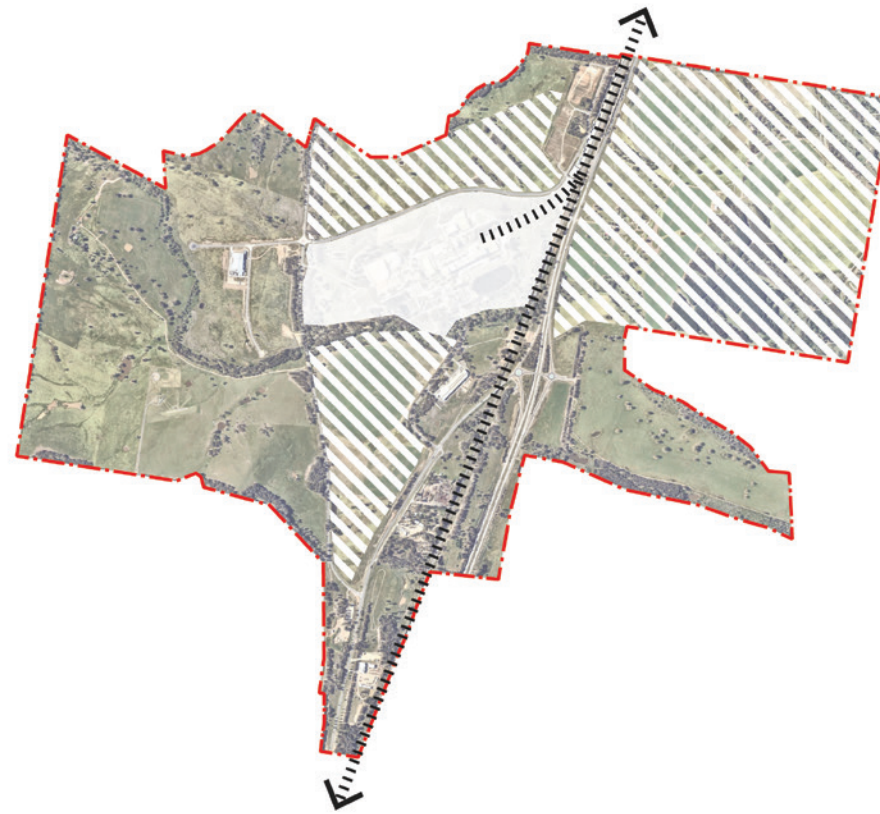


Figure 115. Workshop 1 - Scenario 2 - collaboration diagram. Source: Ethos Urban.

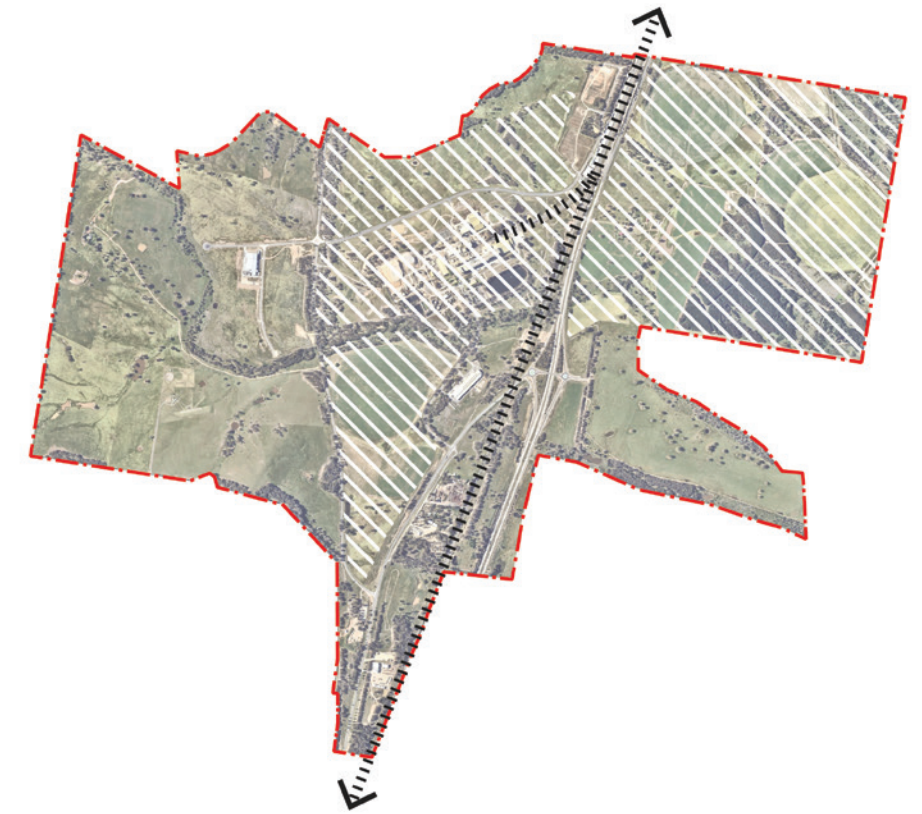


Figure 116. Workshop 1 - Scenario 3 - integration diagram. Source: Ethos Urban.

Scenario 1 - Isolation

Assumptions:

- Paper Mill land holding is not included, assuming that the Mill will:
 1. Re-commence operation within existing EPA licensing arrangement, utilising all existing land holdings.
 2. Commence operation of a similar industrial use within the existing land holdings.
 3. Hold onto existing land without operating.
- Master Plan will develop without requirement for interaction with the Paper Mill land.
- Services infrastructure must be planned without Paper Mill involvement or contribution.

Scenario 2 - Collaboration

Assumptions:

- Partial land divestment by Paper Mill for other uses. Assuming that the Mill will:
 1. Re-commence operation but with altered waste water treatment processes (such as reverse osmosis) which requires less land and less disbursed use of that land for waste water treatment.
 2. Commence operation of a dis-similar industrial use that requires a reduced area of land.
- These areas have been selected indicatively and are based on areas of land that are currently utilised at a reduced capacity.
- This land can be included in the Master Plan as land with potential for development to support growth of the RJP.
- Water - new enterprise may choose to negotiate private agreements with Paper Mill to sharing the private supply of water, treatment and return water to the Murray River.
- Electricity - new enterprise may choose to seek private agreements to utilise surplus electricity supply from Paper Mill's substation.

Scenario 3 - Integration

Assumptions:

- All Paper Mill land is included in the Master Plan scheme. This proposal assumes no specific lots are retained. It assumes that the Mill:
 1. Sells land to be purchased by other businesses for industrial use.
 2. Commences operation of a dis-similar industrial use that requires a reduced area of land, occupying a smaller portion of the lots.
- All land has equal potential for development or contribution to the Master Plan and the RJP.
- Water - local authority may choose to assume control of Paper Mill's direct private water supply and return pipelines to the Murray River increasing water supply to be shared across the RJP.
- Electricity - power authority may choose to assume control of Paper Mill's electricity substation to increase availability of power in the local network (may currently not meet required demand at present).

9.3.2 Urban Design Framework

Responses

The following scenarios were designed to test various options for land use and road structure against currently unknown future context.

The following scenarios were guided by the urban design framework established in Section 9.1.

Where responses were clearly identified to have a more ideal solution, responses were consistent across all scenarios. However, others were varied in order to present a series of solutions that may generate discussion amongst the stakeholders with expert opinions on each.

Refer to Table 14.

	Scenario 1	Scenario 2	Scenario 3
1. Protect biodiversity and high value vegetation	<ul style="list-style-type: none"> Minimising additional roads crossing the Eight Mile Creek. Protect high value vegetation areas, remove from developable land. 	<ul style="list-style-type: none"> Minimising additional roads crossing the Eight Mile Creek. Protect high value vegetation areas, remove from developable land. 	<ul style="list-style-type: none"> Minimising additional roads crossing the Eight Mile Creek. Protect high value vegetation areas, remove from developable land.
2. Protect, enhance and support sensitive receptors	<ul style="list-style-type: none"> Remove risk of industrial use located immediately north of the Thurgoona residential community by extending residential land into the precinct. Two new community hubs, one north of the South-Western community and one north of Thurgoona community. 	<ul style="list-style-type: none"> Reduce the risk to Thurgoona residential area by introducing lower intensity industrial use adjacent. Introduce a new community centre north of the growing residential community to the West of the highway with services and retail - expand the benefit of the precinct. 	<ul style="list-style-type: none"> Reduce, further, the risk to Thurgoona residential area by introducing business park use adjacent - assume smaller vehicles and less movement, potential for shared services. Smaller community centre north of the growing residential community to the West of the highway with services and retail - expand the benefit of the precinct. Prioritise low emitting industry adjacent residential land. New higher education hub to enhance connection with neighbourhoods.
3. Prioritise easy connection to transport corridors and intermodal	<ul style="list-style-type: none"> Improved connection from Intermodal through site with extension of Hub Road to Central Reserve Road. 	<ul style="list-style-type: none"> Improve connection from Intermodal through site with extension of Hub Road to Central Reserve Road. 	<ul style="list-style-type: none"> Improved connection from Intermodal through site with extension of Hub Road to Central Reserve Road.
4. Maximise the potential of Eight Mile Creek	<ul style="list-style-type: none"> Couple biodiversity corridors, which are rich in cultural, historic and indigenous value with recreation corridors to foster and prioritise public interaction with this valuable area. 	<ul style="list-style-type: none"> Couple biodiversity corridors, which are rich in cultural, historic and indigenous value with recreation corridors to foster and prioritise public interaction with this valuable area. 	<ul style="list-style-type: none"> Couple biodiversity corridors, which are rich in cultural, historic and indigenous value with recreation corridors to foster and prioritise public interaction with this valuable area.
5. Design to suit existing topography	<ul style="list-style-type: none"> Where land gets closer to a ridge, emissions from industrial land reduce - focus heavy emission land to the lowest lying ground. 	<ul style="list-style-type: none"> Assume lower intensity industry equates to smaller lots. Propose higher intensity industry on land that has minimal impact from steeper slopes (assume 8% and above), lower intensity industry on land where areas are more steep and needs to be carved into smaller lots to avoid expansive cut and fill. 	<ul style="list-style-type: none"> Separate high-emitting concepts from lot sizes (prioritise adjacency with residential).
6. Plan with embedded flexibility, resilience and robustness	<ul style="list-style-type: none"> A variety of uses is available. Heavy industrial land located where existing infrastructure sits to maximum utilisation (assuming heavy industry will be the first to arrive at the precinct - which may not be the case). 	<ul style="list-style-type: none"> A variety of uses is available, including the maximum amount of heavy industrial use to enable maximum variety of uses possible where available. 	<ul style="list-style-type: none"> A variety of uses spread across the site. Higher intensity industrial use located adjacent the intermodal for maximum connectivity. Areas of land use are large scale so that lot sizes can be flexible depending on demand.

Table 14. Workshop 1 - Urban Design Framework Responses

9.3.3 Proposed structure plans

The structure plan scenarios for the RJP tested within Workshop 1 were selected to enable discussion and comparison within smaller groups of subject matter experts. These three scenarios include:

1. Isolation.
2. Collaboration.
3. Integration.

Alongside testing scenarios based on the land ownership structures and assumptions within the precinct, the scenarios also test appropriate land use as well as movement through the precinct.

Scenario One : Isolation

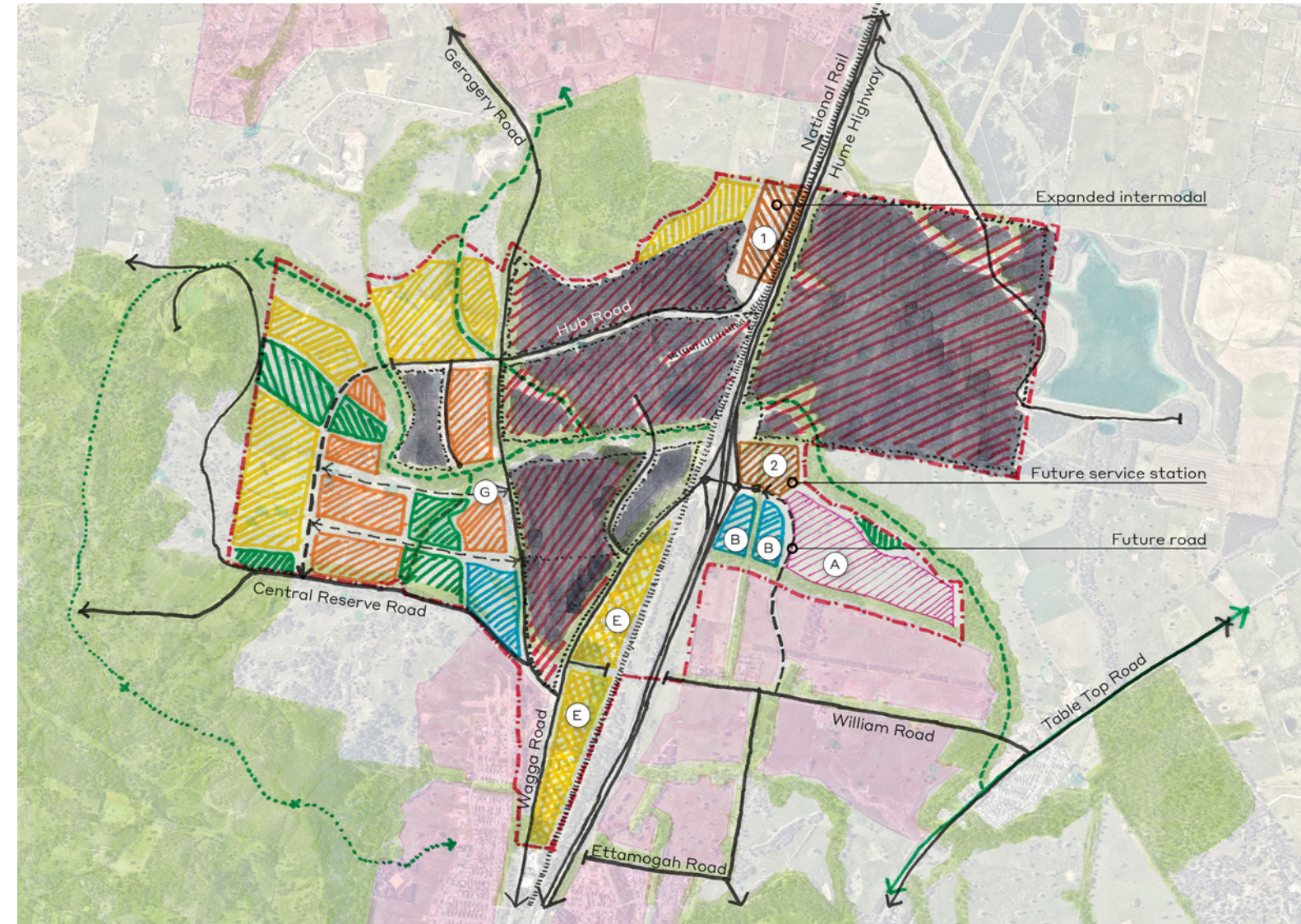


Figure 117. Workshop 1 - Scenario 1 - isolation concept structure plan sketch. Source: Ethos Urban.

LEGEND	
	RJP boundary
	National rail
	Existing roads
	Proposed roads
	Existing cycle path
	Proposed cycle path
	Residential zoned land
	Conservation land
	Existing heavy industry
	Existing Visy industry
	Protect vegetation
	Infrastructure
	Heavy industrial use
	Heavy industry with circular economy focus
	Higher education precinct
	Retail, community hub
	Historic residential
	Light industrial use
	Business park
	Ettamogah Rail Hub
	Future Service Station

Legend

- | | |
|---|--|
| <p>(A) Extended residential neighbourhood to meet the green buffer provided by Eight Mile Creek.</p> <p>(B) Proposed local neighbourhood community hub including retail and services adjacent future residential.</p> <p>(C) Heavy industrial use in the areas of the site which are flatter and more capable of accommodating large footprint industrial use. Heavy industrial use captured by the Hub Road ring-road.</p> <p>(D) Smaller light industrial use in areas with sloping or more challenging topography. Light industrial use outside of the Hub Road ring-road.</p> <p>(E) Maintaining business park use in land between rail and Wagga road corridors.</p> | <p>(F) Protection of existing high-value vegetation areas recommended for protection by biodiversity specialist (ERM).</p> <p>(G) New internal road which follows the creek from West to East to allow a creek-facing movement corridor.</p> |
|---|--|

Scenario Two : Collaboration



Figure 118. Workshop 1 - Scenario 2 - collaboration concept structure plan sketch. Source: Ethos Urban.

Legend

- | | |
|---|--|
| <ul style="list-style-type: none"> (A) Light industrial use with an interface with the proposed residential neighbourhood to the South-East. (B) Proposed local neighbourhood community hub which creates a form of high-street activity to the South-West, adjacent existing growth residential neighbourhood. (C) Heavy Industrial use in areas of the site which are flatter. This expanded heavy industry to the north. (D) Smaller light industry use in areas with sloping or more challenging topography. (E) Maintaining business park use in land between rail and Wagga road corridors. (F) Protection of existing high-value vegetation recommended for protection by biodiversity specialist (ERM). | <ul style="list-style-type: none"> (G) New internal road which follows the creek from West to East to allow a creek-facing movement corridor. |
|---|--|

Scenario Three : Integration

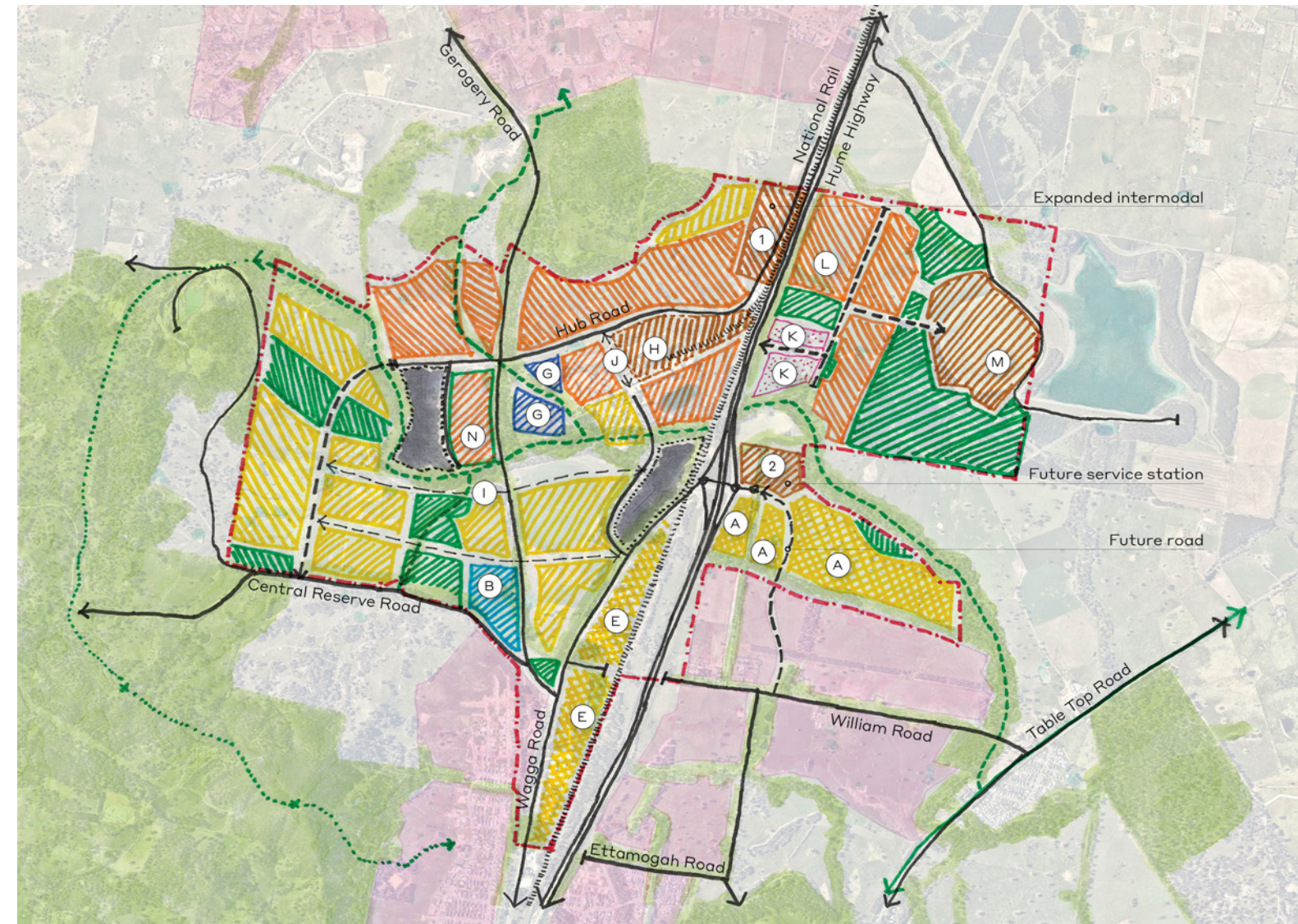


Figure 119. Workshop 1 - Scenario 3 - integration concept structure plan sketch. Source: Ethos Urban.

Legend

- | | |
|--|---|
| <ul style="list-style-type: none"> (A) Business park use, with an interface with the residential to the South-East. (B) Proposed local neighbourhood community hub, adjacent existing residential neighbourhood, West of the Hume Highway. (C) Heavy Industrial use furthest away from the residential sensitive receptors. (D) Smaller light industry use in areas with sloping or more challenging topography. In areas which have interface with existing or growth of residential. (E) Maintain business park use in land between rail and Wagga road corridors. (F) Protection of existing high-value vegetation recommended for protection. (G) Proposed satellite higher-education precinct. | <ul style="list-style-type: none"> (H) Extension of the intermodal rail hub to accommodate growth services - dangerous goods and refrigeration - utilise the existing rail spur. (I) New internal road which follows the creek from West to East to allow a creek-facing movement corridor. (J) Extension of the R W Henry Drive to connect directly to Hub Road. (K) Protection of homestead heritage areas to the East of the highway with green buffer to the north. (L) Heavy industry use to the East of the highway. (M) Sustainable energy production land - possibly solar or wind. (N) Sustainability focused heavy industrial use. |
|--|---|

9.3.4 Strengths and weaknesses against principles

What we learned generally

The table below summarises strengths and weaknesses that were identified commonly across all three scenario structure plans.

- 1 Expand Albury's capacity as a Regional City with a future-focused job market.
- 2 Create a deliverable, clear, robust and high-quality planning and land use framework.
- 3 Respond to and build upon the precinct's unique rural landscape character.
- 4 Create an environmentally sustainable and culturally responsible precinct.
- 5 Open up avenues for collaboration.

	Strengths	Weaknesses
1		
2		<ul style="list-style-type: none"> Waste facilities to the West of the precinct, Wagga Road will be utilised heavily for waste transfer, competing with local traffic No consideration of general industry.
3		<ul style="list-style-type: none"> Could improve active transport links to existing important vegetation areas (such as areas which are Crown land).
4	<ul style="list-style-type: none"> Improved valuing of biodiversity corridors in parallel with development of active transport, recreation and walking routes - public benefit. 	<ul style="list-style-type: none"> Concerns about challenges to attain biodiversity certification due to number of landowners. Require finer consideration of where land can be cleared around Gerogery Road which has high biodiversity value. Constraint to active transport where Eight Mile Creek meets the highway.
5		<ul style="list-style-type: none"> Requires consideration of trade waste accommodation on site and if this has opportunities within the wider precinct and beyond

Figure 120. Workshop 1 - General Strengths and Weaknesses summary

Scenario One : Isolation		
	Strengths	Weaknesses
1		<ul style="list-style-type: none"> No improvement to connectivity to Wagga Road.
2		
3	<ul style="list-style-type: none"> Eliminates risk of interface with the future residential to the South-East. Introduces smaller, perhaps more tailored neighbourhood hubs, including one which acts as a partner to the proposed service centre. Eastern neighbourhood hub complements highway services station. 	<ul style="list-style-type: none"> Potential risk for new community hub and additional residential use to the East of the Highway - Odour and Noise from Visy - currently within a licensed buffer area. Potential impact from Heavy Industry north of Western neighbourhood hub
4		<ul style="list-style-type: none"> No sustainable energy generation proposed for this scheme.
5		

Figure 121. Workshop 1 - Scenario 1 - Strengths and Weaknesses summary

Scenario Two : Collaboration

	Strengths	Weaknesses
①	<ul style="list-style-type: none"> New connection from Gerogery Road to Wagga Road - improved permeability. 	<ul style="list-style-type: none"> May requires a large financial investment from Visy to upgrade their waste water treatment processes which may be infeasible.
②		
③	<ul style="list-style-type: none"> Light industrial land adjacent Thurgoona Neighbourhood is better suited as a buffer zone to Visy land to the north. 	<ul style="list-style-type: none"> Gerogery Road not suitable for pedestrian community activity - community hub may be overpowered by heavy vehicle corridor. Potential unknown, but likely, impact from heavy industry to the South-West down to Central Reserve Road on existing growing residential neighbourhood.
④	<ul style="list-style-type: none"> Potential for a high-street style neighbourhood centre. 	<ul style="list-style-type: none"> No sustainable energy generation proposed for this scheme.
⑤		

Figure 122. Workshop 1 - Scenario 2 - Strengths and Weaknesses summary

Scenario Three : Integration

	Strengths	Weaknesses
①	<ul style="list-style-type: none"> Improved connection from Gerogery Road to Wagga Road - improved permeability and access to national highway. Potential for precinct to have more public benefit through higher education, generate more specialised skills suited for employment in the precinct. Intermodal expansion, utilising existing infrastructure - rail spur. Greater road network permeability, reducing travel distances. 	<ul style="list-style-type: none"> Largest existing industrial built form no longer within the precinct. Unknown usability of the Visy rail spur, may not be suitable for intermodal expansion.
②	<ul style="list-style-type: none"> Flexibility in land use and development without Visy. More land for heavy industry when compared to two previous scenarios 	<ul style="list-style-type: none"> Relative increased light industrial land - restricting use by emissions. Unknown demand for increase land for business park use.
③	<ul style="list-style-type: none"> Solar or wind farms are buffered from residential neighbourhood to reduce adverse impacts of noise and light pollution. Lower impact on residential - increased buffers to heavy industry. Neighbourhood community hubs adjacent existing communities without centre. 	
④	<ul style="list-style-type: none"> Potential to generate sustainable power. Opportunity for adaptive reuse of existing rural residential heritage items. 	<ul style="list-style-type: none"> Risk for heritage homesteads and conflict with heavy industry. Potential issues with decontaminating Visy land for future use.
⑤	<ul style="list-style-type: none"> Higher education may generate innovation and collaboration in the precinct. 	<ul style="list-style-type: none"> Education cannot be located within heavy industry due to conflicts with externalities.

Figure 123. Workshop 1 - Scenario 3 - Strengths and Weaknesses summary

9.3.5 Summary of findings from Workshop 1

Summary

The following includes a summary findings of workshop 1 and the actions proposed to be undertaken in the development of Phase 2 in preparation for Workshop 2.

1. Precinct needs to be a good neighbour to residential and business areas

Existing residential neighbourhoods, business areas, education precincts are all important context. The RJP must consider the location of these sensitive receptors to ensure no adverse impacts from proposed industrial development (emissions, noise, traffic, land use conflicts, etc.).

Key Actions

- Mapping of sensitive receptors in greater clarity for analysis.
- Minimise local traffic crossing the highway to access services:
 - Consideration of Thurgoona Wirringa Structure Plan in terms of spacing of community hubs (village or major centres).
 - Consider village centre for South-West residential community.
- Consider flexibility in zoning to facilitate neighbourhood hub services.

Consider large-scale heavy uses in proximity to neighbourhoods - possibility to consider large-scale but low-impact in these areas. Some precincts prefer to provide a mix of lot sizes to facilitate a variety of operators. Meanwhile, other precincts prefer to focus attention on a particular lot typology to attract a particular user. Understanding this will be important in generating a strategy for staging.

2. Prioritise short-cuts to existing intermodal from the Hume Highway

Need to reduce travel time to, from and through the precinct. Need to identify better connectivity opportunities to urban areas immediately south.

Key Actions

- Consider topography, biodiversity and land use to identify potential connecting points.
- Consider potential new North-South road parallel with rail line (require new rail crossing or removal of rail spur).
- Potential for new road connection between irrigation sites (existing Visy land to the south of the mill) to allow for greater permeability.

3. Staging requires consideration

The delivery of a plan with a diversity of uses needs to be considered from a staging perspective to ensure these are adequately serviced by infrastructure. Land zoning needs to allow for evolution of the precinct over time to allow for complimentary uses to grow throughout the precinct where demand grows.

Key Actions

- Prepare a staging diagram based on existing infrastructure.
- Ensure that any proposed early stages does not prevent any particular use of the Visy land in the future.
- Ensure zoning embeds a level of flexibility.

4. Not the right precinct for farm-style sustainable energy production

The precinct's focus on jobs should prioritise land uses which maximise the number of employment opportunities. Solar or wind farming is not a high-generator of jobs. Rooftop solar does not sterilise land, the area below the solar acts as a job generator through industry - this is the focus for the precinct.

Key Actions

- Remove solar or wind farming areas.
- Consider planning controls or other motivations to ensure roof top solar is embedded in the precinct.
- Consider infrastructure implications of large-scale solar energy production in the precinct.

5. Resolve connectivity for active transport

The new paths must connect into these existing pathways to support short commuting-style cyclist routes ideally along more direct roads.

Secondary cyclist routes are those which are for the purposes of recreation and are better suited to the paths which are shown through the riparian and biodiversity corridors.

Key Actions

- Consider two types of active transport, both commuter cycling and recreation cycling.
- Include commuter bicycle pathways into the scheme.
- Resolve highway crossing for cyclists on recreation trail, consideration of:
 - Seven Mile Creek (between Williams Road and Ettamogah Road).
 - Davey Road Interchange.

6. Consider water health / quality

Where industry backs onto Eight Mile Creek, must consider potential for pollution and degradation of water quality. Water quality must be a priority in order to be consistent with indigenous cultural values and environmental outcomes.

Manage contamination and waste water to avoid polluting water ways. Existing on-site waste water treatment needs to result in high quality product. Ensure that other waste water treated on the site into the future maintains high level of output.

Key Actions

- Ensure creek doesn't become a 'back of house' to industry.
- Industry should be buffered from the creek by roads and paths where possible to ensure passive surveillance and safety of creek and pedestrians.
- Consider possible ways that waste water can be re-introduced into the ecology of the site through irrigation of planted areas or directly into existing aquifers (preferable).

7. Design for flexibility, irrespective of the future uses of Visy land, operation and ownership

With Visy's future an unknown and unlikely to become clear within the timeframe of this project, the intent for the next stage must be to design a master plan which can be flexible enough to accommodate any variation to Visy's operations and changes on the site (assuming that higher intensity industrial use may be used throughout).

Key Actions

- Design for flexibility, to accommodate changes in the staging.
- Design to deal with continued uncertainty.

8. Consider services infrastructure - staging and sustainability

Existing services infrastructure unlikely to satisfy the demands from the full-scale master plan. Staging should consider utilising existing infrastructure where possible initially prior to greater investment.

Key Actions

- Staging to consider utilising existing infrastructure where possible.
- Utilise solar panels and batteries to support a micro grid.
- Consider existing easements to support infrastructure delivery.
- Consider trade waste management.
- Consider cost of infrastructure delivery
 - Grants and funding for water and power infrastructure upgrades.
 - New enterprise may contribute to a unified fund for new utility infrastructure.

9. Consider embedding water management strategies into the precinct

Develop strategies for the precinct to help manage existing deficiencies in waste water management infrastructure and water supply which can spur innovation, collective operations and sustainable solutions.

Key Actions

- Consider rain water harvesting (individual and shared).
- Consider innovative waste water treatment (individual and shared).
- Consider shared use of Visy's water supply (15 mega litres per day) if not in use.
- Consider integrated water system with a holistic approach.
- Consider how to limit to operators that do not undertake water intensive activity.
- Consider re-introducing treated waste water into riparian corridors to enhance them as areas for recreation both during and outside precinct operating hours.

10. Protect valued vegetation and habitat.

Protected vegetation areas need greater consideration at a detailed level to ensure that a buffer is provided for protection.

Key Actions

- Consider the 'edge effect' of narrow areas of protected conservation areas for vegetation and habitat.
- Consider impacts of road widening, footpaths and other road infrastructure on biodiversity areas.
- Identify potential benchmarks such as ISCA certification.
- Minimise clearing around Gerogery Road.
- Develop threat hierarchy, e.g. if we do X, it will threaten Y (fauna or flora).
- Look for opportunities to provide planted offsets to provide better biodiversity outcomes.

11. Be specific about the definitions of 'industry' types - light, heavy, low impact, high impact, general.

Consider land use descriptions, what is needed or suitable for the site and what are the limitations placed on each type.

Key Actions

- Consider descriptors of these areas in terms of low impact and high impact (rather than low and heavy) - focus on hazard potential.
- Consider general industry type which may have expanded operations - allows for innovation but low-impact on surrounding areas.
- Consider demand for particular industry types.
- Utilise light industry adjacent sensitive receptors, disconnect from topographic constraints.

12. Generate interest.

Find opportunities to generate stimulus in the area and get it 'on the map' for those looking for employment lands. Look to generate momentum.

Key Actions

- Consider collaboration with Logic (Victoria) to promote two different kinds of environments for growth that work together.
- Identify opportunities to promote NEXUS as an important and available precinct for those looking.
- Increase visibility and interest in the Albury RJP

13. Set measurable ambitions and targets and generate ideas for improved sustainable outcomes.

Meeting the vision and principles of sustainability and ethical development requires measurable targets for the precinct.

Understanding the future of industry and transport will assist with meeting these goals.

Key Actions

- Identify potential benchmarks such as Infrastructure Sustainability Council of Australia (ISCA) certification.
- Consider net zero targets.
- Consider haulage vehicle alternative energy supply - hydrogen and electricity - and ensure service station can accommodate both of these.
- Consider vegetation planting as offsets.

14. Action on heritage and indigenous value.

Bring more specific action to demonstrate protection and integration of these heritage and indigenous values into the precinct.

Key Actions

- Identify potential compatibility of adaptive re-use of heritage items with public use.
- Consider examples of similar adaptive re-use.
- Seek opportunities to protect and conserve Aboriginal cultural heritage values in Eight Mile Creek corridor.
- Engagement with Aboriginal Land Council and Registered Aboriginal Parties.
- Consideration of heritage homestead as a destination linked by active transport.
- Consider alternative land uses (not heavy industry) adjacent heritage homesteads - incompatible with protection.

14. Create strategy for trade waste and waste water management to support a circular economy approach

Look for opportunities to create a broader and more holistic approach to managing trade waste and waste water treatment for the precinct.

Key Actions

- Consider including Visy in a more collective waste water treatment process to open up opportunities on under utilised land - either involve Visy in new treatment process or engage Visy to facilitate shared use of their facilities.
- Consider trade waste and ways this can be used across the precinct and beyond.
- Look for ways that might allow for more efficient waste water treatment - reduce land area to maximise jobs productive use.
- Support road infrastructure upgrades along roads which connect operators to regional and local recycling facilities.

9.4 Workshop 2

9.4.1 Approach and Assumptions

Staging is designed to allow for flexibility, to allow for a variety of future scenarios in relation to Visy's use of the existing land within their ownership.

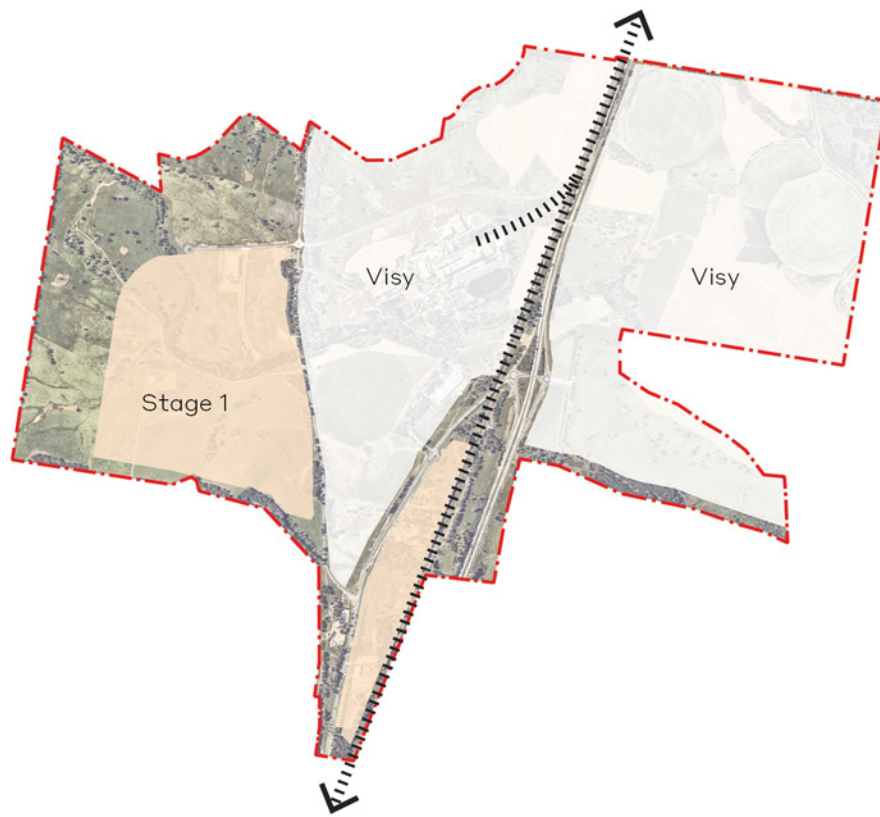


Figure 124. Workshop 2 - Stage 1 diagram. Source: Ethos Urban.

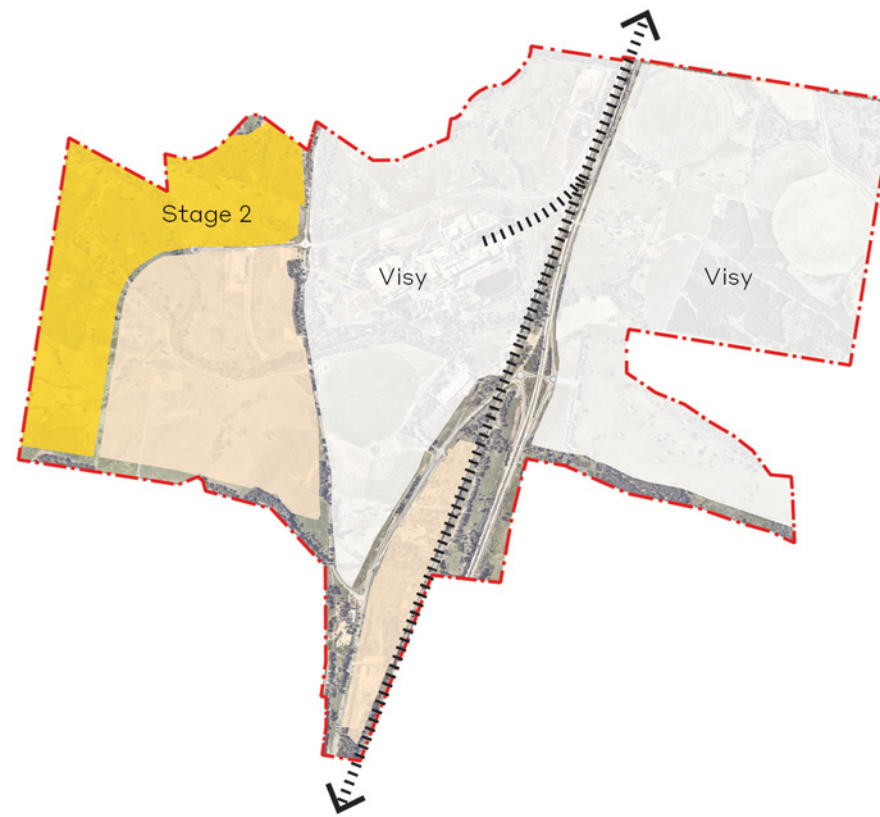


Figure 125. Workshop 2 - Stage 2 diagram. Source: Ethos Urban.

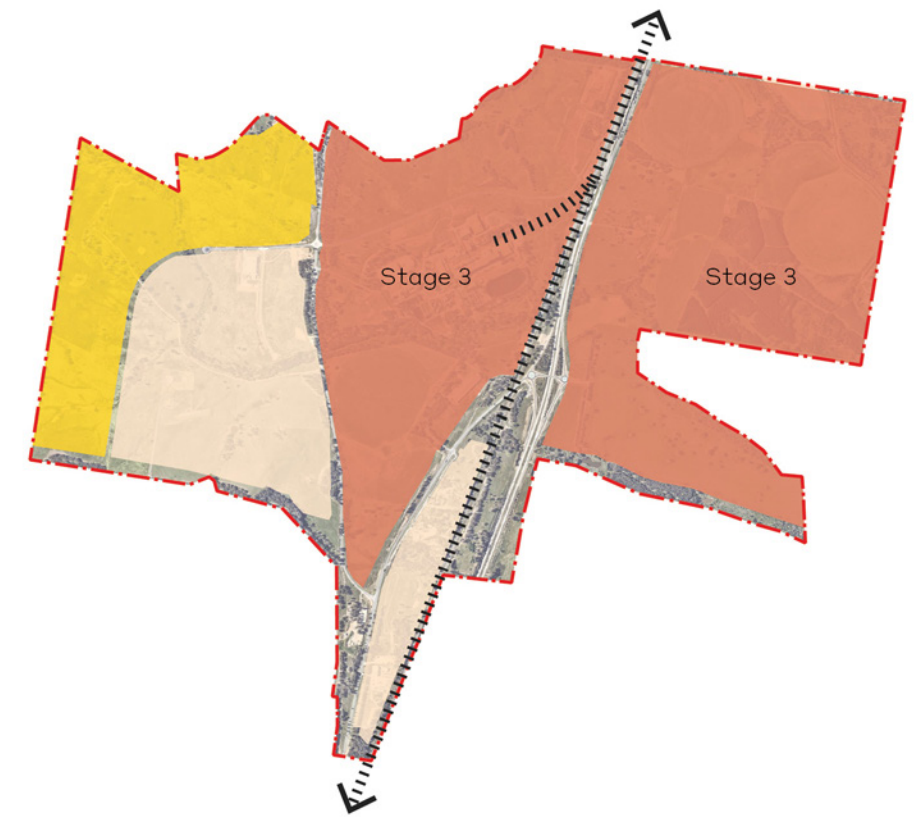


Figure 126. Workshop 2 - Stage 3 diagram. Source: Ethos Urban.

Stage 1 - Momentum

- This stage assumes:
 1. Working within land outside of the Paper Mill landholding.
 2. Utilising areas with access to existing infrastructure.
- Assume Visy does not change operation or land ownership, stage is designed to operate along side any industrial activity which Visy undertakes.
- This stage maximises the potential of existing services infrastructure.
- Sets up framework in terms of biodiversity and road network.
- Creates vibrant activity at a core.

Stage 2 - Growth

- This stage assumes:
 1. Working within land outside of the Paper Mill landholding.
 2. Expanding development area to include sites which are higher topographically, north and west of Hub Road.
- Assume Visy does not change operation or land ownership, stage is designed to operate along side any industrial activity which Visy undertakes.
- Expands activity into more challenging, unique and diverse areas of the site.
- Increases opportunities for diversity of site areas and types.

Stage 3 - Expansion

- This stage assumes expanding development area to include all areas of the precinct including those areas currently within Paper Mill land holding.
- This proposal assumes no specific lots are retained by Visy.
- Assumes Visy reaches a stage where their operations and / or land ownership is no longer maintained as it currently exists.
 - Land use for the Job Precinct expands to the full extent of the subject area.

9.4.2 Urban Design Framework

Responses

The following stages were designed to test various options for land use and road structure against currently unknown future context.

The following scenarios were guided by the urban design framework established in Section 9.1.

Where responses were clearly identified to have a more ideal solution, responses were consistent across all scenarios. However, others were varied in order to present a series of solutions that may generate discussion amongst the stakeholders with expert opinions on each.

Refer to Table 14.

	Scenario 1	Scenario 2	Scenario 3
1. Protect biodiversity and high value vegetation	<ul style="list-style-type: none"> - Minimising additional roads crossing of Eight Mile Creek. - Protect high value vegetation areas, dams and creeks, remove from developable land. - Provide corridor connections to larger areas of conservation land. 	<ul style="list-style-type: none"> - Minimising additional roads crossing the creek. - Protect high value vegetation areas, dams and creeks, remove from developable land. - Provide corridor connections to larger areas of conservation land. 	<ul style="list-style-type: none"> - Minimising additional roads crossing the creek. - Protect high value vegetation areas, dams and creeks, remove from developable land. - Provide corridor connections to larger areas of conservation land.
2. Protect, enhance and support sensitive receptors	<ul style="list-style-type: none"> - Provide amenity to existing growing residential community - new community centre. - New higher education hub for community education and jobs growth. 	<ul style="list-style-type: none"> - Provide amenity to existing growing residential community - new community centre. - New higher education hub for community education and jobs growth. 	<ul style="list-style-type: none"> - Provide amenity to existing growing residential community - new community centre. - New higher education hub for community education and jobs growth. - Lower intensity industrial land adjacent the existing and future residential neighbourhoods.
3. Prioritise easy connection to transport corridors and intermodal	<ul style="list-style-type: none"> - Improved connection from Intermodal through site with extension of Hub Road to Central Reserve Road. - Increase east-west movement to increase site permeability. 	<ul style="list-style-type: none"> - Improved connection from Intermodal through site with extension of Hub Road to Central Reserve Road. - Increase east-west movement to increase site permeability. 	<ul style="list-style-type: none"> - Improved connection from Intermodal through site with extension of Hub Road to Central Reserve Road. - Increase east-west movement to increase site permeability.
4. Maximise the potential of Eight Mile Creek	<ul style="list-style-type: none"> - Couple biodiversity corridors, which are rich in cultural, historic and indigenous value with recreation corridors to foster and prioritise public interaction with this valuable area. 	<ul style="list-style-type: none"> - Couple biodiversity corridors, which are rich in cultural, historic and indigenous value with recreation corridors to foster and prioritise public interaction with this valuable area. 	<ul style="list-style-type: none"> - Couple biodiversity corridors, which are rich in cultural, historic and indigenous value with recreation corridors to foster and prioritise public interaction with this valuable area.
5. Design to suit existing topography	<ul style="list-style-type: none"> - Large-lot land uses on flatter, low lying terrain. 	<ul style="list-style-type: none"> - Large-lot land uses on flatter, low lying terrain. - Small-lot land uses on steeper and higher terrain. 	<ul style="list-style-type: none"> - Large-lot land uses on flatter, low lying terrain. - Small-lot land uses on steeper and higher terrain.
6. Plan with embedded flexibility, resilience and robustness	<ul style="list-style-type: none"> - Can more likely work with existing services infrastructure to provide land for employment and development without large-scale investment. - First stage allows for new micro-grid to support solar energy on rooftops. 	<ul style="list-style-type: none"> - Includes micro-grid as an in-between measure to avoid full infrastructure upgrades. 	<ul style="list-style-type: none"> - Includes micro-grid as an in-between measure to avoid full infrastructure upgrades.

Table 15. Workshop 2 Urban Design Framework Responses

9.4.3 Proposed structure plans

The structure plan scenarios for the RJP tested within Workshop 1 were selected to enable discussion and comparison within smaller groups of subject matter experts. These three scenarios include:

1. Isolation.
2. Collaboration.
3. Integration.

Alongside testing scenarios based on the land ownership structures and assumptions within the precinct, the scenarios also test appropriate land use as well as movement through the precinct.

One important note is the introduction of a few new land use types and a decoupling of the conceptual large-footprint industrial land with higher intensity industry as well as small-footprint with lower intensity industry. An additional layer of information communicates areas best suited to small lots.

LEGEND

- RJP boundary
- National rail
- Existing roads
- Proposed roads
- Existing cycle path
- Proposed cycle path

Existing

- Residential - R1
- Residential - R2
- Residential - R5
- Conservation
- Crown land
- Visy industry

Proposed

- Conservation
- Public recreation
- Infrastructure
- Higher intensity industry
- Lower intensity industry
- General industry
- Small lot industry
- Existing occupant
- Higher education precinct
- Retail, community hub
- Historic residential
- Future investigation area

Stage One : Momentum

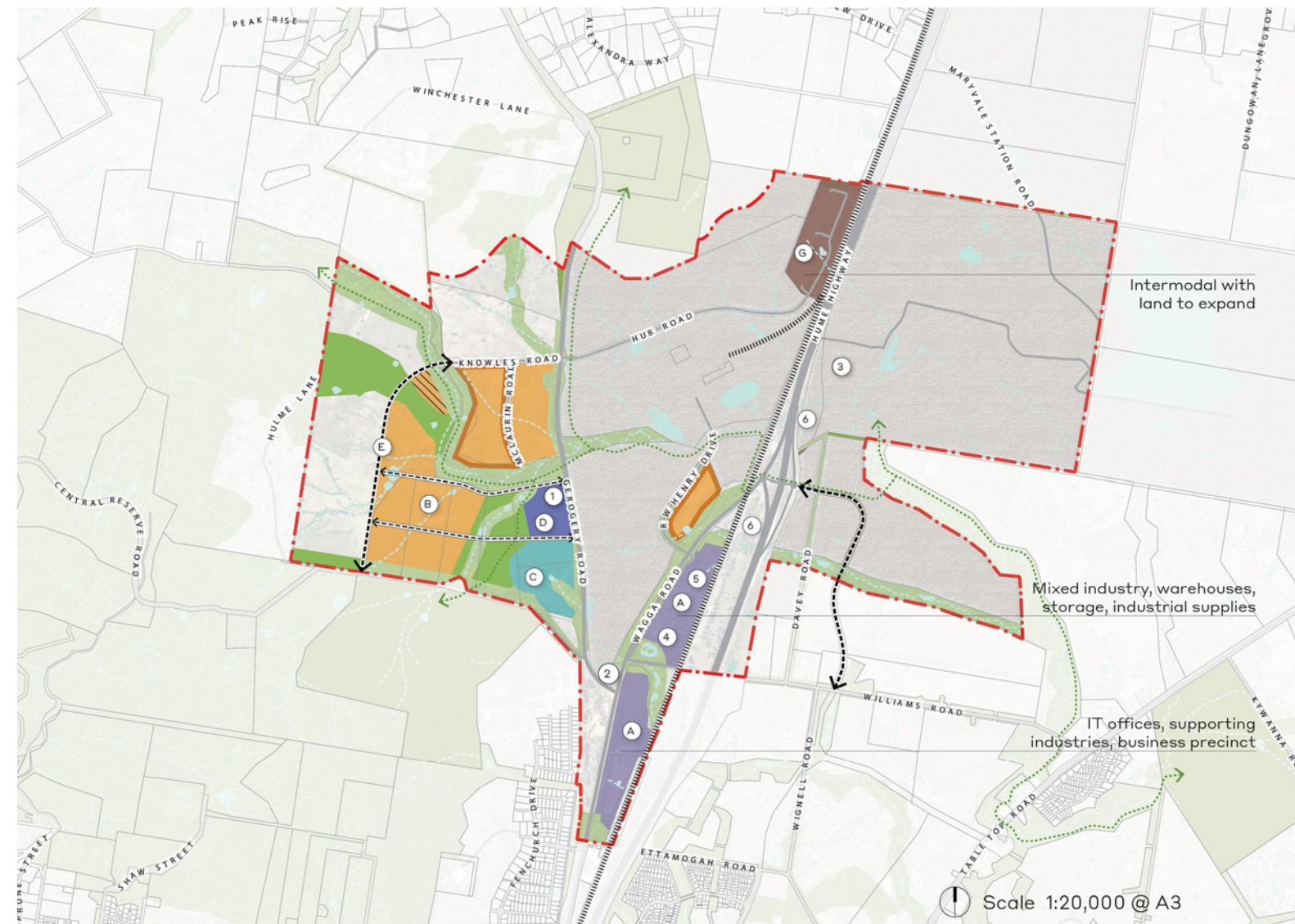


Figure 127. Workshop 2 - Stage 1 structure plan staging diagram. Source: Ethos Urban.

Legend

- ① Micro-grid location
- ② Water recycling, collective on-site treatment
- ③ Adaptive re-use existing rural historic homestead
- ④ Consideration of potential heritage value.
- ⑤ Potential for hydrogen production, proximity to gas line below and service station adjacent
- ⑥ Potential NEXUS Service Station signage

Stage 1 summary

- A Lower intensity industries to provide for uses such as car yards, truck services, mixed industries, warehouses, IT offices and other technological support, etc.
- B A provision of high intensity industrial sub precinct which can accommodate most types of land use.
- C Neighbourhood centre
- D Higher education land use
- E Hub Road continues to meet Central Reserve Road.
- F Majority of lots are large lots
- G Expansion of the existing intermodal

Stage Two : Growth

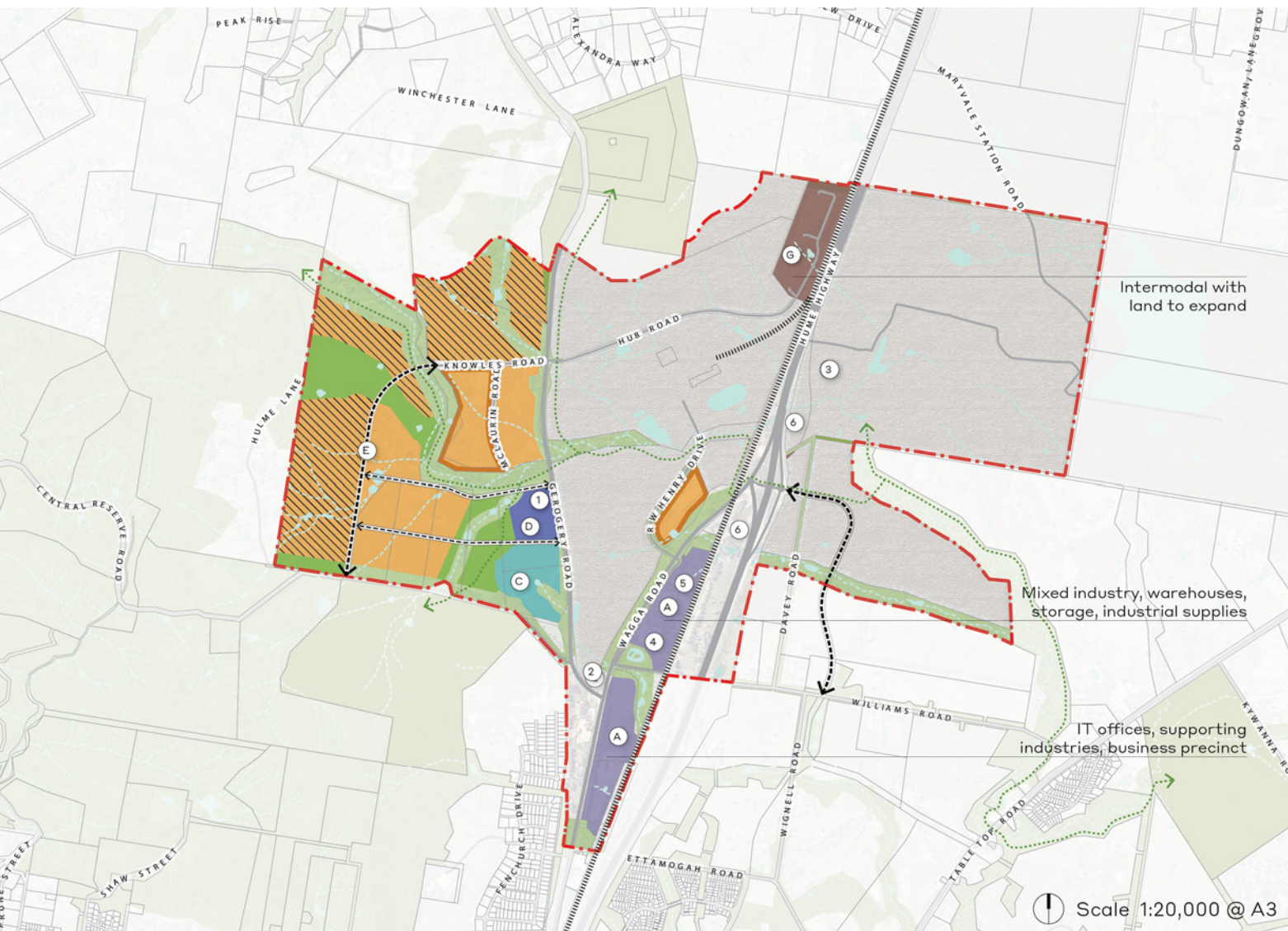


Figure 128. Workshop 2 - Stage 2 structure plan staging diagram. Source: Ethos Urban.

Legend

- ① Micro-grid location
- ② Water recycling, collective on-site treatment
- ③ Adaptive re-use existing rural historic homestead
- ④ Consideration of potential heritage value.
- ⑤ Potential for hydrogen production, proximity to gas line below & service station
- ⑥ Potential NEXUS Service Station signage

Stage 2 summary

- Ⓐ Lower intensity industries to provide for uses such as car yards, truck services, mixed industries, warehouses, IT offices and other technological support, etc.
- Ⓑ A large provision for higher intensity industrial land.
- Ⓒ Neighbourhood centre.
- Ⓓ Higher education land use.
- Ⓔ Hub Road continues to meet Central Reserve Road.
- Ⓕ A variety of lot sizes, small lots on higher topographic land and larger lots within flatter terrain.
- Ⓖ Expansion of the existing intermodal.

Stage Three : Expansion

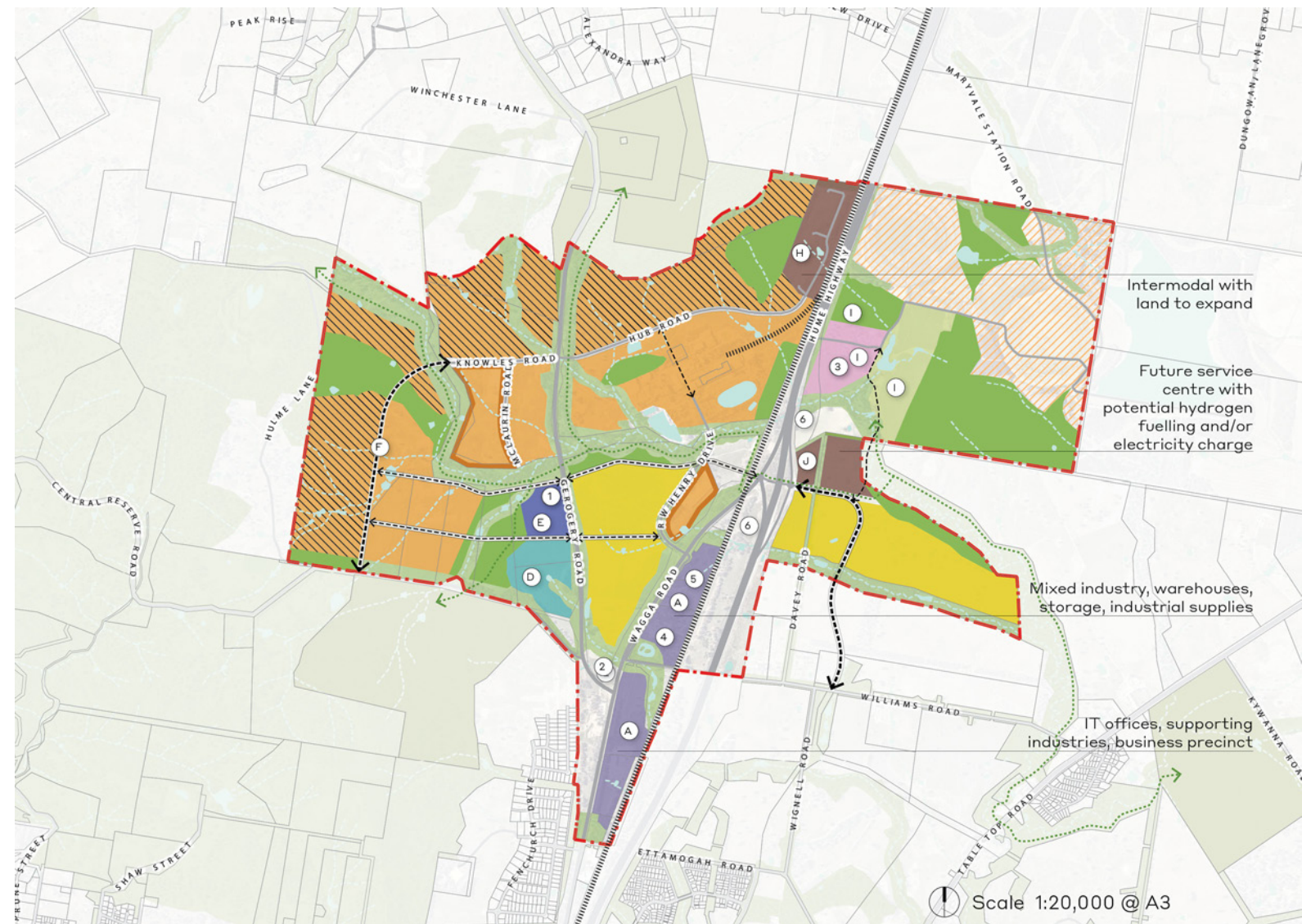


Figure 129. Workshop 2 - Stage 3 structure plan staging diagram. Source: Ethos Urban.

Legend

- ① Micro-grid location
- ② Water recycling, collective on-site treatment
- ③ Adaptive re-use existing rural historic homestead
- ④ Consideration of potential heritage value.
- ⑤ Potential for hydrogen production, proximity to gas line below & service station
- ⑥ Potential NEXUS Service Station signage

Stage 3 summary

- Ⓐ Lower intensity industries to provide for uses such as car yards, truck services, mixed industries, warehouses, IT offices and other technological support, etc.
- Ⓑ A large provision for higher intensity industrial land.
- Ⓒ A portion of lower intensity industrial land.
- Ⓓ Neighbourhood centre
- Ⓔ Higher education land use
- Ⓕ Hub Road continues to meet Central Reserve Road.
- Ⓖ A variety of lot sizes, small lots on higher topographic land and larger lots within flatter terrain.
- Ⓗ Expansion of the existing intermodal
- Ⓖ Heritage items with buffer areas
- Ⓙ Highway service centre to the East of the Davey Road Interchange.

9.4.4 Strengths and weaknesses against principles

What we learned generally

The table below summarises strengths and weaknesses that were identified commonly across all three stages.

Please note that this section provides a summary of the strengths and weaknesses of each stage. Given that these are stages, and not options, the strengths and weaknesses from previous stages are not repeated to avoid duplication. As such some of the strengths and weaknesses from Stage 1 will also apply to Stage 2, and some from Stage 2 will also apply to Stage 3.

- 1 Expand Albury's capacity as a Regional City with a future-focused job market.
- 2 Create a deliverable, clear, robust and high-quality planning and land use framework.
- 3 Respond to and build upon the precinct's unique rural landscape character.
- 4 Create an environmentally sustainable and culturally responsible precinct.
- 5 Open up avenues for collaboration.

Stage One : Momentum

	Strengths	Weaknesses
1	<ul style="list-style-type: none"> Improved connectivity across the Western edge of the site. Micro-grid located adjacent existing infrastructure, possibly delivered in stage 1. 	<ul style="list-style-type: none"> No reduction in drive time from the highway to the rail intermodal. Only small portion of small lots - if diversity is a priority, needs to be reconsidered. No light industrial use available.
2	<ul style="list-style-type: none"> Allows for heavy industry where possible to allow for a wider variety of uses and activities. Majority of developable areas are capable of including large-scale lots due to topographic conditions. 	<ul style="list-style-type: none"> Clarity around proposed land use and operations in the general industry area - northern portion has quite different conditions to southern portion.
3	<ul style="list-style-type: none"> Community centre north of an existing growing residential neighbourhood. Vegetation buffers high emissions activity from community uses and residential areas. 	<ul style="list-style-type: none"> Requires consideration of off-site impacts from heavy industry to the South-West on Central Reserve Road. Possible impact from heavy industrial use on Central Reserve Road.
4		<ul style="list-style-type: none"> Visy land does not have any proposed conservation areas in this stage. No shared water recycling location (proposed on existing Visy land) Active transport network does not connect to existing bicycle paths Proposed roads pass through conservation areas south of Eight Mile Creek
5	<ul style="list-style-type: none"> Condensed footprint (relative to precinct) which can generate momentum and activity. Higher education precinct is coupled with community services hub. 	

Figure 130. Workshop 2 - Stage 1 - Strengths and Weaknesses summary

Stage Two : Growth

	Strengths	Weaknesses
1	<ul style="list-style-type: none"> Large amount of high-emissions industrial land available for development. 	<ul style="list-style-type: none"> No improved connection to the Highway across Visy land. Visibility of the precinct still remains a problem and requires further consideration.
2	<ul style="list-style-type: none"> Larger variety of lot sizes open for development. 	<ul style="list-style-type: none"> No light industrial land available in this stage.
3		
4		<ul style="list-style-type: none"> East-West Road network conflicts with existing lot layout and biodiversity corridor. High-emissions industrial land to the North above Hub Road adjacent Gerogery Road may require vegetation clearing No inclusion of north-south connection of existing active transport link from central Albury (via Laverton) to RJP
5		

Figure 131. Workshop 2 - Stage 2 - Strengths and Weaknesses summary

Stage Three : Expansion

	Strengths	Weaknesses
1	<ul style="list-style-type: none"> Improved road network - reduced travel time from Hume Highway to the Ettamogah Interchange. Higher Education precinct could support tailored / specialised training. 	<ul style="list-style-type: none"> Highway service station is located to the East of the precinct which does not act as a gateway for the largest portion of the site. East-West road connecting Davey Road interchange and the R W Henry Drive has topographic challenges which may not be feasible to overcome. Topographic challenges to the heavy industrial land at the northern tip of the precinct to the West of the Hume Highway - slope is above 10%.
2	<ul style="list-style-type: none"> Larger variety of lot sizes. Large variety of industrial types to suit a variety of operators. 	<ul style="list-style-type: none"> Unknown activity proposed to the East of the Hume Highway - future investigation area does not provide sufficient clarity. Light industrial land, East of the highway may be too vague and lacks variety.
3	<ul style="list-style-type: none"> Low emissions industrial use adjacent residential land to provide a buffer. 	<ul style="list-style-type: none"> Potential conflict between higher education and the heavy industry (to the north).
4	<ul style="list-style-type: none"> Active travel through green space is great for recreation network. Large areas of conservation areas to the East of the Hume Highway may be able to act as offsets. Collective waste water treatment area. 	<ul style="list-style-type: none"> Biodiversity conservation area to Lot 34, DP 1121146 includes the majority of the land available - should be considered at a finer level to maximise area of land that might be developable without impacting important conservation areas.
5	<ul style="list-style-type: none"> Higher Education precinct could support innovation 	

Figure 132. Workshop 2 - Stage 3 - Strengths and Weaknesses summary

9.4.5 Summary of findings from Workshop 2

Summary

The following includes a summary of findings of workshop 2. In some areas, the thinking or findings of Workshop 2 were built upon or further developed from a finding of Workshop 1, other times the findings were new, following presentation of a staging proposal.

1. Identify general intent for the precinct in terms of preferred scale of operations

Some precincts prefer to provide a mix of lot sizes to facilitate a variety of operators. Meanwhile, other precincts prefer to focus attention on a particular lot typology to attract a particular user. Understanding this will be important in generating a strategy for staging.

Key Actions

Two questions were raised in Workshop 2 which require reconciliation in the following stage and both relate to lot size:

1. Should Stage 1 include a variety of lot sizes to encourage diversity in the first stage, to allow for smaller businesses generating activity in the precinct, to remove reliance on larger business moving to the precinct?
2. Should the precinct, as a precinct primarily focused on industry, be prioritising larger lot sizes?

Response to these: While it is premature to identify lot sizes at this structure plan stage, it is clear that a recommendation is appropriate to investigate, in future stages demand for lot sizes prior to subdivision within the precinct.

2. Create a planning framework which is tailored but does not increase complexity

Make sure that any additional planning requirements are minimal and necessary to avoid creating a precinct which has additional labour to its proponents. This will ensure that the precinct sits clearly in line with the existing DPE planning approaches. This will additionally ensure that there is no sense of 'mystery' to potential proponents for the precinct. Prioritise clarity and sense of certainty.

Key Actions

- Utilise existing definitions of industry based on emissions and other outputs to avoid creating custom measures for industrial activity - proponents required to demonstrate meeting performance criteria of these definitions in their applications.
- Consider Victoria streamline planning for comparison - Logic as competitor.

3. Improved consideration of conservation areas through all stages

Conservation areas should be prioritised in the Stage 1 roll-out where possible, including on Visy land. It would allow for restoration and consolidation of habitat features and green corridors to prevent further destruction of habitat for threatened species.

Key Actions

- Minimise road crossings of biodiversity corridors, not just Eight Mile Creek.
- Include conservation areas within all stages to allow Visy to support protection of valued vegetation and habitat.
- Consider tree planting to help offset any vegetation clearing as well as provide carbon offsets for carbon emissions from industry.
- Consider planting as a visual buffer to large smoke stacks and big box built forms.

4. Be more specific about land use in the southern area of land adjacent residential

The narrow parcels of land which run north-south parallel with Wagga Road and the Hume Highway are a good location for logistics, however due to the proximity to existing and growing residential neighbourhoods - specific land uses and operations would need to be considered.

Hydrogen is unlikely to be the priority - other more efficient and cheaper alternatives and potential public perception issues of locating generators adjacent residential land.

Key Actions

- Clarify use and types of businesses.
- Reconsider land zoning to ensure flexibility but protection for residents.
- Remove hydrogen generation from the precinct proposal, re-focus on rooftop solar.

5. Precinct east of the highway should be more specific about future use and consider road network

Be specific about what intensity of land use will happen to the East of the Hume Highway (existing Visy land) to ensure technical analysis of emissions can include future anticipated scenario.

Key Actions

- Clarify use - light, heavy or general industrial use or other, where appropriate.
- Identify buffer interface with heritage items.
- Consider growth area for residential to the north, east and south.

6. Staging infrastructure is a good strategy

Staging the delivery of infrastructure by being considerate about the types of land use and the scale of stage one will help make infrastructure delivery sustainable and efficient.

Key Actions

- Micro grid can be a first level of investment which will not become redundant but integrated into larger infrastructure upgrades into the future.
- Update the master plan staging to include time frames (a 20-year plan) to inform sequencing and timing of delivery of infrastructure based on demand.

7. Resolve connectivity issue for active transport.

There are existing active transport paths include one that runs to the western edge of Wagga Road. The new paths must connect into these existing pathways to support short commuting-style cyclist routes.

Key Actions

- Include commuter bicycle pathways into the scheme.
- Attain mapping of bicycle paths from Albury City Council to allow for keying proposed into existing.
- Investigate road widening required to accommodate active transport movement at the Davey Road Interchange.

8. Shift focus away from a new higher education use within the precinct but support collaboration with existing providers

Possible that a satellite high education precinct may be functional or helpful within the precinct however it should not be the focus as there are existing and proposed education precincts in relatively close proximity which may satisfy the requirements and benefits of this co-location.

Key Actions

- Identify opportunities to utilise proximity of higher education precinct in Thurgoona to generate employment opportunities, trade apprenticeships, collaboration and innovation growth.
- Consider flexibility in land zoning to allow for future location of higher education - more appropriate within light industrial lands, positioned away from heavy industry.
- Investigate possible ways to facilitate aligning high school and higher education training with local jobs.
- No student accommodation should be proposed for the precinct.

9. Consider future uses for heritage homesteads and the land East of the Highway

Potential for shared community or public use with valued heritage and existing areas of conservation vegetated growth.

Key Actions

- Case study analysis that looks at precedents for similar conditions.
- Consider use against key actions of finding 5.

10. Manage conservation land zoning to ensure land productivity

Ensure no lots that are currently in private ownership are sterilised by conservation zoning. Ensure important habitats and species are protected but with careful consideration on maintaining viability of individual existing lots.

Key Actions

- Investigate further and in more detail the areas of sites which require protection to ensure that no significant habitat loss is allowed but where development can take place that it can be allowed on private lots.

11. Prioritise internal road network to suit truck movement

Standard road networks do not necessarily suit truck movement, prioritise ease of movement for trucks in order to produce efficient, safe and effective movement through the precinct and to key destinations - Hume Highway and the Ettamogah Interchange.

Key Actions

- Remove no-through-roads.
- Avoid intersection types which would require a round-about or signalised intersections.
- Propose dog-leg / staggered intersections preferable within industrial precinct.
- Propose possible road network changes across Visy land that would not interrupt their current operations but may enhance connectivity and reduced travel time.

12. Generate interest

Create a sense of presence for the precinct for locals, commuters and investors.

Key Actions

- Consider renaming interchange from Davey Road Interchange to NEXUS Interchange - again may be limited due to challenge of renaming landmarks through the Geographical Names Board.
- Re-consider placement of existing NEXUS shipping container sculpture signage.
- Create a sense of arrival.

13. Draw additional indigenous design elements into the precinct

Albury has an existing theme of indigenous design elements throughout, including the Wagirra Trail and the Yindyamarra Sculpture Walk.

Key Actions

- Develop a management plan for the areas of the site which have high indigenous cultural heritage.
- Investigate potential for indigenous design elements throughout the recreation trail at Eight Mile Creek.
- Engage with the local indigenous community through Connecting to Country process and develop a framework to enable meaningful narratives and interpretations of the precinct.





10.0

PREFERRED STRUCTURE PLAN

10.0 Preferred Structure Plan

10.1 Structure Plan Arrangement

Summary

Figure 133 describes the preferred master plan arrangement for the Albury Regional Job Precinct (in its immediate context, including consideration of the Thurgoona Wirlinga Structure Plan). The developed structure plan is based on the findings and feedback from the Stage 2 Options Development Process and Stage 3 analysis.

It has been adjusted to accommodate findings of the workshops as well as technical feedback from the specialist consultant team.

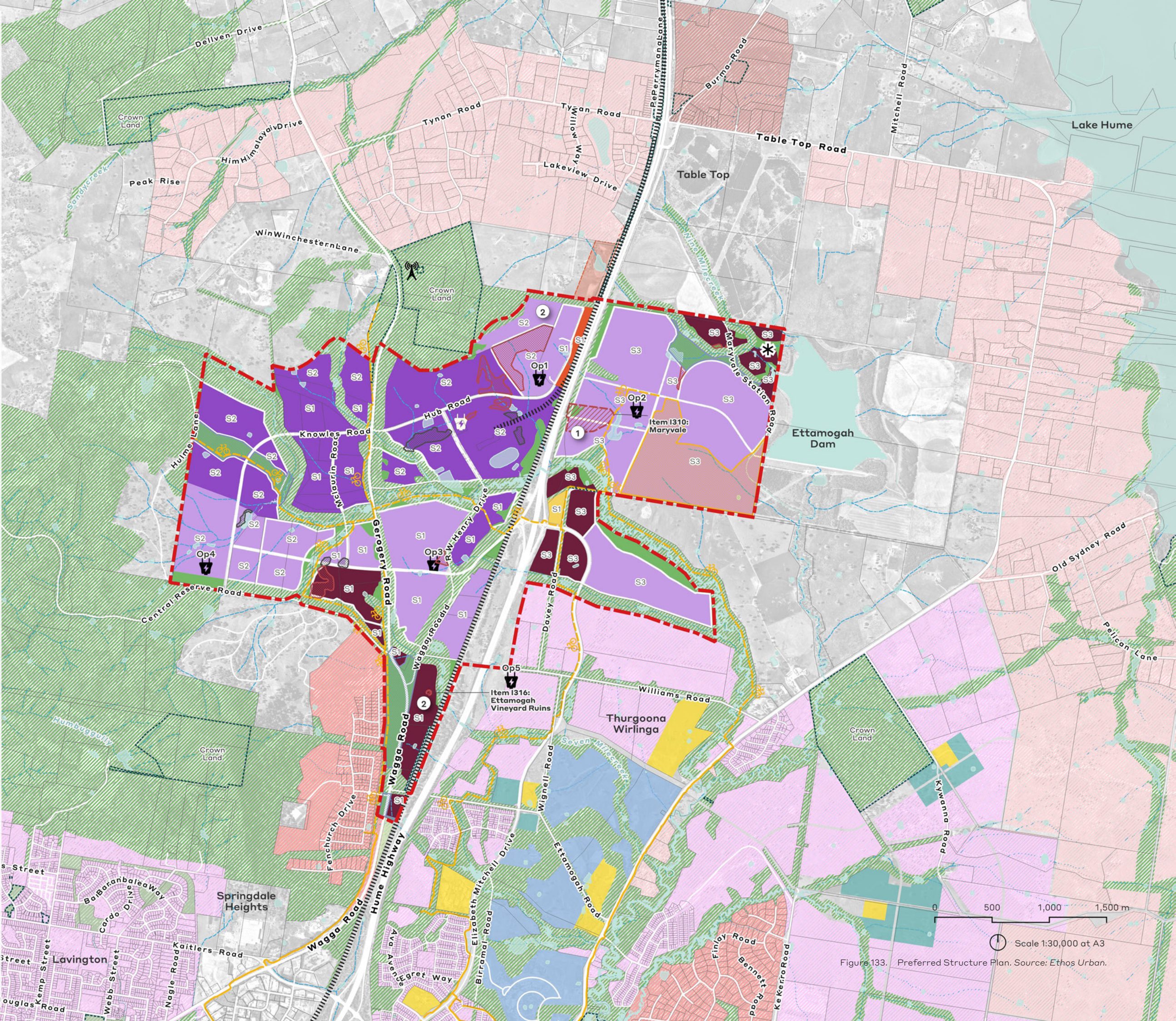
Noted amendments:

- Increased buffers to residential areas from high intensity and lower intensity industrial use.
- Introduction of a land use for *productivity* to improve flexibility and suitability for both:
 - Lower intensity industrial or warehouse use.
 - Facilitate types of developments which might include community services and infrastructure within areas of the site adjacent existing and future residential - potentially adding two new village centres.
- Adjustments to conservation land areas to avoid sterilisation of existing lots within private ownership, protection of more specific important habitat and areas of greater flood risk.
- Adjustments to the road networks to:
 - Avoid dead-end or cul de sac roads to improve road movement for heavy vehicles.
 - Avoid crossing biodiversity or conservation or riparian corridors where possible.
 - Improve connectivity through the site generally
 - Improve access and network connections.
 - Back to the rail intermodal.
 - Improve buffers to heritage items.
- Improve active transport connectivity with existing active transport networks.
- Amendments to land use in order to support appropriate urban forms within the context.

Assumptions

- The structure plan requires, and is based upon an assumption, that the current condition in particular parts of its surrounding context are not subject to increases in sensitivity and that sensitive receptors will not be located in certain locations around the RJP boundary. Appropriate planning mechanisms will be developed to prevent the encroachment of residential or other sensitive uses on the RJP boundary in this area.
- The paper mill site (including all areas within this single land holding) is assumed to be adjusting operations away from the existing conditions, as such some existing buildings, movement, water treatment and other associated urban forms have not been considered in this plan.
- Proposed new road corridors as estimated only and are pending further detailed analysis of vehicle turning circles and traffic modelling. These areas have been removed from employment lands for the purposes of calculation (these widths have been drawn from existing corridors within the precinct or immediately adjacent):
 - Main road corridors: 30m wide.
 - Minor road corridors: 18m wide.
- High Intensity Industry areas on the masterplan are the most suitable locations for a wide range of industrial uses. Accommodating these uses in the high intensity industry areas within the Albury RJP differentiates it from other industrial precincts elsewhere in Albury where these uses are unlikely to be appropriate.
- Establishing areas of Conservation Zoning is one method of protection for biodiversity including habitat protection and protected vegetation areas. Significant conservation areas have been connected into consistent corridors, with a minimum dimension of 150m, where possible.
- Flood, overland flow and slope are constraints within the precinct which will need to be managed at development stage of the precinct delivery - where possible these areas are mitigated by use of conservation areas, land uses which can utilise smaller lot or building footprints to mitigate cut and fill issues.
- Bushfire prone areas are constraints within the precinct which will need to be managed at development stage of the precinct delivery. Removal of trees during development will alter the pattern of bushfire prone areas and hence it has not been used to dictate any land uses. Buffer offsets from bushfire prone land must also be considered at development stage.
- Heritage, including historic and indigenous, must be considered during design development and will require ground-proofing. Proponents must undertake due diligence and protection is the first priority with any found heritage items.
- Road network avoids cross-intersections and dead ends to suit freight movement. Gradients of roads less than 10% where possible (as confirmed by SMEC Traffic and Transport).
- A location for waste water treatment is nominated: centrally located; adjacent existing water course (to charge existing creeks with high-quality treated water); at the lowest topographic point to enable use of a gravity-fed system, to the West of the highway and within the Stage 1 area, and finally located within an area suited to odour in relation to sensitive receptors.
- While the structure of the precinct will provide an environment that enables the possibility of circular economy practices, it is assumed that implementation plans generated in the following plan will include engagement with or creation of agencies and bodies to facilitate this activity through a business concierge, market-place creation, business councils and similar.

- Legend**
- Albury RUP Boundary
 - Proposed Cycle Paths
 - Existing Cycle Paths
 - National Rail
 - Heritage Items
 - Crown Land, Australian Government, NSW Government
 - Creeks, Rivers
 - Water Bodies
- Masterplan Infrastructure (subject to future investigation)**
- Waste Water Treatment
 - Proposed Zone Substation Options for Further Testing
 - Existing Zone Substation
 - Possible Communications Tower
- Recommended LEP Environmental Overlays**
- High Value Fragment
 - Medium Value
 - Potential Offset Area
 - Offset Investigation Area
- Land Use Direction**
- Productivity support
 - Conservation
 - Lower intensity industry
 - Higher intensity industry
 - Rail intermodal
 - Service station
 - Opportunity for future industrial land to support intermodal
- Thurgoona Wirilinga Structure Plan**
- Centres - Neighbourhood & Village Centres including Commercial and Residential
 - Future Proposed Schools
 - Movement Network (Roads)
 - Higher Education
- Existing Zones (sensitive land uses)**
- C2 - Environmental Conservation
 - C3 - Environmental Management
 - C4 - Environmental Living
 - R1 - General Residential
 - R2 - Low-Density Residential
 - R3 - Medium Density Residential
 - R5 - Large Lot Residential
 - RE1 - Public Recreation
 - RE2 - Private Recreation
 - RU5 - Village
- 1 Adaptive re-use existing rural historic homestead
 2 Possible locations for transport and logistics land uses
- S1 Stage 1
 S2 Stage 2
 S3 Stage 3
- Note:**
 1. Renewable Solar Energy Generation is proposed to be located on all possible warehouse rooftops.
 2. Potential new substation location to be determined by Essential Energy and Transgrid.



Scale 1:30,000 at A3

Figure 133. Preferred Structure Plan. Source: Ethos Urban.

10.2 Circular Economy and Sustainability

The Urban Design Assessment Report seeks to satisfy an ambition to provide an industrial precinct which supports and facilitates Circular Economy and Environmentally Sustainable practices.

The precinct supports this through consideration of hydrogen, waste, water, transport and energy use.

1. Hydrogen

An expected push for cleaner Hydrogen blended gas will support residential neighbourhoods surrounding, however the industrial precinct is assumed to be less dependent on gas supply, in particular due to the associated carbon emissions and the push towards sustainable operations.

The proposed service station within the RJP should be future proofed to enable the HHH grants and other opportunities to be taken advantage of, by providing for future upgrades. This should incorporate consideration of future hydrogen fuel cells and a refuelling station (SMEC, 2022, p31).

To future proof the location for hydrogen refuelling, a buffer should be provided from the service station to future residential areas of at least 100m (Sherpa, 2022, p56). The location of the service station and the proposed land use surrounding to the east and south, are established to provide required buffers. However, careful consideration of the types of businesses approved for activity within adjacent areas should be managed to ensure no conflict is created anticipating future implementation of hydrogen refuelling at this location. Additionally, while no published guidance in Australia currently exists stipulating separation distances from hydrogen refuelling (Sherpa, 2022, p56), release of this information in the future should be considered in assessments for land use in the areas surrounding the station.

2. Waste

Supporting a circular economy is a priority for the precinct. Part of a successful circular economy is the minimisation of trade waste by reducing waste through operations, recycling waste through internal processes or through regional recycling operators, and reusing waste by identifying a practical and possible use of the waste in another production process or operator. This last option can be supported by the precinct in two ways:

1. External waste sharing - Location of a logistic centre close to large scale national transport infrastructure can support national resource sharing, enabling transportation of trade waste to other operators outside of the precinct.
2. Internal waste sharing - Efficient road networks within the precinct, as well as supporting pathways for use by alternative vehicles (such as forklifts) to move between operators without entering the road reserve, will support efficient transportation of trade waste between operators.

Beyond the structure plan it is recommended that Albury City Council, or a body supported by Albury-Wodonga, investigate the possibility of creating a new business concierge role within council. Part of this role may be to maintain a database of high quality waste products for operators within the RJP which can be identified for potential re-use by other local businesses.

3. Water

Applying the principles of Water Sensitive Urban Design supports a water-friendly precinct which focuses on protection of its important riparian corridor and a waste reduction strategy for water use.

This waste-reduction occurs at the precinct scale, through the inclusion of a potential Waste Water Treatment Plant integrating a wetland, and at the development scale, through water harvesting including roof-water collection to be reused for non-potable uses and irrigation.

Protection of Riparian corridors is embedded into the design through the coupling of road and movement networks along creeks and overland flow paths. This generates positive interactions between site visitors and the precinct's green-blue corridors. Additionally, this minimises opportunities for creek edges to be treated as back-of-house, reducing risks of contamination and run-off from industrial activity.

In-line with an approach toward climate resilience, flood mapping and the proposed road network allow for prioritisation of development areas away from flood prone areas (except where stormwater management may negate the risks). Redundancy in the road network allows for egress and circulation during extreme weather events.

4. Transport

The precinct seeks to create an efficient road network, which is key to facilitating circular economy practices.

- Connection to national rail and national highway.
- Connection between operators.
- Separation of higher intensity and lower intensity use.

5. Energy Use

The precinct seeks to minimise energy output:

- Separation of active commuters to provide safe and comfortable riding environment.
- Efficiency in road network to reduce driving distances for freight and individual commuters.
- Efficiency in the road network to promote the use of rail transport which is more carbon efficient.

The precinct additionally seeks to maximise sustainable energy production:

- Renewable energy production through solar rooftop arrays by creating lot layouts which support east to west, north-facing building forms which are ideal for solar rooftop installation.
- Consider energy storage infrastructure centrally located so that renewable energy could be utilised as a shared resource across the precinct.

10.3 Deviations from the NEXUS Masterplan 2010

There are a number of departures from the 2010 NEXUS Masterplan, the two below are identified as relatively significant departures:

1. Services Infrastructure

Waste water treatment - the previous masterplan proposal concluded that individual waste water treatment facilities would be the best solution to treated waste water within the industrial precinct. The RJP proposal includes a shared waste water treatment plan proposed for further exploration, located in the North-Eastern point of the site. This shared facility would allow for coordinated efforts towards treatment of water and possible opportunities for precinct-wide waste water re-use. Additionally, there is a possibility that this treatment plant could be sized appropriately to manage areas of development outside of the immediate RJP.

2. Transport Infrastructure

The NEXUS Masterplan previously suggested that a new road connect from Gerogery Road South of Eight Mile Creek directly into the Davey Road Interchange. Further testing undertaken:

- Transport and traffic analysis.
- Topographic considerations.
- Cost considerations.

The findings from this further analysis was that this connection over the railway was not sufficiently beneficial to merit the cost of this being undertaken and hence it did not form part of the final plan.

10.4 Structure Plan Land Use

Proposed Land Use

Land Use proposed for the site includes five (5) types that are considered employment generating and one (1) for conservation purposes.

The total amount of proposed land for the overall master plan is outlined in Table 16. This table excludes existing conservation zoned land and special use [infrastructure] zoned land within the established site boundary. It also includes anything identified as future consideration.

Land Use	Area (sqm)	Areas (ha)
Conservation	778,062 m ²	78 ha
Lower intensity industry	4,213,864 m ²	421 ha
Higher intensity Industry	2,516,018 m ²	252 ha
Rail intermodal	44,107 m ²	4 ha
Productivity support	859,527 m ²	86 ha
Service station	32,555 m ²	3 ha
	8,444,133 m ²	844 ha

Table 16. Total proposed land use summary

Please note:

For the purposes of calculating productive land from an economics and infrastructure perspective, a number of assumptions result in a variation to the numbers shown in Table 16.

- First, 10% of this is removed to account for land with constraints (with the assumption that land with excessive constraints, flooding, slope or bushfire, may result in less productive land).
- Second, an allowance of 15% for roads within each land use area has been removed from this figure.
- Third, a number of areas have been excluded from these reports due to the possibility that they may contribute to areas for offset planting, more detail on this is shown in Section 10.6.

Refer to Infrastructure and Economics reports for more information.

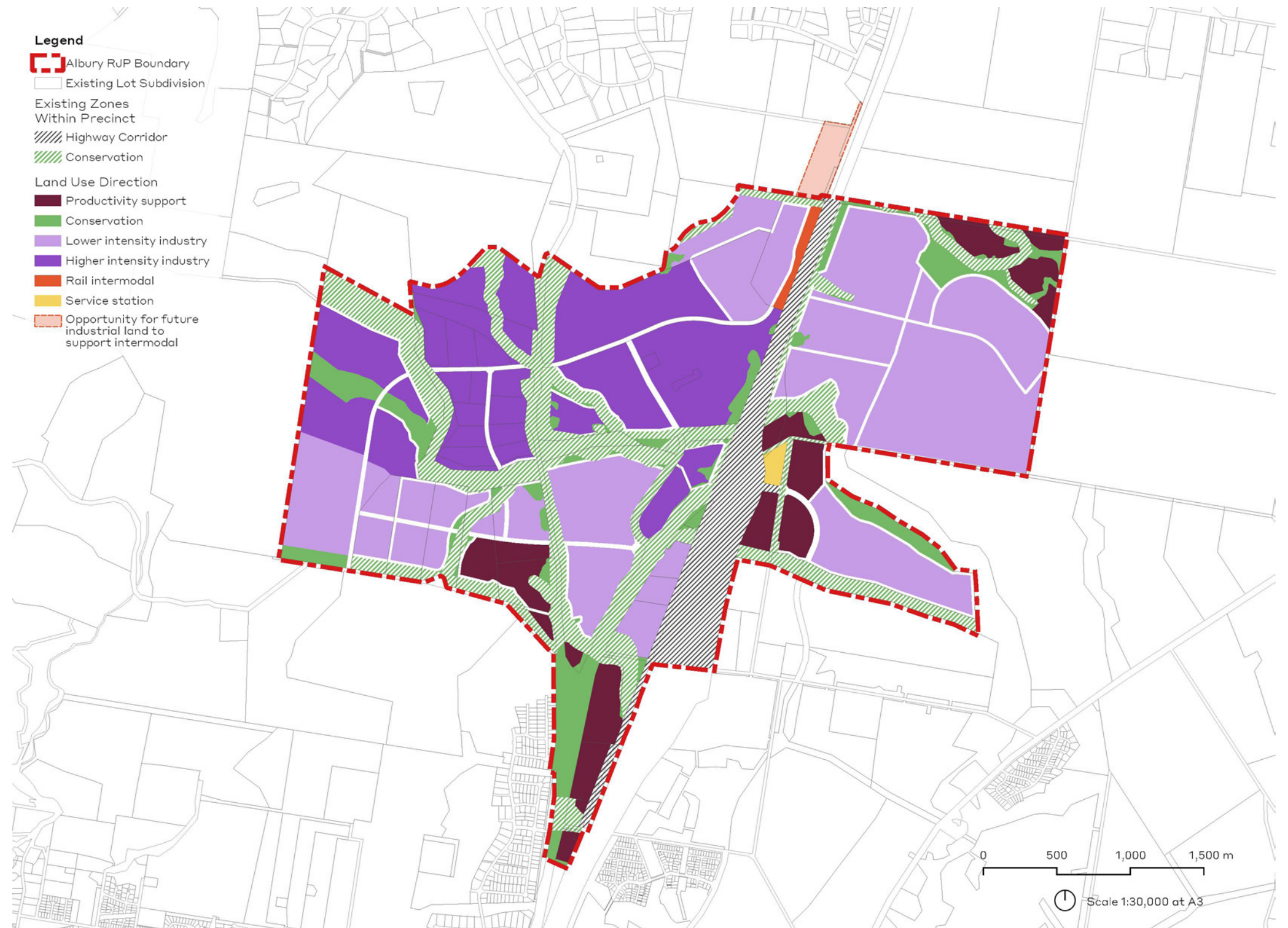


Figure 134. Structure Plan Land Use Map. Source: Ethos Urban.

10.5 Structure Plan Transport and Movement

Proposed Roads Network

A new internal road network is proposed for the precinct in line with Principle Two (2) to create a deliverable, clear, robust and high-quality planning and land use framework. This includes a focus on robustness, facilitation of worker access, supplying a dedicated heavy vehicle corridor, as well as enhancing access to and from the site through improved connection, across the site, to existing rail and road infrastructure.

This new movement network is described in Figure 135. Two road typologies are proposed for the site. Main roads anticipate higher frequency and larger vehicle movement, providing connections from the precinct to the highway and the intermodal as efficiently as possible. Minor roads anticipate use by all vehicle types, to provide localised connection from the main network into individual developments by freight, as well as local private car movement.

Stakeholder consultation through the workshops identified that roundabouts, roads and intersections should be designed to accommodate a PBS Level 3 Heavy Vehicle. It is anticipated that the Hume Highway will be upgraded to accommodate this kind of vehicle in the future. The precinct should be appropriately future-proofed to allow for connection of all Hume Highway vehicles into the internal road network to maximise the potential Highway connection directly to industrial land.

In considering these site plans, keep in mind that this structure plan does not describe in full the smaller network of internal minor roads that will be eventually realised within the precinct. At the future stage of lot subdivision, further investigation will be undertaken to establish requirements for the network in order to service all lots. No minor roads have been identified around highly sloping terrain.

All road upgrades and sizes are notional pending future further investigation in the form of traffic and transport modelling. For more information on specific upgrades required, refer to Section 6.9.

The road network is designed to be flexible and future-proofed for future vehicle forms and technologies (including hydrogen). The structure features network redundancy to maintain business operations during extreme weather events. Both strategies support climate resilience and adaptation.

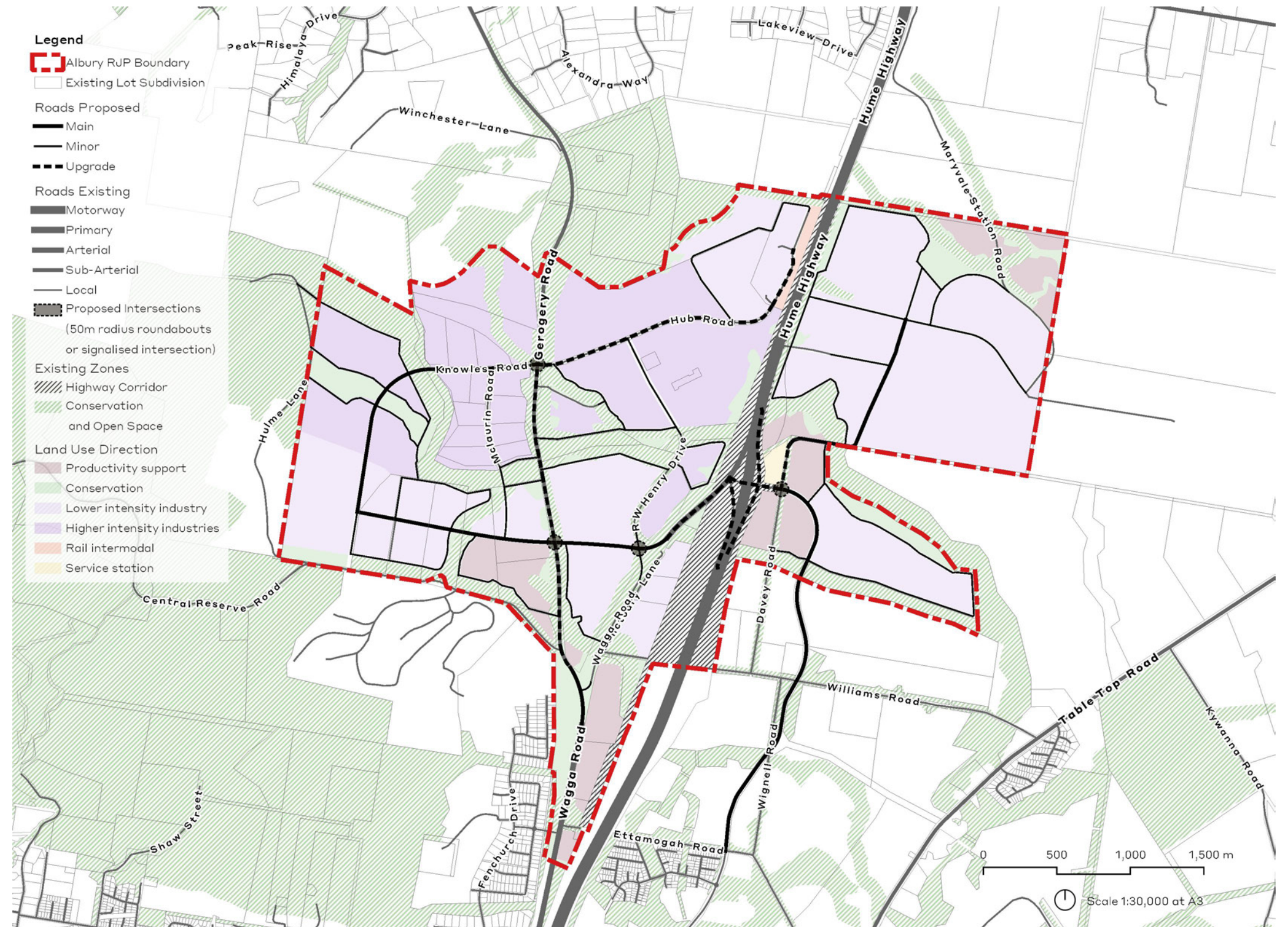


Figure 135. Structure Plan Road Hierarchy Site Plan. Source: Ethos Urban drawing on data from DPE.

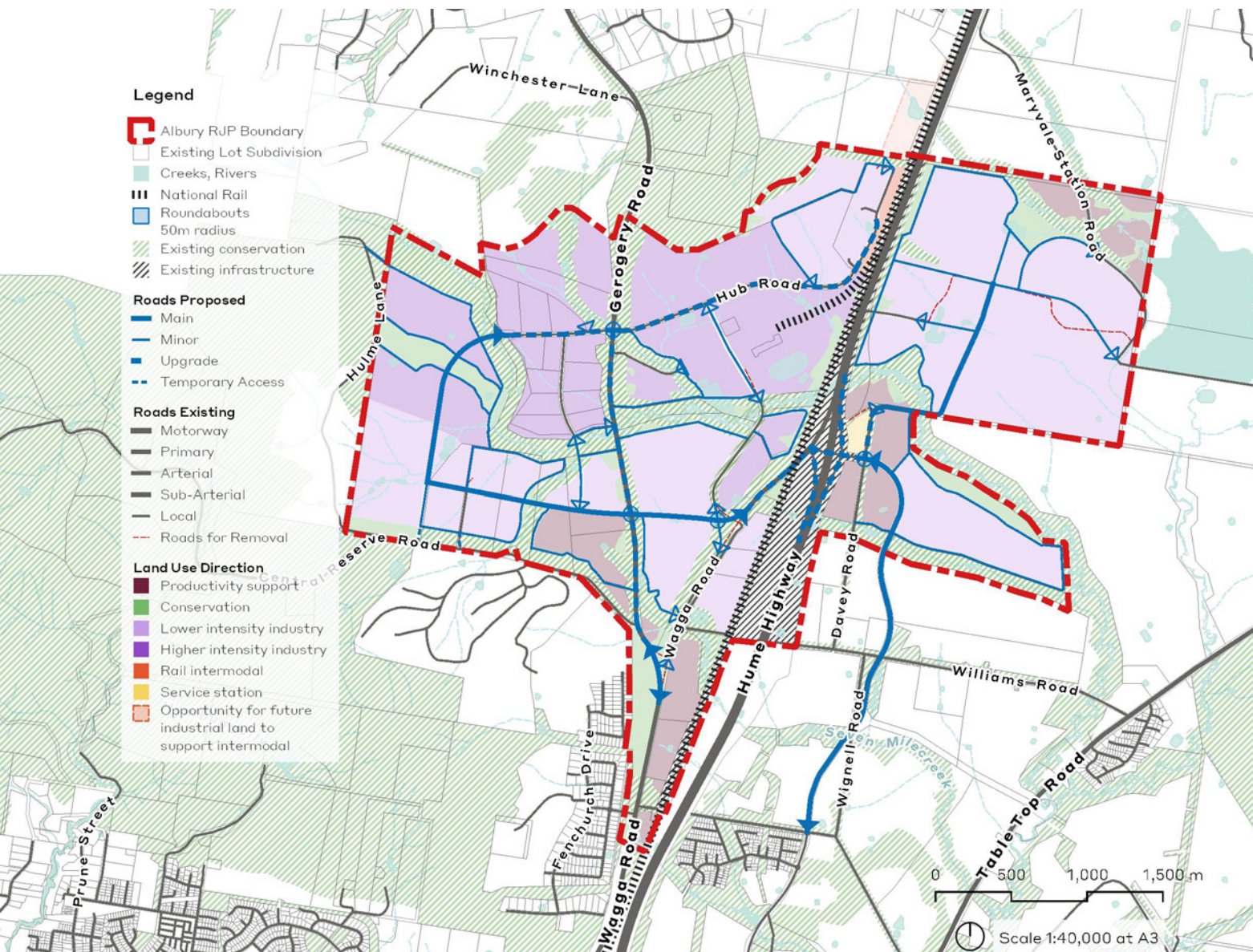


Figure 136. Structure Plan Existing and Proposed Road Site Plan. Source: Ethos Urban drawing on data from DPE.

Proposed Road Network Amendments

A proposed main road connects the Davey Road Interchange (via Wagga Road), through the Southern portion of the precinct, picking up land areas in Stage 1, wrapping North through land areas of Stage 2, and connects into existing Hub Road. This provides improved egalitarian access to both the national rail and national highway across the Western side of the precinct.

This main road is supported by minor roads for the individual development areas. Local roads border conservation and creek-facing land to provide a frontage to high-value biodiversity and riparian areas. This seeks to avoid back-of-house arrangements onto Eight Mile Creek and along active transport corridors.

Temporary Roads are included in Stage 1 and 2 to enable development in areas to the South-West of the precinct (prior to construction of the main extension to Hub Road). This can be seen in more clarity in Figure 148, which shows the temporary roads which are removed towards the end of Stage 2.



Figure 137. Structure Plan Active Transport Site Plan. Source: Ethos Urban drawing on data from DPE.

Proposed Active Transport Amendments

Growth of the existing active transport network has been proposed for the precinct. Provision of cycleways for commuting and for recreation throughout the precinct make connections back to the existing cycleway network in Albury. This network will be delivered in stages alongside the proposed development staging, as shown in Figure 137.

The intention of this network is to help reduce reliance on private cars for commuting from residential areas into the precinct. A secondary opportunity is provided to maximise the potential of the precinct during non-operational hours such as weekends and holidays through recreational paths.

Upgrades to the Davey Road Interchange have been identified within the staging program for infrastructure, this will also include improved amenity for cyclists and other active transport users.

Any public transport upgrades to the precinct should consider the active transport pathways to support a coordinated approach for the active and public transport network. Refer to Section 6.9 for notional public transport upgrades associated with the RUP.

The staging of active transport network must prioritise paths commuter paths, alongside road networks. Secondary paths are recreation paths which provide for active enjoyment around and through the precinct.

10.6 Structure Plan Conditions

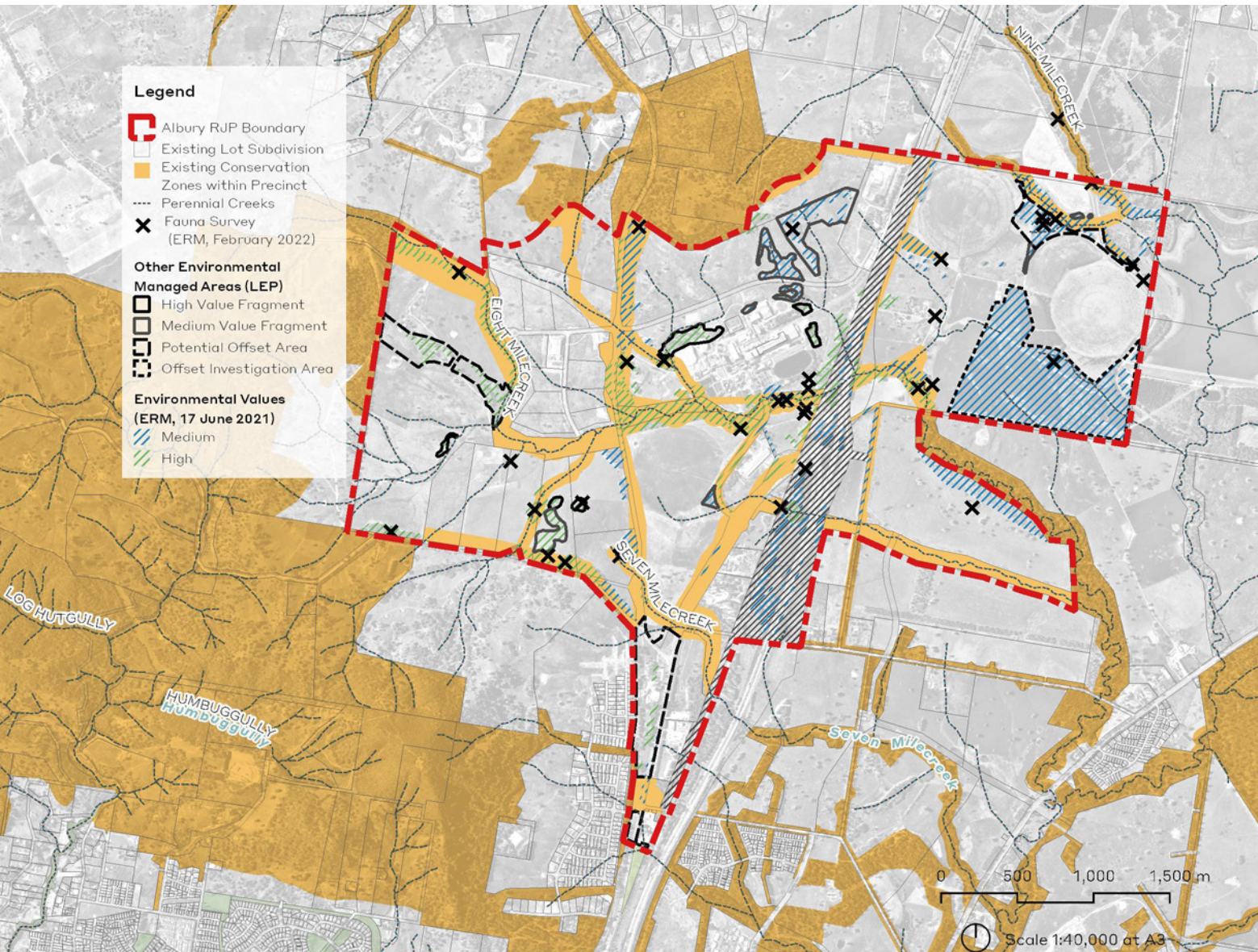


Figure 138. Structure Plan Conditions - Biodiversity protected areas of the master plan. Source: Ethos Urban drawing on data from DPE, ERM.

Outcome: Enhancement of the natural environment

Existing biodiversity corridors are protected within Conservation Zones. Surveys of the existing site vegetation and habitat (undertaken by ERM) have revealed additional areas that would benefit from Conservation Zoning, including areas with plant community types (PCT) that support vulnerable species or habitat for wildlife.

Prioritisation for conservation zoning has been placed on areas that form connected habitat, vegetation or riparian corridors (blue-green corridors). This seeks to avoid isolated habitat that may increase risks for fauna moving around industrial activity. A fauna survey identified that the majority of surveyed wildlife were found within these corridors, reinforcing this strategy. Outside of conservation zones, the structure plan describes other types of protection which capture areas outside of blue-green corridors and areas that might support carbon or

biodiversity offsetting, refer to 'Environmental Overlays' in Section 10.8 for more information:

1. High Value Fragment.
2. Medium Value Fragment.
3. Potential Offset Area.
4. Offset Investigation Area.

More detailed surveys and analysis are required to confirm appropriateness of any stewardship sites that will create the credits required to offset impacts. As such, these areas are indicative only.

The structure plan prioritises maintenance of tree cover and habitat in areas that are impactful for workers, visitors and neighbouring residents. All tree removal, during development process, must be verified against existing environmental certification.

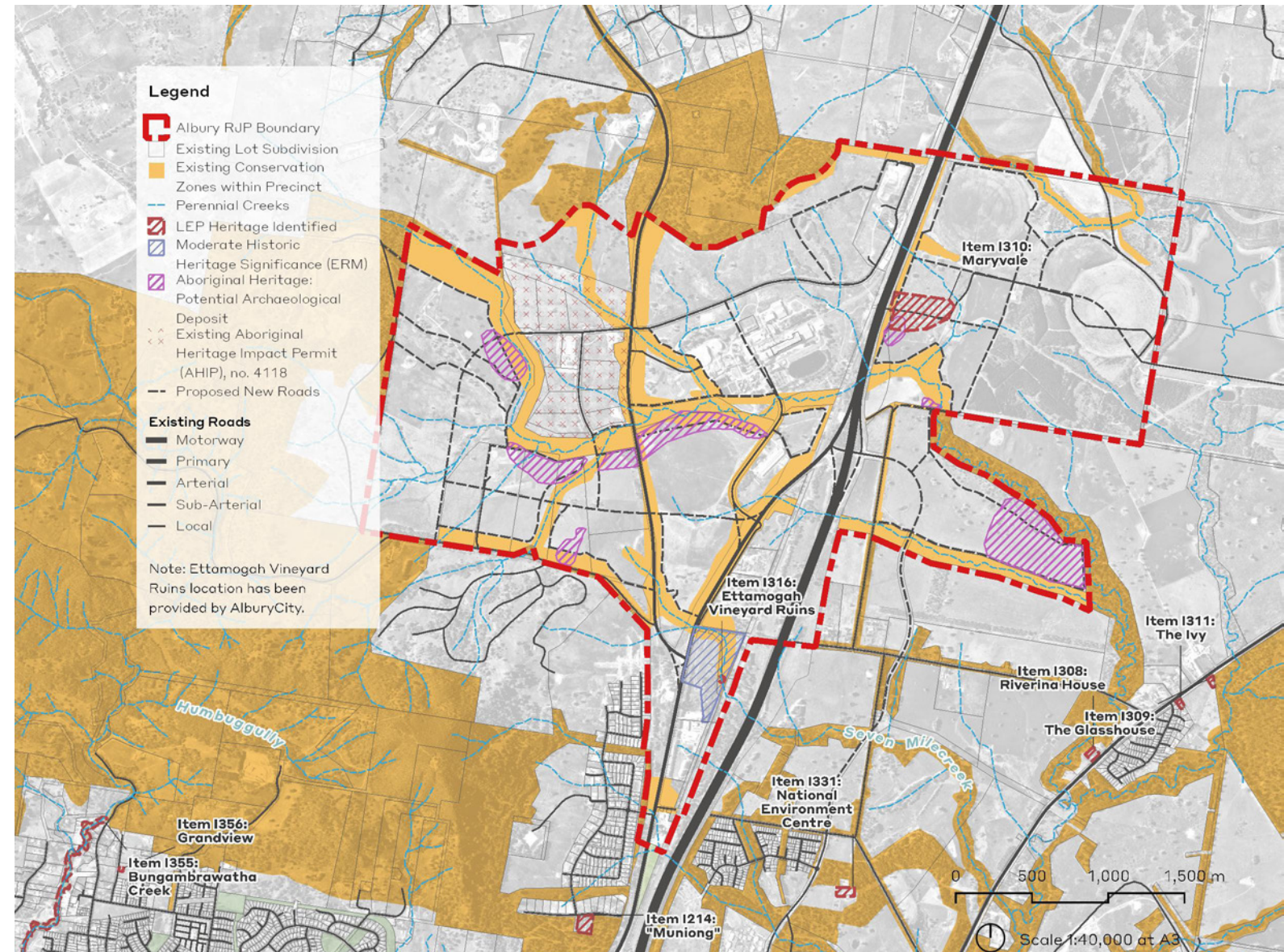


Figure 139. Structure Plan Conditions - Heritage, conservation areas and road infrastructure. Source: Ethos Urban drawing on data from DPE, ERM.

Outcome: Consideration of heritage

The majority of AHIMS heritage sites are within existing or proposed conservation areas (these are not shown in this document in order to protect sensitive cultural sites). There are four (4) sites located within potential development areas, which will need to be considered by the proponent in future development stages.

Two historic heritage areas, and an area identified as moderate significance for historic heritage, are primarily located within areas of potential development value. These will need to be considered during future development stages, including adherence to heritage management planning controls to ensure appropriate assessment of any impacts on heritage significance relating to any specific development proposals.

Heritage 'Maryvale' (I310) was highlighted (during workshops and by ERM) as a location suited to uses that allow public access and support education. Future investigations should consider opportunities that would enhance the narrative of the precinct and region, through historical recognition, as a form of promotion as well as providing amenity for surrounding communities. These uses will be supported by the proposed road network, better connecting the site to Hume Highway, creating a formal approach.

Places identified as holding potential for archaeological deposits are in the majority located within sites with potential development capacity. Some of these are area likely to be impacted by new internal roads. These areas must be considered in future development stages and infrastructure development.

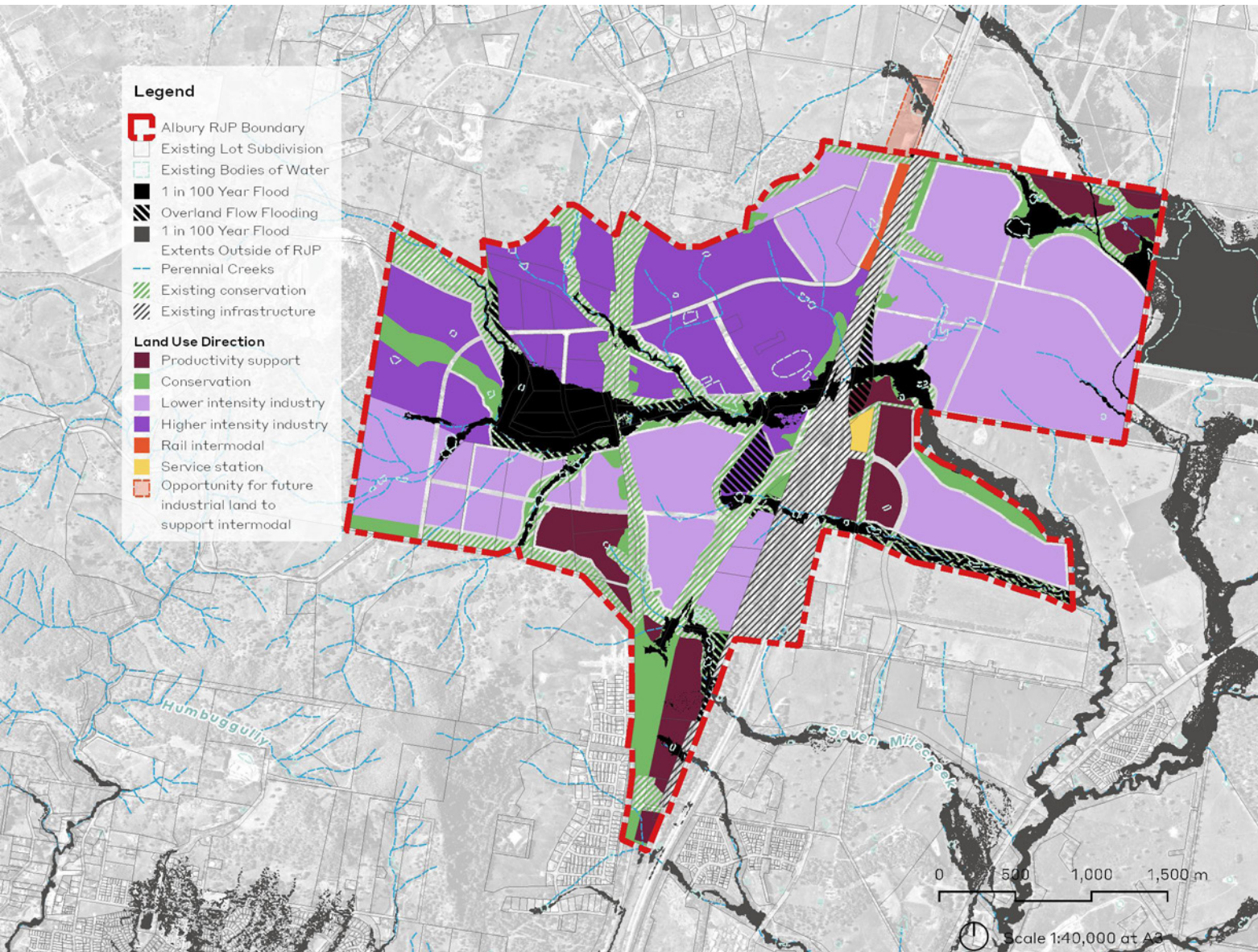


Figure 140. Structure Plan Conditions - Flood impacted areas of the master plan. Source: Ethos Urban drawing on data from DPE, AlburyCity.

Outcome: Resilient development - Flood

Frequency and intensity of flooding and overland flow of urban and regional areas is likely to increase as climate change accelerates change in weather patterns. Development within the precinct should be designed to prepare for these flood and flow risks which are identified as primarily centred around Eight Mile Creek and its tributaries.

The precinct generally supports a climate resilient approach to development in relation to flood. In general, flooding areas are captured within conservation zones (existing and proposed).

Two locations of note which are flood affected across a large area (noting that some of these areas the level of flood may be quite low) is within the Stage 1 higher intensity industry precinct and within the Stage 3 Productivity precinct indicated in Figure 140. Albury City Council has informed that the first location will be managed by improvements to the stormwater system. This area of flooding is shallow according to the latest flood study available.

Each development must consider the potential impact of flood prior to design development. Clarity of required flood mitigation strategies and solutions should be prioritised as part of the standard due process undertaken during Planning Proposals or Development Applications in NSW.

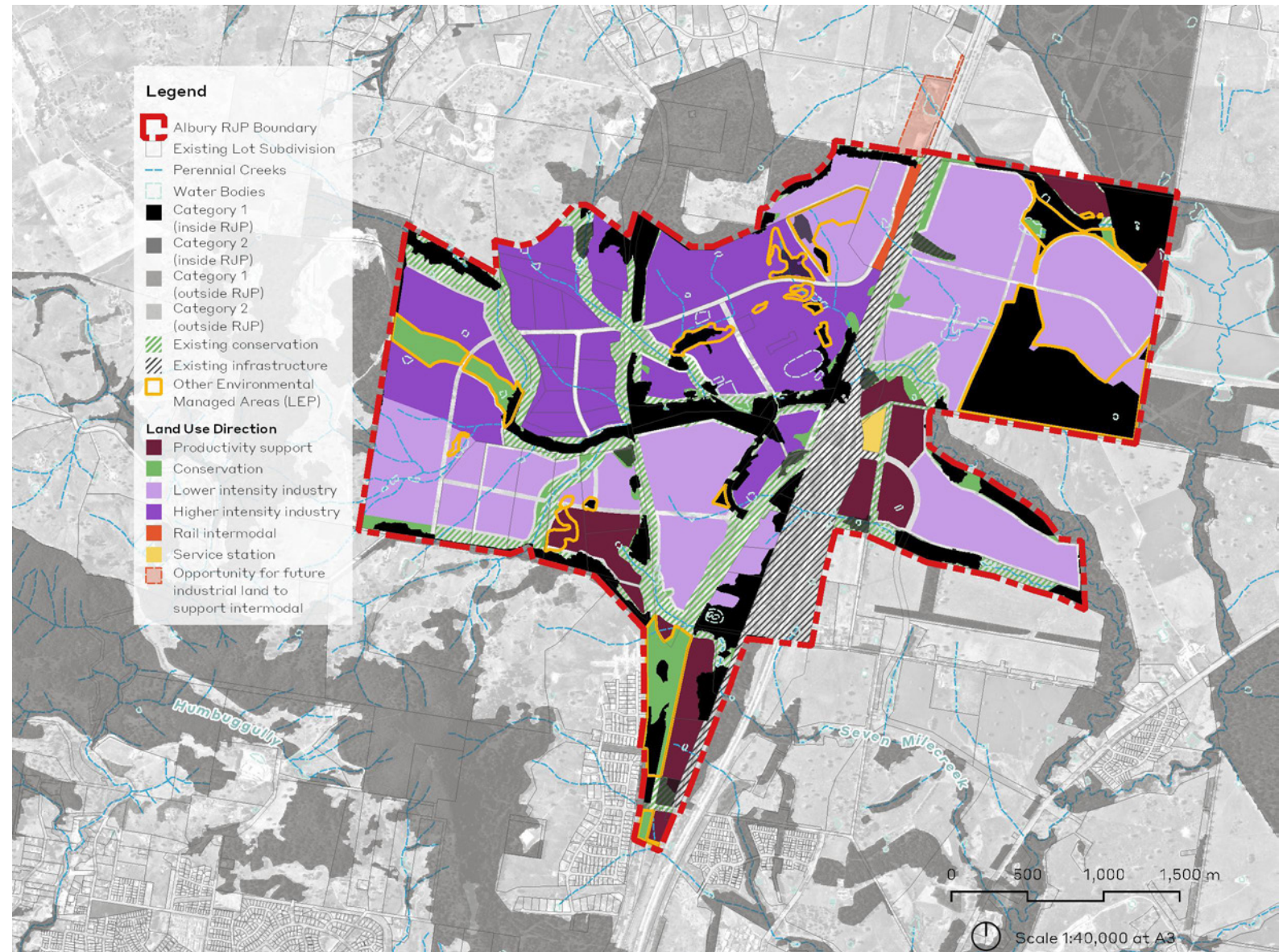


Figure 141. Structure Plan Conditions - Bush fire prone areas of the master plan. Source: Ethos Urban drawing on data from DPE, ERM.

Outcome: Resilient development - Bushfire

Many areas of bush fire prone land is captured within conservation zones (existing and proposed), this is logical given the attempt throughout the precinct to capture significant areas of vegetation within conservation zoning.

Three locations of note, that sit within land considered to hold development potential include:

1. Stage 1 General Industry (South)
2. Stage 3 Productivity Support (North-West)
3. Stage 3 General Industry (West)

The structure plan prioritises earlier development of land which has limited impact from bush fire according to Council's bush-fire mapping (2021).

Where land is bush fire prone, management of this risk must be considered early during planning stage of individual site developments.

Redundancy within the road network, and a strategy which eliminates of dead-end roads, supports egress paths for populations within bush fire prone areas. These network strategies support access for fire fighting vehicles and equipment. Egress and access for fire fighting must be further verified with a bush fire specialist consultant and fire engineer to ensure that for population, within and surrounding, the precinct egress is not impacted by development. The precinct supports a resilient approach to bush fire management.

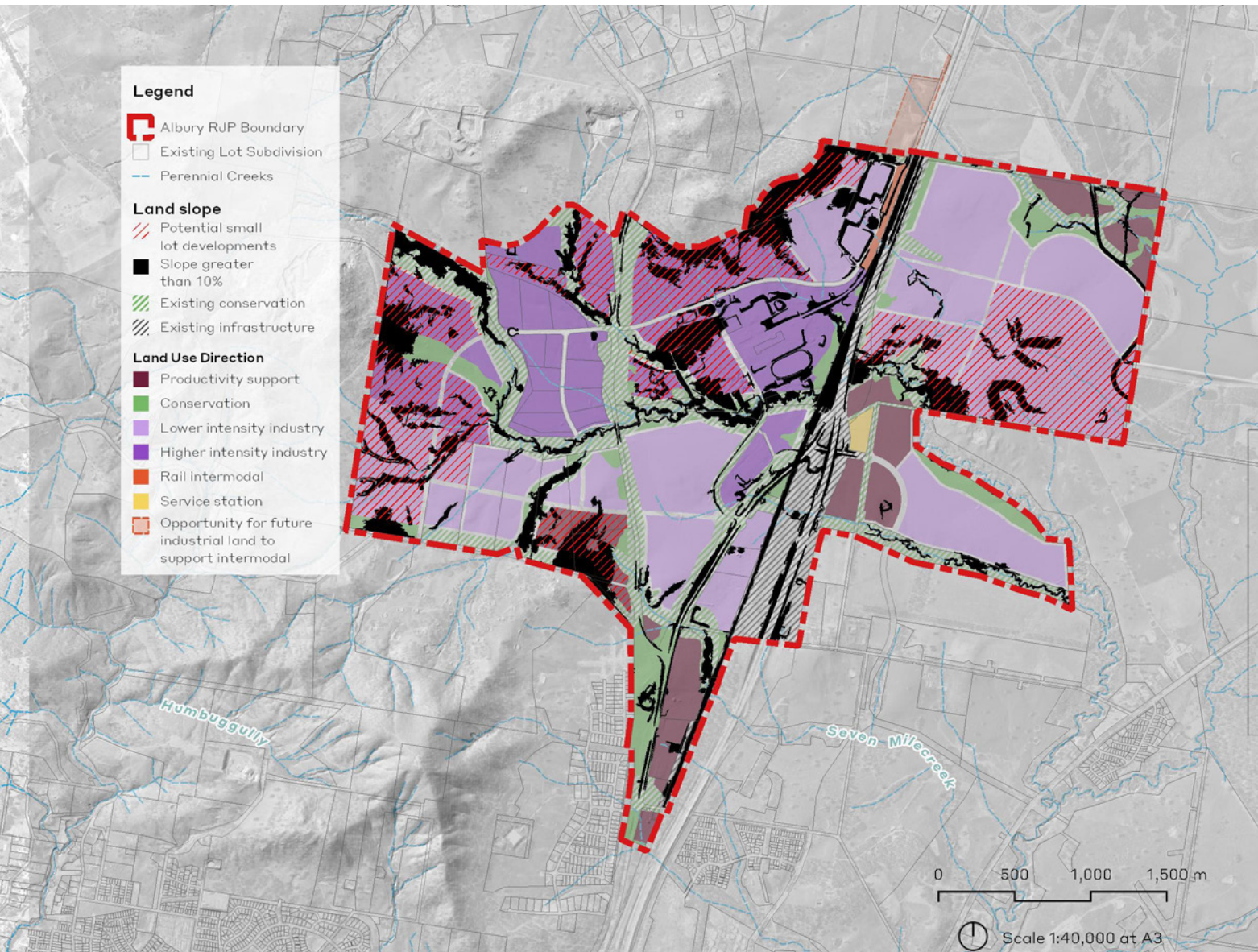


Figure 142. Structure Plan Conditions - Steep slope areas of the master plan. Source: Ethos Urban drawing on data from DPE, QGIS analysis.

Outcome: Minimise cut and fill in landscape

Some areas of the site are particularly affected by existing slopes of greater than 10%. Steep sites present challenges for development and in particular for typologies such as large-footprint industrial buildings or sheds. These areas are shown in black in Figure 142.

Potential alternative uses for these areas, that may manage steeper sloping land, may include:

- Small-footprint lower intensity industry
- Small-footprint productivity areas
- Conservation areas

Detailed consideration of best use must be undertaken during planning stages of site development.

Outcome: Staging with infrastructure

The intention of the structure plan is to provide a staged delivery of developable land in a way that enables utilisation of existing infrastructure where possible. Findings shown in Figure 143:

- All new road reserves and active transport corridors designed to accommodate infrastructure conduit for easy installation and maintenance access.
- Existing Sewer, Water and Gas networks:
 - Cover a large amount of Stage 1 areas
 - May require extension West of Gerogery Road
- NBN network requires further investigation:
 - Stage 1, identify a suitable location for a service tower to equal the access available to operators.

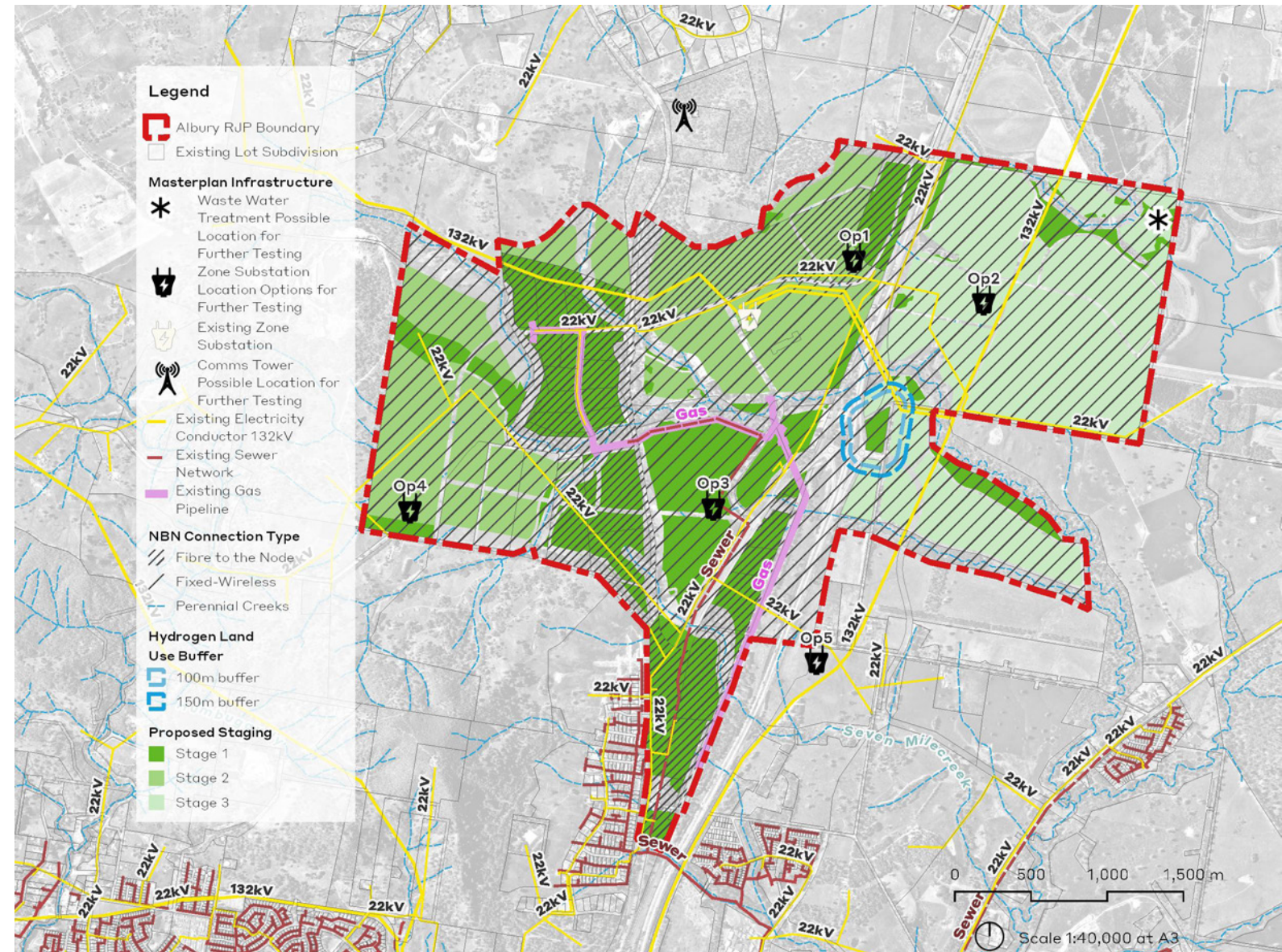


Figure 143. Structure Plan Conditions - Infrastructure master plan. Source: Ethos Urban drawing on data from DPE, SMEC.

- Stage 2, identify appropriate locations for installation of public Wifi in high traffic locations
- Stage 3, future-proof roads to accommodate autonomous vehicles
- *New zone substation* - Further investigation (of appropriate location) will be required to satisfy energy demand that will increase alongside RJP growth. New substation would be best facilitated on the western side of the Hume Highway, within 5km of the proposed centralised load of future development (according to advice from SMEC).
- *Renewable energy production* - by rooftop solar installation is proposed for all areas suitable for development within the RJP.
- Proposed BESS / Community Scale Battery - can be located on private land or within existing Council

land holdings. Further investigation and negotiations with stakeholders will reveal a suitable location for this within the precinct.

- *Waste water treatment plant* - a north-east location may allow for a larger facility to manage adjacent urban renewal. Further testing of this location in regard to noise, odour and land conflict will be required. Possible opportunity to release treated water into the Ettamogah Dam if it is decommissioned from paper mill usage.
- *Hydrogen refuelling* - Buffer should be allowed around Davey Road Interchange Service Station to future proof this for hydrogen refuelling.
- *Communications Tower* - new location to the north (adjacent existing water reservoir) is a possible location, requires further investigation.

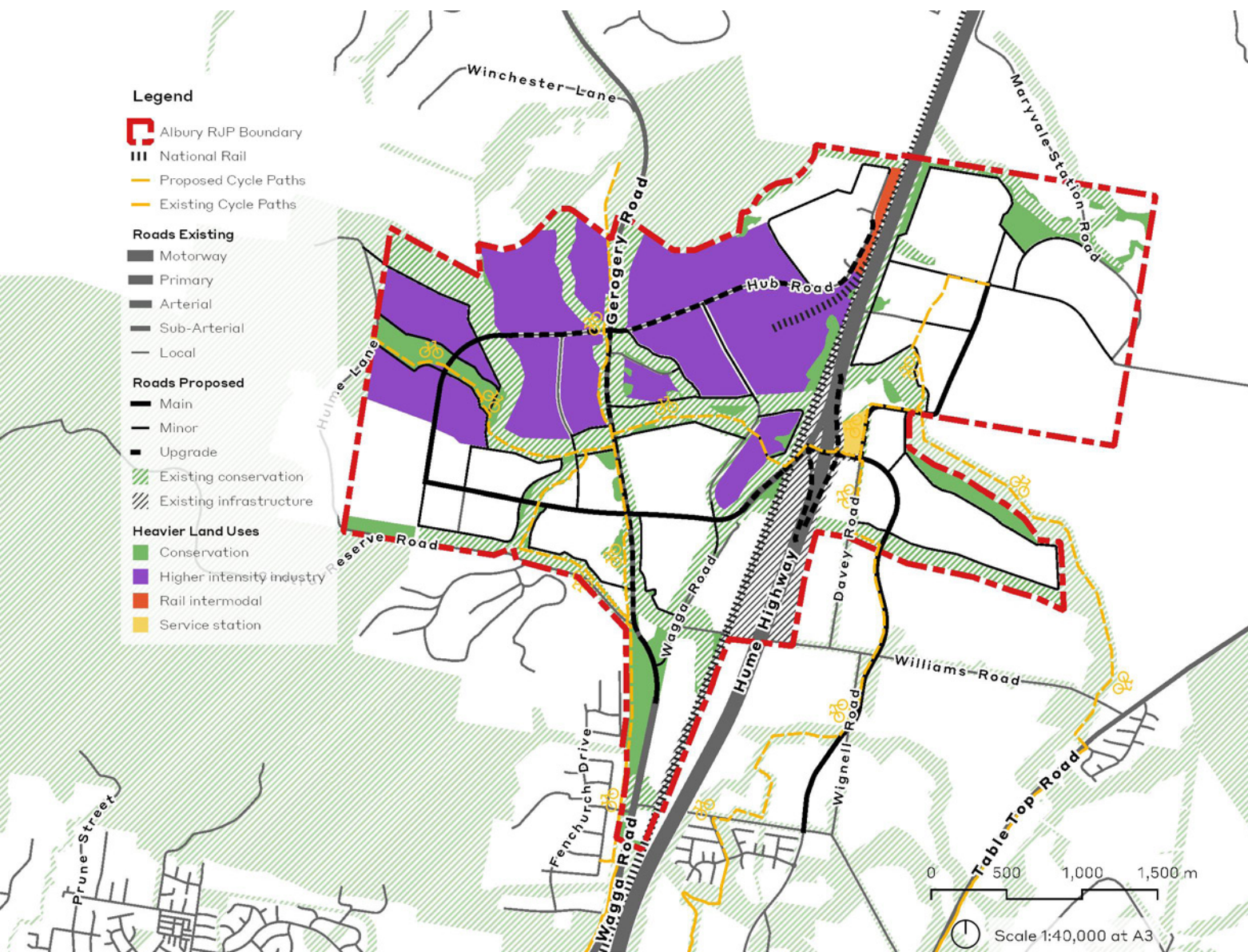


Figure 144. Structure Plan Conditions - Transport and Movement. Source: Ethos Urban drawing on data from DPE.

Outcome: A more efficient, and active, precinct

The master plan looks to find opportunities to provide better road connection to the highway and the rail intermodal - as the two most significant transport infrastructure elements in proximity to the precinct. In addition to this the master plan looks to provide efficient movement for freight, including avoidance of dead ends.

Higher intensity land use has been prioritised around the rail intermodal.

The master plan looks to facilitate a network of active transport movements including links to existing active transport paths and co-locating paths with green corridors for enjoyment, safety (removal from freight corridors) and recreation.

There is an existing pattern in Albury of coupling road networks with conservation biodiversity corridors. This has been adhered to within the precinct where this is possible, allowing for continuity and clarity in wayfinding. Additionally, active transport makes the most of these wider conservation corridors to provide a buffer to freight movement.

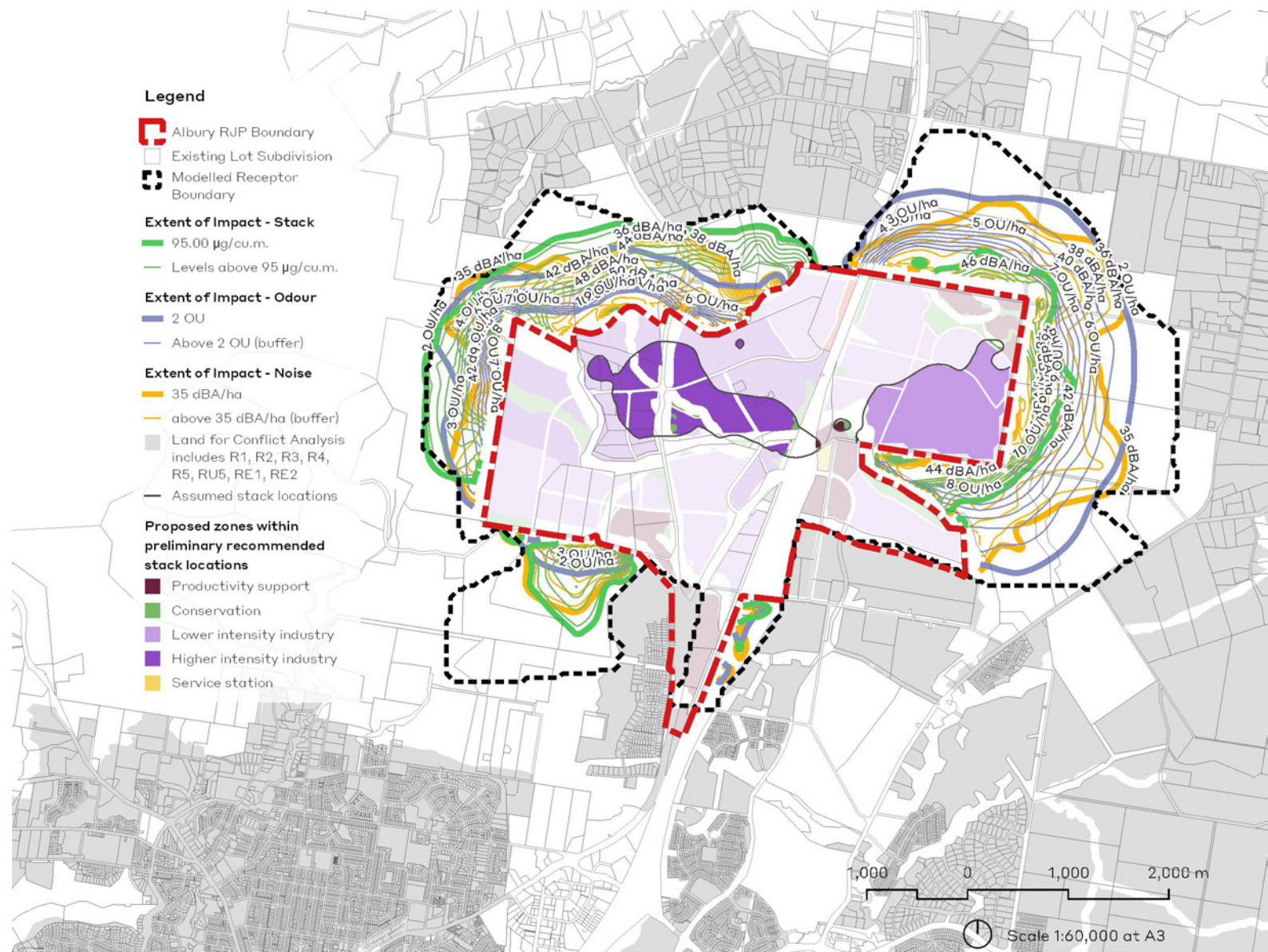


Figure 145. Structure Plan Conditions - Sensitive Receptors and Potential Impacts. Source: Ethos Urban drawing on data from DPE, Todoroski.

Outcome: Working with context

The master plan seeks to encourage symbiosis with surrounding community by recognising potential impacts for land use conflicts, odour, noise and air pollution. The plan takes into consideration the growth of the Thurgoona Wirilinga neighbourhood and all residential zoned land in its vicinity by prioritising lower intensity activity towards the southern portion of the precinct.

The master plan assumes that the current condition in particular parts of its surrounding context are not subject to increases in sensitive receptors. The preliminary area of exclusion of sensitive receptors is shown in Figure 145 as a 'Modelled Receptor Boundary'.

Lower intensity industry and productivity support uses have been located where the precinct is in closer proximity to sensitive land uses outside the precinct, in particular to the south adjacent residential growth areas.

Strategic air, noise and odour modelling was undertaken to identify areas where higher intensity industry are best suited. The results of this modelling have informed the strategic planning process, with further consideration recommended to guide changes to individual project assessments.

Any future development must comply with and consider the necessary environmental assessment process requirements on an individual basis. A preliminary consideration of potentially preferred locations for stacks is included in Figure 145. However, environmental protection licensing requirements still apply if activities within the precinct fall under Schedule 1 of the *Protection of the Environment Operations Act 1997* (NSW). For any such activities, proponents must consult with the EPA to determine technical assessment requirements.

10.7 Structure Plan Staging

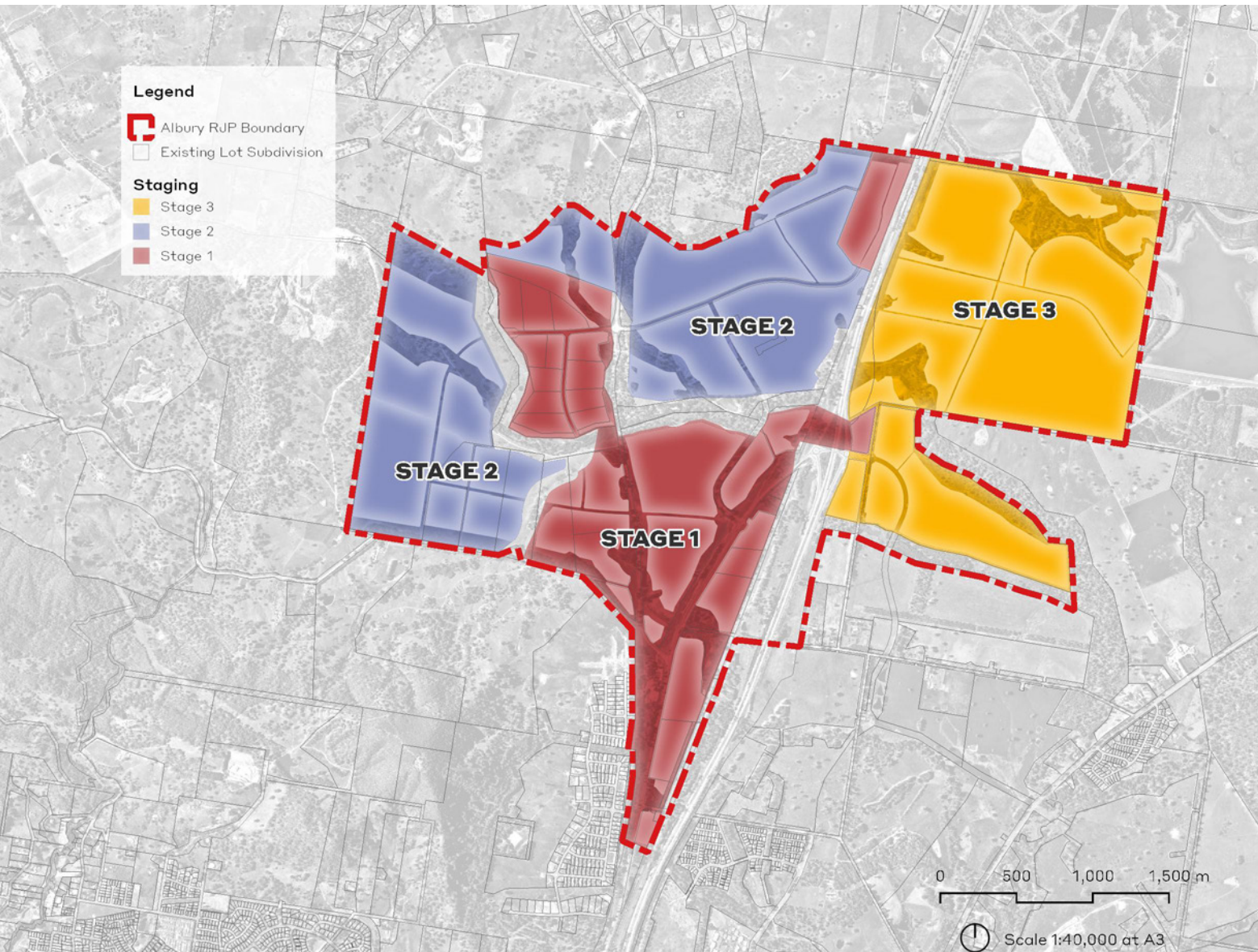


Figure 146. Structure Plan - Sequencing Diagram. Source: Ethos Urban drawing on data from DPE.

Structure Plan Staging

A staged delivery of the plan is proposed to enable:

- Gradual growth of infrastructure.
- Relatively equal portions of land for each stage.
- Flexibility in terms of lot subdivision.

This staging assumes a level of coordination and cooperation with the largest land holder once the future of this land is understood.

The staging indicated in Figure 146 is indicative and may be delivered in an alternative manner if conditions vary from the existing assumptions identified in Section 10.1. The staging and delivery of infrastructure across the precinct is flexible and responsive to the timing of growth and land take up. Precinct staging will be

reviewed in consultation with Council and other key agencies as required.

From a servicing and infrastructure perspective, as well as in order to maintain the logical development sequence, it is preferred that any early stages of development within paper mill land ownership are concentrated initially West of the Hume Highway.

The approximate areas of each stage includes:

- Stage 1 285 ha
- Stage 2 279 ha
- Stage 3 280 ha

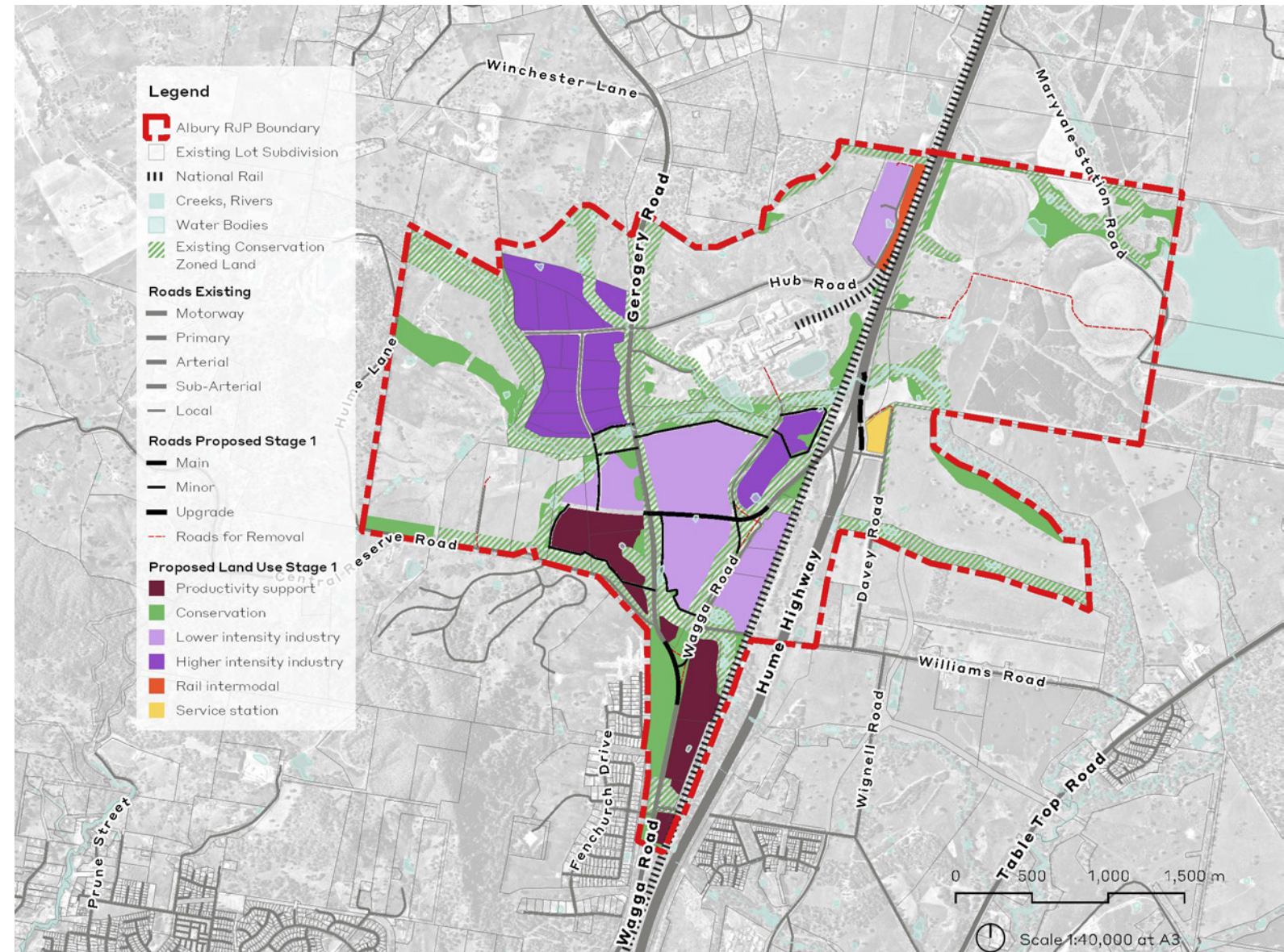


Figure 147. Structure Plan - Stage 1. Source: Ethos Urban drawing on data from DPE.

Stage 1 - 2022 to 2026

Stage 1 of the Albury Regional Job Precinct seeks to initiate a densification of activity within a concentrated geographic area. This is to encourage a sense of industrial activity, vibrancy and workforce community. The presence of vibrancy will promote the precinct as an identifiable 'hub', rather than a dispersed area of industrial activity, supporting RUP identity within Albury and the wider area.

Pursuing delivery of development within a smaller area may also facilitate collaboration in the RUP, opening opportunities for the generation of circular economy networks between operators who can move resources between development sites over shorter distances and identify opportunities to be shared.

This stage includes a variety of land uses, including those which mitigate sensitive receptors surrounding.

Additional Areas of Land Use

Land Use	Area (sqm)	Areas (ha)
Conservation	778,062	78
Lower intensity industry	882,046	88
Higher intensity industry	719,531	72
Rail intermodal	44,107	4
Productivity support	402,590	40
Service station	32,555	3
	2,858,891	285

Table 17. Additional Areas of Land Use - Stage 1

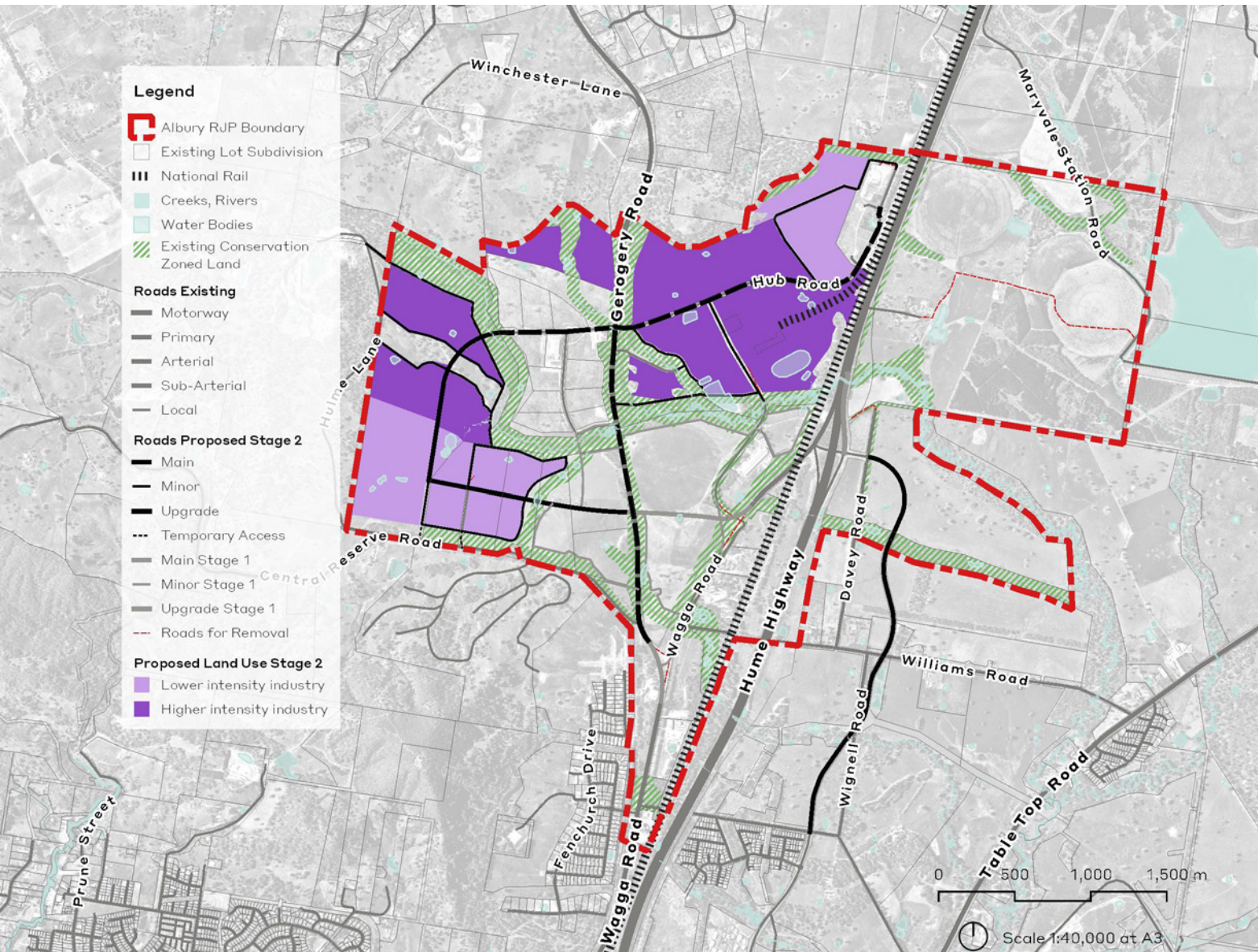


Figure 148. Structure Plan - Stage 2. Source: Ethos Urban drawing on data from DPE.

Stage 2 - 2027 to 2036

Stage 2 of the Albury Regional Job Precinct looks to expand the precinct to the remaining land within the Eastern side of the precinct, including all land East of the Hume Highway and the National Rail Line.

This stage will prioritise higher intensity industrial activity, that utilises the Rail Intermodal, with all areas having improved road access to this existing facility and (in the majority) being located away from residential areas. Land uses focus on industrial activity.

This stage includes areas in a higher terrain, which may require management of additional constraints including bushfire, flood and slope. Benefits may include improved views to beyond the RJP, natural breezes, as such, these area may be suitable for wider variety of uses.

Additional Areas of Land Use

Land Use	Area (sqm)	Areas (ha)
Conservation	0	0
Lower intensity industry	990,897	99
Higher intensity industry	1,796,488	180
Rail intermodal	0	0
Productivity support	0	0
Service station	0	0
	2,787,385	279

Table 18. Additional Areas of Land Use - Stage 2

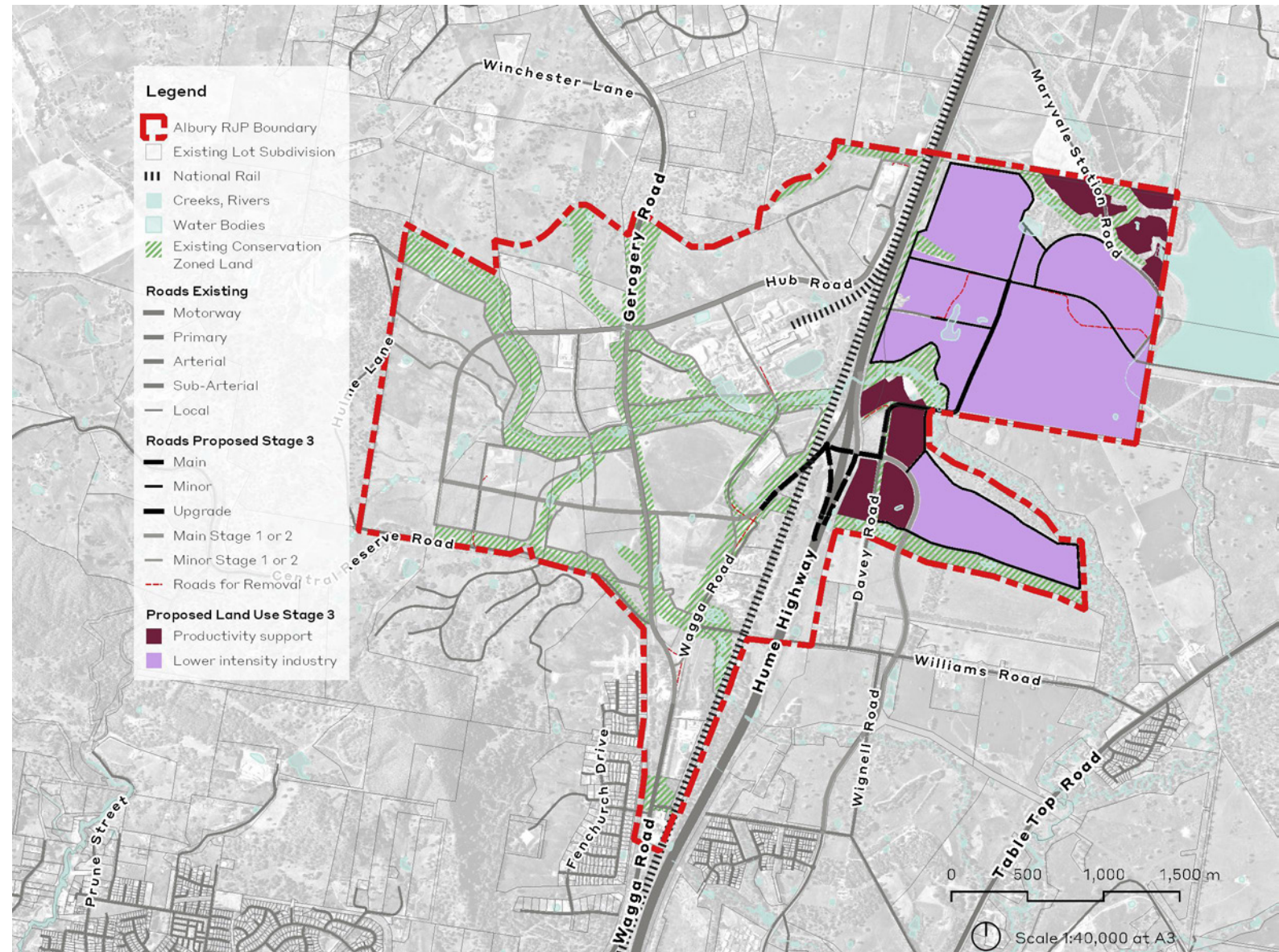


Figure 149. Structure Plan - Stage 3. Source: Ethos Urban drawing on data from DPE.

Stage 3 - beyond 2036

Stage 3 extends the precinct to the West of the Hume Highway, with a focus on road freight due to its direct connection into Davey Road Interchange.

This precinct, has been designed with flexibility in mind, anticipating changing conditions, demands, surrounding uses, context, Albury's population, and activities of the existing RJP following 2036.

Areas to the north-east anticipate the potential for finer-grain developments to manage interaction with the green-blue corridor, and to provide shared amenity to workers and residents surrounding the precinct. Employment lands are lower intensity industry and productivity support, rather than higher intensity industry to protect future urban growth areas and to provide a precinct with a varied character.

Additional Areas of Land Use

Land Use	Area (sqm)	Areas (ha)
Conservation	0	0
Lower intensity industry ¹	2,340,921	234
Higher intensity industry	0	0
Rail intermodal	0	0
Productivity support	456,937	46
Service station	0	0
	2,797,858	280

Table 19. Additional Areas of Land Use - Stage 3

¹ It must be noted that a large area within this land use has significant plantation of which a large amount may be preserved for reasons of biodiversity certification or for potential carbon offset.

10.8 Recommended Structure Plan Framework

The draft Preferred Structure Plan provides a basis for establishment of a new statutory planning framework that is suited to the vision and principles of the Albury RJP. Albury City Council is currently engaging with the NSW Department of Planning and Environment in relation to the transition from existing Business and Industrial land use zones to the new Employment zones. The proposed planning framework reflects the new land use zones, and the terms used in the Preferred Structure Plan also correspond with zones that are recommended as applicable to different parts of the precinct.

Further consultation is required with Council to refine the zone objectives and land use tables for the recommended land use zones, particularly for those zones that are not proposed to be used elsewhere in Albury City. Except where land use zones are applied only to the Albury RJP, the zoning provisions (objectives and land use tables) used in the RJP should be consistent with those used across Albury LEP.



Figure 150. Two Hikers on Hume and Hovell Eastern Hill Track, Albury. Source: Albury City Council.

Conservation Zones

Conservation zones largely reflect existing zoning of riparian corridors and areas of significant remnant vegetation that are conserved under the provisions of biodiversity certification that apply to the existing Albury LEP. It is understood Albury City Council is currently working through a revised biodiversity certification framework for Albury City under the *Biodiversity Conservation Act 2016* (NSW) (BCA). Biodiversity certification generates significant benefits in relation to both conservation of the natural environment and streamlining the development approval process. The draft preferred structure plan includes identification of areas that have conservation status under the BCA, and proposes protection of these areas through conservation zones that would provide a basis for a new biodiversity certification to apply to land that is proposed to be zoned for employment purposes, by protecting a strategic network of areas of high conservation value through the precinct.

Figure 134 shows areas recommended for conservation zoning. These areas include:

- Existing conservation zoned land under Albury LEP, predominantly the riparian corridors and stands of remnant woodland.
- Additional areas recommended for conservation zoning, including habitat for threatened fauna, areas of native grassland, and areas of planted native species.

The draft Preferred Structure Plan identifies the above areas as Existing Conservation Zones and Conservation respectively.

Higher Intensity Industry

The central core of the RJP, identified as Higher Intensity Industry on the master plan, is recommended to be zoned SP4 Enterprise. This area is the most distant from sensitive receptors in the surrounding areas, and is also the flattest land in the Precinct. It has good road access via the Davey Road interchange with the Hume Motorway and Wagga Road/Gerogery Road, and is relatively proximate to the Ettamogah Rail Hub. The existing paper mill, Overall Forge and Circular Plastics factories are all within the SP4 Enterprise zone.

Albury LEP currently does not include the SP4 Enterprise zone. The zone objectives are limited to a single objective, and there is scope to add other zone objectives to tailor this zone to specific circumstances. The SP4 zone is therefore applicable to the Albury RJP as it would differentiate it from other industrial areas around Albury. The following objectives for the Heavy Industry Zone would be relevant to the SP4 zone as it is proposed to apply to the Albury RJP:

- To provide areas for industries that need to be separated from other land uses.
- To ensure the efficient and viable use of land for industrial uses.
- To minimise any adverse effect of industry on other land uses.
- To encourage employment opportunities.

These objectives are considered to be broadly applicable to those parts of the Albury RJP that are identified as Higher Intensity Industry on the Masterplan. The SP4 zone will send clear signals to industry and investors that the precinct is the preferred location in Albury City for high value industries, but those which may have off-site impacts that are more difficult to manage or are best separated from more sensitive land uses including residential areas.

The environmental assessments undertaken to inform the RJP Masterplan indicate that parts of the Precinct proposed for Higher Intensity Industry can accommodate uses that meet the definition of heavy industry with minimal risk of off-site amenity impacts, noting that specific uses will be subject to detailed design, assessment and approval processes.

Lower Intensity Industry

The Masterplan identifies areas suitable for low and general intensity industrial uses. These areas generally provide a buffer to the Higher Intensity Industry areas, while permitting a broad range of industrial uses that are consistent with the Albury RJP vision and principles. It is noted that some parts of the Lower Intensity Industries areas are relatively close to sensitive receptors including rural residential areas and existing or planned residential areas. It is recommended that the LEP includes provisions to avoid locating industries that could impact on sensitive receptors in these areas do not permit industrial land uses that would result in off-site impacts to these nearby sensitive receptors. The zone objectives for the SP4 zone (discussed in relation to the Higher Intensity Industry areas above) support the intent of this area in the Master plan to permit industries that do not result in impacts to surrounding land uses.

The zone objectives also provide guidance on the inclusion of a wide range of land uses including warehousing and logistics which are aligned with the RJP vision as these uses leverage regional and national transport accessibility through Inland Rail and the Hume Motorway with inter-modal facilities at the Ettamogah Rail Hub. The zone also permits a limited range of supporting retail uses to meet the immediate needs of workers and businesses that are the primary focus of the zone. Enabling these uses in these areas will assist to attract workforce and industries that rely on other businesses for their operation. This includes businesses that may need to locate in Higher Intensity Industry areas, but rely on access to nearby facilities and other businesses that are not permitted in the Heavy Industry zone.

It is recommended that the SP4 Enterprise zone is applied to areas shown as **Lower Intensity Industries** on the draft Preferred Masterplan, and the Ettamogah Rail Hub. Additional local provisions are recommended in these areas to avoid locating higher intensity industries in this area, to avoid potential impacts on sensitive receptors outside the Albury RJP.

Productivity Support

A successful employment/industrial precinct relies on a diversity of land uses and businesses that complement. The Albury RJP is no different, and the economic study identifies the need for a range of businesses of different scales and types that will contribute to the success of the core heavier intensity and lower intensity industrial land uses. There are also interfaces with sensitive surrounding areas and the natural environment within the precinct, and some areas that are generally unsuitable for large format industrial uses because of topography.

Areas identified as Productivity Support on the draft Preferred Structure Plan are located at the southern and north-eastern fringes of the Precinct. These are locations that both provide interfaces with existing or planned sensitive receivers including residential areas or environmental conservation areas, and are well-located to service the needs of businesses and workers in the Precinct and potentially to provide local services to meet the needs of residents around the fringes of the Precinct. They are also located on key access routes into and out of the precinct, so would benefit from passing trade and be well suited to workers accessing services and facilities in these areas when travelling to or from work.

The objectives of the Productivity Support zone in the Standard Instrument are:

- To provide a range of facilities and services, light industries, warehouses and offices.
- To provide for land uses that are compatible with, but do not compete with, land uses in surrounding local and commercial centres.
- To maintain the economic viability of local and commercial centres by limiting certain retail and commercial activity.
- To provide for land uses that meet the needs of the community, businesses and industries but that are not suited to locations in other employment zones.
- To provide opportunities for new and emerging light industries.
- To enable other land uses that provide facilities and services to meet the day to day needs of workers, to sell goods of a large size, weight or quantity or to sell goods manufactured on-site.

Of particular note for the Albury RJP are the objectives to provide a range of light industrial, warehouse and office uses, space for emerging light industries and uses that meet the needs of businesses and industries. Uses that are consistent with these objectives in particular are considered appropriate for the Productivity Support areas within the Albury RJP.

It is also relevant to note that the zone objectives seek to avoid competition with commercial centres, and with reference to the vision and principles for the Albury RJP, avoiding these zones becoming pseudo retail areas is critical. There are opportunities elsewhere in Albury City for retail uses like bulky goods and larger format retail outlets to locate, and those uses are not consistent with the vision for the RJP. Depending on whether the Productivity Support zone is to be applied elsewhere in Albury, specific local provisions may be required for the RJP to exclude certain land uses, limit the total floor area or site area that can be occupied by certain uses, or to provide additional matters for consideration in the assessment and determination of development applications to ensure consistency with the Albury RJP vision.

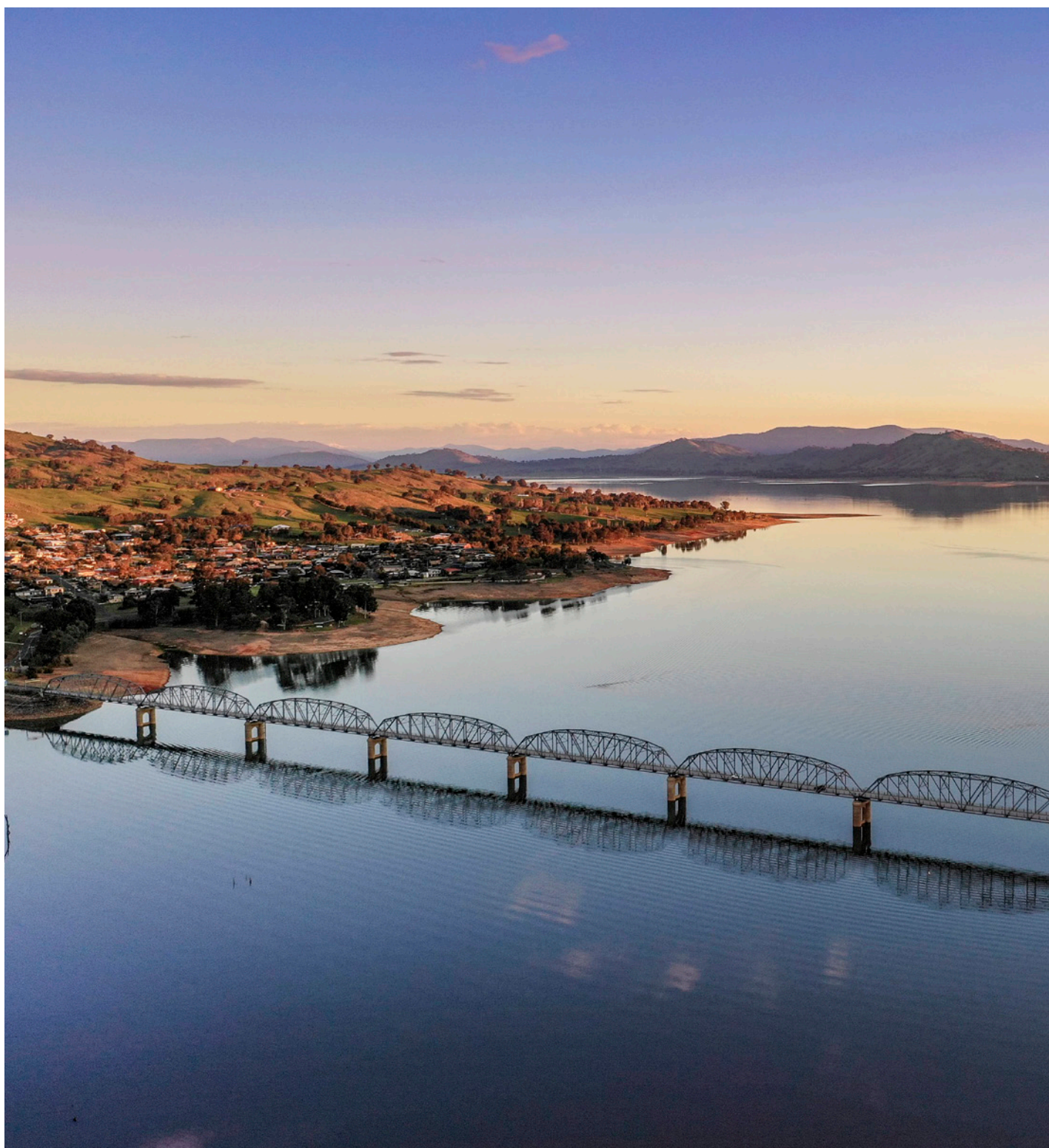


Figure 151. Bethanga Bridge over Lake Hume, Albury. Source: Albury City Council.

Local provisions

Part 7 of Albury LEP contains local provisions that address specific issues or apply to certain parts of Albury City. It is recommended that Albury City Council considers the inclusion of specific local provisions for the Albury RJP in part 7 of the Albury LEP. The Albury RJP local provisions could include the following matters:

- The vision, objectives and principles for the Albury RJP, derived from the structure plan.
- A provision requiring demonstration, to the satisfaction of the consent authority, that development applications are consistent with, or give effect to, the vision, objectives and principles.
- Any specific provisions to permit or prohibit certain land uses that may be permissible in the SP4 Enterprise zone as applied generally to the Albury RJP but which are inconsistent with the Albury RJP Masterplan.

Consideration has been given to specific approval pathways for development that is consistent with the Albury RJP vision and objectives. Similar approaches have been applied to Activation Precincts under SEPP (Precincts - Regional) 2021. The approach taken for the Special Activation Precincts goes beyond the scope of the RJP, which is focused on integrating provisions with the existing local planning framework. The potential to streamline approvals processes could explore the use of precinct specific complying development provisions or consider enabling works including subdivision and utilities infrastructure that could be undertaken at a precinct or sub-precinct scale. Maintaining strategic approval frameworks like biodiversity certification, and considering the use of other precinct scale approvals under other legislation (for example the *Water Management Act 2000 No 92* (NSW), in relation to riparian corridors or the *National Parks and Wildlife Act 1974 No 80* (NSW) in relation to Aboriginal heritage) could also assist in streamlining approvals and facilitating investment in the precinct.

Development Control Plan

The existing Albury DCP includes specific provisions for the Albury RJP. It is recommended these are updated with a specific part in the DCP that sets out precinct specific controls that are based on and include the final structure plan (subject to outcomes from consultation on the draft preferred plan). The DCP part should draw from the structure plan (when finalised) to provide additional design guidance to ensure development is consistent with the overall plan, is sustainable, and has acceptable amenity impacts. The focus of the DCP provisions should be on encouraging development that is consistent with the plan.

Note on Scheduled Activities under the Protection of Environment Operations Act 1997 No 156 (NSW)

RJP planning pathways do not amend existing pathways for scheduled activities under the Protection of the Environment Operations Act 1997 (NSW). Scheduled activities are often complex and require EPA engagement early in the planning process. This early engagement allows for clarity of expectations and efficiency of any approval process. Any proposed developments for the precinct are recommended to initiate engagement with the relevant consent authority (Council or DPE) and the Environmental Protection Authority (EPA) to identify the applicable planning pathways and any licensing and assessment requirements under the Protection of the Environment Operations Act.

Environmental overlays

These are areas that would be identified under the LEP as having biodiversity values. A local provision in the LEP is recommended that establishes matters for consideration that emphasise the retention and conservation of biodiversity values on these areas as part of the planning and design of development proposals. Similar provisions exist under Environmental Planning Instruments including the SEPP - Precincts) Western Parkland City (the former Growth Centres SEPP) which ties biodiversity protection mechanisms to biodiversity outcomes under a biodiversity certification scheme.

11.0 Findings and Conclusion

11.1 Findings and Conclusion

Findings and Conclusion

The Albury Regional Job Precinct is a unique opportunity in the Albury-Wodonga region to develop a unique industrial precinct in close proximity to a growing, vibrant, regional city. The precinct looks to benefit from, and contribute to, an increasing population for Albury by creating highly productive, flexible, and well connected employment lands, building on the existing NEXUS Industrial Precinct and established operators. The RJP has a focus on future job market, future technologies, and the pursuit of a circular economy - drawing on practices which are increasingly practiced in industry across NSW, Australia and the world.

This plan seeks to establish a structural form and a planning framework to support the future growth of the Albury Regional Job Precinct in achieving its vision and principles. In particular, it seeks to leverage the benefits of its location between Sydney, Melbourne and Brisbane. Additionally, it seeks to leverage the benefits of the existing intermodal access to the national rail network (including the future Inland Rail), direct access to the national highway, and the close proximity of a regional airport.

The process of developing the plan included:

- Consideration of strategic and statutory planning, ranging from National, State, Regional and Local contexts which found the common direction towards sustainability, integrated precincts which support collaboration to reduce unsustainable practices and promote sustainable sharing of resources.
- Urban design site visit and analysis from both regional and local levels which identified the unique context of the precinct, its topographic form, valuable connections to transport infrastructure and the variation in land use, historical and current around its boundary.
- An opportunities and constraints summary.
- Two integration workshops allowed for testing of a series of options against the draft vision and principles with a larger stakeholder group and the project subject matter experts.
- Initial baseline and analysis reporting from specialist consultants to provide context for options development and analysis feedback of the preferred option to finalise a preferred structure.

The resulting structure plan prioritises land uses that provide maximum potential for job generation and flexibility for future potential operators (in response to Principle 1). Equally important is the minimisation of negative impacts on sensitive receptors, including growing residential neighbourhoods (in response to Principle 3), heritage items and features, blue-green corridors - riparian lands, important habitats and protected vegetation (in response to Principle 4).

The structure seeks to provide a resilient and flexible form allowing for a variety of possible subdivision opportunities as well as in-built redundancy for climate resilience and precinct growth.

Just under 850 ha of land is proposed for re-zoning, just under 770 ha of this is employment land while just under 80 ha of this is conservation land. The division of land uses are as follows:

1. Higher intensity industry - 30% (252 ha).
2. Lower intensity Industry - 50% (421 ha).
3. Conservation - 9% (78 ha).
4. Productivity support - 10% (86 ha).
5. Rail intermodal - <1% (4 ha).
6. Service station - <1% (3 ha).

Residential sensitive receptors are located at the southern boundary (both east and west of the Highway) and a 500 metres north of the intermodal. In order to avoid land use conflicts, land uses with less potential for impact (noise, odour, traffic and land use conflicts) are proposed for the southern portion of the precinct. These include uses with potential for shared benefit between RJP workers and residential community. Higher intensity industrial land uses are prioritised to the north-west of the precinct where conflicts are less of a concern due to the land use surrounding this part of the precinct and the topographic nature of the precinct. Flexible and higher intensity land use has also been prioritised around the existing rail intermodal to maximise potential for operators seeking to benefit from this facility.

Next Steps

This plan seeks to established a clear and considered Vision and guiding set of Principles for the Albury RJP. The plan has respond to many of these principles, however, some of these will become more prominent in later stages and support ongoing development of the precinct moving forward.

Next steps for the development of the Albury RJP may include the following activities:

- Creation of an implementation plan for the precinct. This will include consideration of the ways that a circular economy can be best facilitated by government (state and local), business concierge systems, business groups and anchor institutions - these may act as an intermediary for RJP operators in the identification of opportunities for sharing, reuse, and recycling of resources and waste products within the precinct (supporting Principle 1 and 5).
- The intent of this plan is to support major industrial development. The next stage of the Precinct development should include identification of demand for lot sizes and detailed urban analysis to establish most suitable lot subdivision.
- Verification of fire egress paths and access paths for fire fighting equipment by specialist bushfire engineers (responding to Principle 4).
- Consultation with existing land holders to establish future plans in order to clarify strategic approach for sequencing, including services and road infrastructure delivery (supporting Principle 5).
- Consideration of funding opportunities and models for infrastructure (responding to Principle 2 and 5).
- Additional ground-truthing to gain clarity around biodiversity, historic and indigenous heritage features (to support Principle 3, 4 and 5).
- Engagement with local communities and potential collaborators, including anchor institutions (in response to Principle 5).
- Review of existing environmental certification and investigation into the most appropriate type of certification that will support the RJP in achieving its ambition to create an environmentally sustainable and responsible precinct (to support Principle 5).
- Future statutory planning work should consider recommendations raised in the Heritage Report (ERM, September 2022) around Maryvale heritage site and the Ettamogah Vineyard.

Albury Regional Job Precinct Vision:

The Albury Regional Job Precinct will redefine the nature of employment within the Albury-Wodonga region. The Precinct will differentiate itself as an industrial hub for the future, focusing on highly sustainable production, circular economies and value-add industry within a productive and safe ecosystem.

The Precinct will be defined by its unique landscape and terrain, utilisation of surrounding amenity and services, and strong transport infrastructure linking to materials and markets in the region, interstate and overseas. The Precinct will not only be a highly desirable destination for businesses but offer a place to connect with nature.

Principle 1: **Expand Albury's capacity as a Regional City with a future-focused job market.**

Principles 2: **Create a deliverable, clear, robust and high-quality planning and land use framework.**

Principles 3: **Respond to and build upon the precinct's unique rural landscape character.**

Principles 4: **Create an environmentally sustainable and culturally responsible precinct.**

Principles 5: **Open up avenues for collaboration.**

Figure 152. Albury Regional Job Precinct Vision and Principles



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APPENDIX

A Case Studies

A.1 Logic - Wodonga, VIC

Table 20. Logic Industrial Precinct

Site Attributes	
Location	• Wodonga, Victoria
Lead (Council, Government, or Private)	• Wodonga Council
Year established	• 2002 - ongoing
Total size	• 567ha * Industrial One Zoning
Lot Sizes (small, medium, large)	• 1.5ha to 92.64ha
Qualitative Data	
Uses (examples of desired industry)	• Large-scale industry tenants (e.g. Timber manufacturing plant, Woolworths distribution centre, TAFE campus, Service/fatigue centre)
Implementation Plan Notes	• Subdivision of lots by Government (Wodonga Council)
Cost/m ² or Lease/m ²	• E.g. Lot 251 currently listed as vacant land - \$1,405,500 (3.73ha) + \$350,000 (GST)
Supporting Infrastructure	<ul style="list-style-type: none"> • Access to the Hume Freeway between Melbourne, Canberra, and Sydney • SCT Logistics Rail Terminal • Main Sydney to Melbourne Fibre Optics Cable + Gas Line • B-Double compliant road • Adjoins to North-East railway line • Full freeway interchange capacity • 75% of Australia's population reached by next day shift
Adjacent Uses	<ul style="list-style-type: none"> • C2Z - Entertainment & Recreation Facility/Industry (other than Materials recycling and Transfer station) • RD21 - Residential Zone • FZ - Farming Zone Land • PUZ4 - Public Use Zone
Surrounding Catchment and Population & Employment	<ul style="list-style-type: none"> • Regional Labour force of 80,000 • Productive workforce with strong skill base in logistics, warehousing, and food manufacturing



Figure 153. Aerial View of Logic Precinct

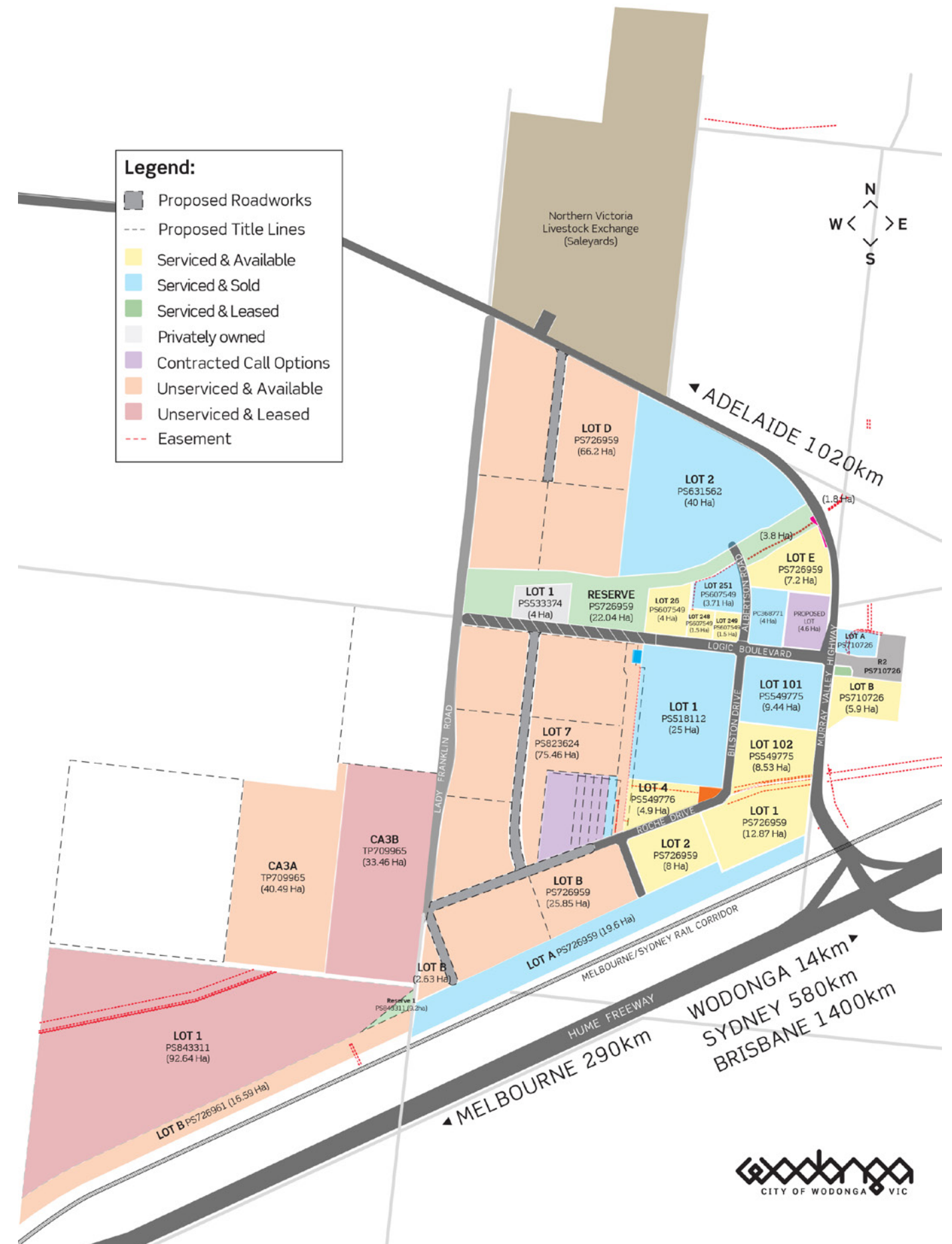


Figure 154. Masterplan of Logic Precinct

A.2 Citiswich Industrial Park - Bundamba, QLD

Table 21. Citiswich Industrial Precinct

Site Attributes	
Location	<ul style="list-style-type: none"> Bundamba, South-East Queensland
Lead (Council, Government, or Private)	<ul style="list-style-type: none"> Walker Corporation (Private)
Year established	<ul style="list-style-type: none"> 2014 - ongoing
Total size	<ul style="list-style-type: none"> 350ha
Lot Sizes (small, medium, large)	<ul style="list-style-type: none"> 2000m² to 20ha+
Qualitative Data	
Uses (examples of desired industry)	<ul style="list-style-type: none"> Mixed Industry + Business Spark uses, including incubator spaces
Implementation Plan Notes	<ul style="list-style-type: none"> Zoned, serviced, and levelled land ready to commence construction Infrastructure charges for warehousing paid
Cost/m ² or Lease/m ²	
Supporting Infrastructure	<ul style="list-style-type: none"> 0 traffic lights from Citiswich to Port of Brisbane Positioned at crossroads of Ipswich Motorway, Cunningham, and Warrego Highways The Legacy Way Connection Access to workplace training at Bremer Institute of TAFE Proximity to food production, major industry and enterprise areas including Australian Defence Force (ADF) infrastructure
Adjacent Uses	<ul style="list-style-type: none"> RB2M - Regional Business and Industry Buffer (Medium Impact) RB2L - Regional Business and Industry Buffer (Low Impact) RBB1 - Regional Business and Industry Buffer REC - Recreation Zone CHL - Character Housing Low Density RL2 - Residential Low Density SU2 - Special Uses
Surrounding Catchment and Population & Employment	<ul style="list-style-type: none"> 323,069 of Ipswich's Population to grow by treble by 2040 149,328 people are employed (at 58.3%) Employment rate to grow by 2.6% (addition of 41,000 new workers)

“Citiswich Business Park is the most significant and exciting opportunity for industrial businesses seeking a strategic foothold in South East Queensland.”

- Walker Co.



Figure 155. Masterplan of Citiswich Industrial Park



Figure 156. Aerial View of Citiswich Industrial Park

A.3 Yatala Enterprise Area - Yatala, QLD

Table 22. Yatala Enterprise Area

Site Attributes	
Location	• Yatala, Queensland
Lead (Council, Government, or Private)	• Gold Coast City Council
Year established	• 2001 - ongoing
Total size	• 3,305ha
Lot Sizes (small, medium, large)	• 185m ² to 234.19ha
Qualitative Data	
Uses (examples of desired industry)	<ul style="list-style-type: none"> • General Impact Business and Industry + Low Impact Business and Industry (e.g. cafés, car parks, take-away foods, convenience stores, fast-food, child care centre, service station) • Food and Produce Industry + Extractive Industry (e.g. Milk Depot, Convenience shop, Food Industry, Agriculture, Animal Husbandry) to promote future business and industry(rural/farm stay) and temporary use of warehouses/open space
Implementation Plan Notes	<ul style="list-style-type: none"> • A market leader in terms of innovative industrial development to facilitate growth in long-term employment for 21st century • Promote economic development of YEA as a major employment district of Gold Coast City and the South-East Queensland region.
Cost/m ² or Lease/m ²	
Supporting Infrastructure	<ul style="list-style-type: none"> • Major support for • Beenleigh Activity Centre • Extractive resources of the northern Darlington Range and the Stapylton area have been identified as economic resources of regional significance • An open space network is to be advised to protect the surrounding areas of nature conversation significance and landscapes of regional importance • High level of exposure to Pacific Motorway + Railway transport corridors
Adjacent Uses	<ul style="list-style-type: none"> • EI - Extractive Industry • FPI - Food and Produce Industry • LIBI - Low Impact Business and Industry • RE1 - Public Recreation Zone • RBB1 - Regional Business and Industry Buffer
Surrounding Catchment and Population & Employment	• 1,312 individuals are in Yatala with 59.7% employed

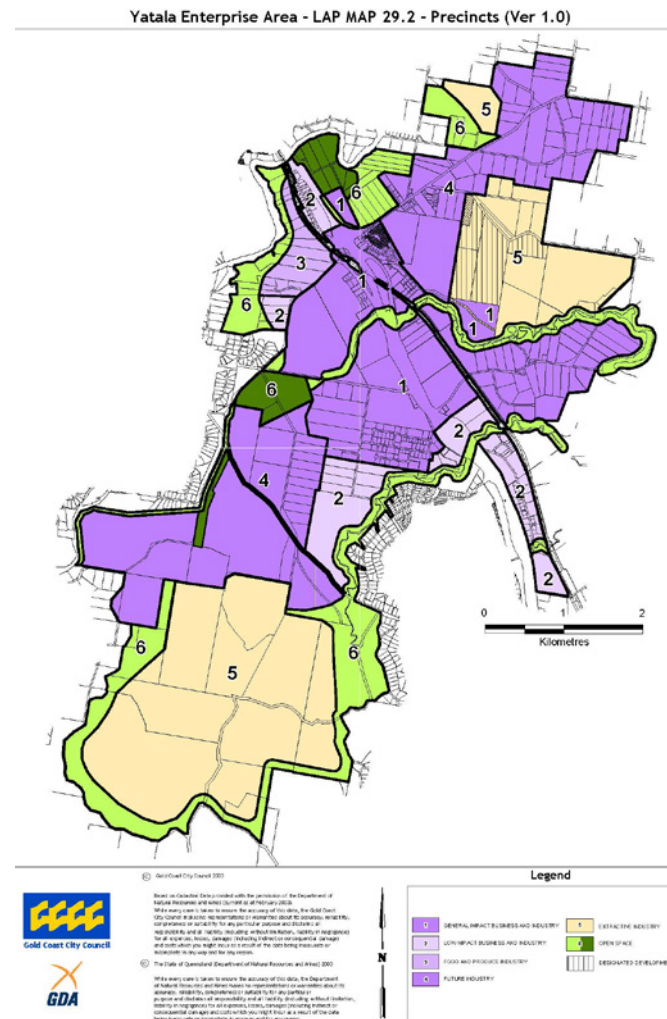


Figure 157. Precinct Map for Yatala Enterprise Area



Figure 158. Conservation Area Map for Yatala Enterprise Area



Figure 159. Aerial View of Yatala Enterprise Area

A.4 Metroplex South Precinct - Richlands, QLD

Table 23. Metroplex South Precinct

Site Attributes	
Location	<ul style="list-style-type: none"> Richlands, Queensland
Lead (Council, Government, or Private)	<ul style="list-style-type: none"> Joint venture between Metroplex and The GPT Group (Private)
Year established	<ul style="list-style-type: none"> 2011-Ongoing
Total size	<ul style="list-style-type: none"> 17ha (part of a larger 26ha + 38.5ha; 81.5 ha)
Lot Sizes (small, medium, large)	<ul style="list-style-type: none"> 3000m² to 2.3 ha
Qualitative Data	
Uses (examples of desired industry)	<ul style="list-style-type: none"> Large industry, office space and commercial development; e.g. car showrooms and headquarters (such as Volvo) Equipment manufacturer Maintenance and repair
Implementation Plan Notes	<ul style="list-style-type: none"> Redevelopment of the Sannanda (Wacol) Army Barracks site; released in three stages with various lot sizes Protection of creek corridor
Cost/m ² or Lease/m ²	
Supporting Infrastructure	<ul style="list-style-type: none"> Short distance from Ipswich, Logal and Centenary Motorways; Project includes road upgrades including increasing capacity, lanes and grading. New road (Boundary Road) to allow a continuous thoroughfare creating a new route between the Ipswich and Centenary Motorways.
Adjacent Uses	<ul style="list-style-type: none"> Industrial land to the South and East Residential land to the North Some parkland in the surrounds
Surrounding Catchment and Population & Employment	<ul style="list-style-type: none"> 2,054,614 individuals are in Brisbane with 59% employed 29 minutes to Brisbane CBD



Figure 160. Precincts of Metroplex South Precinct



Figure 161. Aerial View with Available Lots of Metroplex South Precinct

A.5 Ballarat West Employment Precinct, VIC

Table 24. Ballarat West Employment Precinct

Site Attributes	
Location	<ul style="list-style-type: none"> City of Ballarat, Victoria (regional and attempts to incorporate rail)
Lead (Council, Government, or Private)	<ul style="list-style-type: none"> State and Local Government; development of surplus Crown Land Joint venture between City of Ballarat and Regional Development Victoria
Year established	<ul style="list-style-type: none"> 2014-2030
Total size	<ul style="list-style-type: none"> Overall Project area - 438ha Stage 1 - 36ha Stage 2 - 55ha BIFH - 18ha + 6ha
Lot Sizes (small, medium, large)	<ul style="list-style-type: none"> Small to medium lots, super-lots (6-8 ha)
Qualitative Data	
Uses (examples of desired industry)	<ul style="list-style-type: none"> Industrial, Wholesale, Logistics, Construction, Commercial and Residential use
Implementation Plan Notes	<ul style="list-style-type: none"> Delivered in two stages and separate non-linear stage of the BIFH delivery (intermodal connection)
Cost/m ² or Lease/m ²	
Supporting Infrastructure	<ul style="list-style-type: none"> Adjacent Ballarat Aerodrome Part of delivery includes - Road construction, Services including gas, Recycled water and NBN, Landscaping Ballarat Integrate Freight Hub (BIFH) to provide access to broad gauge rail, aviation infrastructure and road connection (BIFH yet to be delivered)
Adjacent Uses	<ul style="list-style-type: none"> Aerodrome to north, industrial land to east (including areas of swamp), agricultural land to the west, residential land to the west and north. IN1 General Industrial Zone RD21 - Residential Zone FZ - Farming Zone Land
Surrounding Catchment and Population & Employment	<ul style="list-style-type: none"> 160k population in Ballarat which has a higher proportion of technicians and trade workers, and labourers when compared to Victoria and Australia. 157,485 individuals are in Southwest Sydney with 52.5% employed

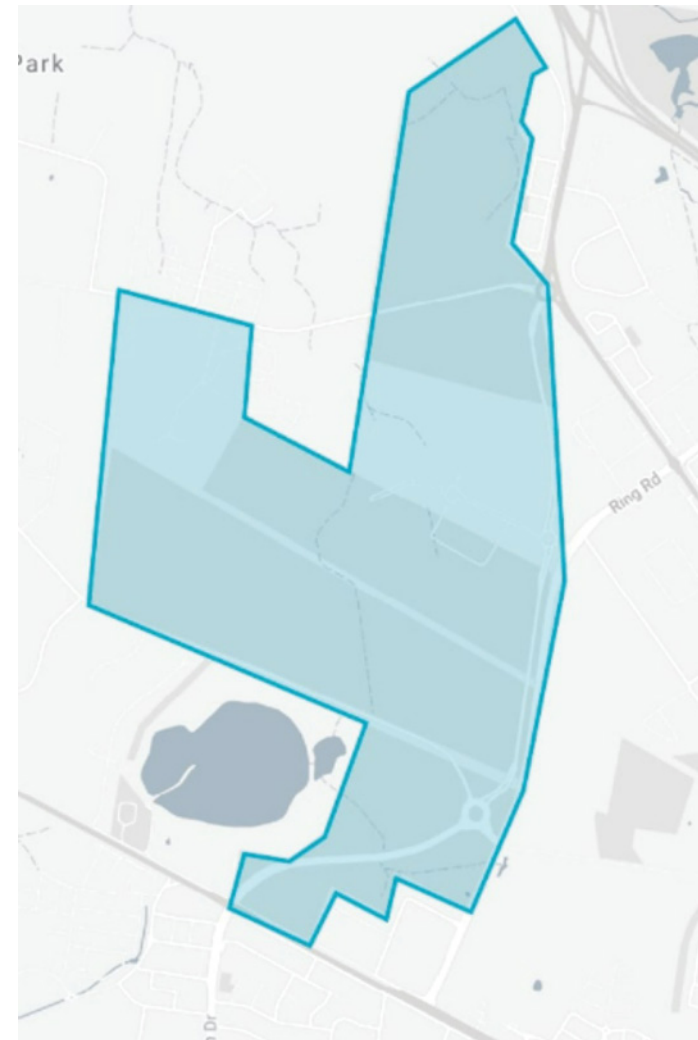


Figure 162. Location Plan Ballarat West Precinct

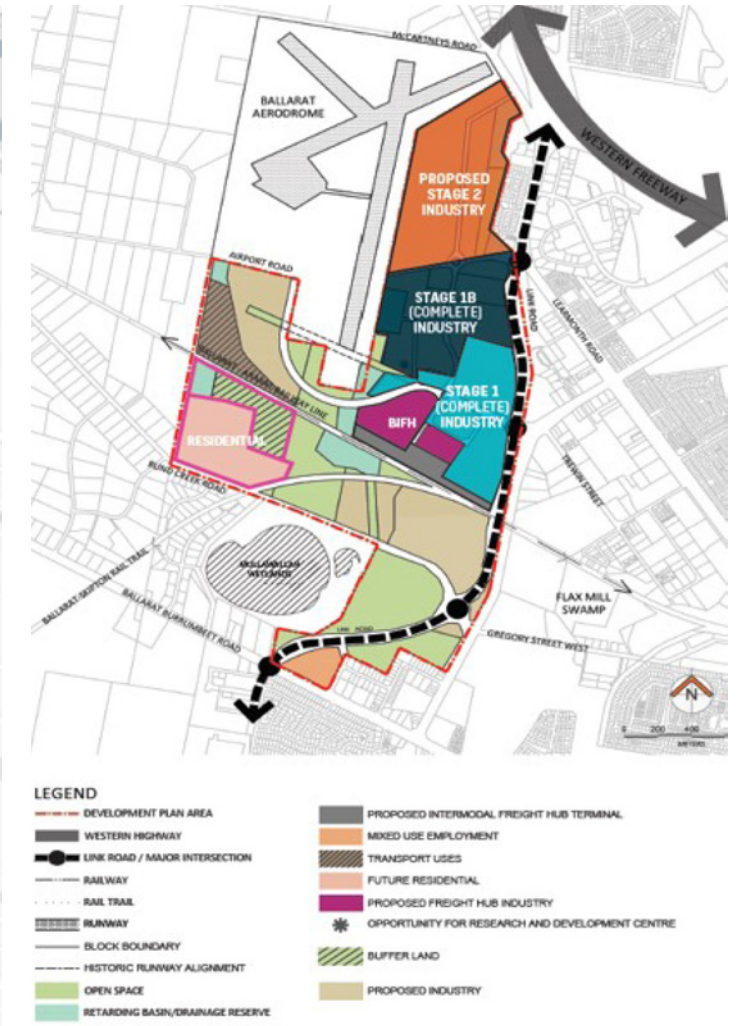


Figure 163. Masterplan of Ballarat West Precinct



Figure 164. Aerial Photo of Ballarat West Precinct

A.6 Minto Industrial Precinct, NSW

Table 25. Minto Industrial Precinct

Site Attributes	
Location	<ul style="list-style-type: none"> Campbelltown, New South Wales
Lead (Council, Government, or Private)	<ul style="list-style-type: none"> NSW Planning & Environment
Year established	<ul style="list-style-type: none"> 1971 - ongoing
Total size	<ul style="list-style-type: none"> 328.46ha
Lot Sizes (small, medium, large)	<ul style="list-style-type: none"> 2027m² to 11.17ha
Qualitative Data	
Uses (examples of desired industry)	<ul style="list-style-type: none"> Predominantly industrial, large areas of light and heavy industrial use to the west; low rise residential and retail to the north-east; significant industrial use to the south-east. Large majority of land use is 'industry and innovation' which includes large floor-plate industrial and commercial offices and workshops on sites. Offices and more consolidated employment activities are likely to occur, particularly close to the station to the north-west.
Implementation Plan Notes	<ul style="list-style-type: none"> In response to demand for additional 126,000m² of employment lands within the precinct by 2036, predominantly in Education and Health (57,000m²) + Industry (51000m²)
Cost/m ² or Lease/m ²	
Supporting Infrastructure	<ul style="list-style-type: none"> 1km to Macarthur Intermodal Shipping Terminal Located on the Southern Sydney Freight Line 14km to Moorebank Intermodal; 9km to M5/M7 Motorway Interchange Includes social infrastructure such as sporting fields and sports centres and a retail activity centre Potential extension of local bus services to provide loop within the precinct and other improvements to bus systems.
Adjacent Uses	<ul style="list-style-type: none"> Located within the Glenfield to Macarthur urban renewal corridor; precinct includes a new residential neighbourhood to the north-east IN1 - Industrial Zone RE1 - Public Recreation Zone R2 - Low Density Residential Zone SP2 - Special Purpose Zone B2 - Industry, Warehouse, Utilities, and Telecommunication uses
Surrounding Catchment and Population & Employment	<ul style="list-style-type: none"> Public transport commuting considered Land area is based on a 800m - 1.5km (10-20min) walking trip from Minto Station 12,551 individuals are in Minto with 60.9% employed

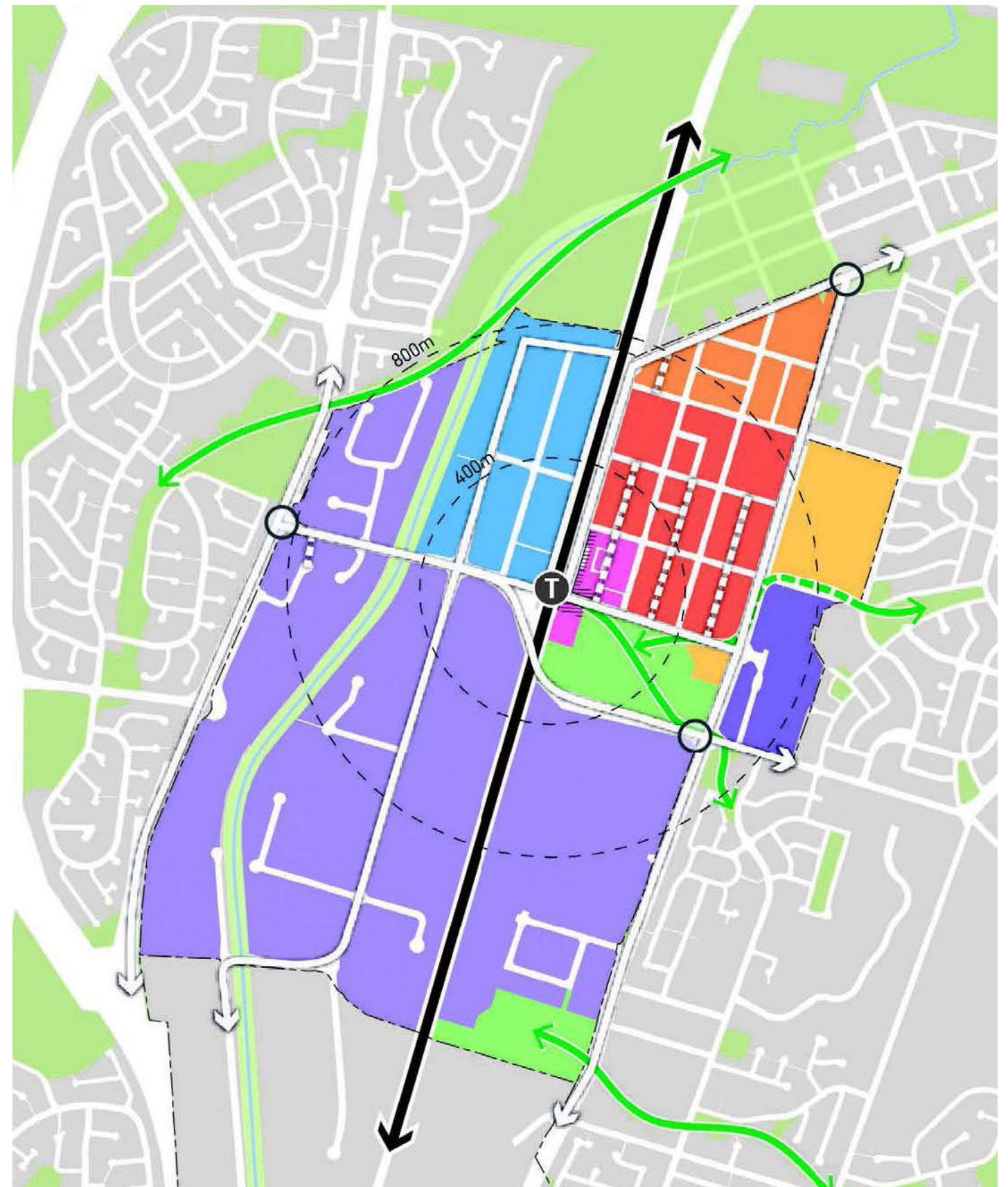


Figure 165. Masterplan of Minto Industrial Precinct

A.7 Calibre Warehouse Estates, NSW

Table 26. Calibre Warehouse by Mirvac

Site Attributes	
Location	<ul style="list-style-type: none"> Eastern Creek, New South Wales
Lead (Council, Government, or Private)	<ul style="list-style-type: none"> Mirvac (Private)
Year established	<ul style="list-style-type: none"> 2017 (Constructed)
Total size	<ul style="list-style-type: none"> 22 ha
Lot Sizes (small, medium, large)	<ul style="list-style-type: none"> 16 - 30m² warehouses
Qualitative Data	
Uses (examples of desired industry)	<ul style="list-style-type: none"> Warehouse and Logistics (e.g. Custom built for Miele; Pet circle pet supplies warehouse, Sheldon & Hammond)
Implementation Plan Notes	<ul style="list-style-type: none"> Subdivided and Constructed by Mirvac Leased privately
Cost/m ² or Lease/m ²	
Supporting Infrastructure	<ul style="list-style-type: none"> At the junction of the M4 and M7 motorways 45 mins from Sydney Airport; 55 mins from Port Botany 20 mins from proposed Badgery's Creek Airport Each warehouse includes solar systems on each warehouse
Adjacent Uses	<ul style="list-style-type: none"> Mostly Residential to the south, Commercial to the North, Industrial to the West, Agricultural land to the East RD21 - Residential Zone FZ - Farming Zone Land IN1 - Industrial Zone
Surrounding Catchment and Population & Employment	<ul style="list-style-type: none"> 60 mins from Sydney Centre In the heart of Western Sydney 20 mins from Penrith 30 mins from Parramatta 827 individuals are in Eastern Creek with 62.2% employed

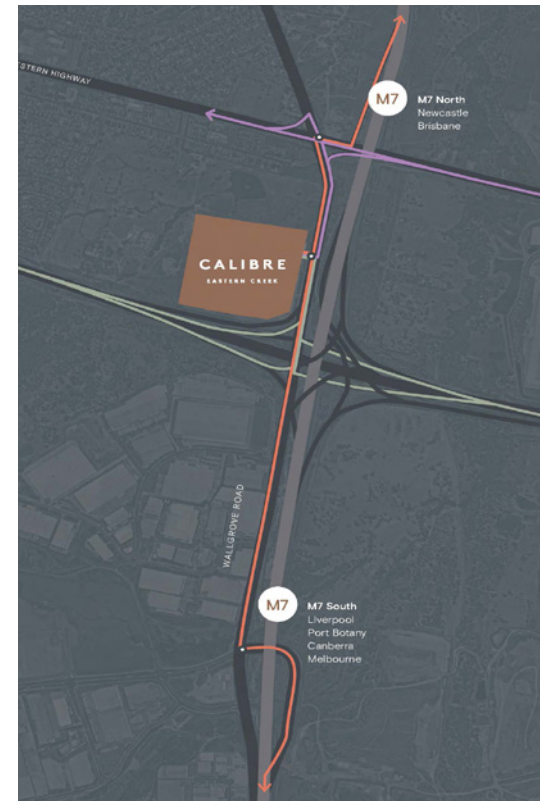


Figure 166. Location Plan of Calibre Warehouse Estates Figure 167. Site Plan of Calibre Warehouse Estates



Figure 168. Photograph of exemplar warehouse in the Calibre Warehouse Estates

A.8 Warehouse Estates at Ropes Creek, NSW

Table 27. Warehouse Estates by Jacfin

Site Attributes	
Location	<ul style="list-style-type: none"> Blacktown, New South Wales
Lead (Council, Government, or Private)	<ul style="list-style-type: none"> Jacfin Pty Ltd (Private)
Year established	<ul style="list-style-type: none"> 2011 - ongoing
Total size	<ul style="list-style-type: none"> 105ha
Lot Sizes (small, medium, large)	<ul style="list-style-type: none"> First two warehouses of Project Application by Ethos Urban at approx. 45,000m²
Qualitative Data	
Uses (examples of desired industry)	<ul style="list-style-type: none"> Predominately industrial and warehouse forms. Warehouse/office solutions to capitalise Western Sydney's growing population and labour pool (Western Sydney employment area).
Implementation Plan Notes	<ul style="list-style-type: none"> Coordination of estate with regional infrastructure, including Erskine Park Link Road, as well as staging. Accommodating a range of industrial and warehouse building forms. In accordance with Aboriginal Cultural Heritage Standards & Guidelines Kit.
Cost/m ² or Lease/m ²	
Supporting Infrastructure	<ul style="list-style-type: none"> New local and regional road layouts Provisions for staging, lot configuration, cut and fill, visual impact Stormwater detention, riparian zone, and bushfire management
Adjacent Uses	<ul style="list-style-type: none"> Located between Blacktown and Penrith LGAs\ IN1 - Industrial Zone RE1 - Public Recreation Zone R2 - Low Density Residential Zone SP2 - Educational and Place of Worship
Surrounding Catchment and Population & Employment	<ul style="list-style-type: none"> 87,705 individuals are in Blacktown with 61.9% employed

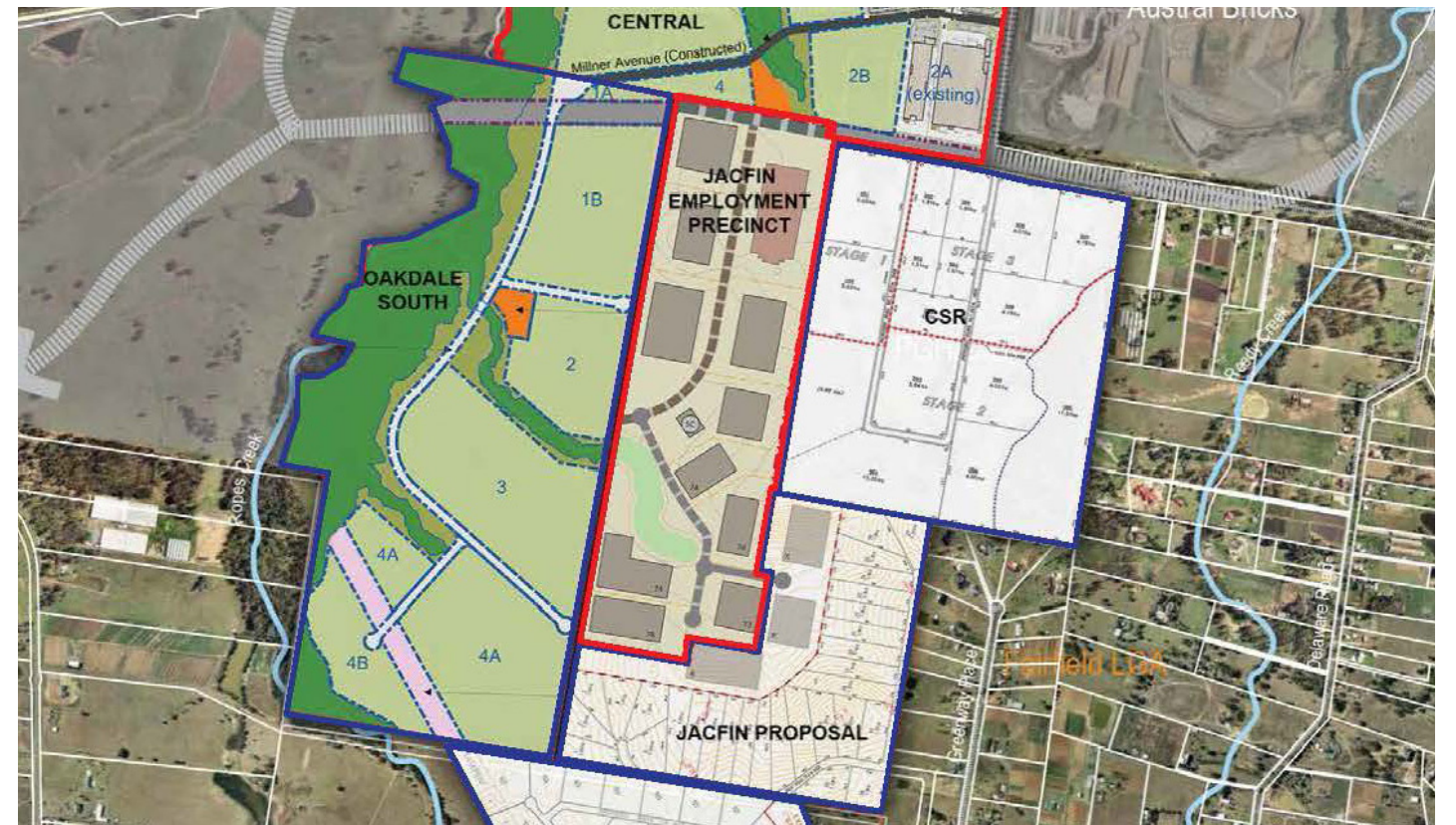


Figure 169. Lot layout for Warehouse Estates at Ropes Creek and Horsley Park



Figure 170. Photograph of Warehouse Estates at Ropes Creek and Horsley Park

A.9 Warehouse Estate at Horsley Park, NSW

Table 28. Warehouse Estate by Gazcorp

Site Attributes	
Location	<ul style="list-style-type: none"> Horsley Park, New South Wales
Lead (Council, Government, or Private)	<ul style="list-style-type: none"> Gazcorp Pty Ltd (Private)
Year established	<ul style="list-style-type: none"> 2019
Total size	<ul style="list-style-type: none"> 52 ha - IN1 General Industrial and E2 Environmental Conservation
Lot Sizes (small, medium, large)	<ul style="list-style-type: none"> 16 lots 5.3 ha to 42 ha
Qualitative Data	
Uses (examples of desired industry)	<ul style="list-style-type: none"> Predominantly industrial. Warehouse/office solutions to capitalise Western Sydney's growing population and labour pool
Implementation Plan Notes	<ul style="list-style-type: none"> Concept proposal for 16 warehouses
Cost/m ² or Lease/m ²	
Supporting Infrastructure	<ul style="list-style-type: none"> Located on M7 motorway. New water main connection. New sewer connection; on-site detention. Existing connection 11 kilovolt (kV) electrical distribution network. Sites on the future Western Sydney Freight Line.
Adjacent Uses	<ul style="list-style-type: none"> Predominantly surrounded by: IN1 General Industrial Zone RU4 Primary Production zoned land (rural residential land) South of the Western Sydney Employment Area IN1 - Industrial Zone
Surrounding Catchment and Population & Employment	<ul style="list-style-type: none"> 33 km west of Sydney 405,962 individuals are in Southwest Sydney with 59.6% employed

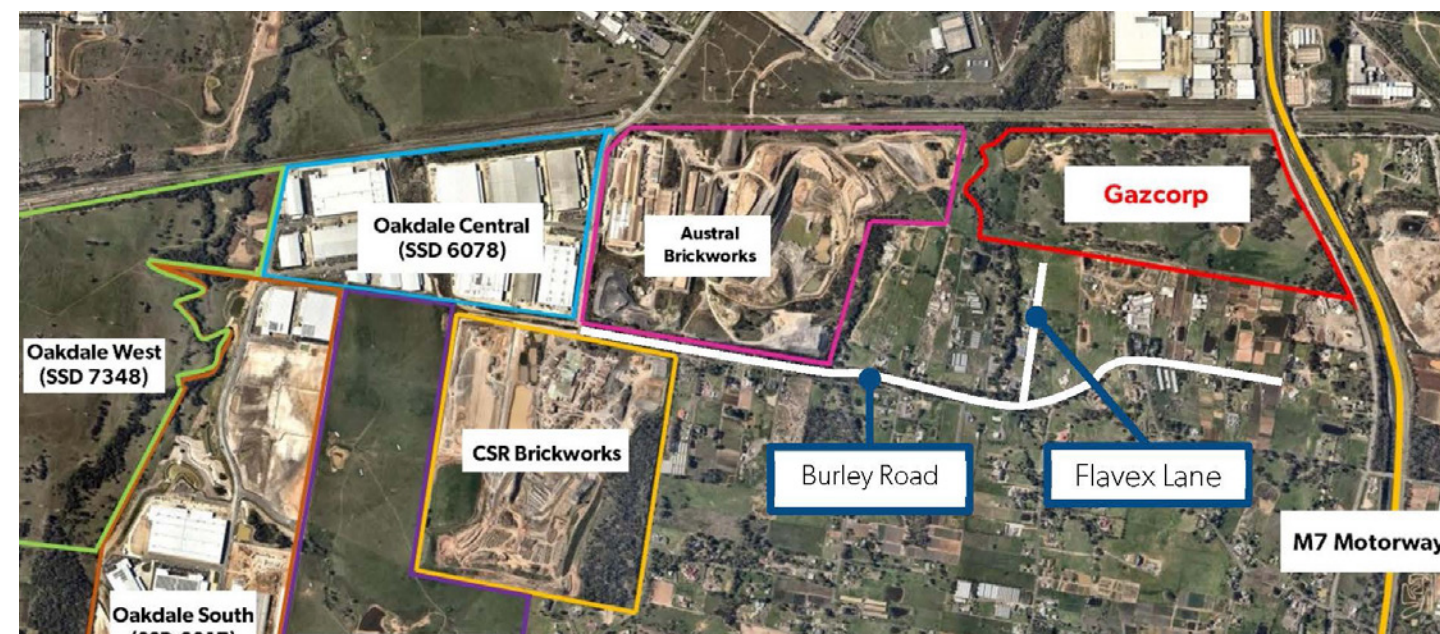


Figure 171. Site Diagram of Warehouse Estate at Horsley Park

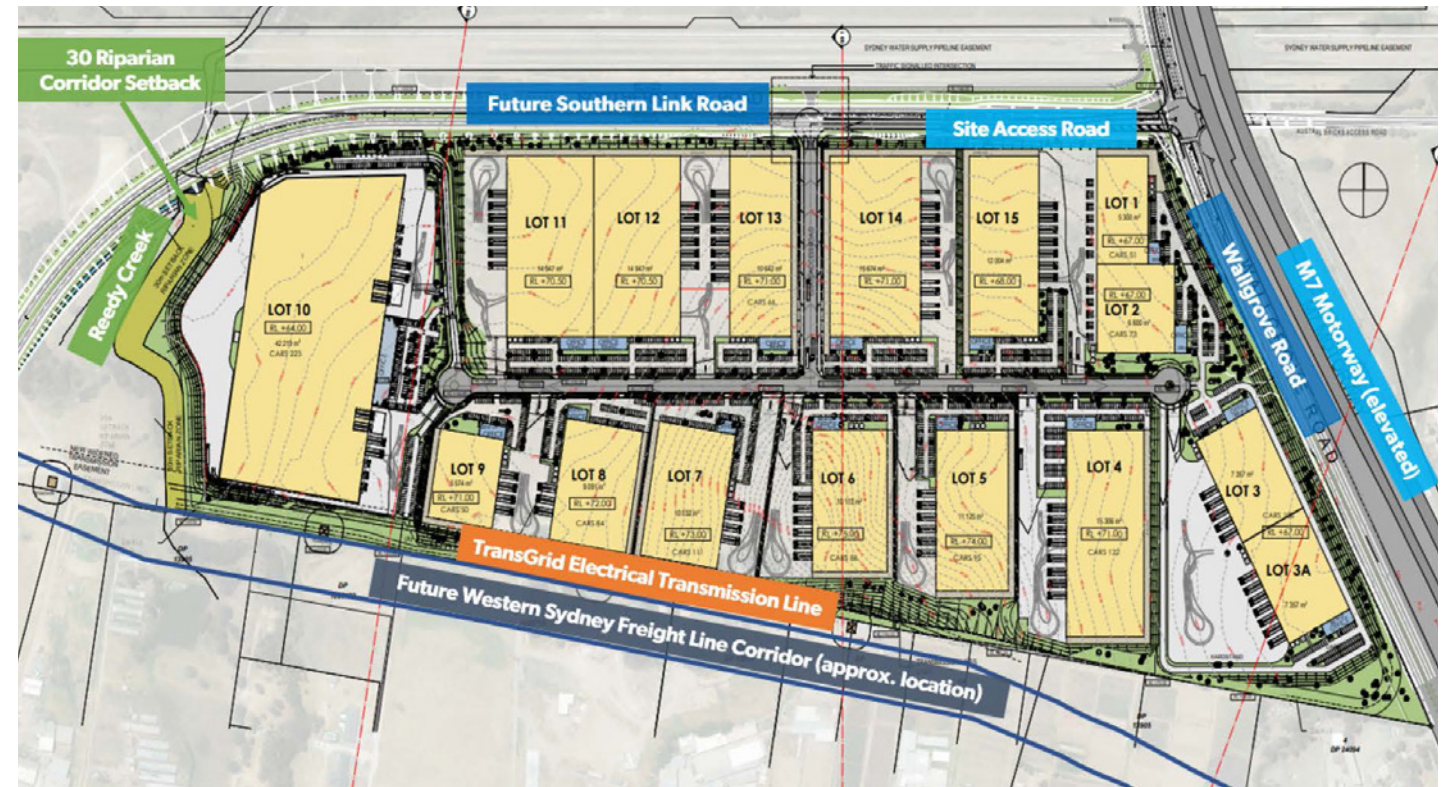


Figure 172. Site Plan of Warehouse Estate at Horsley Park



Figure 173. 3D render of Warehouse Estate at Horsley Park

B Economic SWOT Analysis

Strengths

- Albury Wodonga provides prospective business with access to major road and rail freight infrastructure which can reach over 75% of Australia's population within 24 hours.
- The city already has a large quantum of competitively priced vacant industrial land, particularly lots over 5 hectares, which can support the growth and development of new businesses.
- Relative to Regional NSW, and competing regional cities, Albury Wodonga has competitive advantages in economies of scale and scale, access to trade enabling infrastructure, clustering of skilled labour and target industries.
- Delivery of committed major infrastructure projects and Government initiatives will likely increase the demand, and competitiveness, of industrial land within Albury.

Weaknesses

- Albury Wodonga does not have a widely recognised provenance brand or identity which the Food and Agribusiness industry can align with.
- The economic opportunities within Albury Wodonga is poorly understood by target industries which may stifle market interest and investment.
- An established, consistent and dependable demand for large scale industrial operators in Southern NSW is not apparent at the current time.
- Moderate forecast population and employment growth within the region will limit localised demand for industrial land.

Opportunities

- Delivery of the Inland Rail and the Albury RJP's proximity to the Ettamogah Rail Hub, provide an opportunity for the expansion of transport and logistics operators within the RJP.
- The Albury Wodonga Regional Deal will improve the liveability of the city. This will help improve the ability to attract and retain investment and skilled labour.
- Ability to develop supportive planning and regulatory environment through the RJP and potential zoning changes to accommodate large scale industrial activities more easily.
- Leverage existing industry specialisations in Food and Agribusiness.
- Development of the South West Renewal Energy Zone could enable prospective businesses to access commercial quantities of sustainable energy.

Threats

- Increasing transport costs facing target industries may make Albury-Wodonga a less competitive location to other regional cities who are closer to capital city markets.
- The Wagga Wagga SAP could secure investment that could otherwise come to Albury-Wodonga.
- Digitisation of production may result in the decline of total employment generated by the Albury RJP relative to current expectations.

C Victorian Planning Framework

C.1 Logic Precinct - Overview



Figure 174. Aerial photo of Logic Precinct

Land area: 567 hectares

Location: Strategically located on the intersection of the Hume Hwy and Murray Valley Hwy, 14km west of Wodonga. Logic is 290km north of Melbourne and 580km south of Sydney.

Located in the City of Wodonga and Indigo Shire Council

80,000 regional labour force

75 per cent of Australia's population can be reached by next day transport shift.

Zone Requirements

Table 29 outlines the key land uses permitted under the Industrial 1 Zone.

Use	Condition	Permit Requirement
Crop raising	N/A	Section 1 - No Permit Required
Grazing animal production	N/A	Section 1 - No Permit Required
Industry (other than Materials recycling and Transfer station)	Must not be a purpose listed in the table within Clause 53.10 with no threshold distance. Specified.	Section 2 - Permit required
Service station	Buffer requirements, refer Table of uses 33.01.	Section 2 - Permit required
Warehouse (other than Mail centre and Shipping container storage)	Must not be a purpose listed in the table to Clause 53.10 with no threshold distance specified.	Section 2 - Permit required
Agriculture (other than Apiculture, Crop raising, Grazing animal production, Intensive animal production, Pig farm and Poultry farm)	N/A	Section 2 - Permit required
Materials recycling	The land must be at least 30 metres from land (not a road).	Section 2 - Permit required
Office	No floor space specified in the Schedule.	Section 2 - Permit required
Education centre	Must not be a primary or secondary school.	Section 2 - Permit required
Accommodation	N/A	Section 3 - Prohibited

Table 29. Key Land Uses Permitted under Industry 1 zone.

Policy Review

Wodonga Industrial Land Strategy, 2018

Key Recommendations

- The zoning recommendation is to retain current IN1Z across the precinct. Sectors expected to continue to be successful at Logic include storage, automated goods handling operations, and dedicated distribution operations oriented towards high-tech / smart automated systems.
- Continue to facilitate the development of logistics transport and distribution, manufacturing and processing facilities.
- Maintain the viability of the Logic precinct by minimising encroachment from non-industrial land uses.
- Develop investment attraction measures to attract complementary industries.
- Recognise the needs for lot sizes for manufacturing relative to logistics and distribution requirements vary significantly. The council could enable provision of a variety of lot sizes in order to accommodate a diversity of employment types within Logic by supporting applications for appropriate subdivision of lots.
- Investigate opportunities to leverage the existing rail infrastructure in Wodonga.
- Wodonga's strategic location and access to the North East Victorian food bowl provides long-term opportunities for commercial and industrial air freight provision at Logic.

Planning Controls

The precinct is located within the Industrial 1 Zone (IN1Z) and is subject to the Design and Development Overlay – Schedule 3 in Wodonga City Council. A small portion of land in the west of the precinct is located in Indigo Shire within Industrial 2 Zone (IN2Z) and is subject to the Design and Development Overlay – Schedule 1.

Zoning

Industrial 1 Zone (IN1Z)

The IN1Z provides for manufacturing industry, the storage and distribution of goods and associated uses in a manner which does not affect the safety and amenity of local communities.

Industrial and limited commercial uses that are permitted must adhere to mandatory requirements to ensure the scale and use remains appropriate to the setting.

A permit is required to subdivide land in this zone.

The zone prohibits all residential uses and restricts commercial uses.

Industrial 2 Zone (IN2Z)

The IN2Z provides for manufacturing industry, the storage and distribution of goods and associated facilities in a manner which does not affect the safety and amenity of local communities

Industrial and limited commercial uses that are permitted must adhere to mandatory requirements to ensure the scale and use remains appropriate to the setting.

A permit is required to subdivide land in this zone.

The zone prohibits all residential uses and restricts commercial uses.

Overlays

The DDO1 and DDO3 implement design and development guidelines for the National Distribution Centre/ Logic and clarify the preferred subdivision layout, design, landscaping siting and traffic management requirements.

Applications for the subdivision or development of the National Distribution Centre/ Logic must be in accordance with any urban design plans or development plan adopted by the Responsible Authority for the area affected by this schedule.

Approvals Pathway

The current strategic planning context reinforces the existing zoning at the precinct. The approvals pathway for the conventional use and development of the land would follow the statutory process set out by the *Planning and Environment Act 1987* (VIC).

Planning Permit applications would be made to the City of Wodonga or Indigo Shire as the relevant Responsible Authority.

The relevant permit triggers and applicable exemptions from notice and appeal should be confirmed as part of the preparation of any future applications.

Permit applications for subdivision and development will need to align must be in accordance with any urban design plans or development plan adopted by the Responsible Authority for the NDC.

Statutory planning approvals should be expected to 3-6 months to be assessed. This assumes limited objections lodged and for the decision being made at an officer level under delegation rather than formally reported for consideration by Councillors. The Council reporting process would add significant delays to the application process and introduce the risk of Councillors making political decisions on applications.

Table 30 outlines the key land uses permitted under the Industrial 2 Zone.

Use	Condition	Permit Requirement
Crop raising	N/A	Section 1 - No Permit Required
Grazing animal production	N/A	Section 1 - No Permit Required
Service station	N/A	Section 1 - No Permit Required
Agriculture (other than Apiculture, Crop raising, Grazing animal production, Intensive animal production, Pig farm and Poultry farm)	N/A	Section 2 - Permit required
Industry	N/A	Section 2 - Permit required
Education centre	Must not be a primary or secondary school	Section 2 - Permit required
Office	The leasable floor area must not exceed the amount specified in the schedule to this zone.	Section 2 - Permit required
Retail premises (other than Shop)	N/A	Section 2 - Permit required
Warehouse	N/A	Section 2 - Permit required
Accommodation (other than Caretaker's house)	N/A	Section 3 - Prohibited

Table 30. Key Land Uses Permitted under Industry 2 zone.

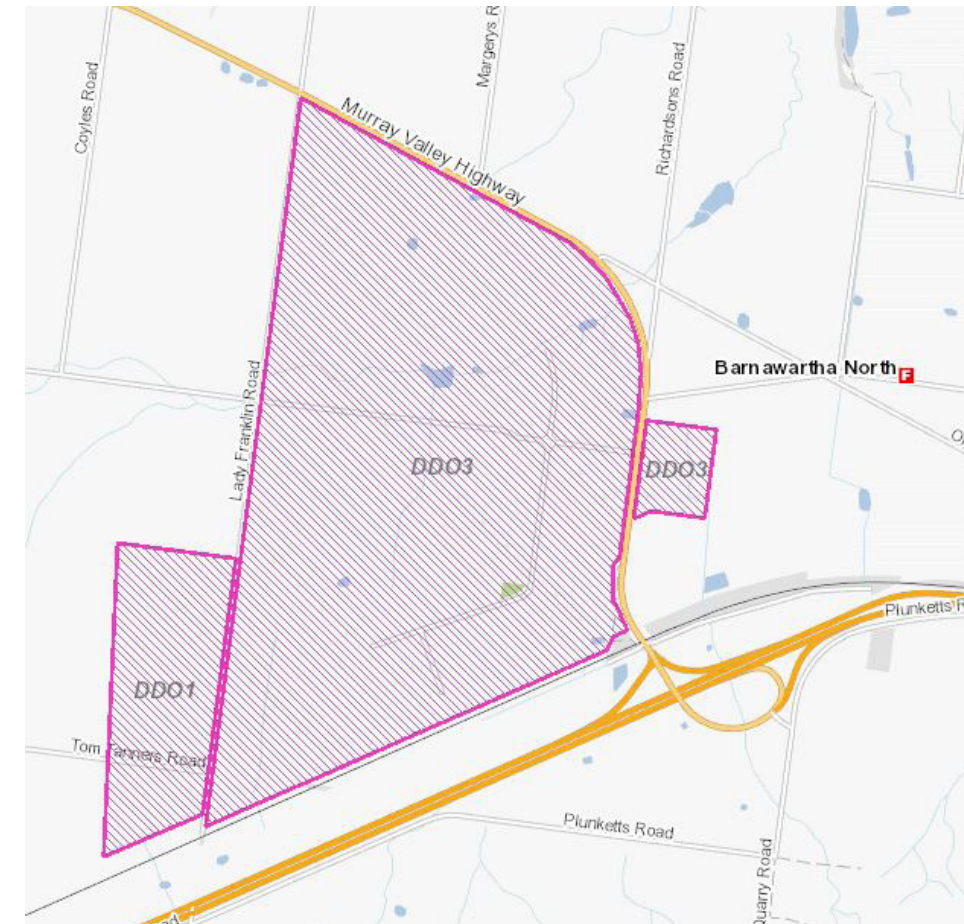


Figure 175. Logic Overlays

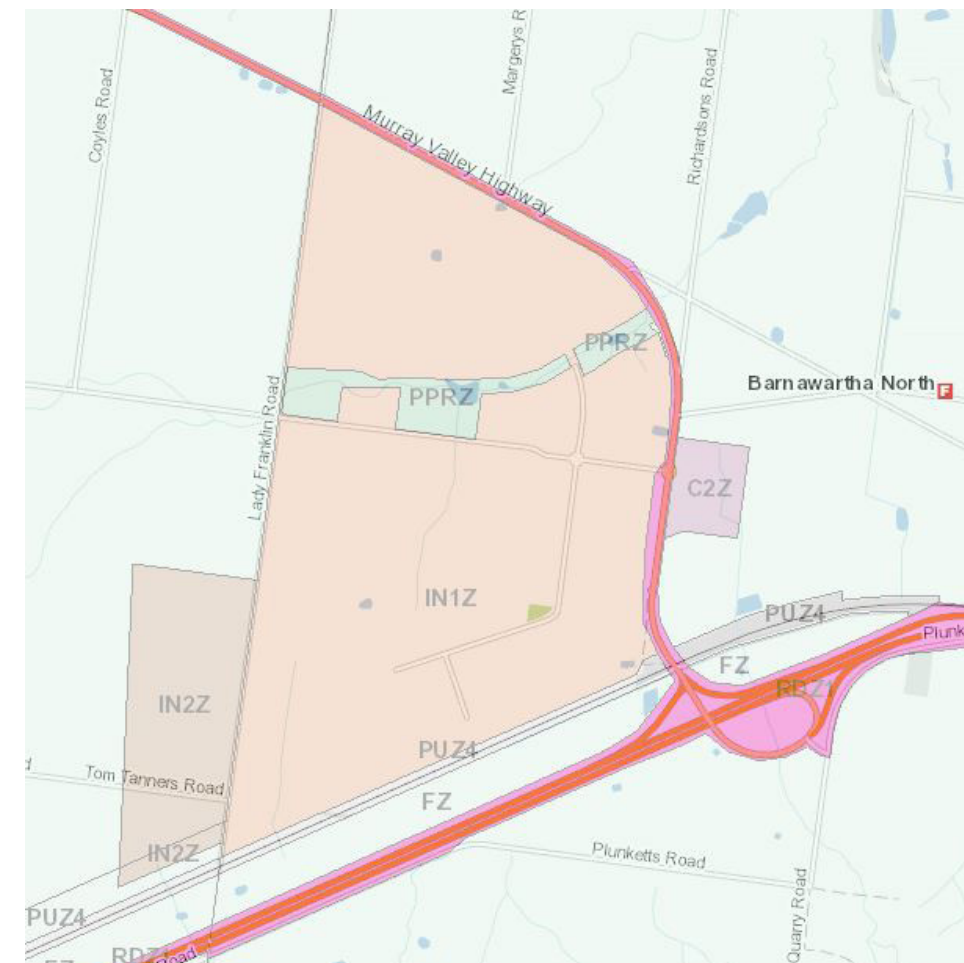


Figure 176. Logic Zoning

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