

Existing Conditions Report

Strathbogie Rural Residential and Land Use Strategy

May 2024

Level 1 East, 1100-1102 Toorak Road, Camberwell Victoria 3124

rmcg.com.au — ABN 73 613 135 247 — RM Consulting Group Pty Ltd

Victoria — Tasmania — NSW

Table of Contents

Executive Summary	ii
1 Introduction	1
2 Strathbogie Shire	3
3 Strategic Context	5
4 Policy Context	10
5 Planning Scheme performance	17
6 Agriculture	27
7 Productive / strategic agricultural land.....	41
8 Tourism in the Farming Zone.....	47
9 Natural Hazards and Environmental Risks	49
10 Cultural Heritage	52
11 Environment	57
Appendix 1: Strathbogie Rural Residential Study: Existing Conditions Report.....	62

ACKNOWLEDGEMENT OF COUNTRY

We acknowledge the Taungurung people as the Traditional Owners of the Country on which this project will be conducted. We recognise their continuing connection to land, waters and culture and pay our respects to their Elders past and present, and we acknowledge emerging leaders. Moreover, we express gratitude for the knowledge and insight that Traditional Owners and other Aboriginal and Torres Strait Islander people contribute to our shared work in Australia.

We pay respects to all Aboriginal and Torres Strait Islander communities. We recognise that Australia was founded on the genocide and dispossession of First Nations people and acknowledge that sovereignty was not ceded in this country. We embrace the spirit of reconciliation, working towards self-determination, equity of outcomes, and an equal voice for Australia’s First People.

Executive Summary

Strathbogie Shire Council is preparing a Rural Residential and Rural Land Use Strategy (RRLUS). The overarching aim of the combined strategies is to safeguard rural values important to the economy and liveability of Strathbogie and provide for rural residential development in appropriate locations.

This Existing Conditions Report has been prepared to inform the development of the RRLUS. It includes analysis of policy and strategies, rural land use, rural residential development, rural industries, environmental and natural values.

OVERVIEW

Strathbogie Shire covers around 3,300 square kilometres and is located approximately 125 kilometres to the north of Melbourne CBD. It is a diverse geographical region, bordered to the east by the Strathbogie Ranges and to the west by the lakes district, which includes significant natural assets such as the Goulburn River and Lake Nagambie.

The estimated resident population of Strathbogie Shire was 11,498 in 2022 with most residents living in Euroa, Nagambie, Violet Town and Avenel. There has been modest population growth over the last five years with an increase of 971 residents since 2017¹.

Leveraging off the region's natural landscapes and locational context, the Strathbogie economy, in terms of output and employment is driven by three key sectors:

- Primary industries and trade (agriculture, manufacturing and transport)
- Population driven (property construction and real estate, retail trade, accommodation and food services).
- Knowledge and public sector (education and training, health care and social assistance, public administration and safety)

The Gross Regional Product of the Shire was an estimated \$583 million in 2021. Agriculture is the primary driver of the local economy employing nearly 1,055 people in 2021¹. The large tracts of farming land support cropping and livestock production, as well as localised areas of horticulture where water is available. Intensive agriculture includes production of chicken meat and eggs.

Economic development, a focus on sustainability, and supporting population growth are central themes of Strathbogie's Council Plan, Sustainable Strathbogie 2030 Strategy, and Economic Development Strategy. The RRLUS should align with and support these objectives including:

- Stimulating investment across the Shire and promoting efficient use of land to foster local economic growth.
- Mitigating and adapting to a changing climate through strategy development, revised mapping and urban design, community knowledge-sharing, and incentives to manage climate risk in agriculture.
- Establishing Strathbogie Shire as a desirable and high-value visitor destination that drives year-round visitation and generates economic benefits for the region.
- Aligning townships and economic development opportunities, to maximise efficient use of infrastructure and population growth potential.

PLANNING SCHEME PERFORMANCE

Development of dwellings on small rural lots was identified as a key issue for consideration in the 2023 Planning Scheme Review. Inappropriate development in rural areas can increase the potential for land use conflict between agriculture and residential use and can also reduce the ability of farms to be financially viable.

Profiling of the population and housing in Strathbogie indicates that:

- There has been a gradual increase in the Shire's population in the last 10 years, with growth rates similar to regional Victoria
- Rural areas within the Shire experienced than a higher level of population growth than urban areas at particular times, influenced by the effect of the COVID-19 pandemic
- Euroa and Nagambie have seen the majority of their development occurring within the urban boundaries of the respective towns; however, all the other townships have seen the majority of growth occur in their rural areas. It is in the farming zone where much of this housing has been accommodated.

¹ <https://app.remplan.com.au/strathbogie/economy/summary?state=IWPoFNEb7UjWoAac6qVkzETAhPhpy2>

Analysis of lot size in the farming zone shows that 70% of lots are sized under 40 ha, and that 41% of lots are less than 10 ha in size, indicating a relatively high level of fragmentation within the farming zone. Review of property ownership data (lots owned by the same person/business) does indicate however that farms have been able to amalgamate lots to create farms of sufficient size to run viable mixed farming enterprises.

At a municipal level, there is estimated to be two years of residential supply across Strathbogie Shire, showing that there is a significant gap in the supply of RLZ land, compared with projected demand. Victorian Government policy requires local governments to accommodate a projected population over at least a 15-year period and provide clear direction on locations where growth should occur.

The RRLUS will need to consider how Council, in partnership with other relevant stakeholders and agencies, can support housing delivery, through identification of strategic areas for future rural residential growth to meet demand. Council has multiple policy options to address this notional projected demand including the following:

- Meet all the projected demand for rural residential activities
- Meet only part of the projected demand for rural residential activities
- Resist any further subdivision for rural residential activities.

All these options would also be accompanied by a more restrictive approach to future dwelling development in Farm Zones.

When identifying areas for future Rural Living Zone Council should consider:

- Consideration of existing infrastructure capacity and upgrades required to accommodate residential uses
- Being able to provide large lot sizes, primarily for residential use, but with a lot layout that provides the opportunity for farming activities to occur, without adversely affecting the natural environment or the amenity of surrounding land uses
- Avoiding rural areas of high scenic or landscape value
- Avoiding highly productive agricultural land
- Protection from incompatible uses.

Rural Living Zone areas on the edge of townships may act as barriers to future urban residential development as towns and settlements grow. This would lead to inefficient 'leapfrogging' development patterns and constraints to urban growth. Where supportable, future rural residential development areas should carefully consider subdivision design and layouts, and road patterns, to enable future conversion to higher yielding residential areas in future through future rezoning.

AGRICULTURE

Food and fibre production in Strathbogie is focussed on mixed farming systems for livestock production, intensive poultry meat production and eggs, and a number of horticultural commodities. There is a small amount of plantation forestry. The gross value of agriculture has risen consistently over the last 20 years associated with improved prices for meat and wool. The market outlook for meat, wool and grains is strong.

Farm businesses in Strathbogie have increased in business scale and in holding size indicating that businesses are investing in business growth and expansion.

Future climate will bring some changes to agriculture, but mixed farming systems for livestock production will continue to dominate the agricultural industry. In the southern parts of Strathbogie Shire, the future climate will increase productivity and land suitability with milder winters and less waterlogging which may facilitate expansion of grain production. Northern parts of the Shire are forecast to experience more frequent seasons of reduced rainfall with insufficient water held on farm, restricting the grazing capacity. For intensive horticulture high value crops will require protection from sun and extreme weather events through the use of protected cropping structures. Intensive animal production will need to consider increased risk for animal welfare issues associated with higher average temperatures and extreme heat events.

The Shire's location, accessibility and agricultural infrastructure are significant competitive advantages for food and fibre producers in Strathbogie. Better mobile phone coverage and wireless access, and energy security would enable farmers to continue to innovate and adopt new technology.

The Rural Land Use Strategy should support the ongoing growth of food and fibre industries, including investment in new technology, diversification and adaptation to climate change. Planning policy should be tailored to reflect and support the scale and type of agricultural industries that build on the Shire's competitive advantages.

STRATEGIC AGRICULTURAL LAND

The southern end of the Goulburn Valley has been identified in the Hume Regional Growth Plan as strategic agricultural land due to the availability of water from the Goulburn River which has facilitated the development of irrigated pastures, cropping and horticulture. This land therefore should remain in the Farming Zone to protect future use for productive purposes.

Identifying the productive status of rural land in Strathbogie (outside of the strategic area identified in the Hume Regional Growth Plan) is challenging due to limited information at a

regional level on the soil types and capability of land. Based on current land use areas located away from the Goulburn and Broken Rivers support dryland cropping and livestock grazing, and a small pocket of plantation forestry. These are likely to be the best suited enterprises for the prevailing soil types and the climatic conditions.

While climate change will bring some changes to the mix and distribution of agricultural commodities, the industry will continue to be dominated by mixed farming systems that focus on livestock and fodder production. The northern parts of the Shire may experience more frequent seasons of reduced growing season rainfall and pasture production into the future requiring farmers to rationalise livestock herds and destock due to both feed and water shortages.

Identification of strategically important agricultural land in policy will assist in protecting land from adjoining uses and development that are inconsistent with normal farming practices, identifying areas where agriculture will have primacy of all other uses. Extensive areas of unfragmented land facilitates industry growth, intensification, adoption of new technology and adaptation to change markets and climate.

TOURISM

A number of opportunities for Strathbogie rural tourism is afforded by a stronger and more defined tourism product including touring routes, adventure activities, wildlife and indigenous cultural experiences. Opportunities include nature based and eco-accommodation such as school camps, off park accommodation and accommodation for adventure tourism providers.

Rural tourism in Strathbogie is currently confined to the opportunities afforded by the Farming Zone which includes farm stays, group accommodation, market, residential hotel, restaurants, and primary produce sales.

There is an opportunity to leverage existing tourism destinations and attractions and regional connections and further diversify the tourism offer. The RRRLUS should consider policy identifying areas where tourism development in rural areas will be encouraged and the types of uses suited to rural locations. In identifying areas suited to rural tourism and potential application of the Rural Activity Zone, the following factors should be considered.

- Leveraging established and emerging tourism assets
- The need to protect the agricultural, environmental and cultural values of the area
- The scale and mix of tourism and recreation uses to be encouraged

- Whether there are opportunities to build alliances between tourism business operators, farmers, food and wine producers and trail network managers
- The product and infrastructure need of tourists and the local community
- Requirements for the siting, planning and design of tourism facilities.

CULTURAL HERITAGE

In planning for growth and future land use change, cultural heritage is considered to be a community, economic and social asset². The Strathbogie Shire's cultural heritage assets, both Aboriginal and historic, are important to contemporary communities and heritage is integral to creating a sense of place.

Many tourists seek heritage tourism experiences. Aboriginal cultural heritage and historic heritage attractions and services contribute to the regional economy and employment. Building a comprehensive sense of place around heritage sites is important to help develop resilient and sustainable communities.

ENVIRONMENT

The Strathbogie Shire contains significant aquatic and terrestrial habitats and biodiversity values. These values are ecologically important for maintaining ecosystem services (such as water quality), their intrinsic value and socially important for cultural heritage and recreational use including tourism. A detailed review of the shire's biodiversity is required particularly mapping and prioritisation of native vegetation with a focus along roadsides and on the flatter fertile plains to provide the necessary information and data at an appropriate scale to justify the application of planning control where required.

Changes in the Native Vegetation Framework 2017 now require applicants seeking to remove vegetation of high ecological value to provide compelling justification as to why a permit should be approved. This may have implications for agriculture, particularly on the flatter plains and along waterways where farm sizes are increasing, cropping is occurring more frequently under drier conditions and the intensity of production is increasing.

² Hume Regional Growth Plan (2014) Victorian State Government

1 Introduction

1.1 PURPOSE

Strathbogie Shire is preparing a Rural Residential and Rural Land Use Strategy (RRLUS). The overarching aim of the combined strategies is to safeguard rural values important to the economy and liveability of Strathbogie and provide for rural residential development in appropriate locations.

This Existing Conditions Report has been prepared to inform the development of the RRLUS. It includes analysis of policy and strategies, rural land use, rural residential development, rural industries, environmental and natural values.

1.2 BACKGROUND

The current strategic objectives of the Strathbogie Planning Scheme seek to protect productive farmland which is of strategic significance in the local and regional context. These strategic directions are implemented through the Planning Scheme by a selection of zones, overlays and policies.

Through the Covid-19 pandemic, the Strathbogie Council has seen a significant increase in planning permit applications for dwellings on small lots in the Farming Zone resulting in development that is inconsistent with the objectives of supporting agriculture and protecting environmental and landscape values and inefficient development of land identified for rural residential development.

Council prepared a Rural Residential Strategy in 2004³ which identified land candidate for application of the Rural Living Zone. In 2005, a detailed land capability assessment of six of the candidate areas was completed. In 2010, a Development Plan Report⁴ culminated in introduction of the Rural Living Zone to land in Avenel.

In 2010 a review of the Shire's rural land⁵ was undertaken which recommended retention of the existing Farming Zone schedules and application of the Rural Conservation Zone and Rural Activity Zone, however these recommendations were not implemented.

The study area includes all land in the Farming Zone and Rural Living Zone. Land within townships and public land is outside the scope of this study (Figure 1-1).

1.3 APPROACH

Preparation of the RLUS is being undertaken in five key steps:

- Preparation of an Existing Conditions Report that will document and review the current land use and residential circumstances in the rural areas
- Targeted stakeholder consultation to explore in greater detail issues and opportunities raised in the Existing Conditions Report
- Preparation of a draft RRLUS
- Public exhibition to provide an opportunity for stakeholder and community feedback on the RRLUS
- Preparation of a final RRLUS.

1.4 THIS REPORT

This Existing Conditions Report documents the findings of a desktop review of available reports, strategies and data to provide an understanding of current rural residential and rural land use circumstances.

Attached to this report is the Existing Conditions report for the Rural Residential component of the study. Reference is made to the outcomes of the population and housing profiling, demand analysis and capacity assessment in the body of this report. Further detail on the residential assessment is available in Appendix 1.

³ Strathbogie Shire and Beca (2004) Rural Residential Strategy

⁴ CPG (2010) Development Plan Report Euroa & Avenel Rural Residential Development

⁵ Parsons Brinckerhoff and RMCG (2010) Sustainable Land Use Strategy

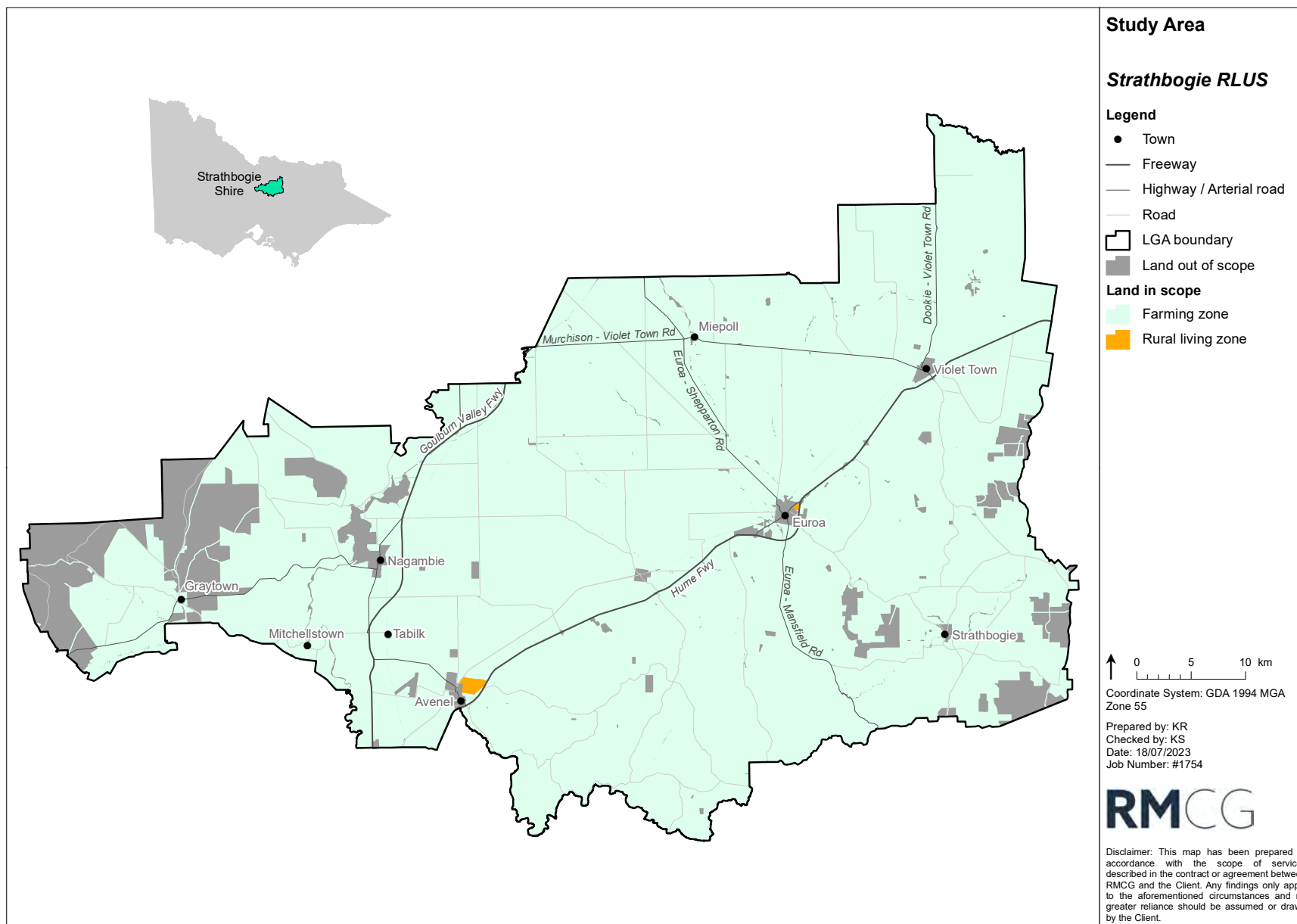


Figure 1-1: Land in the scope of the rural residential and land use strategy

2 Strathbogie Shire

2.1 OVERVIEW

Strathbogie Shire covers around 3,300 square kilometres and is located approximately 125 kilometres to the north of Melbourne CBD. It is a diverse geographical region, bordered to the east by the Strathbogie Ranges and to the west by the lakes district, which includes significant natural assets such as the Goulburn River and Lake Nagambie.

Strathbogie is positioned toward the centre of the state and is proximate to the key regional centres of Bendigo, Shepparton and Wangaratta. These centres, as well as Melbourne, are accessible via major transport routes, including the Hume Freeway and Goulburn Valley Freeway and play an important role in the economy of Strathbogie. For example, 34% of Strathbogie working residents, work outside the Shire. The role of Strathbogie's towns is in part, as dormitory towns for larger regional centres including Shepparton, Seymour and Kilmore where employment opportunities are concentrated (Figure 2-1).

The estimated resident population of Strathbogie Shire was 11,498 in 2022 with most residents living in Euroa (administrative centre), Nagambie and Violet Town (service centres) and Avenel. There has been modest population growth over the last five years with an increase of 971 residents since 2017⁶. Data collected by Strathbogie Shire Council indicates that the total population of Strathbogie Shire is projected to increase to 15,058 in 2036 and dwellings are projected to increase by 1,852 by 2036⁷.

Strathbogie's proximity to Melbourne has facilitated population growth in the Shire including city dwellers seeking a lifestyle change. This trend was evident during 2020 and 2021 when regional Victoria experienced population growth of 15,700 people in contrast to a decline in Melbourne. A key theme of the Strathbogie Shire Council Plan is to support population growth by ensuring the Shire has affordable housing, and growth is managed carefully to protect the environment and meet social infrastructure needs².

The Gross Regional Product of the Shire (the wealth generated by businesses, organisations and individuals working in the area) was an estimated \$583 million in 2021. Agriculture is the primary driver of the local economy employing nearly 1,055 people in 2021¹. The large tracts of farming land support cropping and livestock production, as well

as localised areas of horticulture where water is available. Intensive agriculture includes production of chicken meat and eggs.

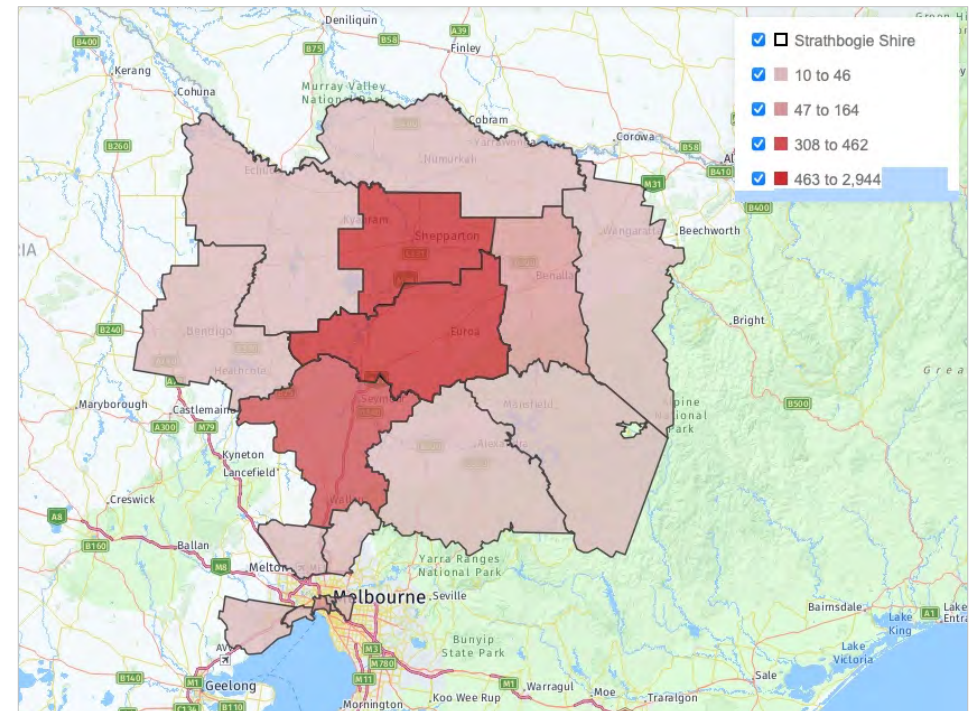


Figure 2-1: Employment locations of Strathbogie residents, 2021⁸

Leveraging off the region's natural landscapes and locational context, the Strathbogie economy, in terms of output and employment is driven by three key sectors (Table 2-1)

- Primary industries and trade (agriculture, manufacturing and transport)
- Population driven (property construction and real estate, retail trade, accommodation and food services).

⁶ <https://app.remplan.com.au/strathbogie/economy/summary?state=IWpOFNEb7UjWoAac6qVvkzETAhPhy2>

⁷ Strathbogie Shire Council Plan 2021-2025

⁸ <https://profile.id.com.au/strathbogie/workers> accessed 23.8.2023

- Knowledge and public sector (education and training, health care and social assistance, public administration and safety)

Analysis of industry subsectors found that Agriculture, Forestry and Fishing is driven by livestock, grains and poultry and Manufacturing is driven by the wine industry around Mitchellstown.

Table 2-1 Strathbogie industry specialisation and economic contribution⁹

INDUSTRY SPECIALISATION	ECONOMIC CONTRIBUTION		
	Output	Exports	Local Jobs
Primary industries and trade	48%	83%	26%
Population driven industries	28%	6%	22%
Knowledge and public sector	12%	3%	22%

The popularity of the region as an overnight and daytrip destination is increasing. The visitor economy is an important component of the local economy, contributing almost 4.3% of total output and employing around 5% of the local workforce⁹. The industry is driven by the following key destination strengths that attract visitors and contribute to the visitor economy:

- Water based assets such as Lake Nagambie and Goulburn River
- Nature based assets such as the Strathbogie Ranges
- A growing wine industry providing specialty food and wine experiences
- History and heritage, centred around Ned Kelly
- Festivals, markets and events.

The Economic Profile⁹ identified the following high-level strategic considerations for economic development in Strathbogie relevant to this study:

- Importance of population attraction and retention strategies, particularly young families, to support employment growth and provide a more sustainable community
- Focus on growth and emerging industries, particularly growth opportunities for agriculture, including the sub-sectors of Sheep, Grains, Beef and Dairy Cattle and Poultry and Other Livestock, to drive economic and employment growth

- Provide meaningful business support, through Council support and provision of appropriate infrastructure, to grow the business base and develop employment opportunities
- Maintain growth in the tourism industry, by leveraging the Shire's competitive advantages, including Lake Nagambie, the Goulburn River, wineries and Strathbogie Ranges. Attracting investment in these key products and experiences will help drive visitation, diversify the economy and create more employment opportunities.
- Leveraging the region's road and rail transport infrastructure to support population attraction, employment and economic growth.

2.2 KEY FINDINGS

Economic development, a focus on sustainability, and supporting population growth are central themes of Strathbogie's Council Plan, Sustainable Strathbogie 2030 Strategy, and Economic Development Strategy. The RRLUS should align with and support these objectives including:

- Stimulating investment across the Shire and promoting efficient use of land to foster local economic growth.
- Mitigating and adapting to a changing climate through strategy development, revised mapping and urban design, community knowledge-sharing, and incentives to manage climate risk in agriculture.
- Establishing Strathbogie Shire as a desirable and high-value visitor destination that drives year-round visitation and generates economic benefits for the region.
- Aligning townships and economic development opportunities, to maximise efficient use of infrastructure and population growth potential.

⁹ Economic Development Strategy and Action Plan 2023-2027 (2023) Strathbogie Shire Council

3 Strategic Context

This section of the report details the strategic context set out in State and Local plans and strategies relevant to land use and development in the Strathbogie Shire.

3.1 LAND USE AND DEVELOPMENT

Strathbogie Shire Rural Residential Strategy 2004¹⁰

The Rural Residential Strategy was prepared in response to increasing pressure to develop rural land for lifestyle purposes. Key issues that the strategy sought to address included:

1. The potential for conflict between rural-residential and productive uses
2. Loss of landscape and rural amenity from poorly managed rural development
3. Foreclosing future options for urban growth due to lack of strategic rural planning around the key townships of Euroa, Nagambie, Violet Town and Avenel
4. Development drivers that are difficult to predict and understand
5. Level of planning control that can be exercised on existing titles, developments and areas is potentially limited.

Twenty areas were identified for further investigation and consideration for rezoning to support rural-residential development. Recommendations included:

- Strategic rezoning of eleven areas
- 'Tidying up' the existing zoning of nine areas to better reflect current use.

The recommendations of the Strategy were not implemented, with no rezoning occurring. Assessment of dwelling development over the last eight years shows that it is dispersed across Strathbogie with no concentration of development occurring in the twenty investigation areas.

Shire of Strathbogie Sustainable Land Use Strategy 2010¹¹

The Sustainable Land Use Strategy recognises the Shire's rural values including agriculture (commercial and lifestyle), tourism, wine making, horse breeding, environmental values, and rural living. The purpose of the strategy is to:

- Provide for the protection of agricultural land

- Provide protection of and sustainable use of privately owned land that has high environmental value
- Recognition of rural industries (tourism, wineries, and horse breeding & training) to allow for clustered development in a rural setting, to assist with enhancing the growth of these businesses.

Hume Regional Growth Plan 2014

The Hume Regional Growth Plan provides high level guidance for land use planning at the local level and informs the decision making of a range of agencies regarding future investment in the region. It provides a vision for the long-term prosperity and sustainable growth of the Hume region and seeks to support population growth while protecting and supporting agriculture, tourism, environmental assets, commercial and residential development.

Planning directions relevant to **agriculture** in this study include:

- Support the protection of strategic farmland
- Support and manage intensive agricultural production
- Support changing farm sizes, methods, strategies and land uses
- Plan for the potential impacts of climate change on agriculture
- Respond to a changing irrigation landscape
- Minimise fragmentation of agricultural land
- Avoid conflicting land uses and activities
- Maintain and enhance infrastructure supporting rural industry¹².

Planning directions relevant to **residential settlement** in this study include:

- Build on, and strengthen the existing urban settlement network (in the Goulburn Valley sub-region major urban growth and development will be focussed on Shepparton)
- Foster the sustainability of small settlements (Nagambie, and Euroa are identified for further moderate growth in Strathbogie)

¹⁰ Beca Pty Ltd (2004) Strathbogie Shire Rural Residential Strategy, prepared for Strathbogie Shire Council

¹¹ Parsons Brinckerhoff & RMCG (2010) Shire of Strathbogie Sustainable Land Use Strategy, prepared for Strathbogie Shire

¹² Hume Regional Growth Plan Summary (2014) State Government of Victoria

- Provide a consistent approach to strategically plan for rural residential uses
- Provide for a mix of housing types in appropriate locations
- Maintain and enhance the distinctive character of key settlements
- Recognise and plan for the influence of cross-border settlements.

Strathbogie Shire Council Plan 2021-2025

The Strathbogie Shire Council Plan is supported by a four-yearly review of the Strathbogie Planning Scheme and a four-year Workforce Plan to enable Council to respond to changing community needs and priorities. The key strategies and actions that will impact on residential and land use in the Shire include:

Strategic focus area 3: Protect. Enhance. Adapt.

This strategy focuses on:

- Minimising harmful impacts on the natural environment
- Reversing biodiversity decline
- Championing best practice environmental strategies.

Key actions include:

- Implementing the Climate Change Action Plan for Council operations
- Preparing a planning scheme amendment to include an environmentally sustainable development policy that responds to climate change and minimises adverse environmental impacts created by new development.

Strategic focus area 4: Inclusive. Productive. Balanced.

This strategy seeks to:

- Provide affordable housing
- Carefully manage growth to protect the environment and meet social infrastructure needs
- Include responsible developer contribution strategies.

The main action of relevance to the RRLUS is the completion of a review of the Strathbogie Planning Scheme to ensure it reflects changing economic, environmental and social trends and identifies the further strategic work required to deliver a fit for purpose framework to guide sustainable growth and development while protecting our built and natural heritage.

3.2 ENVIRONMENT

Climate Change Action Plan 2022 - 2027

The Strathbogie Shire Climate Change Action Plan seeks to:

- Embed climate emergency responses into all Shire activities and decisions
- Accelerate the Shire's climate change adaptation and mitigation actions to the speed and scale required to address the Climate Emergency
- Direct the Shire's efforts to engage and empower the local community and business to foster cultural shifts, so that ongoing climate action becomes the new standard
- Assist and support a just and fair transition to a prosperous decarbonised economy
- Create and enhance collaboration and partnership opportunities between the Shire, community and the broader Climate Emergency movement to amplify action and coordinate advocacy.

The Action Plan has five main areas with corporate and community actions for each target area. Actions relevant to this study include:

1. Protecting our natural environment with the key action of relevance being to continue the Conservation Covenant Rate Incentive, at \$25ha/\$500 per property, to lock up carbon and protect biodiversity for landowners who have land registered for a conservation covenant on the Cert of Title and create a Rebate Program to enhance property biodiversity values.
2. Our climate resilient community with the key actions of relevance:
 - Improve access to reliable, easy to understand climate change data and projections to inform community planning and action
 - Provide access to information on current and emerging smart agriculture initiatives to farmers and other relevant stakeholders
 - Advocate to local and regional education partners to increase agriculture and land management knowledge, including on whole of property planning approaches, AgTech, precision agriculture, nutrient budgeting and other emerging practices
 - Support farmers and landowners' access to regional and state government programs such as the Victorian Carbon Farming Program.

Sustainable Strathbogie 2030: Strategy and Action Plan 2018 – 2022

Sustainable Strathbogie 2030 is a strategic blueprint with actions Council will be taking “to sustainably manage the natural and built environment” where the following key strategies are supported:

- Support sustainable environmental initiatives including roadside management and protections, renewable energy developments, and community not-for-profit and alliance initiatives
- Mitigate and adapt to a changing climate through strategy development, revised mapping and urban design, community knowledge-sharing, and incentives to manage climate risk in agriculture
- Protect and enhance natural assets through revised plans, staff training, a revised Municipal Strategic Statement, and communications to residents
- Protect and enhance waste management with a new strategy, improving our service, supporting local groups, and working with our partners on waterway waste

The main strategy of relevance is Strategy 10: An ecologically rich shire which seeks to:

- Protect and conserve landscapes and ecosystems through education, partnerships, policy, programs and legislation
- Leverage Strathbogie's unique natural environment to create stronger links to the gross regional economy.

Key actions include:

- Action 5.08 Partner with Agriculture Victoria and the Euroa Arboretum to run Whole Farm Planning and Healthy Hectares land use management courses for new and existing landowners
- Action 5.12 That Council approve the 2019 development of a 10 year, climate-appropriate, street tree planting plan and budget for the Shire's townships that increases and maintains a combination of street and water sensitive urban design plantings from 15 to 200 per annum by 2022, and that water sensitive urban design and the passive irrigation of street trees be a training priority for the Parks and Gardens team in order to implement best-practice water saving techniques across street tree infrastructure in the Strathbogie Shire.

3.3 SETTLEMENT AND RURAL LIVING

NAGAMBIE

Nagambie Growth Management Strategy (2008)

- The objective is to grow the township as an agricultural service centre as well as a visitor, lifestyle and retirement centre

- This Strategy includes a staging plan for future growth. It proposed three different growth scenarios and estimated that a total population of 9,600 (and 4,120 dwellings) could be accommodated at low densities.

Nagambie Existing Conditions 28 February 2020 (Ricardo Energy & Environment Planning, 2020)

- Provides analysis of current conditions and in Nagambie and the trends that are impacting the town to inform updates to the Nagambie Growth Management Strategy. Key points include:
 - Key neighbourhood character issues include retaining the semi-rural character in new subdivisions, and ensuring new residential buildings are responsive to existing character
 - There is approximately 185ha of built out residential land and 90ha of undeveloped land zoned for residential purposes. This equates to approximately 1,000 dwellings (based on a 900sqm lot size).
 - Flooding issues are not commonly experienced by the township.

Nagambie Growth management Strategy (2022) Draft, Ricardo Energy and Environment)

- Provides a high-level strategy that provides guidance for managing growth in Nagambie by coordinating infrastructure delivery and land supply to support the sustainable growth of the township over the next 15-20 years.
- A key objective is to plan housing for a population of approximately 4,000 people (assuming an annual growth rate of 2.9%) over the next 15-20 years.
- The draft NGMS also includes guidelines to ensure development is balanced with a sustainable environment.

EUROA

Euroa Township Strategy (2020) Euroa Background Analysis (Hansen, 2019)

- This is a comprehensive visioning strategy and plan. Vision includes creating a compact and contained family oriented rural township with housing predominantly consisting of single detached dwellings on larger landscaped allotments.
- Housing development to be prioritised in existing residential zoned land (infill development) and development of vacant unconstrained General Residential Zone (GRZ1) land as a priority over the rezoning of new land for urban purposes
- Ageing population trends require consideration of specific types of housing, including retirement living, assisted care, and nursing home

- Visitor accommodation will be important as part of the town's tourist economy
- Community feedback emphasises the importance of the historic feel and character of Euroa
- Community feedback indicated 42% of residents agreed that alternate forms of housing (dual occupancy, villa units) are needed in Euroa to increase housing diversity. Further, 49% agreed that diverse housing should be available within walking distance from the town centre.
- There is a potential supply of 446 lots within existing General Residential Zoned and unconstrained land in the township (368 vacant lots and 78 infill lots)
- Euroa is estimated to take up around one third or one half of projected population growth in the Shire. Based on VIF16, this would result in a growth of 200-300 people in the township by 2031.
- Based on the supply and demand assessment, there is recommendation to further rezone land for residential purposes
- Tree changers' (internal migration to Euroa for lifestyle and affordability purposes) and potential upgrades to the speed and frequency of train services could increase population growth in the township
- Flooding is a significant threat to the township as it is located within low lying area of the Goulburn Broken Catchment. The township is subject to extensive application of the Urban Floodway Zone (UFZ) and associated Floodway Overlay (FO) and Land Subject to Inundation Overlay (LSIO).

AVENEL

Avenel 2030 Strategy (2008)

- Has ample supply of land for housing but relatively low historic demand. At time of 2008 Strategy, there were substantial numbers of underdeveloped lots.
- The strategy seeks to attract more residents to this area. A low growth scenario would be based on historic trends of 11 dwellings developed per annum.
- A higher growth scenario may eventuate from tree change trends and road and rail improvements
- The existing supply of 1,000 dwellings in the Township Zone on larger lots would accommodate both scenarios.

Avenel Strategy Refresh Issues and Opps (Sept 2022, MESH)

- Previous analysis found that there is ample land supply to meet growth projections, however the diversity of housing doesn't meet the changing needs of residents

(ageing, declining household size). Planning tools do not currently provide effective mechanism to shape housing diversity.

- The rural living land at Lovers Hill remains undeveloped, is heavily constrained and the DPO is outdated. Development has advanced in a new low-density area around the golf course, without an approved Development Plan.
- The land supply analysis estimates that there is currently a 67-year supply of residential land in Avenel.

Avenel Strategy Refresh (2023, MESH)

- Public exhibition of the Draft Avenel Township Strategy 2024 is now underway. One of the key themes of the Draft strategy is to support consolidation of development within the existing township, supporting a diverse and sustainable residential community.
- The Draft strategy includes a recommendation that the existing boundary of the township be maintained, rather than introducing new rural living or other residential zones, in part to protect land for farming.

VIOLET TOWN

Violet Town & District Strategic Development Plan (July 2010)

- Has two growth scenarios in place, based on the strategy from 2010
- In terms of current supply, nearly all residential properties consist of single house on relatively large lot (between 1,000sqm and 2,000sqm)
- Scenario 1 is a continuation of static or slow growth due to decreasing household sizes, ageing population, and the trend for new residents to develop further from the town centre
- Scenario 2 envisions higher growth if the Community Plan Vision were to be realised – increasing as a visitor destination and attracting a more diverse population.

KEY FINDINGS

- Across the Shire, slow population growth has historically led to relatively low demand for housing development
- New housing development has been scattered, predominantly occurring in Rural Zones, taking the form of rural residential development. However, it was forecast that due to an ageing population and a national trend towards smaller household sizes, demand for housing particularly smaller sized housing types would pick up.

- Council strategic direction expresses a drive to attract a more diverse populace to move to the Shire, such as those seeking a tree change. Without increased migration, the Shire may continue to grow at a slow or static pace.
- Potential barriers to housing growth include the priority to protect agricultural land and flood and bushfire hazards
- Although not specifically explored in detail in this review, the general character of the towns is well considered. More dense urban forms may risk imposing on the valued character.
- Existing policy has not researched trends since the COVID pandemic, such as greater mobility of households willing to locate further from their place of work as a result of increased uptake of remote working. Visitor accommodation trends are also missing from the strategy and research. A more detailed summary of relevant settlement and rural living strategies is available in Appendix 1.

3.4 KEY FINDINGS

The strategic context relevant to rural land use and development in Strathbogie provides principles, objectives and directions that will underpin preparation of the RLUS. They include:

PRINCIPLES

- Align with state and regional policies and strategies
- Ensure rural land use planning balances economic growth and protection of environmental, landscape and cultural heritage values
- Support rural industries to adapt to changing climate, economic drivers and adopt new technology
- Protect life and property from natural hazards including flood and bushfire.

STRATEGIC OBJECTIVES AND DIRECTIONS

Agriculture

- Protect high quality agricultural land
- Consider the impacts of climate change and support adaption to climate change
- Discourage dwellings not required for agriculture or rural uses not compatible with rural industries
- Reinforce urban settlement boundaries.

Rural tourism

- Support rural tourism that leverages the region's iconic attractions such as the Strathbogie Ranges and Lake Nagambie.

Environment and landscape

- Protect waterways and other significant environmental assets from rural land use change and development
- Ensure sensitive landscape are protected and new development does not detract from their natural quality.

Rural industries

- Support rural industries that diversify the rural economy including timber, tourism and renewable industries that leverage existing infrastructure and do not compromise the region's agricultural, environmental and cultural heritage values
- Support for rural industries should leverage existing infrastructure and not compromise the region's agricultural, environmental and cultural heritage values.

4 Policy Context

This section of the report summarises the current policy context for the Strathbogie Shire and includes a review of the planning scheme performance.

4.1 PLANNING POLICY FRAMEWORK

State planning objectives relevant to rural land use and development and rural residential development include the following objectives. Strategies relevant to rural land are also listed.

12.01-1S Assist the protection and conservation of Victoria's biodiversity.

12.03-1S Protect and enhance river corridors, waterways, lakes and wetlands

12.05-1S Protect and conserve environmentally sensitive areas

12.05-2S Protect and enhance significant landscapes and open spaces that contribute to character, identity and sustainable environments

12.05-2R - Provide clear urban boundaries and maintain distinctive breaks and open rural landscapes between settlements.

13.01-1S Minimise the impacts of natural hazards and adapt to the impacts of climate change through risk-based planning

13.02-1S Strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life

13.03-1S Assist the protection of life, property and community infrastructure from flood hazard,

14.01-1S Protect the state's agricultural base by preserving productive farmland by:

- Identify areas of productive agricultural land, including land for primary production and intensive agriculture
- Consider state, regional and local, issues and characteristics when assessing agricultural quality and productivity
- Avoid permanent removal of productive agricultural land from the state's agricultural base without consideration of the economic importance of the land for the agricultural production and processing sectors
- Protect productive farmland that is of strategic significance in the local or regional context

- Protect productive agricultural land from unplanned loss due to permanent changes in land use
- Prevent inappropriately dispersed urban activities in rural areas
- Protect strategically important agricultural and primary production land from incompatible uses. Limit new housing development in rural areas by:
 - Directing housing growth into existing settlements
 - Discouraging development of isolated small lots in the rural zones from use for dwellings or other incompatible uses
 - Encouraging consolidation of existing isolated small lots in rural zones
- Identify areas of productive agricultural land by consulting with the Department of Economic Development, Jobs, Transport and Resources and using available information
- In considering a proposal to use, subdivide or develop agricultural land, consider the:
 - Desirability and impacts of removing the land from primary production, given its agricultural productivity
 - Impacts on the continuation of primary production on adjacent land, with particular regard to land values and the viability of infrastructure for such production
 - Compatibility between the proposed or likely development and the existing use of the surrounding land
 - The potential impacts of land use and development on the spread of plant and animal pests from areas of known infestation into agricultural areas
 - Land capability
- Avoid the subdivision of productive agricultural land from diminishing the long-term productive capacity of the land
- Give priority to the re-structure of inappropriate subdivisions where they exist on productive agricultural land
- Balance the potential off-site effects of a use or development proposal (such as degradation of soil or water quality and land salinisation) against the benefits of the proposal.

14.01-2S Encourage sustainable agricultural land use by:

- Ensure agricultural and productive rural land use activities are managed to maintain the long-term sustainable use and management of existing natural resources
- Support the development of innovative and sustainable approaches to agricultural and associated rural land use practices
- Support adaptation of the agricultural sector to respond to the potential risks arising from climate change
- Encourage diversification and value-adding of agriculture through effective agricultural production and processing, rural industry and farm-related retailing
- Assist genuine farming enterprises to embrace opportunities and adjust flexibly to market changes
- Support agricultural investment through the protection and enhancement of appropriate infrastructure
- Facilitate ongoing productivity and investment in high value agriculture
- Facilitate the establishment and expansion of cattle feedlots, pig farms, poultry farms and other intensive animal industries in a manner consistent with orderly and proper planning and protection of the environment
- Ensure that the use and development of land for animal keeping or training is appropriately located and does not detrimentally impact the environment, the operation of surrounding land uses and the amenity of the surrounding area.

14.02-1S Assist the protection and restoration of catchments, waterways, estuaries, bays, water bodies, groundwater, and the marine environment

15.01-6S Ensure development respects valued areas of rural character

15.03-2S Ensure the protection and conservation of places of Aboriginal cultural heritage significance

17.04-1S Encourage tourism development to maximise the economic, social and cultural benefits of developing the state as a competitive domestic and international tourist destination.

17.04-1R Tourism – Hume Strategies

- Support opportunities for nature-based tourism throughout the region, including in wetlands of national and regional significance, such as the Winton Wetlands, the Barmah Forest and the lower Ovens River
- Support large commercial tourism uses in urban locations or rural areas of lower agricultural value and away from areas identified as strategic agricultural land

- Facilitate rural tourism activities that support agricultural enterprises such as cellar door and farm gate sales and accommodation in appropriate locations
- Support the region's network of tracks and trails and activities that complement and extend their use.

The key PPF housing and settlement policies (Clause 11.01-1S, 11.02-2S, 11.03-3S, 12.05-1S, 15.01-5S, 16.01-1S, 16.01-2S, 16.01-3S) generally seek to support planning for urban growth by considering:

- Opportunities for the consolidation, redevelopment and intensification of existing urban areas
- Neighbourhood character and landscape considerations
- The limits of land capability and natural hazards and environmental quality
- Service limitations and the costs of providing infrastructure
- Managing development in rural areas to protect agriculture and avoid inappropriate rural residential development.

4.1.1 LOCAL PLANNING POLICY FRAMEWORK

Key local Clauses of the PPF relevant to rural land in Strathbogie are listed below.

14.01-1L – Housing & house lot excisions in rural areas

This policy applies to all land in the Farming Zone and aims to discourage the proliferation of dwellings in the Farming Zone.

New dwellings on lots less than the minimum specified in the Schedule to the Zone are discouraged. Second dwellings are also discouraged unless it can be demonstrated that they are required for the permanent operation of an existing agricultural enterprise. A Section 173 agreement prevents future excision of the dwelling and also acknowledges that if the agricultural use cease, then the second dwelling will lose its residential use rights.

Dwelling excisions will be supported where it can be demonstrated that it will support the ongoing viability of a farming enterprise, and the excision does not create a cluster of dwellings that are not associated with an agricultural use. A section 173 agreement will be placed on both lots to prevent further future subdivision, and to prevent further development of residential lots.

16.01-3L – Rural Residential Development:

- Prevent rural subdivisions where it will result in the loss of agricultural land, create an expectation of further subdivisions, and provide for further urban creep
- Rural residential development is to provide a buffer to existing agriculture uses.

17.04-1L – Tourism - support tourist developments associated with rural land uses by:

- Support tourism development near Lake Nagambie and Goulburn River
- Support tourist developments associated with rural land uses
- Encourage the development of the Regatta Centre Precinct, Nagambie as a water sports centre
- Support niche and boutique industry tourist development that promote and enhance the natural environment, heritage and town character.

4.1.2 MUNICIPAL PLANNING STATEMENT

The Municipal Planning Statement (MPS) recognises that the shire is supported by an economic rural base of wool, grain, cattle production, and vineyards and identifies a number of specialist rural enterprises including equine, poultry, pigs and cool climate horticulture. The agricultural industries are supported by the four major towns: Euroa, Nagambie, Avenel and Violet Town.

The Shires natural values includes parks, forests, waterways, and endangered species are recognised as important features to the area.

VISION

Provide a framework for improving the social, physical, environmental, and economic wellbeing of the community. From a land use and development perspective this vision is distilled into three key points:

- Support investment for population growth, shared wealth and wellbeing
- Facilitate the provision of infrastructure for sustainable economic and community development
- Plan for the long-term sustainability in settlement patterns, the natural and built environment, community services, economic development and growth.

STRATEGIC DIRECTIONS

The following strategic directions of the MPS are relevant to the RRRLUS

02.03-1 Settlement

- Facilitate rural and low density residential zoned land in locations that won't negatively impact on productive agricultural land.

02.03-2 Environmental values and biodiversity

- Protect and enhance natural values and encourage connectivity between vegetation corridors.

02.03-3 Environmental Risk

- Support use and development that adapts to the impact of climate change
- Project floodplains and discourage development in bushfire prone areas.

02.03-4 Natural Resource Management

- Retain areas of high-quality rural land for farming and agricultural purposes
- Encourage consolidation of small rural lots within the Farming Zone
- Encourage emerging rural enterprises, such as intensive animal husbandry, horticulture and the equine industry
- Prioritise productive farming development over residential development.
- Encourage value adding rural industries
- Protect, maintain and grow environmentally sustainable intensive agriculture. To promote the clustering of co dependant uses.
- Protect proclaimed water supply catchments (and water quality) from development that would compromise water catchments.

02.03-6 Housing

- Encourage rural residential development that is located and designed to protect existing agricultural uses, natural values, and townships, as well encouraging development that can be serviced by social and physical infrastructure.

4.1.3 ZONES

Zoning provides a framework to guide the use and development of land. Land uses are separated into three categories:

- Section 1 is 'as of right' with no permit required
- Section 2 uses are allowed but require a permit
- Section 3 uses are prohibited.

Zoning also identifies additional permit triggers and provides decision guidelines (in addition to the broader decision guidelines that can be found at Clause 65 of all Victorian planning schemes) that Council must consider when assessing an application.

The current zones that have been applied to rural land in Strathbogie are the Farming Zone (FZ) and the Rural Living Zone (RLZ) (Figure 1-1).

FARMING ZONE

The Farming Zone is the main zone for agricultural areas aimed at encouraging retention of productive agricultural land and discouraging uses that may have adverse impacts on agriculture. The Farming Zone currently applies to most rural land in the Shire and has a total area of 295,272 ha. The schedule to Farming Zone currently specifies three minimum areas for subdivision and for which no permit is required for a dwelling of 40 ha, 80 ha or 100 ha according to Figure 4-1. A minimum area of 40ha is specified as the maximum area for which no permit is required for timber production to an area identified in Figure 4-2. No maximum is specified to all other land.

There is an opportunity through the RRLUS to test the effectiveness of the lot size schedules, whether they are achieving the desired use and development outcomes and whether they reflect the scale and nature of rural land uses in Strathbogie. Further discussion regarding minimum lot size and the relationship to agriculture and land holdings is provided in Section 5.5.

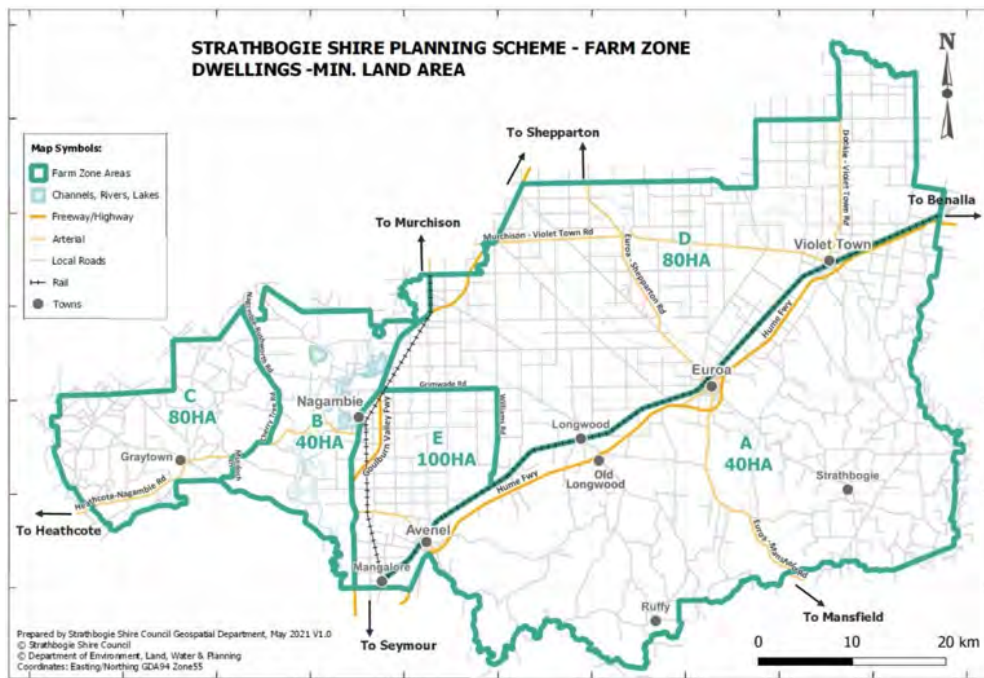


Figure 4-1: Minimum land area for farm zone dwellings

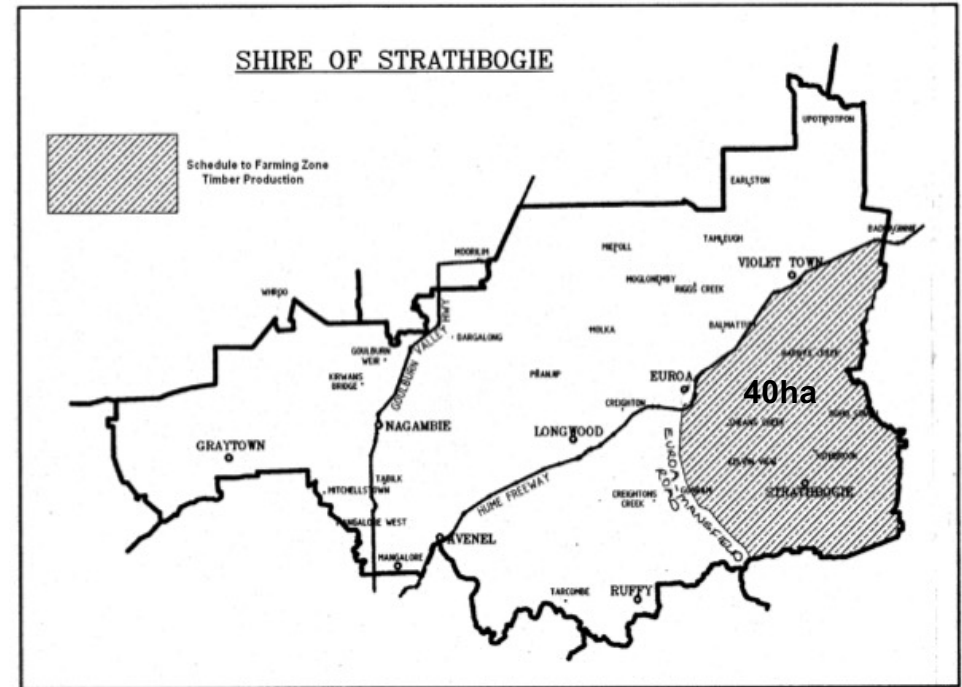


Figure 4-2: Maximum area for which no permit is required for timber production

RURAL LIVING ZONE

There is approximately 261.4 ha of land zoned RLZ in the Shire. This land is located around Avenel and Euroa (Figure 1-1). The purpose of the zone is to provide for residential development in a rural setting, as well as rural activities that will not impact on the residential amenity. The minimum area for subdivisions is 2ha, while the minimum area of a lot where a dwelling can be constructed where a permit is not required is 2ha. There are two areas which are exceptions to these requirements:

- 7 titles at Avenel Longwood Rd, Avenel which is subject to Development Plan Overlay Schedule 2
- Lot TP815794, Racecourse Rd, Euroa. Any future development on this site must be in accordance with a proposed plan of subdivision by Reed Consulting, plan number 21683/PP.

The Rural Living Zone, including demand and supply analysis, is discussed in Section 5.3 and in further detail in the residential report (Appendix 1).

4.1.4 OVERLAYS

Overlays controls support the underlying zoning of the land and provide additional levels of controls primarily around built form and site responses to particular characteristics of the land. An Overlay may trigger assessment of a permit application where this may not be required through the zoning of the land.

The following is a brief summary of the overlays that apply to land within rural areas of Strathbogie (Figure 4-3):

- Environmental Significance Overlay
 - Schedule 1 – Buffer area for rural activities:
 - Discourage development of dwellings that may conflict with rural industrial activities
 - Encourage the development of rural industrial activities that require large buffer distances
 - Schedule 2 – Euroa Wastewater Management Facility buffer area:
 - Discourage development of dwellings that may be impacted by odour emission

- Vegetation Protection Overlay
 - Schedule 1 – Lovers Hill, Avenel:
 - Protect remnant native vegetation in the Lovers Hill area of Avenel. Native vegetation includes two grass threatened communities that area listed under the EPBC Act.
 - Schedule 2 – Significant remnant Indigenous vegetation:
 - Conserve and ensure development minimise the removal of indigenous vegetation
 - Maintain and enhance a linear network of vibrant indigenous vegetation connecting remnant patches of indigenous vegetation.
- Development Plans
 - Schedule 2 – Lovers Hill, Avenel. A development plan must be prepared to guide future subdivision of land within the RLZ
 - Schedule 4 – Eastern Gateway, Euroa. Before any new use, development or subdivision commences a development plan must be prepared. Part of this area is in the FZ.
- Specific Control Overlay
 - Schedule 2 applies the use and development of land for the Costa Exchange Mushroom Farm and Composing Facility, Nagambie 2012
- Land Management Overlays
 - Erosion Management Overlay (no schedule)
 - Floodway Overlay
 - Land Subject to Inundation Overlay
 - Bushfire Management Overlay.

The recent Planning Scheme Review made the following recommendations regarding overlays that apply to rural land:

- Consider exemptions for:
 - Clause 42.01 Environmental Significance Overlay (all schedules)
 - Clause 44.01 Erosion Management Overlay
- The ESO is not applied within the mapping areas of the scheme except for an area relating to a tip in Violet Town which is irrelevant to the overlay. Therefore, there is no trigger or need for the overlay appropriate to the schedule of the ESO.

4.2 KEY FINDINGS

Recent review of the recent planning scheme provides a number of recommendations that should be considered in the development of the RRLUS. They include:

- Undertaking a Landscape Study to ensure areas of significance are protected through the appropriate planning controls
- Reviewing the Environmental Significance Overlay Schedule 1 with respect to both wording of the overlay as well as mapping of the areas that should be affected by the ESO buffer
- Advocating for the State Government to take lead in amendments with respect to applying overlays to identify:
 - Areas affected by flooding
 - Areas within potable water areas
 - Impacts of climate change.
- Reviewing and updating the Erosion Management Overlay including undertaking triggers and exemption work to provide additional triggers
- Investigating the implementation of an appropriate overlay over prominent ridgelines to protect the views and vistas of the municipality
- Investigating (in association with Costa Exchange) whether an overlay or some other planning scheme provision should be applied in the vicinity of the Costa Exchange facility at 347 Zanelli Road and 1934 Dargalong Road Nagambie to protect it from the encroachment of sensitive uses that might impact on the current operation or future expansion of the facility.

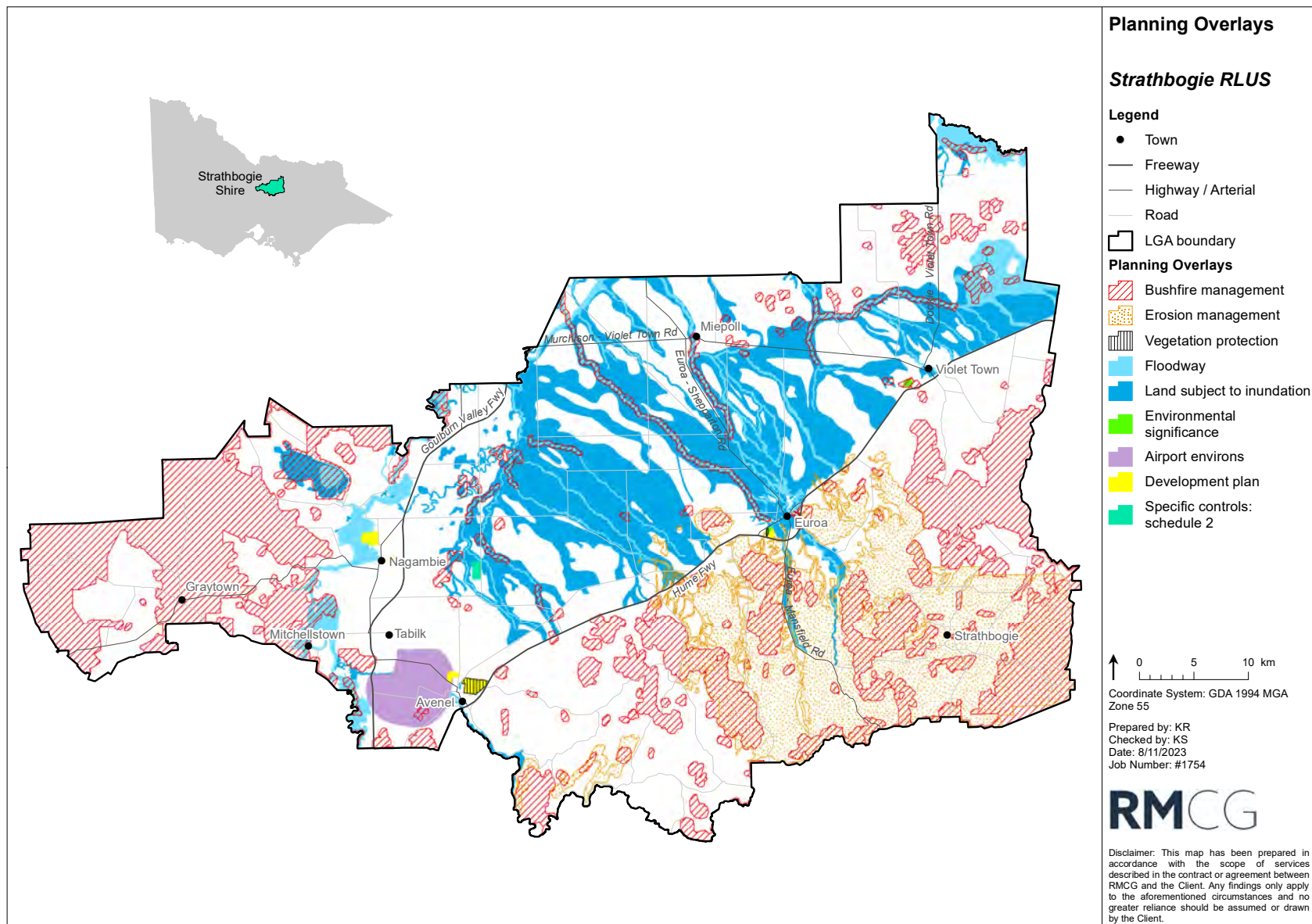


Figure 4-3: Overlays

5 Planning Scheme performance

5.1 PLANNING SCHEME REVIEW

A review of the Strathbogie Planning Scheme in 2023 recommended that the Rural Land Use and Residential Strategy be finalised and development of dwellings on small rural lots was identified as a key issue for consideration. Other gaps and issues relevant to this review included:

- Lack of environmental policies including policies to encourage biodiversity and biodiversity links and protect and enhance native vegetation and roadside vegetation
- Lack of consideration of climate change with regard to planning for future settlements
- Gaps in relation to management of environmental risks including:
 - No overlay reflecting or identifying defined potable water catchments (Honeysuckle Creek near Violet Town, Seven Creeks near Euroa)
 - No overlay protecting or identifying buffers around wastewater treatment plans
 - Need to update flood mapping to identify and transparently reflect need to consider appropriate approaches to development.
- Currently, the MPS provides limited value, is quite broad brushed, and provides a Strategic Framework Plan that provides little benefit for directing or managing growth
- Council's MPS Section will need to be developed with a clearer land use vision. This land use vision should include engagement with Councillors and reflect the principles of the Council plan (and other documents as appropriate).
- In particular the framework plan should be updated to direct policy rather than reflect existing conditions. These policies must be rewritten to:
 - Remove vague policy directions and improve clarity
 - Result in policies that are positively framed – to encourage rather than discourage unless absolutely necessary.

5.2 VCAT HEARINGS AND PANEL REPORTS

As part of the Planning Scheme review in 2023 an independent audit of VCAT cases was undertaken. There were 8 cases heard between 2018 and 2022 with two relevant to this review:

- Place of assembly in the FZ – Council's decision to issue a permit for place of assembly in the FZ was set aside by the tribunal due to insufficient information that the proposed function centre will avoid unreasonable noise impacts in the area
- Caravan and camping in the FZ – Council refused a permit, despite the recommendation of its officers, for a caravan park on land in the FZ on Kirwans Bridge Road, Nagambie. Council's decision was affirmed by VCAT in a Red Dot Decision. The Sustainable Land Use Strategy¹¹ identified the review site and other land surrounding Nagambie as potentially suitable for application of the Rural Activity Zone (RAZ), though this has not occurred. The suitability of the RAZ can be revisited as part of this review. The tribunal report highlighted the need for further guidance with regard to location and assessment of permits for section 2 uses in the FZ including consideration of:
 - Connection or proximity to a township
 - Need to protect agricultural land and surrounding agricultural uses
 - Identification of high-quality agricultural land
 - Consideration of treatments to mitigate offsite impacts such as vegetated buffers.

No matters have been referred to Planning Panels Victoria (PPV) in the last four years. The review reveals that Council's position has typically been maintained in recent years, however, there are several cases where VCAT set aside Council's decision. More detailed review of previous VCAT cases is available in Table 19, Appendix A of the attached residential report.

5.3 DEVELOPMENT IN THE RURAL LIVING ZONE

An assessment of housing demand and capacity in Strathbogie was undertaken to identify the potential to accommodate future rural dwelling demand within areas currently zoned for rural residential uses. The housing demand estimates included a base case for consideration of housing need across the Shire using VIF23 projections, alongside estimates for the case where population grows faster than expected.

The Strathbogie Settlement Strategy: Residential Demand and Supply Assessment Report (2024) was prepared concurrently with this report. For consistency across the projects, the housing demand assumptions produced in the Strathbogie Settlement Strategy: Residential Demand and Supply Assessment Report (2024) have been reviewed and adopted for use in the Strathbogie Rural Residential Study, 2024. The elements of analysis adopted includes the high dwelling demand scenario, the future distribution of growth across towns and the future split between rural and urban residential areas.

Key findings from the demand and capacity assessment include:

- **Strathbogie's population is growing**
 - Strathbogie's population is projected to increase by around 2,700 people by 2041 according to State Government projections extended to 2041.
 - State Government projections extended to 2041 show the need for around 1,500 additional dwellings to accommodate population growth.
 - The urban areas of Nagambie, Avenal and Euroa have seen the highest share of growth in the LGA.
 - Historic dwelling growth has seen higher rates of dwelling growth with an additional 100 dwellings per year. Projected forward, this would see an additional 2,000 dwellings by 2041.
- **Rural residential growth has been occurring solely in the Farming Zone**
 - Rural residential development refers to land in a rural setting, used and developed for dwellings that are not primarily associated with agriculture.
 - The Rural Living Zone provides for residential use in a rural environment. Strathbogie Shire has only 2 areas of Rural Living Zone, located in Avenal and Euroa. Both areas of Rural Living Zone have not seen any further development or subdivision and have not developed with previous development plans.
 - All rural residential development has occurred within the Farming Zone.
- **The future share of rural and urban growth should be redistributed**
 - Depending on the data used for the analysis, there has been a significant share of development occurring in rural areas (between 25 - 50 per cent).

- The Strathbogie Urban Growth Strategy: Existing Conditions Report (2024) sets out a future urban vs rural residential split of 80 per cent growth to be accommodated in urban areas and 20 per cent growth to be accommodated in rural areas.
- **Strategic areas for future rural residential growth may need to be identified to meet demand**
 - State Government mandates Councils must plan for at least 15 years of growth at the LGA level. Housing markets are more nuanced and operate at a finer grain level and so analysis has been undertaken as a sub-LGA level.
 - Based on a high growth scenario Strathbogie can accommodate 2 years of growth in rural areas at the LGA level, with a projected shortfall of around 377 dwelling when considering the theoretical capacity of zoned RLZ areas.
 - Council has multiple policy options to address this notional projected demand including the following:
 - Meet all the projected demand for rural residential activities
 - Meet only part of the projected demand for rural residential activities
 - Resist any further subdivision for rural residential activities.
 - All these options would also be accompanied by a more restrictive approach to future dwelling development in Farm Zones.

Full details of the rural residential demand and capacity assessment, using population forecast scenarios, is available in Appendix 1.

5.4 DEVELOPMENT IN THE FARMING ZONE

An analysis of building and planning permits provides information on changes to land use and development in the FZ. Of particular interest is the number of dwellings developed in the FZ as well as uses ancillary to agriculture.

On average, 20 new dwellings are constructed in the FZ each year with just over half issued to landholders who are not resident in Strathbogie (Table 5-1). This suggests that many dwellings in the FZ are being constructed as weekenders or rural lifestyle purposes. The trend in dwelling development has decreased over the last three years (Figure 5-1). Analysis of the trend in dwelling development by lot size (Figure 5-2) shows:

- A decrease in the number of dwellings constructed on lots less than 4ha in size and 40 to 80ha in size
- Around 35% of dwellings were constructed in lots sized between 4 and 40ha in 2022, which has been consistent over the last four years

- The number of dwellings constructed on lots over 80ha has increased.

Table 5-1: Development in the FZ (2015-2022)

USE		RESIDENTS	NON-RESIDENTS
Dwellings	159	71	84
Group accommodation	6		
Festivals	4		
Dwelling/house lot excisions	6		
Rural store	3		
Winery	2		

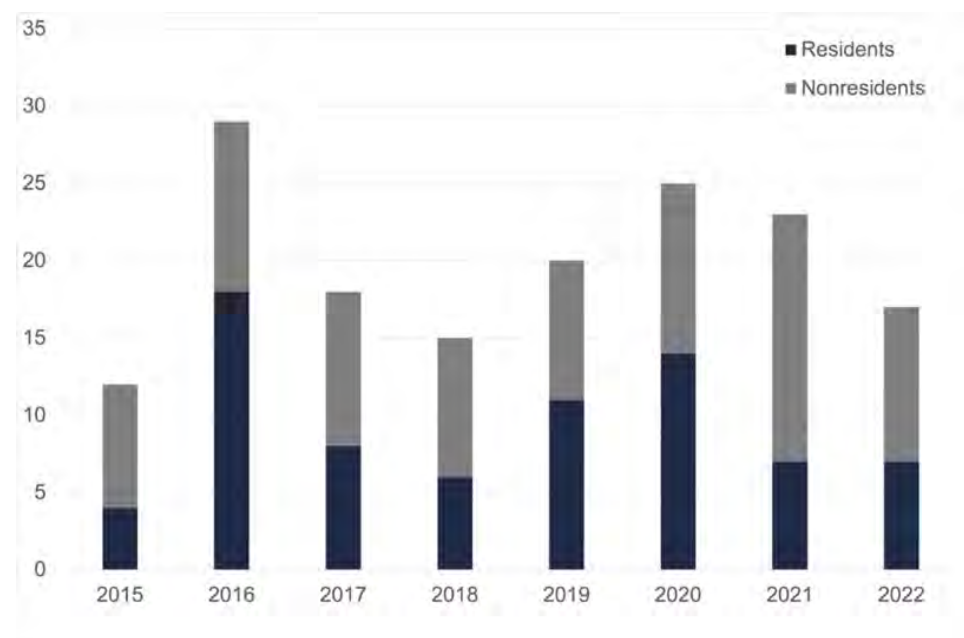


Figure 5-1: Trend in dwelling development by Strathbogie residents and non-residents

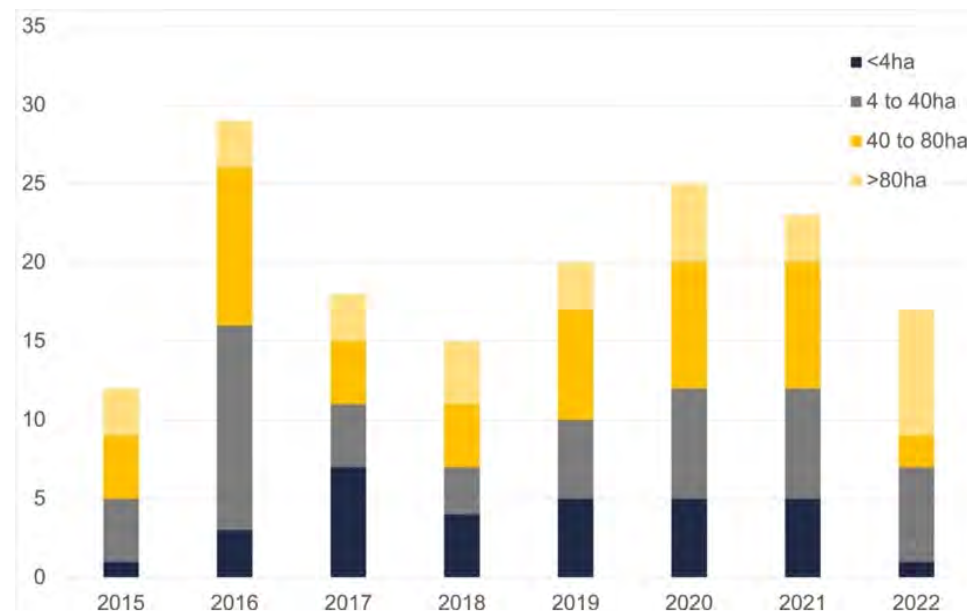


Figure 5-2: Trend dwelling development by lot size

Dwelling development over the last eight years in Strathbogie is dispersed across the Shire (Figure 5-3). The majority of this development has occurred across Schedule A and along main roads and Nagambie Lake in Schedule B.

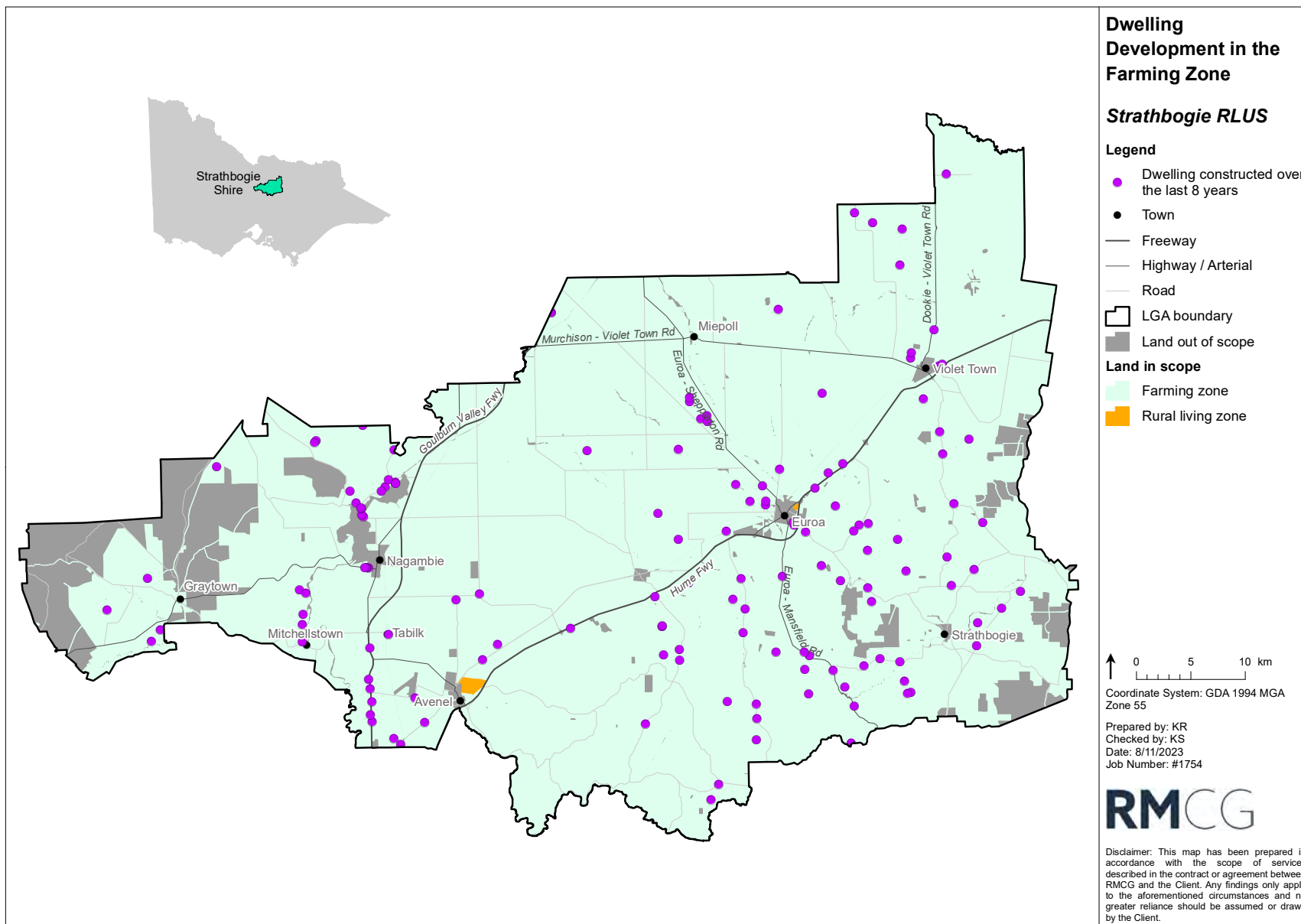


Figure 5-3: Dwelling development in the farming zone

5.5 LOTS AND LAND HOLDINGS IN THE FARMING ZONE

An analysis of lot size data (Table 5-2 and Figure 5-4) was undertaken to test the performance of the FZ and relevant policies. The analysis shows:

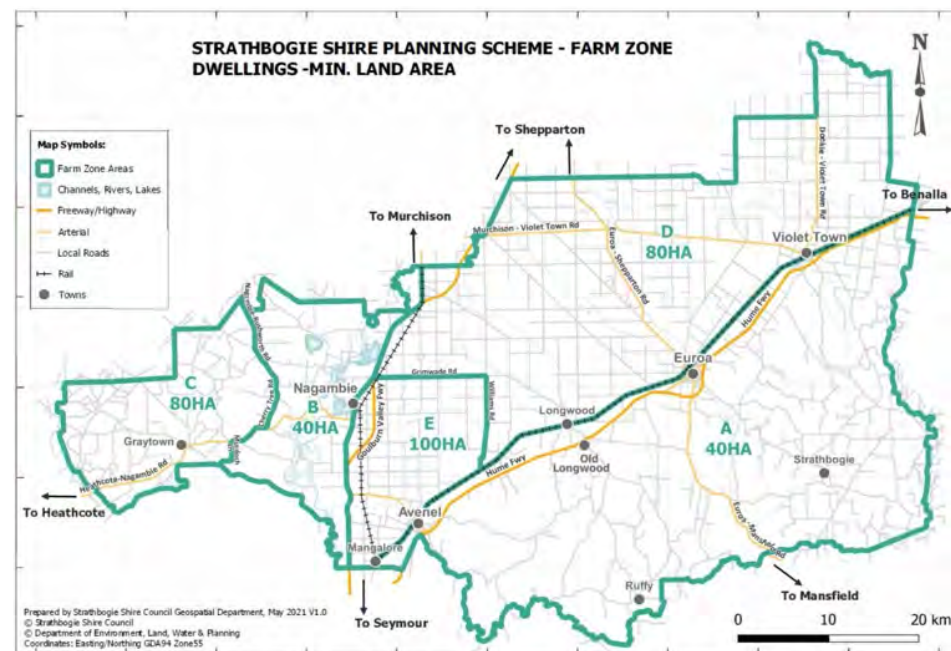
- Around 41% of lots are under 10ha in size. Most of these are located in FZ Schedule Area A and D
- As a proportion of the number of lots within each area, lots under 10ha make up 54% and 59% of lots in FZ Schedule Areas B and C respectively
- Lots over 40ha make up between 20% and 35% of the total number of lots in each area
- Lots over 100ha make up less than 10% of the total number of lots in each area.

Table 5-2: Lot sizes¹³ in the farming Zone

Lot size	Area A	Area B	Area C	Area D	Area E	Total
<10	1,502	598	352	1044	306	3802
10 - 20	467	130	59	307	91	1054
20 - 40ha	707	147	64	566	182	1666
40 - 80ha	754	149	68	587	139	1697
80 - 100ha	153	34	19	158	19	383
>100ha	266	58	34	278	40	676
Total lots	3,849	1,116	596	2940	777	9278
Total area (ha)	122,870	26,774	13,594	107,318	22,472	293,028

The schedule to Farming Zone currently specifies three minimum areas for subdivision and for which no permit is required for a dwelling of 40 ha, 80 ha or 100 ha according to Figure 4-1.

¹³ Data sourced from <https://mapshare.vic.gov.au/vicplan/> and analysed by RMCG



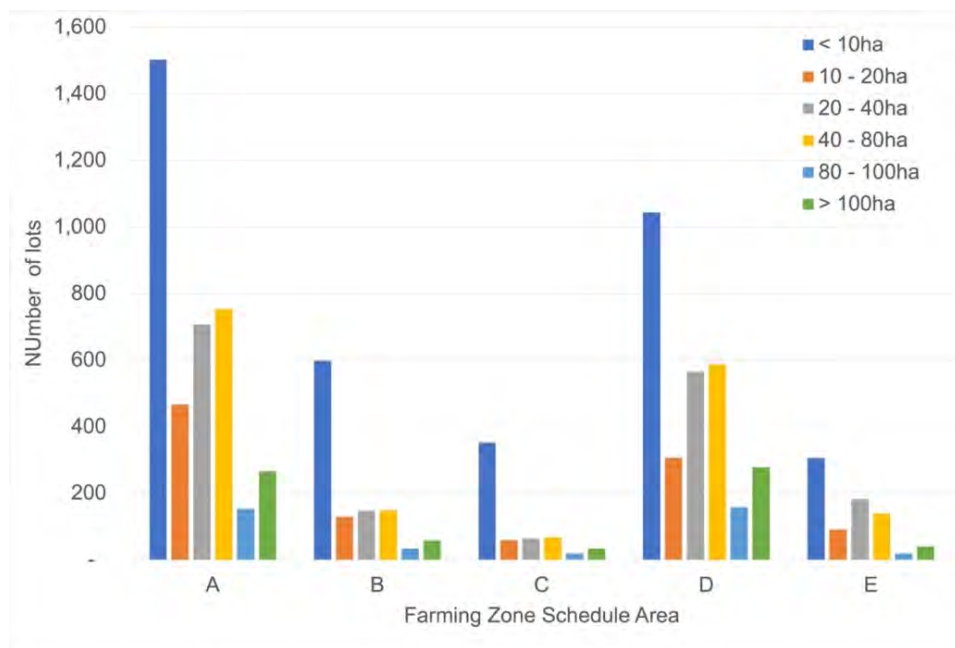


Figure 5-4: Lot size numbers by FZ schedule areas

Figure 5-5 shows the distribution of lot sizes across Strathbogie. The western sections of Areas A and D contain the majority of larger lot sizes (above 40ha). The eastern sections of Areas A and D have become more fragmented, in particular the region between Euroa, Violet Town and Strathbogie, which has a higher proportion of lots sized below 20ha. Over half of the lots in Schedule Areas B and C are sized under 10ha, and in Area E around 39% of lots are less than 10 ha in size.

The more fragmented land becomes, through subdivision and dwelling development, the less capable it is of supporting large-scale agriculture (such as livestock production and broad-acre cropping). This is due to:

- Increasing land values due to competition with other uses (e.g. rural residential)

¹⁴ Income represents a snapshot in time and are average figures only. There will be individual cases where income per hectare differs from these figures and where a viable farm generates more or less than \$500,000 gross sales. Note also that income/ha is dependent on a range of factors, which may vary significantly between any season and

- The high transaction costs of purchasing multiple lots to establish a farm unit of sufficient scale
- Lack of suitable buffer between agricultural activities and non-agricultural residents
- Inability to achieve economies of scale required to generate sufficient income.

The majority of agriculture in dryland areas of the Shire are mixed enterprises (combination of cropping and pasture to support livestock production). To be financially viable these businesses require a minimum land size of approximately 500 ha to achieve economies of scale, maximise return on investment and have sufficient space for infrastructure.

One assessment of farm viability is to determine the minimum area required to generate sufficient income for a farming business to be sustainable (support a family without other sources of income). Current farm business analysis identifies \$500,000 gross sales per annum as the necessary minimum annual turnover for a business to provide an environment conducive to growth. On average most primary producers will have a profit margin of approximately 10% of gross sales (equating to \$50,000 profit per annum). Some producers who have more efficient management practices may be able to increase this to 20%.

Dryland enterprises such as cropping, and beef grazing will generate on average an income of between \$800 - \$900 per hectare¹⁴. Therefore, to generate gross sales of \$500,000 a farm size of greater than 500 ha is required. Analysis of lot size in Strathbogie indicates a high level of fragmentation with no (or minimal) lots sized at 500 ha or greater (Figure 5-5). However, analysis of property ownership data (lots owned by the same person/business) identifies that lots have been amalgamated to create larger properties (Figure 5-6). Across the FZ there are:

- 771 properties greater than 100 ha in size (Table 5-3)
- Properties of greater than 100ha present in all schedule areas
- The majority of large sized properties are present in Area A and D (Table 5-4).

The ownership data indicates that landholders within the FZ have been able to purchase additional lots to create properties of a suitable size for mixed farming enterprises.

any farm. It does not necessarily equate to profit. This has been collected from a range of industry sources including ABARES, ABS, Livestock Monitor, RMCG pers comms)

Table 5-3: Analysis of property ownership in the FZ¹⁵

OWNERSHIP SIZE	NUMBER OF OWNERS
< 10ha	1,402
10 - 20ha	319
20 - 40ha	507
40 - 80ha	463
80 - 100ha	143
> 100ha	771
Total no. of owners	3,605

Table 5-4: Analysis of property ownership by area in the FZ

Ownership size	Area A	Area B	Area C	Area D	Area E	Total
<10	505	262	234	368	107	1,476
10 – 20ha	163	49	36	72	25	345
20 - 40ha	317	48	43	111	30	549
40 - 80ha	325	82	22	106	34	569
80 - 100ha	98	20	21	52	9	200
>100ha	905	187	65	840	181	2,178
Total no. of owners	2,313	648	421	1,549	386	5,317
Total area (ha)	124,835	24,855	13,604	110,204	22,885	296,382

¹⁵ There is double counting in number of owners when broken down by FZ area because some ownership includes parcels in multiple areas. The total area in the ownership calculation is slightly higher than the lot size calcs because some ownership includes land outside the FZ.

5.6 KEY FINDINGS

Development of dwellings on small rural lots was identified as a key issue for consideration in the 2023 Planning Scheme Review. Inappropriate development in rural areas can increase the potential for land use conflict between agriculture and residential use and can also reduce the ability of farms to be financially viable.

Profiling of the population and housing in Strathbogie indicates that:

- There has been a gradual increase in the Shire's population in the last 10 years, with growth rates similar to regional Victoria
- Rural areas within the Shire experienced than a higher level of population growth than urban areas at particular times, influenced by the effect of the COVID-19 pandemic
- Euroa and Nagambie have seen the majority of their development occurring within the urban boundaries of the respective towns; however, all the other townships have seen the majority of growth occur in their rural areas. It is in the farming zone where much of this housing has been accommodated.

Analysis of lot size in the farming zone shows that 70% of lots are sized under 40 ha, and that 41% of lots are less than 10 ha in size, indicating a relatively high level of fragmentation within the farming zone. Review of property ownership data (lots owned by the same person/business) does indicate however that farms have been able to amalgamate lots to create farms of sufficient size to run viable mixed farming enterprises.

At a municipal level, there is estimated to be two years of residential supply across Strathbogie Shire, showing that there is a significant gap in the supply of RLZ land, compared with projected demand. Victorian Government policy requires local governments to accommodate a projected population over at least a 15-year period and provide clear direction on locations where growth should occur.

The Strathbogie Housing and Settlement Strategy and the RRLUS will need to consider how Council, in partnership with other relevant stakeholders and agencies, can support housing delivery, through identification of strategic areas for future rural residential growth to meet demand. Council has multiple policy options to address this notional projected demand including the following:

- Meet all the projected demand for rural residential activities

- Meet only part of the projected demand for rural residential activities
- Resist any further subdivision for rural residential activities.

All these options would also be accompanied by a more restrictive approach to future dwelling development in Farm Zones.

When identifying areas for future Rural Living Zone Council should consider:

- Consideration of existing infrastructure capacity and upgrades required to accommodate residential uses.
- Being able to provide large lot sizes, primarily for residential use, but with a lot layout that provides the opportunity for farming activities to occur, without adversely affecting the natural environment or the amenity of surrounding land uses.
- Avoiding rural areas of high scenic or landscape value.
- Avoiding highly productive agricultural land.
- Protection from incompatible uses.

Rural Living Zone areas on the edge of townships may act as barriers to future urban residential development as towns and settlements grow. This would lead to inefficient 'leapfrogging' development patterns and constraints to urban growth. Where supportable, future rural residential development areas should carefully consider subdivision design and layouts, and road patterns, to enable future conversion to higher yielding residential areas in future through future rezoning.

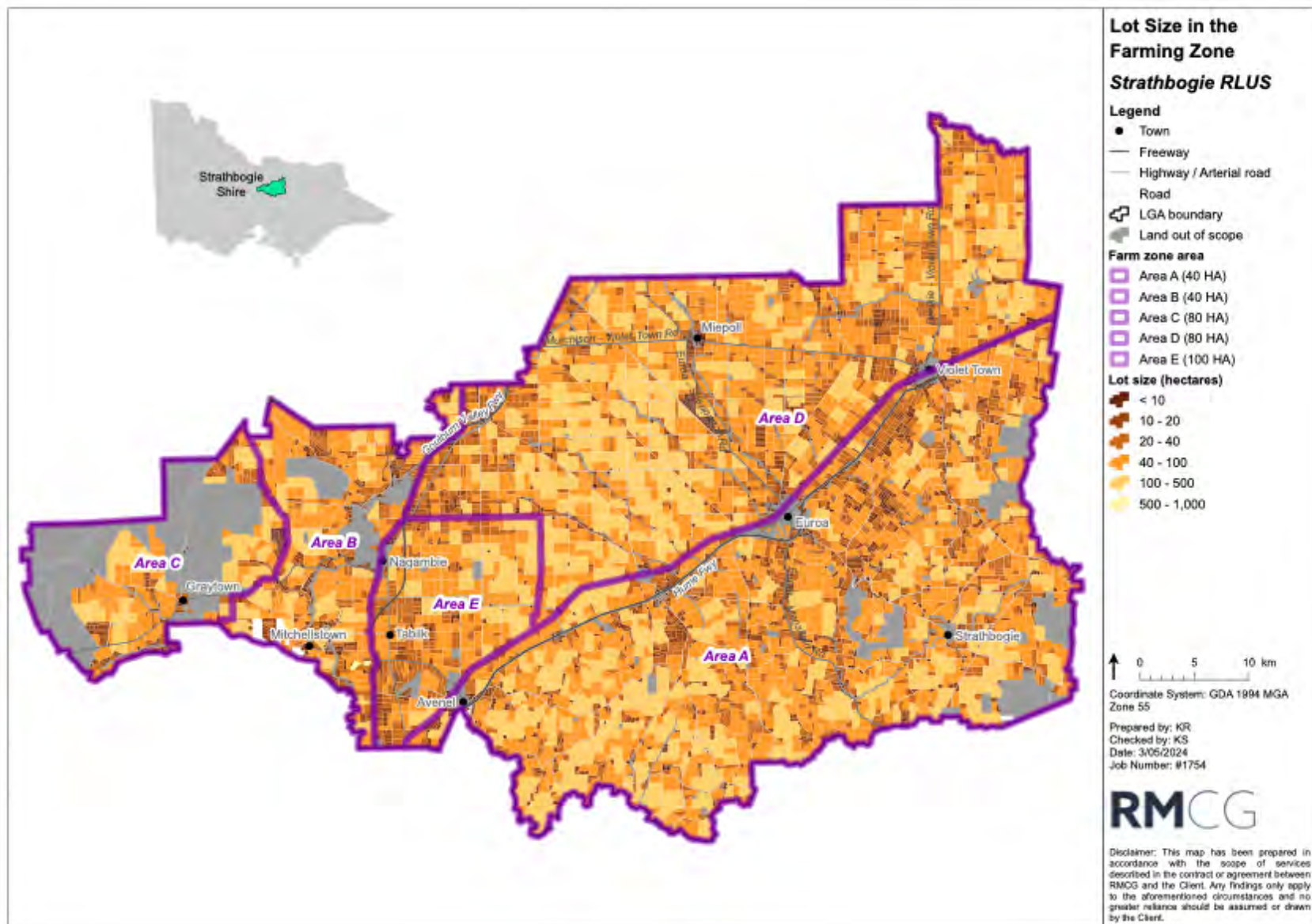


Figure 5-5: Lot size in the farming zone, strathbogie

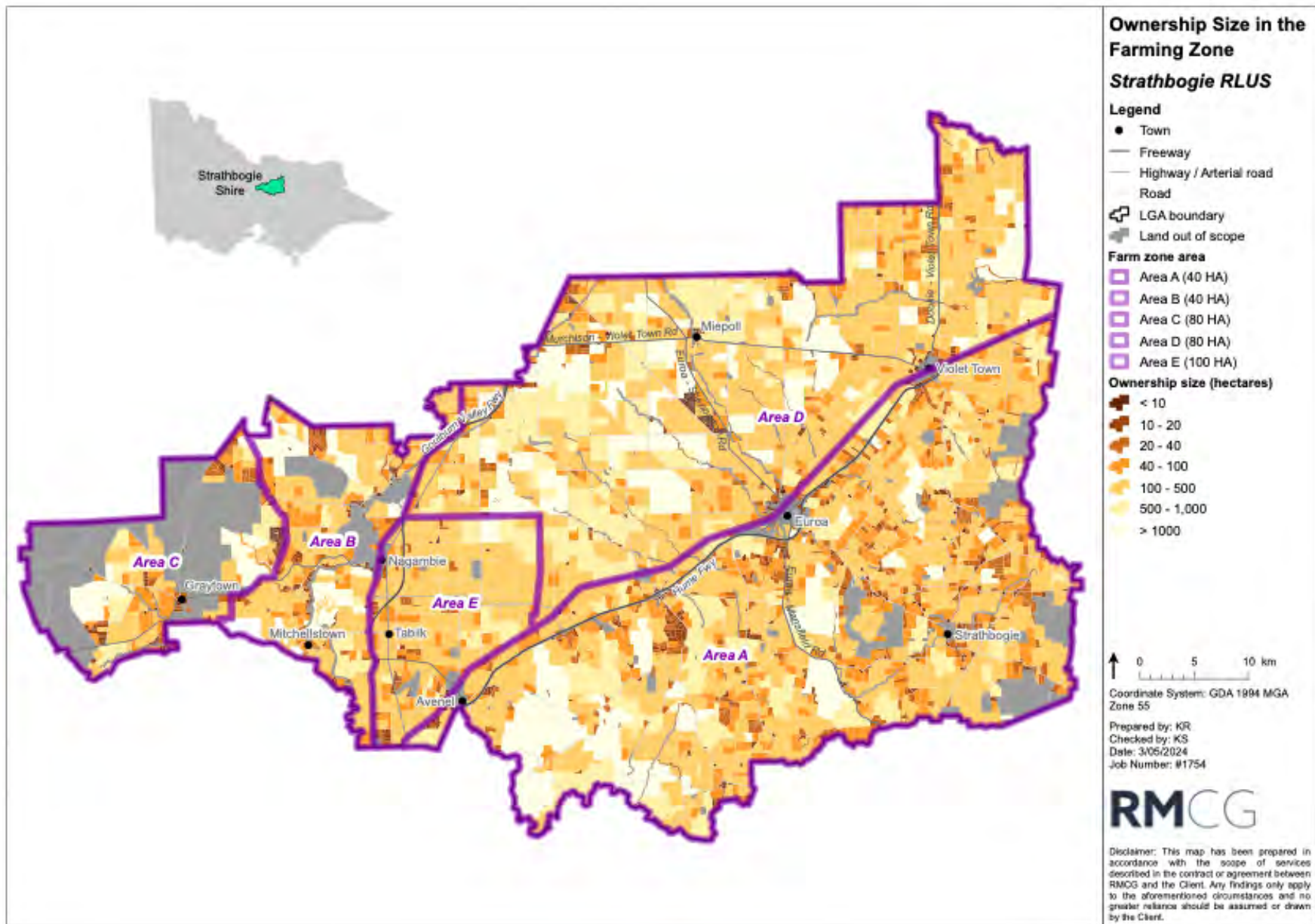


Figure 5-6 Ownership size in the farming zone, strathbogie

6 Agriculture

6.1 OVERVIEW

Food and fibre production in the Strathbogie Shire is focussed on the production of meat, wool, eggs, grain and hay with minor amounts of horticulture (Figure 6-1). In 2021 Gross Value of Agricultural Production (GVAP) totalled \$184 million, around 1% of state GVAP. GVAP in Strathbogie has tripled since 2001 with growth in meat production the main contributor to the overall increase in GVAP (Figure 6-2). This can be attributed to the improved prices of beef and lamb as livestock numbers have decreased over the last twenty years (Figure 6-3). The value of wool and eggs has also increased in recent years (2017 – 2020) but to a lesser extent. The value of other commodities in the district such as horticulture, hay, grains and milk has remained relatively static over the last twenty years. The value of chicken meat and egg production has increased significantly over the last twenty years, and in 2021 were the second and fifth largest agricultural commodities in the Shire (Table 6-1).

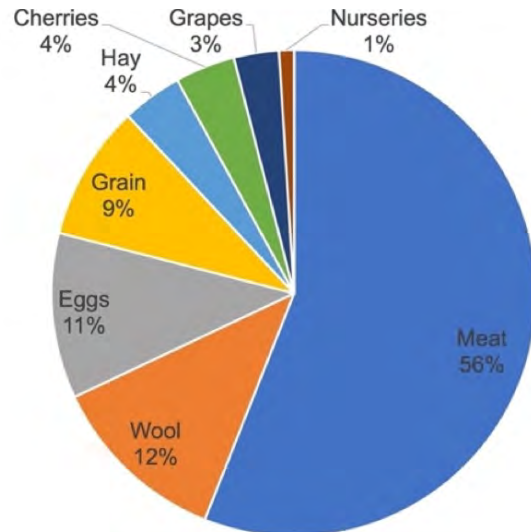


Figure 6-1: Gross Value of agriculture 2021, Strathbogie¹⁶

¹⁶ Australian Bureau of Statistics, Agricultural Census data provided by Kynetec

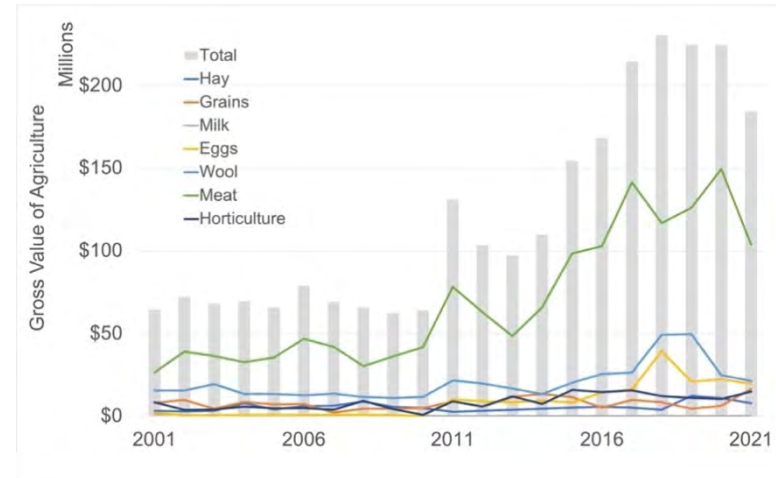


Figure 6-2: Gross value of agriculture 2001 – 2021, Strathbogie¹⁶

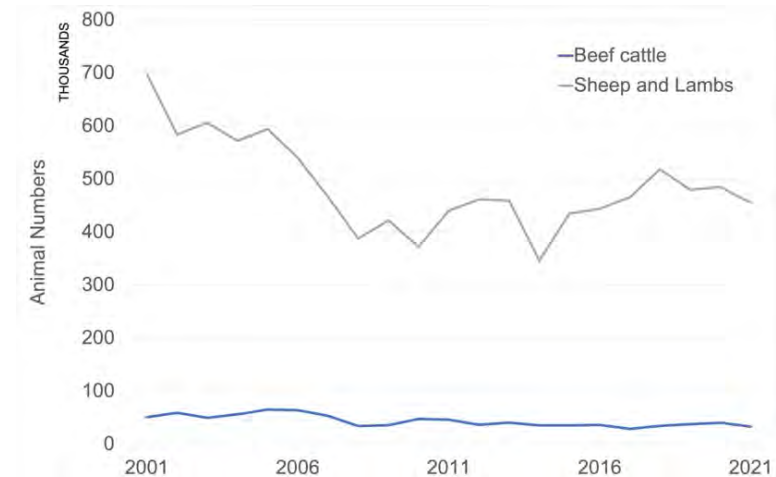


Figure 6-3: Livestock number trend, 2001 – 2021, Strathbogie¹⁶

The value of dryland cropping has doubled over the last twenty years. The volume and value of grain and hay produced can vary significantly from one year to the next, mostly due to climate variability. Grain and hay production often occurs as part of mixed farming operations (cropping and livestock grazing) where hay is produced for livestock fodder.

Horticulture (cherries, grapes, plant nurseries) comprise 8% of Strathbogie's GVAP. These are high value industries and employ large numbers of people for harvest operations. The production of these commodities in the Shire will be constrained by access to affordable water for irrigation and suitable land.

According to ABS data most agricultural business have an estimated value of agricultural operations (EVAO) of less than \$500,000 (Figure 6-4). while most value of agriculture is generated by larger businesses with an EVAO of between \$500,000 and \$2 million (Figure 6-5).

Table 6-1: Gross Value of Top Commodities, 2021¹⁶

Commodity	Gross value (\$m)	Proportion of total Strathbogie GVAP	Proportion of State commodity GVAP
Sheep and Lambs	\$55.5	30%	3%
Poultry - meat	\$24.2	13%	4%
Cattle	\$24.1	13%	1%
Wool	\$21.3	12%	3%
Eggs	\$19.7	11%	9%
Wheat	\$8.5	5%	1%
Cherries	\$8.2	4%	6%
Hay	\$7.9	4%	1%
Canola	\$6.2	3%	1%
Grapes	\$5.2	3%	3%
Nurseries	\$1.2	1%	
Barley	\$1.0	1%	
Oats	\$0.7	<1%	
Milk	\$0.2	<1%	
Cut Flowers	\$0.2	<1%	
Olives	\$0.1	<1%	
Lupins	\$0.05	<1%	
Pigs	\$0.05	<1%	
Peaches	\$0.02	<1%	
Apples	\$0.02	<1%	

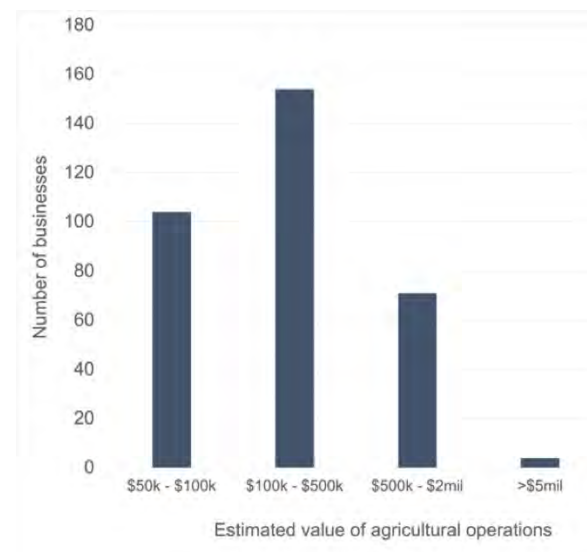


Figure 6-4: Number of businesses by business size, 2021, Strathbogie

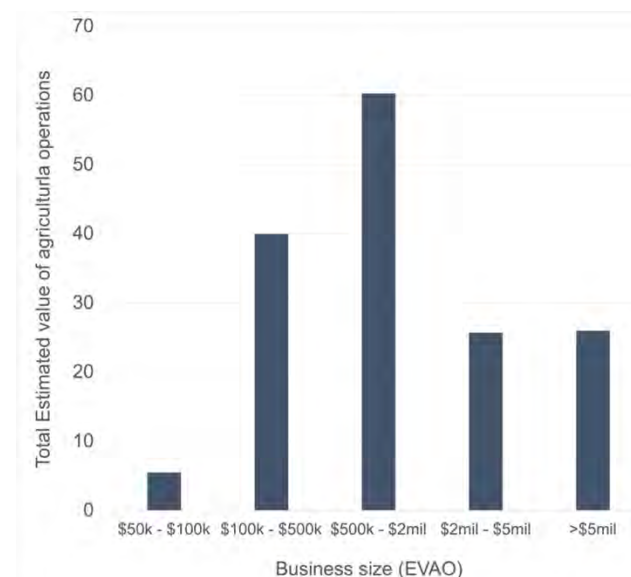


Figure 6-5: Estimated value of agricultural operations by business size, 2021, Strathbogie

Grazing of beef cattle and sheep is undertaken across the Shire. Dryland cropping of grains and hay is undertaken mainly on the plains adjacent to the Hume Freeway (Figure 6-6). Land to the east is generally too undulating from cropping and is used predominantly for livestock grazing. There is also grazing of irrigated pastures such as lucerne around Lake Nagambie and adjacent to the Goulburn River.

Most rural land is used for dryland production of meat and crops. Livestock grazing, cropping and poultry meat production is conducted across the Shire. Irrigated agriculture (cropping and horticulture) occurs where there is access to water in the north-east corner of the Shire along the Broken River and along the Goulburn River. There is a small amount of plantation forestry in the south-east corner of the shire near Strathbogie. In November 2019 the Victorian Government stopped all harvesting of native timber in the Strathbogie Forest by declaring the entire forest an Immediate Protected Area. The areas highlighted in Figure 6-6 as native wood production is no longer used for this purpose. This map has been developed using 2017 data provided by the Victorian Land Use Information System (VLUIS).

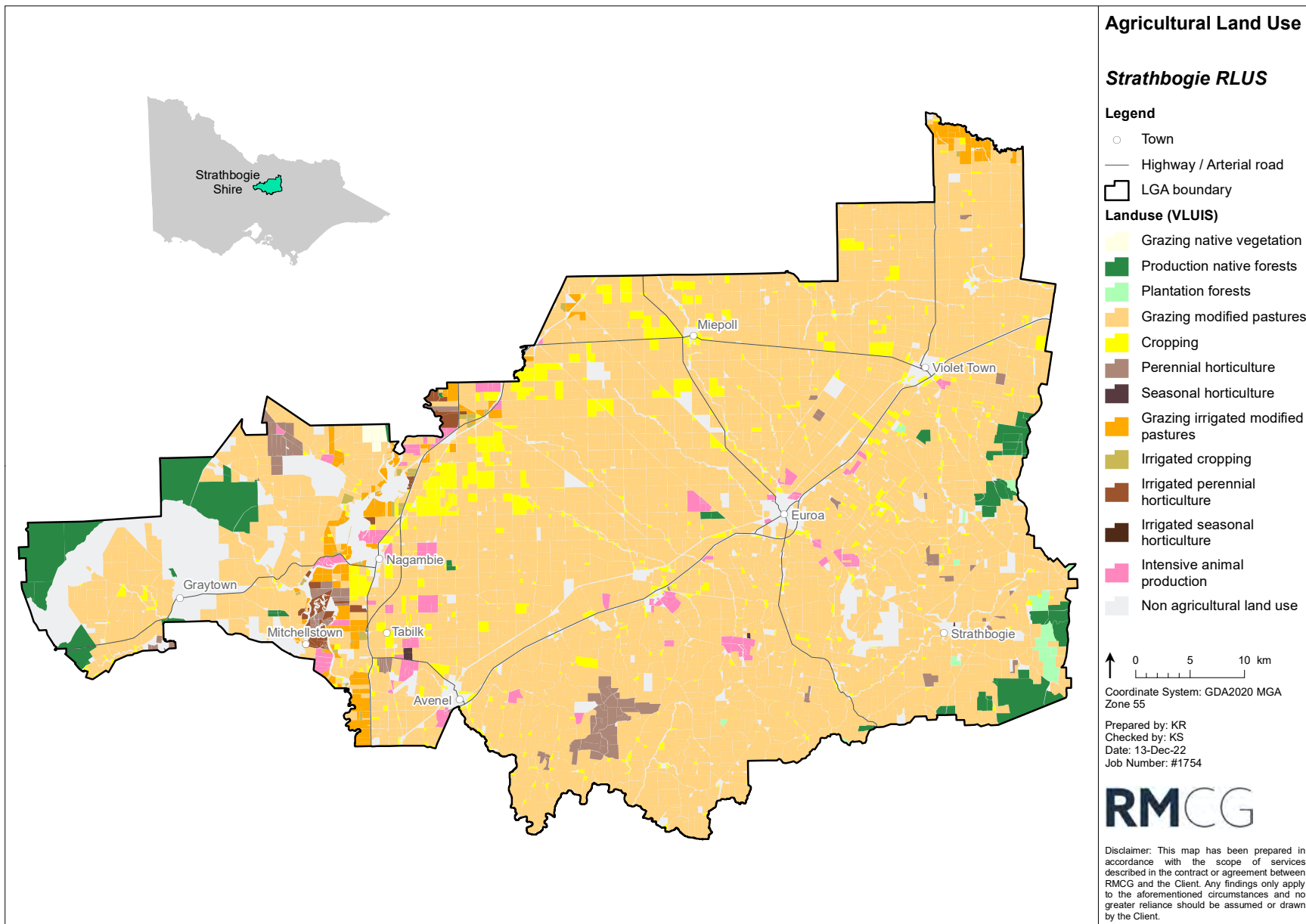


Figure 6-6: Agricultural Land Use, 2017, Strathbogie

6.2 LIVESTOCK

Livestock production in Strathbogie comprises mainly sheep production for meat and wool, and cattle and poultry production for meat.

The gross value of meat production (livestock slaughtering of sheep, cattle, pigs, goats and poultry) totalled \$104 million in 2021, 56% of total shire GVAP and 2% of the Victorian meat GVAP. Sheep comprised 53% of total meat production, cattle and poultry 23% each, and goats and pigs less than 1% (<\$50,000). In terms of contribution to the state GVAP, Strathbogie produced 3% of the state's sheep GVAP, 1% of the cattle GVAP and 4% of the poultry GVAP.

SHEEP

Analysis¹⁷ of the Victorian sheep and wool industries notes significant adjustment in the industry over the last two decades, with the flock size falling by a third and sheep farm numbers halving from the mid-1980's. These trends are also observed in Strathbogie where the total number of sheep declined steadily from 2001 through to 2021 (Figure 6-7) and the number of sheep producing properties also decreased from 400 to 266 properties. This trend is expected to reverse slightly over the next few years with the rebuilding of the national sheep flock supported by improved seasonal conditions in key sheep producing regions of eastern Australia¹⁸ and buoyant meat prices.

The gross value of sheep meat production in Strathbogie has increased significantly over last twenty years from \$12 million in 2001 to \$56 million in 2021 (Figure 6-7). Supply is expected to remain tight as producers retain their core breeding stock and ewe lambs, consistent with a significant flock rebuild. The rebuild will also see producers retain more older ewes than usual and many enter the market to purchase additional ewes⁵.

The price of wool influences the composition of the Australian sheep flock. Meat production is more attractive to sheep producers when wool prices are depressed⁵. The production of wool (as indicated by the number of ewes mated to merino rams) in Strathbogie has decreased over the last twenty years. The gross value of wool increased from \$15 million in 2001 to \$21 million over the last twenty years (with a peak of approximately \$50million in 2018 and 2019). Between 2016 and 2019, Australian wool prices traded at record highs. This period of high wool prices coincided with the most recent three-year drought (2017–2019).

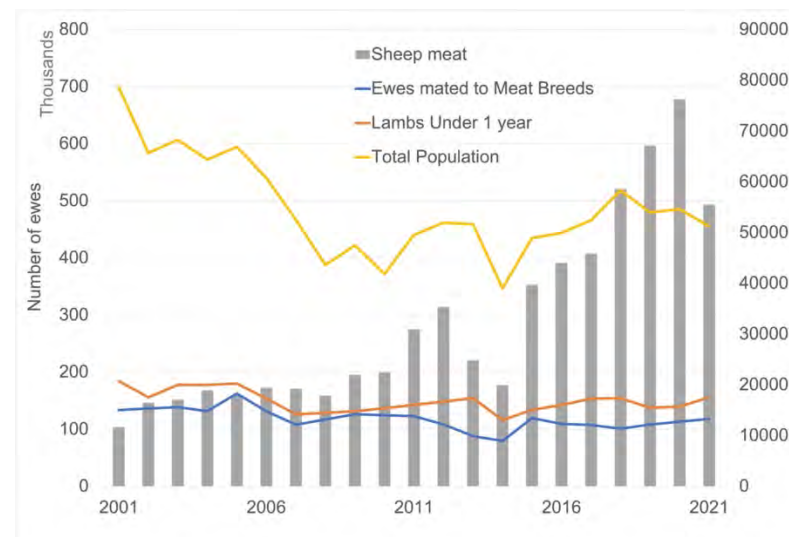


Figure 6-7: Trend in Strathbogie sheep and lamb production¹⁶

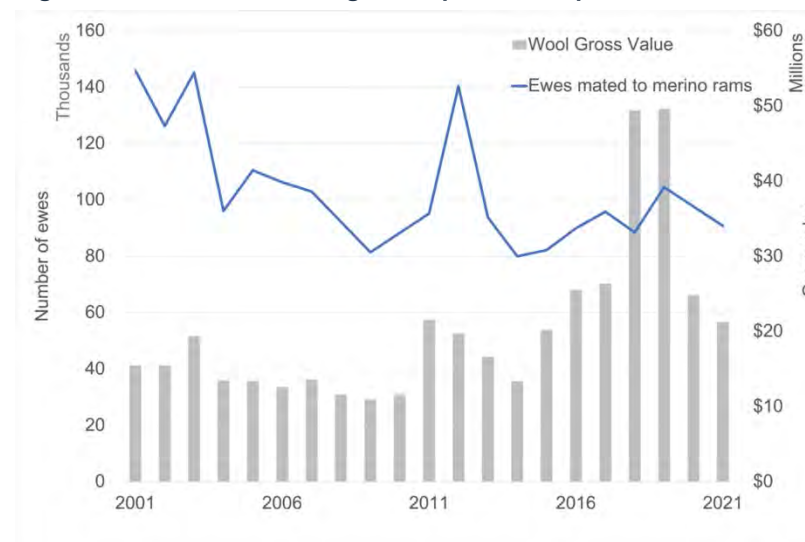


Figure 6-8 :Trend in Strathbogie wool production,

¹⁷ Department of Economic Development, Jobs, Transport and Resources (2014) Sheep Industry Profile

¹⁸ Industry projections 2021. Australian sheep. MLA

The return to long-term average wool prices, high sheep meat prices and improved seasonal conditions are expected to change the demographics of the national flock for both ewes and lambs¹⁵.

Trends in area of holding and business size amongst sheep producing businesses in Strathbogie show the following trends:

- An increase in the number of larger businesses (EVAO >\$100K and reduction in number of small businesses (EVAO <\$100K) and the emergence of businesses generating >\$2million EVAO in 2021) (Figure 6-9)
- Most EVAO from sheep is contributed by businesses generating between \$500K and \$2million EVAO (Figure 6-10)
- An increase in the number of large sheep farms (area of holding >2,500ha) and reduction in the number of smaller sheep farms (<2,500ha) (Figure 6-11).

These trends demonstrate that farm businesses are investing in business growth and expansion.

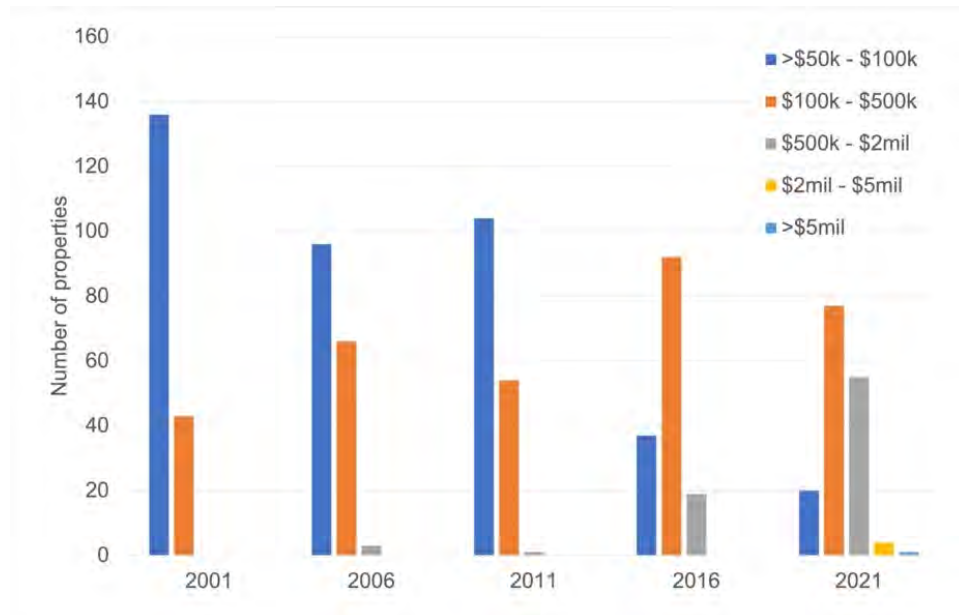


Figure 6-9: Sheep business size trend, Strathbogie



Figure 6-10: Total sheep EVAO by business size, Strathbogie

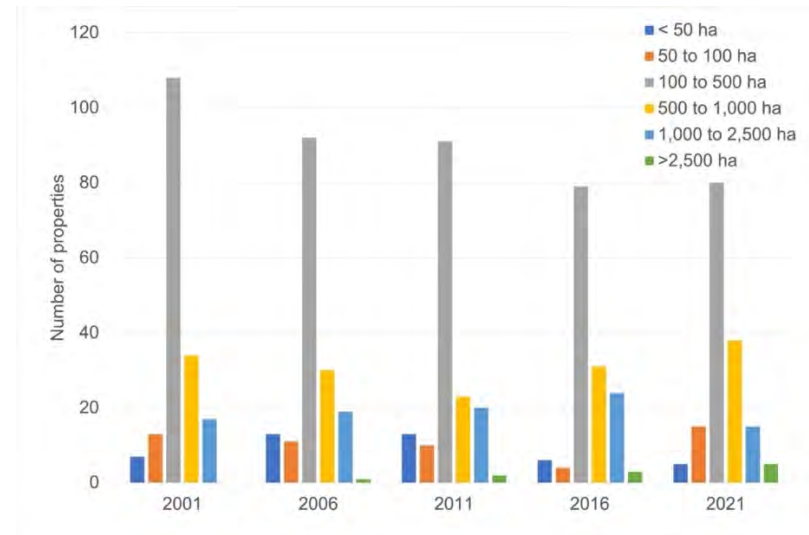


Figure 6-11: sheep property size trend, Strathbogie

CATTLE

The gross value of beef cattle production in Strathbogie has doubled over the last twenty years from \$12 to \$24 million. Over the same period, the number of cattle slaughtered has reduced from 51,000 to 33,000 head (Figure 6-12). These trends reflect beef cattle trends across Victoria with increases in gross value reflecting rise in meat prices and global demand for beef.

Similar to the sheep industry, beef cattle businesses in Strathbogie have demonstrated the following business trends:

- Reduction in the number of total beef properties from 353 to 219. This consolidation has occurred primarily on farms of a smaller size (< 100 ha) and generating <\$100,000 EVAO (Figure 6-13, Figure 6-14).
- Most EVAO from beef is contributed by businesses sized between \$100,000 and \$500,000 and the number of these businesses has nearly doubled over the last twenty years (Figure 6-15).

These trends demonstrate that farm businesses are investing in business growth and expansion.

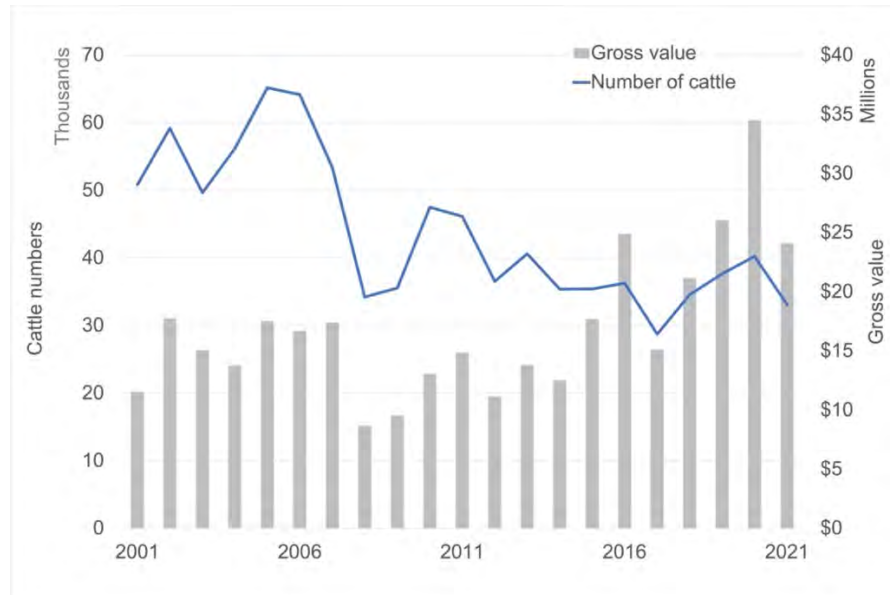


Figure 6-12: Cattle trends, Strathbogie

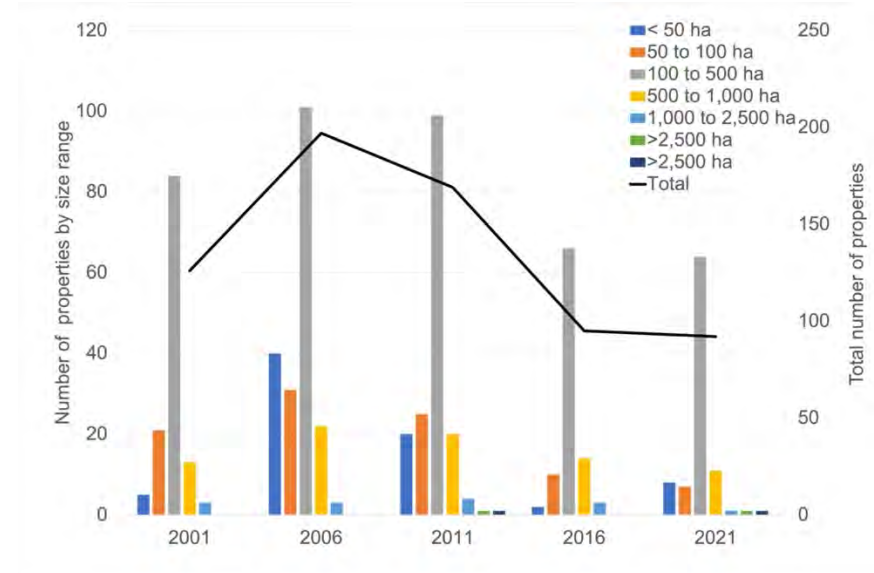


Figure 6-13: Number of beef businesses, 2001 – 2021, Strathbogie

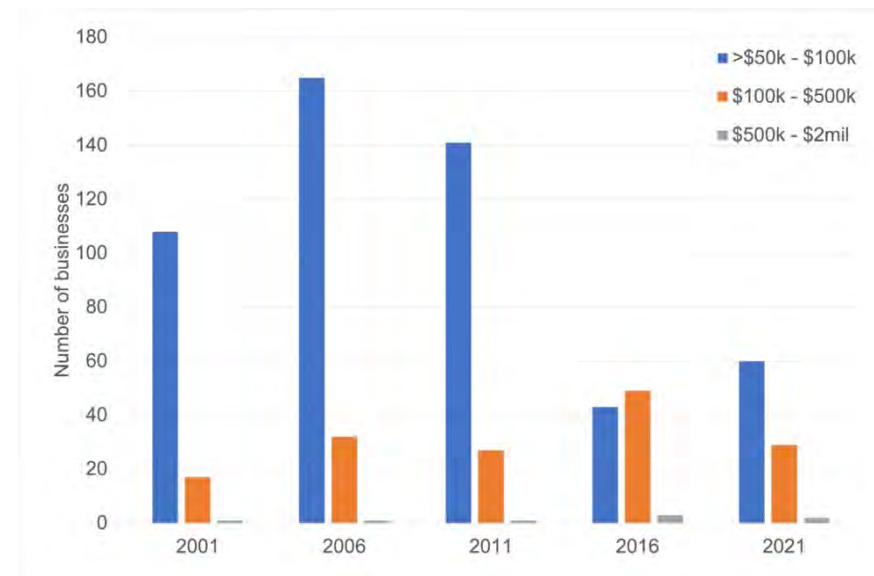


Figure 6-14: Beef EVAO business trends, 2001 – 2021, Strathbogie

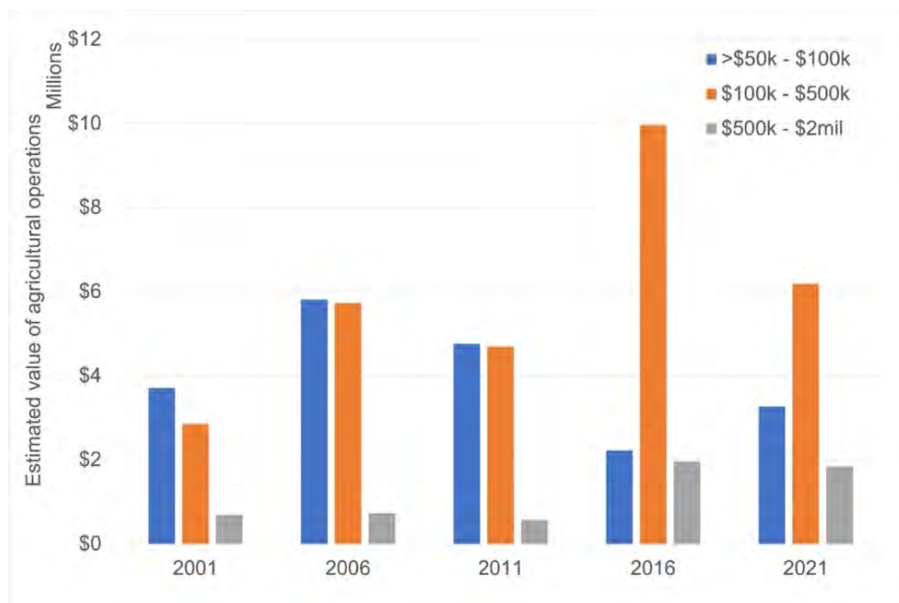


Figure 6-15: Total beef EVAO by business size, Strathbogie

The future outlook for Australia's livestock industry is positive. Above-average rainfall in 2020-21, particularly across southern Australia, supported producers to retain stock on-farm and replenish numbers following the drought. As a result of tight livestock supply, national sheep, lamb and cattle prices rose significantly throughout 2020-21 reflecting strong demand from all buyers.

Domestically, consumers continue to demand access to Australian red meat, and as global economies continue to recover and supply increases (driven by the herd and flock rebuilds), red meat producers are extremely well placed to capitalise on global demand.

Carcase weights reached record levels across all species as a result of improved genetics and on-farm management. This offset lower slaughter volumes to deliver increases in red meat production from less animals, demonstrating the efficiency of Australian producers.

In 2020–21, Australia's red meat landscape experienced consolidation whereby the amount of farm businesses declined, and the average farm size increased. This continues the trend seen in 2019–20, with the impacts of the drought, the pandemic and the reduced supply of livestock being the key drivers¹⁹.

¹⁹ State of the Industry Report (2022). The Australian red meat and livestock industry. MLA

POULTRY

Meat

Intensive agriculture is increasingly dominated by vertically integrated intensive agribusinesses with production and supply chains run by the same business. Access and proximity to grain, labour and abattoirs are key locational requirements for poultry production and growing facilities are often in reasonable proximity of towns. Poultry meat growing facilities, for example, need to be within a roughly two-hour radius of a poultry processing facility (such as Bendigo).

The value of chicken meat produced in Strathbogie has increased significantly from approximately \$19,000 in 2001 to \$24 million in 2021. Chicken meat is the second highest commodity in Strathbogie generating 13% of the Shire's GVAP and contributing 4% of the state's chicken meat GVAP. In 2017 production peaked with 3.2 million chickens slaughtered at a gross value of \$80.4 million. Over the last four years production has decreased with 581,068 chickens slaughtered in 2021 (Figure 6-16).

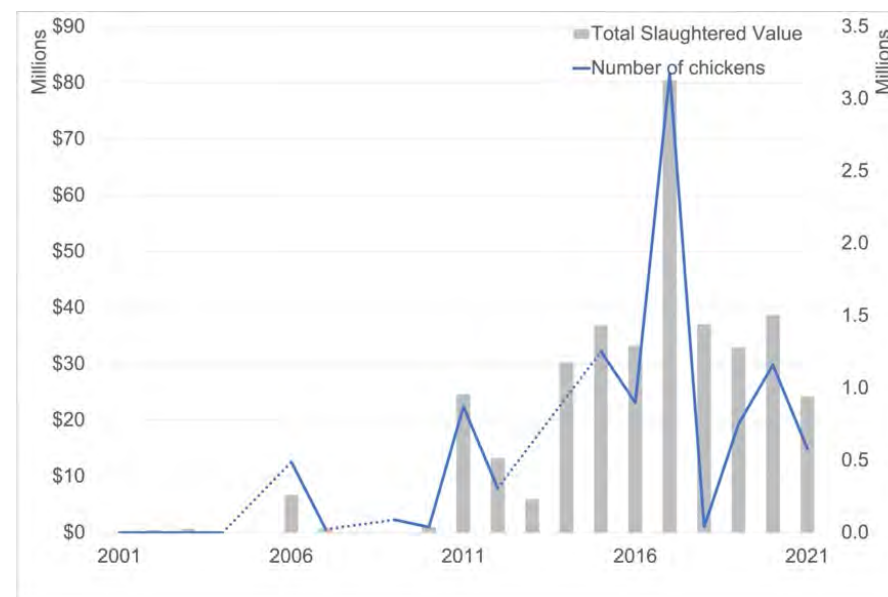


Figure 6-16: Chicken meat trends, Strathbogie

Chicken meat farms, where chickens grow from day-olds until they are ready for processing, are generally within 200km of the processing plant. Producers look for:

- Guaranteed water supply
- Guaranteed electric power, preferably three phase
- Access for heavy transport for feed and live poultry
- Available labour, depending on the farm size
- Available services such as tradesmen
- Locations where biosecurity risks are more manageable²⁰.

Chicken meat produced in Strathbogie would be transported to Bendigo where there is a processing plant (Hazeldene's Chickens).

The chicken meat industry is predominantly vertically integrated. This means that individual companies own almost all aspects of chicken production – parent breeding farms, hatcheries, feed mills, processing plants and, sometimes, meat chicken rearing farms. In this respect, the chicken industry is quite different from most other rural industries, which typically operate through a more complex supply chain⁷.

A Code for the establishment and operation of chicken farms in the state of Victoria has also been developed, which sets requirements for the (a) siting and size of broiler farms, (b) application of best practice in the design, construction, operation and management of broiler farms to satisfy relevant environmental standards, (c) preparation, assessment and determination of broiler farm development proposals through the planning permit system, and (d) ongoing monitoring of broiler farm operations through routine audits. This Code has recently been revised and is available at <https://agriculture.vic.gov.au/about/agriculture-in-victoria/sustainable-animal-industries/2018-planning-reforms-for-animal-industries>.

Eggs

The value of egg production in Strathbogie has increased significantly over the last twenty years from a value of \$2.1 million to \$20 million. It is the 5th largest agricultural commodity in Strathbogie generating 11% of the Shires GVAP and contributing 9% of the states GVAP from eggs. The volume of eggs produced in the Shire rose from 2010 reaching a peak in 2018 with 17 million cartons (dozen) of eggs produced. Over the last three years this volume has decreased to 7 million cartons in 2021 (Figure 6-17).

The variability in production is likely due to the small number of businesses over this time period which rose from 2 businesses in 2011 to 6 businesses in 2016, followed by 5

businesses leaving the industry between 2016 and 2021. One of these was a large business which had an EVAO of greater than \$16 million in 2016.

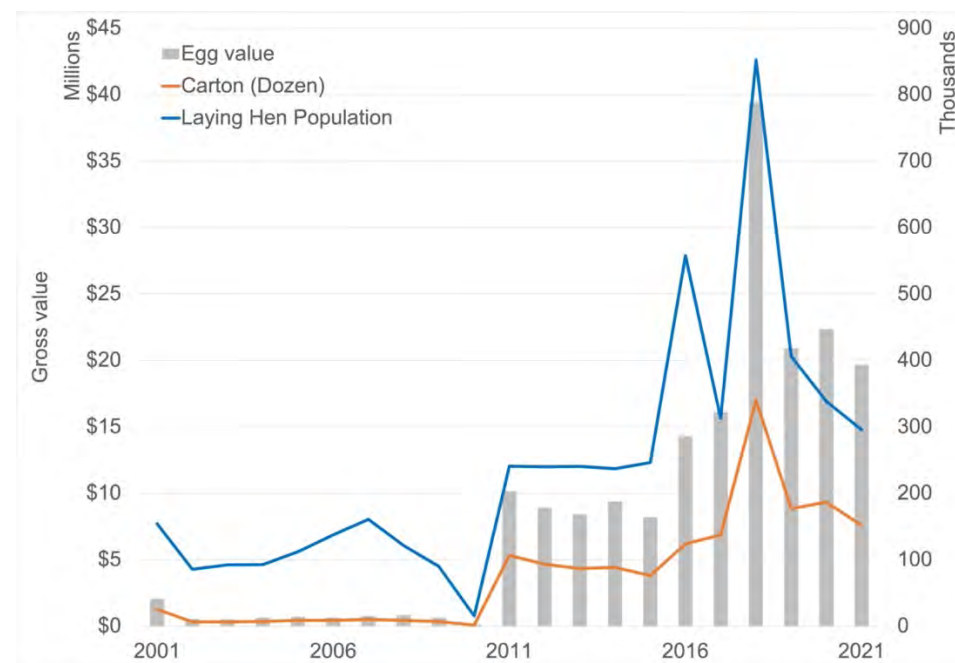


Figure 6-17: Egg production trends, Strathbogie

6.3 GRAIN AND HAY

The gross value of grain and hay in Strathbogie in 2021 was around \$16 million and \$8 million respectively. Grain production includes wheat, canola, oats and barley with wheat produced in the greatest volumes. The gross value of both commodities has roughly doubled over the last twenty years (Figure 6-18). Grain and hay contributed about 13% of the Shires' GVAP but at a state level the value of production is minor contributing less than 1%.

²⁰ <https://www.chicken.org.au/structure-of-the-industry/>

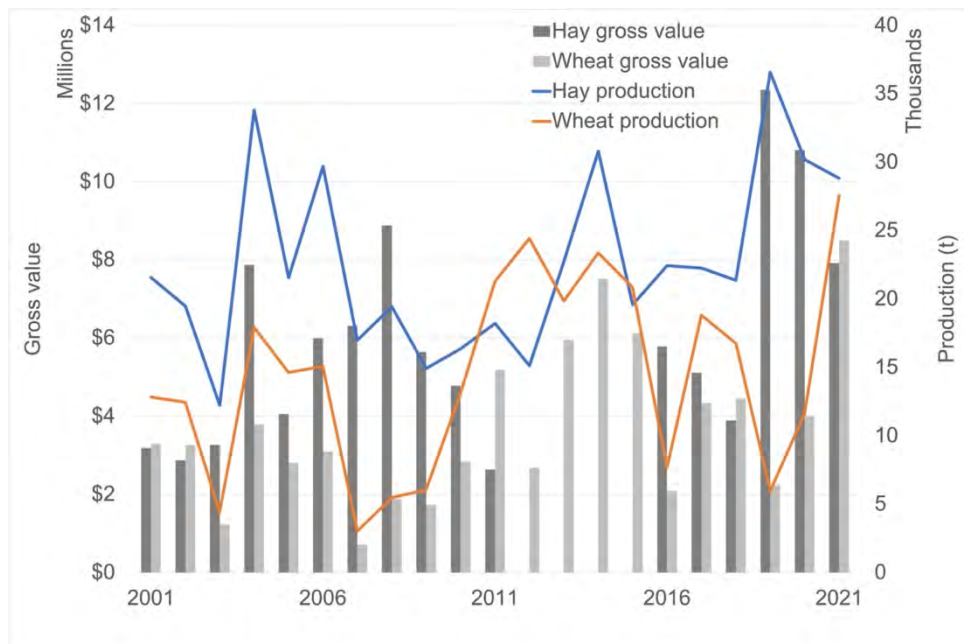


Figure 6-18: Wheat and Hay value and production trends, Strathbogie

The volume and value of grain and hay produced can vary significantly from one year to the next, mostly due to climate variability. Most grain and hay producers in Strathbogie are also engaged in meat production, with many farmers producing hay for livestock fodder.

The greatest value of grain, sheep and beef is produced by the larger farms (greater than 1,000 hectares in size) and this trend has become more pronounced over the last twenty years (Figure 6-20). The number of smaller farms (less than \$500,000 EVAO) has decreased over the last twenty years while the number of farms (greater than \$500,000 EVAO) has increased (Figure 6-20).

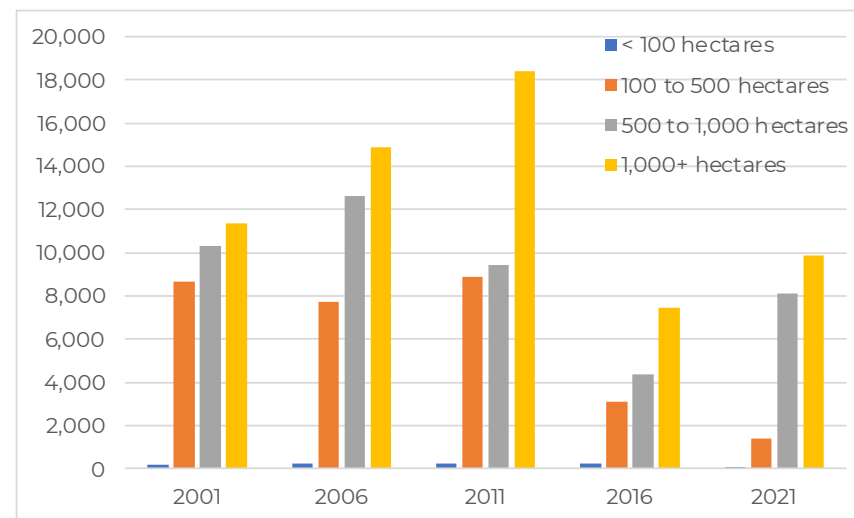


Figure 6-19: Value of production by size of grain-sheep-beef property

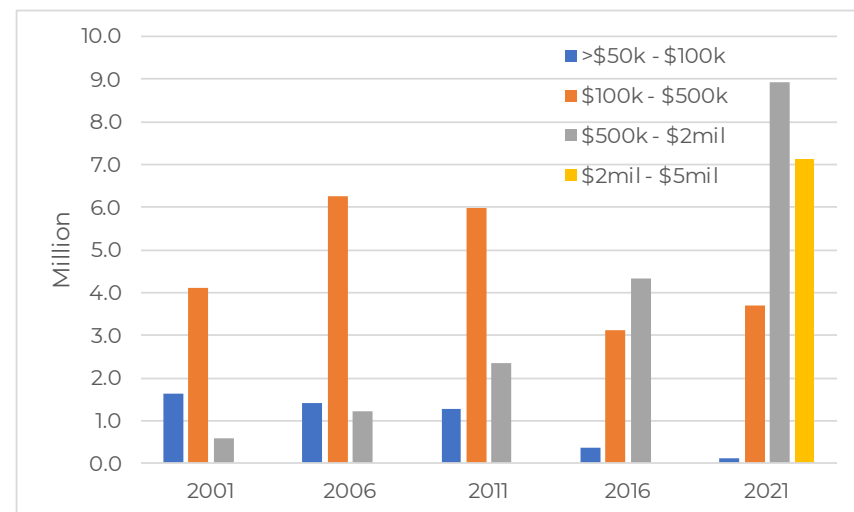


Figure 6-20: Grain-Sheep-Beef EVAO by business size, Strathbogie

6.4 HORTICULTURE

Horticulture in Strathbogie in 2021 contributed 8% of Strathbogie's GVAP and included:

- Grapes for winemaking (\$5.2M GVAP)
- Stone fruit (cherries (\$8.2M GVAP) and peaches (\$18,049 GVAP))
- Plant seedlings (\$1.2M GVAP)
- Cut flowers (\$189,525 GVAP)
- Olives (\$99,648 GVAP)
- Apples (\$1,537 GVAP).

The value of apple, cut flower, olives, peaches and tomato production in Strathbogie has remained static over the last twenty years. The value of plant nursery production has increased significantly from \$237,000 in 2020 to \$1.2M in 2021 (Figure 6-21). An increase in demand for plant products was driven in part due to COVID-19 which saw national production increase significantly. A recent survey of the Victorian nursery and garden industry identified that 74% of businesses indicated that they would expand their current operation in the near future²¹.

The value of cherry production has increased substantially over the last ten years from \$639,151 in 2011 to \$8.2 million in 2021. The number of farms has consolidated to just one business in 2021. The number of fruit producing trees has remained relatively stable since 2017 and it is likely that production has increased as these trees have matured and produced more fruit.

The value of mushroom production in Strathbogie between 2011 and 2020 has also fluctuated substantially with the establishment of a production facility by Costas in addition to their composting facility near Nagambie.

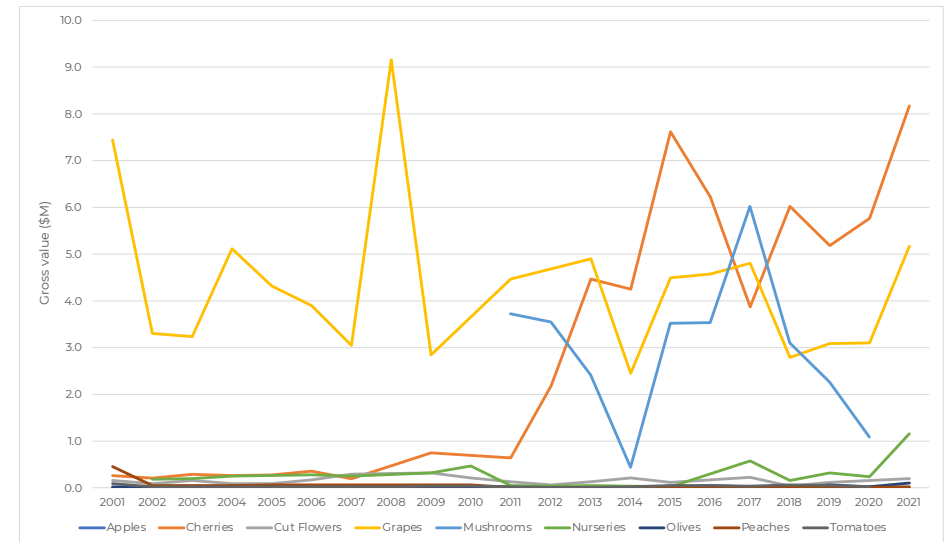


Figure 6-21: GVAP trends in horticulture, 2001 – 2021, Strathbogie

The value of viticulture in the region has fluctuated dramatically over the last twenty years and is likely due to variation in seasonal conditions, changes in prices received for wine grapes and consolidation of businesses in all size categories but particularly for smaller, lower value vineyards (Figure 6-22).

²¹ Realisation of growth opportunities in the Nursery and Garden Industry (2022) RMCG

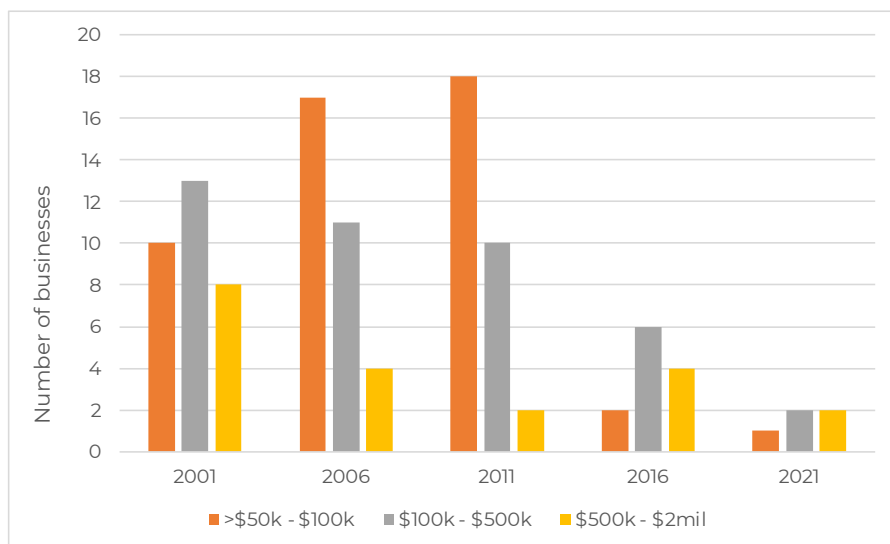


Figure 6-22: Vineyard trends, 2001–2021, Strathbogie

FORESTRY

Timber production from Hancock Victorian Plantations (HVP) located in the Shire is small compared to total production in Victoria (28% of HVP production is located in the Northern region of Victoria)²². The plantations are located in the far east of the Shire near Strathbogie (Figure 6-23).

In November 2019 the Victorian Government stopped all current and proposed harvesting of native timber in the Strathbogie Forest by declaring the entire forest an Immediate Protected Area. All previous logging coupes in the forest were removed from the Timber Release Plan. The Immediate Protection Areas aim to help to protect the future of the Greater Glider, alongside the Leadbeater's Possum and more than 35 other threatened species²³.

The Strathbogie Council supported the Victorian Governments decision to stop logging of native timber in the Strathbogie Forest with a preference to focus on tourism and recreational activity, and forestry operations in the existing softwood plantations²⁴. The

²² <https://www.hvp.com.au/hvp-forest-management/area-maps/>

²³ <https://www.deeca.vic.gov.au/futureforests/immediate-protection-areas/the-immediate-protection-areas>

Council also believes that there is significant potential for mixed species hardwood plantations to be developed (farm forestry).

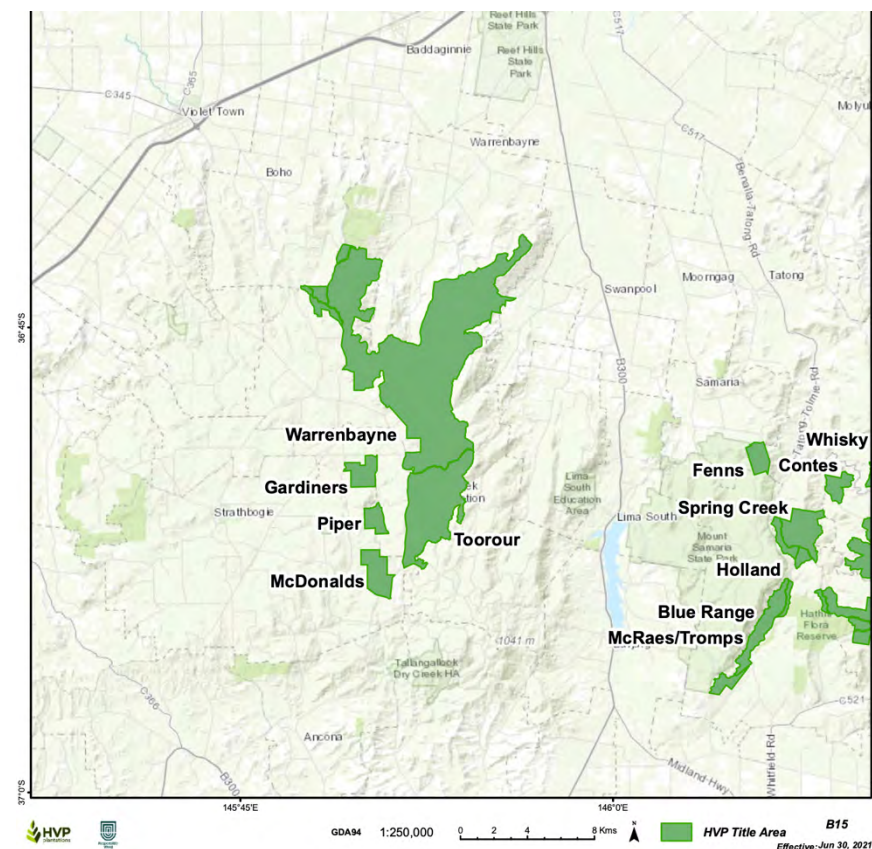


Figure 6-23: Location of HVPs in Strathbogie, 2021

The 2010 Sustainable Land Use Strategy identified opportunity to expand the area of softwood and hardwood plantations particularly east of the Hume Freeway extending from the upper Murray catchment in the north to the upper Goulburn catchment in the south in areas that receive an annual rainfall of more than 650mm. Areas of greatest opportunity are located close to major processing centres, which for Strathbogie Shire include Seymour and Benalla. Careful consideration needs to be given to the location of plantations as they have

²⁴ [https://www.strathbogie.vic.gov.au/images/MR-](https://www.strathbogie.vic.gov.au/images/MR-%20Council%20takes%20a%20firm%20stance%20on%20Strathbogie%20Forest.pdf)

[%20Council%20takes%20a%20firm%20stance%20on%20Strathbogie%20Forest.pdf](https://www.strathbogie.vic.gov.au/images/MR-%20Council%20takes%20a%20firm%20stance%20on%20Strathbogie%20Forest.pdf)

the potential to create land management issues for animal farming, particularly sheep, as the plantations provide a haven for pest animals such as foxes. They also provide refuge for other pest animals such as rabbits. The plantations sites have minimal on-site management therefore land management practices are often overlooked²⁵

EQUINE

While not strictly an agricultural industry, there is also a large equine industry in the Goulburn Broken region. Data at the LGA level on the industry is not readily available. However, regional scale data indicates that the Goulburn Region, of which Strathbogie is a part, is the focus of racing horse breeding in Victoria (Table 6-2). The region also supports a significant equine value chain including Kilmore and Seymour racing tracks, equine hospitals, specialist feed production (hay and grains), agistment and training.

The Strathbogie Shire is recognised as an ideal location for horse breeding, sharing attributes with other well known horse breeding areas such as the Hunter Valley. Climate, access to Melbourne, Sydney and other regional centres, and important local infrastructure, such as veterinary services, are key drivers of this industry. The development of a number of breeding enterprises over time has established the core of a local industry that in turn has supported new breeding businesses and associated businesses that support the equine industry.

Table 6-2: Thoroughbred breeding statistics, 2013²⁶

	STALLIONS AND SIRES	MARES	FOALS	TOTAL EXPENDITURE \$MILLION
Barwon	11	287	187	\$7.70
Central Highlands	7	142	93	\$3.33
East Gippsland	2	37	24	\$0.87
Gippsland	6	142	93	\$3.32
Goulburn	56	2,525	1,649	\$76.94
Loddon	28	923	602	\$34.18
Mallee	1	39	26	\$0.91
Ovens and Murray	6	240	157	\$5.93
Western District	14	180	117	\$4.28
Wimmera	1	27	17	\$0.62
Outer Melbourne	30	746	487	19.29
Total Regional Victoria	162	5,288	3,452	\$157.35
Metropolitan Melbourne	3	28	19	\$5.36

AGRICULTURAL INFRASTRUCTURE

Modern agriculture is increasingly reliant on:

- Effective freight networks to deliver both inputs and product to markets
- Good digital connectivity to improve the ability to implement new technology on-farm
- Reliable power supply infrastructure to provide greater energy security.

Strathbogie shire is well connected to Melbourne and associated ports via major transport routes, including the Hume Freeway and Goulburn Valley Freeway, in addition to rail transport and Mangalore Regional Airport. Council is advocating to establish a freight intermodal at Mangalore Airport to further improve the efficiency of freight of agricultural product out of the region.

²⁵ Parsons Brinckerhoff & RMCG (2010) Shire of Strathbogie Sustainable Land Use Strategy, prepared for Strathbogie Shire

²⁶ IER (2013) Site and scope of the Victorian Racing Industry

The Australian transport and land freight industry is expected to grow by 75% between 2021 and 2031 and that over three quarters of Australia's non-bulk freight is carried on roads between Sydney, Melbourne, Brisbane and Adelaide. The establishment of a freight intermodal will connect the Inland Rail Project with two freeways and the Goulburn Valley rail line at a point 128km north of Melbourne permitting the efficient transfer of freight at a location that would reduce truck and rail congestion in Metro Melbourne and facilitate connection to the inland rail with rail corridors extending into North Central Victoria and southern NSW²⁷.

Council is also advocating for improved digital and telecommunications infrastructure in the region which would improve the ability of agricultural businesses to manage production. According to a recent report from the Australian Council of Learned Academies (ACOLA), sensors and the IoT have the potential to improve on-farm input management while reducing the cost of detection and control of biosecurity and food safety risks. IoT and machine-to-machine (M2M) technology can also facilitate the use of real-time information to enable timelier and efficient use of water treatments and other such inputs. Examples of innovative IoT applications include virtual fencing designed to herd livestock back into their grazing areas using audio and sensory cues; and using soil sensors to enable the precision application of agriculture techniques such as spraying and fertilizer distribution²⁸. Use of these technologies requires access to high-speed data services.

Council is advocating for reliable power supply infrastructure to provide greater energy security²⁹. Outdated single wire earth return power lines have the potential to limit agricultural production particularly investment in farm and processing equipment requires 3 phase power and intensive agricultural production systems

KEY FINDINGS

Food and fibre production in Strathbogie is focussed on mixed farming systems for livestock production, intensive poultry meat production and eggs, and a number of horticultural commodities. There is a small amount of plantation forestry. The gross value of agriculture has risen consistently over the last 20 years associated with improved prices for meat and wool. The market outlook for meat, wool and grains is strong.

Farm businesses in Strathbogie have increased in business scale and in holding size indicating that businesses are investing in business growth and expansion.

Future climate will bring some changes to agriculture, but mixed farming systems for livestock production will continue to dominate the agricultural industry. In the southern parts of Strathbogie Shire, the future climate will increase productivity and land suitability with milder winters and less waterlogging which may facilitate expansion of grain production. Northern parts of the Shire are forecast to experience more frequent seasons of reduced rainfall with insufficient water held on farm, restricting the grazing capacity. For intensive horticulture high value crops will require protection from sun and extreme weather events through the use of protected cropping structures. Intensive animal production will need to consider increased risk for animal welfare issues associated with higher average temperatures and extreme heat events.

The Shire's location, accessibility and agricultural infrastructure are significant competitive advantages for food and fibre producers in Strathbogie. Better mobile phone coverage and wireless access, and energy security would enable farmers to continue to innovate and adopt new technology.

The Rural Land Use Strategy should support the ongoing growth of food and fibre industries, including investment in new technology, diversification and adaptation to climate change. Planning policy should be tailored to reflect and support the scale and type of agricultural industries that build on the Shire's competitive advantages.

²⁷ Strathbogie Shire Council Advocacy Strategy 2021 - 2025

²⁸ <https://circleid.com/posts/20201028-ict-in-agriculture-a-travel-to-australias-outback-queensland/>

²⁹ Strathbogie Shire Council Advocacy Strategy 2021 - 2025

7 Productive / strategic agricultural land

The regional growth plan for the Hume region identifies a corridor of strategic agricultural land in Strathbogie Shire originating approximately from Mitchellstown and Avenel in the South through to just north of the Goulburn Weir on the Western side and stretching north to Miepol on the Eastern side (see Figure 7-1). This area encompasses the main area of irrigated agriculture production in Strathbogie including irrigated pastures for livestock grazing, irrigated horticulture and irrigated cropping. Water for irrigation is obtained from the Goulburn River. This area is at the southern end of the Goulburn Valley irrigation district, which is considered to be of strategic state and national significance due to its ability to supply fruit and dairy products in Victoria and Australia, and the presence of major downstream processing enterprises. To protect these areas:

- Proposals for settlement should be directed to existing centres and townships
- Large commercial tourism uses should be directed to urban locations or to rural areas of lower agricultural value
- Rural residential settlement and other land uses that are non-complementary to agriculture should not be allowed to encroach³⁰.

Productive agricultural land (as described in PPN42) generally has one or more of the following characteristics:

- Suitable soil type
- Suitable climatic conditions
- Suitable agricultural infrastructure, in particular irrigation and drainage systems
- A present pattern of subdivision favourable for sustainable agricultural production³¹.

The southern end of the Goulburn Valley has been identified in the Hume Regional Growth Plan as strategic agricultural land (as discussed above) due to the availability of water from the Goulburn River which has facilitated the development of irrigated pastures, cropping and horticulture. This land therefore should remain in the Farming Zone to protect future use for productive purposes.

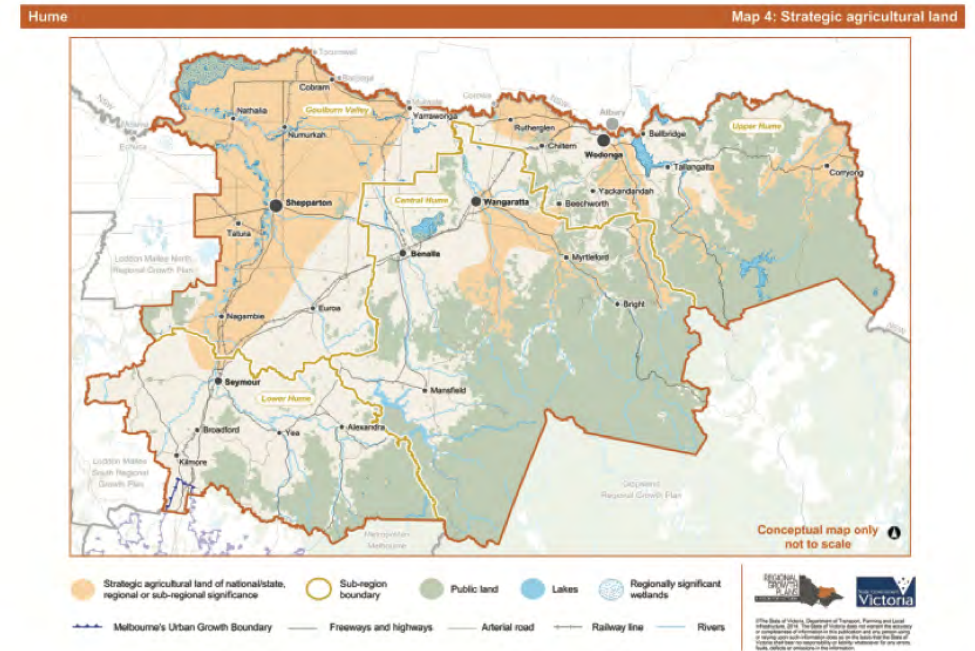


Figure 7-1: Strategic agricultural land in the Hume region

Land systems analysis allows the comparative agricultural land quality of a region to be assessed. A five-class system (as shown in Table 7-1) is commonly applied throughout Victoria. An objective way to separate these land classes is to compare them against a range of features such as slope, drainage, soil characteristics, flooding frequency, erosion potential and other relevant variables. As shown in Table 7-1 land rated 3 and 4 are best suited to livestock production using sustainable grazing practices. The potential for horticulture and broadacre cropping is limited by slope and potential presence of rock. Land

³⁰ Hume Regional Growth Plan Summary (2014) State Government of Victoria

³¹ Planning Practice Note 42: Applying the rural zones. <https://www.planning.vic.gov.au/guides-and-resources/guides/planning-practice-notes/applying-the-rural-zones>

rated as Class 2 can be used for horticulture if water for irrigation is available, or broadacre cropping however it is likely that inputs and management will need to be higher to achieve good returns. Land rated as Class 1 is the most versatile and is generally used for higher value production.

Table 7-1: Land system code and agricultural land class ratings

CLASS	CHARACTERISTICS
1	Agriculturally versatile land, with high inherent productive potential through possessing deep permeable and fertile soils, a flat to gently undulating land form, and a growing season of 11-12 months either under natural rainfall or with the availability of irrigation.
2	Agriculturally versatile but requiring a higher level of inputs to achieve the same productivity as Class 1. Slope is greater, soils more variable, and the growing season is limited to 9-11 months.
3	Sound grazing land but limited in versatility. Generally unsuited to cropping either because of contour, lack of topsoil depth, or presence of rock. Fertility levels are moderate to low, growing season limited to 8-9 months. With high inputs, high productivity levels may be achieved.
4	Capable of grazing under moderate to low stocking rates where clearing has occurred. Slopes are moderate to steep, with shallow infertile soils which need care in their management. Fertility levels generally low. Erosion hazard high. Forest is often the best and most stable form of land use.
5	Land unsuited to agriculture. Constraints may be steepness of slope, shallow, sandy or rock soils, high erosion susceptibility. Environmental stability may be best achieved through isolating areas and strictly controlling or eliminating agricultural land uses.

Identifying the productive status of rural land in Strathbogie (outside of the strategic area identified in Figure 7-1) is challenging due to limited information at a regional level on the soil types and capability of land. Based on current land use (as shown in Figure 6-6), areas located away from the Goulburn and Broken Rivers support dryland cropping and livestock grazing, and a small pocket of plantation forestry. These are likely to be the best suited enterprises for the prevailing soil types and the climatic conditions. Analysing and mapping the land systems within Strathbogie to classify the type (and productive nature) of land would assist in identifying if areas outside of the Goulburn Valley irrigation district have strategic significance and therefore require greater protection and/or consideration.

CLIMATE CHANGE

The Strathbogie Shire currently receives most of its rainfall in winter, and experiences warm summers and cold winters. The average annual rainfall of 965 mm supports mixed farming systems focused on livestock and fodder production.

Based on CSIRO and Deakin University modelling, the climate of the Goulburn Broken region is expected to change in the future due to the effects of climate change, including:

- An increase in average temperature and extreme heat events into the future
- A reduction in average rainfall into the future
- A change in rainfall patterns (e.g. declining spring rainfall)
- An increase in extreme weather events (e.g. storms, flooding, bushfires and heatwaves).

Under these predictions, water requirements by agricultural crops to meet evaporative demand is expected to increase, while water supply will decrease. The impact to agriculture in Strathbogie is milder than that predicted for more northern LGA's in the Goulburn Broken region such as Campaspe and Shepparton.

Modelling conducted as part of the Climate Smart Agriculture Development (CSAD) project predicted a south-easterly shift in highly suitable production areas in 2050, under a 'Business as Usual' management approach with no additional irrigation, and an increase in moderately suitable production areas. The versatility of land in Strathbogie in 2050 is shown in Figure 7-3 with the northeast region considered to be moderately suitable (yellow/green), with most other areas considered to be of high versatility (lime green). Patches around the ranges are considered permanently not suitable (purple).

As discussed in Section 6.1 current land use in Strathbogie is dryland production of meat (beef and sheep) and crops. Dryland cropping of grains and hay is undertaken mainly on the plains adjacent to the Hume Freeway. Land to the east is generally too undulating from cropping and is used predominantly for livestock grazing. There is also grazing of irrigated pastures such as lucerne around Lake Nagambie and adjacent to the Goulburn River. Irrigated agriculture (cropping and horticulture) occurs where there is access to water along the Broken River and along the Goulburn River. There is a small amount of plantation forestry in the south-east corner of the shire near Strathbogie. Poultry (meat and egg) production occurs across the Shire (Figure 6-6).

While climate change will bring some changes to the mix and distribution of agricultural commodities, the industry will continue to be dominated by mixed farming systems that focus on livestock and fodder production.

The northern parts of the Shire may experience more frequent seasons of reduced growing season rainfall and pasture production into the future requiring farmers to rationalise livestock herds and destock due to both feed and water shortages.

For the chicken meat and egg industries the main adaptations to climate change may include the use of additional cooling measures to counteract increased average temperatures and extreme heat events.

Where horticultural producers have secured access to water, they will be able to continue irrigating their crops. The greatest climate change adaptations for horticulture will involve:

- Protecting crops from more extreme weather events through use of netting (or other structures) to minimise damage from sun or hail
- Expanding irrigation infrastructure could be considered in some production areas to take advantage of the changing climate
- For crops that have a substantial winter chilling requirement a change of location to a more suitable climate³².

IRRIGATION

Agriculture in Strathbogie Shire is predominantly rainfall dependent with some development of surface and ground water resources for irrigation. The southern section of the Shepparton Irrigation Area, including the Goulburn Weir, is located within Strathbogie. This is owned and operated by Goulburn-Murray Water (G-MW). Groundwater is accessed via bores across the Shire (Figure 7-4) for livestock production and cropping.

The extent of irrigated agriculture is limited to areas capable of directly accessing surface water from the Goulburn River or Broken River, accessible aquifers with suitable quality water or land within the Shepparton Irrigation Area.

KEY FINDINGS

The Hume Regional Growth Plan identifies a corridor of land around the Goulburn River as strategically significant agricultural land which will ongoing protection. Outside of this corridor it is challenging to identify the productive importance of rural land in Strathbogie due to a lack of classification and mapping at a regional scale. To inform future planning it is recommended that productive agricultural land within Strathbogie is identified and protected in the planning scheme.

Identification of strategically important agricultural land in policy will assist in protecting land from adjoining uses and development that are inconsistent with normal farming practices, identifying areas where agriculture will have primacy of all other uses. Extensive areas of unfragmented land facilitates industry growth, intensification, adoption of new technology and adaptation to change markets and climate.

³² <https://gbcma.maps.arcgis.com/apps/MapJournal/index.html?appid=50b1ec366f9a4c79850e29c0c105c9fc#>

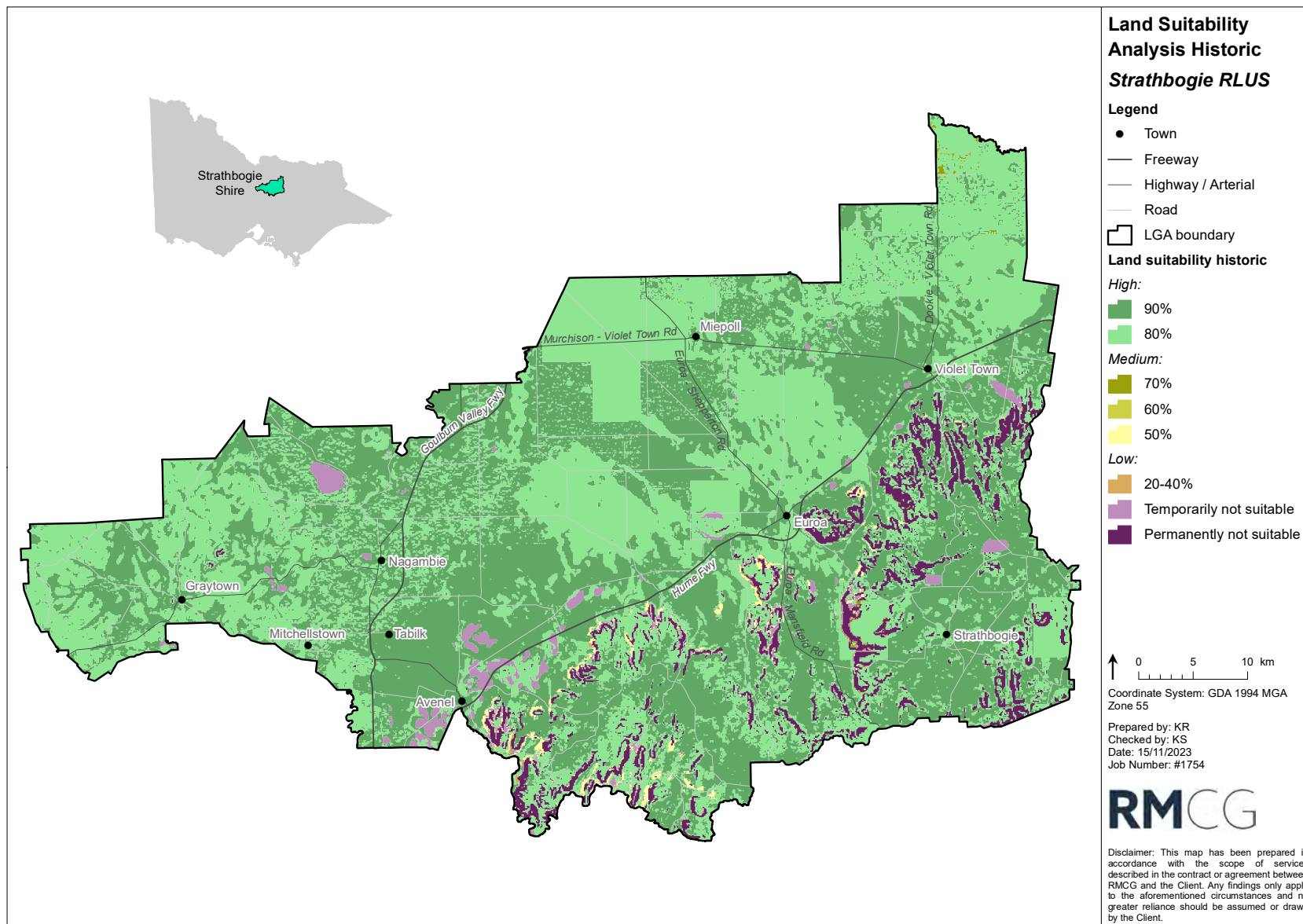


Figure 7-2: Historic Strathbogie land suitability

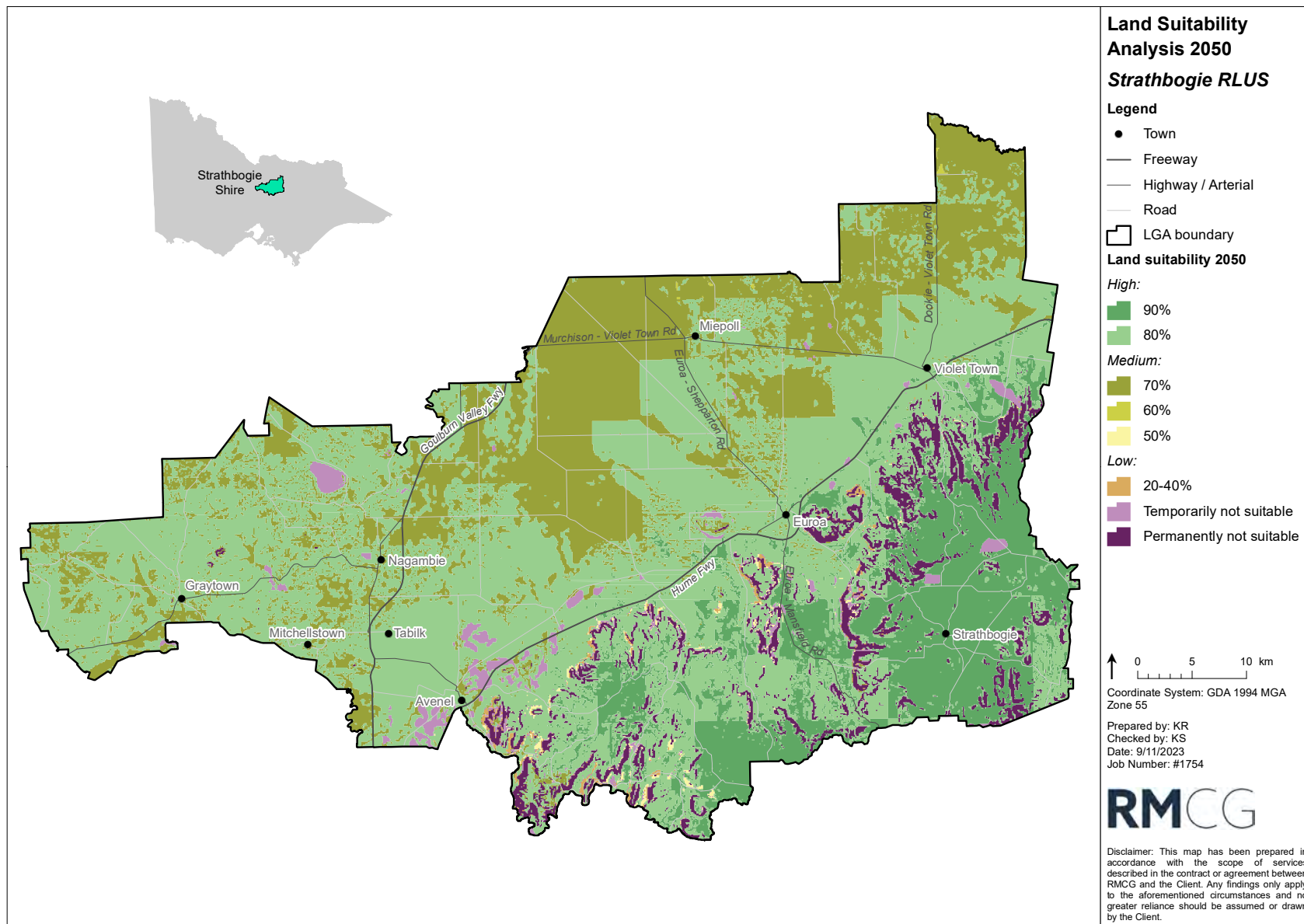


Figure 7-3: Strathbogie land suitability in 2050

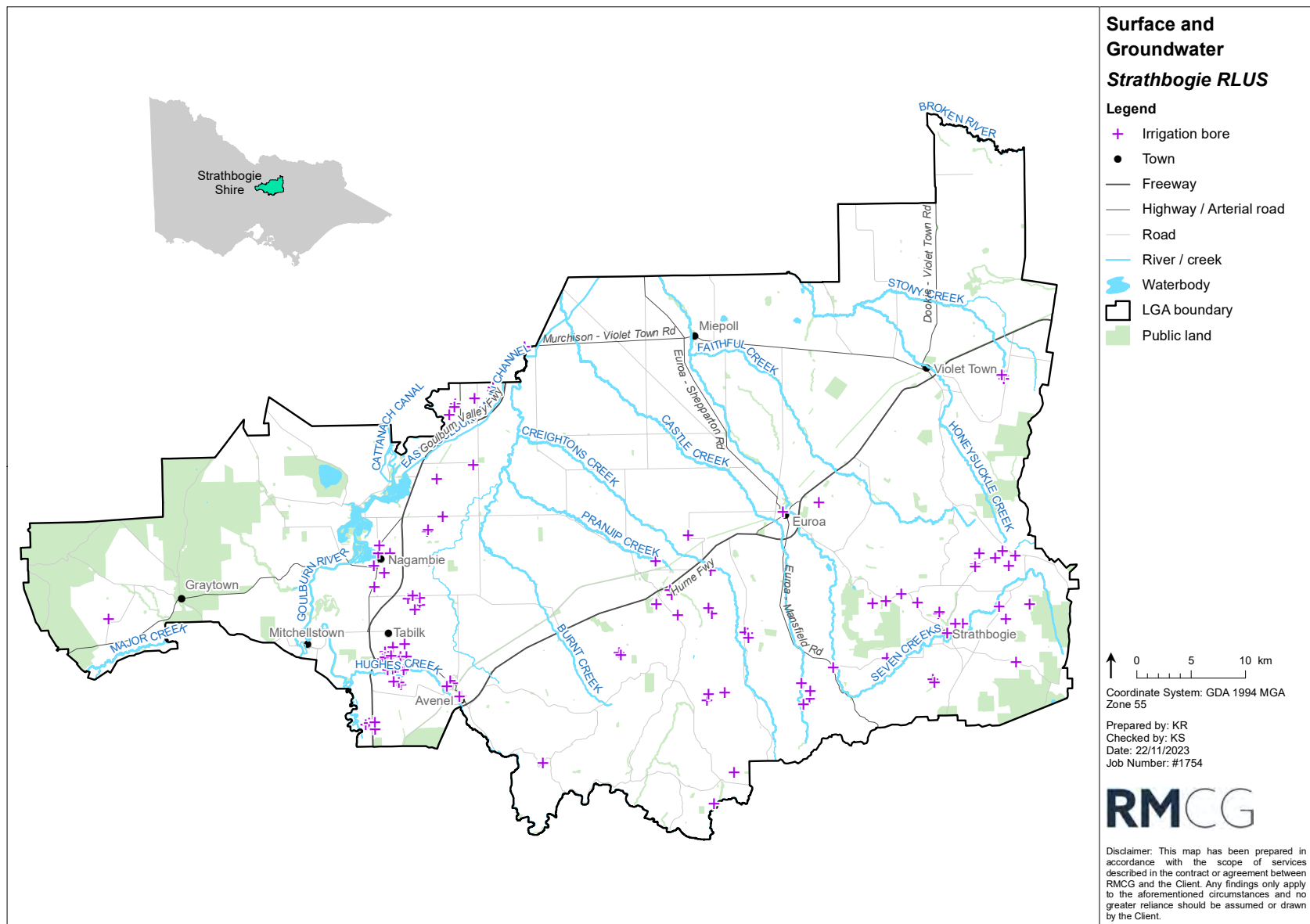


Figure 7-4: Surface and groundwater, Strathbogrie, 2023

8 Tourism in the Farming Zone

The visitor economy is an important component of the local economy, contributing 4% of total economic output (around \$52 million per annum) and employing around 7% of the local workforce (281 jobs)³³. As such, the tourism industry is ranked within the top 6 industries for Strathbogie. With a range of products and experiences across the Shire, Strathbogie has the opportunity to attract visitors and leverage its proximity to nearby regional (i.e. Shepparton) and metropolitan (i.e. Melbourne) centres. Tourism is focussed on the natural resources and attractions in the Shire including:

- Food and wine experiences at the wineries located within the Strathbogie Ranges Wine Region
- Sale of local produce at farmers markets within a number of townships
- Activities such as bushwalking, birdwatching, horse-riding and mountain biking within the natural landscapes of the Strathbogie Ranges
- The indigenous and cultural heritage of the region.

8.1 FOOD AND WINE

The Strathbogie Ranges Wine Region is located between Seymour and Benalla, east of the Hume Freeway with the township of Euroa at its centre. The region moves from the cooler climate wines in the south to the more temperate conditions in the north. Wineries range from small family wineries to larger wineries, some of which are heritage listed. There is also a number of established vineyards in the region³⁴.

Local produce markets or 'farmers markets' are held every month in Avenel, Euroa, Nagambie and Violet Town. These markets focus on the sale of local agri-food and craft products.

8.2 NATURAL ATTRACTIONS

The Strathbogie Shire contains a range of natural attractions facilitating activities such as bushwalking, bird watching, horse-riding and mountain bike riding. These include the Goulburn River system, Nagambie Lakes, Gooram Falls, the cascading Polly McQuinns, and unique granite rock formations in the Strathbogie Ranges. Lake Nagambie is a key tourist

destination in the Shire and a focal point of the surrounding area. The lake is used for recreation purposes in conjunction with the Nagambie Rowing Regatta Centre and nearby caravan park. Current projects which will enhance the tourism potential of Lake Nagambie include the development of the Splash Park and the Foreshore Walk.

8.3 HISTORY

Indigenous

Much of the Strathbogie Shire is on Taungurung Country which is supported by the Taungurung Land and Waters Council (TLaWC). Evidence of scar trees, rock wells, rock art, cultural artefacts and place names all indicate that Taungurung people have been in this part of Victoria for many thousands of years. The TLaWC provide Aboriginal-led guided cultural tour experiences on Taungurung Country. The experiences enable their self-determined story to be shared, respected and celebrated, strengthening the Taungurung Nation³⁵.

European

Towns within the Shire have monuments and sites commemorating the military history of Victoria, with war memorials offering insight into local history and heroism. The Shire also falls in the Official Ned Kelly Touring Route telling the story of Ned Kelly and his Gang.

8.4 VISITATION

Between 2015-2019, Strathbogie attracted an average of 344,114 visitors per annum. Visitors were all domestic, visiting the region either for day trips (60%) or staying overnight (40%). International visitors made up less than 1% of the total. This represents an average increase of 45,225 visitors per annum from the 2010-14 period (total growth of 15%), driven by increased visitation by domestic tourists.

Strathbogie can leverage its proximity to Melbourne and other regional centres, to grow the visitor economy which is currently constrained by a lack of commercial accommodation, as well as limited activation of key assets and commissionable products and experiences.

³³ ABS 2021

³⁴ Strathbogie Ranges Wine Region Brochure

³⁵ <https://taungurung.com.au/cultural-experiences/>

8.5 KEY FINDINGS

A number of opportunities for Strathbogie rural tourism is afforded by a stronger and more defined tourism product including touring routes, adventure activities, wildlife and indigenous cultural experiences. Opportunities include nature based and eco-accommodation such as school camps, off park accommodation and accommodation for adventure tourism providers.

Rural tourism in Strathbogie is currently confined to the opportunities afforded by the Farming Zone which includes farm stays, group accommodation, market, residential hotel, restaurants, and primary produce sales. The Planning Practice Note: Applying the rural zones (2013) states that in the Rural Activity Zone:

“if a planning authority is keen to facilitate the establishment of larger scale tourism uses or a more diverse mix of tourism and recreation uses, the Rural Activity Zone may be a more appropriate zone to apply”

There is an opportunity to leverage existing tourism destinations and attractions and regional connections and further diversity the tourism offer. The Strathbogie Shire Economic Development Policy 2023 – 2027 identifies the following projects/actions of relevance to rural tourism in the Shire:

- Support agricultural businesses to diversify income, including options for agritourism and renewable energy investment
- Support the operation of the new Goulburn Regional Tourism Partnership
- Support the preparation of a branding and marketing strategy for Strathbogie Shire
- Prepare an update to the Track and Trails Strategy
- Promote the activation and enhancement of nature-based assets in the Shire.

The RRRLUS should consider policy identifying areas where tourism development in rural areas will be encouraged and the types of uses suited to rural locations. In identifying areas suited to rural tourism and potential application of the Rural Activity Zone, the following factors should be considered.

- Leveraging established and emerging tourism assets
- The need to protect the agricultural, environmental and cultural values of the area
- The scale and mix of tourism and recreation uses to be encouraged
- Whether there are opportunities to build alliances between tourism business operators, farmers, food and wine producers and trail network managers
- The product and infrastructure need of tourists and the local community
- Requirements for the siting, planning and design of tourism facilities.

9 Natural Hazards and Environmental Risks

The Shire is home to the Heathcote-Graytown National Park. The Goulburn River also passes through the Shire and includes both Lake Nagambie and the Goulburn Weir. To the north-west of the Hume Highway there are extensive areas of native vegetation in private land, along road reserves and watercourses, interspersed with scattered pockets of open grassland in a relatively flat landscape. To the south-east of the Hume Highway, the topography is steeper and undulating with scattered and fragmented woodlands as part of the Strathbogie Ranges.

The protection of native vegetation to the south of the Hume Highway is managed through the Erosion Management Overlay, which applies to much of the Strathbogie Ranges. Land to the north of the Hume Highway is characterised by Ironbark forests. These forests have high biodiversity values characterised by soil types prone to erosion³⁶.

9.1 BUSHFIRE

All of Strathbogie is designated a Bushfire Prone Area. Bushfire Prone Areas are subject to or likely to be subject to bushfire and building permit requirements will be triggered where new buildings are required to build to a national bushfire construction standard, known as a Bushfire Attack Level (BAL).

The Bushfire Management Overlay (BMO) has been applied to bushfire prone areas with very high and extreme bushfire hazards and triggers planning permit requirements including mandatory bushfire protection measures such as defensible space, water supply, access and ongoing vegetation management requirements. Areas where a BMO applies are also by default Bushfire Prone Areas. Areas of bushfire hazard are shown in Figure 4-3.

Identification of land for rural residential development will need to take into consideration bushfire hazard, particularly around the towns of Strathbogie, Euroa and Avenel.

Fire risk can be reduced by preparing fire breaks, managing grass levels, good weed and stock management. Fire risk mitigation measures are detailed in a Bushfire Management Plans and form part of a planning permit for buildings and works in the BMO. A bushfire management plan shows all of the bushfire protection measures that will be implemented as part of a development to reduce the risk from bushfire to an acceptable level. Standard

requirements include creating 30m of defensible space around a dwelling and access with a trafficable width of 3.5m. This can lead to significant vegetation clearance which may have negative impacts on biodiversity.

Climate change will increase the frequency and intensity of extreme weather events such as the heatwaves and drought. These changes will increase the bushfire risk to homes, farms and infrastructure in rural areas and should be a consideration in planning for rural areas.

The 2023 Planning Scheme Review did not make any recommendations with regard planning and development in bushfire prone areas. Council officers did not note any issues with assessment of planning permits for building and works on land within the BMO.

9.2 FLOOD

Runoff from the Strathbogie Ranges drains to the Goulburn River via a network of seasonal and permanent creeks. This topography has contributed to a history of flooding including a significant flood event in 1993 which impacted the townships of Violet Town, Euroa, Avenel and vast extents of rural areas resulting in extensive damage. In 2022 flooding affected many parts of Strathbogie and in some areas peaked above major flood levels. Homes and businesses were inundated, crops and infrastructure were damaged, and stock lost resulting in significant cost and disruption.

The Flood Overlay (FO) and Land Subject to Inundation Overlay (LSIO) identify areas that are susceptible to flood risk and triggers planning permit requirements for buildings and works.

Climate change will increase the frequency and intensity of extreme weather events such as flood and increase the risk to homes, farms and should be a consideration in planning for rural residential development and rural areas.

The 2023 Planning Scheme Review noted that the Goulburn Broken Catchment Management Authority (GBCMA) have completed new flood mapping for the municipality and that once flood mapping is available to Council, it is important that the information is

³⁶ Regional Bushfire Planning Assessment (2012) Hume Region. The State of Victoria Department of Planning and Community Development

translated into a meaningful planning control and applied in a transparent manner so that the risks can be avoided or mitigated.

9.3 EROSION

The Erosion Management Overlay (EMO) has been applied to northern slopes of the Strathbogie Ranges. The purpose of the overlay is to protect areas prone to erosion, landslip, other land degradation or coastal processes by minimising land disturbance and inappropriate development. The 2023 Planning Scheme Review noted that the EMO be reviewed to reduce triggers for permits. The schedule to the EMO is currently blank.

9.4 POTABLE WATER SUPPLY CATCHMENTS

Many catchments supplying water for domestic, irrigation or other purposes within Victoria are protected under the *Catchment and Land Protection Act 1994*. These catchments have significant values as a source of water supply, both for domestic and for stock and household use. Under this Act, Water Supply Catchments Areas officially recognise designated catchments for water supply purposes. This process highlights to the community, land managers and planners, the importance of the catchment for water supply purposes.

Once a catchment is 'Declared', approvals for activities conducted under other statutes and statutory planning schemes must be referred to the responsible land management authority (water authority, GBCMA or DELWP). However, if not identified in an overlay and mapped within the planning scheme there can be conflicts or the existence of the potable can be 'missed' during planning permit application processes.

Two potable water supply catchments have been declared in Strathbogie:

- Honeysuckle Creek near Violet Town
- Seven Creeks near Euroa.

The Planning Scheme Review noted that identification of areas of potable water and buffers around wastewater treatment plants were significant policy gaps.

The Environmental Significance Overlay is commonly applied to declared water supply catchments and buffers around wastewater treatment plants.

The Strathbogie Domestic Wastewater Management Plan³⁷ identified two sub-catchments that were high risk of cumulative impacts from domestic wastewater:

- Seven Creeks and Castle Creek (includes a declared water supply catchment and Strathbogie Township)
- Pranjip Creek (containing the township of Longwood).

The Plan recommended the following strategies relevant to this study:

- All proposed developments require an LCA developed in accordance with the best practice 12-step process in the EPA's Code of Practice – Onsite Wastewater Management 2013, extensive onsite testing and the calculation of the Edis Algorithm to determine the overall risk rating for the site
- Provision of a land capability assessment template to submit with any planning permit application or application for a Permit to Install an onsite system
- Preparation and exhibition of an amendment to the Strathbogie Planning Scheme for the application of an Environmental Significance Overlay over declared water supply catchments and around potable water offtake points, with amendments made to the Municipal Strategic Statement to reference the adopted DWMP and reinforce its key objectives
- Preparation of a new Memorandum of Understanding to identify referral requirements for development in declared water supply catchments and high-risk areas
- Investigate the need to apply an Environmental Significance Overlay to buffer areas around GVW operated municipal wastewater treatment plants in partnership with GVW.

9.5 KEY FINDINGS

There are a number of natural hazards which pose risk to the landscape of Strathbogie, including bushfire, flood and erosion. To ensure future protection the RRLUS will need to be developed in consideration of how these risks can be mitigated and managed by Council. The 2023 review of the planning scheme highlighted that:

- Updated flood mapping conducted by GBCMA should be translated into meaningful planning control and applied in a transparent manner so that the risks can be avoided or mitigated
- The EMO is reviewed to reduce triggers for permits

³⁷ Brayd Consulting (2015) Domestic Wastewater Management Plan

- Preparation and exhibition of an amendment to the Strathbogie Planning Scheme for the application of an ESO over declared water supply catchments and around potable water offtake points, with amendments made to the Municipal Strategic Statement to reference the adopted DWMP and reinforce its key objectives should occur
- There is a need to apply an ESO to buffer areas around GVW operated municipal wastewater treatment plants is investigated in partnership with GVW.

10 Cultural Heritage

The purpose of this section is to provide a high-level overview of the known Aboriginal Cultural Heritage Places, and Post-Contact heritage sites within Strathbogie Shire, and provide a brief outline of the legislative context that should be considered when working within the extent of these heritage places.

This appraisal is not exhaustive, nor does it include any field-based study. Research undertaken is based on an appraisal of known sites whose locations are recorded within various state and federal databases. Databases searched included:

- The Victorian Aboriginal Heritage Register (VAHR), administered by First Peoples – State Relation (FP-SR)
- The Victorian Heritage Register (VHR) and Victorian Heritage Inventory (VHI), administered by Heritage Victoria (HV)
- The Strathbogie Heritage Overlay (HO)
- The National and Commonwealth Heritage Lists (NHL and CHL)
- The RMCG library of reports and knowledge of the area
- Relevant federal and state legislation and policies
- Aerial photography of the study area.

10.1 ABORIGINAL CULTURAL HERITAGE

Cultural heritage places represent a tangible or intangible record of human interaction with the landscape. In Victoria this relationship between People and Place extends for a period of over 60,000 years, much of the daily activities of the first peoples of Victoria can be viewed through the archaeological record. The Aboriginal Heritage Act 2006 is in place to protect the material remains of this relationship between Aboriginal people and Country. It provides legal protection for all materials, sites, and places relating to the Aboriginal occupation of Victoria.

Strathbogie Shire lies on the lands of the Taungurung Clans and Yorta Yorta Nation.

TAUNGURUNG CLAN

The Taungurung people occupy much of central Victoria. Their country encompasses the area between the upper reaches of the Goulburn River and its tributaries north of the Dividing Range. From the Campaspe River to Kilmore in the West, eastwards to Mount

Beauty, from Benalla in the north down to the top of the Great Dividing Range, their boundaries with other Aboriginal tribes are respected in accordance with traditional laws.

YORTA YORTA NATION

Traditional Yorta Yorta lands lie on both sides of the Murray River roughly from Cohuna to Albury/Wodonga. They include towns such as Echuca, Shepparton, Benalla, Corowa and Wangaratta and extend northwards to just south of Deniliquin. Yorta Yorta Traditional tribal lands cover some 20,000 square kilometres.

ABORIGINAL CULTURAL HERITAGE WITHIN STRATHBOGIE SHIRE

Strathbogie Shire is rich in Aboriginal Cultural Heritage Places and contains many important, secret, and sacred Aboriginal Places. Within the Shire boundary there are 495 previously identified Aboriginal Places, consisting of 821 components, with countless Aboriginal Places as yet undiscovered. Of these known sites 367 Places consisting of 680 components are located in Taungurung Country, and 128 Places consisting of 141 components are located in Yorta Yorta Country. The spatial distribution of these sites is focused on waterways and areas where intensive works, such as road and rail upgrades which have been accompanied by Cultural Heritage Management Plans have been undertaken.

The aboriginal places within Strathbogie Shire are shown in Figure 10-1.

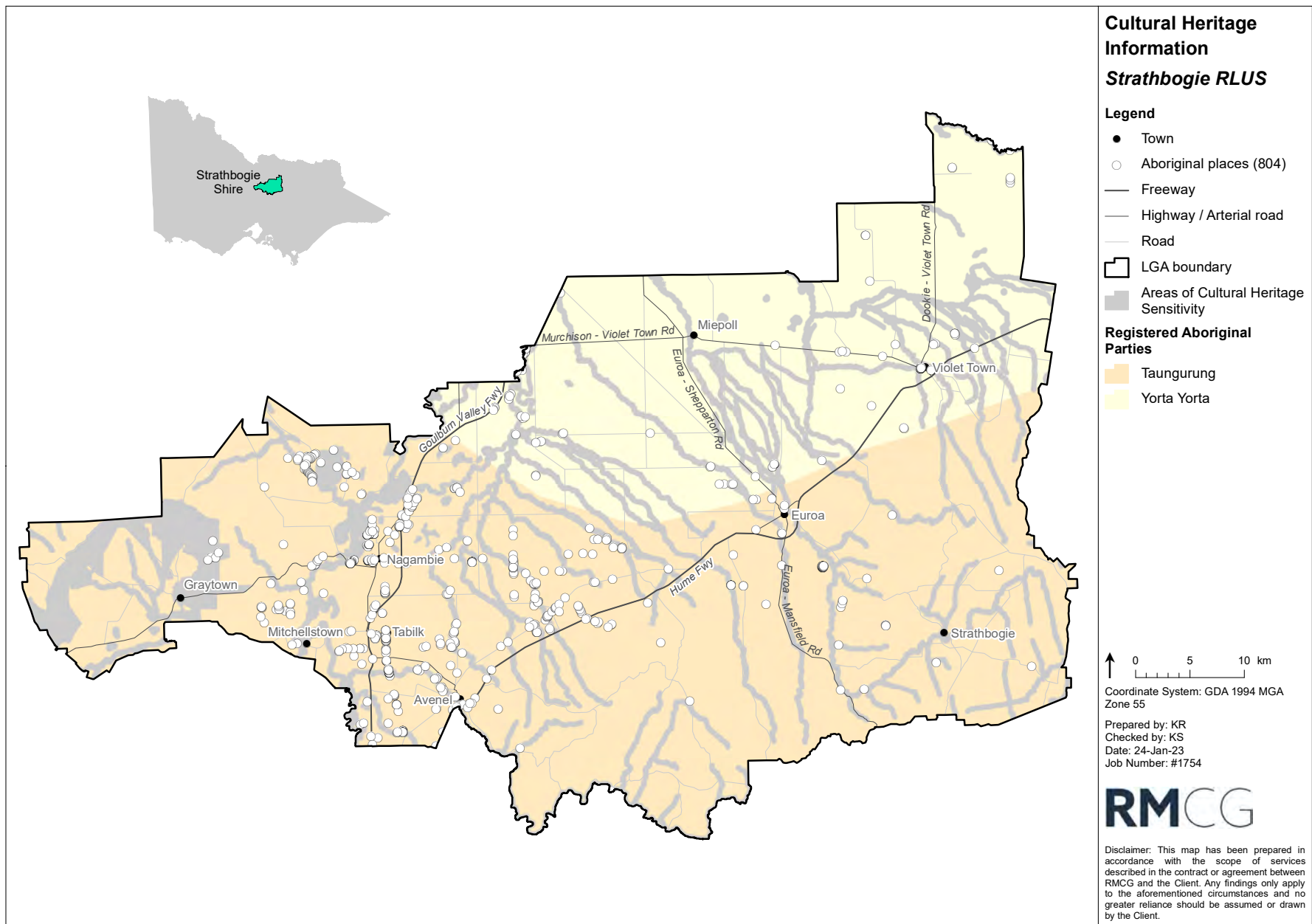


Figure 10-1: Aboriginal Places within Strathbogie

10.2 POST-CONTACT HERITAGE

The early history of post-contact Australia is preserved in the buildings and archaeological remains that can be identified throughout the State of Victoria. These sites form the basis upon which the state was built, and as such they are protected under the Heritage Act 2017, and the Federal EPBC Act 1999.

HERITAGE REGISTER

Within Victoria the Heritage Register lists and provides legal protection for heritage places and objects that are significant to the history and development of Victoria.

- Heritage places can include buildings, trees, parks and gardens, streetscapes, archaeological sites, cemeteries, precincts, shipwrecks and structures such as bandstands
- Heritage objects can include furniture, shipwrecks, relics, archaeological artefacts, equipment, transport vehicles and everyday articles that contribute to an understanding of Victoria's history.

There are 17 known places on the Heritage Register within Strathbogie Shire. These sites are shown in Figure 10-2.

HERITAGE INVENTORY

The Victorian Heritage Inventory is a list of about 6,500 known historical archaeological sites. Some sites can be included on both the register and the inventory. An archaeological site is a place which:

- Contains buried evidence like an artefact, deposit or feature which is 75 years old or more
- Provides information about past activity
- Needs archaeological methods to reveal information about the place
- Isn't associated only with Aboriginal use.

There are 64 known places on the Heritage Inventory within Strathbogie Shire. These sites are shown in Figure 10-2.

HERITAGE OVERLAYS

Local councils are responsible for locally significant heritage places. These places are listed in the Heritage Overlay of the local planning scheme and are protected under the Planning and Environment Act 1987. Places of local significance may also be listed on both the VHR and VHI databases.

There are approximately 85 locations listed under the Strathbogie [schedule to clause 43.01 heritage overlay](#).

NATIONAL HERITAGE LIST

A search of the National Heritage List identified no registered places within Strathbogie Shire.

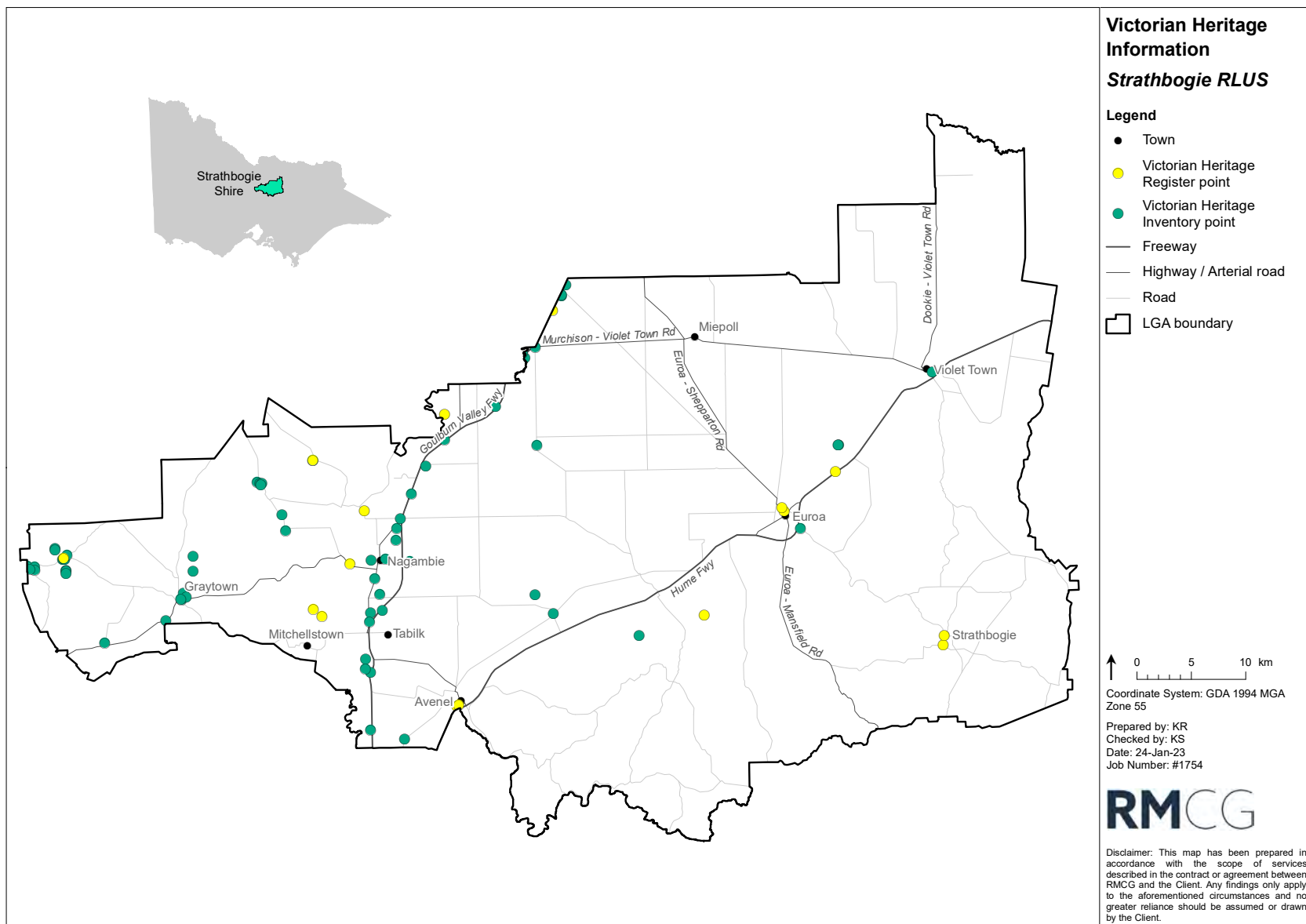


Figure 10-2: Heritage Register and Inventory Sites within Strathbogie Shire

10.3 LEGISLATIVE CONSIDERATIONS

ABORIGINAL HERITAGE ACT 2006

The Aboriginal Heritage Act 2006 (the Act) protects Aboriginal heritage in Victoria. If certain high impact activities are undertaken as stated in the Aboriginal Heritage Regulations 2018 (the Regulations) then preparation of an Aboriginal Cultural Heritage Management Plan (CHMP) may be required for approval by FP-SR or the Registered Aboriginal Party (RAP) prior to lodging a planning permit.

Triggers for mandatory preparation of a CHMP include whether certain criteria are met under the Regulations (2018), required by the Minister, or if the activity requires an Environmental Effects Statement (EES) under Sections 46 to 49 of the Environmental Effects Act 1978.

The Regulations require a mandatory CHMP if:

1. All or part of the proposed activity is a high impact activity; and
2. All or part of the activity area (study area) is an area of cultural heritage sensitivity (subject to whether the entire area of cultural heritage sensitivity has been subject to significant ground disturbance).

‘Significant Ground Disturbance (SGD)’ is defined in r.5 of the Regulations as meaning disturbance of – (a) the topsoil or surface rock layer of the ground; or (b) a waterway – by machinery in the course of grading, excavating, digging, dredging or deep ripping, but does not include ploughing other than deep ripping. The Victorian Civil and Administrative Tribunal (VCAT) has determined that the words “topsoil or surface rock layer” include the former topsoil or former surface rock layer if that topsoil or surface rock layer is a naturally occurring surface level that is readily ascertainable and does not include the current topsoil or current surface rock layer if established by the mere filling of the land (FP-SR 2018:2).

HERITAGE ACT 2017

This Act protects all heritage Places deemed to be of State significance by registration on the VHR. Proposed impacts to any site registered on the VHR will require Permit from Heritage Victoria. This Act also protects all non-Aboriginal archaeological sites older than 75 years. If an archaeological site is of State significance it is listed on the VHR and a Permit from HV is required to damage it. If an archaeological site is not of State significance and has archaeological value, it is usually listed on the VHI and a Consent from HV would be required to damage it.

ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999

The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) provides a national framework for the protection of heritage and the environment and the conservation of biodiversity. The EPBC Act is administered by the Australian Government Department of Climate Change, Energy, the Environment and Water (DCCEEW). The EPBC Act established the National Heritage List (NHL), the Commonwealth Heritage List (CHL) and the World Heritage List (WHL) for statutory protection of heritage Places of national or international significance. Where Matters of National Environmental Significance (NES), including National Heritage Places, will or may be impacted by a development, then a referral to the Minister will be required to determine whether an approval under the EPBC Act is required.

10.4 KEY FINDINGS

In planning for growth and future land use change, cultural heritage is considered to be a community, economic and social asset³⁸. The Strathbogie Shire’s cultural heritage assets, both Aboriginal and historic, are important to contemporary communities and heritage is integral to creating a sense of place.

Many tourists seek heritage tourism experiences. Aboriginal cultural heritage and historic heritage attractions and services contribute to the regional economy and employment. Building a comprehensive sense of place around heritage sites is important to help develop resilient and sustainable communities.

Consultation with the Yorta Yorta Nation Aboriginal Corporation and the Taungurung Clans Aboriginal Corporation during the development of the RRLUS is important to ensure the protection and management of significant Aboriginal cultural heritage places within Strathbogie.

³⁸ Hume Regional Growth Plan (2014) Victorian State Government

11 Environment

11.1 OVERVIEW

The Strathbogie Shire occurs primarily within the Goulburn River catchment. The river catchment is the largest in Victoria covering 7.1 per cent (1.6 million hectares) of the state's total area. The Goulburn River is classified as a Heritage River for its outstanding environmental, social and economic values. There are 35 nationally threatened species of flora and fauna, four threatened ecological communities and six species of listed migratory birds known or likely to occur within the shire. The location of threatened flora and fauna listed under the Environment Protection and Biodiversity Conservation (EPBC) Act is shown in Figure 11-1.

11.2 WATERWAYS

The natural flow regime of the Goulburn River has been highly modified due to construction and operation of the Goulburn weir and Lake Eildon. Flow has been regulated to meet the demands of irrigation and other water consumption demands. This has resulted in reversal of the natural seasonal flow patterns (i.e. regulation means winter/spring flows are now low and spring/summer flows are high). In addition, land use changes and installation of small dams and drainage schemes along the system have further altered natural flow. Levees and other structures prevent the flooding and infilling of natural wetlands and billabongs throughout the basin.

Alteration of natural flows in the Goulburn River has reduced the quality of in-stream and riparian habitat through simplification of the river channel, lack of sediment input which reduces biological productivity, changes in flow rate altering habitat diversity on the riverbed, loss of connection to floodplains and wetlands. For planning purposes, the Goulburn River system is managed in three sections the upper-, mid- and lower. The mid-Goulburn section occurs within the Strathbogie shire. Although river regulation has impacted habitat within the mid-Goulburn River the main channel and its tributaries (which remain largely unregulated) are in moderate to good condition.

The Goulburn Broken Waterway Strategy 2014 – 2022 identifies the following waterway assets in the Strathbogie Shire that have significant environmental values. These are described below.

Goulburn River

The river provides high quality habitat (in channel aquatic vegetation, scour holes, woody debris) for adult and juvenile threatened fish species including Murray Cod, Silver Perch and Macquarie Perch (one of the last remaining populations in the Murray Darling Basin occurs here). Significant stands of River Red Gum dominate the riparian zone providing important habitat such as large hollows for many species (small mammals such as the squirrel glider, migratory birds) and contribute to riverine food webs (carbon, leaves and debris). Significant tributaries of the Goulburn River include:

- Hughes Creek and Sevens Creek: supports threatened fish species including Macquarie Perch and Murray Cod. Provides habitat connectivity for many species particularly small mammals such as the Brush-tailed Phascogale.
- Tahlbilk Lagoon: a bioregionally significant billabong connected to the Goulburn River considered as a biodiversity 'hot spot' as it provides critical habitat for several threatened species including Broad-shelled turtle, supports the most southerly occurring population of Catfish and has the largest population of Watershield (a native waterlily) in Victoria.

Major threats to the above waterway assets include:

- Degradation and reduced width of riparian vegetation through grazing pressure (stock access) and loss of large trees
- Loss of instream habitat (snag removal, lack of sediment input)
- Flow regulation
- Introduced fish (European carp)
- Bank instability
- Barriers to native fish migration
- Invasive weeds (habitat transforming weeds such as willow and blackberry).

Other impacts on river health include land clearing for agriculture and changes in land use which alter flow and sediment regimes.

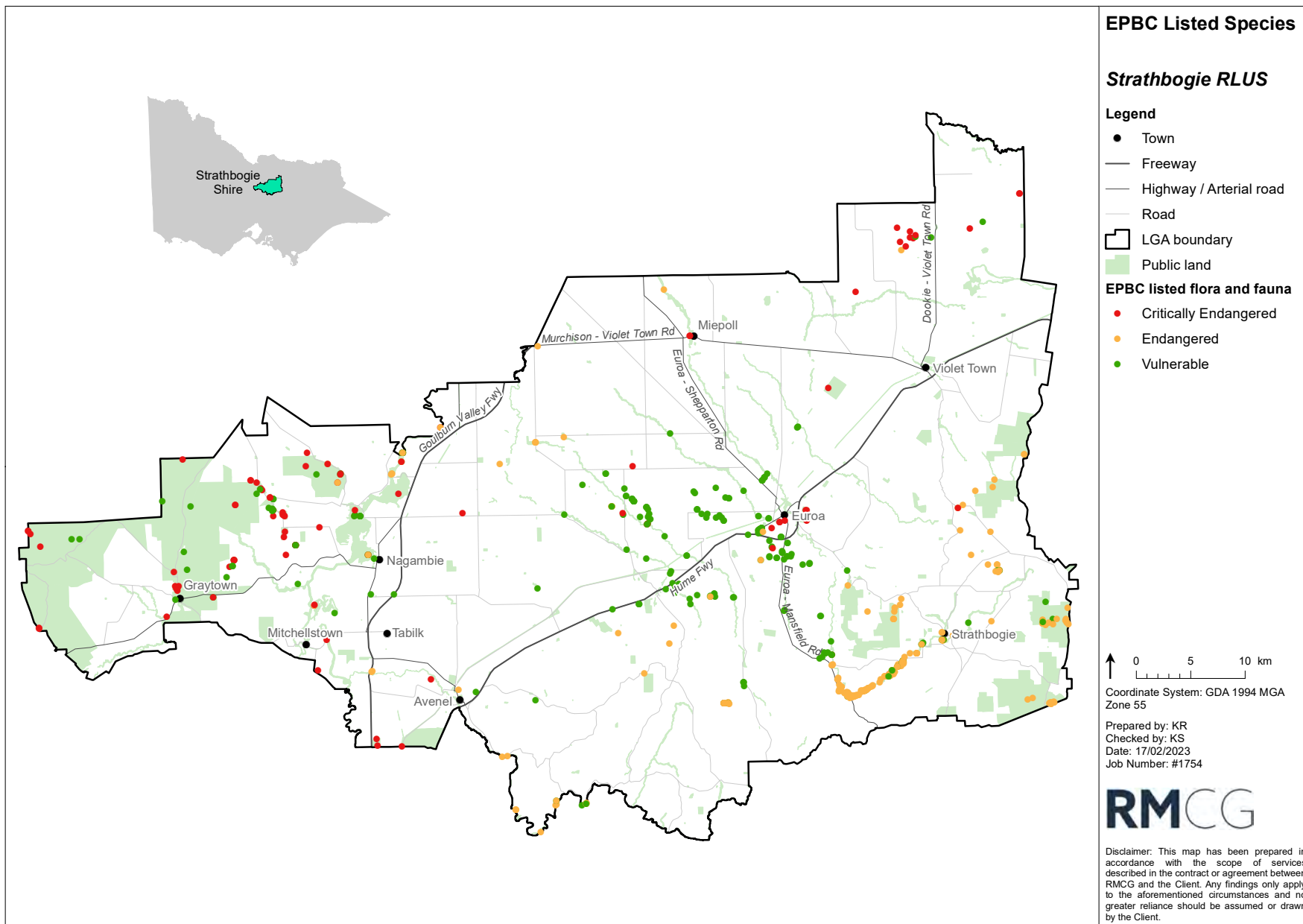


Figure 11-1: EPBC listed flora and fauna species in Strathbogie

11.3 WETLANDS

Lower Goulburn River Floodplain

This wetland system is listed in the national directory of important wetlands as it represents a floodplain wetland in the bioregion and for the significant ecological and hydrological role the system plays in the Goulburn River system. The wetland occurs as an intact ecological system surrounded by agricultural land used for irrigation and grazing. It provides excellent examples of River Red Gum, open forest and woodland vegetation communities which are associated with the wetland complex. The wetland supports significant numbers of waterbird species providing nesting, foraging and roosting habitat. The wetland also provides high quality habitat for native fish.

Lower Broken River Floodplain

This floodplain wetland complex is listed in the national directory of important wetlands for providing critical habitat for fauna and as a drought refuge. The wetland is considered to have outstanding historical and cultural significance supporting many recreational activities including swimming, cycling, nature study, fishing, boating, duck hunting, camping. The floodplain includes a continuous corridor of remnant River Red Gum that connects and provides critical habitat for significant populations of Squirrel Glider and Brush-tailed Phascogale, at least ten per cent of the regional population is supported by the vegetation within the floodplain. The floodplain complex includes a variety of wetland types and a large contiguous area of habitat for waterbirds and fish.

11.4 BIODIVERSITY

The Goulburn Broken Catchment Biodiversity Strategy 2016–2021 has identified the Strathbogie Tablelands and Longwood Violet Town Plains as areas with high biodiversity value. A description of these values is provided next.

Strathbogie Tablelands

This landscape area includes the Strathbogie State Forest, a large contiguous area of high-quality core habitat for many significant species of flora and fauna in the region. This includes the:

- Southern greater glider – some of the highest densities of this species in Victoria have been recorded here and the population has remained stable over the last 20 years

- Eastern horse-shoe bat – one of a dozen sites where clusters of this species have been found in Victoria
- Brush-tailed Phascogale – supports a potential source population (the species is in decline across its former range)
- Grey rice-flower – one of 15 locations where this species is found in Victoria
- Tall leafy greenhood – supports a substantial population and is one of only seven sites where this species is found in Victoria
- Euroa guinea-flower – occurs along roadsides around Euroa and Longwood (a large population is also known to occur near Warrenbayne)³⁹.

Other important fauna species that inhabit the area include Powerful Owl, Tree Monitor, Turquoise Parrot, Squirrel Glider and Yellow-bellied Glider.

Longwood Violet Town Plains

This grassy landscape with scattered trees contains high quality habitat to support a range of significant species. There are fragmented remnants of the nationally threatened ecological community, Box-Gum Grassy Woodland and Derived Grasslands within this area. Woodland birds associated with this landscape include the critically endangered regent honeyeater and swift parrot as well as the bush stone-curlew and grey-crowned babbler. The shire supports an estimated one third of Victoria's population of the endangered grey-crowned babbler. Most of the area is highly modified and has been cleared for agriculture, particularly the fertile plains. High quality habitat occurs along waterways and roadsides and within larger remnants on public land. These areas support a diversity of flora species associated with grasslands including native orchids and the Euroa guinea flower.

11.5 TERRESTRIAL

Mapping of the conservation status of vegetation shows that there are extensive areas of endangered vegetation across the Strathbogie Shire. Particularly along roadsides and fence lines and on the less fertile foot slopes. There are larger contiguous patches of endangered vegetation on both public and private land in the northern parts of the shire. Approximately 35 per cent of all private land in the shire has remnant vegetation considered high value, having a strategic biodiversity value score of between 60 – 100 based on NaturePrint⁴⁰.

³⁹ VEAC, 2022., Assessment of the values of the Strathbogie Ranges Immediate Protection Area.

⁴⁰ <https://discover.data.vic.gov.au/dataset/natureprint-v4-0-strategic-biodiversity-values>

The 2019 Planning Scheme Review identified the need to:

- Explore opportunities to better protect roadside vegetation through Vegetation Protection Overlays
- Review the application and mapping of Environmental Significance Overlays and Vegetation Protection Overlays to better protect native vegetation and biodiversity assets across the shire
- Use the Municipal Strategic Statement as a vehicle to encourage design solutions that minimise the removal of native vegetation (especially in areas of high biodiversity value).

11.6 NATIVE VEGETATION FRAMEWORK

Much of the vegetation across the shire has been historically cleared for agriculture (grazing and mixed cropping) and timber supply resulting in a patchy, fragmented distribution of native vegetation. Scattered paddock trees, patches of remnant grassland and fragmented woodlands remain on private land. Stands of River Red Gum occur along some waterways. Some of the most ecologically valuable vegetation in Victoria occurs along roadsides in the shire. Remnant vegetation along riparian corridors plays an extremely important role in providing habitat connectivity for the shire's fauna species.

In 2017, the State government introduced new Guidelines for the removal, destruction or lopping of native vegetation. The implications for agriculture with respect to the new guidelines for scattered paddock trees, sensitive wetlands and endangered vegetation has been highlighted in a number of recent VCAT cases.

Given the extent of scattered trees across the landscape and the increasing size of farms on the fertile plains which may include floodplain wetlands with high biodiversity value the Native Vegetation Management Framework may have implications for agriculture.

11.7 KEY FINDINGS

The Strathbogie Shire contains significant aquatic and terrestrial habitats and biodiversity values. These values are ecologically important for maintaining ecosystem services (such as water quality), their intrinsic value and socially important for cultural heritage and recreational use including tourism. A detailed review of the shire's biodiversity is required particularly mapping and prioritisation of native vegetation with a focus along roadsides and on the flatter fertile plains to provide the necessary information and data at an appropriate scale to justify the application of planning control where required.

Changes in the Native Vegetation Framework 2017 now require applicants seeking to remove vegetation of high ecological value to provide compelling justification as to why a permit should be approved. This may have implications for agriculture, particularly on the flatter plains and along waterways where farm sizes are increasing, cropping is occurring more frequently under drier conditions and the intensity of production is increasing.

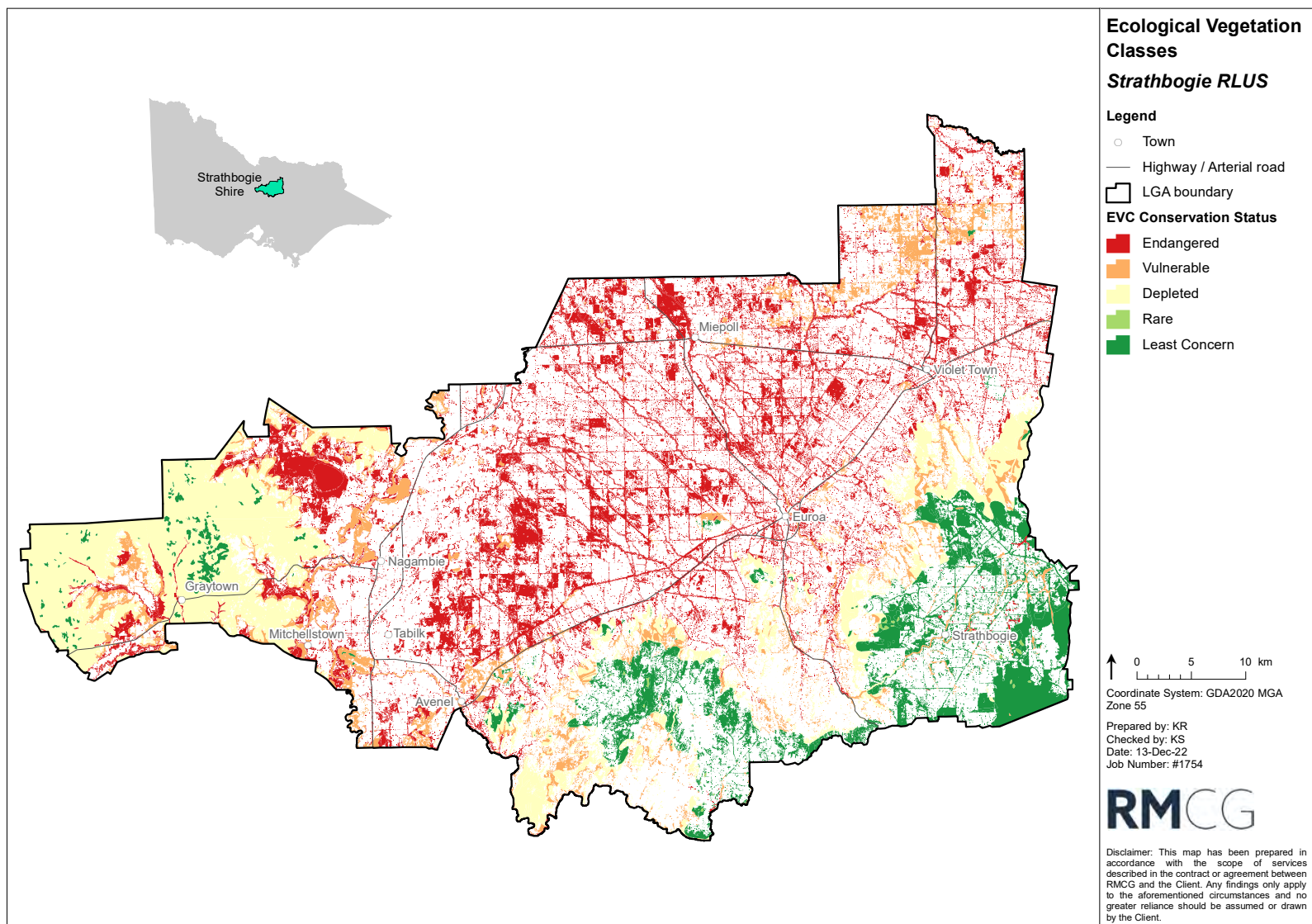


Figure 11-2: Biodiversity Conservation Status⁴¹ and Vegetation Protection Overlay, Strathbogie

⁴¹ <https://discover.data.vic.gov.au/dataset/native-vegetation-modelled-2005-ecological-vegetation-classes-with-bioregional-conservati-wms> accessed February 2023

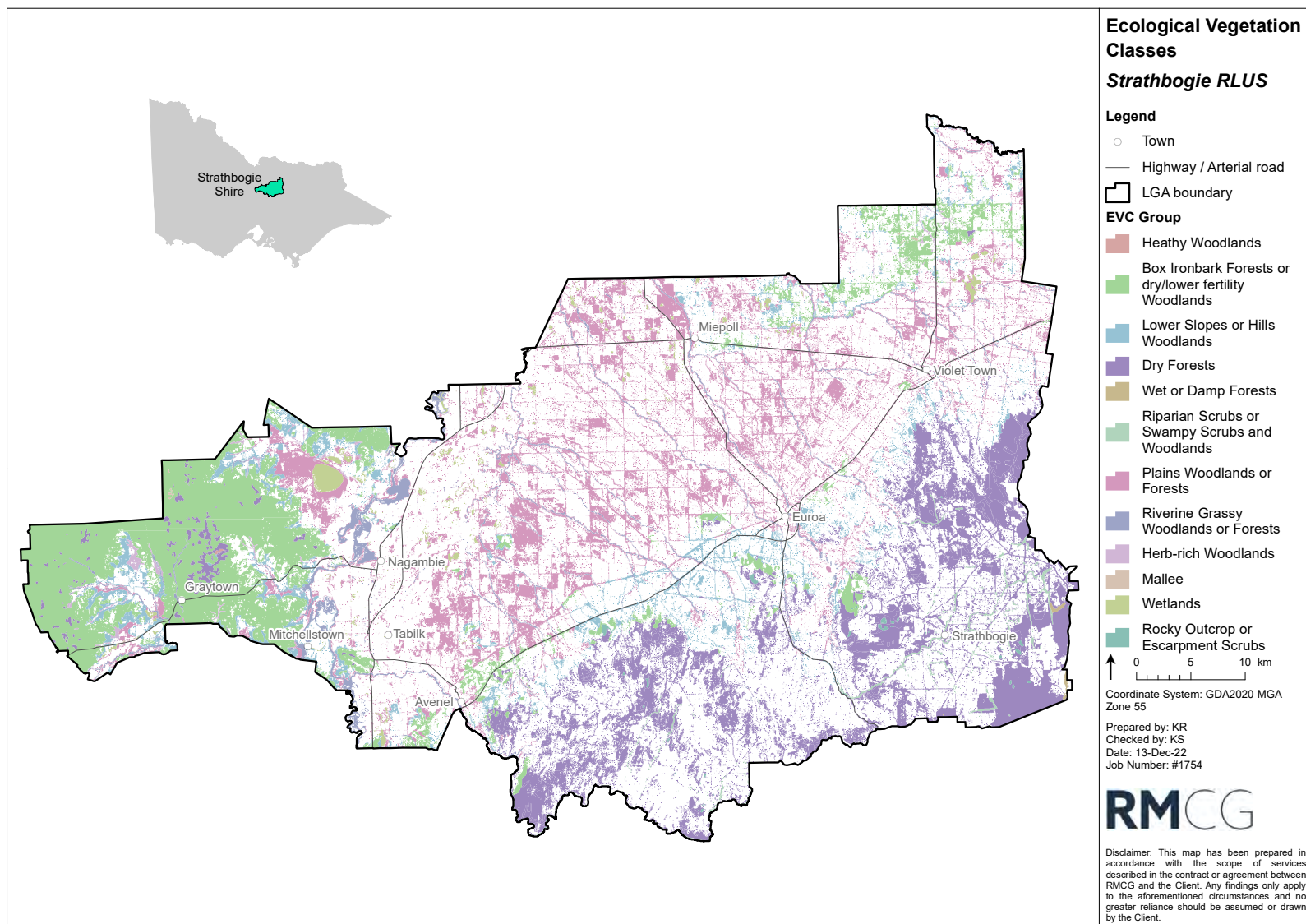


Figure 11-3: Modelled ecological vegetation class⁴²

⁴² <https://discover.data.vic.gov.au/dataset/native-vegetation-modelled-2005-ecological-vegetation-classes-with-bioregional-conservati-wms> accessed February 2023

Appendix 1: Strathbogie Rural Residential Study: Existing Conditions Report

Strathbogie Rural Residential Study: Background Report

RMCG on behalf of Strathbogie Shire Council

May | 2024



© SGS Economics and Planning Pty Ltd 2024

This report has been prepared for RMCG on behalf of Strathbogie Shire Council. SGS Economics and Planning has taken all due care in the preparation of this report. However, SGS and its associated consultants are not liable to any person or entity for any damage or loss that has occurred, or may occur, in relation to that person or entity taking or not taking action in respect of any representation, statement, opinion or advice referred to herein.

SGS Economics and Planning Pty Ltd
ACN 007 437 729
www.sgsep.com.au

OFFICES IN CANBERRA, HOBART, MELBOURNE, AND SYDNEY ON THE COUNTRY OF THE NGAMBRI/NGUNNAWAL/NGARIGO, MUWININA, WURUNDJERI, AND GADIGAL PEOPLES.

Contents

Strathbogie Rural Residential Study: Background Report	1
1. Introduction	5
1.1 Project background and purpose	5
1.2 Study area	5
1.3 Structure and purpose of this report	6
2. Strategic Policy Context	7
2.1 State and regional policy	7
2.2 Planning Practice Notes and Guidance documents	8
2.3 Strathbogie Planning Scheme	11
2.4 Local strategies and studies	12
2.5 Current and future major applications	15
2.6 Summary of Key Implications	15
3. Historic population and housing trends	17
3.1 Study area	17
3.2 Population profile	18
3.3 Housing profile	21
3.4 Recent development trends	26
3.5 Summary of Key Implications	31
4. Housing demand and capacity assessment	32
4.1 Future housing demand	33
4.2 Housing capacity assessment	37
4.3 Supply gap analysis	38
4.4 Summary and key implications	39
5. Key findings and implications for the Strategy	41
5.1 Strathbogie Shire Planning Scheme	43
5.2 State and Regional Policy	43
5.3 Local Planning Policy	45
5.4 Zones	48
5.5 Development Applications	70

5.6 VCAT Case Review 73

APPENDICES

Appendix A: Planning Framework 43

Appendix B: Alignment with the Strathbogie Settlement Strategy (2024) methodology 77

1. Introduction

RMCG have been engaged by Strathbogie Shire Council to prepare a Rural Residential Land Use Strategy (RRLUS). SGS Economics and Planning (SGS) have been engaged by RMCG to prepare the rural residential demand and supply component.

The Strathbogie RRLUS will set out rural residential development priorities for the Shire, in the context of forecast population growth and change to 2041.

This report will form part of the Existing Condition Report that will be used as an evidence base to underpin the preparation of the RRLUS and associated policies and controls for future inclusion in the Strathbogie Planning Scheme.

1.1 Project background and purpose

The purpose of the Strathbogie RRLUS is to guide the future strategic direction for rural residential development across the Shire, in areas that minimises impacts and provides protection to productive agricultural uses. This work is based on the collection and analysis of relevant available growth data, constraints and identified opportunities.

It is informed and guided by:

- State government planning policy.
- Detailed technical research and analysis.
- Relevant local planning and policy documents.

The Strategy has a 2041 horizon and will inform an amendment to the Strathbogie Shire Planning Scheme.

Concurrently, Council has engaged SD Planning to prepare a Housing and Settlement Strategy which will focus on residential growth and consolidation opportunities available within the established townships of the Shire.

1.2 Study area

The project applies to the Strathbogie Shire local government area (LGA), with a focus on land zoned for rural residential living. Land in other zones (for example Farming Zone) has also been considered, as relevant.

Profiling of population and housing was undertaken for the following areas (refer to Figure 3 in Section 3.1):

- **Urban area (1)** is identified as the six townships including Avenel, Euroa, Longwood, Nagambie, Violet Town and Strathbogie.
- **Rural area (1)** is identified as the rest of the LGA (i.e. excluding the six townships).
- **Strathbogie LGA** in total.

Analysis of historical development activity has used a slightly different geographic definition (to align with available data, refer to Figure 14 in Section 3.3):

- **Urban area (2)** is identified as the eight townships including Avenel, Euroa, Longwood, Nagambie, Violet Town and Strathbogie, Kirwans Bridge and Goulburn Weir.
- **Rural area (2)** is the rest of the LGA (i.e. excluding the eight townships).
- **Strathbogie LGA** in total.

Analysis for dwelling demand and capacity adopted the boundaries established in the Strathbogie Settlement Strategy (2024) (refer Figure 15 in Section 4).

1.3 Structure and purpose of this report

This report presents the detailed methodology and findings to inform locations for future rural residential development within the Shire, to ensure it is directed into areas that minimise impacts on and provide protection to productive agricultural land uses, and away from areas of environmental significance or threats.

Following this introduction, the report contains the following sections:

- **Section 2** provides an overview of the strategic policy context for the Shire, at both the state and local level.
- **Section 3** considers the population and housing profile of the LGA.
- **Section 4** identifies potential future population and housing growth scenarios and assesses the capacity for growth to be accommodated within existing rural residentially zoned land.
- **Section 5** provides a summary of the implications for the Rural Residential Land Use Strategy.

2. Strategic Policy Context

This section reviews state, regional and local planning policy that informs policy for residential development, particularly rural residential growth, across the Strathbogie Shire.

State and local plans summarised in this section establish an important policy framework under which the Strathbogie RRLUS will sit.

A more detailed review of the state and local planning policy is also included in **Appendix A**.

2.1 State and regional policy

The Planning Policy Framework

The Planning Policy Framework (PPF) outlines Victorian State Government strategy and policy directions for land use planning. The PPF also establishes direction for local government to prepare plans at the local level, that are implemented in the *Strathbogie Planning Scheme*.

Key objectives of the PPF include promoting sustainable growth and development, protecting and conserving biodiversity, minimising the impacts of natural hazards and climate change, protecting natural resources, and facilitating housing to meet community needs.

The PPF requires planning authorities to plan to accommodate projected population growth over at least a 15-year period and provide clear direction on locations where growth should occur. In addition, residential land supply must be considered on a municipal basis, rather than a town-by-town basis.

The key PPF housing and settlement policies (Clause 11.01-1S, 11.02-2S, 11.03-3S, 12.05-1S, 15.01-5S, 16.01-1S, 16.01-2S, 16.01-3S) generally seek to support planning for urban growth by considering:

- Opportunities for the consolidation, redevelopment and intensification of existing urban areas.
- Neighbourhood character and landscape considerations.
- The limits of land capability and natural hazards and environmental quality.
- Service limitations and the costs of providing infrastructure.
- Managing development in rural areas to protect agriculture and avoid inappropriate rural residential development.

Plan Melbourne (2017-2050)

Plan Melbourne provides long-term guidance to accommodate Victoria's future population and employment growth, as well as high-level direction for housing.

Outcome 07 of the Plan, 'Continuing to invest in regional Victoria,' is focused on housing and economic growth, social and economic participation, and the creation of strong, healthy communities in regional and rural areas of Victoria. Under this outcome the Plan promotes diversification of local economies,

creation of high quality freight and passenger transport connections between Melbourne and regional Victoria, and interstate and overseas.

The Plan also promotes new development that respects local character while balancing protection of productive land, economic resources and biodiversity assets that are critical to the state's economic and environmental sustainability.

Victoria's Housing Statement

This Statement was released by the Victorian Government in September 2023. It acknowledges the challenges faced in the housing market, particularly with regard to housing affordability, and makes a series of recommendations aimed at increasing the supply of housing across Victoria, as follows:

- *Good decisions, made faster.* Reforms to the planning system to streamline the planning process for large residential development proposals.
- *Cheaper housing, closer to where you work.* Delivering more housing in established residential areas, including a proposal to construct 425,600 new homes in regional Victoria.
- *Protecting renters' rights.* Providing greater certainty for renters and closing loopholes that increase the cost of living for renters.
- *More social housing.* A regional housing fund to deliver 1,300 new homes across Victoria.
- *A long term housing plan.* Updating Plan Melbourne and expanding the Plan to cover the whole of Victoria.

2.2 Planning Practice Notes and Guidance documents

Planning Practice Note 37 (PPN37)

Planning Practice Note 37 (2023) provides guidance on planning for rural residential development – defined as land in a rural setting that is used and developed for dwellings that are not primarily associated with agriculture.

PPN37 outlines the zones usually applied to rural residential land but acknowledges that limited residential development can occur in other rural zones. The primary zones are the Low Density Residential Zone (LDRZ), Rural Living Zone (RLZ), and Green Wedge A Zone (GWAZ).

While rural residential development is important to facilitate diversity and choice in housing, it can also have environmental, social, and economic costs. PPN37 provides the following objectives for rural residential development to follow:

- Minimise land use conflicts between agricultural activities and the amenity expectations of rural residential dwellers.
- Avoid significant impacts to primary production or to the environmental or cultural values of a rural area.
- Preserve finite and valuable natural resources present on the land.
- Avoid generating demand for costly or inefficient social or physical infrastructure.

- Ensure growth and development is directed to locations with a low risk of natural hazards and will not increase the risk of natural hazards.

In addition, the PPN37 provides broad questions to help plan for rural residential development. A summary of this guidance is provided in the table below.

TABLE 1: PPN37 RURAL RESIDENTIAL DEVELOPMENT GUIDANCE QUESTIONS

Guidance question	Guidance notes
Strategy - Does rural residential development fit into the overall strategic directions and planning of the municipality?	A proposal for rural residential development should be considered as part of the broader strategic context. This includes relevant state, regional and local planning policies such as PPF, MPS and adopted land use strategies.
Housing need - How much rural residential development is required to provide appropriate housing diversity and choice?	A planning authority must be able to demonstrate that a rural residential rezoning is part of its strategy to provide appropriate housing for forecast population increases and changes in household structure and composition.
Location – Where should rural residential development take place?	<p>The appropriateness of a site or sites for rural residential development must be assessed against location-specific criteria. Criteria to consider include:</p> <ul style="list-style-type: none"> ▪ integration with existing urban areas ▪ protection of natural resources ▪ protection of environmental areas and biodiversity ▪ landscape and heritage values ▪ provision of social and physical infrastructure ▪ land use compatibility ▪ land servicing capability.
Natural hazards – How do we protect life and property from natural hazards?	<p>Rural residential development must be planned in locations that avoid or are at low risk of natural hazards. Rural residential development should be planned to avoid:</p> <ul style="list-style-type: none"> ▪ bushfire radiant heat exposure that exceeds 12.5 kilowatt/square metre in bushfire prone areas (including the bushfire management overlay), where subject to a planning scheme amendment ▪ intensifying the impact of flood ▪ coastal inundation and sea level rise by planning for no less than 0.8 metres by the year 2100.
Subdivision – Has subdivision layout been designed to provide an attractive setting, high amenity	Subdivision layouts should respond to environmental, landscape and infrastructure features and constraints of the land.

Guidance question	Guidance notes
efficient infrastructure and natural hazard mitigation measures?	

Source: Department of Transport and Planning (2023) Planning Practice Note 37

Planning Practice Note 90

Planning Practice Note 90 (2019) concerns ‘Planning for housing,’ which provides information and guidance regarding how to plan for housing growth.

It acknowledges that many of the changes occurring in the Victorian housing market are due to population changes, including factors such as whether the population is ageing, having fewer children, forming smaller households, and different lifestyle preferences. These are the drivers that impact housing demand, type, and location.

The note specifies that planning authorities should use Victorian Government population projections and land supply estimates when planning for population growth and managing housing change.

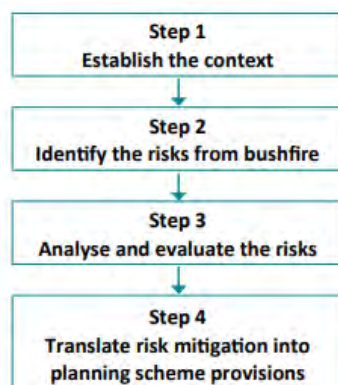
Planning Practice Note 64

Planning Practice Note 64 (2015)¹ provides guidance about local planning for bushfire protection, including the preparation of schedules to the Bushfire Management Overlay (BMO), and tailoring the Local Planning Policy Framework to respond to bushfire matters.

Bushfire should be considered wherever there is a bushfire hazard that may impact on planning objectives, including when preparing strategic plans and policies for settlements and rural residential areas.

PPN64 clarifies that BMO should not be used as a sole indicator of where bushfire matters need to be considered. Instead, planning authorities should draw on a range of information and apply a four-step approach to understand the bushfire risk (Figure 1).

FIGURE 1: FOUR STEP APPROACH TO CONSIDERING BUSHFIRE

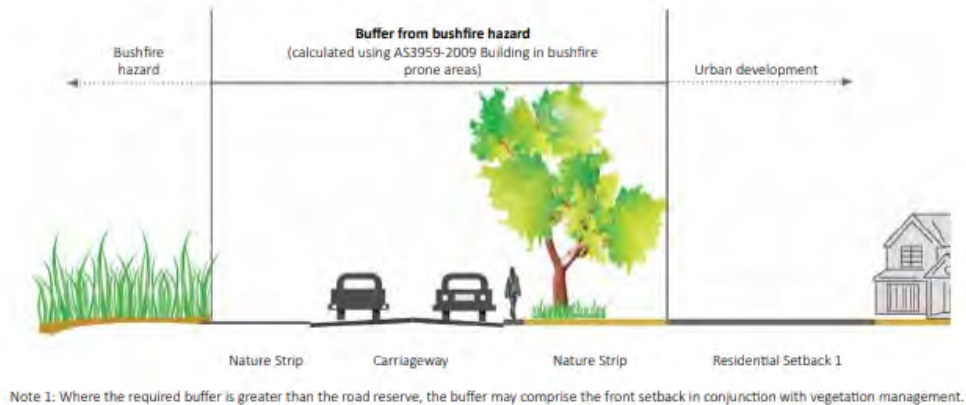


¹ PPN64 is currently (Sep, 2023) under review.

Source: Department of Transport and Planning (2015) Planning Practice Note 64

Directing development to the lowest risk locations is the most effective way to prioritise the protection of human life. PPN64 provides guidance for mitigating bushfire risk outside of the BMO through subdivision design, including the use of perimeter roads (Figure 2).

FIGURE 2: USE OF PERIMETER ROADS TO DELIVER BUSHFIRE PROTECTION IN NEW SUBDIVISIONS



Source: Department of Transport and Planning (2015) Planning Practice Note 64

2.3 Strathbogie Planning Scheme

Municipal Planning Strategy

The Municipal Planning Strategy (MPS) outlines the context, vision and strategic planning directions for Strathbogie Shire. The MPS contains the following clauses which are discussed in further detail in **Appendix A**.

Planning provisions

Zones and overlays contain built form parameters that may limit the extent of residential supply in a given area, through density and height controls that are enforced through the planning permit application process.

The application of these zones and overlays will determine housing capacity across the Shire, which will have implications for the future direction on all residential land, including rural residential.

The application of **residential zones** must be derived from the municipal-wide strategic framework plan or residential development framework plan contained in an MPS.

Planning overlays control a broad range of development matters such as the protection of vegetation or heritage values, the design of built form or mitigating flood risk. They play an important role to give effect to preferred built form outcomes when a zone will not fully achieve the identified housing or neighbourhood character objectives for an area.

For instance, lowering the maximum building height specified in a residential zone can only be implemented by using an overlay to recognise a special neighbourhood, heritage, environmental, and landscape value or constraint.

Detail about the purpose of the relevant zones and overlays that currently apply in the Strathbogie Planning Scheme, and which are relevant to rural residential land, is outlined further in **Appendix A**.

2.4 Local strategies and studies

Local plans and strategies have been reviewed to understand the planning approaches applied to Strathbogie's rural and urban areas, relating to residential supply and demand.

This policy review focuses on strategic work produced by Strathbogie Shire Council which influences or provides insight about rural residential housing supply and growth across the municipality. Many of the recommendations in these documents were implemented in the Strathbogie Planning Scheme.

Key findings:

- Across the Shire, slow population growth has historically led to relatively low demand for housing development.
- New housing development has been scattered, predominantly occurring in Rural Zones, taking the form of rural residential development. However, it was forecast that due to an ageing population and a national trend towards smaller household sizes, demand for housing particularly smaller sized housing types would pick up. Rail connections were forecast to help achieve a higher growth scenario.
- Council strategic direction expresses a drive to attract a more diverse populace to move to the Shire, such as those seeking a tree change. Without increased migration, the Shire may continue to grow at a slow or static pace.
- Potential barriers to housing growth include the priority to protect agricultural land and flood and bushfire hazards.
- Although not specifically explored in detail in this policy review, the general character of the towns are well considered. More dense urban forms may risk imposing on the valued character.
- Existing policy has not researched trends since the COVID pandemic, such as greater mobility of households willing to locate further from their place of work as a result of increased uptake of remote working. Visitor accommodation trends are also missing from the strategy and research.

Summary of local policies by area

Local plans and strategies for particular areas have also been reviewed to understand the picture of residential supply and demand. Many of these plans and strategies identify the role and function of the towns in the Shire, including their neighbourhood character and visions for future growth. Table 2 below provides a summary of the considerations for residential supply and growth for each key area.

A more detailed summary of each report is contained in **Appendix A**.

TABLE 2: SUMMARY OF LOCAL POLICY BY AREA

Area	Key residential supply and growth considerations
Nagambie	<p><i>Nagambie Growth Management Strategy (2008)</i></p> <ul style="list-style-type: none"> – The objective is to grow the township as an agricultural service centre as well as a visitor, lifestyle and retirement centre. – This Strategy includes a staging plan for future growth. It proposed three different growth scenarios and estimated that a total population of 9,600 (and 4,120 dwellings) could be accommodated at low densities. <p><i>Nagambie Existing Conditions 28 February 2020 (Ricardo Energy & Environment Planning, 2020)</i></p> <ul style="list-style-type: none"> – Provides analysis of current conditions and in Nagambie and the trends that are impacting the town to inform updates to the Nagambie Growth Management Strategy. Key points include: – Key neighbourhood character issues include retaining the semi-rural character in new subdivisions, and ensuring new residential buildings are responsive to existing character. – There is approximately 185ha of built out residential land and 90ha of undeveloped land zoned for residential purposes. This equates to approximately 1,000 dwellings (based on a 900sqm lot size). – Flooding issues are not commonly experienced by the township. <p><i>Nagambie Growth management Strategy (2022) Draft, Ricardo Energy and Environment)</i></p> <ul style="list-style-type: none"> – Provides a high-level strategy that provides guidance for managing growth in Nagambie by coordinating infrastructure delivery and land supply to support the sustainable growth of the township over the next 15-20 years. – A key objective is to plan housing for a population of approximately 4,000 people (assuming an annual growth rate of 2.9%) over the next 15-20 years. – The draft NGMS also includes guidelines to ensure development is balanced with a sustainable environment.
Euroa	<p><i>Euroa Township Strategy (2020) Euroa Background Analysis (Hansen, 2019)</i></p> <ul style="list-style-type: none"> – This is a comprehensive visioning strategy and plan. Vision includes creating a compact and contained family oriented rural township with housing predominantly consisting of single detached dwellings on larger landscaped allotments. – Housing development to be prioritised in existing residential zoned land (infill development) and development of vacant unconstrained General Residential Zone (GRZ1) land as a priority over the rezoning of new land for urban purposes. – Ageing population trends require consideration of specific types of housing, including retirement living, assisted care, and nursing home. – Visitor accommodation will be important as part of the town's tourist economy. – Community feedback emphasises the importance of the historic feel and character of Euroa. – Community feedback indicated 42% of residents agreed that alternate forms of housing (dual occupancy, villa units) are needed in Euroa to increase housing diversity. Further, 49% agreed that diverse housing should be available within walking distance from the town centre. – There is a potential supply of 446 lots within existing General Residential Zoned and unconstrained land in the township (368 vacant lots and 78 infill lots). – Euroa is estimated to take up around one third or one half of projected population growth in the Shire. Based on VIF16, this would results in a growth of 200-300 people in the township by 2031.

Area	Key residential supply and growth considerations
	<ul style="list-style-type: none"> – Based on the supply and demand assessment, there is recommendation to further rezone land for residential purposes. – Tree changers' (internal migration to Euroa for lifestyle and affordability purposes) and potential upgrades to the speed and frequency of train services could increase population growth in the township. – Flooding is a significant threat to the township as it is located within low lying area of the Goulburn Broken Catchment. The township is subject to extensive application of the Urban Floodway Zone (UFZ) and associated Floodway Overlay (FO) and Land Subject to Inundation Overlay (LSIO).
Avenal	<p><i>Avenal 2030 Strategy (2008)</i></p> <ul style="list-style-type: none"> – Has ample supply of land for housing but relatively low historic demand. At time of 2008 Strategy, there were substantial numbers of underdeveloped lots. – The strategy seeks to attract more residents to this area. A low growth scenario would be based on historic trends of 11 dwellings developed per annum. – A higher growth scenario may eventuate from tree change trends and road and rail improvements. – The existing supply of 1,000 dwellings in the Township Zone on larger lots would accommodate both scenarios. <p><i>Avenal Strategy Refresh Issues and Opps (Sept 2022, MESH)</i></p> <ul style="list-style-type: none"> – Previous analysis found that there is ample land supply to meet growth projections, however the diversity of housing doesn't meet the changing needs of residents (ageing, declining household size). Planning tools do not currently provide effective mechanism to shape housing diversity. – The rural living land at Lovers Hill remains undeveloped, is heavily constrained and the DPO is outdated. Development has advanced in a new low-density area around the golf course, without an approved Development Plan. – The land supply analysis estimates that there is currently a 67-year supply of residential land in Avenal. <p><i>Avenal Strategy Refresh (2023, MESH)</i></p> <ul style="list-style-type: none"> – Public exhibition of the Draft Avenal Township Strategy 2024 is now underway. One of the key themes of the Draft strategy is to support consolidation of development within the existing township, supporting a diverse and sustainable residential community. – The Draft strategy includes a recommendation that the existing boundary of the township be maintained, rather than introducing new rural living or other residential zones, in part to protect land for farming.
Violet Town	<p><i>Violet Town & District Strategic Development Plan (July 2010)</i></p> <ul style="list-style-type: none"> – Has two growth scenarios in place, based on the strategy from 2010. – In terms of current supply, nearly all residential properties consist of single house on relatively large lot (between 1,000sqm and 2,000sqm). – Scenario 1 is a continuation of static or slow growth due to decreasing household sizes, ageing population, and the trend for new residents to develop further from the town centre. – Scenario 2 envisions higher growth if the Community Plan Vision were to be realised – increasing as a visitor destination and attracting a more diverse population.

Source: SGS Economics and Planning, 2023.

2.5 Current and future major applications

VCAT cases

A review of key Victorian Civil and Administrative Tribunal (VCAT) cases over the last ten years was undertaken to understand planning permit decisions in relation to residential uses in Farming Zone (FZ) areas in Strathbogie Shire.

A full summary of the key cases and the decisions made by Council and VCAT are shown in **Appendix 1**.

The review reveals that Council's position has typically been maintained in recent years, however, there are several cases where VCAT set aside Council's decision.

Development applications

A summary of existing development applications for main town are described below in terms of total number of lots Approved and constructed; Approved – yet to be constructed; currently being assessed (By Council/ VCAT). Refer to **Appendix 1** for full list of development applications.

Area	Approved-constructed	Approved- yet to be constructed (proposed lots)	Currently being assessed by Council/ VCAT (proposed lots)	Total proposed lots
Avenel		56	246	302
Euroa	24	73	131	228
Violet Town	6	19	70	95
Nagambie	284	420	1079	1,783
TOTAL				2,408 lots

Source: Data provided by Strathbogie Shire Council, October 2023

2.6 Summary of Key Implications

The Victorian Government's Planning Policy Framework provides the overarching framework for planning for housing and settlements across the State, in conjunction with Plan Melbourne, and other key planning policy guidance and practice notes. Key objectives include planning for 15 years of residential land supply on a municipal basis and providing clear direction on where growth should go. Other relevant objectives include promoting sustainable growth and development, protecting and conserving biodiversity, minimising the impacts of natural hazards and climate change, protecting natural resources, and facilitating housing to meet community needs.

Of particular note is PPN37 which informs planning for rural residential development and meeting objectives to:

- minimise land use conflicts between agricultural activities and the amenity expectations of rural residential dwellers.

- avoid significant impacts to primary production or to the environmental or cultural values of a rural area.
- preserve finite and valuable natural resources present on the land.
- avoid generating demand for costly or inefficient social or physical infrastructure.
- ensure growth and development is directed to locations with a low risk of natural hazards and will not increase the risk of natural hazards.

At the local level, a suite of local plans and strategies provide detailed guidance for residential development, including identifying future housing yields and development outcomes, and areas where residential development is not supported or required. These include recognising potential barriers to housing growth include the protection of agricultural land and flood and bushfire hazards.

3. Historic population and housing trends

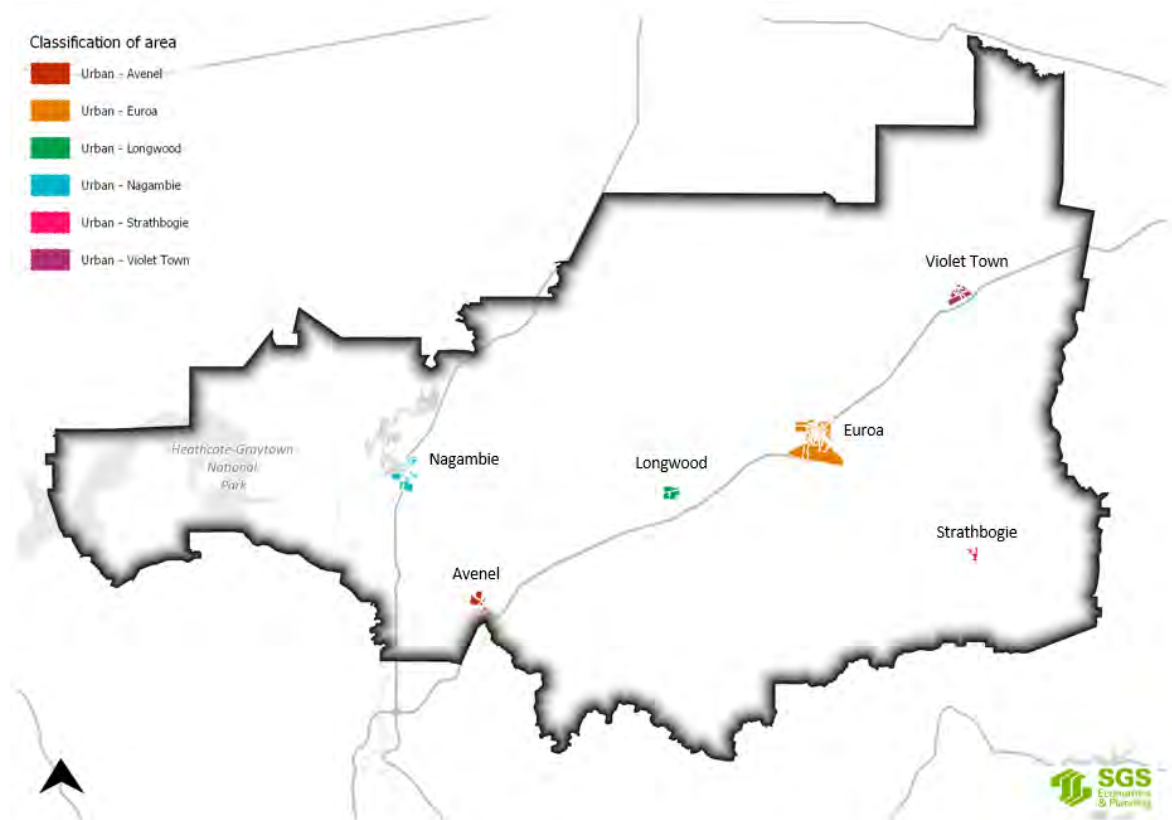
This section profiles population and housing in the Strathbogie LGA, which informs the housing supply, demand and capacity analysis presented in subsequent sections.

3.1 Study area

The population and housing profiles in this section were undertaken across three geographies as shown in Figure 3 below:

- **Urban area (1)** is identified as the six townships including Avenel, Euroa, Longwood, Nagambie, Violet Town and Strathbogie.
- **Rural area (1)** is identified as the rest of the LGA (i.e. excluding the six townships)
- **Strathbogie LGA in total.**

FIGURE 3: STRATHBOGIE POPULATION AND HOUSING PROFILE STUDY AREA



Source: SGS Economics and Planning (2023)

3.2 Population profile

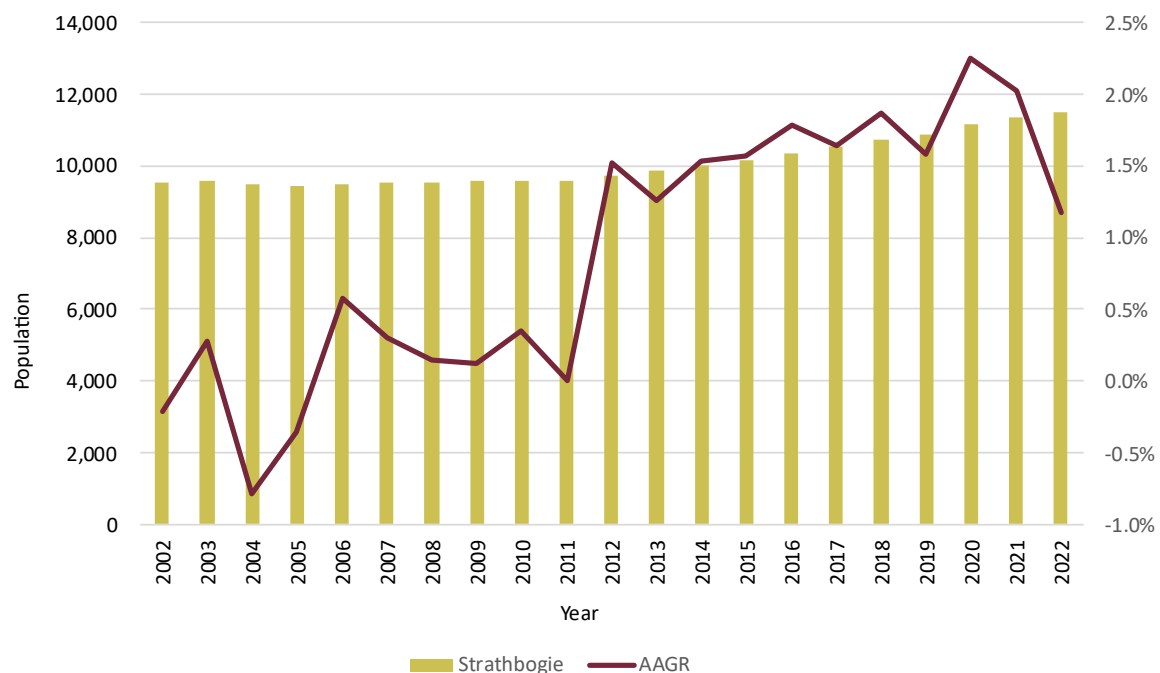
Historic population change

The estimated resident population of Strathbogie Shire over the past 20 years is shown in Figure 4. The Shire's population has gone through two prominent cycles. From 2002 to 2011, there was very little to no growth (with the exception of rapid decline in 2004), with an average annual growth rate (AAGR) of 0.03 per cent.

From 2012 to 2022, the population grew quite rapidly with an AAGR of 1.7 per cent. COVID-19 lockdowns in Greater Melbourne shifted migration patterns to regional Victoria boosting population growth in regional Victoria and the Shire. However, the growth seen in regional locations through the pandemic will not necessarily be sustained over the long term, with growth slowing as of 2022.

Strathbogie population growth has outpaced regional Victoria's overall growth rate in the last decade (2012-2022). For example, regional Victoria has grown 1.5 per cent annually on average which is below the Shire's average annual growth.

FIGURE 4: HISTORICAL POPULATION CHANGE, STRATHBOGIE SHIRE, 2001 TO 2022



Source: Australian Bureau of Statistics, Regional Population 2001-2022

Classifying the population of the Shire by rural and urban areas shows that the majority of the population increase from 2016 to 2021 (based on the ABS Censuses) occurred in the rural areas of Strathbogie. Rural areas grew slightly faster than the LGA's overall growth rate, adding 608 more residents (at 3.0 percent per year) between 2016 and 2021. While urban areas have most of the population in the Shire, they only added 590 more residents (at 1.8 percent per year) during the same period.

TABLE 3: POPULATION IN STRATHBOGIE URBAN & RURAL AREAS, 2016-2021

Area	2016	2021	Difference	AAGR
Urban	6,421	7,011	590	1.8%
Rural	3,856	4,464	608	3.0%
LGA	10,277	11,475	1,198	2.2%

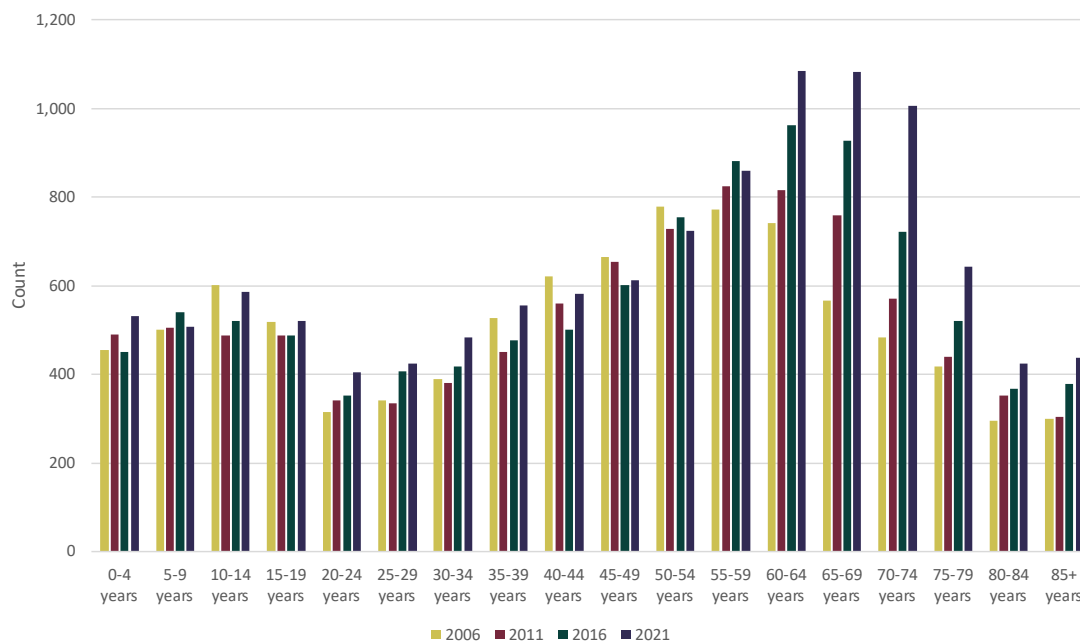
Source: ABS Estimated Resident Population 2016 & 2021.

Age profile

The age distribution of the population provides a glimpse of the overall life stage of the Shire's residents, for example indicating how large the working age population compared to other age cohorts is.

From 2006 to 2021, all of regional Victoria experienced an increase in the share of the population aged 65+, from 16.0 per cent up to 22.3 per cent. Strathbogie has also seen a similar trend, as shown in Figure 5 below.

In 2006, the 65+ age group accounted for approximately 22.2 per cent of the population. This share has grown to 31.3 per cent in 2021, a 9.1 percentage point increase over the 15-year period. In total, the 65+ age group accounted for over 70.4 per cent of total population growth between 2006 and 2021. This ageing of the population suggests that Strathbogie could be seen as a retirement location for Victoria, although importantly, it is to a lesser extent than the rest of regional Victoria.

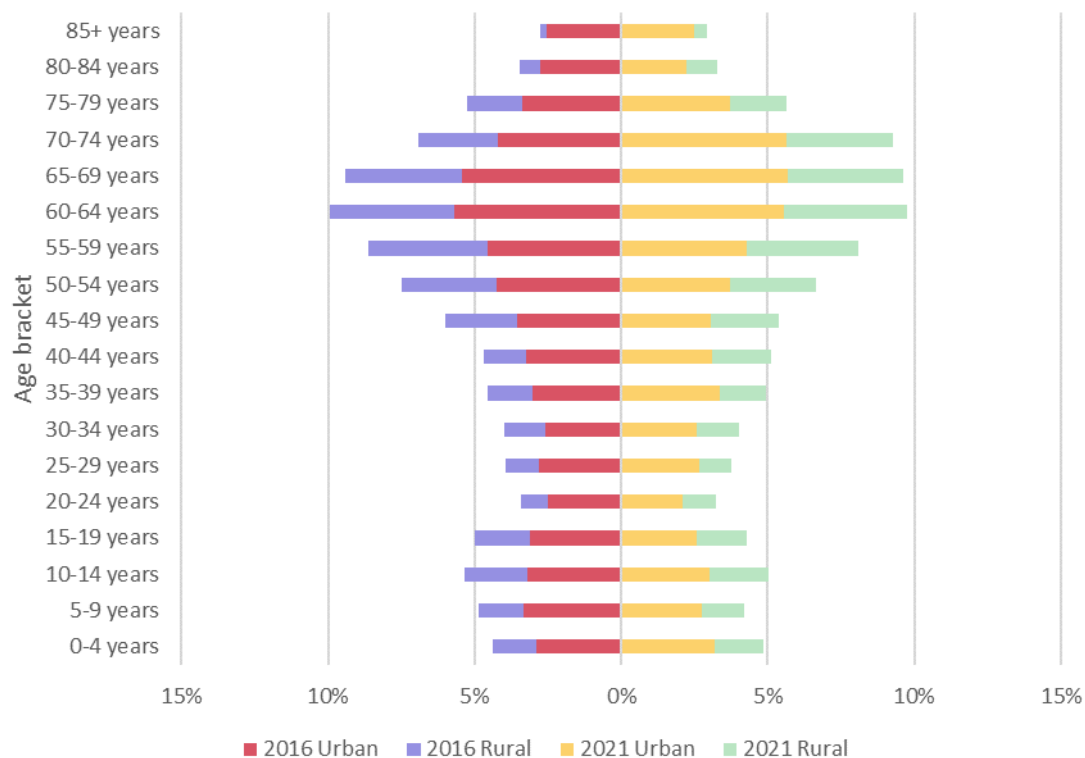
FIGURE 5: STRATHBOGIE SHIRE HISTORIC POPULATION GROWTH BY AGE GROUP, 2006 - 2021

Source: ABS Census (2006, 2011, 2016, 2021)

The age distribution in urban and rural areas in Strathbogie in Figure 6 shows a prominent difference in the ageing population within the Shire. Urban areas have been able to maintain a relatively dispersed age distribution (relatively equal share of people in each age cohort) including adding more residents in the 70-74 age cohort (2.5 percentage points) during the 2016-2021 period.

On the other hand, rural areas have a large number of residents in the near-retirement and retirement age cohorts (45+ years) making rural areas appear to be ageing faster than the urban areas in the Shire. While this trend has fallen over time, except for the 70-74 age cohort, it is important to consider the implication of this demographic structure in the Shire.

FIGURE 6: AGE DISTRIBUTION BY URBAN & RURAL AREAS IN STRATHBOGIE, 2016-2021



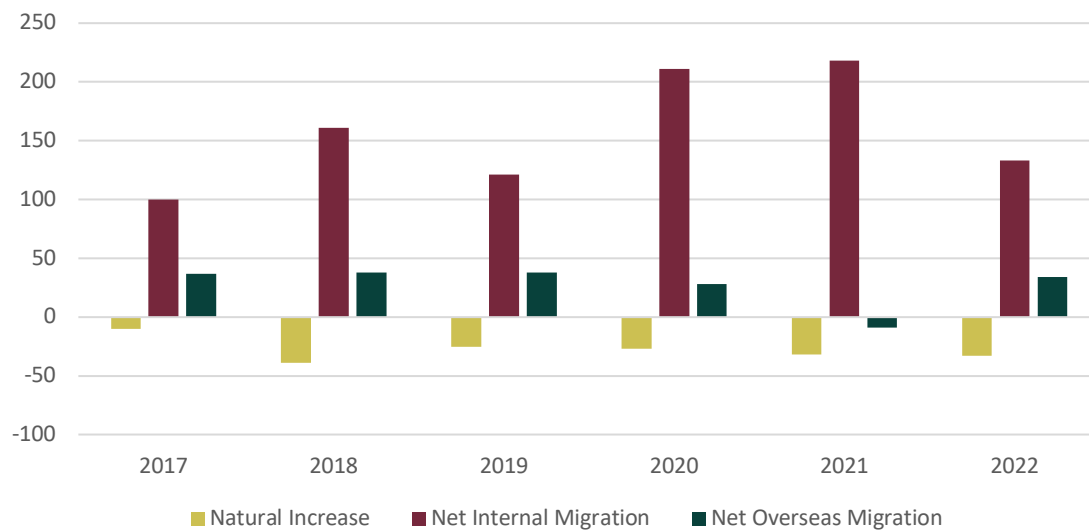
Source: ABS Census (2016, 2021)

Migration

Strathbogie's population growth between 2017 and 2022 by component is shown in Figure 7 below. The main source of population growth in the Shire has been through internal migration and overseas migration, adding 157 and 28 people (respectively) on average since 2017. Negative natural increase (more deaths than births) has been a constant contributor to lower population growth in the Shire, and net overseas migration was negative in 2021 due to Australian border closures (as a result of the COVID-19 pandemic).

The pandemic caused a surge in remote working and allowed professionally mobile workers to move away from cities to regional areas, as a result, net internal migration increased during 2020 and 2021. As of 2022 there was a normalisation of migration patterns back to pre-pandemic levels, with net internal migration and net overseas migration being the main drivers of growth in the Shire.

FIGURE 7: COMPONENTS OF POPULATION GROWTH IN STRATHBOGIE, 2017-2022



Source: ABS Cat. No. 3218.0.

3.3 Housing profile

This section examines the range of dwelling and tenure types within the Strathbogie LGA, and housing price trends.

Dwelling count by area

Table 4 shows the number of private dwellings in the urban and rural areas of Strathbogie between 2016 and 2021. Growth in private dwellings has been similar in both areas, with a slightly higher AAGR (1.7 per cent) in the rural areas during the five year period, though urban areas continue to hold the largest share across the Shire.

TABLE 4: STRATHBOGIE PRIVATE DWELLINGS BY URBAN & RURAL AREAS, 2016-2021

Area	2016	2021	Difference	AAGR
Urban	3,300	3,556	256	1.5%
Rural	2,363	2,570	207	1.7%
LGA	5,666	6,148	482	1.6%

Source: ABS Census (2016, 2021). Note: LGA totals do not match breakdown due to Census privacy reasons.

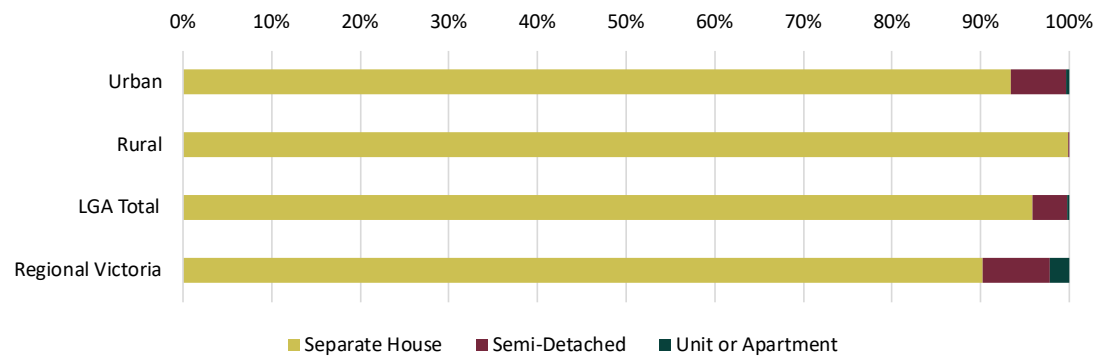
Dwelling structure

Strathbogie dwelling stock comprises of mostly separate houses, accounting for 96 per cent of all private dwellings, with only four per cent being semi-detached and units/flats dwellings. Urban areas

account for almost all semi-detached and units/flats in the Shire, while rural areas are comprised mostly of separate housing. This dwelling composition differs from regional Victoria, which has a larger share of semi-detached housing compared to Strathbogie.

The breakdown of dwelling structure in the LGA did not change significantly between 2016 and 2021.

FIGURE 8: DWELLING STRUCTURE BY URBAN & RURAL AREA, 2021



Source: ABS Census (2021). Note: LGA totals do not match breakdown due to Census privacy reasons.

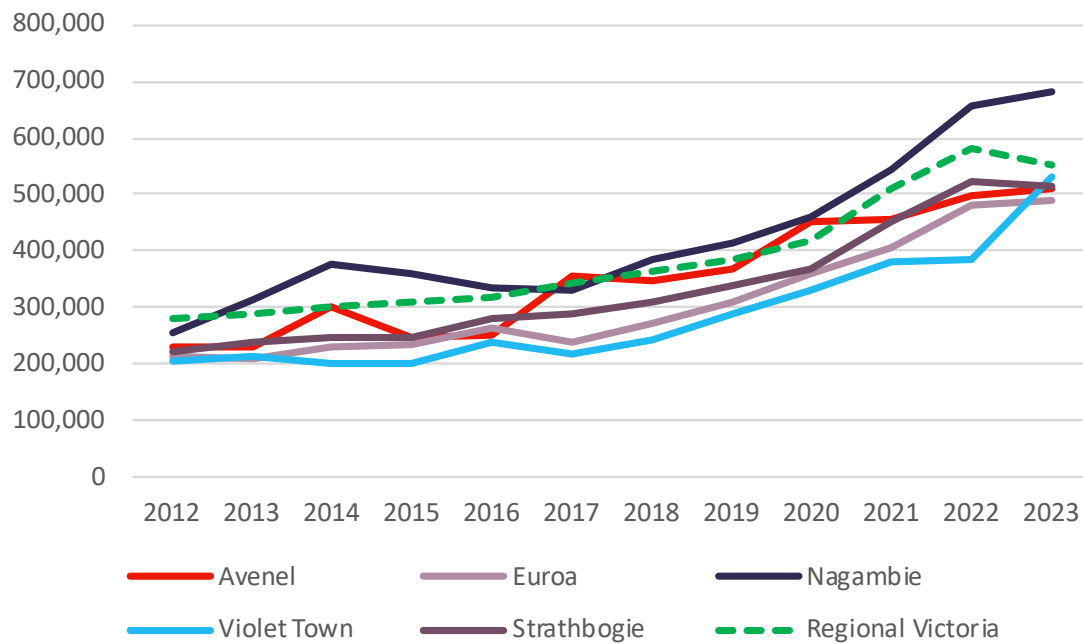
Housing and rental prices

House prices in Strathbogie localities compared to regional Victoria over the last 10 years are shown in Figure 9. Median house prices have increased significantly since 2020 as migration movements shifted from Greater Melbourne to regional Victoria.

Nagambie has seen the highest growth in house prices over this period with a 42.4 per cent increase since 2019. Following this however, 2023 has seen a slowdown in prices across regional Victoria. Other localities follow a similar trend to regional Victoria but with different timing in the surge in prices. Violet Town and Euroa house prices, which have been below the Shire's overall house prices in the last 10 years, have also seen an uptake since 2022.

This suggests that there have been fluctuations in demand for housing ownership in different geographic areas within the Shire. As of 2023, prices remain historically high, adding pressure for the Shire to absorb this level of activity in the market.

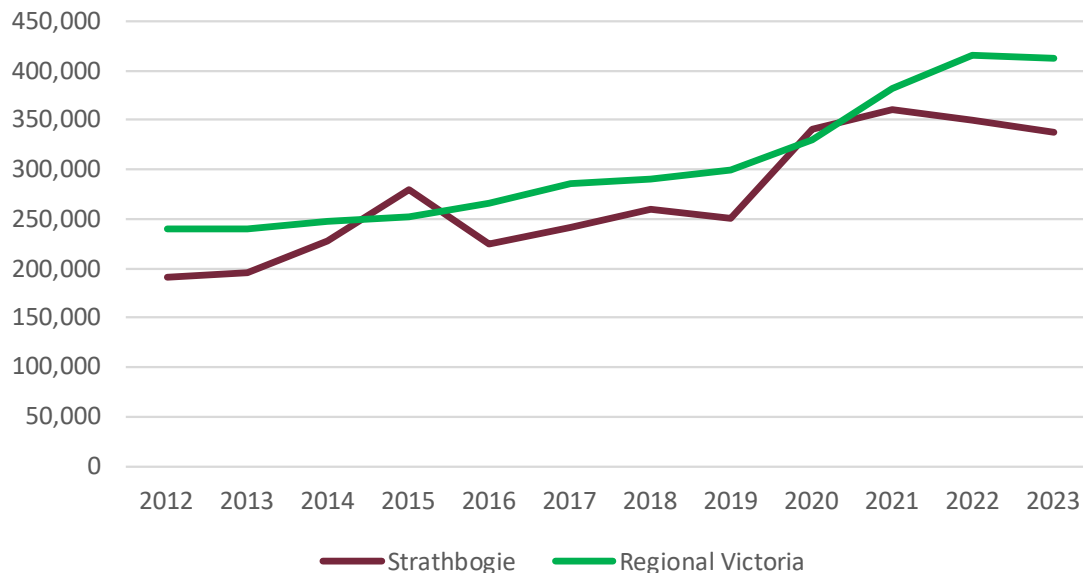
FIGURE 9: HISTORICAL MEDIAN HOUSE PRICES (\$) BY REGION, 2012 – 2023



Source: Land Use Victoria, Year Summary (2023)

Historically, median prices for units and apartments in the Shire were generally lower than across regional Victoria. However, median prices rose by 36 per cent in 2020, bringing it closer to the median price of regional Victoria (Figure 10). Since then, prices in the Shire have declined, \$337,500 in early 2023, lower than those for regional Victoria which continues to be at record levels.

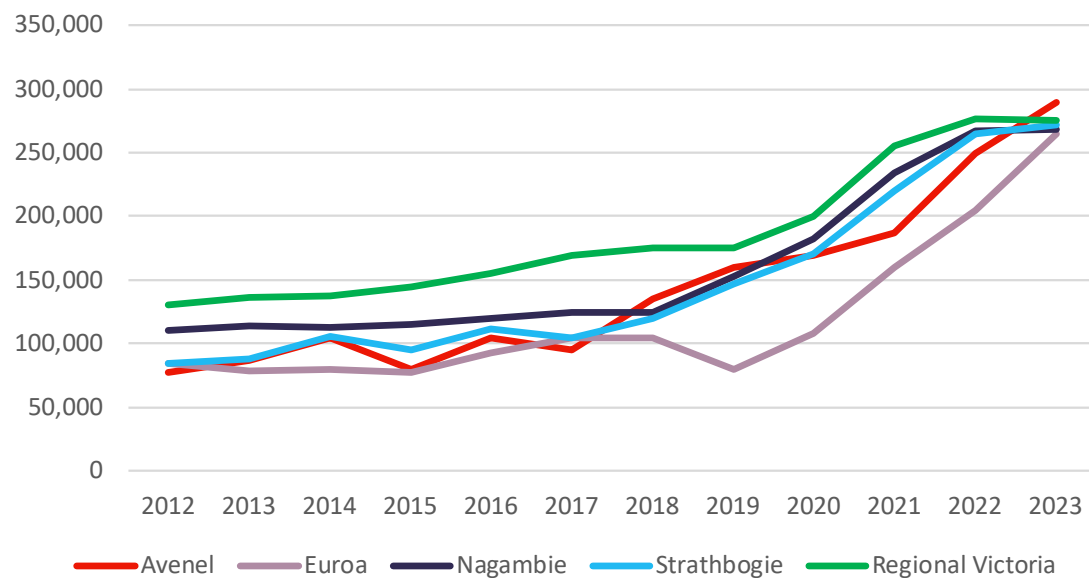
FIGURE 10: HISTORICAL UNITS/APARTMENTS MEDIAN PRICES (\$), 2012-2023



Source: Land Use Victoria, Year Summary (2023)

Median vacant land prices have seen similar increases to that of houses over this period. Avenel has experienced a steady increase in vacant land prices since 2017, rising 34 per cent annually. Nagambie vacant land prices has also surged by 19 per cent in the same period. Euroa did not experience a surge in prices until 2020, with an annual increase of 25 per cent. A plausible reason for this increase in vacant land is an increase in appetite to buy land in order to build in Euroa and Avenel rather than buying an existing dwelling. The continued rise in price for vacant land somewhat reflects a wider trend of continued increased demand.

FIGURE 11: HISTORICAL VACANT LAND MEDIAN PRICES (\$), 2012-2023



Source: Land Use Victoria, Year Summary (2023)

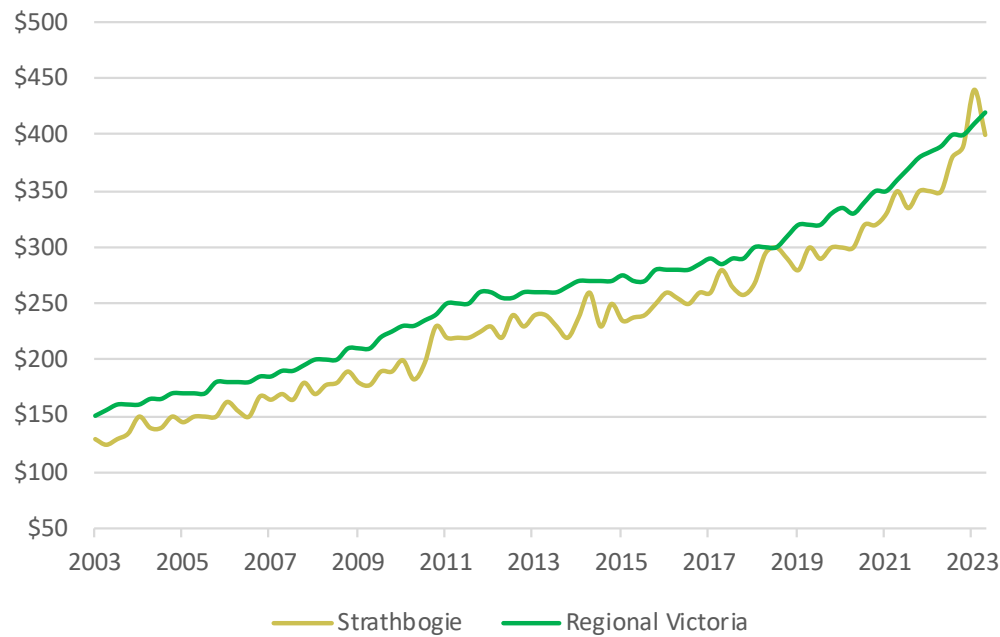
The private rental market in Strathbogie represented 13 per cent of total housing as of the latest Census in 2021. This has been constant since 2011, and the rental market is considered the main or only alternative for households that have been priced out of housing ownership or households that move regularly.

Historically, Strathbogie median rents² have been below the regional Victoria median, with a difference of \$26 on average from 2003 to 2022 (Figure 12). However, the gap closed in early 2023 when Strathbogie rents were above those for regional Victoria.

Rents in Strathbogie have also been increasing at a faster pace than regional Victoria since 2015 (Figure 13), and with shifts in migration from Melbourne to regional Victoria in 2021 and 2022 the increase in rents has further accelerated.

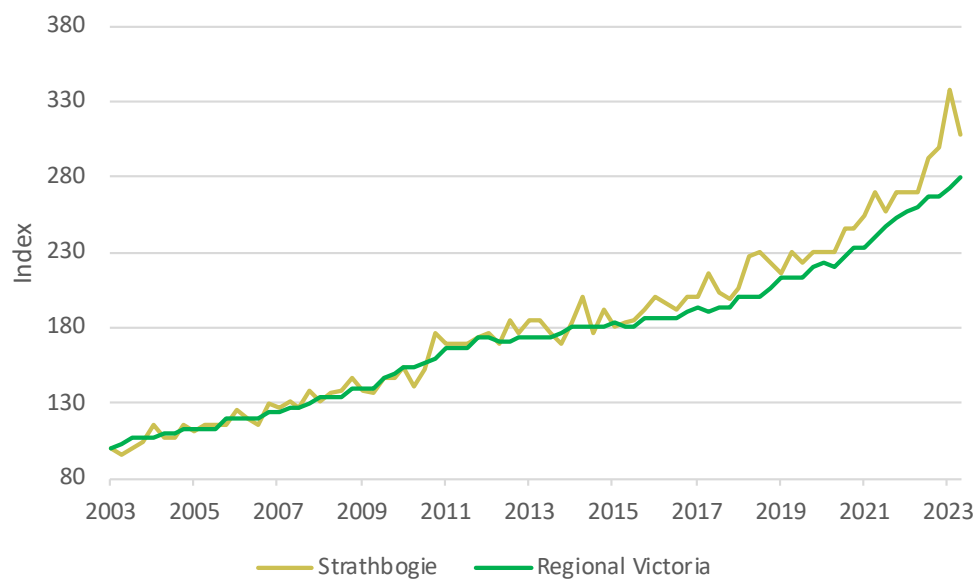
² Median rents represent the mid-point in the distribution of all rents. 50 per cent of rents are higher than the median and 50 per cent are below the median. It gives insight into the current trends in the private rental market in the shire and broader regional areas in Victoria.

FIGURE 12: HISTORICAL MEDIAN WEEKLY RENT BY REGION, 2003 – 2023



Source: Department of Families, Fairness and Housing Rental statistics (2023)

FIGURE 13: INDEX OF HISTORICAL MEDIAN WEEKLY RENT BY REGION, 2003 – 2023



Source: Department of Families, Fairness and Housing Rental statistics (2023). *Note: 2003 represents 100 in the index.

As shown in Table 5, both rent and dwelling prices have been increasing at a greater rate than income in Strathbogie over 2011-2021 period. This shows a deterioration in the affordability of dwellings to rent or own. As renting or owning a dwelling takes more of a household income in 2021 than 10 years prior in nominal terms, it is likely that there are groups earning below the median values shown below that would experience more extreme housing stress.

TABLE 5: STRATHBOGIE HISTORICAL MEDIAN INCOME, RENT, AND HOUSE PRICES, 2011 – 2021

	Weekly Household Income (\$)	House Price (\$)	Unit Price (\$)	Weekly Rent (\$)
2011	841	212,500	222,500	168
2016	962	279,000	225,000	200
2021	1,188	450,000	360,000	260
Per cent increase (2011-2021)	41%	112%	62%	55%

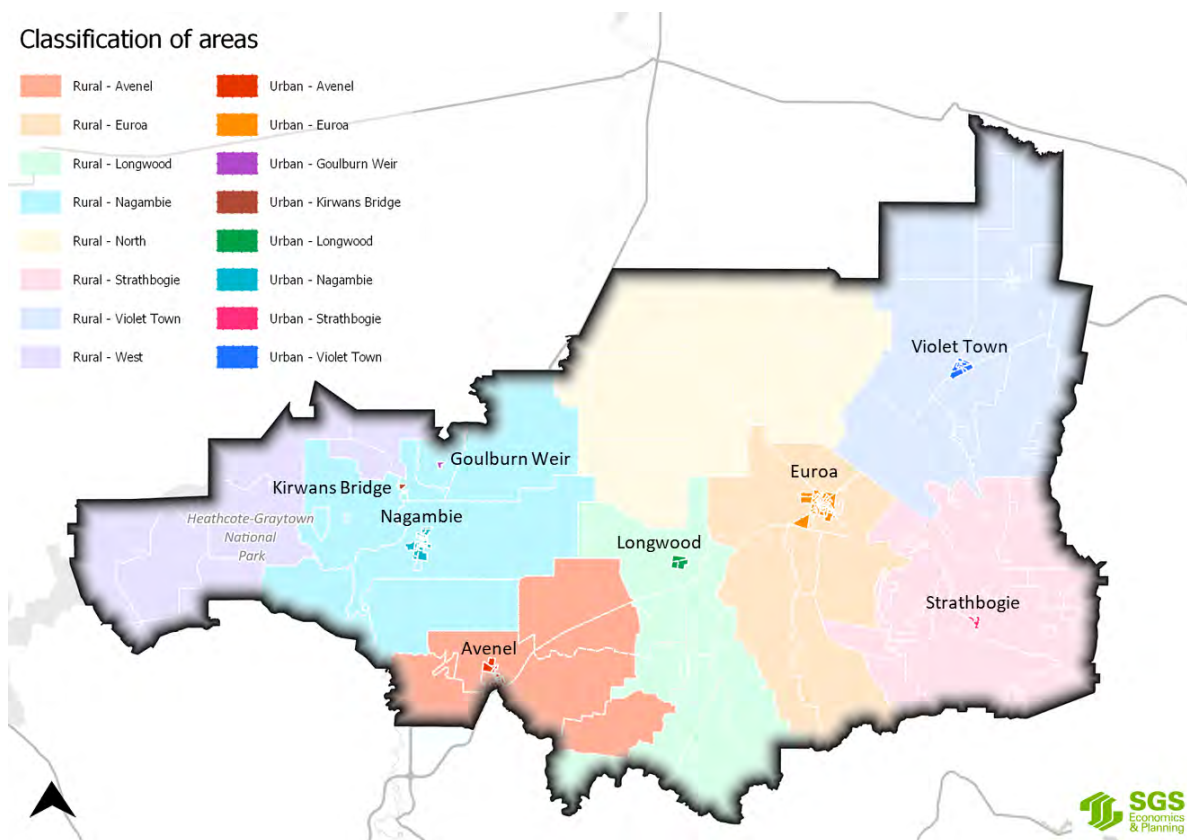
Source: SGS Economics and Planning, Based on data from Land Use Victoria, Year Summary (2022), and ABS Census (2011 – 2021).
Note: Values are not adjusted for inflation.

3.4 Recent development trends

To understand the historical development activity across the LGA, SGS has compiled ABS Census Mesh Block Dwelling Counts from 2011 to 2021. SGS has aggregated the Mesh Block data into the following geographies (shown in Figure 14 below):

- **Urban area (2)** is identified as the eight townships including Avenel, Euroa, Longwood, Nagambie, Violet Town and Strathbogie, Kirwans Bridge and Goulburn Weir (note this includes more towns than was included in the study area for the previous profiling in this section). Kirwans Bridge and Goulburn Weir have been included due to the higher density of development and residential nature of these small areas. These catchments were aligned with statistical boundaries (mesh blocks) and consistent spatial geographies around the towns.
- **Rural area (2)** is the rest of the LGA
- **Strathbogie LGA** in total.

FIGURE 14: CATCHMENTS USED FOR ANALYSIS OF DEVELOPMENT ACTIVITY



Source: SGS Economics and Planning (2023)

Table 6 shows the historical dwelling counts across the Census years including 2011, 2016 and 2021, and Table 7 shows the numerical and percentage changes for the same time period.

From 2011 to 2021, the total number of dwellings across the Shire increased from 5,008 to 6,153 (23 per cent increase). During this time, the proportion of dwellings in urban areas fell from 62.5 per cent to 60.1 per cent, while conversely, rural areas saw stronger growth in development activity.

The total dwelling stock across the urban area (six townships) has grown by 15 per cent in the past decade, while the dwelling stock across rural areas surrounding the six townships has increased by 24 per cent. The dwelling stock across the remaining rural areas in the shire (excluding rural areas surrounding six townships) has increased by 47 per cent.

The majority of development activity over this time period occurred in Nagambie – Urban (+317 dwellings), Euroa – Urban (+141 dwellings), Nagambie – Rural (+115 dwellings), and Avenel – Rural (+90 dwellings).

TABLE 6: HISTORICAL DWELLING COUNTS, STRATHBOGIE LGA, 2011, 2016 & 2021

Area	Town	2011	2016	2021
Urban	Avenel	311	325	340
	Euroa	1,453	1,521	1,597
	Nagambie	794	959	1,111
	Longwood	82	94	84
	Violet Town	327	349	367
	Strathbogie	56	65	72
	Goulburn Weir	35	38	38
	Kirwans Bridge	60	79	80
Rural	Avenel	215	274	314
	Euroa	307	319	323
	Nagambie	288	357	380
	Longwood	214	201	261
	Violet Town	279	317	358
	Strathbogie	310	362	421
	Rural - West	97	141	159
	Rural - North	180	241	248
Total Urban		3,118	3,430	3,689
Total Rural		1,890	2,212	2,464
LGA Total		5,008	5,642	6,153

Source: ABS Census Mesh Block Counts (2011-2021)

TABLE 7: CHANGE IN DWELLING COUNTS (NUMERICAL AND PERCENTAGE)

Area	Town	2011-16	2016-21	2011-21
Urban	Avenel	+14 (+5%)	+15 (+5%)	+29 (+9%)
	Euroa	+68 (+5%)	+76 (+5%)	+144 (+9%)
	Nagambie	+165 (+21%)	+152 (+16%)	+317 (+29%)
	Longwood	+12 (+15%)	-10 (-11%)	+2 (+2%)
	Violet Town	+22 (+7%)	+18 (+5%)	+40 (+11%)
	Strathbogie	+9 (+16%)	+7 (+11%)	+16 (+22%)
	Goulburn Weir	+3 (+9%)	+0 (+0%)	+3 (+8%)
	Kirwans Bridge	+19 (+32%)	+1 (+1%)	+20 (+25%)
Rural	Avenel	+59 (+27%)	+40 (+15%)	+99 (+32%)
	Euroa	+12 (+4%)	+4 (+1%)	+16 (+5%)
	Nagambie	+69 (+24%)	+23 (+6%)	+92 (+24%)
	Longwood	-13 (-6%)	+60 (+30%)	+47 (+18%)
	Violet Town	+38 (+14%)	+41 (+13%)	+79 (+22%)
	Strathbogie	+52 (+17%)	+59 (+16%)	+111 (+26%)
	Rural - West	+44 (+45%)	+18 (+13%)	+62 (+39%)
	Rural - North	+61 (+34%)	+7 (+3%)	+68 (+27%)
Total Urban		+312 (+10%)	+259 (+8%)	+571 (+15%)
Total Rural		+322 (+17%)	+252 (+11%)	+574 (+23%)
LGA Total		+634 (+13%)	+511 (+9%)	+1,145 (+19%)

Source: ABS Census Mesh Block Counts (2011-2021)

It is important to understand where dwelling growth has occurred by zone, to understand if the objectives of the zones are being achieved. Table 8 below outlines where development has occurred in

the last decade by town, and the zones in which it has occurred. Euroa and Nagambie have seen the majority of their development occurring within the urban boundaries of the respective towns, however all the other townships have seen the majority of growth occur in rural areas. It is important to note that all rural residential development to date has occurred within the Farming Zone. There are only two areas of Rural Living Zone land within Strathbogie Shire, in Avenal and Euroa, neither of which has seen development or subdivision occur.

TABLE 8: DWELLINGS GROWTH BY TOWN, ZONE AND AREA, 2011 TO 2021

Area	Town	Zone	2011	2016	2021	Change 16-21	Share of change in town
Urban	Avenal	TZ	276	302	315	13	29%
		Others	87	23	25	2	4%
	Euroa	GRZ	763	1,286	1,338	52	66%
		LDRZ	0	6	4	-2	-3%
		Others	703	237	265	28	35%
	Longwood	TZ	82	94	84	-10	-83%
	Nagambie	GRZ	39	834	964	130	74%
		Others	755	125	147	22	13%
	Violet Town	TZ	327	349	367	18	45%
	Strathbogie	TZ	56	43	47	4	14%
Rural	Avenal	FZ	42	254	282	28	62%
		Others	106	6	8	2	4%
	Euroa	FZ	22	257	261	4	5%
		Others	225	3	0	-3	-4%
	Longwood	FZ	110	116	138	22	183%
	Nagambie	FZ	209	463	487	24	14%

Area	Town	Zone	2011	2016	2021	Change 16-21	Share of change in town
		Other	174	11	11	0	0%
	Violet Town	FZ	112	109	131	22	55%
	Strathbogie	FZ	129	144	168	24	86%
Rest of LGA			791	980	1,111	131	
LGA Total			5,008	5,642	6,153	511	

Source: SGS Economics & Planning (2023)

3.5 Summary of Key Implications

Overall, the population and housing profile show that:

- There has been a gradual increase in the Shire's population in the last 10 years, with growth rates similar to regional Victoria.
- Rural areas within the Shire experienced a higher level of population growth than urban areas at particular times, influenced by the effect of the COVID-19 pandemic.
- The population in rural areas has aged faster than urban areas, with rural areas having larger concentrations of residents in near-retirement and retirement age cohorts.
- Some rural areas experienced stronger growth in development activity (i.e. more dwellings constructed) than urban areas, specifically in rural areas near Nagambie and Avenel.
- House prices have increased significantly since 2020 as migration movements shifted from Greater Melbourne to regional Victoria, with Nagambie seeing the highest growth. More recently prices have seen an uptick in Violet Town and Euroa.
- Prices for vacant land prices have also seen similar shifts in demand, specifically in Nagambie and Avenel.
- Rental prices in the Shire have typically been lower than the median for regional Victoria, however, migration movements and increased demand have seen this gap closed as of 2023.
- There has been worsening housing and rental affordability across the Shire, which is consistent with nationwide trends.

4. Housing demand and capacity assessment

This section adopts forecasts of demand for dwellings across Strathbogie Shire as set out in the *Strathbogie Settlement Strategy: Residential Demand and Supply Assessment Report (2024)*. A capacity assessment has also been undertaken of the potential to accommodate future rural dwelling demand within areas currently zoned for rural residential uses.

The housing demand estimates presented below represent a base case for consideration of housing need across the Shire using VIF23 projections, alongside estimates for the case where population grows faster than expected.

Alignment with the *Strathbogie Settlement Strategy: Residential Demand and Supply Assessment Report (2024)*

The Strathbogie Settlement Strategy: Residential Demand and Supply Assessment Report (2024) was prepared concurrently with this report. For consistency across the projects, the housing demand assumptions produced in the Strathbogie Settlement Strategy: Residential Demand and Supply Assessment Report (2024) have been reviewed and adopted for use in the Strathbogie Rural Residential Study, 2024. The elements of analysis adopted includes the high dwelling demand scenario, the future distribution of growth across towns and the future split between rural and urban residential areas.

While the preceding analysis in this Report of historic housing growth and trends uses geographic boundaries and data sources that differ from the Strathbogie Settlement Strategy: Residential Demand and Supply Assessment Report (2024), the key findings remain consistent. That is:

- The urban areas of Nagambie, Avenal and Euroa have seen the highest share of growth in the LGA.
- In recent years Strathbogie Shire has seen around 100 additional dwellings per year.
- A significant share (between 25 to 50 per cent) of dwelling growth has occurred in rural areas (the variation is due to differences in the assumed boundary definitions of rural areas and the statistics used to establish this share i.e. permit approvals vs ABS mesh-block dwelling counts respectively).

A detailed comparison of the methodologies used in the Strathbogie Settlement Strategy (2024) and this analysis is provided in **Appendix B**.

4.1 Future housing demand

VIF23 Projections

The Victoria in Future (VIF) forecast is produced by the Victorian Government and provides planning assumptions with a common approach across the State to the year 2036. These have been used as the basis of modelling housing demand. VIF23 projects population and dwelling numbers to 2051 at the State and major regions level, and to 2036 at the LGA and SA2 level.

Table 9 shows VIF23 population and dwelling projection for Strathbogie Shire. The annual change of VIF23 projections have been used to project VIF23 numbers from 2036 to 2041 as shown in Table 9 below. This is consistent with a State Government requirement in Victoria to **plan for at least 15 years growth at the LGA level** as set out in Planning Practice Note 90.

TABLE 9: VIF23 POPULATION AND DWELLING PROJECTIONS FOR STRATHBOGIE LGA

	2021	2026	2031	2036	Total change (2021-2036)	Annual Change (2021-2036)	CAGR (2021-2036)	2041	Total change (2021-2041)
VIF23 Population	11,360	12,060	12,750	13,410	2,050	137	1.1%	14,090	2,730
VIF23 Dwellings	6,160	6,540	6,920	7,290	1,130	75	1.1%	7,660	1,500

Source: Victoria in Future 2023 and SGS Economics and Planning, 2024.

High dwelling demand scenario

While VIF23 projections shows dwelling growth at +75 new dwellings per year and population growth as +137 people per year, historic trends for Strathbogie Shire between 2016 -2021 show higher rates of growth. Over the periods of 2016 to 2021 dwellings in the Shire have grown at around +100 dwellings per year and population growth has increased by around +240 people per year as shown in Section 3.

Given the recent higher rates of growth compared to VIF23 projections, a high dwelling demand scenario has been adopted in both the Strathbogie Settlement Strategy (2024) and here, using the methodology established in the Strathbogie Settlement Strategy (2024) of projecting forward the historic dwelling growth rate of +100 dwellings per year.

Table 10 shows the 'Higher dwelling growth scenario' compared to the base 'VIF23 dwelling projection' and extends the projections out to 2041. This sees demand for an additional 2,000 dwellings between 2021 to 2041.

TABLE 10: BASE AND HIGH DWELLING POPULATION SCENARIOS FOR STRATHBOGIE LGA

	2021	2036	2041	Total change	Annual Change	CAGR (2021-2041)

				(2021-2041)	(2021-2041)	
VIF23 dwelling projection	6,160	7,290	7,660	+1,500	+75	1.1%
Higher dwelling growth scenario	6,160	7,660	8,160	+2,000	+100	1.4%

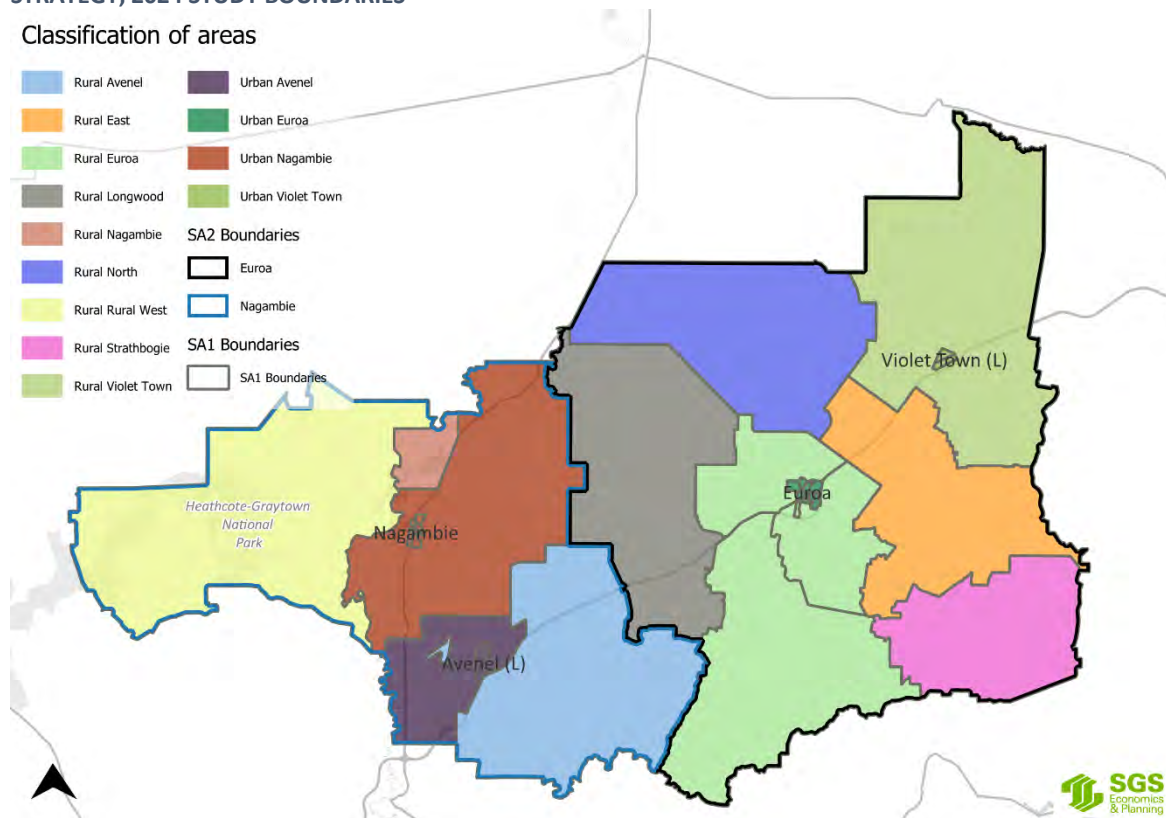
Source: Urban Enterprise (Strathbogie Settlement Strategy, 2024) based on Victoria in Future 2023 and historical growth with SGS Economics and Planning, 2024 extending projections to 2041.

Future distribution of growth

Aligning boundaries between studies

The boundaries used to analyse historic dwelling growth in the preceding analysis in Section 3 uses different boundaries to those in the Strathbogie Settlement Strategy (2024). To align the studies and ensure housing is being analysed and distributed across the Shire using corresponding geographical boundaries, this study has adopted the SA1 urban boundaries established in the Strathbogie Settlement Strategy (2024) and defined rural boundaries by aggregated SA1s as set out in Figure 15 below.

FIGURE 15: URBAN AND RURAL CLASSIFICATIONS OF AREAS ALIGNED WITH STRATHBOGIE SETTLEMENT STRATEGY, 2024 STUDY BOUNDARIES



Source: SGS Economics and Planning, 2024 using ABS SA1 and SA2 geographies, based on the study boundaries used in the Strathbogie Settlement Strategy, 2024.

Urban vs rural split

The Strathbogie Settlement Strategy (2024) distributes growth across the LGA by using the growth share determined by permit approvals between 2018-2023 to split the high growth scenario dwelling demand across the urban areas of Avenel, Nagambie, Euroa and Violet Town and a remaining rural balance across the Euroa and Nagambie SA2 geographies (refer to Figure 15). This is set out in Table 11 below. The total rural balance dwelling demand across the Shire according to the high growth scenario is 420 additional dwellings. This suggests a share of around 80 per cent of dwellings in urban areas and 20 per cent of dwellings in rural areas.

TABLE 11: FUTURE DISTRIBUTION OF DWELLING GROWTH ACROSS URBAN AND RURAL AREAS AS DETERMINED BY THE STRATHBOGIE SETTLEMENT STRATEGY, 2024

Area	Growth from 2021-2041		Annual growth		Share of growth	
	VIF (base scenario)	High growth scenario	VIF (base scenario)	High growth scenario	VIF (base scenario)	High growth scenario
Nagambie SA2	980	1,300	49	65	65%	65%
Avenel	260	340	13	17	17%	17%
Nagambie	660	860	33	43	44%	43%
Rural Balance*	60	100	3	5	4%	5%
Euroa SA2	520	700	26	35	35%	35%
Euroa	240	320	12	16	16%	16%
Violet Town	40	60	2	3	3%	3%
Rural Balance*	240	320	12	16	16%	16%
Strathbogie Shire (Total)	1,500	2,000	75	100	100%	100%

Source: Urban Enterprise (Strathbogie Settlement Strategy, 2024) based on Victoria in Future 2023 and historical growth with SGS Economics and Planning, 2024 extending projections to 2041.

*The rural balance dwelling demand numbers as defined by the Strathbogie Settlement Strategy, 2024 includes 2 small urban settlements of Strathbogie and Longwood.

Distributing the rural balance

SGS Economics and Planning has worked with Council to establish a notional projected future share of rural residential growth across the LGA informed by historical take-up rates as shown in Table 12. The shares of growth set out in Table 12 below is used to distribute the 20 per cent rural balance set out in Table 11.

TABLE 12: PROJECTED FUTURE SHARE OF DWELLING DEMAND IN RURAL AREAS BASED ON HISTORIC SHARES OF GROWTH

Area	SA2	Town	Share of rural growth 2011-16	Share of rural growth 2016-21	Share of rural growth 2011-21	Projected Future share
Rural	Nagambie SA2	Rural Avenel	1%	13%	5%	16%
		Rural Nagambie	14%	0%	9%	12%
		Rural West	36%	12%	27%	10%
	Euroa SA2	Rural East	11%	16%	13%	12%
		Rural Euroa	6%	17%	10%	10%
		Rural Longwood	10%	7%	8%	12%
		Rural North	11%	2%	8%	10%
		Rural Strathbogie	6%	16%	10%	11%
		Rural Violet Town	5%	17%	9%	7%
	Total Rural		100%	100%	100%	100%

Source: SGS Economics and Planning, 2024 based on ABS Census Mesh Block Counts (2011-2021).

Forecast dwelling demand by rural area

Table 13 uses the projected future rural dwelling demand share and distributes the total rural dwelling demand balance to 2041 across the corresponding areas. Using the high dwelling demand scenario, there is a total demand for 420 additional rural dwellings which is expected to see a fairly even distribution across the Shire.

TABLE 13: FORECAST RURAL DWELLINGS DEMAND BY RURAL AREA TO 2041

SA2	Town	Rural balance dwelling demand to 2041	Projected Future share	Additional dwelling demand to 2041
Nagambie SA2	Rural Avenel	420	16%	67
	Rural Nagambie		12%	50

	Rural West		10%	42
Euroa SA2	Rural East		12%	50
	Rural Euroa		10%	50
	Rural Longwood		12%	42
	Rural North		10%	42
	Rural Strathbogie		11%	46
	Rural Violet Town		7%	29
Rural LGA total		420	100%	420

Source: SGS Economics and Planning, 2024 using the Strathbogie Settlement Strategy (2024) rural balance dwelling demand total.

4.2 Housing capacity assessment

This section includes a housing capacity assessment to determine the extent to which forecast demand for dwellings (420) can be accommodated.

Further details on the housing capacity method, analysis, and results are described below and can also be found in **Appendix B**.

Method Overview

Housing capacity assessments are based on existing planning controls, recent housing supply trends, and planned future land-release precincts. It is a theoretical assessment of the maximum number of dwellings that could be developed in an area.

Capacity assessments typically only examine capacity according to current zoning within the planning scheme. Strathbogie has a unique situation of having very small amounts of existing RLZ in Avenel and Euroa. Both these areas are undeveloped and have been used to determine theoretical capacity based on the current Planning Scheme.

Net capacity

When considering only existing RLZ areas within Strathbogie Shire, the associated development plans prescribe a total capacity of 43 lots, none of which have been developed at this time.

The capacity within future RLZ areas identified in Structure Plans and adopted plans indicates there is capacity for 197 lots. However, Council has indicated that development within the previously identified future RLZ areas within the Nagambie Structure Plan and the future RLZ areas identified within the *Development Plan Report: Euroa & Avenel Rural Residential Development (April 2010)* and further supported in the *Euroa Township Strategy 2020* are **no longer supported by Council** for future growth.

TABLE 14: RURAL RESIDENTIAL CAPACITY IN EXISTING RLZ AREAS VS STRUCTUE PLAN AREAS

	Capacity in existing RLZ	Adopted plans and structure plans (no longer supported)
LGA	43	197

Source: SGS Economics & Planning, 2023

The following table sets out where identified capacity lies within the towns across Strathbogie. It does not include future RLZ areas no longer supported by Council.

TABLE 15: RURAL RESIDENTIAL CAPACITY BY TOWN

	Capacity in RLZ	Capacity in RLZ2	Net capacity
Rural Nagambie	0	0	0
Rural Avenel	36	0	36
Rural Violet Town	0	0	0
Rural Euroa	0	7	7
Rural Strathbogie	0	0	0
Total	36	7	43

Source: SGS Economics & Planning, 2023

4.3 Supply gap analysis

Only a small portion of available lots are likely to be developed in any one year and some lots are likely to be withheld from development. For these reasons, greater capacity than (expected) demand is required to ensure that future development is not constrained. There are likely to be site-specific attributes which may affect the development potential of some sites, but which cannot be assessed in an LGA-wide capacity analysis.

At an LGA level there is a shortfall in the capacity of rural housing to meet the projected high demand scenario to 2041. Based on this analysis there is 2 years of supply at the LGA level when considering zoned RLZ areas. To accommodate the projected demand, increased capacity for an additional 377 rural residential dwellings would need to be provided.

The supply-gap analysis is shown in Table 16 below at the sub-LGA and total LGA level.

TABLE 16: RURAL HOUSING SUPPLY GAP ANALYSIS TO 2041 (HIGH DEMAND SCENARIO)

RURAL AREA	DEMAND TO 2041 (HIGH SCENARIO)	CAPACITY	CAPACITY GAP	DWELLINGS NEEDED PER YEAR	APPROX. LAND REQUIRED FOR RLZ (HA)*	YEARS OF SUPPLY
Rural Avenel	67	36	-31	3	81	11
Rural Nagambie	50	0	-50	3	131	0
Rural West	42	0	-42	2	109	0
Rural East	50	0	-50	3	131	0
Rural Euroa	50	7	-43	3	113	3
Rural Longwood	42	0	-42	2	109	0
Rural North	42	0	-42	2	109	0
Rural Strathbogrie	46	0	-46	2	120	0
Rural Violet Town	29	0	-29	1	76	0
Rural Total	420	43	-377	21	980	2

Source: SGS Economics & Planning, 2024

* Approximate land required for RLZ calculated using the minimum RLZ subdivision size (2ha) plus 30 per cent allowance for infrastructure areas.

4.4 Summary and key implications

- Two scenarios have been used to consider the future growth of the Shire's population and dwelling growth – a base case and an alternative 'high' scenario with a higher level of growth.
- The forecast dwelling growth projects the need for an additional 300 rural dwellings under the base case scenario to 2041, and an additional 420 under the high growth scenario. The largest share of rural dwelling growth (16 per cent) is projected to be in the rural area of Avenel.
- Estimation of the housing capacity in the LGA is based on existing planning. There is theoretical capacity for approximately 43 dwellings across the Shire in existing RLZ areas.
- When compared to the demand under the high growth scenario to 2041, this shows a capacity gap of -377 dwellings at the LGA level. The existing capacity represents two years' worth of supply

under the high growth scenario. To meet the projected capacity gap of 377 dwellings at existing RLZ densities would require approximately 980 hectares of land using the minimum RLZ subdivision requirement of 2 ha and allowing for 30 per cent additional land area for necessary infrastructure.

- Council has multiple policy options to address this notional projected demand including the following:
 - **Meet all the projected demand for rural residential activities** by rezoning sufficient rural residential land in suitable, unconstrained locations in selected locations across the Shire, typically adjacent to township areas.
 - **Meet only part of the projected demand for rural residential activities** in selected (say 1 or 2) suitable unconstrained locations likely adjacent to township areas – on the understanding that areas with smaller lots (higher density) in Low Density Residential Zones or township areas are preferred to manage and minimise encroachment into valued rural areas.
 - **Resist any further subdivision for rural residential activities** – on the understanding that areas with smaller lots (higher density) in Low Density Residential Zones or township areas are preferred to manage and minimise encroachment into valued rural areas.
- All these options would also be accompanied by a more restrictive approach to future dwelling development in Farm Zones.

5. Key findings and implications for the Strategy

Strathbogie's population is growing

- Strathbogie's population is projected to increase by around 2,700 people by 2041 according to State Government projections extended to 2041.
- State Government projections extended to 2041 show the need for around 1,500 additional dwellings to accommodate population growth.
- Historic dwelling growth has seen higher rates of dwelling growth with an additional 100 dwellings per year. Projected forward, this would see an additional 2,000 dwellings by 2041.

Rural residential growth has been occurring solely in the Farming Zone

- Rural residential development refers to land in a rural setting, used and developed for dwellings that are not primarily associated with agriculture.
- The Rural Living Zone provides for residential use in a rural environment. Strathbogie Shire has only 2 areas of Rural Living Zone, located in Avenal and Euroa. Both areas of Rural Living Zone have not seen any further development or subdivision and have not developed with previous development plans.
- All rural residential development has occurred within the Farming Zone.

The future share of rural and urban growth should be redistributed

- Depending on the data used for the analysis, there has been a significant share of development occurring in rural areas (between 25 – 50 per cent).
- The Strathbogie Urban Growth Strategy: Existing Conditions Report (2024) sets out a future urban vs rural residential split of 80 per cent growth to be accommodated in urban areas and 20 per cent growth to be accommodated in rural areas.

Strategic areas for future rural residential growth may need to be identified to meet demand

- State Government mandates Councils must plan for at least 15 years of growth at the LGA level. Housing markets are more nuanced and operate at a finer grain level and so analysis has been undertaken as a sub-LGA level.
- Based on a high growth scenario Strathbogie can accommodate 2 years of growth in rural areas at the LGA level, with a projected shortfall of around 377 dwelling when considering the theoretical capacity of zoned RLZ areas.
- Council has multiple policy options to address this notional projected demand including the following:
 - Meet all the projected demand for rural residential activities

- Meet only part of the projected demand for rural residential activities
- Resist any further subdivision for rural residential activities
- All these options would also be accompanied by a more restrictive approach to future dwelling development in Farm Zones.

When identifying areas for future Rural Living Zone it is important to consider:

- Consideration of existing infrastructure capacity and upgrades required to accommodate residential uses.
- Being able to provide large lot sizes, primarily for residential use, but with a lot layout that provides the opportunity for farming activities to occur, without adversely affecting the natural environment or the amenity of surrounding land uses.
- Avoiding rural areas of high scenic or landscape value.
- Avoiding highly productive agricultural land.
- Protection from incompatible uses.

Rural Living Zone areas on the edge of townships may act as barriers to future urban residential development as towns and settlements grow. This would lead to inefficient 'leapfrogging' development patterns and constraints to urban growth. Where supportable, future rural residential development areas should carefully consider subdivision design and layouts, and road patterns, to enable future conversion to higher yielding residential areas in future through future rezoning.

Next steps

- As well as identifying suitable areas and patterns for housing growth, the Strathbogie Housing and Settlement Strategy and the RRLUS will need to consider how Council, in partnership with other relevant stakeholders and agencies, can support housing delivery.
- Further refinement as to how to accommodate additional rural residential areas, for example potential rezonings identified above, will need to be worked through with Council.

Appendix A: Planning Framework

This section sets out the planning policy framework at a State and local government level as it applies to planning for rural residential land in Strathbogie Shire.

5.1 Strathbogie Shire Planning Scheme

The Strathbogie Planning Scheme is made up of State, regional and local policies, which set directions for land use, development, and environmental management. The Planning Scheme highlights opportunities and challenges facing the Shire and sets out planning controls to manage land use and development including local policies, zones and overlays.

The Planning Scheme is arranged with a high level Municipal Planning Strategy (MPS) and more detailed policy direction within a Planning Policy Framework (PPF).

Municipal Planning Strategy

The Municipal Planning Strategy (MPS) comprises a context, vision and strategic directions for land use planning in Strathbogie, accompanied by a strategic framework plan.

Planning Policy Framework

The Planning Policy Framework (PPF) outlines state strategy and policy directions for land use planning.

The PPF comprises detailed State, regional and local policy based on the following themes:

- Clause 11 - Settlement
- Clause 12 - Environment and landscape values
- Clause 13 - Environmental risks and amenity
- Clause 14 - Natural resource management
- Clause 15 - Built environment and heritage
- Clause 16 - Housing
- Clause 17 - Economic development
- Clause 18 - Transport
- Clause 19 - Infrastructure.

The purpose of relevant clauses and sub-clauses at the State, regional and local levels are discussed in greater detail below.

5.2 State and Regional Policy

Planning Policy Framework (State and Regional Policy)

The PPF establishes directions for local government to prepare plans at the local level, that are implemented in the *Strathbogie Shire Planning Scheme*. Key objectives include promoting sustainable growth and development, protecting and conserving biodiversity, minimising the impacts of natural

hazards and climate change, protecting natural resources, and facilitating housing to meet community needs.

The PPF requires planning authorities to plan to accommodate projected population growth over at least a 15-year period and provide clear direction on locations where growth should occur. Policy states that Residential land supply must be considered on a municipal basis, rather than a town-by-town basis.

State and Regional policy, relevant to residential development, set out in the PPF include:

11.01-1-1S – Settlement

Clause 11.01-1S aims to facilitate sustainable growth and development across Victoria and identifies Horsham as a major regional city for focused investment and growth. The Clause requires planning authorities to consider relevant region-specific strategies (Wimmera Southern Mallee Regional Growth Plan, 2014).

11.01-2-1S – Supply of Urban Land

Clause 11.01-2-1S aims to ensure a sufficient supply of land is available for residential development, as well as other uses. A key strategy under this clause is to plan to accommodate projected population growth over at least a 15-year period and provide clear direction on locations where growth should occur. The clause also stipulates that residential land supply should be considered on a municipal basis, rather than a town-by-town basis.

11.01-2-2S – Structure Planning

Clause 11.02-2-2S aims to facilitate fair, orderly and sustainable development of urban areas by ensuring undertaking the preparation of a hierarchy of structure plans or precinct structure plans.

11.03-6S – Regional and local places

Clause 11.03-6S aims to facilitate integrated place-based planning in regional areas. Strategies include considering the distinctive character and cultural heritage in land use and development.

16.01-1S – Housing supply

Clause 16.01-1S aims to facilitate well-located, integrated and diverse housing that meets community needs. Strategies include:

- Increase the proportion of housing in designated locations in established urban areas (including under-utilised urban land) and reduce the share of new dwellings in greenfield, fringe and dispersed development areas.
- Encourage higher density housing development on sites that are well located in relation to jobs, services and public transport.
- Identify opportunities for increased residential densities to help consolidate urban areas.
- Facilitate diverse housing that offers choice and meets changing household needs by widening housing diversity through a mix of housing types.
- Encourage the development of well-designed housing.
- Support opportunities for a range of income groups to choose housing in well-served locations.

16.01-3S – Rural residential development

Clause 16.01-3S aims to identify land suitable for rural residential development. To protect agricultural areas, and avoid inappropriate rural residential development, the clause encourages the consolidation of housing in existing settlements. The clause stipulates that need and identify locations for rural residential development must be identified through a housing and settlement strategy.

16.01-3L – Rural residential development

Clause 16.01-3L presents rural residential subdivision where it would result in loss of productive agricultural land, creates the expectation of subdivision on adjoining rural land, encircle townships as to produce their future urban growth. It ensures rural residential development provides a buffer to existing agricultural uses, and ensure rural residential development protects existing visual and environmental qualities of the area, such as landscape, water quality, native vegetation, habitat and biodiversity.

5.3 Local Planning Policy

The Strathbogie Planning Scheme is made up of State, regional and local policies, which set high-level directions for land use, development, and environmental management, and highlight opportunities and challenges facing the Municipality, that can be managed through planning controls (zones and overlays).

Municipal Planning Strategy

The Municipal Planning Strategy (MPS) outlines the context, vision and strategic planning directions for Strathbogie Shire. The MPS contains the following relevant clauses:

Clause 02.03-1 Settlement

This clause sets policy objectives for planning residential settlements in Strathbogie. The clause identifies Strathbogie's principle towns as Euroa, Nagambie, Avenel and Violet Town.

Strategic directions for settlements include:

- Facilitate rural and low density residential zoned land in locations that won't negatively impact productive agricultural land.
- Preserve and protect small settlements from residential development.
- Encourage the expansion of small settlements with reliable water supply and sewerage.

Clause 02.03-2 Environmental values and biodiversity

Protecting Strathbogie's environment and biodiversity is guided by Council's strategic directions. Strategic directions include:

- Protect and enhance native vegetation, fauna and waterways, including riparian areas.
- Encourage connectivity between vegetation corridors including roadsides and waterways.
- Protect medium to high-quality roadside vegetation.

Clause 02.02-3

Environmental Risk

In relation to environmental risk, Council recognises the increasing threat of extreme weather events, including, flood, bushfire and drought. Strathbogie ranges is recognised as an area particularly at threat from bushfires.

Council's strategic directions for environmental risks are to:

- Support use and development that adapts to the impacts of climate change.
- Encourage development to be responsive to potential environmental risks.
- Protect floodplains and their role in conveying and storing floodwater, to preserve and minimise the deterioration of environmental values.
- Discourage development in areas of bushfire risk.

Clause 02.03-4 Natural Resource Management

Agriculture

Land use conflicts between lifestyle properties and rural industrial is recognised as an issue in Strathbogie. The Shire's predominant agricultural activities are livestock grazing and broadacre with increases in intensive animal husbandry, horticulture and the equine industry have emerge due to the Shire's proximity to Melbourne.

Council's strategic directions for agriculture are to:

- Retain areas of high-quality rural land for farming and agricultural purposes.
- Encourage consolidation of small rural lots within the Farming Zone.
- Encourage emerging rural enterprises, such as intensive animal husbandry, horticulture and the equine industry.
- Prioritise productive farming development over residential development.
- Encourage value adding rural industries.
- Protect, maintain and grow environmentally sustainable intensive agriculture.
- To promote the clustering of co dependant uses.

Water

The Strathbogie Shire has significant water assets including Goulburn River, Lake Nagambie, Seven Creeks and Hughes Creek. The many spring fed waterways start in the Strathbogie Ranges and subsequently flow down into the main creeks and rivers eventually running from the shire into the neighbouring shires and forming a part of the Murray Darling Basin.

Council's strategic direction for water is to:

- Protect proclaimed water supply catchments (and water quality) from development that would compromise water catchments.

Clause 02.03-5 Built Environment and Heritage

Design

The Shire has significant natural landscapes and views that are an important asset. Buildings can be intrusive in this type of environment if sited and designed unsympathetically or if they are constructed of materials that are not sympathetic to the surrounding environment.

Council's strategic directions for design are to:

- Protect views and vistas of the Shire's natural features through sympathetic building design.
- Ensure development is sited and designed to maintain and enhance the aesthetic amenity of the area.

Heritage

The Shire has a number of places of heritage significance. Heritage places range from bridges, buildings, historic mining sites and riparian areas. The Shire's heritage gives its towns and regions a distinctive character as well as a cultural identity and sense of place. It is also a basis for building tourism and business opportunities.

Council's strategic directions for heritage are to:

- Protect and enhance historical sites and the existing heritage qualities within the Shire for their social and economic benefit.

Clause 02.03-6 Housing

This clause acknowledges that the Shire has experienced increasing demand for low density residential and rural living development, particularly in Strathbogie Ranges, Avenel and Nagambie and recognises the conflicts of urban expansion into agricultural areas.

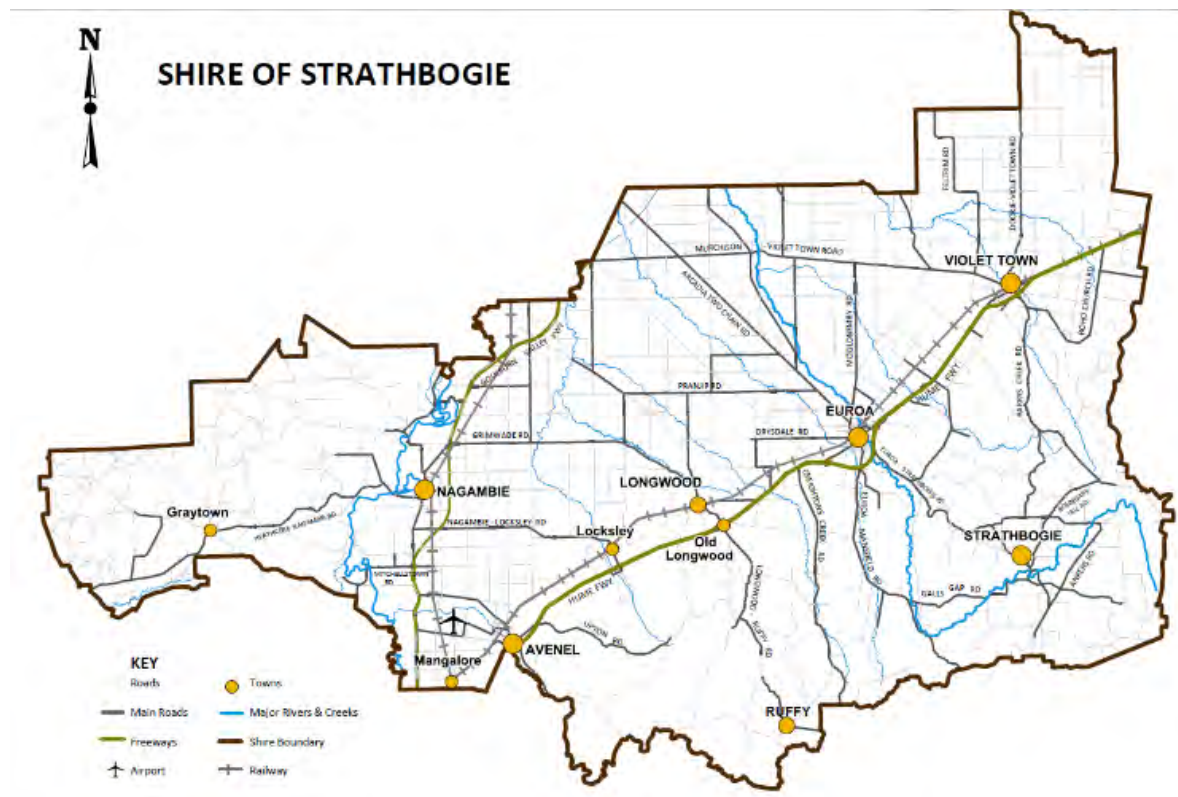
Council's strategic directions for housing are to:

- Encourage rural residential development that is located and designed to protect existing agricultural uses, the natural environment and townships.
- Encourage rural residential development that can be efficiently serviced by social and physical infrastructure.

Strategic framework plans

Clause 02.04 of the Municipal Planning Strategy provides the following strategic framework plans:

FIGURE 16: STRATHBOGRIE SHIRE STRATEGIC FRAMEWORK PLAN



Source: Strathbogrie Shire Planning Scheme, 2023

5.4 Zones

Zones are the primary tool for guiding the fair and orderly use and development of land. A zone sets expectations about what land use and development activity is or may be acceptable in the location to which it applies. Each zone broadly deals with a particular predominant land use theme, such as residential, commercial, industrial or public land uses.

Zones are applied spatially, and all land must be included in a zone, except Commonwealth land. The zone selected for any land is determined by the historic land use and the planning strategies set out in the planning scheme.

Each zone contains purposes that describe the planning outcome sought by the zone. These purposes are achieved through the application of the controls on use and development in the zone.

The use of land is controlled by a 'Table of uses' in the zone. This table places particular land uses in one of three categories:

- Section 1 – Permit not required.
- Section 2 – Permit required.
- Section 3 – Prohibited.

The table may include a condition next to a land use that must be met. If the condition is not met, a more restrictive land use category will apply to the use.

The zone also controls development by requiring a planning permit for specified types of development. Some zones seek to promote a specific outcome by exempting a preferred form of development from the need for a permit. Some zones may include mandatory requirements, such as a maximum building height.

Table 17 sets out the range of zones that currently apply relating to rural residential development in Strathbogie Shire.

TABLE 17: RELEVANT ZONES IN STRATHBOGIES RURAL AREAS

Clause	Purpose	Location	Capacity/development considerations	Implications for the SSRLUS
Rural Zones				
35.03 Rural Living Zone	To provide for residential use in a rural environment.	There are currently two areas of RLZ within Strathbogie Shire located in Avenel and Euroa.	Both areas of RLZ in the Shire have associated development plans that specify subdivision controls and the lot layout, therefore determining the overall capacity of these areas.	Both RLZ areas are currently undeveloped and have a total of 43 lots available.
35.07 Farming Zone	To provide for the use of agricultural land.	Most of the land area of the Shire is Farming Zone.	<p>A lot used for a dwelling must meet the following requirements:</p> <ul style="list-style-type: none"> – Access to the dwelling must be provided via an all-weather road with dimensions adequate to accommodate emergency vehicles. – Each dwelling must be connected to reticulated sewerage, if available. If reticulated sewerage is not available all wastewater from each dwelling must be treated and retained within the lot in accordance with the requirements of the Environment Protection Regulations under the <i>Environment Protection Act 2017</i> for an on-site wastewater management system. – The dwelling must be connected to a reticulated potable water supply or have an alternative potable water supply with adequate storage for domestic use as well as for fire fighting purposes. 	Dwellings can be constructed in FZ areas however a purpose of the zone is to ensure that non-agricultural uses, including dwellings, do not adversely affect the use of land for agriculture. Agricultural uses should have priority and be protected.

Clause	Purpose	Location	Capacity/development considerations	Implications for the SSRLUS
			<ul style="list-style-type: none"> – The dwelling must be connected to a reticulated electricity supply or have an alternative energy source. <p>These requirements also apply to a dependent person's unit and a rural worker accommodation.</p> <p>Minimum subdivision requirements vary from 40 ha to 100 ha depending on the area specified in Schedule 1 to 35.07.</p>	

Source: Strathbogie Shire Planning Scheme. 2023

Overlays

Overlays control a broad range of development matters such as the protection of vegetation or heritage values, the design of built form or mitigating flood risk. The application of an overlay may reflect a policy objective in the scheme or a condition of the land.

While a parcel of land will always be included in a zone, it will only be affected by an overlay where a specific development outcome is sought for that land. Land can be subject to more than one overlay if multiple issues apply to the land.

Each overlay contains purposes that specify the planning outcome sought by the overlay. These purposes are achieved through the application of the controls in the overlay. For example, to develop land in an overlay that identifies flood prone areas, a planning permit application may require special information about the expected height and incidence of flood, to demonstrate that life and property will not be unreasonably at risk because of developing in that location.

Table 18 sets out the range of overlays that currently apply in Strathbogie's Rural areas. It examines key parameters that would affect capacity for residential land use and development of relevance to the Strathbogie RRLUS.

TABLE 18: RELEVANT OVERLAYS IN STRATHBOGIE

Clause	Purpose	Location	Capacity/development considerations	Implications for the SRRLUS
Environmental and Landscape Overlays				
42.01 Environmental Significance Overlay (ESO)	The ESO identifies areas where the development of land may be affected by environmental constraints.	Euroa and Violet Town	A permit is required to construct a building or carry out works, construct a fence if specified in the schedule to the overlay, subdivide land, and remove, destroy or lop any vegetation unless specified in a schedule or Clause 42.01-3 or Clause 52.16. Exemptions apply to uses such as emergency works, extractive industry, fire protection, noxious weeds and traditional owners.	
	Schedule 1: Buffer area for rural industrial activities		Recognises areas to be retained for rural industrial activities such as Mangalore Airport, Eatmore Poultry and mushroom production.	Objectives to be achieved include: <ul style="list-style-type: none"> – To discourage the development of dwellings that may conflict with rural industrial activities. – To encourage the development of rural industrial activities that require large buffer distances.
	Schedule 2: Euroa wastewater management facility buffer area	Euroa	The Euroa waste water treatment complex provides sewerage treatment and waste water disposal for Euroa.	<ul style="list-style-type: none"> – Land within this overlay should not be developed for any purpose that might compromise the complex's continued operation or

Clause	Purpose	Location	Capacity/development considerations	Implications for the SRRLUS
				<p>expansion for sewerage and waste water treatment and disposal.</p> <ul style="list-style-type: none"> – A buffer needs to be maintained around the complex to restrict the intensity of housing development in its proximity and to direct residential development at an urban scale away from the complex.
Heritage and built form overlays				
43.04 Development Plan Overlay (DPO)	The DPO identifies areas which require the form and conditions of future use and development to be shown on a development plan before a permit can be granted to use or develop the land. It also exempts an application from notice and review if a development plan has been prepared to the satisfaction of the responsible authority.		<p>A permit must not be granted to use or subdivide land, construct a building or construct or carry out works until a development plan has been prepared to the satisfaction of the responsible authority. This does not apply if a schedule to this overlay specifically states that a permit may be granted before a development plan has been prepared.</p> <p>The development plan may consist of plans or other documents.</p>	
	Schedule 2: Development Plan 2 Lovers Hill Avenel	Lovers Hill Avenel	Requires a development plan to be prepared on the land known as Lovers Hill Avenel.	Allows 36 lots in RLZ land within Avenel.

Clause	Purpose	Location	Capacity/development considerations	Implications for the SRRLUS
			The schedule sets out a number of requirements as well as a lot layout and restriction plan that allows for 36 lots in total.	
Land management overlays				
44.01 Erosion Management Overlay (EMO)	To protect areas prone to erosion, landslip, other land degradation or coastal processes by minimising land disturbance and inappropriate development.	Mostly concentrated in the southern region of the Shire and surrounding Euroa.	Sets requirements for the subdivision of land.	Limits subdivision capacity in EMO effected areas.
44.03 Floodway Overlay (FO)	<p>To identify waterways, major flood paths, drainage depressions and high hazard areas which have the greatest risk and frequency of being affected by flooding.</p> <p>To ensure that any development maintains the free passage and temporary storage of floodwater, minimises flood damage and is compatible with flood hazard, local drainage conditions and the minimisation of soil erosion, sedimentation and silting.</p> <p>To reflect any declarations under Division 4 of Part 10 of the Water</p>	Typically applied in low lying areas and along waterways in areas subject to flooding events.	<p>Requires a permit to construct a dwelling and for subdivision of land.</p> <p>Requires flood risk reports as an application requirement.</p>	Limits subdivision potential and construction of dwellings in FO effected areas.

Clause	Purpose	Location	Capacity/development considerations	Implications for the SRRLUS
	<p>Act, 1989 if a declaration has been made.</p> <p>To protect water quality and waterways as natural resources by managing urban stormwater, protecting water supply catchment areas, and managing saline discharges to minimise the risks to the environmental quality of water and groundwater.</p> <p>To ensure that development maintains or improves river and wetland health, waterway protection and flood plain health.</p>			
44.04 Land Subject to Inundation Overlay (LSIO)	<p>To identify flood prone land in a riverine or coastal area affected by the 1 in 100 (1 per cent Annual Exceedance Probability) year flood or any other area determined by the floodplain management authority.</p> <p>To ensure that development maintains the free passage and temporary storage of floodwaters, minimises flood damage, responds to the flood hazard and local drainage conditions and will not cause any significant rise in flood level or flow velocity.</p>	Typically applied in low lying areas and along waterways in areas subject to inundation.	<p>Requires a permit for the subdivision of land. A permit is required for the construction of a dwellings unless:</p> <ul style="list-style-type: none"> – A new dwelling within General Residential Zone (GRZ) of Euroa where the floor level is at least 300 millimetres above the designated 100-year ARI flood level as shown on Goulburn Broken CMA Plan No. 540219, or a higher level set by the responsible authority. – A replacement dwelling where the floor level is at least 300 	Limits subdivision potential and construction of dwellings in LSIO effected areas.

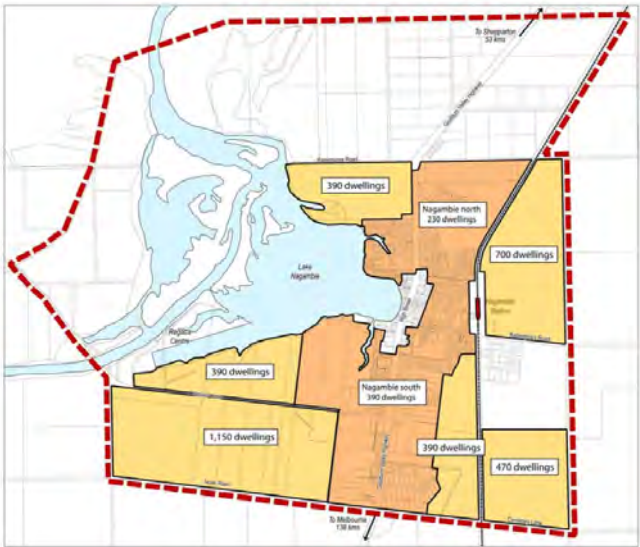
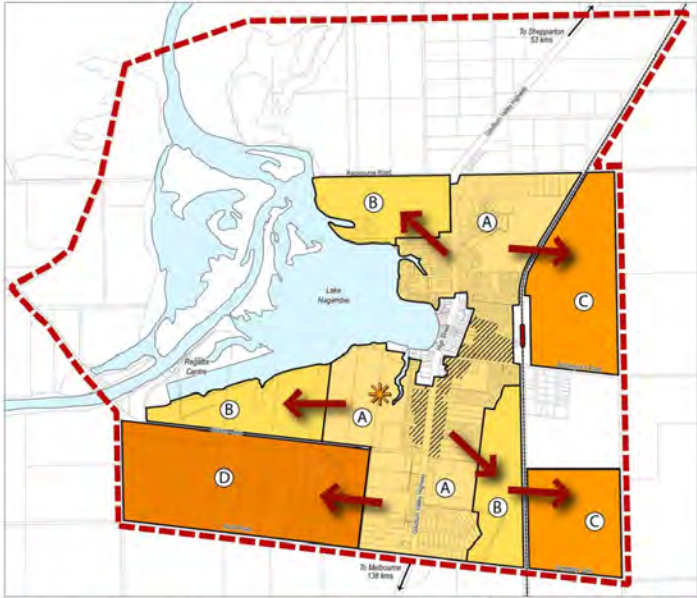
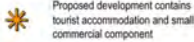
Clause	Purpose	Location	Capacity/development considerations	Implications for the SRRLUS
	<p>To minimise the potential flood risk to life, health and safety associated with development.</p> <p>To reflect a declaration under Division 4 of Part 10 of the Water Act, 1989.</p> <p>To protect water quality and waterways as natural resources by managing urban stormwater, protecting water supply catchment areas, and managing saline discharges to minimise the risks to the environmental quality of water and groundwater.</p> <p>To ensure that development maintains or improves river, marine, coastal and wetland health, waterway protection and floodplain health.</p>		<p>millimetres above the 100-year ARI flood level, or a higher level set by the responsible authority.</p> <ul style="list-style-type: none"> – A single or multiple dwelling extension where the combined ground floor area of the extension since 14th October 1999 is not greater than 20 square metres. 	
44.06 Bushfire Management Overlay (BMO)	<p>To ensure that the development of land prioritises the protection of human life and strengthens community resilience to bushfire.</p> <p>To identify areas where the bushfire hazard warrants bushfire protection measures to be implemented.</p> <p>To ensure development is only permitted where the risk to life</p>		<p>Requires a permit for the subdivision of land and construction of dwellings. Sets out a number of requirements for subdivision and building and works including a bushfire hazard assessment, bushfire hazard landscape assessment and a bushfire management statement.</p>	<p>Limits subdivision potential and construction of dwellings in BMO effected areas.</p>

Clause	Purpose	Location	Capacity/development considerations	Implications for the SRRLUS
	and property from bushfire can be reduced to an acceptable level.			

Key local policies and incorporated documents

TABLE 19: KEY LOCAL POLICIES AND INCORPORATED DOCUMENTS

Document	Description
Strathbogie Shire Sustainable Land Use Strategy 2010	<ul style="list-style-type: none"> Focuses on the economy and environment of rural areas. Review of the Rural Zone currently applied as Farming Zone. Seeks to protect established farming areas. Recommendation: the Rural Living Zone should be applied in accordance with the adopted Rural Residential Strategy. Suggests that future housing growth may potentially be constrained by Farming Zone / Rural Zone areas which are to be protected.
Nagambie Growth Management Strategy 2008	<ul style="list-style-type: none"> Strategic policy for Nagambie town. Growth anticipated to place pressure on the town, including tourism. Vision: to grow as both an agricultural service centre, and as a visitor / lifestyle / retirement centre. The average lot size of developed land in Nagambie is around 900sqm. It is anticipated that around 70% of the land for development will be developable for residential purposes, with the remainder being allocated to infrastructure such as roads and open space. Assuming same levels of density, 2 persons per HH. Residential 1 Zone <ul style="list-style-type: none"> Area A: accommodates additional 620 dwellings Area B, C, D: accommodates additional 3,500 dwellings = add 8,240 persons to population of 1,366. Could be higher if higher densities were to be developed i.e. in the Residential Intensification Area. Overall, can accommodate population of 9,600. The proposed order of development is: <ul style="list-style-type: none"> 'A' areas – Currently Residential zoned land and the proposed 'Loccisano development'. 'B' areas – Land currently not zoned Residential, but well located and adjacent to current Residential zoned land. 'C' areas – Land to the east of the railway line that is in close proximity to the High Street area, services and transport. 'D' areas – Land the furthest from the High Street area, which has the potential for residential development in the long term.

Document	Description												
	<table><tr><th>Growth Scenario</th><th>Factor</th><th>Nagambie Population in 2031</th></tr><tr><td>Low</td><td>Historical growth (ABS data)</td><td>2,500</td></tr><tr><td>Medium</td><td>Proposed Developments, Building Permit Data</td><td>5,000</td></tr><tr><td>High</td><td>Land Supply, Special Use Precinct</td><td>10,000</td></tr></table> <div></div> <div><div><div><div>Residential</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div><div>0 10 20</div></div></div></div>	Growth Scenario	Factor	Nagambie Population in 2031	Low	Historical growth (ABS data)	2,500	Medium	Proposed Developments, Building Permit Data	5,000	High	Land Supply, Special Use Precinct	10,000
Growth Scenario	Factor	Nagambie Population in 2031											
Low	Historical growth (ABS data)	2,500											
Medium	Proposed Developments, Building Permit Data	5,000											
High	Land Supply, Special Use Precinct	10,000											

Document	Description
Strathbogie Shire Industrial Land Study 2008	<p>Supply of Industrial Land</p> <p>The current supply of zoned industrial land in Nagambie and Euroa is inadequate to accommodate any new large industry to locate within Strathbogie Shire. There is no industrial zoned land in Avenel and Violet Town.</p> <p>The remaining supply of vacant industrial lots is limited and of the available supply, only two lots were available for sale or lease at the time of inspection. The current industrial precincts also restrict potential industrial business expansion.</p> <p>The lack of land available for sale/lease together with the encroachment of residential land with industrial uses is an indication of the restriction on supply.</p> <p>In total there is about 30 hectares supply of industrial zoned land in Euroa and Nagambie, only 4 hectares of this land is vacant.</p> <p>Demand</p> <p>Based on the already restricted take up of industrial land, a minimum of 20 hectares of industrial land is required within Nagambie and Euroa over the next 15 years (This includes provision for roads and residential buffers if required).</p> <p>Further provision for suitable light industrial land should be identified in the townships of Avenel and Violet Town. This land would need to accommodate service industries, and would require lots smaller than that in Nagambie and Euroa.</p> <p>Further supply of industrial land would need to be provided for those businesses which would be looking to relocate from areas that are not suitable for industrial activity. Some of these businesses are currently occupying more than two hectares of land in their current locations.</p> <p>Future industrial land supply</p> <p>The following highlights the land required for industrial rezoning to satisfy a 15 year supply:</p> <ul style="list-style-type: none"> ▪ Euroa – Minimum of 10 hectares of land suitable for light and heavy industrial activity; ▪ Nagambie – Minimum of 10 hectares of land suitable for light and heavy industrial activity; ▪ Avenel – Minimum of 2 hectares of land suitable for light industrial activity; ▪ Violet Town – Minimum of 2 hectares of land suitable for light industrial activity; <p>The study includes mapping of proposed industrial precincts.</p>
Euroa Township Strategy 2020	<ul style="list-style-type: none"> ▪ A vision and set of strategies and actions for Euroa, many of which are urban design focused. Guides future land use and development in a coordinated manner, with a 2040 horizon. ▪ Vision includes creating a compact and contained family oriented rural township.

Document	Description
----------	-------------

- Current supply: over 100ha in Township Zone (with infr) = 1,000 dwellings, larger lot sizes – most common is 1-2,000 and 2-3,000 sqm (60% of lots).
- The supply analysis assumes an 80% take-up of these potential lots giving a supply of 740 lots.
- Substantial number of undeveloped lots.
- Dwelling demand: The average annual number of dwelling approvals issued between 2000-2006 was 11. There was an average of 6 lots per year created through subdivision.
- Growth scenarios:
 - Low – based on historical subdivision and dwelling approvals = 11 dwellings per annum
 - High – higher population growth associated with tree change trends and road and rail improvements.
 - Supply will accommodate both scenarios.

Table 11 Avenel: Undeveloped and Notionally Available Land with Township Zoning

Site/Area	
Site 1. North of Ewings Road, east of Railway line	26.0
Sites 2-8. Various sites with areas ranging from 5.0 – 17.0 ha	82.0
Site 9 Land between Ewings Road and Hughes Creek	7.3
Total	115.3 ha

n.b. Refer to Plan 8 (Appendix A) for location of sites

Table 12. Notional Lot yield for Avenel

	Land Area - hectares	Potential Lot Yield
Land within Township zone and without major development constraints	115	920 lots
Total Supply of Residential lots	115	920 lots

Table 9. Dwelling Building Approvals – Avenel 2000-2006

	2000-2003	2004	2005	2006	Total
Avenel township	41	11	16	13	79

Table 10. Residential Lots Created : Avenel (2003-2006)

	2003	2004	2005	2006	Total
Avenel township	2*	4	8	10	24

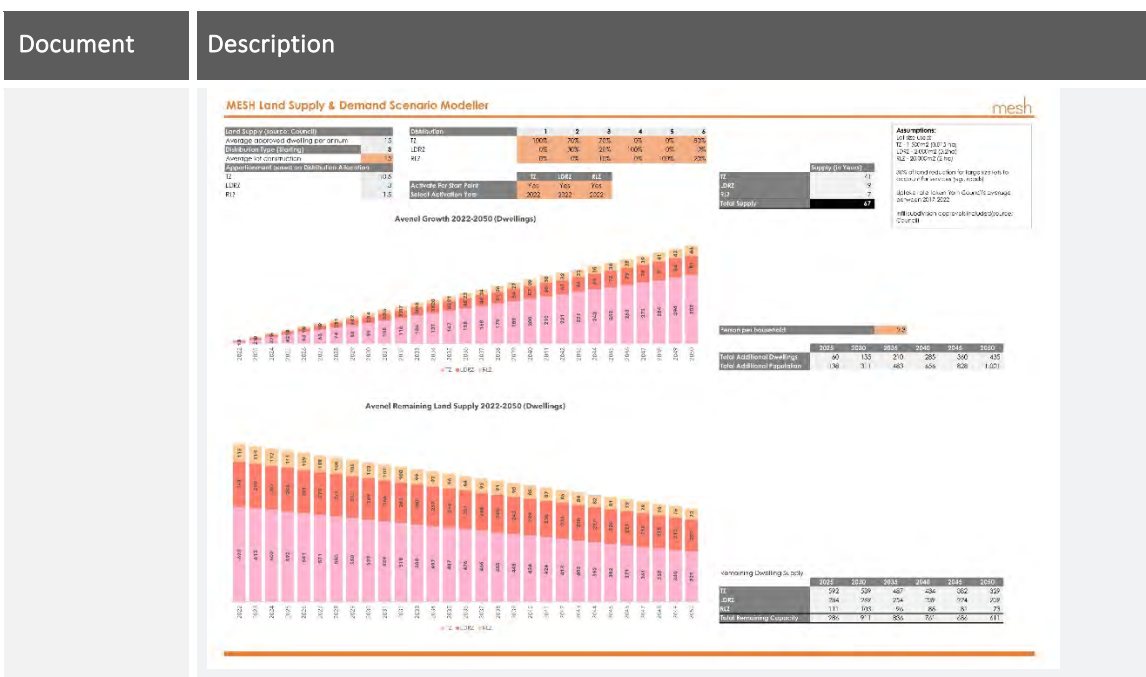
* Current proposed certifications (not resolved)

Document	Description
Strathbogie Shire Council Plan 2021-2025	<p>Community feedback: 'The feedback wasn't always easy to receive. Planning and development concerned many. We heard we must manage growth carefully to protect our sense of community.'</p> <p>Community goals: 'In the future we... are planning to protect the special place we call home.</p> <p>This means:</p> <ul style="list-style-type: none"> ▪ We have affordable housing ▪ We are managing growth carefully to protect the environment and meet our social infrastructure needs ▪ We are including responsible developer contribution strategies.' <p>'A comprehensive strategic policy framework is in place to effectively manage and guide development in our townships to achieve balanced growth that respects what makes each township special and unique.'</p> <p>Actions:</p> <p>4.1.2 Complete a review of the Strathbogie Planning Scheme to ensure it reflects changing economic, environmental and social trends and identifies the further strategic work required to deliver a fit for purpose framework to guide sustainable growth and development while protecting our built and natural heritage.</p> <p>From the period 2019 to 2020, the population in Strathbogie has grown by 1.99%, with the majority of the growth occurring in the townships of Avenel and Nagambie.</p>
Strathbogie Shire Rural Residential Strategy July 2004	<ul style="list-style-type: none"> ▪ Strategy for rural residential development in the Shire. ▪ Rural Residential Development: houses in the rural area on properties that are primarily for residential purposes, comprising low density forms, located outside the Township Zone. Minimum lot size of 8 ha. ▪ Seeks to reduce the impacts of increased density. ▪ Scenarios: <ul style="list-style-type: none"> - Scenario 1: Rural Residential Development becomes core housing policy of the Shire (market driven approach) - Scenario 2: Strategic Guidance on locations and standards for Rural Residential Development (planned approach) (preferred by council) - Scenario 3: Status Quo – Rural Zones with scattered Rural Residential development (reinforce existing patterns)
Nagambie Existing Conditions 28 February 2020 (Ricardo Energy & Environment)	<ul style="list-style-type: none"> ▪ The report provides analysis of current conditions and in Nagambie and the trends that are impacting the town to inform updates to the Nagambie Growth Management Strategy.

Document	Description
Environment Planning, 2020)	<ul style="list-style-type: none"> Key neighbourhood character issues include retaining the semi-rural character in new subdivisions, and ensuring new residential buildings are responsive to existing character. There is approximately 185ha of built out residential land and 90ha of undeveloped land zoned for residential purposes. This equates to approximately 1,000 dwellings (based on a 900sqm lot size). Flooding issues are not commonly experienced by the township. <p>Clause 21.04-4 of the Local Planning Policy Framework estimated an increase in population of around 4,000 people in the near future from 1,550 people in 2011. The objective is to grow the township as an agricultural service centre as well as a visitor, lifestyle and retirement centre.</p>
Euroa Background Analysis (Hansen, 2019)	<ul style="list-style-type: none"> The Background Analysis report provides analysis to inform the development of the Euroa Township Strategy. Community feedback emphasises the importance of the historic feel and character of Euroa. Community feedback indicated 42% of residents agreed that alternate forms of housing (dual occupancy, villa units) are needed in Euroa to increase housing diversity. Further, 49% agreed that diverse housing should be available within walking distance from the town centre. There is a potential supply of 446 lots within existing General Residential Zoned and unconstrained land in the township (368 vacant lots and 78 infill lots). Euroa is estimated to take up around one third or one half of projected population growth in the Shire. Based on VIF16, this would result in a growth of 200-300 people in the township by 2031. Based on the supply and demand assessment, there is recommendation to further rezone land for residential purposes. 'Tree changers' (internal migration to Euroa for lifestyle and affordability purposes) and potential upgrades to the speed and frequency of train services could increase population growth in the township. Flooding is a significant threat to the township as it is located within low lying area of the Goulburn Broken Catchment. The township is subject to extensive application of the Urban Floodway Zone (UFZ) and associated Floodway Overlay (FO) and Land Subject to Inundation Overlay (LSIO).
Strathbogie Development Workforce Planning	<ul style="list-style-type: none"> There are currently 2,408 residential lots across Strathbogie Shire that have been approved for development or are currently under review. A breakdown of these lots by township is provided in Table 20.

Document	Description
Nagambie Growth Management Strategy 2022 (draft) (Ricardo Energy Environment & Planning, 2022)	<ul style="list-style-type: none"> ▪ The draft NGMS is a high-level strategy that provides guidance for managing growth in Nagambie by coordinating infrastructure delivery and land supply to support the sustainable growth of the township over the next 15-20 years. ▪ A key objective is to plan housing for a population of approximately 4,000 people (assuming an annual growth rate of 2.9%) over the next 15-20 years. ▪ Actions for achieving sustainable settlement include: <ul style="list-style-type: none"> - Prepare and implement planning scheme amendments to rezone land for residential purposes as required. - Support requests from landowners seeking to deliver residential infill development. - Include in the Strathbogie MSS a map and policy containing the potential urban growth of Nagambie to the area generally bounded by the Study area shown in this Strategy. - Provision to be made for the setback from the Lake's edge as outlined in the 'Landscape Connectivity and Recreation Plan' - Include in the Strathbogie MSS a policy relating to the provision of a variety of housing types in new residential developments, to meet the diversity of local needs. - Undertake further analysis to identify suitable locations for tourism accommodation and design principles. ▪ The draft NGMS also includes guidelines to ensure development is balanced with a sustainable environment. Actions include: <ul style="list-style-type: none"> - Implement the flood mapping for Nagambie in the Strathbogie Planning Scheme. - Include in the Strathbogie LPPF a policy to implement the ESD Guidelines as contained in the Nagambie Style Guidelines document. - Include in the Strathbogie LPPF a policy to implement the Buildings Adjoining Open Space Guidelines as contained in the Nagambie Style Guidelines document. ▪ Prepare Water Sensitive Urban Design (WSUD) guidelines, including providing gross pollutant traps on stormwater entries to Lake Nagambie
Avenel Strategy Refresh (2023, MESH)	<ul style="list-style-type: none"> ▪ The Avenel Strategy provides a long-term strategic planning framework for land use and development. It is a refresh of Avenel 2030. ▪ Strategic directions for the future of Avenel include consolidating development within the existing town boundary and providing greater housing choice and diversity. Strategies include: <ul style="list-style-type: none"> - Ensure a township boundary is established around Avenel that clearly separates between urban development and farming activities. - Ensure development planning processes deliver co-ordinated development of large sites that are notionally available for residential development.

Document	Description
	<ul style="list-style-type: none"> - Ensure new development is consistent with the bushfire recommendations set out in the Bushfire Risk Assessment. - Encourage vacant zoned land near the town centre and existing services and facilities to be developed with more diverse housing outcomes, including smaller blocks, lower maintenance housing types and alternative housing models that would appeal to an ageing population. - Encourage all new developments to provide a mix of lot sizes. ■ A Neighbourhood Residential zone, with tailored Schedules, is recommended to be applied to some areas that have been identified for incremental and minimal residential growth. <ul style="list-style-type: none"> - In areas in the rural interface, a minimum lot size of 1,000sqm is recommended to retain the rural character and respond to site constraints (drainage).
Avenel Strategy Refresh Issue and Opps (September 2022, MESH)	<ul style="list-style-type: none"> ■ The Paper establishes key issues and opportunities facing Avenel that arose during the analysis for the Avenel Strategy Refresh. ■ Previous analysis found that there is ample land supply to meet growth projections, however the diversity of housing doesn't meet the changing needs of residents (ageing, declining household size). Planning tools do not currently provide effective mechanism to shape housing diversity. ■ The Township Zone applied to most of the town does not differentiate neighbourhoods or provide guidance on preferred development and neighbourhood character. ■ New development to the north and northeast of town is not well-served by community or recreation facilities within walking distance. ■ The rural living land at Lovers Hill remains undeveloped, is heavily constrained and the DPO is outdated. ■ Development has advanced in a new low-density area around the golf course, without an approved Development Plan. ■ Conventional residential development is occurring in the TZ land to the west of the railway line but there are no planning tools (e.g. DPOs) that enable Council officers to assess applications for subdivision in a holistic manner. ■ There is limited housing that caters for ageing in place. ■ Current planning tools in Avenel (DPO etc) do not support enhanced sustainable development outcomes in new residential neighbourhoods. ■ Current planning tools do not currently provide a framework to seek contributions or infrastructure works from the development industry, to support new neighbourhoods or to upgrade needed infrastructure. <p>The land supply analysis estimates that there is currently a 67-year supply of residential land in Avenel.</p>



Summary

This policy review focuses on any strategic work produced by Strathbogie Shire, that influences or provides insight about housing supply and growth across the municipality.

Existing strategic planning policy and research dates from 2004 to 2020. Many of the recommendations in these documents were implemented in the Strathbogie Planning Scheme*.

Across the Shire, slow population growth has historically led to relatively low demand for housing development. New housing development has been scarred, predominantly occurring in Rural Zones, taking the form of rural residential development. However, it was forecast that due to an ageing population and a national trend towards smaller household sizes, demand for housing particularly smaller sized housing types would pick up. Rail connections were forecast to help achieve a higher growth scenario.

The strategy expresses a drive to attract a more diverse populace to move to the Shire, such as those seeking a tree change. Without increased migration, the Shire may continue to grow at a slow or static pace.

Potential barriers to housing growth include the priority to protect agricultural land and flood and bushfire hazards.

Although not specifically explored in detail in this policy review, the general character of the towns are well considered. More dense urban forms may risk imposing on the valued character.

Existing policy has not researched trends since the COVID pandemic, such as greater mobility of households willing to locate further from their place of work as a result of increased uptake of remote working. Visitor accommodation trends are also missing from the strategy and research.

The policy on each of the main towns is summarised as follows:

- **Strathbogie** N/A
- **Nagambie** has a staging plan for future growth. It can accommodate a total population of 9,600, and a total of 4,120 dwellings if kept at low densities. There are three different growth scenarios proposed. This research was completed in 2008.
- **Euroa** has a comprehensive visioning strategy and plan in place, completed in 2020. Regarding housing development, it is to be prioritised in existing residential zoned land (infill development), and should also cater for an ageing population. Visitor accommodation will be important as part of the town's tourist economy.
- **Avenel** has ample supply of land for housing but relatively low historic demand. The strategy seeks to attract more residents to this area. A low growth scenario would be based on historic trends of 11 dwellings developed per annum. A higher growth scenario may eventuate from tree change trends and road and rail improvements. The existing supply of 1,000 dwellings in the Township Zone on larger lots would accommodate both scenarios.
- **Violet Town** has two growth scenarios in place, based on the strategy from 2010. Scenario 1 is a continuation of static or slow growth due to decreasing household sizes, ageing population, and the trend for new residents to develop further from the town centre. Scenario 2 envisions higher growth if the Community Plan Vision were to be realised – increasing as a visitor destination and attracting a more diverse population.

*Further research required to understand what was implemented.

5.5 Development Applications

TABLE 20: SUMMARY OF DEVELOPMENT APPLICATIONS

TOWNSHIP	GROWTH AREA/ DEVELOPMENT	STATUS	DWELLING NUMBER
Avenel			TOTAL: 302 lots
	Vineyard Estate 2009	Current	53 lots (14 yet to be titled)
	Lovers Hill	Currently being assessed by Council	36 lots
	Hughes Creek Estate (Bank St)	Current	65 lots (27 yet to be titled)
	North Avenel	Currently being assessed by Council	90-100 lots
	Hovell Street	Planning permit issued	11 lots

TOWNSHIP	GROWTH AREA/ DEVELOPMENT	STATUS	DWELLING NUMBER
	1 Saleyard Road	Currently being assessed by VCAT	27 lots
	3 Saleyard Road	Currently being assessed by Council	83 lots
Euroa			TOTAL: 228 lots
	Euroa Eastern Gateway	Currently being assessed by Council	107 lots
	42 Bury Street	Completing planning permit condition	13 lots
	Ballmattum Hill Estate	Completed 2017	24 lots
	115 Boundary Rd North	Development yet to begin	12 lots
	Boundary Rd South	Planning permit approved 2022, development yet to begin	48 lots
	15-35 Stewart St	Currently being assessed by Council	24 lots
Violet Town			TOTAL: 95 lots
	12 Orchid St	Completed 2016	6 lots
	12 Orchid St	Permit issued 2022	19 lots
	Violet Ponds, Dookie-Violet Town Road	Combined planning permit & planning scheme amendment, currently on statutory referrals to relevant service providers and authorities.	70 lots
Nagambie			TOTAL: 1,783

TOWNSHIP	GROWTH AREA/ DEVELOPMENT	STATUS	DWELLING NUMBER
	196 High St	Undertaking planning permit conditions	36 lots
	Murray St	Completed 2022	24 lots 80-120 (future) lots
	Nagambie South-East	Some areas currently being assessed by Council, 10-20 years to completion	432 lots
	Penrose St	Completed 2016	33 lots
	Vickers Rd	Completed 2020	77 lots
	Vickers Rd extension	Currently being assessed by VCAT	57 lots
	Elloura	Current	135 lots developed Max 476 lots allowed
	Carrick Crescent	Stage 1 completed 2018 15 lots Stage 2 finalising permit conditions 17 lots	32 lots
	Whroovale	Seeking planning approval (final stages)	200 lots (82 yet to be approved)
	401 High St, 19 Lobbs Lane	Final stages of approval before development begins 1-10 years	252 lots
	Box Grove	Currently being assessed by Council	200 lots
Strathbogie Shire Total			Total: 2,408 lots

Source: Strathbogie Shire Council, 2023

5.6 VCAT Case Review

The method for the review involved two key term searches on the Australian Legal Information Institute database of VCAT cases:

- “Strathbogie 22.01” – the previous Local Planning Policy Clause (prior to the Planning Scheme reform) that stipulates the requirements for residential development in a FZ.
- “Strathbogie 114.01-1L” – the current Local Planning Scheme clause that stipulates the requirements for residential development in a FZ.

TABLE 21: VCAT CASE REVIEW

Case summary	Dwelling approved by Council	Dwelling approved by VCAT	Council position maintained
<p>Xerri v Strathbogie SC VCAT 673 (20 June 2023)</p> <p>The applicant was seeking a permit to construct a dwelling in a FZ. The land was smaller than the minimum lot size requirement for dwellings in a FZ, as stipulated in clause 14.01-1L, and an EMO and BMO applied to the area.</p> <p>The applicant's key arguments included a) the lot was too small to be used for agricultural uses, b) other dwellings had been constructed on nearby lots in the FZ. VCAT ruled in favour of Council, stating that a) the lot could be used for agricultural uses if joined with surrounding land, b) allowing the dwelling could encourage proliferation of dwellings in the area, c) the applicant provided insufficient information in relation to the EMO and BMO.</p>	No	No	Yes
<p>Dempster v Strathbogie SC VCAT 901 (3 August 2023)</p> <p>The applicant was seeking a permit to construct a caretaker house* in a FZ. The land was smaller than the minimum lot size requirement for dwellings in a FZ, as stipulated in clause 14.01-1L.</p> <p>VCAT ruled in favour of Council, finding that the dwelling/house would conflict with the policy seeking to protect agriculture land. It was also found that the case does not meet the supervisory nexus to suggest that a caretaker house is needed for the business (farming operation).</p> <p>*The application stated 'caretaker dwelling' not 'house' which is not defined in the planning scheme. The tribunal considered the case of both a 'dwelling' and a 'caretaker house'.</p>	No	No	Yes
<p>Houghton v Strathbogie SC VCAT 243 (22 February 2017)</p> <p>The applicant sought a review of Council's decision to approve a permit for a dwelling and a shed on a 6.3ha lot in a FZ.</p> <p>The original applicant of the permit did not provide sufficient information in their permit application, only a rough site plan. On this basis, VCAT set aside Council's decision and ruled against providing a permit.</p>	Yes	No	No

Case summary	Dwelling approved by Council	Dwelling approved by VCAT	Council position maintained
<p>Spencer v Strathbogie SC VCAT 1656 (13 October 2015)</p> <p>The applicant was seeking a permit to construct a dwelling on a FZ and to remove vegetation. The land was heavily vegetated, part of an undulating, rocky landscape, and subject to a BMO and EMO.</p> <p>The permit was not opposed by Council on the basis of the FZ; the topography of the site means it has low capacity for agricultural use, therefore, a dwelling will not lead to a loss of productive agricultural land.</p> <p>The key issue was the potential for vehicle access to the site, to meet the requirements of the BMO, and the extent of vegetation removal this would require. Council argued that it would require more vegetation removal than the applicant stated. The CFA assessed the application and found mitigation measures to be satisfactory. VCAT set aside Council's decision and ruled in favour of providing a permit.</p>	No	Yes	No
<p>Miriantini-Mele v Strathbogie SC VCAT 82 (4 February 2013)</p> <p>The applicant was seeking a permit to construct a dwelling on a 32ha crown allotment in a FZ, requiring removal of 13 native trees.</p> <p>The applicant also intends to use the allotment for a prime lamb enterprise. The dwelling would allow them to live on site to manage the enterprise. Council refused the permit on the basis that it did not meet the minimum lot size requirement for dwellings in a FZ, as stipulated in clause 14.01-1L. Council also disputed the need for a dwelling and the viability of the enterprise on the site.</p> <p>VCAT set aside Council's decision and ruled in favour of providing a permit as they found the applicant proved sufficient need for the dwelling and viability of the enterprise through submission of farm business plan.</p>	No	Yes	No
<p>Marke v Strathbogie SC VCAT 1477 (28 September 2012)</p> <p>The applicant was seeking a permit amendment to subdivide land in a FZ (and subject to an AEO) into 3 lots comprising 2 lots at 40ha each and 1 at 111ha. A caretaker dwelling would be constructed on the two smaller lots.</p>	No	No	Yes

Case summary	Dwelling approved by Council	Dwelling approved by VCAT	Council position maintained
<p>The applicant argued that the proposal is necessary to support his plans to intensify sheep production on the land.</p> <p>Council and Mangalore Airport opposed the proposal, arguing that it would constrain the operation of the airport and it is unnecessary to support intensification of sheep farming. The proposal was also conflicts with policy regarding the fragmentation of land and create lots smaller than contemplated by the Schedule to the FZ.</p> <p>VCAT upheld Council's decision.</p>			
<p>Wallyn Pty Ltd v Strathbogie SC VCAT 942 (27 May 2009)</p> <p>The applicant was seeking a permit amendment for a permit that was approved for the use and development of land in a FZ for the construction of a caretaker's house and stable complex. The applicant disputed Condition 1 of the permit which required consolidation of the applicants adjacent lots in the area.</p> <p>VCAT upheld Council's decision to include Condition 1 in the permit.</p>	No	No	Yes

Source: Australian Legal Information Institute (2023) www.austlii.edu.au

Appendix B: Alignment with the Strathbogie Settlement Strategy (2024) methodology

Population projections

- Both studies use State Government VIF23 forecasts as a base for population projections.
- The Strathbogie Settlement Strategy uses the VIF23 forecast to 2036, this analysis extends the forecast to 2041 using the growth rate to meet the State Government mandate of completing the analysis to cater for 15 years growth.

Dwelling demand projections

- Both studies use State Government VIF23 forecasts as a base for dwelling projections.
- This analysis adopts the methodology of the Strathbogie Settlement Strategy for calculating the 'high demand' scenario by projecting forward recent annual dwelling growth trends.
- The Strathbogie Settlement Strategy projects this forward to 2036, this analysis projects the 'high demand' scenario forward to 2041 to meet the State Government mandate of completing the analysis to cater for 15 years growth.

Urban vs rural split of dwellings

- The Strathbogie Settlement Strategy distributes growth across the Shire by using the two SA2 boundaries that align with VIF23. To distribute this to a more localised level the Strathbogie Settlement Strategy uses SA1 boundaries to establish broad urban and rural areas. The Strathbogie Settlement Strategy takes the growth share of historic permit approvals between 2018-2023 to distribute the demand from SA2 levels into the urban and rural areas.
- The Strathbogie Settlement Strategy establishes a urban vs rural split of 79 per cent and 21 per cent, respectively.
- This study adopts this methodology with projections to 2041.

Geographical boundaries

- This study adopts the urban vs rural boundaries established in the Strathbogie Settlement Strategy, and further divides the 'rural balance' into SA1 boundaries as set out in Figure 15.

Distributing the rural balance

- SGS Economics and Planning has worked with Council to discern the likely and preferred projected future share of rural residential growth across the LGA. Using the future projected shares of rural residential growth, the total 'rural balance' has been distributed into the rural areas established in Figure 15.

Housing capacity assessment and supply gap analysis

- The methodology for the housing capacity assessment is set out in Section 4.2.
- The boundaries for the supply-gap analysis are set out in Figure 15 and align with the Strathbogie Settlement Strategy.

This report has been prepared by:

RM Consulting Group Pty Ltd trading as RMCG

Level 1 East, 1100-1102 Toorak Road, Camberwell Victoria 3124

(03) 9882 2670 — rmcg.com.au — ABN 73 613 135 247

Offices in Victoria, Tasmania, and NSW



Key RMCG contact

Dr Kristen Stirling

0488 908 416 — kristens@rmcg.com.au

Document review and authorisation

Project Number: #1754

Doc Version	Final/Draft	Date	Author	PD Review	BST Review	Release approved by	Issued to
1.0	Draft	19/01/24	K. Stirling S. McNulty J. Rooney M. Tempest	S. McGuinness	M. McIntosh	S. McGuinness	D. Maloney (SSC)
2.0	Final	20/5/24	K. Stirling S. McNulty J. Rooney M. Tempest SGS EP (Rural Residential Study)	K. Stirling	-	K. Stirling	D. Maloney (SSC)