

Gannawarra Urban Growth Strategy

Project undertaken for the
Gannawarra Shire Council

8 August 2023

Gannawarra Urban Growth Strategy

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Glossary

The following acronyms and abbreviations are used in this report.

DPO	-	Development Plan Overlay
GSC	-	Gannawarra Shire Council
GPS	-	Gannawarra Planning Scheme
PPS	-	Planning Policy Framework
VIF 2019	-	Victoria in Future 2019 population projections
VPA	-	Victorian Planning Authority
GRZ		General Residential Zone
LDRZ		Low Density Residential Zone
IN1Z		Industrial 1 Zone
IN3Z		Industrial 3 Zone

Executive Summary and Key Recommendations

The Shire of Gannawarra is actively planning for population, housing and employment growth. This growth is being driven by the region's increasing appeal of its riverside towns as places to live, work and visit, its rapidly evolving agriculture sector, strong manufacturing and construction sectors, its natural environment, and significant investments in mineral sands mining and processing, electricity transmission and renewable energy generation and storage.

Previous estimates from the State Government had Gannawarra's population continuing to decrease over the next decade or so, something that is not uncommon in rural and regional areas. However recent trends and forecasts completed as part of this project indicate a more positive story. The historic decline in population experienced up to 2011 has reversed with the municipality experiencing a positive growth trend over the last 10 years. The population is now forecast to grow by between 317 and 782 people over the next two decades (from 10,612 in 2021 to between 10,929 and 11,394 people in 2046). Dwelling numbers are also forecast to increase by between 315 and 551 over the same period (from 5,387 in 2021, to between 5,702 and 5,938 dwellings in 2046).

The population and dwelling forecasts represent a range between a 'Base case' scenario (the lower end of the range) and a 'Growth' scenario (the upper end of the range). The forecasts factor in many different variables of population growth to provide a robust and defensible set of projections. The Growth scenario is based on successful delivery of the large-scale projects and investments that are proposed, in planning or approved. When delivered, it will result in slightly higher growth rates and a faster uptake of housing and residential land when compared to the Base case scenario. While the full impacts of the proposed investments and projects are still to be seen, it is important that Gannawarra's Planning Policy Framework (PPF) is updated to reflect these projects (several are of National significance) and stand ready to facilitate well-designed, well-planned residential, commercial and industrial developments that will accommodate Gannawarra's future residents, workers and visitors.

This study is the first stage (of three) required to update the PPF. It provides a high-level strategic review that provides the broad direction and guidance for the second stage of work – township structure planning. The structure planning stage will include a greater level of involvement with the local community, and it is the stage where detailed local knowledge and wisdom can contribute to the development of a plan that will guide how each town will grow and develop into the future. Following adoption of the structure plans, the final stage (in the planning process) is to undertake changes to planning controls (where necessary). This is done through the Planning Scheme Amendment. It is a much more formal process, where contentious issues can be examined by an independent panel. Once finalised, planning controls are updated, and it is over to the community and private sector to incrementally deliver the vision embedded in each structure plan.

Results of investigations

While this study has found that Gannawarra's previous strategic planning has served it well in terms of planning for future growth, there is now a need to refine and update these plans to provide the additional support needed to those areas that are seeing higher demand and faster growth rates. While residential land supply is usually considered at a local government level, the size, unique characteristics, and drivers of demand have indicated that in the Gannawarra, this needs to be done at a localised level. Therefore, this project has focused on the towns of Kerang, Cohuna and Koondrook. The Kerang Lakes area has also been included, as it has long been identified as having the potential to cater for a unique lakeside living option subject to it meeting a range of environmental and land management considerations.

The result of the investigations undertaken as part of this strategy for each township are summarised below.

Kerang:

- Kerang is forecast to grow from 3,757 people in 2021 to a range of 3,850 – 4,009 in 2046 (an additional 93 – 252 people requiring an extra 75 – 164 dwellings). The projects driving growth in Kerang include mineral sands mining, energy and transmission and agriculture.
- There is sufficient zoned residential land to cater for current demand, however planning should commence (in the medium-term) for its next urban expansion area.
- Kerang has 16ha of vacant industrial land (28% of total industrial land) and needs to plan to expand its industrial land stocks in the short-term.

Cohuna:

- Cohuna is forecast to grow from 2,139 people in 2021 to a range of 2,410 – 2,746 in 2046 (an additional 271 – 607 people requiring an extra 152 – 310 dwellings). Cohuna is experiencing growth in agriculture, relocation, manufacturing and construction.
- In the short term, the Shire needs to facilitate comprehensive planning of its next urban expansion area.
- Cohuna has 32ha of vacant industrial land (35% of total industrial land). It is considered that there is an adequate stock of industrial land available, however consideration could be given to investigating a site suitable for a 'very large format' industrial use.

Koondrook:

- Koondrook is forecast to grow from 927 people in 2021 to a range of 1,027 – 1,040 in 2046 (an additional 100 – 113 people requiring an extra 63 – 66 dwellings). Koondrook is attracting retirees, families relocating and is accessible to many of the major projects underway.
- In the short-term the Shire should assist landowners with vacant residential land to bring it to the market. In the medium-term, an incremental(residential) growth area will need to be planned.
- Koondrook has 8ha of vacant industrial land available (49% of total industrial land). The demand for industrial land is comparatively low, however a reconfiguration of the northern 'light industrial' precinct and some additional 'highway frontage' light industrial land to the south is recommended.

The Kerang Lakes:

- The Kerang Lakes area is forecast to remain relatively steady in terms of population and dwelling numbers.
- The priority for this area is to ensure that any new residential lots are meeting relevant environmental (and land management) standards and to investigate the potential of the eastern side of Kangaroo Lake for additional holiday / worker accommodation.

The Gannawarra Balance area:

- The Gannawarra Balance area (the remaining areas of Gannawarra) is forecast to decrease slightly in population but is expected to add a small number of additional dwellings. This could change when the mining, renewable energy and agriculture developments proceed. Many of the smaller regional towns have potential to link in with the developments.

Key recommendations

The key recommendations required to deliver the housing and industrial development needed to support Gannawarra’s now growing community primarily relate to reviewing the Shire’s key strategic land use planning documents and update the Planning Policy Framework (PPF) in the Gannawarra Planning Scheme (GPS). This will provide the development and construction sector with clear guidance on the location and type of development that the Shire wants and needs, and the community is expecting.

Once the statutory planning related actions are completed, they could be combined into an amendment to the GPS.

There are also a range of other important non-statutory related actions that are recommended to be pursued. All recommendations are shown in the following table.

Table E.S. 1 Recommendations

Number	Recommendation
Planning policy recommendations	
1	Commencing a process to update the Structure Plan’s for Kerang, Cohuna and Koondrook as a priority (Structure Plans for Leitchville, Murrabit and Quambatook could be reviewed in the medium term).
2	Reviewing the Development Plan Overlays (DPO1 and DPO2) to ensure that they will facilitate coordinated development across multiple sites and ownerships.
3	Investigate several smaller sites recommended for rezoning (identified in Section 7 – Managing Future Growth).
4	Review the Planning Policy Framework and update (including updated Council adopted strategic plans, population and dwelling forecasts)
Non-statutory recommendations	
5	Assisting private sector led proposals that are consistent with the Gannawarra Urban Growth Strategy 2023, where the Development Plan approach has been identified.
6	Assisting private sector led investigations into further lakeside living options at Lake Charm and Kangaroo Lake. This includes both (lower density) residential development, and the potential for holiday / worker accommodation.
7	Investigating opportunities for the Tate Drive Industrial Precinct to be extended to the east.
8	Facilitating discussions between large employers (needing worker accommodation), accommodation providers / developers and larger landowners in Kerang with a view to getting additional short-term / seasonal worker accommodation delivered to support large scale investments and seasonal worker shortages.
9	Engaging with VicTrack on options for underutilised land at the Kerang Train Station site (this may require a masterplan to be prepared for the site first, to ensure future transport needs can be accommodated).

1 Introduction

“The Gannawarra will be renowned as an Australian destination and home of choice for its liveability and unique opportunities in innovative agriculture, renewable energy and nature-based tourism.” (Source: 2021-2025 Council Plan, Gannawarra Shire Council)

Figure 1-1 King George Street, Cohuna



The Gannawarra Shire Council (GSC) has a clear vision and ambition and is pro-active in setting Gannawarra up for success. A key part of this is planning for population, housing, and employment growth. Growth that is expected to be driven by the increasing appeal of its riverside towns as places to live, work and visit. This appeal is underpinned by the region’s rapidly evolving agriculture sector, its natural environment, and significant investments in mineral sands mining and processing, electricity transmission and renewable energy generation.

Understanding the drivers of growth, in all its forms, and developing strategic responses that will facilitate and leverage further investment and growth is fundamental to the Shire delivering on its bold ambition and community vision. To assist, the Shire has engaged REMPLAN to work with them to develop an evidence-based assessment of population and residential growth and to identify a set of strategic planning directions that will inform an update of the Gannawarra Planning Scheme (GPS). In essence, this project will deliver a high-level Urban Growth Strategy designed to manage future population, housing, and jobs growth. It will enable the Shire to get ahead of the game and set the scene to enable the private sector to play their part in this constantly evolving and unique part of regional Victoria.

This pro-active approach sits within the context of the official Victoria in Future 2019 (VIF 2019) population projections. When prepared, the VIF 2019 projections estimated a population decline of 560 people, reducing from an estimated 10,490 in 2021 down to 9,930 in 2036. Recent data from the Australian Bureau of Statistics (ABS) indicates that the population is not declining as previously expected, and the official population estimate for Gannawarra in 2021 is 10,612. While the difference between the VIF 2019 estimate and the actual population in 2021 is not vast (the actual is 122 higher than the estimate), it is a positive sign that has now been incorporated into the new population forecasts prepared as part of this project. Considering these recent trends, REMPLAN’s population forecasts now estimate that the Shire will continue to grow, albeit at a very manageable level, from 10,612 in 2021, to between 10,851 and 11,360 in 2036 (923 – 1,432 more people than the VIF 2019 estimate), and between 10,929 and 11,394 in 2046. The lower end of the forecast range is a ‘Base case’ scenario, while the higher figure is a ‘Growth’ scenario where planned investment facilitates faster population and residential growth.

While population forecasts are a critical part of planning for the future, this Urban Growth Strategy departs slightly from a traditional land use planning strategy, in that it also seeks to integrate economic investment and employment data into its recommendations. As such, the Strategy considers the underlying factors influencing population change for the region, including the interplay between economic opportunities, lifestyle drivers, and demographic shifts – all of which influence aspects of urban growth. This Strategy incorporates knowledge provided by Gannawarra’s Planning and Economic Development teams, who have worked closely with the business sector to identify future business expansion and job opportunities. To achieve these job numbers, it will need people to move to Gannawarra. Therefore, it becomes vitally important for planning to be slightly ahead of the game and ready to cater to and assist in driving future demand. A snapshot of the latest population and economic statistics for Gannawarra include:

Summary

ABS 2021 Census Place of Usual Residence	10,683
Average Age	51 years
Number of Jobs	3,999
Number of Dwellings	5,326
Average Household Size (number of people per dwelling)	2.2
Land Area (ha)	373,760
Total Output (\$M)	\$1,215.317
Gross Regional Product(\$M)	\$588.650
Per Capita Gross Regional Product (\$K)	\$55.102
Per Worker Gross Regional Product (\$K)	\$147.199

The major contributors to employment are:

Industry Sector	Jobs	%
Agriculture, Forestry & Fishing	1,061	26.5%
Health Care & Social Assistance	524	13.1%
Retail Trade	360	9.0%
Construction	323	8.1%
Public Administration & Safety	287	7.2%
Manufacturing	273	6.8%
All others combined	1,171	29.3%

The major contributors to output are:

Industry Sector	\$M	%
Agriculture, Forestry & Fishing	\$322.739	26.6%
Manufacturing	\$182.863	15.0%
Construction	\$147.542	12.1%
Rental, Hiring & Real Estate Service	\$103.216	8.5%
Public Administration & Safety	\$69.857	5.7%
All others combined	\$389.100	32.1%

While Gannawarra is an important part of Loddon Mallee’s economy, it is also home to some significant environmental assets that are vitally important to the local community, to their sense of place, and their ability to grow and leverage ‘nature-based’ lifestyle, tourism and business opportunities. These issues don’t always get picked-up in the statistics, but they are clearly stated in the Shire’s strategic planning and have been considered when developing the Strategy’s recommendations.

1.1 Purpose and Scope

The primary purpose of this project is to undertake an evidence-based assessment of urban land supply and demand, to prepare population forecasts, and reconcile them within a set of implementable strategic planning directions that are consistent with State, regional and local policies.

The project scope is limited to the preparation of a high-level Urban Growth Strategy for Gannawarra. It will provide the basis and guidance for further detailed work that will bring residential and employment land to the market. Much of this detailed work will be advanced by the private sector in partnership with the Shire.

1.2 Region of Analysis

While the project relates to the Shire of Gannawarra, and in some cases to the broader region, the primary focus is on the four key areas of Kerang, Cohuna, Koondrook, and Kerang Lakes.

These four areas have been identified as being in specific need of review to enable them to plan and manage future growth in the coming decades. Each area has unique attributes and reasons for being investigated. Several of the townships have seen strong growth and development interest, while others are strategically located and are well positioned to leverage off the significant investments being made in the region. This should not be inferred that other parts of the Shire are not important, as they are, but rather, that a targeted approach is needed that will result in shire-wide benefits.

The Shire of Gannawarra and the four planning areas are shown in the following maps.

Figure 1-2: Shire of Gannawarra and the planning areas

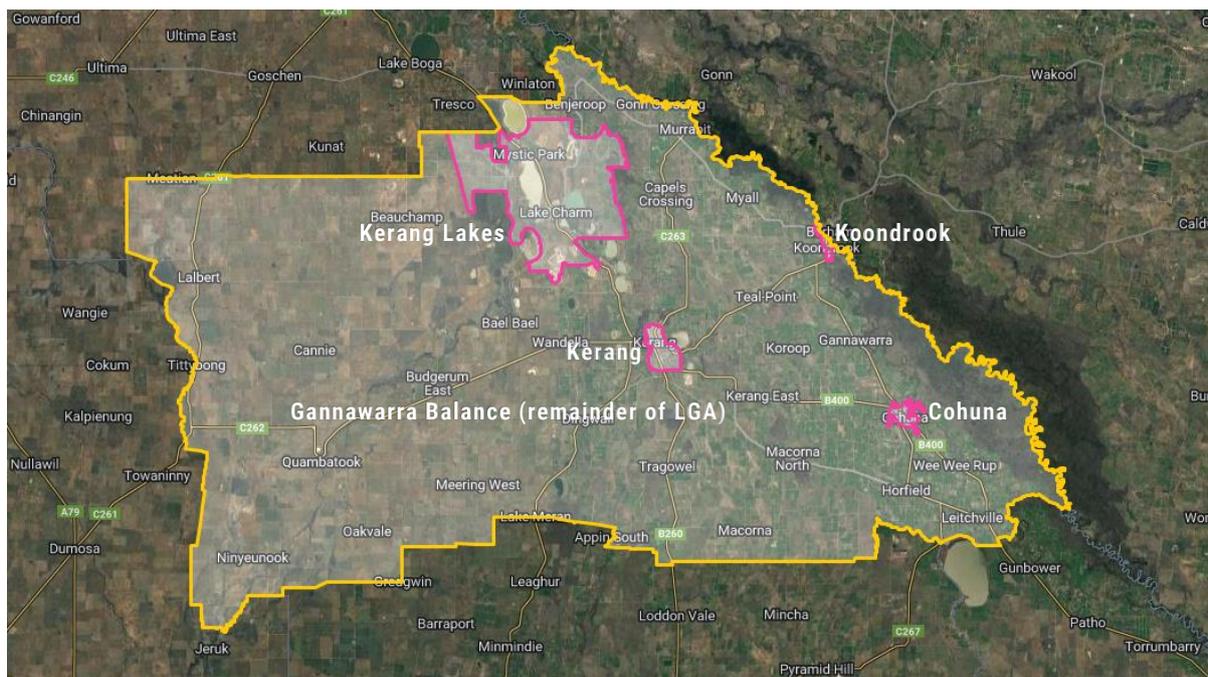
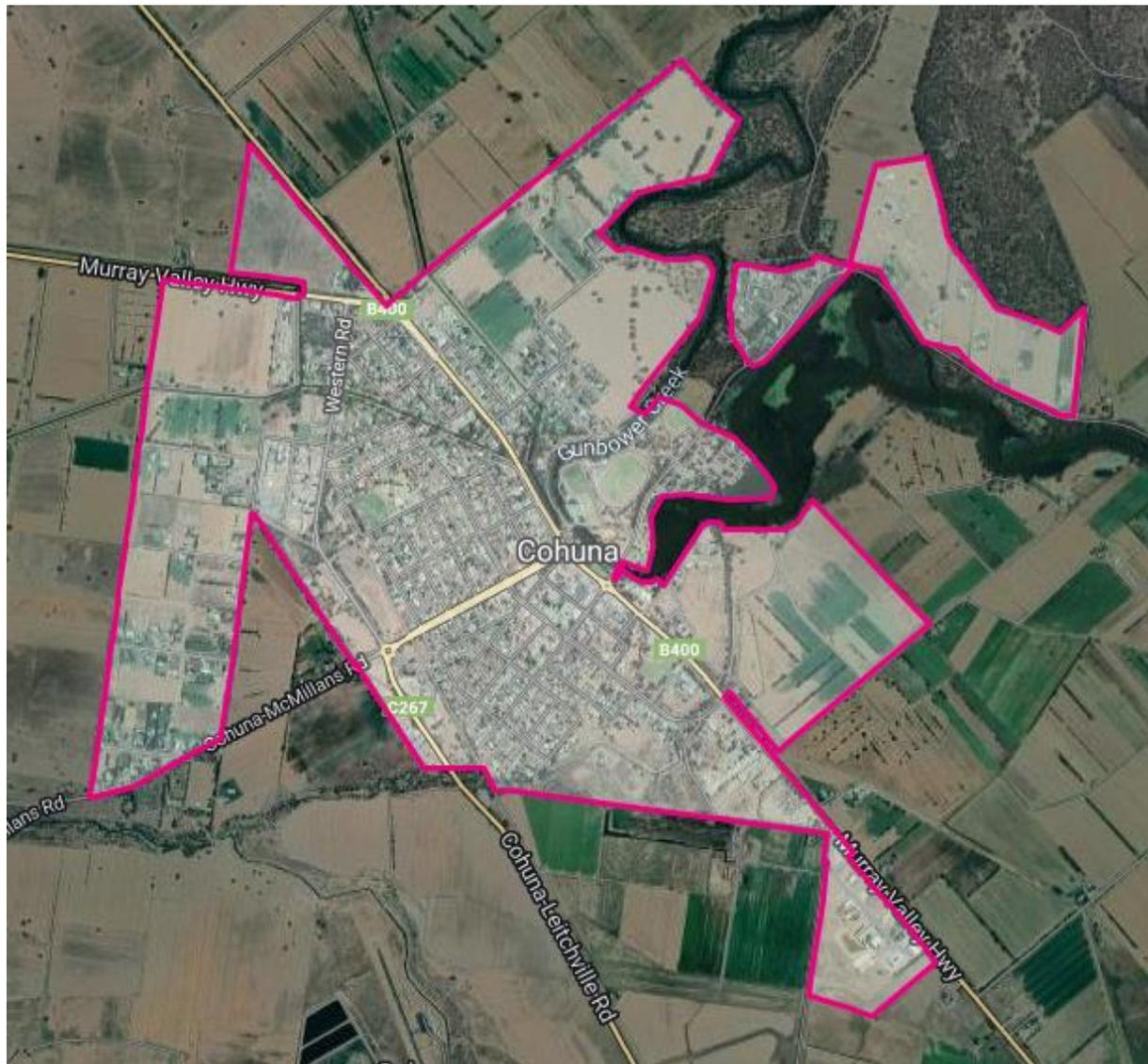


Figure 1-3: Planning Area 1 – Kerang

The Kerang planning area is home to 3,781 people (Census 2021), or around 35% of the Shire's total population. It is the main service centre for the Shire with good transport links. The area is dotted with lagoons, wetlands and lakes, many of which are protected under the Ramsar Convention.

With the completion of the Victorian NSW Interconnector West (VNI West or KerangLink) later this decade, the region will become a hub for renewable energy projects, which will be able to connect to the electricity grid at Kerang.

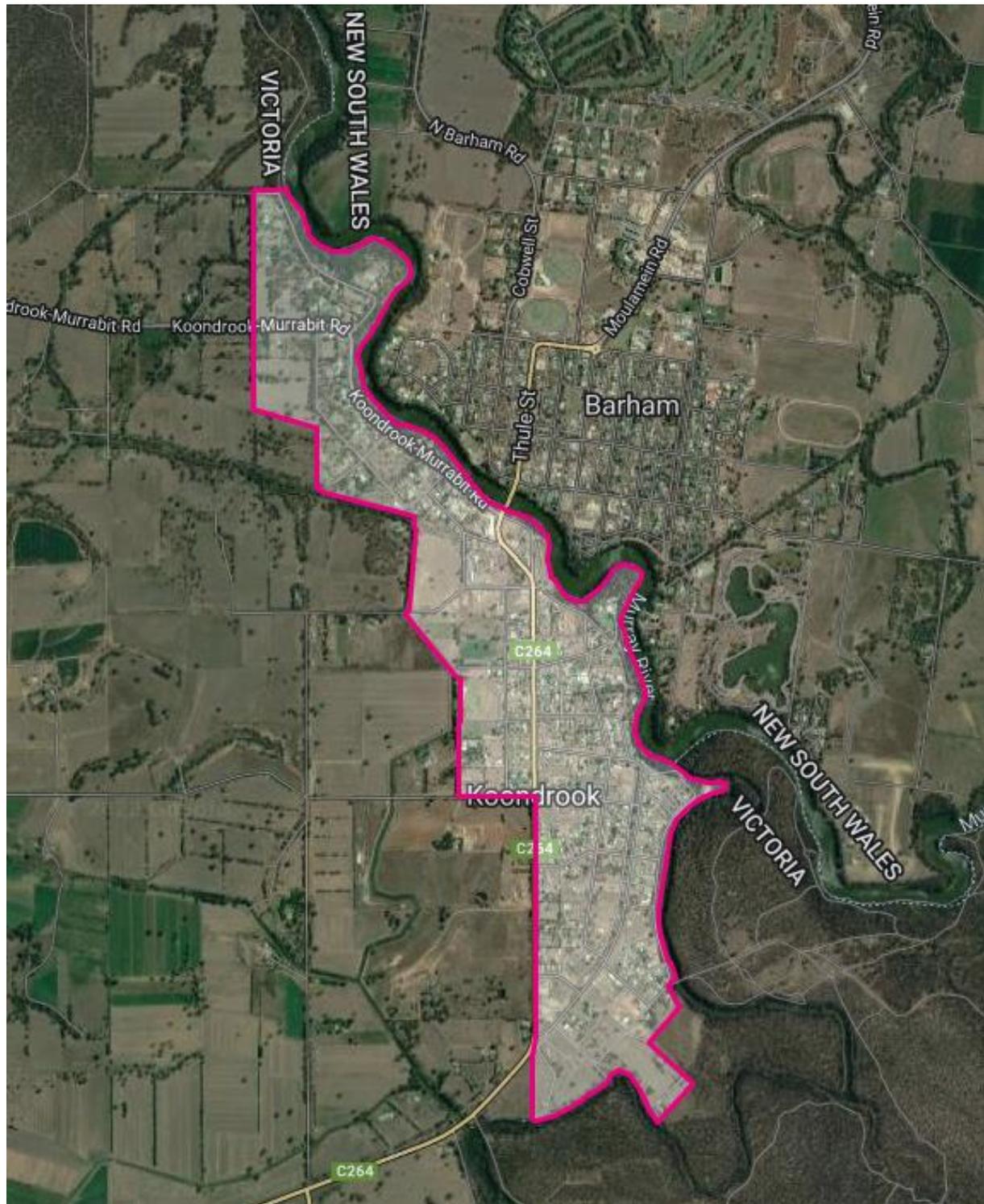
Figure 1-4: Planning Area 2 – Cohuna



The Cohuna planning area is home to 2,151 people (Census 2021), or around 20% of the Shire's total population. Cohuna is located on the Gunbower Creek, an anabranch of the Murray River, and is the second largest town in Gannawarra.

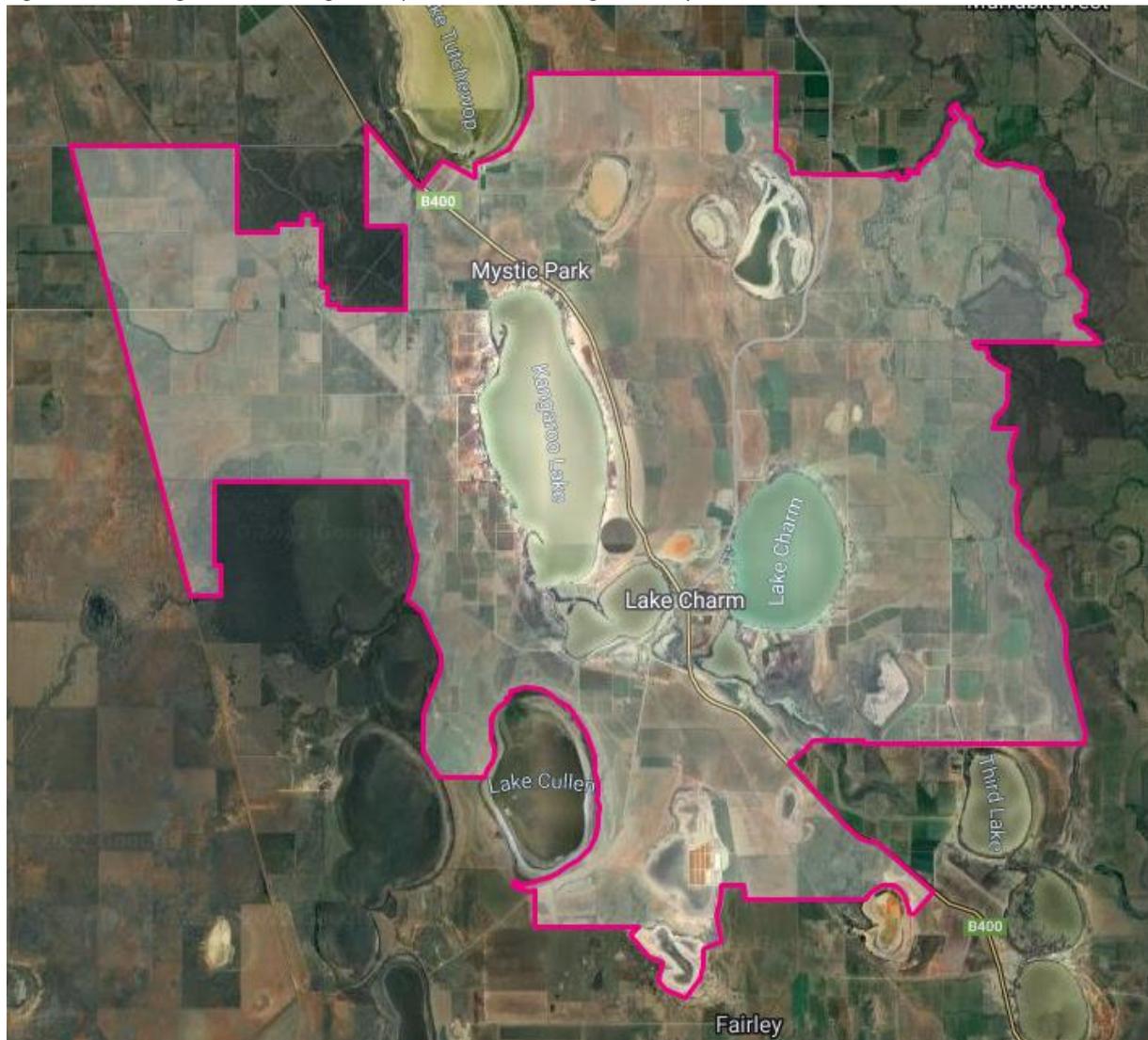
The town has a strong and attractive commercial centre and is a popular spot for river-based outdoor activities. Many of the town's sporting facilities are clustered centrally, along Cohuna Island Road. The area is also known for its dairy production and is becoming increasingly popular as a place to live.

Figure 1-5: Planning Area 3 – Koondrook



The Koondrook planning area is home to 931 people (Census 2021), or just under 9% of the Shire's total population. It is located on the Victorian side of Murray River, opposite its NSW twin-town of Barham.

The area is well known for its redgum timber, which features throughout the town centre in numerous urban design elements. The town is evolving towards nature-based activities that are focused on Gunbower Island and along its rivers and creeks.

Figure 1-6: Planning Area 4 – Kerang Lakes (Lake Charm and Kangaroo Lake)

Among the four planning areas, the Kerang Lakes planning area stands out as the most expansive in terms of geography. As of 2021, the population was recorded at 361, representing slightly over 3% of Gannawarra’s total populace.

The area is 19 kilometres to the north-west of Kerang and is a popular destination for water skiing, boating and fishing. It is also the closest of the planning areas to the mineral sands exploration, mining and processing projects proposed to its west. The Lakes area has been identified as having the potential to provide a unique residential offer, subject to addressing the environmental issues arising from its lakes and wetland location.

1.3 The Study Process

At the commencement of the project, a Project Team was formed that was led by senior staff at Gannawarra Shire Council. This included the Director Infrastructure & Development, Manager Economic Development and Manager Statutory Planning. REMPLAN team members included the Principal Planner and a Senior Consultant.

Several visits and meetings have been held, including two days of site visits and assessments of township structure, navigation, wayfinding and place-making initiatives across Kerang, Cohuna, Koondrook and the Kerang Lakes area. This has allowed for an in-depth understanding of how these towns and areas operate and what opportunities might be present. This 'ground truthing' has also contributed to the rigour of land supply assessment, which traditionally is a combination of desktop analysis combined with local knowledge from town planners.

Consultation has been deliberately targeted during the drafting of this strategy, primarily as it is seeking to implement existing adopted plans and strategies, and that it is based on technical assessments and good planning practice. Discussions have taken place with several key stakeholders and large landowners, which will be supplemented by further consultation on the draft strategy and its recommendations. More formal community consultation will take place during the process of actioning the strategy's actions, such as when structure plans are being reviewed or planning scheme amendments are being proposed.

Strategic plans constantly evolve throughout their preparation, and community and stakeholder engagement and involvement ultimately assist in a smoother implementation process. However, care needs to be taken to ensure that the right questions are asked at the right time, that we avoid consultation fatigue (by asking the same questions time after time), and that we seek to integrate and implement what has already been heard and agreed to (in adopted plans and strategies).

2 Background

2.1 Policy Context

At a regional level, the **Loddon Mallee North Regional Growth Plan 2014** provides a high-level analysis of the region and includes the following future land use strategies and actions for Gannawarra:

- Recognise and reinforce Kerang's role as the main service centre for the Gannawarra community of interest
- Support the growth of Kerang through planned development, incremental expansion and infrastructure investment
- Recognise and support Cohuna to continue its role as a town that services its local community and surrounding rural settlements
- Recognise and support the future role of Quambatook to provide services to surrounding rural areas
- Support walking and cycling in urban areas to enhance accessibility
- Support public transport connections between towns within the Gannawarra community of interest, Kerang and Bendigo
- Support the Gannawarra Urban and Rural Strategy (2007).

Implementation of the Regional Growth Plan's key planning considerations is primarily undertaken through their inclusion in the Gannawarra Planning Scheme, which ensures that they receive due consideration in the preparation of strategic studies and in the assessment of planning applications.

At a local government level, there are many Council adopted strategies and plans that are relevant to this project, with the four most important being:

- Gannawarra Shire Council 2021-2025 Council Plan (incorporating the Municipal Public Health and Wellbeing Plan)
- Gannawarra Shire Council Economic Development Strategy 2019-2024
- Urban and Rural Strategy Plan, Parsons Brinckerhoff, November 2007
- Lake Charm, Kangaroo Lake and Gunbower Creek Environs Strategy, Parsons Brinckerhoff, 2013.

The **Council Plan 2021-2025** is a high level integrated strategic document that is designed to help guide the Shire and its community to reach its potential. It identifies the following three goals:

1. Enhance the wellbeing and liveability of the Gannawarra through creative infrastructure and access to services
2. Grow the Gannawarra by developing a diverse and broad economy
3. Supporting long-term financial and environmental sustainability.

Each goal includes numerous strategic priorities; the most relevant being Goal 2. Goal 2 actions relate to facilitating infrastructure, programs and policies that support economic development and productivity, whilst considering our natural environment; facilitating the implementation of new energy infrastructure and energy projects; supporting the creation of destinations to attract visitors to the region; and to support growth through land rezoning.

The **Economic Development Strategy 2019-2024** has been prepared to respond to the current economic conditions and align with Council's vision and present a clear and achievable strategy and action plan. It includes the following four strategic directions, each with its own set of actions:

1. Facilitate the development of a diverse agricultural sector
2. Drive population growth through lifestyle and employment attraction
3. Facilitate the development of the Gannawarra as an environmental leader
4. Develop the tourism sector through improvements in product and infrastructure.

The **Urban and Rural Strategy Plan (2007)** has laid the foundations for planning and managing growth in Gannawarra for the past 15 years. It is included in the Gannawarra Planning Scheme as a Background document at Clause 72.08. While much of the document is still relevant, and has informed this project, there are elements that are no longer appropriate and would be unlikely to proceed due to new and revised planning rules, regulations and requirements. For example, following the bushfires and floods that have occurred in Victoria since 2009, there are now much stricter requirements around building in bushfire prone areas and areas that are subject to inundation. There is also a stronger focus on protecting the 'right to farm' in rural areas, and a greater emphasis placed on consolidating residential development into areas where they can be easily serviced and contribute to the creation of diverse (with a range of dwelling types) and accessible (walkable) places.

Implementing elements of the **Lake Charm, Kangaroo Lake and Gunbower Creek Environs Strategy (2013)** are still of relevance, however once again they must be considered within the current planning framework, particularly addressing issues such as potential impacts on agricultural activities and the protection of the environment and internationally recognised wetlands. Some investigations into these issues have already commenced.

Overall, Gannawarra's policy setting is very clear and direct. There is an ambition for growth and development that is complementary to, and leverages off, its unique natural environment and environmental setting. It promotes growth that will benefit both existing and future residents of the Gannawarra. The existing policy setting provides a great basis on which to consider a new Urban Growth Strategy; a strategy that will set out how future growth and development will be facilitated and managed over the coming decades.

2.2 Gannawarra Planning Scheme

The current Planning Policy Framework is contained within the Gannawarra Planning Scheme (GPS). While many parts of the GPS will be relevant at different stages of the planning process, the key clauses that relate to planning for future residential and employment growth are:

- **Clause 11.01-1R Settlement – Loddon Mallee North.** This clause identifies Kerang as a town where growth will be supported and shows both Cohuna and Koondrook as towns. The Loddon Mallee North plan highlights that land to the north, east and south of Kerang is within an irrigation district (and therefore highly productive agricultural land), and that much of Gannawarra contains high value terrestrial habitat. Urban flood and urban bushfire considerations are important in Kerang.
- **Clauses 11.01-1L-01, 11.01-1L-02 and 11.01-1L-03** contain one-page structure plans for Cohuna, Kerang and Koondrook respectively. All plans were prepared around 2006 and are due to be reviewed, however all plans contain elements that remain relevant to this project.
- **Clause 11.01-1L-07 Settlement in Gannawarra,** includes strategies that seek to support development that helps generate employment and economic activity, particularly in Kerang and Cohuna, and strategies that support residential development where it can be easily serviced and limits impact on the environment.
- **Clause 11.02-1S Supply of urban land,** seeks to ensure a sufficient supply of land is available for residential, commercial, retail, industrial, recreational, institutional and other community uses. Notably, the clause includes a strategy to plan to accommodate projected population

growth over at least a 15-year period and provide clear directions on locations where growth should occur. The clause states that residential land supply will be considered on a municipal basis, rather than a town-by town basis. *Note: This project argues that the differences and distances between the four planning areas demonstrates the need to consider land supply at a more localised level.*

- **Clause 11.03-6S Regional and local places**, seeks to facilitate integrated place-based planning by integrating relevant planning considerations to provide specific direction for the planning of sites, places, neighbourhoods and towns, and to consider the distinctive characteristics and needs of regional and local places in planning for future land use and development.

For each of the planning areas, there will also be a unique mix of planning zone and overlay controls that have influenced the directions of the project. However, a common issue across the Shire that is worthy of extra attention is that of flooding and inundation. Following the 2011 floods, significant levee infrastructure (both upgrades and new) was constructed and has been tested during the recent 2022 floods. This infrastructure successfully protected many properties that may have been inundated without it. Kerang was surrounded by flood waters during the height of the recent flood, but the levees were successful in protecting the urban area. Gannawarra Shire has worked closely with the North Central Catchment Management Authority (NCCMA) to ensure that its flood mapping is accurate and planning controls have been updated. During the township structure planning process, the application of agreed flood levels will be investigated in greater detail.

The key planning controls are listed adjacent to the planning area maps in the Managing Future Growth section of this report (Section 7).

2.3 Other Strategic Planning Matters

This project is supported by the Victorian Planning Authority (VPA), who are responsible for providing strategic planning advice and guidance to regional councils. Recognising the need for a simplified version of the Precinct Structure Plan guidelines that are used in Victoria's growth areas, the VPA have prepared **PSP 2.0 Guidance Note: Applying the PSP Guidelines in regional areas (PSP 2.0)**. PSP 2.0 provides a replicable approach and a framework to prepare place-based plans that are tailored to reflect the scale and complexity of the planning task at hand.

A review of PSP 2.0 indicates that the type and scale of future growth in Gannawarra is classified as '**incremental growth areas**' or '**urban expansion areas**'. These are undeveloped areas either within existing township boundaries, or on the fringes of towns that may be able to utilise existing township infrastructure. Once the broader strategic planning directions have been identified and endorsed, it is expected that incremental growth and urban expansion growth areas can be planned by taking a Development Plan Overlay and Section 173 Agreement (for any infrastructure provision or required upgrades) approach.

Suitable locations are shown on maps in Section 7 - Managing Future Growth, as 'Incremental Growth Area' or 'Urban Expansion Area'. The planning pathway is still through the preparation of a Planning Scheme Amendment. This includes the preparation of background technical documentation, a Development Plan Overlay Schedule and ultimately the preparation of concept plans for the site. Council, landowners, or the VPA could lead the planning scheme amendment process, however it is expected that in most cases it will be led by the private sector and the process will be managed by the council.

3 Population and Housing trends in Gannawarra

The following section details some of the most important elements of Gannawarra's existing population and housing trends. The size and structure of the population is an important factor when considering future housing needs. For example, young families will generally have different housing needs and preferences to those of retirees, which again will differ from young single adults. While households (the people living in a dwelling) are very adaptable and will often live in a dwelling that is smaller or larger than what is needed, a well-performing housing market will try to cater for this by having a supply of diverse housing and tenure options available. Households will have the *opportunity* to match their dwelling with their housing needs and preferences.

In a well-performing housing market, supply and demand work together to drive the construction of new housing that caters to market demand, but it also tries to 'get ahead of the game' and plan for demographic change, unmet demand and changing preferences. However, in practice there are a range of human and policy factors that don't necessarily align with the theory. For example, older people often prefer to stay in their family home, even when it is much larger than what they need. Staying allows residents to remain connected to their local community, close to the services they need, and to have additional space should friends or family come to visit. Another reason might simply be that it is their 'family home' and they have a strong sentimental connection to it. In some cases, it could be that there are no alternative (smaller or affordable) homes in their neighbourhood. All are important factors, and all make it difficult to predict how an individual will respond, but overall demographic trends do assist in understanding housing demand.

Policy factors such as planning controls and building regulations can also, inadvertently, or deliberately, favour the delivery of one form of housing over another. Current policy settings tend to facilitate the construction of single detached dwellings on relatively large lots on the edge of existing settlements (greenfield development), compared to the construction of smaller or medium-density dwellings in established areas (infill development). This is not to say that medium-density housing cannot be delivered at the same time, but rather it may need other settings to change, such as a more supportive planning policy framework, or improved property economics, before the property and construction sector will adequately respond to the latent demand that is likely to be there.

Policy changes can often have long lag periods before they have any effect. However, this is not always the case. During the recent pandemic many communities experienced first-hand how quickly some things can change. The 'working from home' directives and the greater flexibility that resulted for many office-based employees and employers is believed to have impacted on some peoples' home purchasing and rental decisions. Distance to the office became less critical, while having a dedicated working from home space became more important. It will be interesting to see how it plays out in coming years, but in general it appears to have had a positive impact on regional areas, particularly places with high levels of amenity where people want to live, and in areas where there was housing stock available. In areas where there wasn't housing stock available, prices tended to increase significantly, which has created its own set of issues.

The rate of growth is also an important consideration. In locations with low, slow, or even negative population growth, new homes are often still needed due to a declining household size (more houses are needed just to accommodate the same number of people). Slow growth can also make it difficult for new subdivisions to be progressed. Successful land development is complicated and requires expertise to do well. There are large upfront costs, holding costs, risks relating to creating an over-supply, and challenges in ensuring that there is an ongoing pipeline of work for sub-contractors. Land banking can be an issue, but in most cases it is more about balancing supply with demand at a price point that makes the development viable (if it isn't profitable, it doesn't happen, as lenders will not

finance it). Developers and builders are at the pointy end of the strategic planning process and it is therefore important to get the policy and planning right so that they are clear on what they are expected to deliver when it comes to building the places that the community is expecting, and more importantly, want to live in.

The following sections include some of the key demographics that influence population and dwelling forecasts.

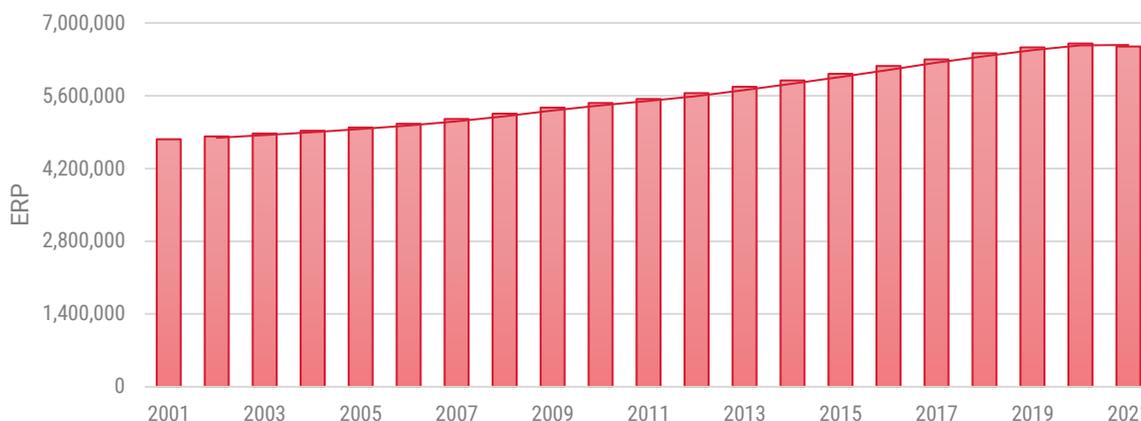
3.1 Population and Age Structure

The ABS **Estimated Resident Population (ERP)** for Gannawarra Shire on 30 June 2021 was 10,612. During the period 2016 to 2021 Gannawarra’s population increased by 45 people. This represents a growth rate of 0.1% per year. While small, this positive rate of growth is a sign that the longer-term trend of population decline is likely to have reversed. Figure 3-1 below shows that much of the population decline coincided with the Millennium Drought. The severity of the drought had major implications on much of rural and regional south-east Australia and its townships. The end of the drought, the evolution of the agricultural sector, improvements to irrigation networks, the interest in water-based and nature-based activities, and recent investments in renewable energy production are expected to be contributing to this shift.

Figure 3-1: Gannawarra ERP 2001 – 2021



Figure 3-2: Victoria ERP 2001 - 2021



When looking specifically at the four key planning areas, three of them have grown. Koondrook has been a standout, increasing its population by over 21% over the 10-year period and accounting for around half of Gannawarra’s total growth. Koondrook’s rate of growth has also increased slightly during the last five years compared to the first five-year period.

Table 3-1: Gannawarra Planning Areas Population Change 2011 - 2021

	2011	2016	2021	2011-21 Change (no)	2011-21 Change (%)
Gannawarra	10,366	10,548	10,683	+317	+3.0%
- Kerang	3,638	3,712	3,781	+143	+3.9%
- Cohuna	2,027	2,149	2,151	+124	+6.1%
- Koondrook	769	828	935	+166	+21.6%
- Kerang Lakes	375	354	361	-14	-3.7%
- GSC Balance	3,543	3,531	3,472	-71	-2.0%

Cohuna has also been a strong performer over the 10-year period, however most of its growth occurred in the first five-year period between 2011 and 2016. This may be a result of the drought and people moving from nearby rural areas into Cohuna at that time.

The data suggests that Kerang has experienced slow and steady growth, just above the average for the Shire, while the Kerang Lakes area has seen a slight decrease in its population. Given the numbers are quite low in the Kerang Lakes area, they could be expected to fluctuate a little more than larger areas.

Outside of the main population areas of Kerang, Cohuna and Koondrook, much of the Shire (referred to as the ‘GSC Balance area’) has been declining in population. While some people will have left the municipality, it is expected that many will have moved to Gannawarra’s bigger towns and have contributed to their growth.

While the **total population** paints one part of the picture, the **population by age** adds a little more detail on how a population has changed over time. Twenty-year data is presented at a Shire wide scale (Figure 3-3) and is compared to Victoria’s total population (Figure 3-4).

Figure 3-3: Gannawarra Population by Age 2011-2021

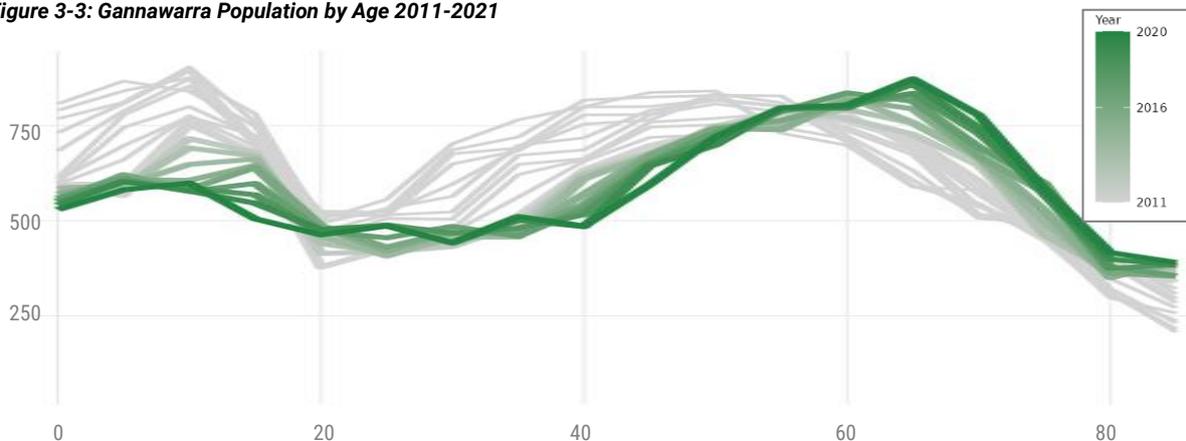
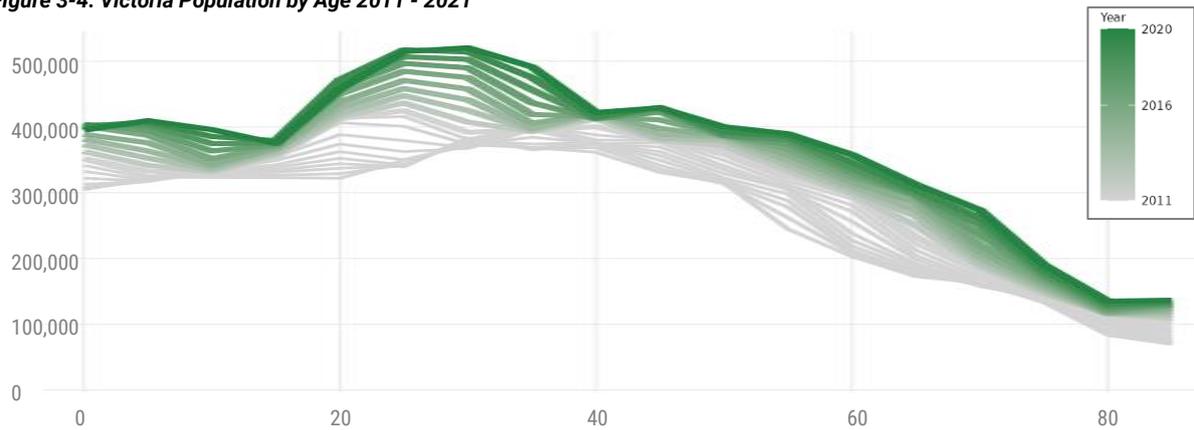


Figure 3-4: Victoria Population by Age 2011 - 2021



As can be seen in the graphs above, Gannawarra’s population profile is noticeably different to that of Victoria’s. Gannawarra’s population is older and is aging (the median age is 51 years compared to 38 years for Victoria).

Figure 3-3 also shows that Gannawarra has been losing younger people and gaining older people (indicated by the vertical difference in the light grey and dark green lines). The aging of the population can also be seen as the light grey lines move horizontally left to right and become darker green lines. Much of this is due to the Baby Boomer generation moving through the age profile and ‘aging in place’. This trend is not uncommon in regional areas as young people tend to move to larger cities to pursue educational and employment opportunities while older people settle into retirement.

Another way to view population structure is to flip the axis and compare the **age profile** by 5-year age cohorts. Figure 3-5 and 11 confirm that Gannawarra has a smaller percentage of its population in the Young Workers (25-34) and Workers (35-49) age cohorts, and a higher percentage of its population in the 60 to 79 (Retirement) and 80+ (Elderly) age brackets when compared to Victoria. Figure 3-5 also shows that there has been a small increase in the number of people in the 20-24 and the 25-29 age cohorts over the past 10 years.

Figure 3-5: Gannawarra age profile 2011 – 2021

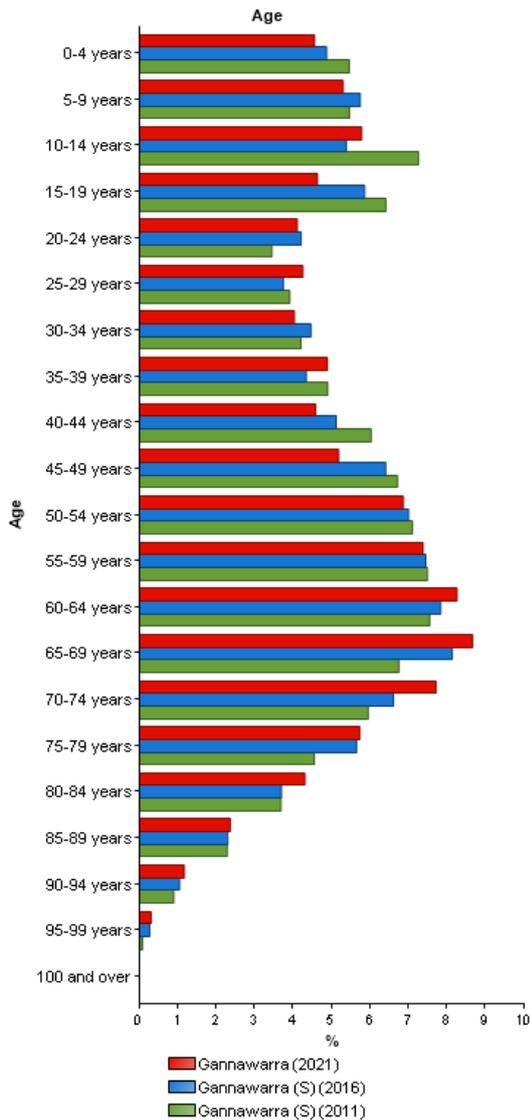
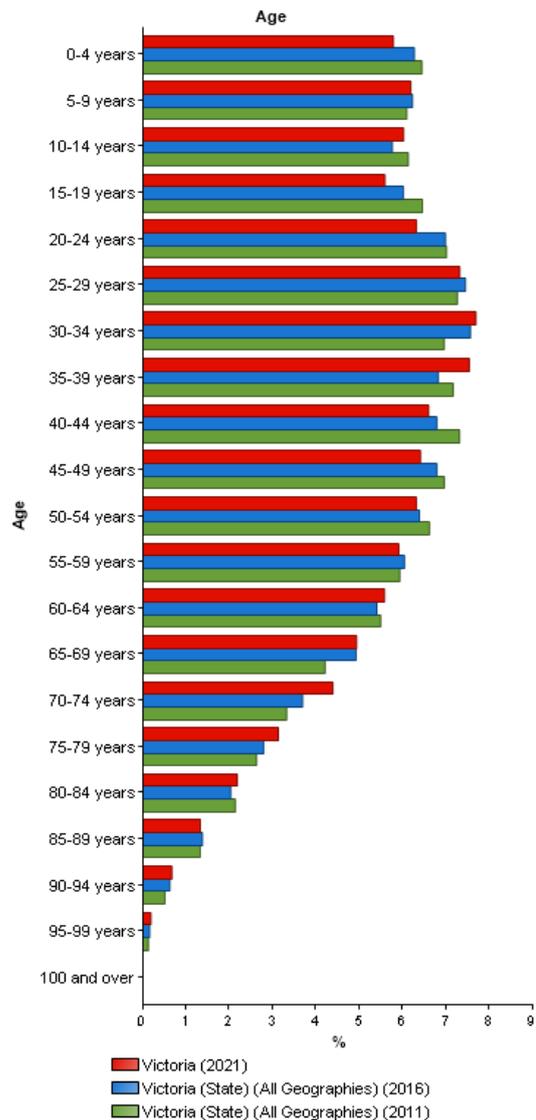


Figure 3-6: Victoria age profile 2011 - 2021



Drilling down a little deeper into the data and looking at the current age profile for the four planning areas, we can see some subtle differences starting to emerge.

As might be expected, due to its larger size and regional service centre role, the age profile for Kerang is the most balanced, with a higher proportion of people in younger age cohorts than other townships. Cohuna and Koondrook tend to have an older population profile, which may be explained in part by their appeal as retirement locations with excellent access to popular retirement activities such as fishing, golf and bowls. Both places are also only a short drive away from healthcare facilities (in Kerang and Barham). Kerang Lakes has an interesting age profile, with a noticeable bump in the 50 to 64 age group, but still with a good percentage of people under the age of 18. These could be families that have prioritised living lakeside with easy access to active water sports over living in a larger town. It is likely to also include a few early retirees that have moved to the area and people who are able to work from home.

Figure 3-7: Kerang age profile 2021

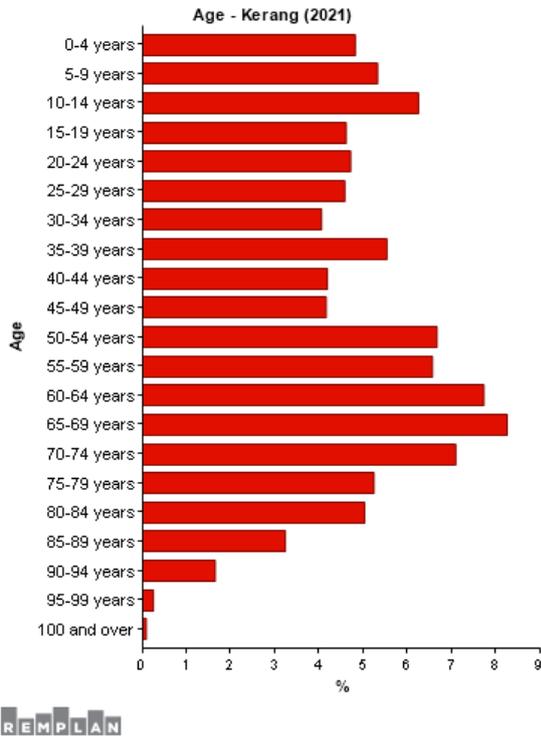


Figure 3-8: Cohuna age profile 2021

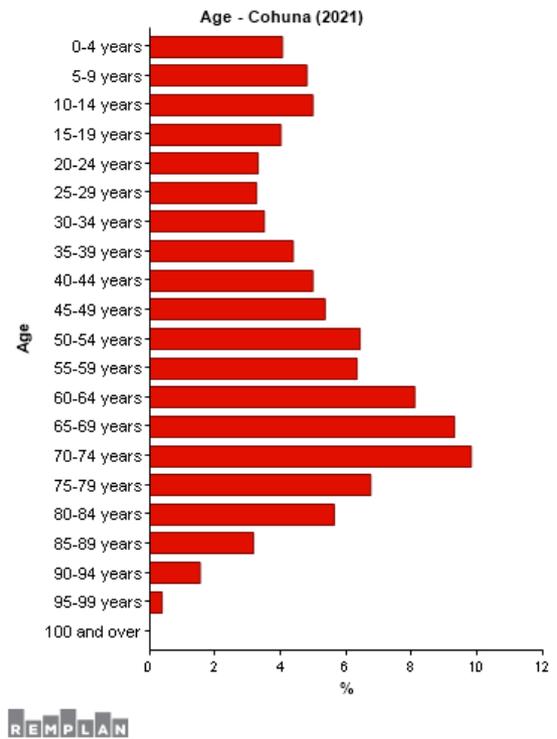


Figure 3-9: Koondrook age profile 2021

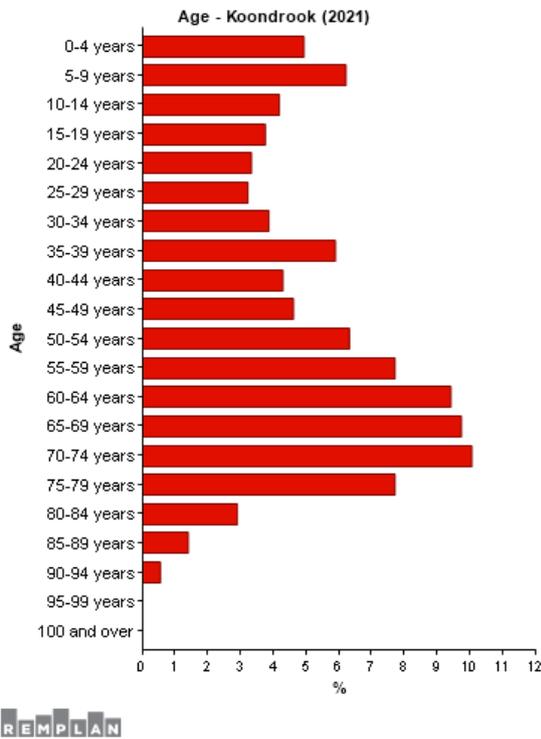
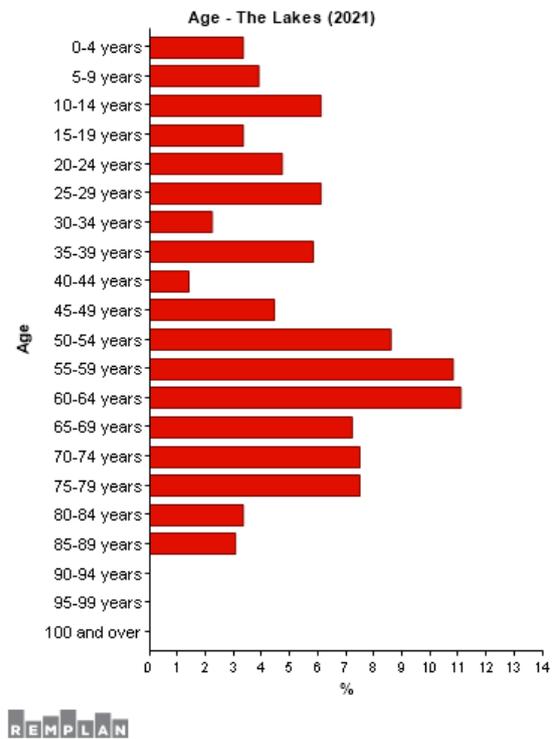


Figure 3-10: Kerang Lakes age profile 2021



3.2 Household Mobility

When it comes to household mobility, over 61% of Gannawarra’s residents did not move during the previous 5-year period. This is higher than the Victorian average (54.3%), but in all areas there has been a general trend towards moving more frequently. In places such as Koondrook, where there has been strong growth, household mobility is likely connected to new people moving to town, but in the Kerang Lakes area, it may be a little more complicated and relate to a generational change that is linked to the era of when the area was developed, or it could simply be related to people moving into what were once holiday homes (during the pandemic).

Table 3-2: Same Address as Last Census

	2021	2016	2011
Gannawarra	61.2%	64.2%	66.9%
- Kerang	58.7%	60.9%	62.0%
- Cohuna	62.7%	61.8%	66.8%
- Koondrook	58.8%	64.7%	68.7%
- Kerang Lakes	61.0%	73.1%	74.7%
Victoria	54.3%	54.1%	57.6%

3.3 Household Composition

Gannawarra’s population of 10,683 can also be viewed as 4,700 different households. A household is the person, or group of people, living in a dwelling. Households are often referred to as a ‘family’, but this is not always the case as some households are single people, while others are made up of a group of unrelated people (‘group households’). Regardless of the **household composition**, it is particularly useful when it comes to understanding the services and housing needs that different towns might have.

Table 3-3: Gannawarra Household Composition 2021

	GSC No.	GSC %	Victoria %
Couples with children	938	20.0%	30.9%
Couples without children	1,459	31.0%	24.6%
One parent families	364	7.7%	10.2%
Other families	46	1.0%	1.2%
Group household	100	2.1%	3.8%
Lone person	1,453	30.9%	24.7%
Other not classified household	246	5.2%	3.7%
Visitor only households	94	2.0%	1.0%
Total households	4,700	100.0%	100.0%

When comparing Gannawarra’s household composition to that of Victoria’s, there are several notable differences – ‘Couples with children’ (20.0% compared to 30.9%), ‘Couples without children’ (31.0% compared to 24.6%) and ‘Lone person’ (30.9% compared to 24.7%). While these are not unexpected, due to the older age profile and regional location of Gannawarra, more importantly for this project it starts to raise questions on how well matched the housing stock is to the population. For example, with 61.9% of households having only one or two people living in them it might be assumed that there

will be a strong demand for smaller dwellings. Section 3.6 includes further detail on dwelling size and housing suitability.

3.4 Household Size

Household size relates to the average number of people living in each dwelling. Across Australia, household size has been declining for several decades. This trend has also occurred in Gannawarra, where household size has declined from 2.48 persons per dwelling in 2001 down to 2.21 in 2021. While the rate of decline has slowed, once again it is something that is expected given the older age profile and the high levels of ‘Lone person’ and ‘Couple without children’ household types mentioned above. For comparison, Victoria’s average household size has dropped over the same 20-year period from 2.61 to 2.52.

The outcome of declining household sizes is that more houses are required to accommodate the same number of people. While this is an obvious conclusion, it is an important one. Even areas with no population growth will require new dwellings. For areas with growing populations with accompanying decline in average household size, the issue is compounded.

3.5 Dwelling Type

Across the Shire there are 5,326 dwellings. Over 88% of these are ‘occupied private dwellings’ and around 11.5% are ‘unoccupied private dwellings’. The remaining 0.32% are classified as ‘non-private dwellings’. These percentages align closely with the Victorian averages.

While in all planning areas the amount of unoccupied private dwellings decreased between 2016 and 2021, the Kerang Lakes area has seen a significant shift declining from 27.3% in 2016 down to 14.6% in 2021. This is likely to be related to the pandemic, where dwellings were often taken off the holiday market as people moved permanently into their holiday home or the dwelling was placed on the long-term rental market (where better returns were possible). Regardless of the reason, it is a noticeable change, and one replicated (but perhaps not to this extent) in other holiday home locations.

Table 3-4: Dwelling composition 2021

	Dwellings	% of GSC dwelling stock	Occupied private dwellings	Separate house	Owned outright / mortgage	Rented
Gannawarra	5,326	100%	88.2%	92.3%	71.5%	17.2%
- Kerang	1,892	35.5%	89.8%	87.0%	67.9%	22.2%
- Cohuna	1,093	20.5%	89.3%	91.8%	73.6%	17.4%
- Koondrook	472	8.8%	87.7%	95.9%	81.2%	11.5%
- Kerang Lakes	171	3.2%	85.3%	92.4%	72.9%	9.4%
- GSC Balance	1,715	32.2%	85.4%	97.8%	72.5%	13.5%
<i>Victoria</i>	<i>6,472,911</i>	<i>-</i>	<i>89.2%</i>	<i>71.5%</i>	<i>65.4%</i>	<i>27.5%</i>

Just over 92% of Gannawarra’s dwellings are ‘separate houses’ (i.e., a fully detached dwelling), with 5% listed as ‘medium density’¹ and another 1.9% being ‘caravans, cabin or houseboat’. The percentages of separate houses and medium density are noticeably different to that of Victoria, where 71.5% are recorded as separate houses and 27.9% are either medium or high density. This is not unexpected, as most of Victoria’s medium density housing can be found in metropolitan Melbourne and in Victoria’s larger regional cities. Not surprisingly, given Gannawarra’s extensive river

¹ A medium density dwelling is a combination of ABS categories being any single or double storey semi-detached, row or terrace house, a flat or apartment in a 1 or 2 storey block, and any flat or unit attached to a house.

and lake frontages, it has a greater percentage of caravans, cabins and houseboats when compared to Victoria as a whole (1.9% compared to 0.3%).

Over the 2011 to 2021 period, there has been an increase of 116 dwellings, 88 of them being in Kerang. Percentage wise, Koondrook has seen the biggest growth, increasing its number of dwellings by 6.0% over this period, while there has been a decrease in the Kerang Lakes area. This is believed to relate to the classification of cabins in caravan parks for permanent residents. There will have been slightly more dwellings built than the increase indicates, with some having been replacement dwellings following the demolition of an existing one.

Table 3-5: Dwelling Change 2011 - 2021

	2011	2016	2021	2011-21 Change (no)	2011-21 Change (%)
Gannawarra	5,210	5,290	5,326	+116	+2.2%
- Kerang	1,804	1,878	1,892	+88	+4.9%
- Cohuna	1,065	1,076	1,093	+28	+2.6%
- Koondrook	445	449	472	+27	+6.0%
- Kerang Lakes*	205	205	171	-34	-16.6%
- GSC Balance	1,693	1,705	1,715	+22	+1.3%

* The drop in number in the Kerang Lakes is understood to relate to changes to classifications in caravan parks

3.6 Dwelling Size / Number of Bedrooms

Almost half (just under 49%) of all dwellings in Gannawarra are 3-bedroom homes. This is higher than the Victorian average, where 3-bedroom dwellings account for around 40%. Once again, this is to be expected due to the low percentage of medium density homes in Gannawarra (medium density homes tend to have fewer bedrooms). It is also not surprising given most homes would have been built at a time when Gannawarra's age profile was much younger, with more families with children, and being built on larger lots that would not have constrained building size.

Table 3-6: Number of Bedrooms in Private Dwellings 2021 (% of total)

	1	2	3	4	5+	Not stated
Gannawarra	2.7%	13.1%	48.9%	24.1%	3.2%	8.2%
- Kerang	1.7%	15.4%	48.7%	20.8%	4.0%	9.4%
- Cohuna	3.2%	13.9%	55.0%	19.6%	1.1%	7.1%
- Koondrook	2.9%	12.1%	60.0%	17.4%	1.9%	5.6%
- Kerang Lakes	2.7%	9.6%	43.8%	28.8%	2.7%	12.3%
- GSC Balance	2.1%	10.6%	42.4%	32.2%	4.2%	8.1%
Victoria	5.0%	18.4%	39.9%	26.0%	5.3%	5.1%

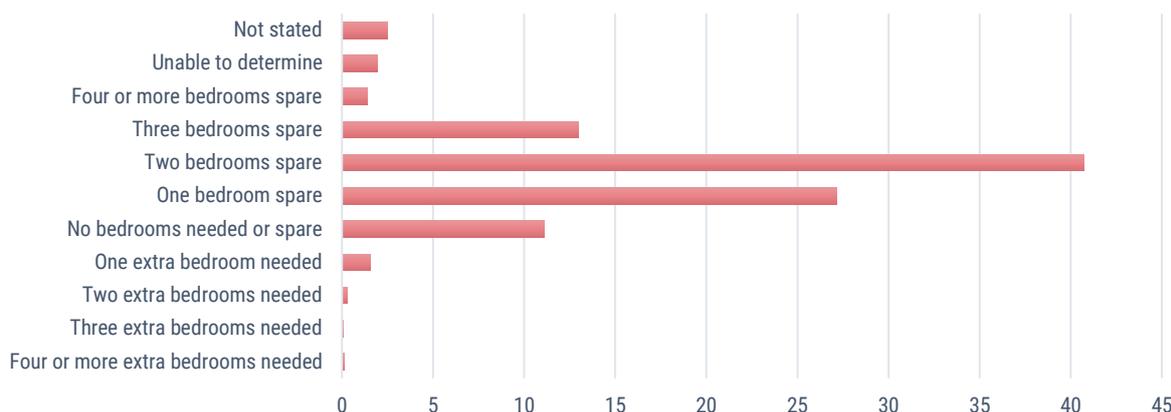
Gannawarra currently has 3.92% fewer 4 and 5+ bedroom dwellings compared to Victoria. The proliferation of large homes (4+ bedrooms) as the preferred size is a relatively recent phenomenon. They are often constructed in new growth areas by young and expanding families, where the cost to add an extra bedroom is minimal compared to the overall cost of land and building. Despite Gannawarra's population profile suggesting that there may be a low demand for large homes, the construction of 84 new 4-bedroom dwellings between 2016 and 2021 (46% of all new dwellings built)

suggests the opposite. It will be interesting to see if this is a blip in the data, or if it is an ongoing trend. It may also be a result of the financial opportunity cost that large homes can provide (the higher re-sale value generally exceeds the construction cost, so it is seen as a good investment to build larger). Alternatively, it could reflect the typical new home builder (being younger families).

Another measure that can be used to analyse how well-matched housing is to its population is to assess the number of bedrooms that are 'needed' or are 'spare', as recorded by each household. Overcrowding can occur when a household needs more space but is unable to expand or move to a larger home. The impacts of overcrowding are beyond the scope of this project, but it is positive to note that the percentage of households in Gannawarra that need more space is relatively low (1.56%). This is not to diminish the impact that it may be having on those households, however.

Figure 3-11: Gannawarra Housing Suitability (% of families indicating the number of bedrooms spare or needed in 2021) indicates that there is significant spare bedroom capacity. Once again, this is to be expected given the average household size and number of bedrooms per dwelling mentioned earlier. This is also a 'point in time' assessment and does not account for the flexibility that additional space provides, for example, space for a new child or elderly family member to move into, or a space to work from home.

Figure 3-11: Gannawarra Housing Suitability (% of families indicating the number of bedrooms spare or needed in 2021)



3.7 Housing Approvals

Housing approvals are typically considered a lead indicator for supply of new dwellings but can also indicate levels of demand within a region. While not all dwelling approvals translate into completed dwellings, approvals are often used as an indicator of the strength of consumer and investor confidence.

Figure 3-12 and Table illustrate the number of new dwelling approvals within Gannawarra over the past decade. As indicated in the chart, there was a substantial increase in the number of approvals during the Federal Government’s *HomeBuilder* grant period which ran from June 2020 to March 2021. It is expected that approvals will return to trend once updated data becomes available. Regardless, housing approvals have been growing over the past decade. Extrapolating this trend using a 3-year moving average suggests that by 2030/31 the average housing approvals will be around 63 per annum. If we exclude the 2020/21 spike, this reduces to around 54 per annum in 2030/31, which is still a large increase on current approvals.

At a local scale you can once again clearly see the HomeBuilder Grant program spike in the 2020-21 in Kerang and Cohuna. In 2022 approvals dropped slightly, but it will be another year or two before we

see the full impact of recent interest rates rises, labour supply challenges and if the cost of materials settles down.

Figure 3-12: Gannawarra New Dwelling Approvals 2011/12 -2021/22

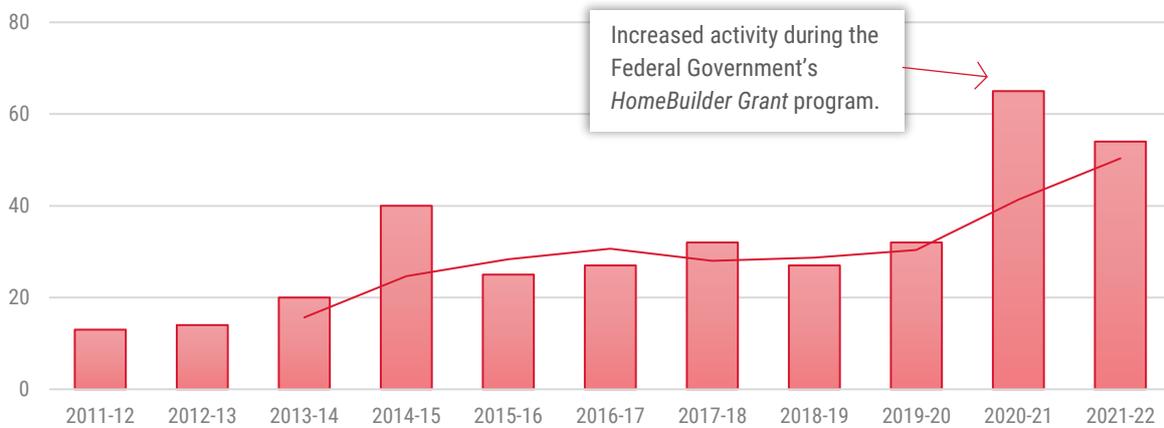
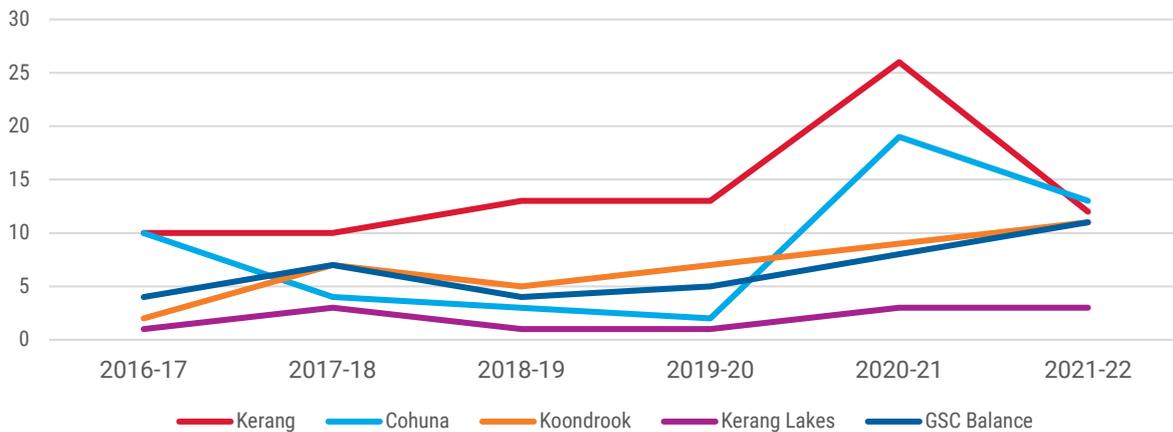


Table 3-7: Gannawarra New Dwelling Approvals 2011/12 -2021/22

	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22
New Houses	13	14	20	40	25	25	32	27	32	62	52
New Other Residential	0	0	0	0	0	2	0	0	0	3	2
TOTAL	13	14	20	40	25	27	32	27	32	65	54

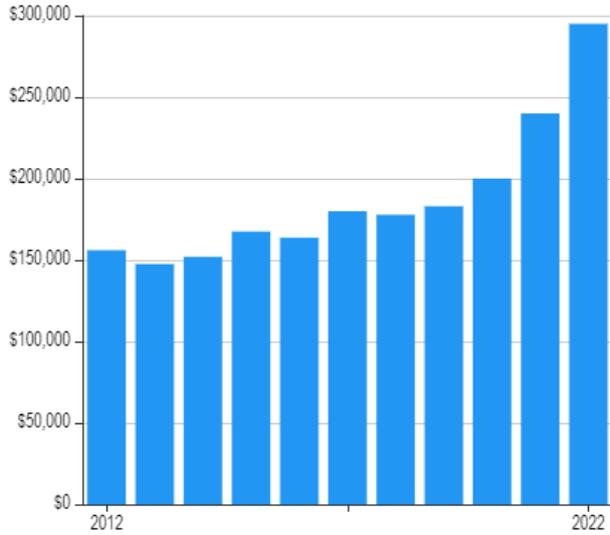
Figure 3-13: New Dwelling Approvals in Planning Areas 2016-2022



3.8 Housing Market – Sales and Rentals

Median sale price is an important metric and indicator of the housing market and its affordability. The median sale price, being the middle value of all recorded sale prices in ascending order, helps to explain trends in property markets through trends in prices. It should be noted that in some circumstances the data is based on very low number of sales and is more of a reflection of the houses that were on the market during that year and may not represent the average house for that area. As with dwelling approvals above, the impact of interest rate rises will no doubt have an impact on sales prices, sales volume and issues such as rental affordability and availability.

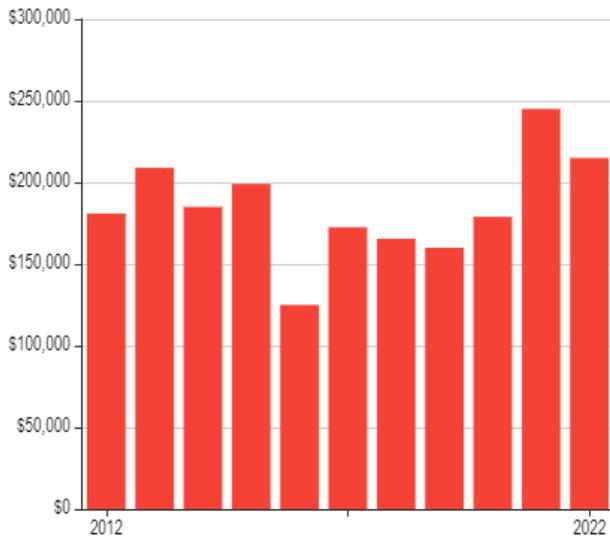
Figure 3-14: Gannawarra Median Price of Houses sold 2012-2022



In 2022, Gannawarra’s median **house** price was \$297,500. This represents an increase of 60% (using a 3-year moving average) over a 10-year period.

In 2022 there were 194 house sales recorded.

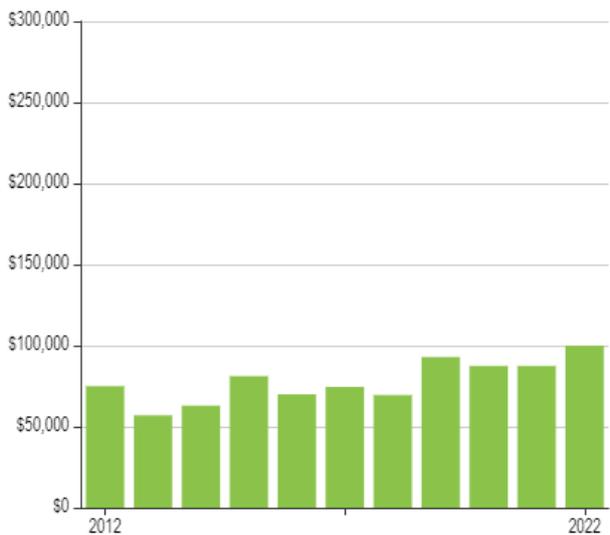
Figure 3-15: Gannawarra Median Price of Units sold 2012-2022



During the same 10-year period, the 3-year moving average of the median **unit** price increased by 11%. In 2022, Gannawarra’s median unit price was \$215,000.

In 2021 there were 21 unit sales recorded.

Figure 3-16: Gannawarra Median Price of Land sold 2012-2022



The median **land** price (3-yr average) has increased by 41% across the 10-year period. The median land price in 2022 was \$100,000.

In 2022 there were 33 land sales recorded.

Figure 3-17: Kerang median price trend 2012 - 2022

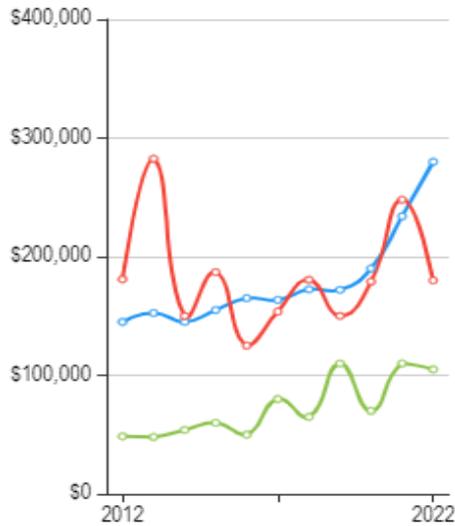


Figure 3-18: Cohuna median price trend 2012 -2022

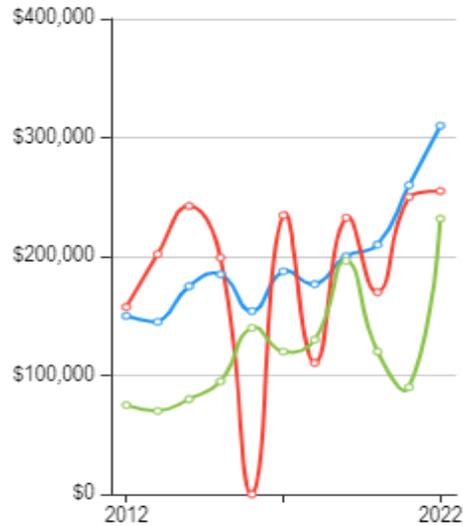


Figure 3-19: Koondrook median price trend 2012 – 22

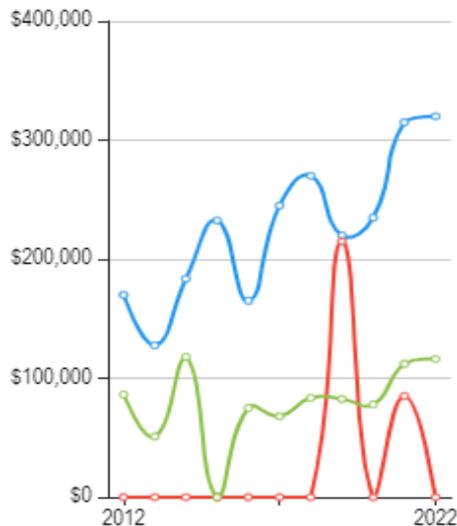
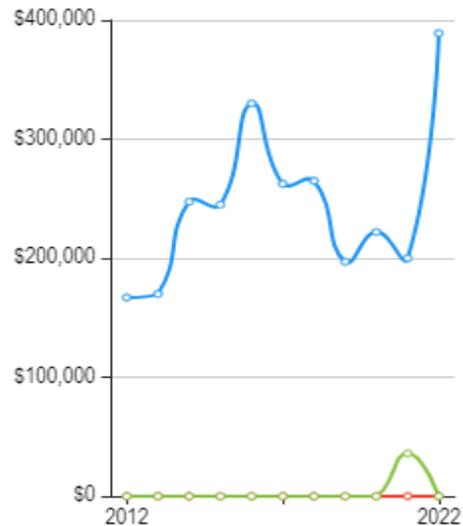


Figure 3-20: Kerang Lakes median price trend 2012-22



House

Unit

Land

As mentioned above, the median house price across the Shire in 2022 was \$297,500. Kerang’s median house price was slightly lower at \$284,000, while Cohuna’s median house price was slightly higher at \$310,000. Koondrook’s median house price was \$320,000, while the Kerang Lakes area almost doubled between 2021 and 2022 and had a median house price of \$389,000. Given it is based on only six sales, it is not likely to be a true indication of the average house in the area.

Using a 3-year moving average, we can see that the highest increase in median house price across the 10-year period was Koondrook which increased by 88%. Cohuna was next with an increase of 66%, Kerang’s 3-year average median price increased by 59% and Kerang Lakes by 38%.

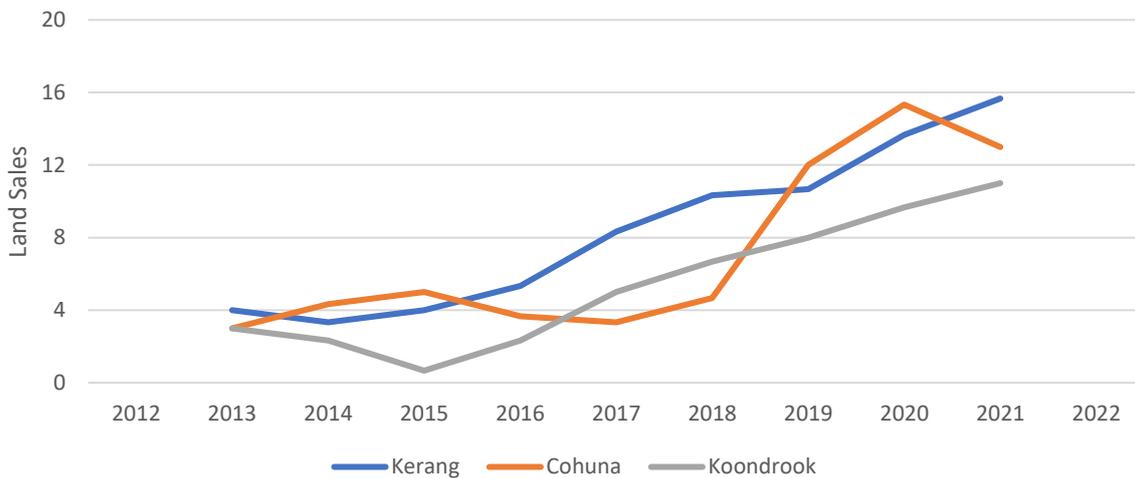
Looking at median prices for land, once again using a 3-year average, we can see that Cohuna has increased by 93% (from \$75k to \$145k), Kerang has increased by 66% (from \$52k to \$87k) and Koondrook by 20% (\$85k to \$102k). Other parts of the Shire remained relatively steady (but based on low numbers of sales) (note, some sales data has been excluded based on sale type).

While not as important as property prices, the number of property sales can provide some useful insights into what is happening in different locations. Across Gannawarra there has been a steady rise in sales in recent years, particularly for houses and for land. Given the low number of units in the Shire, it is not surprising that there haven't been many unit sales. A similar issue is present in the Kerang Lakes area, where there is a low number of properties and very few new parcels of land being created. In this instance, the sales data is interesting, but of limited use.

Of all sales data, the information relating to **land sales** is of most importance to this project as people cannot move to a place if there isn't housing to move into, and if all the houses are occupied, then land is needed to build upon. Land sales also tend to be a good indicator of future dwelling construction.

Figure 3-21 below shows that Kerang, Cohuna and Koondrook have all seen strong growth in land sales. All three towns have had new lots created in recent years, with both Kerang and Cohuna having a number of zoned and serviced sites that are likely to be subdivided in the near future. Koondrook relies a little more on the sale of existing vacant lots, but it too has had a number of smaller scale subdivisions developed in recent years.

Figure 3-21: Number of land sales in key planning areas (3-year moving average)



Rising sales prices are important indicators of market demand and general economic conditions. While rising housing prices can make it harder for some people to buy a house in a certain area, the issue of rising cost of **rentals** can have more immediate issues on households, particularly those on lower incomes. This is not only a social issue but can have flow-on impacts for businesses and service delivery if key workers cannot find affordable housing close to their employment, particularly in areas where public transport is not a viable option for commuting to work.

Figure 3-22: Gannawarra Rental Prices of houses and units (3-year moving average)

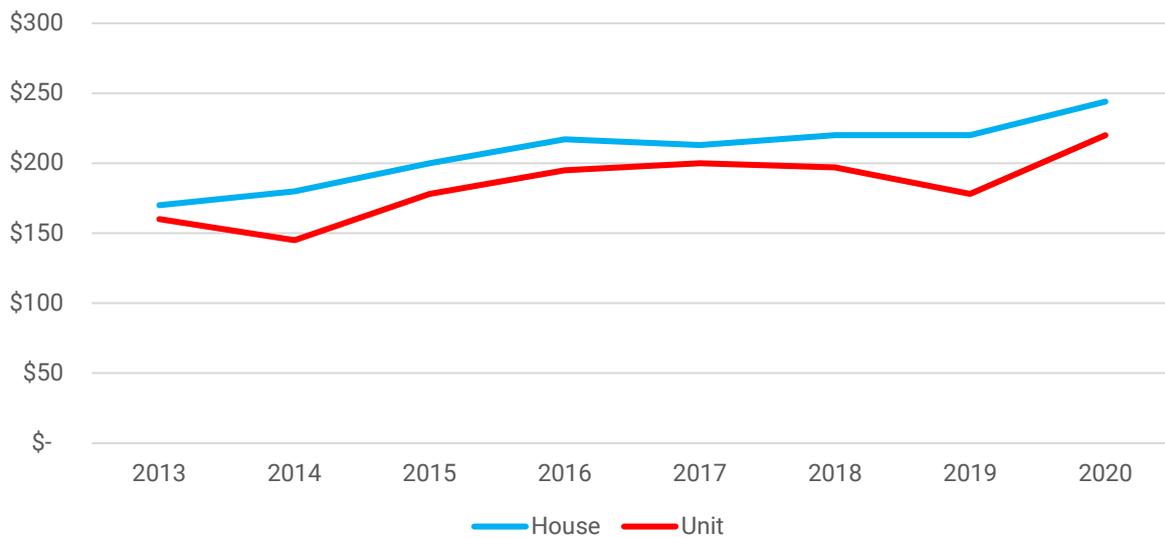


Figure 3-22 shows the median rental price of listings for both houses and units across Gannawarra using a 3-year moving average. The graph indicates an increase in the cost of rentals in recent years, with a further jump in rental prices between 2019 and 2020, where house rental prices increased by 11% and unit rental prices increased by 24%. Once again, the data is based on a small number of listings, and it is based only on the listings that were advertised and therefore does not include all rental properties. It can only provide a general indication of the rental market. Anecdotal evidence suggests that there is a significant shortage of rental properties, almost to the point of there being no supply available. This is a trend being witnessed in many regional areas, where access to rental housing is causing issues across all sectors – from seasonal farm workers to more permanent health and education workers. This is a potential challenge for the impending construction work needed for both the mineral sands mine and the electricity interconnector (although that is likely to be a short-term peak). Given the challenges facing the domestic housing construction sector (staff, approvals and supplies), it is likely that an alternative form of short-term worker accommodation is going to be needed.

3.9 Population and Housing Trends Summary

Recent years has seen Gannawarra’s population exceed the Victoria in Future population projections and has been growing at a slow and steady rate. While the population also continues to age, there is a positive sign with growth in the number of younger ‘working age’ people. This is coming from a low base, but it is an important demographic to have as these are the age cohorts that will start forming families in the coming years and will drive the demand for other community assets such as early learning centres and schools.

The past decade has also seen the number of people living in each dwelling decline, but that trend too is slowing. Regardless, there is a high percentage of dwellings with only one or two people living in them. This might point to a demand for more smaller dwellings to be built in the future, particularly close to town centres where residents are able to easily access services and a slight increase in dwelling density can make better use of existing infrastructure. Given the size of existing residential

lots, this can be done sensitively and if delivered can reduce the amount of additional residential land that needs to be 'created' on the fringes of towns.

Regardless of the expected demand for more smaller houses, the data is very clear that there is a current demand for larger houses. The steady increase in dwelling approvals and the high percentage of them being for 4-bedroom homes supports this. While some may be in established areas, many have been built in the newly created subdivisions, which is a particularly attractive product for those looking to bring a family to a new town. Larger homes also have the potential to cater for some of the expected demand for worker accommodation associated with the construction phase of major projects, which can then revert to more traditional family homes once the peak construction period has passed.

Following a brief analysis of employment and economic trends, this report moves into the population and dwelling forecasts and land supply. Those sections build on the current profile of the community and identify how future growth can be planned and managed.

4 Economy and Employment Profile

This section provides a summary of the key economic and employment characteristics of the Shire. In short, it is heavily reliant on the agricultural sector, has a strengthening construction sector, and has a lot of small family owned and operated businesses with people working longer than average hours. This section highlights that there may be some challenges in meeting the workforce needs of planned major projects and investments.

4.1 Economic Output

With 137,000 hectares of irrigated land and extensive areas of dry land farming, Gannawarra's economy is strongly linked to the agricultural sector. As can be seen in Table , *Agriculture, Forestry & Fishing* accounts for over 26.5% of employment (1,061 jobs) and 26.6% of economic output (\$322M); much of it related to dairy and grain production. However, there is considerable opportunity for value added processing and economic diversification, some of which has already started through investments in cotton, organic grain and tomatoes, medicinal cannabis, poultry and new plantings of wine grapes. Renewable energy production and storage opportunities are also expected to increase once investments in electricity transmission are complete. Gannawarra's rural areas have demonstrated their resilience and ability to evolve to enable them to leverage their locational and natural assets and advantages.

Table 4-1: Gannawarra Economic Output 2021

	\$M	%
Agriculture, Forestry & Fishing	\$322.739	26.6%
Manufacturing	\$182.863	15.0%
Construction	\$147.542	12.1%
Rental, Hiring & Real Estate Services	\$103.216	8.5%
Public Administration & Safety	\$69.857	5.7%
Health Care & Social Assistance	\$64.468	5.3%
Electricity, Gas, Water & Waste Services	\$55.398	4.6%
Retail Trade	\$40.027	3.3%
Wholesale Trade	\$35.654	2.9%
Professional, Scientific & Technical Services	\$30.466	2.5%
Transport, Postal & Warehousing	\$30.150	2.5%
Education & Training	\$29.625	2.4%
Financial & Insurance Services	\$26.632	2.2%
Mining	\$24.543	2.0%
Other Services	\$22.769	1.9%
Accommodation & Food Services	\$16.378	1.3%
Administrative & Support Services	\$10.260	0.8%
Information Media & Telecommunications	\$1.858	0.2%
Arts & Recreation Services	\$0.874	0.1%
Total	\$1,215.317	100.0%

In addition to *Agriculture, Forestry & Fishing*, the *Manufacturing* (\$183M) and *Construction* (\$148M) sectors round out the top three industry sectors for economic output. Combined, these three sectors account for 53.7%, or \$653M, of output.

4.2 Employment Profile

In 2021 there were 3,999 jobs in Gannawarra. The largest employment sector was *Agriculture, Forestry & Fishing*, which employed 1,061 people, or 26.5% of the workforce. The next largest industry sector is *Health Care & Social Assistance* which employed 524 people (13.1%). *Retail Trade* rounded out the top three employment sectors with 360 people, or 9.0% of the workforce.

Given the future jobs focus on mining and the electricity sector, it will be important to track this over time. In 2021 there were 50 people listed as employed in *Mining* and none (0) employed in *Electricity Generation and Electricity Distribution* (all 81 listed in the table below in *Electricity, Gas, Water & Waste Services* are employed in the sub sector classification of *Gas, Water & Waste Services*). Employment growth in these sectors will be coming off a low base, but they have the potential to contribute positively to the broader economy. Several case studies are provided later in this report to demonstrate the likely beneficial flow-on effects that could be realised by the planned projects and investments.

Table 4-2: Gannawarra Employment Profile 2021

	Jobs	%
Agriculture, Forestry & Fishing	1,061	26.5%
Health Care & Social Assistance	524	13.1%
Retail Trade	360	9.0%
Construction	323	8.1%
Public Administration & Safety	287	7.2%
Manufacturing	273	6.8%
Education & Training	247	6.2%
Other Services	155	3.9%
Accommodation & Food Services	139	3.5%
Professional, Scientific & Technical Services	121	3.0%
Transport, Postal & Warehousing	119	3.0%
Wholesale Trade	109	2.7%
Electricity, Gas, Water & Waste Services	81	2.0%
Administrative & Support Services	71	1.8%
Mining	50	1.3%
Financial & Insurance Services	43	1.1%
Rental, Hiring & Real Estate Services	27	0.7%
Arts & Recreation Services	6	0.2%
Information Media & Telecommunications	3	0.1%
Total	3,999	100.0%

4.3 Labour Force Characteristics

The employment status of residents within a region helps provide an understanding of the local job market and, in turn, broader economic conditions. The analysis below provides data on the three key metrics of Labour Force Participation, Employment Status and Unemployment.

Broadly speaking, when considering the first and third metrics, a high participation rate combined with low unemployment is representative of a strong job market. It is important to note that labour force data refers to the people living in the region with no regard to where they work.

Labour Force Participation

The participation rate is expressed as the labour force (people in work or looking for work) as a percentage of the working-age population (those aged 15 years and over). As the participation rate includes both employed and unemployed persons, it is an important indicator of the actual pool of labour.

In 2021 Gannawarra's Labour Force Participation Rate was 50.5%. This has decreased slightly over the past 10-years, down from 52.0% in 2016 and 53.7% in 2011.

When compared to Victoria's relatively steady participation rates of 62.4% (2021), 60.5% (2016) and 61.4% (2011), you can see that Gannawarra's participation rate is lower than Victoria's, and the gap has increased. This may reflect Gannawarra's older age profile, but it could also reflect the greater housing affordability of the region and ability of households to live on a single income. The current cost of living pressures may impact on this comparative advantage as regional areas have not been buffered from higher energy and food costs, like they might have been previously with housing costs.

Employment Status (full-time and part-time employment)

Workers are defined as part-time if they usually work less than 35 hours per week. Full-time workers are any worker who is not classified as part-time and is not actively looking for work. While many part-time workers are likely to be working part-time hours voluntarily, there is likely to be a pool of part-time workers who want to, and can, work additional hours.

In 2021, the percentage of employed full-time workers in Gannawarra was 57.0% and employed part-time workers was 33.0%. Over the past 10-years this has changed very little, with the employed full-time rate decreasing from by 1.3% (from 58.3%) and the employed part-time rate increasing by 1.7% (from 31.3%).

While overall, the proportion of full-time and part-time workers is very similar to the Victorian averages (Victoria was 56.2% and 32.3% respectively in 2021), it is interesting to note that the trend away from full-time employment to part-time appears to be happening faster at a Victorian level compared to Gannawarra. Over the past 10-years Victoria's employed full-time rate has decreased by 3% and the employed part-time rate has increased by 2.7%.

Delving a little deeper into the hours worked data, over 18% of people in Gannawarra work 49 hours or more each week. This is significantly higher than the state average, where just over 11% of people indicated that they work similar hours. This may relate to the high percentage of small / family businesses and sole traders, particularly in the agriculture sector who work the hours that are needed, rather than being employed to work a set number of hours.

Unemployment Rate

Gannawarra’s unemployment rate has been consistently lower than the Victorian average, although the gap has narrowed as we reach what is essentially full employment. The September 2022 quarter unemployment rate for Gannawarra was 3.2%, which is 0.2% lower than Victoria’s (3.4%). For comparison, in 2016 the rate was 4.7% compared to 6.6% for Victoria, and in 2011 it was 3.9% compared to 5.4% for Victoria.

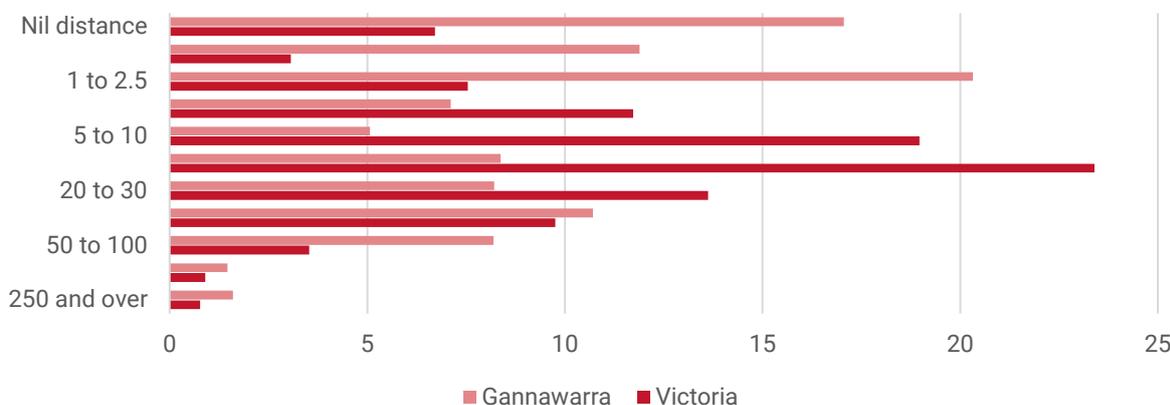
As mentioned earlier, a high participation rate and low unemployment is representative of a strong job market. In Gannawarra’s case, the participation rate is lower than the State average, as is the unemployment rate. This may mean that there is capacity within the existing population to absorb some of the new jobs that are expected, or it may mean that the population is content with their working situation and that future employment opportunities will need to be taken up by new people coming to live in the region. If it is the latter, then the demand and supply of housing becomes even more important, as people cannot move to an area if there is nowhere for them to live.

4.4 Live-Work Relationships

The relationship between where people live and where people work is an important factor in the efficient functioning of a region. While settlement patterns evolve to provide options for where people can choose to live, a major consideration is the existing and future location of employment and other population serving functions. As a town gets bigger, it usually starts to provide a greater range of employment options and services. We can see this in Kerang as it has grown, but it is not always the case. In some locations it makes sense for nearby towns to support one another rather than duplicate services. Koondrook and its twin town of Barham is a good example of this where cross-border collaboration ensures efficient delivery of services.

While the live-work relationship has been disrupted to varying degrees due to the pandemic, it is not completely broken. The ability to work remotely (away from the office) is restricted to a select number of occupations and industries. It is therefore unlikely that pre-COVID live-work patterns will fundamentally change for most of the working population. Already people have been returning to pre-COVID commuting patterns and those that are able to are hybridising work so that employees only need to commute a few days a week. As such, access to employment will continue to be a key determinant in where people live. Regardless, it is often assumed that those living in regional communities accept longer commutes when compared to those living in large cities. Figure 4-1 demonstrates that this may not actually be the case in Gannawarra. Note: Relevant 2021 Census data has not yet been released. As such, the following figure and paragraphs are based on 2016 data.

Figure 4-1: Gannawarra Distance to Work 2016 (%)



In 2016, over half of Gannawarra's workers travelled less than 2.5km from home to work. Across Victoria, only 17% of workers travelled a similar distance. The most common distance for Victorians to travel to get from home to work was in the 10-to-20-kilometre range (23%). It is only when you get beyond the 50-kilometre travel distance to work that you start to see Gannawarra workers proportions being noticeably higher than the Victorian average, however these are relatively low percentages overall.

With over 17% of people not needing to travel to get to work at all, and the high amount of hours worked, it further reinforces the notion that many jobs in Gannawarra are 'working from home' jobs, but perhaps not in the same way that we have become familiar with during the pandemic (likely to be more traditional working from home jobs in agriculture rather than desk based jobs).

4.5 Economy and Employment Summary

The Gannawarra economy has a strong focus on *Agriculture, Manufacturing and Construction*. However, the *Public Administration & Safety*, and *Health Care & Social Assistance* sectors are starting to play a bigger role in the local economy. As a regional LGA that is remote from large cities, there are strong inter-dependencies that naturally occur, meaning that other parts of the local economy benefit to a larger degree when compared to metropolitan areas. The large investments proposed in electricity transmission, generation and storage, and mineral sands mining, are likely to flow on to other parts of the local economy and lay the foundations for even more growth. Given the demographic and employment profile of the Shire, there will be a need to focus on retaining more of the younger generation in the Shire and reskilling those that want to re-enter the workforce to enable them to, while also attracting new people to the region to take-up these job opportunities.

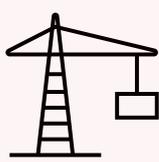
4.6 Future Employment Case Studies

To help understand the potential scale of future job numbers, the following case studies have been prepared based on information provided by the proponents. While future job numbers cannot be guaranteed, there is a high level of confidence that many will be realised. Given Gannawarra's high percentage of sole traders and small businesses, and a low unemployment rate, it may be that there is limited capacity for the existing population to take up these new roles and a significant number will have to be filled by people moving to the area. In some cases, this will be temporary during construction (which are likely to require a specialised workforce for a short period), but for others it will result in permanent ongoing jobs. From a housing perspective this will create both challenges and opportunities, as if there isn't anywhere for someone to live or stay, then roles may remain unfilled, and the local economy misses out on the benefits. This is part of the reason why an updated Urban Growth Strategy is needed, as the Shire seeks to 'get ahead of the game' to leverage the best outcomes for its community. Further detail on the case studies can be found in Appendix B.

Case Study 1 – VHM Mineral Sands

VHM Limited (VHM) is an Australian based mineral sands and rare earths mining company that seeks to develop and operate the Goschen Project, located near Lalbert northwest of Kerang. Economic impacts, as modelled by Deloitte, are expected throughout the wider Loddon-Mallee region and Victoria.

Gannawarra is expected to benefit from the development and operation of the mine directly and indirectly via local employment opportunities. Construction of the mine site is expected to occur over two years, requiring an estimated 200 direct jobs annually. Operating the mine is expected to require 270 direct jobs at full capacity. An estimated 30% of jobs for both construction and operation are assumed to be filled by local workers.



Construction over two years.

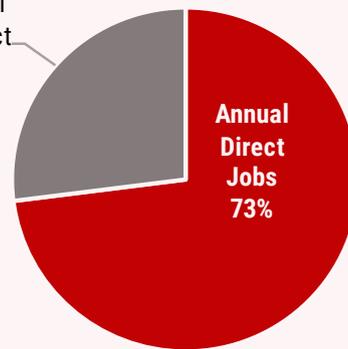
- 200 annual jobs.
- Heavy civil, buildings, and plant and equipment investment



Operation ongoing

- 270 annual jobs
- 81 being local.
- Trades and operators

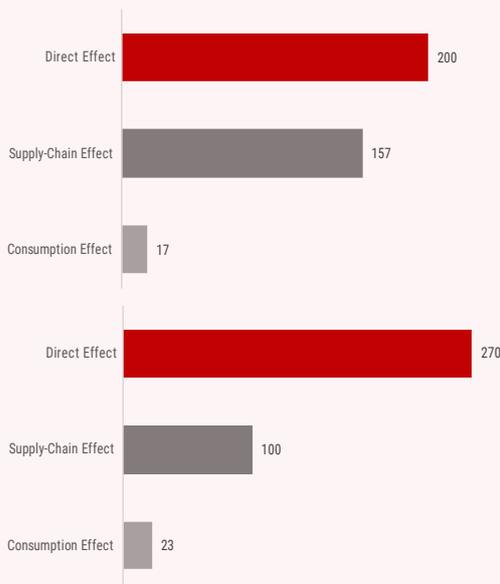
Annual Indirect Jobs 27%



Total employment impacts of both construction and operation of the mine.

Construction: 200 direct construction jobs supporting and additional 174 jobs indirectly throughout the local economy.

Operation: 270 direct mining jobs supporting an additional 123 jobs indirectly throughout the local economy.



Development of the mine primarily supports construction jobs with 200 direct and 80 indirect during construction.

Other jobs supported throughout the supply chain and via local wages and salaries spent include retail trade (27) professional, scientific & technical services (16) and manufacturing (16).

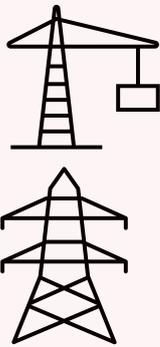
Operating the mine is likely to require 270 direct mining jobs annually. Other indirectly supporting sectors include jobs in retail (32), construction (26), and repair & maintenance services (16).

Construction of the mine will impact the local economy in the short term. Ongoing jobs during operation will continue to grow the capacity of the local economy and workforce skills.

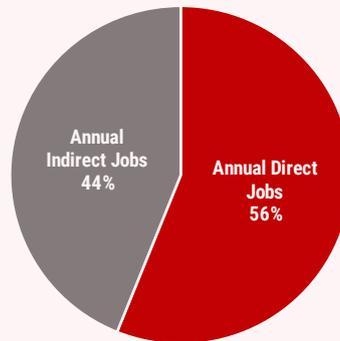
Case Study 2 - KerangLink

The Victoria to NSW Interconnector West (VNI West, or more commonly known as KerangLink) is a large-scale electricity grid investment that will connect Victoria and New South Wales. Kerang will be one of the few locations where connections to the electricity grid will be possible, which is expected to result in significant future investment in renewable energy generation and storage sector.

Gannawarra’s local economy will benefit from the construction phase directly and indirectly via local employment opportunities. Construction of the infrastructure is expected to occur over three years, requiring an estimated 800 jobs (it is assumed 267 direct jobs annually will be in Gannawarra). While no local operation jobs are expected, and all construction workers are assumed to be filled by non-local workers, the real benefits of this project will be realised following its completion.

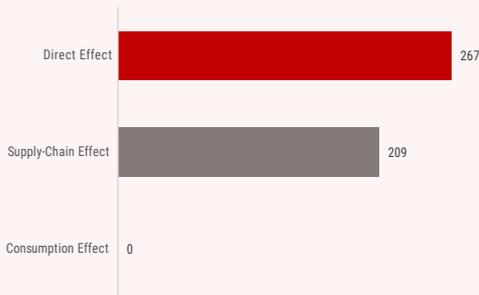


- Construction over two years.
- 267 annual jobs.
- Specialist energy infrastructure is an enabling investment.
- Enabling infrastructure for new renewable energy projects.



Total annual employment supported during the construction phase include 267 direct construction jobs and 209 jobs indirectly supported throughout the local supply chains.

This development will enable large-scale renewable energy projects to be constructed within the municipality and across north-western Victoria and supports subsequent renewable energy projects.



Development of the KerandLink will primarily support the local construction industry with 267 direct and 104 indirect (supply chain) jobs in the sector.

Other industries supported throughout the supply chain include professional, scientific & technical services (19) and manufacturing (17).

No consumption effect is measured as all construction jobs are expected to be filled by non-local workers.

Construction of the KerangLink will impact the local economy in the short term. Subsequent investment and business development that utilise the infrastructure will continue to grow the capacity of the local economy and workforce skills.

367 direct construction jobs are expected for both the VHM mine and KerangLink in year 2.

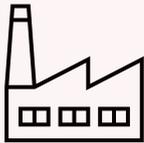
Case Study 3 – Small Business Expansion

Many local businesses have indicated that are likely to expand in the coming years, and new businesses have indicated their intent to establish in Gannawarra. These range across sectors including Agriculture, forestry & fishing, Manufacturing, Construction, and Accommodation & food services.

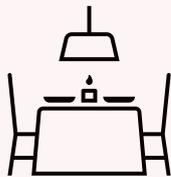
Jobs estimates include: 85 jobs in Agriculture, forestry & fishing, 50 jobs in Manufacturing, 10 jobs in Accommodation & food services, and 50 jobs in Construction. All jobs are considered ongoing and local, requiring full participation from the supply chain and benefit from consumption activity.



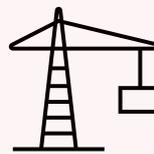
Seven Agriculture, forestry & fishing businesses = 85 annual ongoing direct jobs.



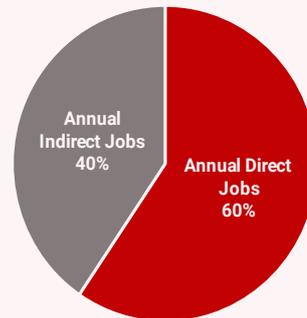
A manufacturing business = 50 annual ongoing direct jobs.



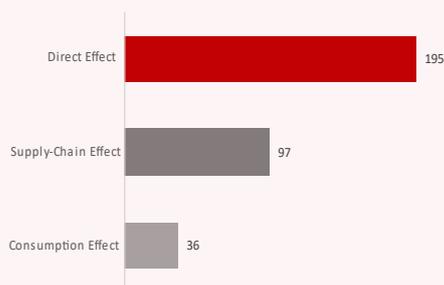
An accommodation & food services business = 10 annual ongoing direct jobs.



Two construction businesses = 50 ongoing annual direct jobs.



Total employment supported by the ongoing operation of the new small businesses include 195 direct and 133 indirect jobs.



85 direct jobs in agriculture will be supported by the new agri-businesses, along with an additional 15 jobs in the sector indirectly.

Jobs supported indirectly in other industries include construction (25), retail trade (18) followed by manufacturing and professional, scientific & technical services.

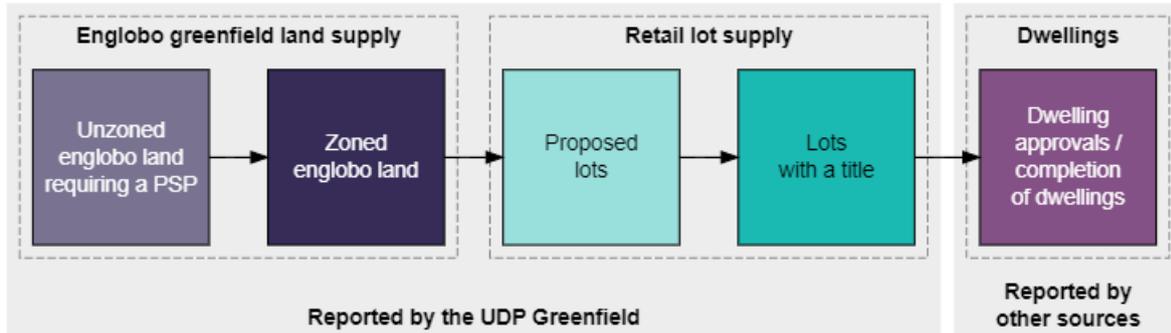
Establishment and ongoing success of new businesses such as those identified will have an ongoing impact to the local economy, deepening the capacity of local supply chains and improving job and export opportunities for the Shire.

5 Land Supply – Residential and Industrial

5.1 Residential Land Supply

An audit of vacant land in the four planning areas has been undertaken to identify the amount of existing and potential residential lots available. The process used aligns with the Victorian governments Urban Development Pipeline process, where land is identified, lots estimated and dwelling approvals monitored over time.

Figure 5-1: DELWP Urban Development Pipeline



A brief explanation of the key components of the Urban Development Pipeline includes:

Unzoned englobo land (englobo means large lots with subdivision potential): This is land that has been identified for future residential development by council through the Planning Policy Framework or through an adopted housing or settlement strategy. It is land that is expected to go through a precinct structure planning process before being rezoned and ultimately, subdivided and developed with housing. In Gannawarra, this is the land that has previously been identified for future residential development in the Shire’s Structure Plans (Clause 11.01 of the Gannawarra Planning Scheme), and it may also include land identified through this project (noting that the status of such land is still subject to the rigours of a detailed planning assessments and amendment processes). As mentioned earlier in this report, it is likely that the comparatively small scale of development and lower level of planning complexity for future residential land in Gannawarra may be more appropriate to use the ‘Development Plan’ process rather than the more complex ‘Precinct Structure Plan’ process.

Zoned englobo land: This is land that is zoned for residential use and is available for subdivision into retail lots. In Gannawarra, this land is primarily in the General Residential Zone, with some in the Mixed Use Zone. It includes several larger remnant parcels of vacant land either within or adjacent to existing residential development. It may also include land set aside for future stages of subdivisions. In larger settlements, this is limited to lots that are larger than one hectare. In the Gannawarra context, a vacant lot that is noticeably larger than the surrounding lots and is highly likely to be further subdivided has also been included.

Retail lots (proposed lots and lots with a title): Proposed lots are shown in the Vicmap Property dataset, but some changes may occur prior to titles being issued. Lots with a title are simple, in that they are the lots that have been registered and are ready to be sold and built on. While some may have further limited subdivision potential, it is assumed that they won’t be, as it is difficult to know the motivations of every property owner.

This project provides an estimate of lots based on the following assumptions. For unzoned and zoned englobo land, lot yields are based on a simple ‘10 dwellings per hectare’ calculation and for lots with a

title it is based on the number of vacant lots observed. As 'proposed lots' are small in number these have been incorporated into the 'Retail lots' column rather than as a stand-alone figure.

While it is accepted that the 10 dwellings per hectare calculation may result in a slight under-estimate of lots that might be created in the future, it is based on the distinct preference for single detached dwellings on larger lots in regional Victoria and in the planning areas for this project. When road reserves and open space requirements (often interfaces with creek or rivers) are factored into subdivision design, it results in lots being delivered that are around 700-800sqm in size. The lot yield that is ultimately delivered will of course be subject to future council planning approval, and in some circumstances, such as close to town centres, the lot yield should be higher.

Within the four planning areas, it is estimated that there is potential for up to 2,028 residential lots that could *hypothetically* be created. This includes around 1,172 lots on unzoned Future Urban land, 621 lots on zoned Large Infill land, and 235 lots with a title. Table 5-1 below provides further detail on the location across the four planning areas. It should be noted that the unzoned numbers for Cohuna include a large parcel of land that is not in the 2006 Cohuna Structure Plan, but given its attributes is recommended to be investigated as a future urban expansion area.

Table 5-1: Residential Lot Supply

	Unzoned Greenfield	Zoned Infill	Retail Lots (with Title)	Total
Kerang	633	318	90	1,041
Cohuna	539	230	53	822
Koondrook	-	73	67	140
Kerang Lakes	-	-	25	25
Total	1,172	621	235	2,028

The high number of potential lots listed above indicates that there should not be any constraints when it comes to residential land supply. However, not all lots will be developed during the life of this strategy. There are a range of reasons why land will not come to market, including landowner intentions / motivations, development costs / access to services, lack of awareness around planning and development requirements. In a regional location where there isn't the presence of large-scale land developers, many landowners underestimate the complexity and cost of subdividing and developing land. Much of the land that could be developed will likely need to change ownership before it will be developed. Land that is in the ownership of developers, or those with development experience (or access to it), has a much higher chance of being successfully developed and delivering a residential product that exceeds basic planning requirements and standards. We have seen this recently in Cohuna with the Murray Sound development. For these reasons, if there is land that is of a scale that it can be designed, staged and developed by professional land developers, then it is assumed that it will have a greater chance of actually being delivered than some other sites that are owned by non-developers.

For the reasons mentioned above, identifying a simple "years supply" figure is not sophisticated enough and would estimate that there is much more land available than is likely to be the case. This Strategy therefore relies more on the actual need, demonstrated through forecasts and sound planning practices to identify the land that is needed and should be the focus of future planning work.

5.2 Industrial Land Supply

Ensuring there is an adequate supply of zoned and serviced industrial land is important to ensure that opportunities can be accommodated to expand existing businesses, and for new businesses to establish or to be attracted to the Shire. While it is important to balance demand with supply, in the case of industrial land, a slight oversupply is beneficial as it does allow opportunities to be leveraged when they arise, which often is with little notice. A slight oversupply of vacant land also assists in keeping prices in check, which once again is very important for facilitating industrial / commercial development and encouraging business development and expansion. However, having too much zoned industrial land available may impact on the ability for it to be converted into developed land (as it is not financially viable to develop). The Shire understands this issue well and has been proactive to ensure that quality industrial estates are delivered – Tate Drive in Kerang and Gibbins Drive in Cohuna are excellent examples. It is likely that this approach will need to continue, to a degree, until such time as the private sector is able to make similar projects economically viable.

Across the planning areas most of the industrial land is located in Kerang and Cohuna. Both towns have around 40ha of industrial land currently occupied. Kerang has numerous pockets of industrial land, however, has a strong focus in the south centred on Tate Drive. Cohuna has three main industrial areas located in its south, west and north of the town. Koondrook has a small industrial estate in its south and a larger one in its north. Kerang Lakes does not have any industrial land, however some industrial activities may be legitimately taking place in conjunction with and/or on agricultural land.

The following table provides a snapshot in time of how much zoned industrial land each planning area has, how much of it is occupied, how much is vacant, and how many lots might be created based on a 3,000sqm average lot size. These figures provide a starting point for considering the need for future industrial land. Across the planning areas, the industrial precincts each have their own character and focus, and while a 3,000sqm lot is large enough for many businesses, lot sizes will vary depending on the needs of businesses. For very large businesses looking to relocate or expand, there is the opportunity to co-design future industrial subdivisions to ensure they can secure a site that meets their needs. For recently created industrial estates, such as the latest stage of Tate Drive, there is also the potential to consolidate adjoining parcels.

Table 5-2: Industrial Land Supply

Industrial Land Supply	Total	Occupied	Vacant zoned		Potential lots
	zoned (ha)	zoned (ha)	(ha)	(%)	(at 0.3ha)*
Kerang	57.8	41.6	16.2	28	54**
Cohuna	70.8	39.0	31.8	45	106*
Koondrook	16.4	8.3	8.1	49	27
Total	145	88.9	56.1	39	187

* This is the maximum number of potential lots

** This includes the latest stage of Tate Drive, which is seeing strong take-up

The demand for industrial land is not as linear as it can be for residential land. There are a range of macroeconomic factors influencing business investment and trading conditions. This can make it difficult to know if recent activity is likely to continue at the same pace, or slower or faster. This is no doubt part of the reason the Shire has taken an active role in the planning and development of several industrial precincts. It knew there was latent demand, but there wasn't enough for the private sector to step in and meet it. Gannawarra's Economic Development team work closely with their business community and have a good understanding of current and likely demand. The industrial estates that

they are facilitating are well designed, flexible and can be easily staged. With the large investments being made in supporting infrastructure in the region, particularly around electricity generation and transmission, the decision to release the next stages of Tate Drive and Gibbins Drive should enable more business expansion and relocation. Once again, it is not overly useful to determine a “years supply” figure for industrial land in a regional context, therefore the figures below refer more to the scale of zoned land and how much of it is occupied and how much is vacant. The figures indicate that there is a need to start planning the next phase of industrial development in Kerang due to the diminishing amount of zoned land available.

Figure 5-2: Vacant Industrial Land in Koondrook (Briar Street)



Figure 5-3: Partly developed industrial estate in Cohuna (Weinberg Street)



6 Population and Dwelling Forecasts

6.1 Population Forecasts

Population forecasts completed as part of this project indicate that Gannawarra will continue its recent growth, albeit at a slow and steady pace over the next two decades. The 'Base Case' scenario indicates that Gannawarra's 2021 population of 10,612 is forecast to grow to a total of 10,929 people in 2046 (an increase of 317 people). The 'Growth Scenario' indicates that the population could increase by 782 people to reach 11,394 people by 2046.

Figure 6-1 and Figure 6-2 show the Base Case forecast population and forecast annual growth rates. Figure 6-1 includes the previous VIF 2019 estimates through until 2036. There is quite a divergence between the VIF 2019 estimates and the new forecasts. Given the growth that occurred since the 2016 Census, on which VIF 2019 is based, and the comprehensive bottom-up methodology used for the current forecasts, there is a high degree of confidence that this new set of population estimates can be relied on, particularly in the short to medium term. All forecasts become less reliable the longer the planning horizon.

Figure 6-1: Gannawarra Population Forecast – Base Case (Growth Scenario shown with dotted line)



Figure 6-2: Gannawarra Population Annual Growth Rate (%) – Base Case



The most notable point to be made is the relatively slow and steady growth trajectory that Gannawarra is now on. The declines of the early part of the 21st century have reversed and the population is slowly increasing. Growth rates are expected to be slightly higher during the middle years of the 2020s, which is due to expected demand, particularly in Cohuna and Koondrook.

While these forecasts are mindful of the large-scale investments that are planned for Gannawarra in the coming years, they have taken a conservative approach and assumed that most of the construction workers associated with them will be transient and not result in permanent residents (which has been the case with similar sized projects in other parts of Australia). The forecasts are also aware of the potential new and expanding business ventures that are likely to be established in Gannawarra in the coming years, but once again they have been careful not to overstate the impacts of those on population numbers. It is assumed that some of the jobs will be filled by the existing population, while others will be offset by the loss of existing jobs and people moving from the area.

In this respect, the forecasts provided are a robust Base Case scenario. Should all of the proposed investments and expected jobs be realised in the future, then the population growth rate is expected to increase slightly and bring forward the need for additional housing and services. This is the Growth scenario and provides the top of the range forecasts for the LGA and planning areas.

Figure 6-3 and Figure 6-4 below show data from 2001 right through until the forecast horizon of 2046. Looking at Figure 6-3 you can get a sense of how the population is forecast to continue to age, shown by the green 'wave' moving left to right across the graph and ending up above the grey lines in the final right hand third of the graph. There is growth in the 65+ age cohorts and a decline in the 24 and under age groups. However, there are positive signs in that the decline in the under-25s is clearly slowing and there are some small increases in the Young Workers (25-34) and Workers (35-49) age groups. These working age cohorts are important as they are the ones that are starting to form families and have (or already have) children, that will be important to sustain local schools and community activities.

Figure 6-3: Gannawarra Population by Age – Base Case

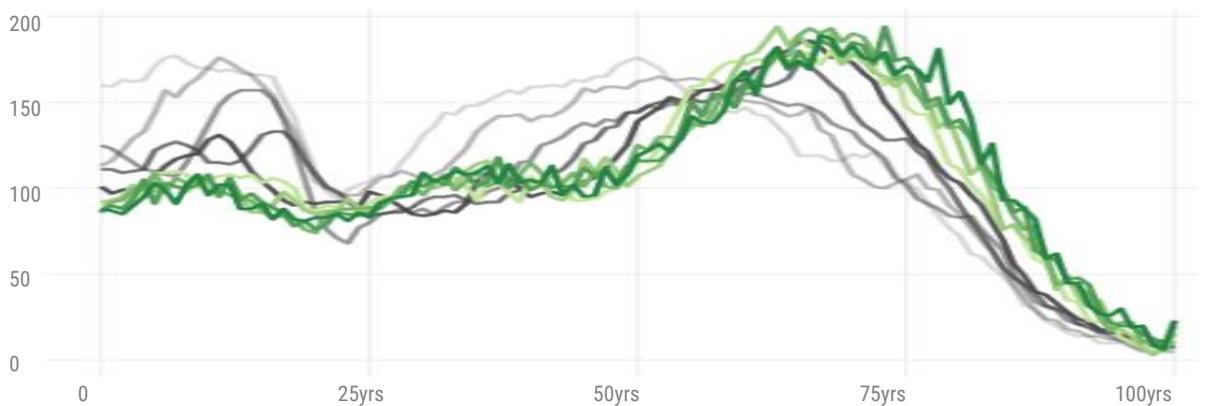
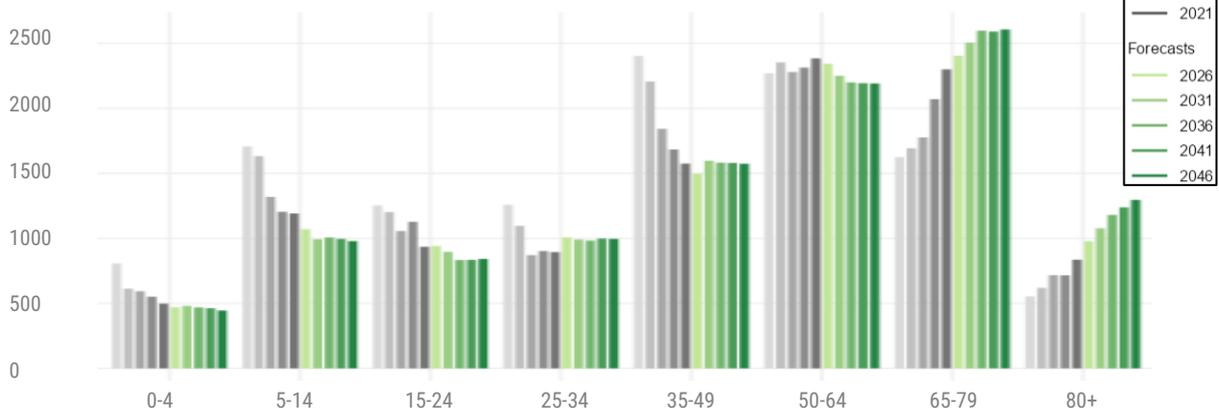


Figure 6-4: Gannawarra Population by Age Group – Base Case



While the overall growth trajectory is positive, the growth will not be spread equally across the Shire. Most of the growth is forecast to occur in Cohuna (+271 people), Koondrook (+113 people) and Kerang (+93 people). The Kerang Lakes area is expected to remain relatively steady (-9 people), and the remaining parts of the Shire will decrease by 151 people.

Table 6-1: Gannawarra Population Change 2021 – 2046

Population Change 2021-2046	2021	2046 Base Case	2046 Growth	2021-46 Change (no)	2021-46 Change (%)
Gannawarra	10,612	10,929	11,394	+317 – 782	+3.0 – 7.4%
- Kerang	3,757	3,850	4,009	+93 – 252	+2.5 – 6.7%
- Cohuna	2,139	2,410	2,746	+271 – 607	+12.7 – 28.4%
- Koondrook	927	1,040	1,027	+100 – 113	+10.8 – 12.2%
- Kerang Lakes	358	349	354	-4 – -9	-1.1 – 2.5%
- GSC Balance	3,431	3,280	3,258	-151 – -173	-4.4 – 5.0%

Further detail on the forecasts and the forecast methodology can be found in Appendix A.

6.2 Dwelling Forecasts

Dwelling numbers are forecast to increase by roughly the same number as the population (315 compared to 317). However, as there are twice as many people as dwellings, the growth rate for dwellings will be much higher than that of the population. Dwelling numbers are forecast to increase from 5,385 in 2021 to 5,700 in 2046 (an increase of 315).

A major contributor to the dwelling growth rate is the forecast drop in household size. This is expected to drop from 2.21 people per dwelling in 2021 to 2.15 people per dwelling in 2046. While the drop itself is quite small, when factored across the entire population, it contributes to the increased dwelling growth rate (compared to the population growth rate). Even in those areas where population growth is forecast to be steady, or even decline, more dwellings will still be needed to meet the demand for housing.

Coinciding with the similar graph for population growth, the following graph indicates that there will be a bump in dwelling numbers during the second half of this decade. As mentioned earlier, this is due to recent land development activity and expected new developments that are likely to come online.

Figure 6-5: Gannawarra Annual Dwelling Change 2021/22 – 2045/46 – Base Case

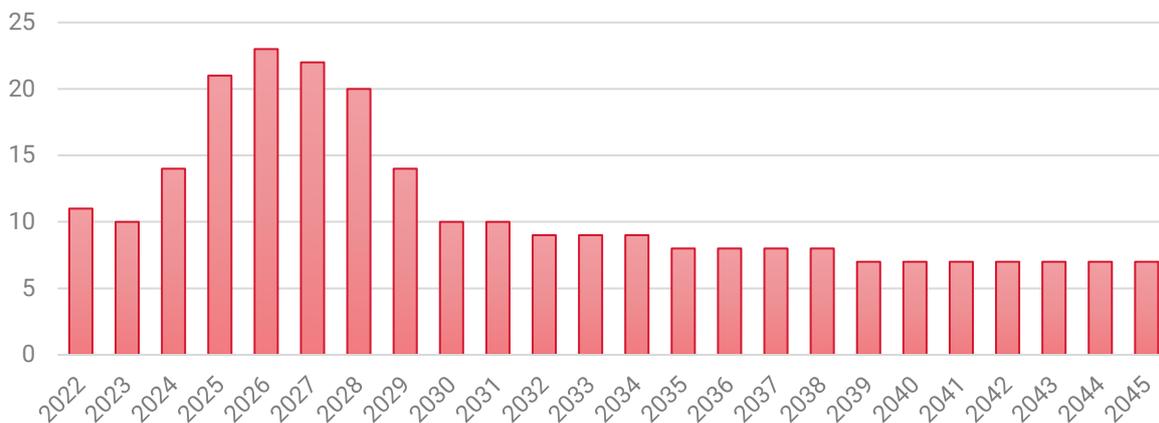


Table details the forecast change in dwelling numbers across Gannawarra's planning areas. As you can see, growth is expected to be strongest in Cohuna, Kerang and Koondrook.

Table 6-2: Gannawarra Dwelling Change 2021 - 2046

Dwelling Change 2021 - 2046	2021	2046 Base	2046 Growth	2021-46 Change (no)	2021-46 Change (%)
Gannawarra	5,387	5,702	5,938	+315 – 551	+5.8 – 10.2%
- Kerang	1,910	1,985	2,074	+75 – 164	+3.9 – 8.6%
- Cohuna	1,124	1,276	1,434	+152 – 310	+13.5 – 27.6%
- Koondrook	473	539	539	+66	+14.0%
- Kerang Lakes	173	183	177	+4 – 11	+2.3 – 5.8%
- GSC Balance	1,707	1,719	1,714	+7 – 12	+0.4 – 0.7%

6.3 Population and Dwelling Forecast Summary

In summary, Gannawarra is forecast to grow by between 317 and 782 people, and 315 and 551 dwellings between 2021 and 2046. The Base Case scenario provides the lower end of the range and is a solid foundation on which to plan, however there may be a need to bring forward some strategic planning projects (for new residential areas) due to the large number of significant infrastructure investments and major projects are delivered and are translating into a faster growth rate than envisaged (the upper limits of the range, and referred to as the Growth scenario).

Forecast growth is also not likely to be spread evenly across the Shire, with the majority expected to occur in Cohuna, Kerang and Koondrook. Dwelling growth is expected to be faster than population growth, and even in areas where the population is forecast to decline, new dwellings will still be needed to house the population as household size continues to decline.

With an aging population, it may be that some additional planning needs to take place to ensure people can 'age in place' or have access to a range of housing suited to older people.

Construction and Seasonal Worker Accommodation

While not being counted in forecast population and dwelling numbers, the challenge of finding accommodation for seasonal and temporary workers in the Shire is significant. There is already a shortage of rental accommodation, and with the construction of KerangLink expected to commence in the coming years, combined with the construction workers needed to establish the proposed mineral sands mine, there will come a time when the demand for worker accommodation is expected to be strong enough to support a temporary housing solution such as the one that has recently been completed in the Huon Valley and Devonport in Tasmania (primarily to service backpackers and seasonal workers).

There may be an opportunity to consider locations such as the Kerang Lakes, where this type of accommodation could service the short-term need, and have the added advantage of becoming holiday accommodation in the future, tapping into the recreational activities of the nearby lakes. From a planning perspective there would still be many approvals to obtain, but it is recommended to investigate this style of accommodation, rather than a more conventional residential product which brings with it much more complicated infrastructure and servicing needs. Alternative sites near Kerang could also be considered.

Image: Example of backpacker and seasonal worker accommodation in Huonville, Tasmania



(Further information: <https://huonflashpackers.com.au/>)

Image: Example of seasonal worker accommodation in East Devonport, Tasmania



7 Managing Future Growth

Building on the work of the last couple of decades, the approach to accommodating and facilitating future residential and employment growth will continue to be focused on the existing townships of Kerang, Cohuna and Koondrook. The Kerang Lakes area will accommodate some additional growth, but it will be relatively minor compared to the amount of growth expected in Gannawarra's three main towns. How future growth is recommended to be accommodated is provided below, with annotated maps for each of the four planning areas included in sections 7.1 Kerang, 7.2 Cohuna, 7.3 Koondrook and 7.4 Kerang Lakes.

Future **residential growth** will be made up of a combination of infill development and greenfield development (Urban Expansion and Incremental Growth). **Infill development** will focus on getting existing residentially zoned large vacant lots subdivided and new lots onto the market. Coordination between adjacent property owners of large vacant lots will be important to ensure optimal development outcomes are realised. This will not only benefit those undertaking the development, but it will also ensure that new development is well-planned and integrated into the existing urban form. To assist, it is recommended that the relevant Development Plan Overlays in the GPS be reviewed to ensure that they include relevant objectives, conditions and requirements. This way, the planning system can be used to guide future development in a way that informs landowners and developers on the type of development that the Shire and community want to see happen in particular areas.

Figure 7-1: Settlers Key, Kerang – an example of a larger scale new subdivision



Infill development will also play an important role in getting some smaller lots and homes onto the market. With an ageing population and a growing number of homes having only one and two people living in them, there is likely to be a market for well-designed smaller, low maintenance homes that are close to town centres and services. While some developments will be strata-titled (with common property and shared space / facilities), there is also the opportunity to make use of corner sites and properties with wide frontages or rear laneways to create additional lots without strata-titles. In town centres there is the opportunity for some shop-top apartments or 'live-work' developments, where a business might occupy the street level / shopfront of a property and a dwelling is located above it or behind it. Some rear-loaded townhouses could also be possible, where car parking is accessed from a rear laneway or accessway. The location of these should be carefully considered so as to not take away viable commercial floorspace, however in most cases the property market will be able to

accurately determine the highest and best use of a site based on its likely financial returns. The key is getting additional population close to town centres and offering a housing typology that is not currently available in the housing market. Having additional people living close to town centres is a proven way to help activate and support existing and future businesses with increased local trade.

Figure 7-2: Laneways provide opportunities to develop the rear of existing large lots



Figure 7-3: Channel Street, Cohuna – a potential infill site with laneway access



Figure 7-4: East Street, Kerang – a potential infill site with dual street access



Figure 7-5: Forest Street, Koondrook – example of a new build in an existing residential area



Another option for increasing the number of smaller homes without subdividing or impacting on the character of a street is through construction of secondary dwellings. In Victoria this type of housing is currently classified as a Dependent Person's Unit, and commonly referred to as Granny Flats. Currently, buildings must be moveable and can only be occupied by a person who is dependent on a resident of the existing dwelling. In an acknowledgment of the potential of secondary dwellings, the Victorian government recently piloted a 'Secondary dwelling code' in four municipalities using the simplified VicSmart assessment pathway. Applications had to meet certain criteria to qualify, such as a height of less than 5m, a maximum floor area of 60sqm, meeting the minimum garden area, siting and design requirements. But perhaps more importantly, the requirements for a building to be moveable and occupied by a dependent was not included. A simple and quick approvals process with less restrictions has proven to be the key to success in other locations. While the pilot program is still under review, it could be expected that a version of the Secondary dwelling code will be progressed in Victoria at some stage. For regional towns that are serviced and where existing residential lots are large, adding a secondary dwelling could be an easy way to add small, affordable housing into the

mix. This style of housing could also assist in addressing the seasonal worker housing shortage that many regional towns face. With the advances in prefabrication and modular construction, the design quality and environmental performance of this type of housing has improved significantly. New forms of secondary housing are a far cry from the granny flats that many people might be familiar with, and importantly, they do not impact on established streetscape character (where this is important to retain).

Greenfield development (Urban Expansion and Incremental Growth Areas) in Gannawarra will be limited to a handful of locations and will be required to go through rigorous planning assessments and rezoning processes before the final boundaries of new urban expansion areas are determined. At this high-level strategic stage, the locations are based on where the demand for housing is strongest, where it is free from significant environmental and planning constraints, where it can be easily serviced, and where it can best integrate with existing town layouts.

In **Kerang** this will be in the area identified in the 2006 Kerang Structure Plan in the southwest corner of the town, nestled between the Loddon River (east of the levy) and the Murray Valley Highway, and opposite existing residential land north of Airport Road. See Section 7.1 for a map showing Kerang's Urban Expansion Area.

Figure 7-6: Potential growth area in Kerang's south-west (between Collins Roads and the Loddon River)



In **Cohuna**, there are two greenfield Urban Expansion Areas proposed. One is to the north and the other is to the south of Gunbower Creek. Both are adjacent to existing residential development. The site to the north was previously identified as a fully serviced residential expansion area in the 2006 Cohuna Structure Plan. The site to the south is a new site that is located east of Barr Creek, adjacent to the Murray Sound development. There are excellent opportunities for this site to be connected to the Cohuna Town Centre with walking and cycling paths along the Gunbower Creek (it is only 700m from the middle of Cohuna). See Section 7.2 for a map of Cohuna's Urban Expansion Areas.

Figure 7-7: Recommended Urban Expansion Area for Cohuna (north of Gunbower Creek)**Figure 7-8: Recommended Urban Expansion Area for Cohuna (south of Gunbower Creek)**

In **Koondrook**, the recommended greenfield option (Incremental Growth Area) is on the southwest corner of Grigg Road and Koondrook West Road, with longer term opportunities present west of the cricket ground . The Grigg / Koondrook West Road site has previously been identified in the 2006 Koondrook Structure Plan as a future residential growth opportunity. The site has potential to be incrementally developed, starting with a 2–3-hectare parcel. In addition, there are opportunities to consider rezoning some parcels of Low Density Residential Zone land, and potentially some Industrial 3 Zone land north and south of the Koondrook Recreation Reserve to the General Residential Zone. These should be tested through the Structure Plan review process. Section 7.3 shows Koondrook’s Incremental Growth area.

It is recommended that Residential development at **Lake Charm** and **Kangaroo Lake** take a staged approach to strategically combat environmental overlays. It is considered important to ensure that the surrounding highly productive agricultural activities are protected and that growth be planned to ensure efficient service delivery. However, there may be the opportunity to expand holiday accommodation and potentially develop worker accommodation. There is likely to be strong demand for worker accommodation over the next decade, and there has long been a challenge in meeting

seasonal worker accommodation needs. One of the main challenges relates to cost. It is therefore worth investigating the potential of modular or prefabricated housing that can be easily built off-site and transported to site. Servicing needs to be done at a development scale, but can be coordinated to service the development in one go, rather than incremental connections as is done for a standard residential development. See Section 7.4 for a map of the Kerang Lakes.

Future **industrial growth** is recommended to be a combination of infill in existing industrial precincts, consolidation / reconfiguration of one industrial precinct and several precinct expansions.

Tate Drive in **Kerang** is a very successful industrial precinct (zoned IN1Z) that is very well located, has good buffers resulting from compatible surrounding land uses (apart from to its north), and has room for expansion to its east, and longer term potentially to its south (for a mix of employment generating and supporting activities, not necessarily industrial). Tate Drive primarily provides lots in the 3,000 to 5,000sqm size range, with opportunities to consolidate adjacent lots if required. These lot sizes cater to the bulk of industrial enterprises, with perhaps the exception of the smallest and largest of industrial businesses. To the north there is a small section of low-density residential development, separated from Tate Drive by a landscaped buffer. This may restrict some uses and activities (with potential adverse impacts) from establishing in the northern section of Tate Drive, however this is not likely to be a major constraint given the types of industrial uses that have already been developed.

Kerang also has several small industrial pockets including Murphy Street (west of the Murray Valley Highway), along the Kerang – Koondrook Road (south of the racecourse), along parts of the rail corridor (Park Road), between Wills and King Streets, and several sites along Ninth Street. Some of these smaller pockets of industrial zoned land are the result of historic land uses and are not strategically located. A detailed review of these smaller sites should be done as part of an updated structure plan process for Kerang, noting the high likelihood of contamination from former uses.

Future industrial land in Kerang is recommended to focus on an expansion of the Tate Drive industrial park, ideally to its east, and longer term to its south (for a mix of employment generating / supporting activities, not necessarily industrial). This land is currently zoned and used for agricultural purposes. Converting viable agricultural land to another land use needs to be carefully considered and done in collaboration with willing landowners. Another option for some light industrial land may be along the northern edge of the Kerang Airport site. Ideally this would be aviation related and could be combined with hangar space to support general aviation activities.

Figure 7-9: Tate Drive, Kerang – an excellent example of local government facilitated development



Gibbons Drive in **Cohuna** is another successful investment that the Shire has made to facilitate economic and industrial development in the region. This 20ha industrial estate is not as advanced as Tate Drive, however it has provided a slightly more diverse range of lot sizes, with one close to 2ha. Gibbons Drive is one part of Cohuna's southern industrial precinct, with another 13ha of partially developed industrial land immediately to its north situated between the Murray Valley Highway and Hester Avenue. Barr Creek provides a natural buffer along the northwest edge of the industrial precinct, where land use changes to residential and education. While not considered necessary at present, should a very large industrial site be needed in the future, it may be worth exploring an expansion on land south of Bradys Road and west of Keelys Roads. Once again, this is currently viable agricultural land and care needs to be taken when considering changing land use controls. Collaboration and cooperation with landowners is essential. Other options are always available. As mentioned above, this is not needed at present and discussions may only be required should a very large site be necessary in the future.

Flanking the western edge of Cohuna's urban area is a large strip of industrial zoned land. While it is contiguous, it almost operates as three discrete industrial precincts. The northern most sub-precinct is centred on Weinberg Street, and it contains a variety of smaller lots. It is well established, with only limited growth potential. The central precinct is made up of two very large parcels and is home to the Cohuna Saleyards and an equestrian centre. The southern sub-precinct is along the Cohuna – Leitchville Rd and it has several larger businesses (with an irrigation focus) and several smaller sheds (that are actually still relatively large). There is capacity for further subdivision and new development.

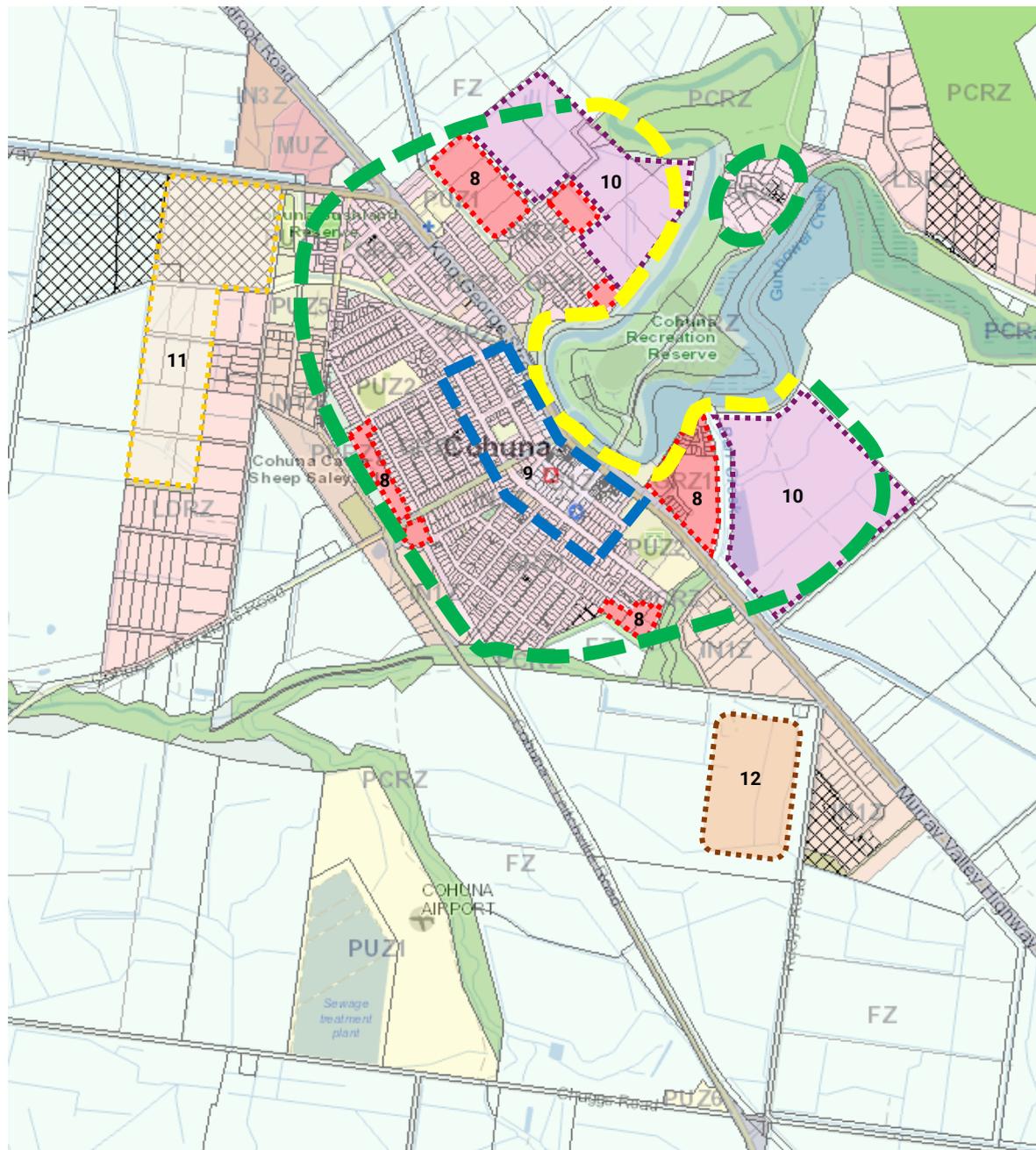
On the northern edge of Cohuna is a recently created industrial / mixed use precinct. Construction of the roads and lots has not yet commenced. This precinct will provide another 15ha of serviced industrial and mixed use land.

Koondrook has two industrial precincts. The larger of the two precincts is located in the northern part of the town, just south of the bridge crossing to Barham on the western side of the Koondrook – Murrabit Road. It is an interesting precinct which has evolved over time and includes a pocket of around 10 dwellings in the middle of it. The main businesses include an orange juice processing plant, a livestock feed store and a truck and silo yard. Much of the precinct is undeveloped and requires servicing before new lots could be created. There may be an opportunity to rationalise the size and layout of the precinct as part of the Koondrook Structure Plan review. In particular, it may be worth investigating if the parcels along the western and southern parts of the precinct might be better zoned for residential uses. All the necessary investigations will be required, but given the previous use has been for light industry, the risk of contamination might be lower compared to other industrial areas.

The southern industrial precinct is a triangular shape that is bounded by Main Street, Briar Street and Grigg Road. This precinct is zoned to allow heavy industry, however given its relatively small size and residential interface to the east, it is worth considering an Industrial 3 zoning (light industry). The Structure Plan review should also consider the need for replacement industrial or highway frontage commercial land directly opposite this precinct on land currently zoned PPRZ.

On the following pages, specific sites that are of particular interest have been identified and annotated. These will need further detailed investigations completed to fully justify a change to the current planning controls, which is beyond the scope of this project, however they clearly are of strategic interest to the Shire for their potential to accommodate future residential and industry growth.

7.2 Cohuna Future Growth Directions



Strategic Directions

8. Facilitate coordinated subdivision and residential development on infill sites identified with the DPO1 (revise DPO1)
9. Consolidate commercial and 'mixed-use' development in the town centre (using current zone controls)
10. Commence planning for future Urban Expansion Areas (residential) to the north and south of Gunbower Creek, starting with a review of the Structure Plan and/ or based on detailed planning investigations completed by landowners
11. Consider expanding the Low Density Residential precinct in the west
12. Investigate interest in a long term 'very large format' industrial use

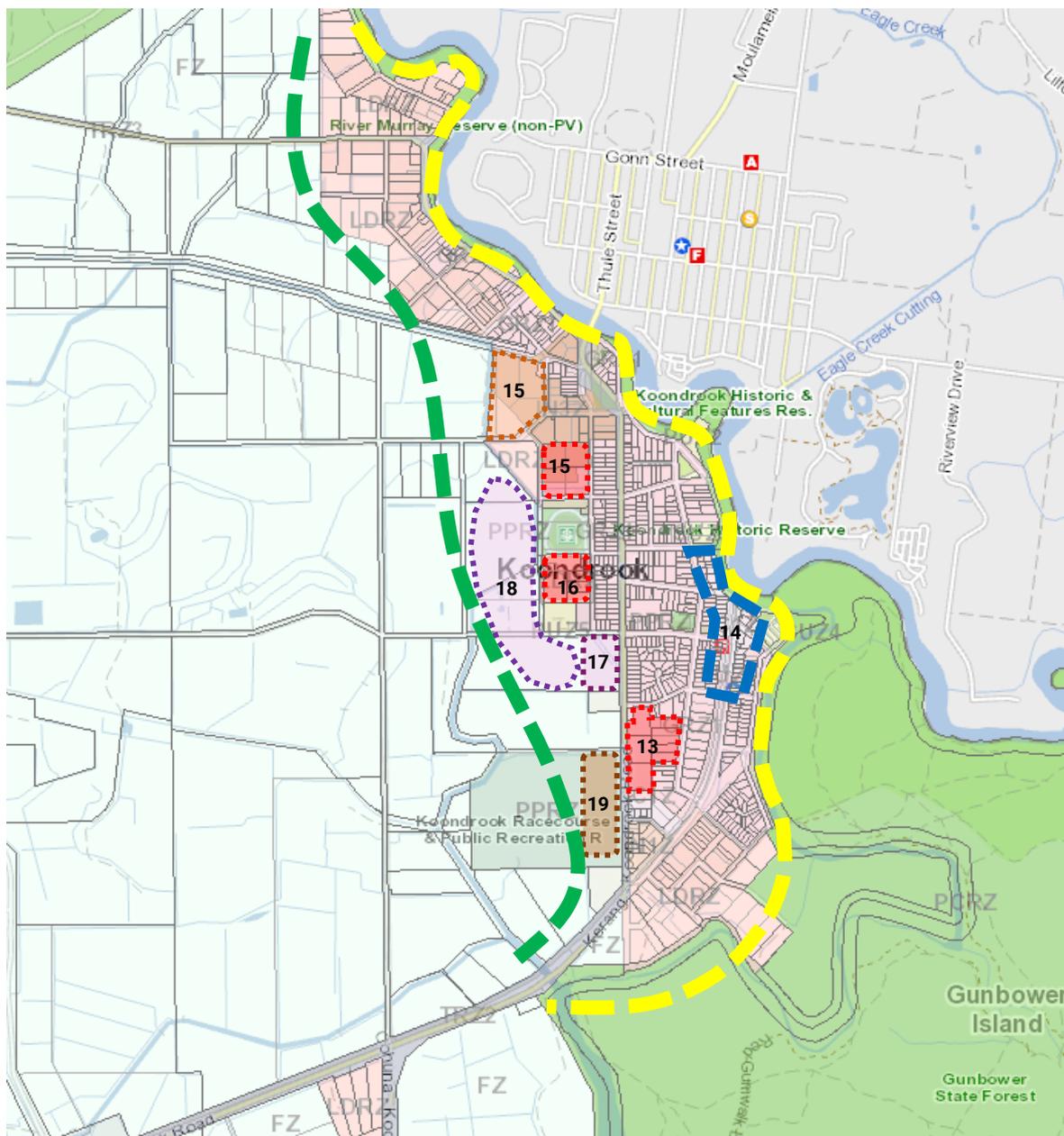
Key planning issues & overlay controls:

- Helicopter flight path / Bushfire / Potential inundation / Cultural Heritage Sensitivity
- ES04, DD02, DD03, DD04, DP01, BMO, SC01, SC02

 Extent of residential growth (General Residential)

 High amenity / sensitive interface

7.3 Koondrook Future Growth Directions



Strategic Directions

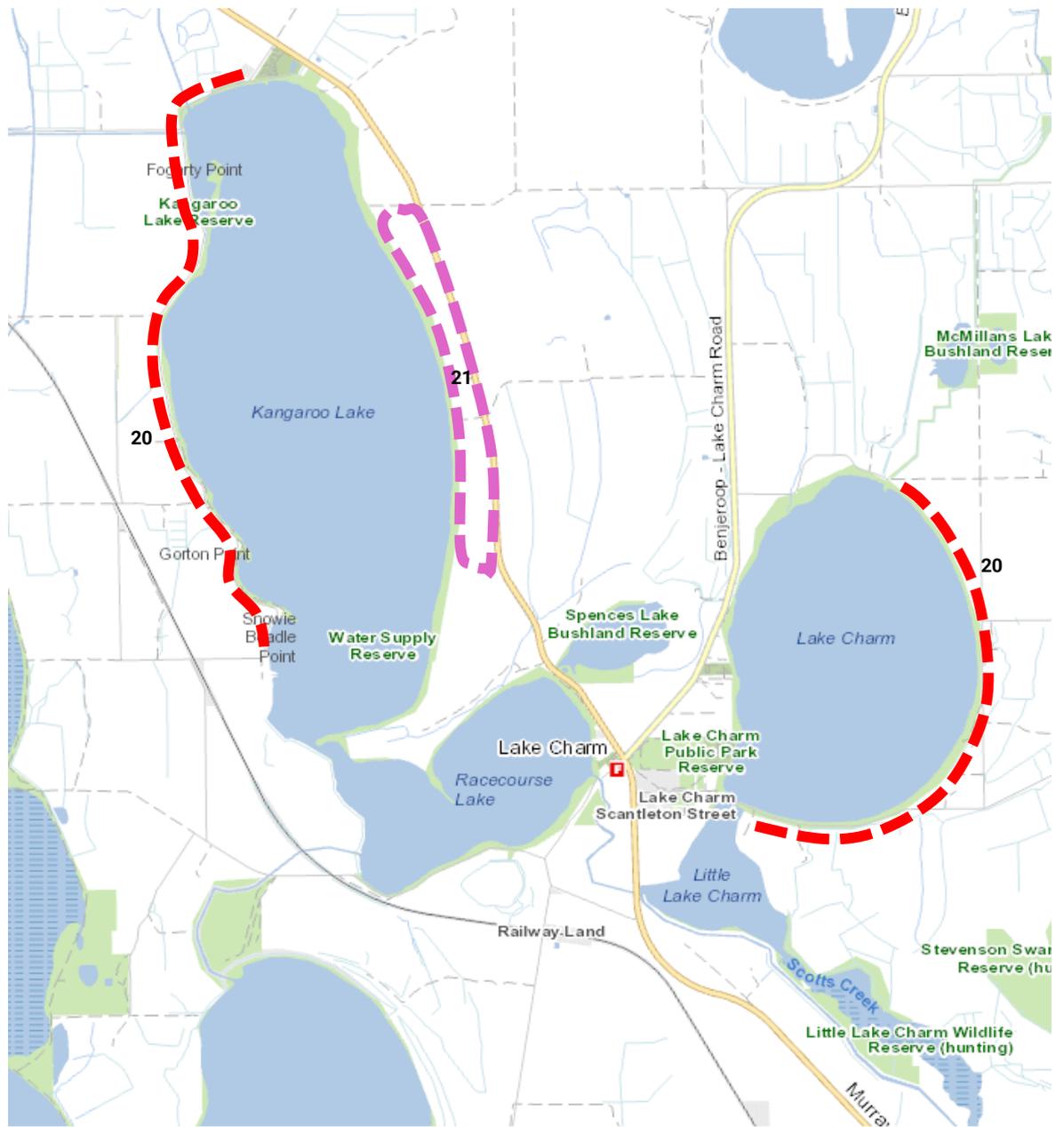
- 13. Facilitate coordinated subdivision and residential development on infill sites identified with the DP01 (revise DP01)
- 14. Consolidate commercial and 'mixed-use' development in the town centre
- 15. Investigate rationalisation of IN3Z by rezoning parcels in southern section to GRZ and a parcel in the north west to LDRZ (apply DP01 & DP02)
- 16. Facilitate additional residential land by investigating rezoning LDRZ parcels to GRZ and applying DP01
- 17. Commence planning for future Incremental Growth Area (residential) on the south west corner of Koondrook West Road and Grigg Rd (around 3ha), starting with a review of the Structure Plan
- 18. Investigate potential for future residential growth to the west of the cricket ground
- 19. Investigate potential for IN3Z / C2Z 'Highway Frontage' development opposite IN1Z precinct in south (opposite Briar St) to offset rationalised IN3Z precinct in the north

Key planning issues & overlay controls:

- Bushfire / Potential inundation / Cultural Heritage Sensitivity
- ES04, LSIO, BMO, SC02

Western extent of growth / transition to rural High amenity / sensitive interface

7.4 Kerang Lakes Future Growth Directions



Strategic Directions

20. Small scale incremental residential lot creation around lake frontage, where impacts on water quality and agricultural practices can be managed
21. Support private sector led investigations into the potential of a lakeside residential opportunities, as well as the potential for Tourist / Worker Accommodation Village (classified in the GPS as a Camping & Caravan Park) on the eastern side of Kangaroo Lake

Key planning issues & overlay controls:

- Bushfire / Potential inundation / Cultural Heritage Sensitivity / Kerang Wetlands Ramsar site
- ES03, ES04, LSI0, SC02

8 Conclusion and Recommendations

This draft Gannawarra Urban Growth Strategy 2023 seeks to implement the Shire’s clear vision and direction when it comes to supporting the growth and development of its community, its towns and settlements. The Shire’s pro-active approach to economic development has laid some solid foundations on which to leverage future investment and jobs growth, and this Strategy is one of the first steps in updating the strategic planning framework to ensure that it too is able to get ‘ahead of the game’ and plan for future residential and industrial growth, to cater for the demand that revised population and dwelling forecasts have predicted for coming decades.

This draft Strategy has found that overall, the planning for Gannawarra’s main towns of Kerang, Cohuna and Koondrook is sound, however with changing demographics (the population is getting older, and there are more smaller households), changes in the way people live and work, the experience of several floods and fires, there is now a need to review the 2006 Structure Plans that currently guide development, to ensure that they are up to the task of guiding growth well into the future. This draft Strategy makes recommendations that respond to these issues and provides direction on how the Shire’s main towns could grow into the future. These recommendations are based on proven planning principles and support the continued evolution and development of towns. In some regards, they support the approach of ‘keep doing what you are doing’, but go one step further and develop a planning policy framework that supports and guides the private sector to deliver the type of development that the Shire and community wants. Aligning the visions of the Shire and the development sector is the most efficient way to achieve the outcomes that everyone is after – places that people want to live in.

The following actions are recommended to achieve this:

Number	Recommendation
Planning policy recommendations	
1	Commencing a process to update the Structure Plan’s for Kerang, Cohuna and Koondrook as a priority (Structure Plans for Leitchville, Murrabit and Quambatook could be reviewed in the medium term).
2	Reviewing the Development Plan Overlays (DPO1 and DPO2) to ensure that they will facilitate coordinated development across multiple sites and ownerships.
3	Investigate several smaller sites recommended for rezoning (identified in Section 7 – Managing Future Growth).
4	Review the Planning Policy Framework and update (including updated Council adopted strategic plans, population and dwelling forecasts)
Non-statutory recommendations	
5	Assisting private sector led proposals that are consistent with the Gannawarra Urban Growth Strategy 2023, where the Development Plan approach has been identified.
6	Assisting private sector led investigations into further lakeside living options at Lake Charm and Kangaroo Lake. This includes both (lower density) residential development, but also the potential for holiday / worker accommodation

7	Investigating opportunities for the Tate Drive Industrial Precinct to be extended to the east.
8	Facilitating discussions between large employers (needing worker accommodation), accommodation providers / developers and larger landowners in Kerang with a view to getting additional short-term / seasonal worker accommodation delivered to support large scale investments and seasonal worker shortages.
9	Engaging with VicTrack on options for underutilised land at the Kerang Train Station site (this may require a masterplan to be prepared for the site first, to ensure future transport needs can be accommodated).

Appendix

- A Population Forecasts – Methodology and Base Case projections
- B Economic Impact Assessment of Case Studies, March 2023