

Shire of Strathbogie

# Sustainable Land Use Strategy

(Planning for sustainable, productive and resilient rural areas within the Shire of Strathbogie)



2120303A

FINAL REPORT November 2010



# **Shire of Strathbogie Sustainable Land Use Strategy**

**(Planning for sustainable, productive  
and resilient rural areas within the  
Shire of Strathbogie)**

November 2010

---

**Strathbogie Shire Council**

---



*Parsons Brinckerhoff Australia Pty Limited  
ABN 80 078 004 798*

*Level 15  
28 Freshwater Place  
SOUTHBANK VIC 3006  
PO Box 19016  
SOUTHBANK VIC 3006  
Australia  
Telephone +61 3 9861 1111  
Facsimile +61 3 9861 1144  
Email [melbourne@pb.com.au](mailto:melbourne@pb.com.au)*

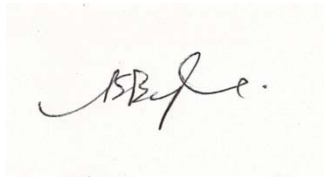
*Certified to ISO 9001, ISO 14001, AS/NZS 4801  
A+ GRI Rating: Sustainability Report 2009*

Revision	Details	Date	Amended By
00	Original		
001	Draft	June 2009	ByrneN
002	Final (Client request amendments)	12 August 2010	SimonT
003	Final (Client requested Final Amendments)	16/11/10	DawsonP

©Parsons Brinckerhoff Australia Pty Limited (PB) [2010].

Copyright in the drawings, information and data recorded in this document (the information) is the property of PB. This document and the information are solely for the use of the authorised recipient and this document may not be used, copied or reproduced in whole or part for any purpose other than that for which it was supplied by PB. PB makes no representation, undertakes no duty and accepts no responsibility to any third party who may use or rely upon this document or the information.

Author: N Byrne



Signed:

Reviewer: C. Stephenson



Signed:

Date: November 2010

# Contents

	<b>Page number</b>
<b>Executive summary</b>	<b>vi</b>
<b>1. Introduction</b>	<b>1</b>
1.1 Purpose of the sustainable land use strategy	2
<b>2. The strategy development process</b>	<b>3</b>
2.1 Key project team members	3
2.2 Project stages	3
<b>3. Rural areas context and vision</b>	<b>5</b>
3.1 Strathbogie Shire	5
3.1.1 Environment	5
3.1.2 Population	6
3.1.3 Employment	7
3.1.4 Infrastructure	8
3.2 The Strathbogie Shire context	9
3.3 Sustainable, productive and resilient	10
3.3.1 Farming areas	11
3.3.2 Rural activity areas	13
3.3.3 Rural landscape areas	13
3.4 Vision development	14
<b>4. Policy context</b>	<b>15</b>
4.1 Victorian Government	15
4.1.1 Future farming	15
4.1.2 Our Environment Our Future	15
4.1.3 Land and Biodiversity White Paper	16
4.1.4 Our Water Our Future	16
4.2 Implementation of new rural zones	16
4.2.1 Farming zone	18
4.2.2 Rural Activity Zone	18
4.2.3 Rural Living Zone	18
4.2.4 Rural Conservation Zone	20
4.3 Strathbogie Shire Council	20
4.3.1 Strathbogie Shire Council Plan 2007-2011	20
4.3.2 Strathbogie Shire Planning Scheme	21
4.3.3 Rural Residential Strategy 2004	24
4.3.4 Avenel 2030 Strategy (2008)	25
4.3.5 Proposed Special Use Zone - Strathbogie Agribusiness Park (SAP)	25

4.3.6	Strathbogie Shire Industrial Land Study, 2008	25
<b>5.</b>	<b>Agriculture</b>	<b>26</b>
5.1	Overview	26
5.2	Agricultural industries	28
5.3	Timber production	31
5.4	Equine industry	32
5.5	Productive agricultural land	33
5.5.1	Agricultural capability	33
5.5.2	Regional overview	36
5.6	Future scenarios	36
5.6.1	Wool production	36
5.6.2	Climate change	37
5.6.3	Irrigation future	39
5.6.4	Irrigation extent	39
5.6.5	Eco Services	40
<b>6.</b>	<b>Non-agricultural activities in rural areas</b>	<b>41</b>
6.1	Rural Living	41
6.2	Tourism and recreation	44
6.2.1	Lake Nagambie	44
6.3	Extractive industries	45
6.4	Home-based industries	45
6.5	Flexibility & structural changes	45
6.5.1	Landowners	46
<b>7.</b>	<b>Environmental values</b>	<b>47</b>
7.1	Terrestrial values – forests and parks	47
7.1.1	Heathcote-Graytown National Park	47
7.1.2	Mount Wombat-Garden Range Flora and Fauna Reserve	48
7.1.3	Rushworth-Heathcote State Forests	48
7.2	Aquatic values - waterways	48
7.3	Remnant native vegetation communities	49
7.4	Fauna species of significance	52
<b>8.</b>	<b>Cultural heritage assessment</b>	<b>54</b>
8.1	Summary	54
8.2	Discussion	54
<b>9.</b>	<b>Community consultation and engagement</b>	<b>55</b>
9.1	Community sessions	55

9.2	State government agencies	57
9.3	Real estate agents and surveyors	57
9.4	Individual written submissions	58
9.5	Discussion	58
<b>10.</b>	<b>The Strategy</b>	<b>60</b>
10.1	Sustainable, productive and resilient	60
10.2	Policy to match a diverse landscape	61
10.3	Farming areas	61
10.4	Rural conservation area	62
10.5	Rural activity areas	63
<b>11.</b>	<b>Implementation plan</b>	<b>65</b>
11.1	Statutory planning measures	65
11.1.1	Proposed rezoning	65
11.2	Non statutory planning measures	66
<b>12.</b>	<b>Statement of Limitations</b>	<b>67</b>
<b>13.</b>	<b>References</b>	<b>68</b>

## List of tables

	<b>Page number</b>
Table 2.1	Strathbogie Shire Sustainable Land Use Strategy – Project Stages 3
Table 4.1	Application of Rural Zones 17
Table 5.1	Agricultural land use in Strathbogie Shire, 26
Table 5.2	Gross Value of Agricultural Production in 2001 27
Table 5.3	2001 Value of Production and Employment of Industries in Strathbogie 27
Table 5.4	Gross value of Production of Major Industries in the Strathbogie Shire in 2001 and 2006 28
Table 5.5	Trends in Production and Property Numbers of Commodities in Strathbogie Shire 29
Table 5.6	Properties by Income Range in 2001 and 2006 (ABS)* 29
Table 5.7	Timber Production in Strathbogie Shire in 2001 32
Table 5.8	Horse Businesses in Strathbogie Shire 1997 – 2006 33
Table 5.9	Horse properties by income range in 2001 and 2006 (ABS) 33
Table 5.10	Mean Temperature and Rainfall data for Mangalore Airport and Strathbogie 35
Table 6.1	The social, economic and environmental value of small lifestyle farms (Source: Hollier & Reid, 2007) 43
Table 7.1	Index of Stream Condition Scores 48
Table 7.2	Plant Species of Significance Recorded within Strathbogie Shire 51
Table 7.3	Significant species of fauna recorded within Strathbogie Shire 52
Table 7.4	Population Trends of Threatened Species in the Goulburn Broken Catchment 53
Table 9.1	Community consultation sessions 2008 55

## List of figures

	<b>Page number</b>
Figure 1.1	Sustainable Land Use Strategy Study Area 1
Figure 3.1	Strathbogie Local Government Area Population 7
Figure 3.2	Strathbogie Shire Employment Sector population 8
Figure 3.3	Comparison of Goulburn Valley Farming Areas, DPCD 2008 12
Figure 5.1	Water use on Australian Farms 2005-06 (selected Shires), ABS-46180.0 2008 39
Figure 7.1	Bioregional Conservation Status of Ecological Vegetation Communities 50

## List of photographs

	<b>Page number</b>	
Photo 3.1	Strathbogi Shire – ‘Horse Capital of Victoria	5
Photo 3.2	Lake Nagambie	6
Photo 5.2	Viticulture in Strathbogie Shire	30
Photo 5.3	Poultry production in Strathbogie Shire	31
Photo 5.4	Example of grazing on relatively flat plains	34
Photo 5.5	Wool Production in Strathbogie Shire	37
Photo 6.1	Rural living in Strathbogie Shire	42
Photo 6.2	Lake Nagambie Regatta Centre	44
Photo 7.1	Example of Remnant Native Vegetation within Starthbogie Shire	49

## Appendices

Appendix A
Supporting Maps
Appendix B
Residential and Non-residential Ownership
Appendix C
Rezoning Investigation Areas



# Executive summary

The future of Strathbogie Shire's rural areas reflects the diversity of landscape, natural assets and strategic location. The Shire of Strathbogie Sustainable Land Use Strategy (SLUS) is based on the recognition that the rural areas of the shire have a role and a value that includes agriculture, both commercial and lifestyle, as well as tourism, wine making, horse breeding, environment and rural living. This strategy proposes a rural area that provides for the continuation of farming, but also supports the growth of tourism and the protection of environmental values. It addresses the opportunities for the promotion of other land uses in rural areas such as horse breeding, industry and transport.

Council seeks to support the ongoing use of rural land for agriculture through planning as it is a key employer and income generator. The shire includes some quality agricultural land that is an asset and should be protected for productive use and future economic development. Other rural land uses in the Shire also contribute to the economy and character of Shire and need to be accommodated in any rural land use plan. The underlying principle in determining the future of the rural areas is the protection of the amenity and environment of the shire. The shire's unique amenity is a key attractor of residents and visitors, and the health of the environment directly influences amenity as well as agricultural prospects.

Parsons Brinckerhoff, in conjunction with RM Consulting Group, has been engaged by the Shire of Strathbogie to review the current application of rural zoning across the Shire. The only rural zone currently applied in the shire is the Farming Zone. It is considered by the Council that the current application of the Farming Zone across the Shire is not reflective of the range of values associated with the diverse landscape within the study area. The objective of this project is to prepare a strategy for the shire that recognises the diversity of landscapes, communities and industries; provides for economic development; and applies the most appropriate land use zoning from the Victoria Planning Provisions.

Development of the strategy involved research and consultation with community members, industry and Government agencies to establish the rural land values, key issues and aspirations; and opportunities for the future.

The SLUS includes both statutory and non-statutory recommendations. Statutory recommendations include the application of available rural zones in accordance with the Victoria Planning Provisions. Non-statutory recommendations include opportunities for on-ground works or more strategic work to ensure alignment between agencies or governments to assist with the sustainable management of Strathbogie Shire's rural areas.

The Shire of Strathbogie SLUS provides for:

- Protection and maintenance of established farming areas
- Protection and sustainable use of privately owned land that includes high value or significant vegetation and waterways
- Recognition of rural industries (tourism, wineries and horse breeding and training) to allow for clustered development in a rural setting to enhance the growth of these businesses.

Under this strategy the Strathbogie Shire is to remain fundamentally a rural shire with an agricultural future, but the strategy recognises that the rural areas of the Shire have other values and opportunities that are inadequately represented by only one land use zone. The Farming Zone does not provide the flexibility or land use requirements and controls to enable sustainable management of all rural areas.

The Farming Zone will continue to apply for the majority of the rural areas within the Shire. However, there are a number of changes to the current application of the Farming Zone that are recommended.

In broad terms these are:

- application of the Rural Conservation Zone west of the Goulburn River;
- application of the Rural Activity Zone to support rural tourism in the Nagambie area;
- application of the Rural Living Zone in accordance with the adopted Rural Residential Strategy<sup>1</sup>.

Further research may also support the use of the Rural Activity Zone to promote the equine industry in Strathbogie Shire.

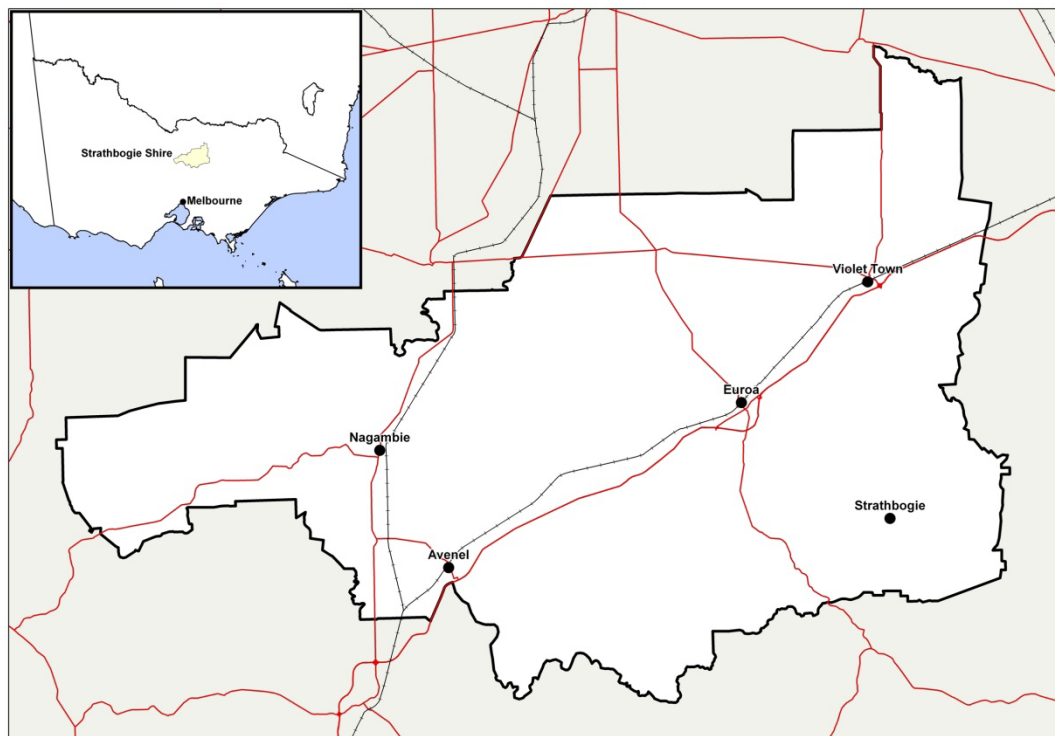
<sup>1</sup> *Beca (2004) Rural Residential Strategy – Currently being completed in priority areas.*

# 1. Introduction

Parsons Brinckerhoff, in conjunction with RM Consulting Group, (the Project Team) has been engaged by the Shire of Strathbogie to review the current application of rural zoning across the Shire. The only rural zone currently applied in the shire is the Farming Zone.

The project involves analysis and assessment of the shire’s rural areas, and includes consultation with local communities. The key objective is to prepare a strategy for the shire that recognises the diversity of landscapes, communities and industries; provides for economic development; and recommends the most appropriate land use zoning from the Victoria Planning Provisions.

The study area includes the rural extent of the Strathbogie Shire (Figure 1.1). This includes Box-Ironbark forests to the west of the Goulburn River, irrigated areas of viticulture south of Nagambie, extensive dryland areas on the plains between the Goulburn Valley Highway and Hume Freeway extending from Avenel to Miepoll and north towards the Broken River at Upotipotpon. Additionally, the study area includes extensive areas of land within the Strathbogie Ranges, to the south and east of the Hume Freeway around the towns of Boho, Strathbogie, Gooram and Ruffy. The ranges provide headwaters for a number of key tributaries within the Goulburn Broken catchment.



**Figure 1.1 Sustainable Land Use Strategy Study Area**

The current application of the Farming Zone across the shire is not reflective of the range of values associated with the diverse landscape within the study area. Council believes that the current zoning regime provides significant restriction on potential development and is inappropriately applied to areas of low agricultural production value including the steep wooded ranges. The strategy therefore seeks to review the role of agriculture within the shire, assess natural values and consider commercial activities to provide a rigorous and comprehensive land use strategy, and a basis to apply the suite of available rural zonings more appropriately.

## 1.1 Purpose of the sustainable land use strategy

Following the release of the new rural zones in 2004, Strathbogie Shire Council applied the new zones through direct translation of their existing zoning. The effect of this was that all land in the former Rural Zone was rezoned to Farming Zone. *The Farming Zone is currently the only rural zone applied within the Shire* (See Appendix A-3 Existing Zoning).

The purpose of the Sustainable Land Use Strategy (SLUS) is to present the strategic justification necessary for the appropriate application of the full suite of new rural zones throughout the shire. The full suite of rural zones includes the Farming Zone, the Rural Activity Zone, the Rural Conservation Zone and the Rural Living Zone.

The SLUS needs to determine the appropriate balance and location of the range of possible rural land uses and the subsequent application of available rural planning zones. The strategy must seek to align policy with landscape change, settlement patterns and trends in economic activity to ensure that land use planning promotes a sustainable future for the rural areas of Strathbogie Shire.

The SLUS includes both statutory and non-statutory recommendations. Statutory recommendations include the application of available rural zones in accordance with the Victoria Planning Provisions. Non-statutory recommendations include measures that recognise the strategic alignment of a range of land management stakeholders.

## 2. The strategy development process

The Shire of Strathbogie appointed Parsons Brinckerhoff (PB), and RM Consulting Group (RMCG) to undertake the staged development of a Sustainable Land Use Strategy.

The project team included expertise in rural and regional planning, land management and natural resources.

### 2.1 Key project team members

The project team comprised of:

- Nick Byrne – Senior Planner & Project Manager (PB)
- Nicole Vickridge – Senior Planner (PB)
- Chad Browning – Environmental Scientist (PB)
- Jess Keating – Planner (PB)
- Trevor Budge – Principal Planner (PB)
- Carolyn Stephenson – Senior Planner (PB)
- Shelley McGuinness – Senior Consultant (RMCG)

The project team wish to thank the shire’s Councillors and staff for their assistance and contribution, in particular Stacey Hesketh (Strategic Planning Manager) & Phil Howard (Statutory Planning Manager).

### 2.2 Project stages

The Sustainable Land Use Strategy has been developed through a staged process, with an emphasis on an integrated consultation program. Table 2.1 below outlines the stages of the project.

**Table 2.1 Strathbogie Shire Sustainable Land Use Strategy – Project Stages**

Project Stage	Description	Status
Stage 1 Scoping	Project Team Desktop Analysis	Completed August 2008
Stage 2 Consultation	Integrated Consultation Program	Completed October 2008
Stage 3 Issue and Options Reporting	Preparation of an issues and options report, released for public comment and prepared to support the development of Sustainable Land Use Strategy	Completed November 2008

Project Stage	Description	Status
Stage 4 Draft Sustainable Land Use Strategy	Preparation of draft Sustainable Land Use Strategy for public display. Includes communication and consultation to introduce a new strategy.	Completed July 2009
Stage 5 Public Exhibition of Draft Sustainable Land Use Strategy	8 week period for public comment	
Stage 6 Final Draft Sustainable Land Use Strategy	Review of public submissions; response and necessary modifications to draft Sustainable Land Use Strategy to finalise the strategy.	

### 3. Rural areas context and vision

#### 3.1 Strathbogie Shire

##### 3.1.1 Environment

Strathbogie Shire is located in north east Victoria approximately 150km north of Melbourne (Refer to Appendix A-1 Shire Location). The Hume Freeway runs through the middle of the municipality. The major towns are Euroa, Nagambie, Violet Town and Avenel. Most of the shire is rural in nature, with native vegetation covering almost 30 percent of the shire, mainly in the Strathbogie Ranges and areas of Box Ironbark forest west of the Goulburn River. The Strathbogie Ranges are undulating and in selected locations the land is extremely steep.

The rural areas contain a diverse mix of land use. The main industries are wool, grain, cattle production and viticulture. In addition, there are numerous horse studs. While the majority of agricultural businesses rely on rainfall for water, the southern section of the Shepparton Irrigation Area, including the Goulburn Weir, is within the shire.



**Photo 3.1 Strathbogie Shire – ‘Horse Capital of Victoria’**





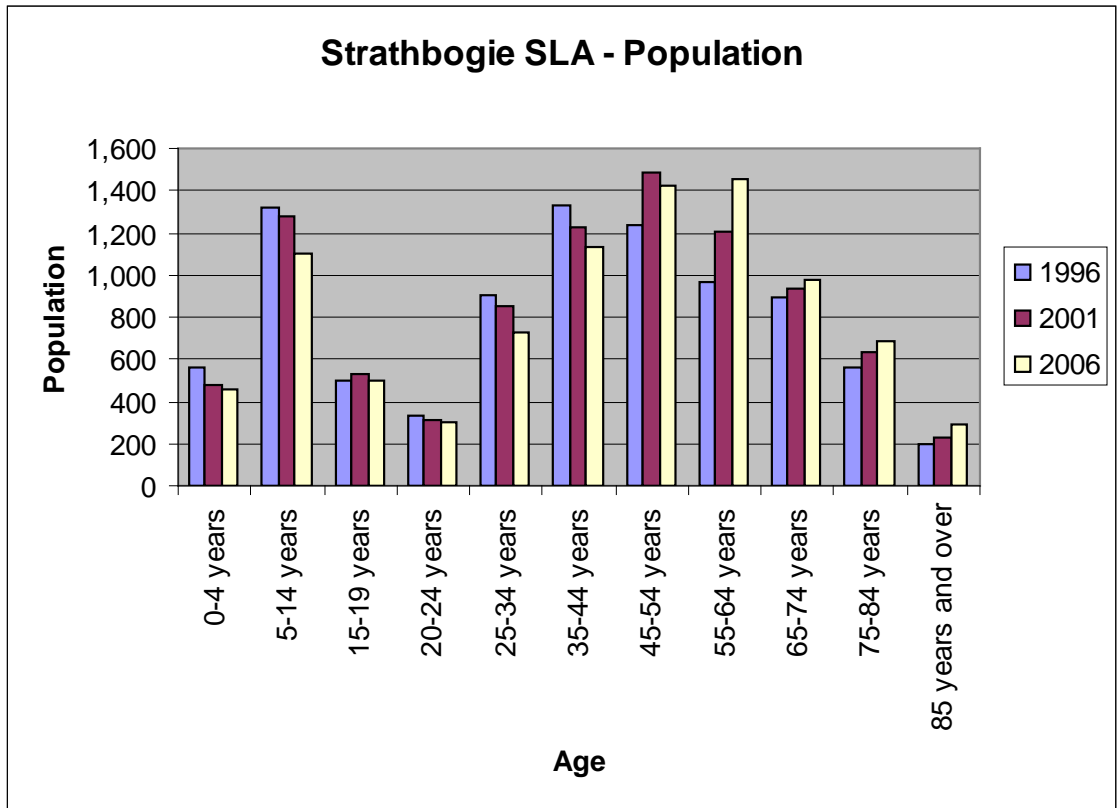
**Photo 3.2 Lake Nagambie**

### **3.1.2 Population**

The estimated resident population of Strathbogie Shire Council at 30 June 2006 was 9,615 (DPCD 2007). Between 2001 and 2006 the average annual growth rate of the shire was -0.1%. Figure 3.1 below shows the changes in population by age group from 1996 to 2006. This data shows a clear trend of an ageing population with increases in the number of over 55's and under 15's representing the largest decline. Within the shire over 96% of over 55's are employed (ABS census data 2006).

The Department of Sustainability and Environment (DSE) Victoria in Future report (DSE, 2004) predicts that over the next 30 years, the population will continue to grow, but will be increasingly comprised of older age groups, and will have very few children and young adults. Part of the reason for the projected ageing of Strathbogie's population is its increasing popularity as a lifestyle and retirement destination for people leaving Melbourne. This is evident in the relatively high (27%) level of non resident ratepayers in the shire. This compares to Mitchell (21%), Bendigo/Campaspe (13%), Shepparton (8%) and Benalla (12%). However the level of non resident ratepayers is not as high as Murrindindi (30%) or Mansfield (50%).





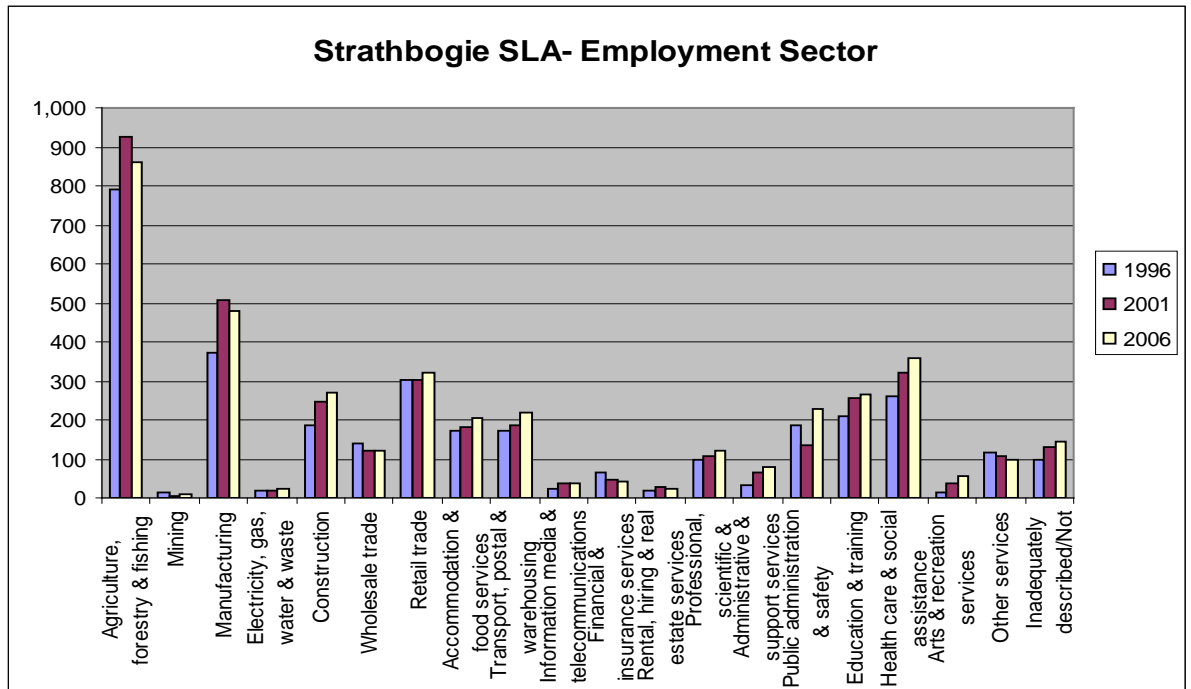
**Figure 3.1 Stratbogie Local Government Area Population**

Source: ABS Census data 1991, 1996 and 2006 ([www.abs.gov.au](http://www.abs.gov.au))

### 3.1.3 Employment

The trend of an ageing or declining population is not reflected in the employment sector of the Shire. The number of employed persons since 1996 has steadily increased (see Figure 3.2 below). Agriculture, fishing and forestry remain the largest employment sector. Since 1996 there has been an increase in employment across the following sectors:

- construction
- retail trade
- accommodation and food services
- public administration and safety
- education and training, and
- health care and social assistance.



**Figure 3.2 Strathbogie Shire Employment Sector population**

Source: ABS Census data 1991, 1996 and 2006 ([www.abs.gov.au](http://www.abs.gov.au))

### 3.1.4 Infrastructure

#### 3.1.4.1 Transport

The pattern of rural settlement is supported by a network of townships and smaller settlements which have strong lifestyle and heritage attributes, located on major transport infrastructure providing easy access to larger regional centres in adjoining local government areas.

The road network in the Shire is well connected and services the townships via sealed and unsealed roads. The Hume Freeway and the Melbourne to Sydney Railway line run through the Shire.

The Goulburn Valley Highway duplication incorporates the Nagambie bypass. The alignment for the bypass to the east of Nagambie and the Planning Scheme amendment for the Public Acquisition Overlay (Refer to Appendix A-2 Overlays which contains a map of all overlays contained within the Strathbogie Shire Planning Scheme) were approved in July 2006.

The bypass will relieve traffic congestion in the township of Nagambie and divert through traffic particularly heavy vehicles around the township. The bypass is likely to create land use opportunities and have positive impacts for the liveability of Nagambie. The Nagambie Bypass will impact on land within the Farming Zone and will provide an opportunity for reconfiguration of land use between the Township and the proposed alignment.

Another significant change to the road network within the Nagambie area is due to the proposed Agribusiness Park. It is anticipated that this proposed development would require some roads to be widened and an upgrade of the precinct arterials and rail crossing, and safety improvements to the overall transport network.

Mangalore Airport, located north of Mangalore has dual all-weather runways for general aviation. The airport has no flight curfew and operates seven days a week. A professional pilot academy and two flying schools are located at the airport.

#### **3.1.4.2 Water**

Goulburn Valley Water is the owner and operator of urban water resources within the Shire. Water resources are currently under pressure due to the long drought. Euroa, Nagambie, Violet Town and Avenel are all on water restrictions. While the southern tail of the Shepparton Irrigation Area lies within the Shire the majority of agricultural businesses in the Shire rely on rainfall for water supply.

## **3.2 The Strathbogie Shire context**

Strathbogie Shire is strategically located in respect to a number of significant development forces and economic trends that relate to rural and regional Victoria. As such, the rural areas of the Shire are well positioned to capitalise on existing and emerging opportunities that can strengthen their role and performance. With careful planning and management the Shire will be able to take advantage of these assets and attributes to deliver a more sustainable environmental, social and economic future for its land owners.

The emerging State government regional planning strategy being prepared under the auspices of Regional Development Victoria by a Ministerial taskforce emphasises and is based on delivering on three critical underpinning elements – Sustainability, Productivity and Liveability.

Strathbogie Shire is well positioned to capitalise on each of these elements.

The Shire is located within five broad regional settings that provide options but also challenges for the planning, development and conservation of its rural areas. These settings comprise:

#### ***Location within the outer peri-urban area of the Melbourne metropolitan area***

The relationship with, and access to Melbourne is driving growth and investment in the peri-urban area. The Shire is well positioned to take advantage of these forces as a result of direct and improved road and rail services.

#### ***Location on the transport gateway to the Hume region corridor***

The Shire's place within the Hume region and in particular the Melbourne to Sydney road and rail corridor – Australia's most significant transport corridor – is a considerable advantage of the Shire.

#### ***Location at the junction of the entry point to two transport corridors***

The Shire's location at the junction of the Hume transport corridor with the Goulburn Valley transport corridor (part of the inland Melbourne to Brisbane route), is advantageous. This is supported by the strategic location of the Mangalore airport facility.

### ***Location in an area of high quality amenity rural landscapes***

The Shire is fortunate that large areas of the Shire such as the Strathbogie Ranges and Lake Nagambie contain distinctive rural landscapes that contribute to the Shire's ability to attract new residents and visitors. There is a strong tradition of rural living and lifestyle farming in the Shire that should continue in a planned manner.

### ***Location in an area that is able to offer a range of rural and landscape settings***

The diversity of the Shire's landscape and rural assets and settings provides opportunities to support specialist enterprises such as wineries and other horticulture, and the thoroughbred breeding industry, as well as areas that provide buffered sites for intensive animal industries and broadacre cropping and grazing. In addition, areas with environmental assets offer the opportunity for landowners to sell eco-services, including vegetation protection and enhancement and carbon storage.

This pattern of rural settlement, landscapes and locational advantages is supported by a network of townships and smaller settlements which have strong lifestyle and heritage attributes are located on major transport facilities and are positioned so that they have convenient access to larger regional centres.

## **3.3 Sustainable, productive and resilient**

The rural areas of Strathbogie are varied in land form, use and development activity and as such afford opportunities for land use planning that reflects this diversity. In essence this includes the sustainable management of rural land across the Shire to ensure:

- Protection and maintenance of established farming areas
- Protection and sustainable use of privately owned land that includes high value or significant vegetation and waterways
- Recognition of and support for rural industries, including tourism and thoroughbred breeding, within proximity of appropriate infrastructure that allow for a strategic clustered land use approach
- Provision of housing diversity, including rural living

The rural areas of Strathbogie are currently inadequately represented by only one land use zone. The Farming Zone does not provide the flexibility or land use requirements and controls to enable sustainable management of all rural areas. This is not to say that most rural land within the Shire of Strathbogie should not remain in the Farming Zone. However previous rural planning controls enabled a diverse range of rural activities to develop, such as tourism enterprises, including wine based tourism, logistics operations, thoroughbred breeding and home based industries that contribute to and reflect the diversity of the rural areas.

Land use planning is one policy component that contributes to the ongoing sustainable management of land in rural areas. Importantly, the strategic alignment of land uses and associated land use zones will enable protection of assets in rural areas as they relate to production, sustainability or conservation. Additionally, the protection and enhancement of rural areas assists in strengthening and improving opportunities for access to services, movement of people and management of natural resources through contributing to a strategic approach to population settlement. The combination of a strategic approach to settlement, including rural living, and management of rural areas for production, conservation and clustered commercial activities allows the Strathbogie Shire in their role as the Planning Authority to meet the objectives of the Planning & Environment Act 1987. These objectives require that Council, promote fair, orderly, economic and sustainable use and development of land; provide for the protection of natural and man-made resources and the maintenance of ecological process and genetic diversity, when facilitating development.

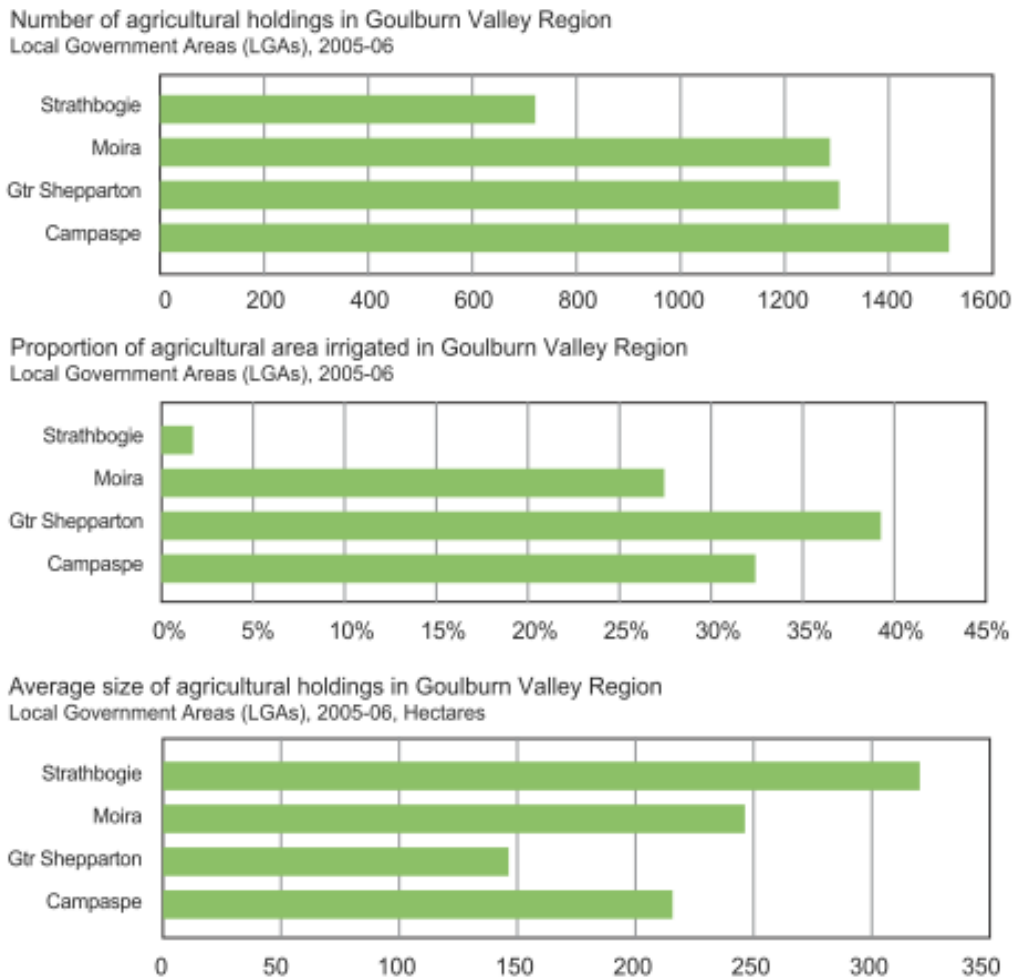
The pressures of climate change, structural modifications to both the agricultural industry and rural population and the critical need to ensure conservation of high value ecosystems requires the application of rural land use zones that reflect the diversity of landscape, uses and natural assets.

### **3.3.1 Farming areas**

There is a concentration of dryland farming north of the Hume Freeway, managed on farm holdings that are the largest in the Goulburn Valley (Figure 3.3)

The land north of the Hume Freeway is considered of better agricultural capability than land south of the Hume Freeway, particularly the steeper rocky areas of the Strathbogie Ranges. However, areas to the south and east of the Hume Freeway, particularly associated with the lower flats and undulating valleys, also contribute to the agricultural areas of the Shire.

There are a number of areas, particularly in the south and west of the Shire, that are too steep, heavily wooded or containing high value vegetation (often adjoining large areas of public land or in large contiguous tracts) to enable viable farming to occur and therefore have limited agricultural value. These areas are considered inappropriate for inclusion in the Farming Zone.



Source: ABS 2008, Water Use on Australian Farms, 2005-06, datacube 46180DO014

**Figure 3.3 Comparison of Goulburn Valley Farming Areas, DPCD 2008**

Figure 3.3 demonstrates that farms within Strathbogie rely on much larger areas of land than the lower reaches of the Goulburn Valley. Fundamentally this is as a result of access to irrigable land in the established Irrigation Regions of Moira, Greater Shepparton and Campaspe Shires.

A total of approx 230,000ha of land is farmed in the Strathbogie Shire by around 700 farm businesses (ABS data, 2006). Agriculture is a key economic driver of the Strathbogie economy and provides significant employment opportunities. Animal production for meat continues to underpin the agricultural sector with sheep dominating on the back of sustained high prices for lamb. Broiler production has emerged as a significant new sector. The performance of agricultural businesses in the Shire in recent years, particularly with below average rainfall has been excellent. In particular, businesses have capitalised on high grain and meat prices to boost income. Grape production has been impacted by low grape prices, but production has remained steady.

The future of agriculture in the Shire will be strongly influenced by climate change, with reduced production in the grazing industries forecast. These scenarios may see grazing in the steep hills of the Strathbogie Ranges become less viable and a change in the cropping/grazing mix on the plains. Producers that have access to irrigation water will have more options available for production.

### 3.3.2 Rural activity areas

Some of the rural areas in the Shire support a diversity of uses that extend beyond traditional agriculture. These uses include wineries, horse studs, tourism developments and rural industries. In particular the Shire has a strong reputation for its wineries and thoroughbred breeding industry. These uses also contribute to the amenity and economy of the Shire. The legacy of diverse rural land uses that have proliferated through broader planning direction provided by the former Rural Zone deliver both opportunities and constraints for areas of the Strathbogie Shire.

Areas of land that have developed similar activities (eg. wine related tourism and equine activities) within contained consolidated 'precincts' provide a strategic opportunity for alignment of planning controls to further support these uses. Such areas are located in association with Goulburn River and within the broader Nagambie tourism catchment. Additionally, locations in the Strathbogie Ranges and to the southeast of the municipality may provide opportunities for consolidation of equine activities.

The view of rural land use has changed. The former Rural Zone recognised that a rural setting provided natural attenuation between uses and a level of flexibility in uses that could be approved. However, the new suite of rural zones and broader policy positions on the environment have highlighted the impact of ongoing rural activities on the fragmentation of farming land and potential impact on significant natural values. This strengthening in policy position at both a State and local level requires a strategic approach to the application of rural zones. In particular the Rural Activity Zone should be applied where activities in addition to agriculture are to be supported and should encourage precincts or consolidated areas of similar uses in a coordinated location as opposed to individual properties.

### 3.3.3 Rural landscape areas

The Strathbogie Shire contains substantial areas of rural land with high value landscapes and significant natural assets. These areas contribute to the character of Strathbogie and provide significant draw for investment. Management of private land across these landscapes varies significantly at the ecosystem level. Fundamentally, these areas are concentrated around three broad locations, including:

1. Areas of Box Ironbark and associated forest types at the interface or adjoining larger areas of public land, including land abutting the local government areas boundary.
2. Riparian areas throughout the plains associated with the significant tributaries of the Goulburn Broken Catchment that are generated from the Strathbogie Ranges. This includes the Goulburn River, Seven Creeks and Hughes Creek.
3. Intact areas of remnant vegetation associated with the Strathbogie Ranges. These include ranges between Avenel and Ruffy; Gooram and Strathbogie; and, Strathbogie and Boho.

Essentially the protection of remnant vegetation and associated significant landscape values including important habitat, views, management of water quality and protection of unstable slopes and retention and enhancement of significant vegetation drives the application of the Rural Conservation Zone.

These areas within the Shire are often in close proximity or adjoining large areas of public land. Importantly though the Rural Conservation Zone does not preclude a range of activities it ensures future uses and developments will not fetter the existing natural values and features within a landscape that requires conservation. For example, new agricultural activities within the Rural Conservation Zone are generally appropriate but require a permit to ensure that important environmental values are protected.

### 3.4 Vision development

A workshop was conducted with Councillors to consider the direction for the Shire's rural areas. At this workshop, information was presented to the Councillors on the values of the rural areas, and the range of opportunities and challenges facing this aspect of the municipality.

At the workshop, the Councillors determined that their vision for the Strathbogie Rural Areas includes:

- Protection of agricultural enterprise through the limitation of non agricultural uses and retention of larger allotments within farming areas
- Support for 'lifestyle' agriculture on appropriately zoned land
- Management and protection of natural environmental assets throughout the Shire
- Support and enhance new and existing rural tourism activities through strategic clustering and appropriate zoning
- Support new and existing rural industries through strategic clustering and appropriate zoning.

The Councillors recognised the fundamental importance of agriculture to the Shire and identified the need to prevent land use change and conflict in valuable farming areas. Farm land fragmentation should be minimised and all new housing development within farming areas should be agricultural related. In this regard, Councillors supported retaining a large minimum lot size in Farming Zoned areas, related to the needs of the industry, as well as requiring all new dwellings be subject to planning approval. Where house lot excisions are considered necessary to promote agriculture use, they should preferably be in the form of a lot restructure.

Councillors also identified the value of lifestyle agriculture. It is recognised that this rural land use is also a significant part of the rural amenity of the Shire. Lifestyle agriculture, or hobby farming, is where some form of part time agriculture is conducted ancillary to the residential use of a rural property. This form of rural land use is best accommodated within the Rural Living Zone, and Council is presently preparing development plans for priority areas.

Council was also keenly aware of the array of other activities that have thrived in the rural parts of the Shire, and also contribute to the local economy and community. These activities include tourism, such as wineries with retail, accommodation and hospitality aspects, horse studs and other equestrian related land uses, recreation businesses and small industries. A part of Council's vision for the rural areas includes being able to set aside some of the rural land in the Shire to provide a rural landscape in which activities that require a rural setting, can locate.



## 4. Policy context

This section of the report considers the current Victorian and local policy context with respect to rural land use planning.

### 4.1 Victorian Government

#### 4.1.1 Future farming

The Victorian Government developed the Future Farming Strategy to encourage innovation, increase productivity and make the farming sector more competitive through the use of new technology and farming practices. The strategy proposes investment totalling \$205 million over four years in seven action areas. The strategy suggests the number and the demand of farming businesses will increase significantly across the state.

The strategy includes a discussion on changing land use and priorities in rural Victoria, and includes a specific action to improve rural land-use planning through the establishment of a new Regional Strategic Planning Expert Group. This group will identify and plan for future scenarios for farming and farming communities. Specific tasks will include: identifying barriers to adjustment; developing land-use planning policy to help farmers adapt and delivering regional land-use planning projects.

The Future Farming Strategy will influence farming in the Strathbogie Shire as the strategy directs investment in the farming sector to improve productivity, competition and ensure operations are sustainable. The strategy offers many benefits to farmers and their families in providing health and well-being assistance as well as other industry incentives.

The Future Farming Strategy identifies that the shire is within landscapes defined as “amenity” and “transition”. Amenity landscapes are described as those subject to tree change migration, environmental preferences and boutique and niche agriculture, due to high amenity value and proximity to Melbourne and other regional centres. Transition landscapes are those that sit between amenity landscapes and production landscapes, and are subject to competing values. Production landscapes are characterised by farm expansion and consolidation to support increased viability. This trend is not extensively seen in Strathbogie.

#### 4.1.2 Our Environment Our Future

Our Environment Our Future is a framework that provides direction for government, business and the community on building environmental considerations into the way we work and live. The framework:

- outlines the key environmental challenges Victoria faces;
- explains what ‘environmental sustainability’ is and why it is important;
- identifies the strategic directions we must pursue to become environmentally sustainable;

- sets out objectives to be achieved and interim targets for measuring progress towards the objectives;
- identifies some important steps for putting the Framework into action.

The Department of Sustainability and Environment will lead the implementation of the Framework and will work with other parts of State government, local government, business and the community to build environmental sustainability into everything we do.

While the framework is unlikely to have a direct impact on rural land uses in Strathbogie Shire it is an important document providing direction on how to build environmental considerations into the way we work and live.

### **4.1.3 Land and Biodiversity White Paper**

The Victorian Government is continuing to work with community groups and landowners to finalise the Land and Biodiversity White Paper. The White Paper, due for release in 2009, will establish policy and program directions, helping to set the Victorian Government's agenda and guide investment decisions in land and biodiversity management over the next 20 to 50 years.

The proposed 50 year vision for land and biodiversity in Victoria is:

*"Victorians actively conserving and restoring ecosystems to ensure our land, seas and waterways are healthy, resilient and productive."* (DSE 2006).

This vision encompasses the directions agreed to in the Victorian Government's Environmental Sustainability Framework, Our Environment, Our Future.

The Land and Biodiversity White paper will influence investment decisions in land and biodiversity management across the state, including Strathbogie Shire.

### **4.1.4 Our Water Our Future**

The next stage of the Government's Our Water Our Future plan provides long-term solutions to secure our water supplies by building a desalination plant, saving water through upgrading irrigation channels, expanding the Water Grid to pipe water around the State and extending conservation programs and recycling.

Significant investment is planned for upgrade and modernisation of irrigation infrastructure in the Goulburn Broken catchment via the Northern Victoria Infrastructure Renewal Project (previously the Foodbowl Modernisation Project). Any benefits from this project flowing to the Shire are likely to be minor in the short term due to the limited extent of current irrigation development.

## **4.2 Implementation of new rural zones**

Historically rural land-use planning has focused on the notion of a landscape where agriculture is the presumed use. This is based on planning goals that include: preventing a decline in productive agricultural land; containing urban sprawl; and protecting biodiversity and rural landscapes.

In mid 2004 the Victorian Government released new state wide rural zones following a considerable consultation program. The new rural zones seek to clearly identify the role of agriculture in rural areas, and protect opportunities for it. The zones also provide the basis for the consideration of some other land uses in rural areas that are not directly associated with agriculture. A key goal of these reforms is to ensure that farm businesses can maintain, expand and intensify their current operations without being affected by non-farming uses in rural areas (Table 4.1) below summarises the objectives and application of the four new rural zones).

Following the release of the new rural zones, the Minister for Planning provided Council’s with the opportunity to carry out the required strategic work to justify the new zones, alternatively they could apply the new zones by simply translating their existing zoning. Strathbogrie Shire Council followed the translation option, amendment C35 (adopted in May 2006) introduced the Farming Zone into the Planning Scheme and rezoned all land in the Rural Zone to Farming Zone. The Farming Zone is currently the only rural zone applied within the Shire (See Appendix A-3 Existing Zoning, this map shows that the Farming Zone applies to large areas of the Shire).

The VPP Practice Note on Applying the Rural Zones (DSE, 2007) provides guidance to planning authorities on the strategic work required to apply the rural zones. The practice note is clear that the application of a new rural zone or adjustments to existing rural zones should be underpinned by clearly expressed planning policies in the planning scheme.

**Table 4.1 Application of Rural Zones**

Objectives that relate to the choice of rural zones	Farming zone	Rural living zone	Rural conservation zone	Rural activity zone
Support productive and sustainable agriculture	XXX	XX	XX	XX
Planned rural residential and rural living development	N	XXX	XX	XX
Provide for value adding rural industries including intensive animal industries	XXX	N	N	N
Improve the natural resource base, the water quality in rivers and streams and the protection of the Shire’s environmental and landscape assets	XX	N	XXX	XX
Strengthen the rural tourism economy	XX	N	N	XXX
Maintain rural landscapes and the non-urban breaks	XXX	N	XXX	XX
XXX strong capacity to implement    XX lesser capacity to implement    N no capacity to implement				

#### **4.2.1 Farming zone**

The Farming Zone replaced the former Rural Zone. The former Rural Zone was a very open ended zone providing for a wide range of uses subject to a permit. The Rural Zone had the advantage of providing Councils and landowners with considerable scope in using their rural areas to provide for a wide range of land uses. While this had considerable advantages it also had the disadvantage that conflicting land uses were often sited near each other and, there was a lack of precision as to how areas were to be used and developed with new development potentially threatening both existing and future agricultural activity.

The new Farming Zone is more prescriptive, making it clear that the zone is for those areas where farming is the predominant use and therefore prohibiting a range of uses that could compromise farming. These prohibited uses include industry (rural industries that are linked to agriculture are appropriate), some types of accommodation (other than a dwelling, dependent person's unit, group accommodation, host farm and residential hotel), retail premises (other than community market, manufacturing sales, primary produce sales and restaurant) warehouse (other than a store), and any other use not listed in Section 1 or Section 2 of the Farming Zone. The shift of the in-nominate uses from Section 2 to Section 3 significantly restricts the flexibility afforded to the Rural Zone. Most agricultural uses do not require a planning permit.

The Farming Zone is the only rural zone currently applied in the Shire.

#### **4.2.2 Rural Activity Zone**

The Rural Activity Zone is a completely new zone introduced in the package of rural zones. This zone is to be applied where farming and agriculture is the primary activity but other uses can be supported such as tourist ventures or agribusiness that seek or need a rural setting. This zone is appropriate in areas where commercial, tourism or recreational development will complement existing agricultural pursuits, natural resources and landscape values.

The Rural Activity Zone is not currently applied in the Shire.

#### **4.2.3 Rural Living Zone**

A new Rural Living Zone was implemented to replace the former Rural Living Zone but there was little change in its role and implementation. Rural Living is designed to provide for residential development in a rural setting where agriculture and other rural uses will continue to occur but the predominant use is residential.

The application of this zone to areas in the municipality must satisfy a number of criteria laid down by the State government that are designed to prevent ad hoc and liberal application of the zone.

The application of the Rural Living Zone is not to take place where:

- The land is designated as productive agricultural land.
- The land contains significant natural resources, including water supply catchment, productive agricultural land, mineral and energy resources (e.g. wind).
- Land capability is high, with suitable soil types, climatic conditions, and irrigation infrastructure.
- The land is within the urban growth boundary of a town or that is identified as required for fully serviced residential.

Rezoning proposals must demonstrate compliance with Ministerial Direction No 6 on Rural Residential Development. The purpose of Ministerial Direction No 6 is to manage the provision of sustainable rural residential development. Ministerial Direction No 6 applies to any planning scheme amendment that provides for:

- The rezoning of land to the Low Density Residential Zone, Rural Living Zone or Green Wedge A Zone.
- Introduction of a lot size less than 8 hectares to the schedule to the Farming Zone, Rural Activity Zone, Green Wedge Zone, Green Wedge A Zone, Rural Conservation Zone, Rural Zone or Environmental Rural Zone that provides for rural residential development.

In preparing an amendment which would have the effect of allowing rural residential development, the planning authority must demonstrate and show that the proposed rural residential development:

- Is consistent with the housing needs and settlement strategy of the area.
- Is supported by and supports sustainable and viable settlements and communities.
- Does not compromise the sustainable future use of existing natural resources, including productive agricultural land, water, mineral and energy resources.
- Protects existing visual and environmental qualities of the area, such as landscape, water quality, native vegetation, habitat and biodiversity.
- Avoids predictable adverse environmental processes and effects, such as flooding, erosion, landslip, salinity or wildfire.
- Can efficiently be serviced by social and physical infrastructure, at an acceptable and sustainable community cost.

The purpose of these requirements is to improve the consideration and assessment in planning for rural residential development.

The Rural Living Zone is currently not applied in Strathbogie Shire. However, following preparation of a Rural Living Strategy in 2004 and further detailed analysis of identified priority areas, planning scheme amendment documentation is being prepared for Euroa and Avenel.

Assessment of the application of the Rural Living Zone is outside the scope of this project.

#### 4.2.4 Rural Conservation Zone

The Rural Conservation Zone replaced the former Environmental Rural Zone. Similar to the Environmental Rural Zone the purpose of the Rural Conservation Zone is to protect and conserve rural land for its particular environmental features or attributes. These conservation values may relate to natural resources, biodiversity, scenic landscape or agricultural assets. The conservation values of the land must be identified in the schedule to the zone.

This zone provides for agricultural use provided it is consistent with the conservation of environmental and landscape values of an area. Any development allowed in this zone must be consistent with sustainable land management and land capability practices. Dwellings are permitted provided they meet certain requirements in relation to the protection of the values of the area and access to adequate services (such as road access, effluent disposal and water supply).

The Rural Conservation Zone is not currently applied in the Shire.

### 4.3 Strathbogie Shire Council

#### 4.3.1 Strathbogie Shire Council Plan 2007-2011

The Strathbogie Shire Council Plan contains the following vision for the community:

*“A vibrant, sustainable and developing community where people can pursue a wide range of interests and lifestyles in a secure environment. This will rely on us protecting our environment, enhancing our sense of community and strengthening our economic base.”*

As Council's over arching plan, the requirements of the Council Plan are reflected in all Council plans and documents. Within the Council Plan the Land Use Planning Objective is:

- To ensure that the Shire's land resources are used and developed in a manner that reflects social, environmental and economic benefits to those who live, work and visit the municipality.
- To manage the land to capitalise on our competitive advantage in land type, location, clean green environment, infrastructure, landscape values and lifestyle.
- To encourage the provision of amenity lifestyle living within rural areas through a strategic and planned approach. Where appropriate, ensure that rural land is used and developed in a way that will support efficient sustainable agricultural production.

This objective reflects the importance of ensuring rural land is used and developed in a way that will support efficient sustainable agricultural production and the importance of the rural landscape and associated high amenity and lifestyle values.

### 4.3.2 Strathbogie Shire Planning Scheme

The Strathbogie Shire Planning Scheme guides and regulates land use and development. Within the planning scheme there are a number of State Planning Policies that apply specifically to rural land across the state, and more detailed local planning policies.

#### 4.3.2.1 State Planning Policy Framework

Clause 12	Metropolitan Development (reference to regional Victoria)
12.03 Regional Cities – rural residential development	Control development in rural areas to protect agriculture and the natural resource base. Encourage further development in existing settlements and discourage isolated small lots in rural zones.
Clause 16	Housing
Clause 16.03 Rural living and rural residential development	Rural living zoned land should be located close to existing towns and urban centres, but not in areas required for fully serviced urban development, and be provided with appropriate infrastructure.  Land should not be zoned for rural living if it will encroach on high quality productive farmland or adversely effect waterways or other natural resources.
Clause 17	Economic Development
17.05 Agriculture	Protect the State’s agricultural base. Ensure productive agricultural land is not lost due to permanent changes to land use.
17.06 Intensive animal industries	Support their establishment and expansion provided they are consistent with orderly and proper planning and protection of the environment. Responsible authorities (Council) must have regard to the State Codes of Practice for cattle feedlots, piggeries and broiler farms.
17.07 Forestry and timber production	Councils should identify appropriate areas for this use. Forestry and timber production uses on Crown and private land are required to be consistent with the National Forest Policy Statement and relevant Codes of Practice.

#### 4.3.2.2 Municipal Strategic Statement

##### 21.01 Municipal Overview

The Municipal Overview notes that the Shire is currently experiencing pressure to develop rural land for lifestyle purposes. The expected growth if unplanned could have significant adverse impacts on the rural landscape, and the operation and ongoing viability of existing agricultural activity. The overview also notes that rural living and low density residential development is occurring in dispersed locations in an “ad hoc” manner throughout the Shire.

### 21.03-1 Settlement

Council aims to ensure that future residential growth and development is accommodated for in a planned manner. Furthermore, Council encourages residential uses in and around the main towns and intends to accommodate rural living opportunities in appropriate locations. Settlement objectives that directly relate to rural areas of the Shire include:

- To ensure future subdivision and development of housing in urban and rural areas is responsive to a demonstrated need, has the appropriate infrastructure and will not negatively influence the long-term sustainability of farming.
- To encourage rural residential development in a strategic and planned way, after appropriate investigations.
- To protect the environment and landscape views from inappropriate development.
- To protect agricultural land from urban encroachment.
- Support new housing in the Farming Zone only when it is in association with an agricultural use of the land

### 21.03-9 Economic Development (Strathbogie Special Use Precinct)

In support of agricultural investment, the Council has identified a large area of land north of the Hume Freeway, located between Euroa and Nagambie, for an agribusiness park. This area is referred to as the “Strathbogie Special Use Precinct” and has the potential to add to the number of agricultural enterprises which require large buffer distances and separation from residences. The agribusiness potential of this land will be further enhanced by the proposed Nagambie bypass.

Council believes that the Farming Zone which currently applies to the land does not fully support the proposed agribusiness park. Application of the Special Use Zone has been proposed to enable the development of agribusiness, transport/ freight related activity, and supporting industry, warehousing and services.

#### 4.3.2.3 Local Planning Policies

### 22.01 Housing and house lot excisions in rural zones

This policy applies to all land in the Rural Zones (Farming, Rural Activity, Rural Conservation and Rural Living). The objectives of this policy are to:

- Ensure that the development of dwellings and the excision of house lots are consistent with the purpose of the Zone and the utilisation of the land for sustainable use;
- Limit new house development on high quality agricultural land;
- Strongly discourage the development or subdivision of housing for non-rural purposes and ensure that dwellings excised or constructed on an excised lot do not prejudice rural production activities; and,
- Encourage consolidation of farm lots.

The policy basis states; *the development of houses at a density greater than is required for rural use of the land, facilitating housing excisions to meet hardship, retirement, superannuation requirements or asset transfer, is inappropriate and contrary to sustainable farm practices.*



### **22.03 Natural landscape protection**

This is a Shire wide policy that applies to applications for new buildings and extensions to existing buildings and any buildings and works on significant hilltops and ridgelines. The basis for this policy is the visual and environmental implications of development on these natural features. The objectives of this policy are:

- to protect areas of environmental and visual significance from inappropriate development
- to limit development on prominent ridges and hilltops
- to encourage the protection and revegetation of landscape features as an enhancement
- to contribute to the protection of the environmental qualities of hilltops and ridgelines
- to ensure that all structures blend in with the surrounding environment
- to ensure that the aesthetic amenity of the area is preserved and/or enhanced.

### **22.05 Intensive agricultural development policy**

This policy applies to areas marked A and B in the schedule to the Farming Zone. The objectives of this policy are to encourage traditional and emerging intensive agricultural activities and practices that:

- are ecologically sustainable
- incorporate best practice and management principles
- introduce diversity and productivity improvements
- assist in the development of value-adding enterprises.

### **22.06 Development in rural areas requiring buffer distances**

This Policy applies to land uses in the Farming Zone where buffer distance separations are required to protect the amenity of adjoining or nearby properties and land uses.

This policy recognises that there are a range of agricultural industries and developments that require buffer distances. The policy refers to a large area of the northern sector of the Shire (the proposed Strathbogie Special Use Precinct) under investigation because it appears to be particularly suited to enterprises requiring buffer distances. The development of this area for such uses will be dependent upon Council implementing a strategy to prevent the fragmentation of this area by subdivision and dwellings.

The objectives of this policy are:

- To provide for and encourage the location of land uses requiring buffer distances in the proposed Strathbogie Special Use Precinct.
- To limit the use, subdivision and development of land in this area such that it would compromise the opportunities available for siting land uses requiring buffers.

- To limit the use of other areas of the Shire for land use requiring buffer distances where they cannot meet buffer distance requirements and where it will compromise the use of high quality agricultural land.

### 22.07 Hume Freeway, Goulburn Valley Highway Environs

This policy applies to the use and development of land within 100 metres of the Hume Freeway, Goulburn Valley Highway and any Public Acquisition Overlay reserving land for a new alignment of the Goulburn Valley Highway. The objectives of the policy are to ensure that the use and development of land does not prejudice the levels of service, safety and amenity of the Hume Freeway and Goulburn Valley Highway and to minimise any adverse effects of noise from traffic using the Hume Freeway and Goulburn Valley Highway.

### 4.3.3 Rural Residential Strategy 2004

The Shire is increasingly coming under pressure to develop rural land for lifestyle purposes. In an attempt to address this issue Council developed and adopted a Rural Residential Strategy. The Rural Residential Strategy provides a clear strategy for Strathbogie Shire Council to address the current development pressures whilst protecting prime agricultural land and fostering sustainability throughout the region. The strategy identifies twenty priority areas throughout the Shire that require further strategic assessment. This additional assessment is required to determine whether the existing residential development, latent housing demand and suitability for further development is relevant for the twenty identified locations.

The Strathbogie Shire Rural Residential Strategy<sup>2</sup> identified the following key issues for the Shire in managing the rural area:

- the **potential for conflict** between rural-residential and productive uses, including within the proposed Strathbogie Special Use Zone for Food and Logistics
- **loss of landscape and rural amenity** through poorly managed rural development
- **foreclosing future options for urban growth** due to lack of strategic rural planning around the key townships of Euroa, Nagambie, Violet Town and Avenel
- **development drivers** that are difficult to predict and understand, and therefore difficult to accommodate within a Shire wide strategy
- **level of planning control** that can be exercised on existing titles, developments and areas is potentially limited and may undermine the overall strategy.

To align the Strathbogie Shire Planning Scheme with the Rural Residential Strategy, funds were set in the 2010-2011 annual budget to undertake investigations into the planning scheme amendments required for areas identified in the Strategy.

<sup>2</sup> *Strathbogie Shire Council & BECA (2004) Strathbogie Shire Rural Residential Strategy.*

#### **4.3.3.1 Euroa & Avenel**

Currently, of the twenty priority areas identified in the Rural Residential Strategy, Council are investigating Avenel and Euroa. Council is currently undertaking strategic planning work assessing in greater detail these areas where future low density or rural living development should occur. The strategic work developed to date has involved a broader assessment of residential development across the municipality within the Farming Zone.

#### **4.3.4 Avenel 2030 Strategy (2008)**

Avenel is located 128km to the north of Melbourne with a population of 728 (ABS census data 2006). The purpose of the Avenel 2030 strategy is to provide a long-term strategic framework and provide directions for future land use and development of Avenel.

Key industrial enterprises in Avenel and surrounding district include Chateau Tahbilk Wines, Eat More Poultry, Campbell's Mushrooms, Mangalore Airport and Plunkett's Wines. In addition to industry, Avenel is a "tree change" destination due to the close proximity to metropolitan Melbourne and larger regional centres. The rural landscape setting and low density character are appealing features.

#### **4.3.5 Proposed Special Use Zone - Strathbogie Agribusiness Park (SAP)**

Strathbogie Shire's strategic location in proximity to a number and variety of key transport infrastructure assets has been identified as providing the opportunity for the location of an agribusiness park to contribute to the economic development of the Shire. The potential of the area would be further enhanced by the proposed Nagambie bypass and also the regional rail services that would provide multi modal transport opportunities. In addition, Mangalore Airport has significant potential in providing a key link in the transport infrastructure to contribute to the success and efficient operation of the agribusiness park.

Application of the Special Use Zone has been investigated across an area of 437 square kilometres extending between Nagambie, Euroa and the Mangalore/ Avenel area to support development of the agribusiness part. Council is currently considering the final extent (area) and location of the proposed Special Use Zone which would be rezoned and developed in a staged manner. The area is currently Farming Zone which does not permit a range of activities such as a Transport Terminal (Road Freight Terminal), an integral part of the proposed use. The Special Use Zone will enable the development of agribusiness, transport/freight related activity, and supporting industry, warehousing and services.

#### **4.3.6 Strathbogie Shire Industrial Land Study, 2008**

The Strathbogie Shire Industrial Land Study identified a lack of industrial land within the Shire to support key local industries, including food and wine processing, transport and storage, construction and trades and service businesses. The strategy recommended rezoning of land around the towns of Euroa and Nagambie for industrial development. The strategy recommended consideration of the inclusion of light industrial uses within the agribusiness development near Mangalore to support industry at Avenel.

# 5. Agriculture

## 5.1 Overview

A total of approx 230,000ha of land is farmed in the Strathbogie Shire with around 700 farm businesses (ABS data, 2006). Livestock grazing is the predominant land use and the majority of agricultural businesses are involved in livestock grazing followed by cropping (Photo 5.1). Commercial forestry on private land is relatively insignificant.

**Table 5.1 Agricultural land use in Strathbogie Shire,**

Land Use		2006
Grazing land	Hectares	180,028
	Properties	621
Cropped land	Hectares	23,592
	Properties	280
Commercial forestry	Hectares	2,565
	Properties	24

Source: ABS data, 2006



**Photo 5.1 Cropping in Strathbogie Shire**

Total value of agricultural production in Strathbogie in 2006 was \$77million, slightly up from \$74million in 2001 (see Table 5.2 below). Agricultural production in Strathbogie is less than 1% of the gross value of production for Victoria. In comparison to the major irrigation municipalities of Moira, Campaspe and Greater Shepparton production from Strathbogie Shire is relatively modest but is on a par with other rural municipalities of similar size such as the Pyrenees which are dominated by a mix of dryland cropping and grazing.

Agriculture is one of the major industries within Strathbogie Shire. While manufacturing was the most economically significant industry with respect to value of production, in Strathbogie in 2001, most employment was within the agricultural sector (Table 5.3).

**Table 5.2 Gross Value of Agricultural Production in 2001**

Municipality	Gross Value of Agricultural Production (\$000)	% Employment in Agriculture
Campaspe Shire	\$420,467	19%
City of Greater Shepparton	\$411,942	12%
Moira Shire	\$398,205	22%
Benalla Rural City	\$52,014	10%
Mansfield Shire	\$26,751	7%
Mitchell Shire	\$34,451	5%
Murrindindi Shire	\$71,457	12%
Strathbogie Shire	\$73,998	20%
Pyrenees Shire	\$81,300	-

Source: Department of Primary Industries 2006

**Table 5.3 2001 Value of Production and Employment of Industries in Strathbogie**

Industry	Value of Production A		Employment B	
	\$million	% of total production	Job numbers	% of total employment
Manufacturing	\$97	30	490	13
Agriculture	\$74	24	924	25
Other	\$53	16	1160	32
Business services	\$41	13	189	5
Government / education	\$22	7	328	9
Tourism and hospitality services	\$17	5	149	4
Retail	\$15	5	424	12
Total	\$319		3,759	

Source: Australian Bureau of Statistics, Shire of Strathbogie website

## 5.2 Agricultural industries

In 2006, livestock production for meat from sheep, cattle and poultry was the most significant commodity in terms of value of production (Table 5.4).

Sheep and cattle continue to dominate the meat production sector. In 2001, cattle for beef had the highest gross value of production. In 2006, beef cattle were replaced by sheep, with the gross value of production of sheep for meat production doubling between 2001 and 2006. This stems from the higher than average lamb prices experienced over the same period.

While total sheep numbers fell between 2001 and 2006 (Table 5.5), incomes of sheep businesses generally increased (Table 5.6). Compared to 2001, a number of sheep businesses generated over \$1million in income in 2006. Over the same period, there was a small drop in wool production. It appears that the high lamb prices have driven a change in focus amongst some growers from wool to meat production. In contrast, the increase in value of production from beef appears to have come from an increase in the number of small beef business

Also of significance is the increase in the value of production of poultry slaughtered from just \$20,000 in 2001 to nearly \$7million in 2006. There are now a number of broiler businesses generating over \$1million per annum, compared to 2001 when there were only a few very small-scale businesses. At the same time, egg production decreased substantially both in terms of the value of production and in the number of eggs produced.

The value of production of crop production for grains has remained steady while pasture and crops cut for hay doubled between 2001 and 2006. The number of farm businesses producing hay and grain, the area planted to grains and the incomes of these businesses all increased between 2001 and 2006. This may reflect the strong demand for fodder associated with low water allocations from dairy producers in northern Victoria.

While the number of grape producers remained steady, incomes from grapes declined and the total value of production was nearly halved. In 2006, prices for wine grapes slumped associated with the worldwide glut of wine.

**Table 5.4 Gross value of Production of Major Industries in the Strathbogie Shire in 2001 and 2006**

Commodity	Gross Value of Agricultural Production 2001	Gross Value of Agricultural Production 2006
	\$000	\$000
Cattle slaughtered	\$11	\$16
Sheep slaughtered	\$10	\$19
Wool	\$15	\$12
Pigs slaughtered	\$3	\$4
Poultry slaughtered	\$0.02	\$7
Crops (cereals, legumes, oilseeds)	\$8	\$7
Grapes	\$7	\$4
Pasture and crops cut for hay	\$3	\$6

Commodity	Gross Value of Agricultural Production 2001	Gross Value of Agricultural Production 2006
	\$000	\$000
Fruit (excluding grapes)	\$2	\$0.7
Egg production	\$2	\$0.6
Vegetables	\$2	\$0.05
Milk	\$1	\$0.6
Total value of agriculture	\$74	\$77
Forestry	0	

Source:: ABS Ag Census 2006

**Table 5.5 Trends in Production and Property Numbers of Commodities in Strathbogie Shire**

		1986	1991	1996	2001	2006
<b>Sheep</b>	No of sheep	785,889	719,070		685,690	528,333
<b>Cattle</b>	No of cows	35,522	37,421	49,079	49,708	62,964
<b>Grapes</b>	Hectares	246	302	448	1,240	1,231
<b>Poultry</b>	Eggs (dozen)			889,700	1,265,531	425,319
<b>Grain</b>	Hectares	22,916	10,980	12,075	14,525	18,235

Source: ABS data, 2006

**Table 5.6 Properties by Income Range in 2001 and 2006 (ABS)\***

Commodity	Year	<\$100K	\$100 - \$200k	\$200- \$500k	\$500k - \$1mill	>\$1mill	Total
Sheep	2001	133	33	9			175
	2006	94	43	21	1	2	161
Beef	2001	105	13	4	1		123
	2006	162	20	11	1		194
Sheep/Beef	2001	87	31	7	2		127
	2006	52	36	12	3	1	104
Grain	2001	5	4	4			13
	2006	16	8	3	2	2	31
Grain/Grazing	2001	32	13	9	1		55
	2006	27	15	13	2		57
Grapes	2001	9	6	7	4	4	30
	2006	16	8	3	2	2	31
Pigs	2001			1		1	2
	2006			1		2	3



Commodity	Year	<\$100K	\$100 - \$200k	\$200- \$500k	\$500k - \$1mill	>\$1mill	Total
Poultry (eggs)	2001			1	1	1	3
	2006	1		1	1	1	4
Poultry (meat)	2001						0
	2006		1			2	3

Source: ABS Ag Census 2006

\*ABS changed the scope and coverage of collection of Agricultural Census Data in 2006 which has resulted in an overall increase in



**Photo 5.2 Viticulture in Strathbogie Shire**





**Photo 5.3 Poultry production in Strathbogie Shire**

## 5.3 Timber production

Timber production from plantations and native forest in the Shire is very small compared to total production from the North East Plantations Region (Plantations North East Inc 2002). Most production comes from softwood plantations located in the Strathbogie Ranges (Refer to Appendix A-4 Location of Timber Plantations and Native Forests in North East Victoria) producing sawn timber, panel products and pulp and paper from *pinus radiata*.

There is potential 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 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 overlooked.

**Table 5.7 Timber Production in Strathbogie Shire in 2001**

	Soft wood plantations	Hardwood plantations	Native forest	
			Public land	Private land
Strathbogie Shire	1,005	67	25,900	26,800
Total for the North East Plantations Region	64,468	3,272	1,567,700	307,500

Source: Department of Primary Industries, 2006

## 5.4 Equine industry

The Strathbogie Shire is now 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.

The thoroughbred industry is the key component of the local horse breeding industry and attracts substantial investment in stud operations. The majority of the state's commercial thoroughbred farms are located in the region; they include well known stallion farms Blue Gum, Swettenham Stud, Darley and Independent Stallions, as well as a growing number of commercial properties established as broodmare and yearling farms including Erinvale Thoroughbreds, Phoenix Broodmare Farm and Fulmen Park. The region employs several hundred people on farms at the height of breeding season.

There are around 60 horse studs and 80 other properties that were registered in the 2006 census as drawing most income from horse keeping and breeding. The numbers of studs has increased since 1997, but horse numbers have fluctuated, possibly reflecting the recent extended dry period.

Other equine pursuits in the Shire include training, standard breeds, pony club, eventing and carriage driving to highlight a select few.

The industry is supported by the National Centre for Equine Education with a Cluster Coordinator based in Euroa, the North East Thoroughbred Industry Alliance and the Goulburn Valley Equine Hospital in Shepparton.

The breakdown of horse properties by income range in Table 5.9, indicates at the industry is made up mainly of smaller business and many that would be a part time business with some other form of off-farm income.

**Table 5.8 Horse Businesses in Strathbogie Shire 1997 – 2006**

	Horse businesses (not studs)	Horse studs	Horse numbers
1997	74	35	1,596
2001	65	42	2,215
2006	83	63	1,855

Source: ABS Ag Census 2006

**Table 5.9 Horse properties by income range in 2001 and 2006 (ABS)**

Commodity	Year	<\$100K	\$100 - \$200k	\$200-\$500k	\$500k - \$1mill	>\$1mill	Total
Horses	2001	16	4	8			28
	2006	23	7	4		1	35

Source: ABS Ag Census 2006

## 5.5 Productive agricultural land

### 5.5.1 Agricultural capability

A key purpose of the Farming Zone is to encourage the retention of productive agricultural land. The VPP Practice Note on Applying the Rural Zones (DSE 2007) defines productive agricultural land as generally having 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 production.

A detailed analysis of productive agricultural land is beyond the scope of this project. However, a general analysis of agricultural capability based on available data sets is provided.

Detailed agricultural capability survey and mapping has not been undertaken for the Strathbogie Shire. RMCG undertook site specific agricultural versatility surveys of areas around the townships of Avenel, Nagambie, Strathbogie, Euroa, Violet Town and Goulburn Weir in 2005.

Beyond these areas, a description of soil landforms is available for the Goulburn Broken Catchment at 1:100,000 scale. Agricultural capability or versatility can be derived from this data and would be relatively broad and generalised. If this analysis is required it could be purchased from the data custodian, the Department of Primary Industries.

In the absence of more detailed data, a general assessment of agricultural capability is provided that utilises exiting data sets including the current land use, geology, slope and climate.

### 5.5.1.1 Current land use

Current land use is often a good indicator of the productivity of the land. The map in Appendix A-5 (Rural Land Uses in Strathbogie Shire) shows three broad areas of land use: irrigation adjacent to the Goulburn River and Lake Nagambie, dryland cropping and mixed farming on the plains and dryland grazing in the hills and ranges.

The majority of agricultural businesses in the Strathbogie Shire rely on rainfall for water. The southern tail of the Shepparton Irrigation Area, including the Goulburn Weir near Nagambie, lies within the Shire and supports a range of irrigated agriculture including viticulture and dairy.

### 5.5.1.2 Geology

The Map in Appendix A-6 shows the geology of the region. The hills and ranges are dominated by granodiorite/granites which often have shallow, sandy soils with low nutrient status and low water holding capacity.

The geology of the plains is dominated by the Shepparton Formation with soils that are generally deeper and varying in texture from clays to sandy clays with higher nutrient status and water holding capacity than the sandy soils in the ranges. The location of various types of agriculture broadly reflects this.



**Photo 5.4 Example of grazing on relatively flat plains**

### 5.5.1.3 Slope

The map in Appendix A-7 (Elevation) shows a higher density of contours, indicating steep and undulating land south of the Hume Highway, compared to the relatively flat plains north of the Hume Freeway.

### 5.5.1.4 Climate

Table 5.10 below, documents the rainfall and temperature data at two sites in the Shire; Mangalore, on the plains and Strathbogie in the ranges. The climate in the Strathbogie Shire varies markedly between the low-lying floodplains around Nagambie to the steep hills of the Strathbogie Ranges with the climate on the plains generally warmer and drier than the ranges. It is not uncommon for snow to fall on the ranges in winter.

Rain falls predominantly in winter and with higher temperatures and evaporation rates in summer, the growing season for non-irrigated crops and pastures will generally be between May and October.

**Table 5.10 Mean Temperature and Rainfall data for Mangalore Airport and Strathbogie**

Month	Mangalore Airport			Strathbogie		
	Mean maximum temp (°C)	Mean minimum temp (°C)	Mean rainfall (mm)	Mean maximum temp (°C)	Mean minimum temp (°C)	Mean rainfall (mm)
January	29.5	14.1	38.3	27.1	11.6	47.0
February	29.3	14.2	33.6	27.4	11.6	42.9
March	26.1	12.2	32.7	23.9	9.0	56.0
April	21.4	8.5	38.8	18.8	5.6	66.1
May	16.7	6.1	57.1	14.5	3.6	98.1
June	13.4	3.9	55.3	11.2	2.1	116.3
July	12.4	3.1	59.3	10.1	1.6	123.4
August	14.1	3.9	64.3	11.6	2.3	116.4
September	16.7	5.3	56.1	14.2	3.8	96.5
October	20.3	7.2	48.5	17.7	5.2	86.9
November	24.2	9.7	46.4	21.3	7.3	63.5
December	26.9	11.7	40.9	24.6	9.3	55.8
January	29.5	14.1	38.3	27.1	11.6	47.0
Mean annual temp (oC)	20.9	8.3		18.5	6.1	
Mean annual rainfall (mm)			570.0			967.8

Source: Bureau of Meteorology ([www.bom.gov.au](http://www.bom.gov.au))



### 5.5.2 Regional overview

Based on the combination of these four factors, the land in the Shire north of the Hume Freeway would be considered of better agricultural capability than land south of the Hume Freeway. Land that has access to irrigation would have the highest agricultural versatility with a wider range of crops that could be grown compared to the dryland areas.

From site visits it is known that there are areas south of the Hume Freeway which are very steep with significant areas of rocky outcrop. This land is considered marginal for agricultural activities, including grazing.

## 5.6 Future scenarios

This section of the report looks at the future of agriculture in the Strathbogie Shire drawing on recent analysis of socio economic change in wool production in Victoria and climate change impacts on agriculture and current initiatives in irrigation development.

### 5.6.1 Wool production

In the report Understanding Rural Victoria (Barr 2005) noted that the wool industry in Victoria:

- comprises older producers with an average age close to 60;
- comprises generally small producer farm businesses (two thirds of Victorian sheep farms have an estimated value of agricultural operations of less than \$100,000);
- has experienced declining terms of trade;
- has achieved minimal increase in productivity;
- has not been able to compete with other fibres;
- has experienced significant exodus of producers to other industries.

As a consequence, wool production in Victoria is now focused around Castlemaine, Kyneton, Heathcote and Strathbogie, mainly because this is the only feasible land use in these areas.

Currently, with sustained high prices for lamb, producers are moving to sheep production for meat, rather than wool with the value of production nearly doubling, in spite of a drop in sheep numbers. Under this scenario, the agricultural future of these areas is good.

However, if meat prices were to slump and income was dependent on wool production, the future use of this land (in Strathbogie Shire, this includes most of the steep hill country south of the Hume Highway) beyond the current generation is uncertain, as there will be few neighbouring farms capable of buying out retiring businesses and little economic incentive to attract new producers.



**Photo 5.5 Wool production in Strathbogie Shire**

### 5.6.2 Climate change

In 2004, the Victorian Government released regional climate change projections for Victoria's ten Catchment Management regions (DSE 2004b). The key elements of this forecast relevant to the Strathbogie Shire are presented here.

- It is predicted annual warming of 0.3 to 1.6°C by 2030 and 0.8 to 5.0°C by 2070.
- By 2030 it is expected that the number of hot days (over 35°C) will increase by 10% to 50% and by 2070 the number will increase by 200 to 400%.
- A 10% to 70% reduction in the number of frosts by 2030 and a 35% to 100% decrease by 2070.
- Rainfall in spring, autumn and winter is likely to decrease, however these decreases will likely be strongest in the spring. Precipitation changes in summer are uncertain.
- Annual precipitation decreases are likely - changes of +3% to -10% by 2030 and +10% to -25% by 2070. Seasonally, the following changes are projected for the region:
- With climate change, humidity is expected to decrease over most of Victoria. In summer and autumn, decreases of up to 3% by 2030 and 9% by 2070 are projected, with larger and more widespread decreases occurring in winter and spring.
- By 2090, the cloud cover is expected to decrease by 2 to 4% in summer and 4 to 6% in winter.
- Potential evaporation is expected to increase by 2 to 8% per degree of global warming.

- Runoff in the Goulburn Catchment is estimated to decrease by up to 25% and up to 35% in the Broken Catchment by 2030. By 2070 the decreases in both river systems is estimated to be 5% to more than 35%. Due to limitations in the model used to generate these projections, very large changes cannot be accurately quantified; therefore the upper range of projections in 2070 is uncertain.
- Soils are likely to be drier, even if the amount of rain received does increase.
- Extreme heavy rainfall events may be more intense.
- Hotter, drier conditions will increase bushfire risk. CSIRO estimates that combined frequencies of days very high and extreme forest fire danger index could generally increase by 4% to 25% by 2020 and 15% to 70% by 2050 for south eastern Australia. Similarly, days with very high or extreme Grass Fire Danger Index values could increase by 0% to 20% by 2020 and 5% to 40% by 2050.
- Droughts are likely to become more frequent and longer in duration. Dry conditions that currently occur on average one in every five years may increase up to one in three years by 2030.
- Due to hotter conditions, droughts are likely to become more intense.

The regional climate change projections also examine the potential impacts on primary production and notes the following:

*“Predicting the likely impacts of climate change on agriculture is difficult due to the complexity of interactions between climate and the environment. The impacts of climate change on crops and animals may be influenced by a range of factors, including their tolerance to increased maximum and minimum temperatures, moisture availability and tolerance of water stress, changes in exposure to pests, impacts of storms, and elevated concentrations of carbon dioxide. In addition to the direct impacts of climate change on agriculture, there is the possibility of indirect effects based on social and economic impacts as regional and international markets respond to climate change (DSE 2004b).”*

Identified areas of risk for the region include:

- Dryland grazing and broadacre cropping are likely to benefit from higher carbon dioxide concentrations, but these gains may be offset by the effect of higher temperatures. An overall negative impact on production is more likely if substantial rainfall decreases accompany the warming.
- Irrigated agriculture is very significant in the Hume region and includes cropping, dairy and horticulture. Likely reductions in overall water resources will reduce water volumes available for irrigation while at the same time higher temperatures and evaporation rates may increase crop requirements for water. These impacts will increase the need for more efficient use of water.
- Viticulture in the region will be affected by possible reductions in grape quality due to higher temperatures; however, there may be opportunities for new varieties better adapted to warmer climates.



The future of agriculture in Strathbogie will be strongly influenced by climate change, with reduced production in the grazing industries forecast. These scenarios may see grazing in the steep hills of the Strathbogie Range become less viable and a change in the cropping/grazing mix on the plains. Producers that have access to irrigation water will have more options available for production.

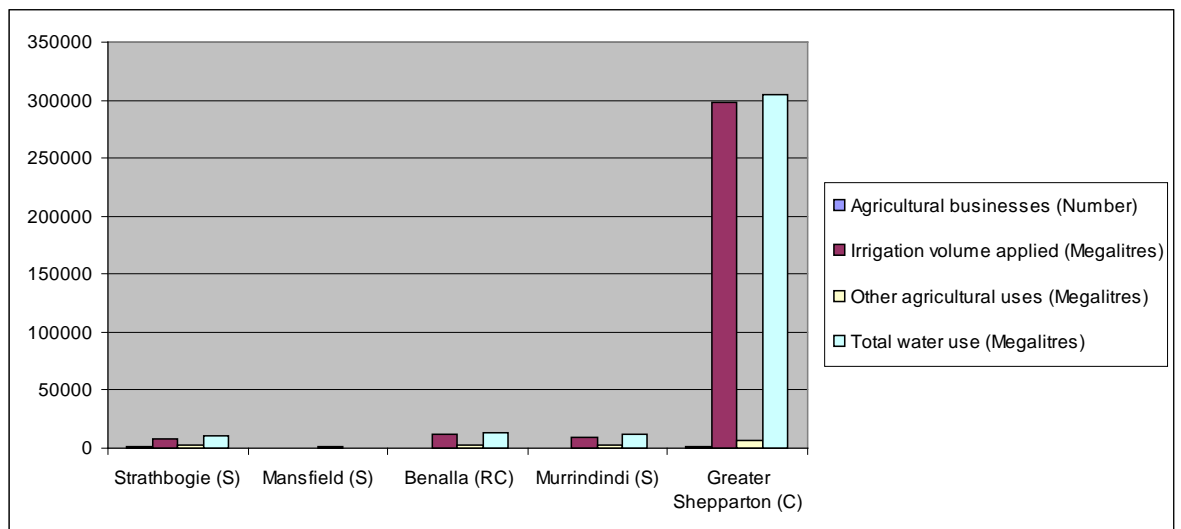
### 5.6.3 Irrigation future

Significant investment is planned for upgrade and modernisation of irrigation infrastructure in the Goulburn Broken catchment via the Northern Victoria Infrastructure Renewal Project (previously the Foodbowl Modernisation Project). Any benefits from this project flowing to Strathbogie are likely to be minor in the short term due to the limited extent of current irrigation development.

However, there may be opportunities for expansion of the irrigation area in the longer term driven by higher temperatures and evaporative water losses in the northern parts of the Goulburn Broken compared to the southern parts of the catchment. This may see a shift in production/irrigation areas from the northern to the southern parts of the catchment. Also, properties close to the irrigation water source will be at a strategic advantage compared to more remote land with more efficient delivery of water (fewer losses). This may see new or expansion of irrigation development closer to the irrigation source such as around the Goulburn River and Lake Nagambie in Strathbogie.

### 5.6.4 Irrigation extent

In the context of climate change and limited agricultural versatility within much of the Shire it is important to appreciate the current and possible future extent of irrigation within the Shire. These areas are likely to have a strategic advantage which could be reduced through inappropriate use and development that would compromise the provision of infrastructure and investment into areas suitable for irrigation. Currently less than 2 per cent of agricultural areas in the Shire are irrigated (Goulburn Valley Community Profile).



**Figure 5.1 Water Use on Australian Farms 2005-06 (selected Shires). ABS-4618.0 2008**

As demonstrated by Figure 5.1 the region is predominantly managed as a dryland area with Greater Shepparton benefiting from the existing irrigation schemes. Ensuring land use does not preclude opportunities for a flexible farming approach through appropriate management of non-agricultural land uses in the region remains an important objective for Strathbogie. Feedback during consultation highlighted the changes in seasons and good return for some cropping activities in areas of the Shire that have previously been too wet to farm during previous years. The impacts of climate change may result in a contraction of more intensive farming activity up the catchment and the ability for agricultural areas to respond to opportunities for investment related to irrigation or new forms of related agricultural enterprise should be recognised in land use policy.

### **5.6.5 Eco Services**

An emerging opportunity available to farmers and other rural land owners to enhance their return from their land as well as enhance the condition of their properties and the catchment, is eco services. Eco services involves being paid to manage aspects of the natural environment on their land. This payment may come from the Government, where they have identified particular natural assets that require protection and management, or private developers, who are required to protect and enhance stands of native vegetation to offset vegetation removed for development. Eco services may involve revegetation work, fencing and pest plant and animal management. Current programs include Bush Broker, Bush Tender and Eco Tender (not currently available in this region). Carbon storage is an emerging eco service that rural landholders may be able to use their land for.

## 6. Non-agricultural activities in rural areas

### 6.1 Rural Living

Rural living is the residential use of land in a rural setting. It can range from large lot residential development to part time and hobby farming.

Loss of agricultural land through subdivision for rural residential use or minimum forms of agriculture (e.g. hobby farms) or housing development on agricultural land is a significant threat to the long term value of agriculture within the Shire. Inappropriate subdivision and or development of high quality farming land is contrary to both State and local policy objectives that seek to maintain sustainable agriculture in the Shire. The growth of hobby farming and rural residential living within the Strathbogie Ranges has also created concern regarding the potential impact of forestry activities on residential amenity.

Rural living, however, is an important part of the lifestyle opportunity offered in the Shire, and appropriately managed and planned can play a role in the future sustainable development of the Shire.

The Rural Living Zone is not currently used in the Strathbogie Shire to provide for such land use. Rural living has occurred in a dispersed manner in the Shire largely through the more flexible approach of the former Rural Zone. A Rural Residential Strategy (see Section 4.3.3) has been completed for the municipality. The Rural Living Zone is generally to be applied in the rural areas, where the predominant use is residential, yet agriculture and other rural uses continue in the surrounding area. The twenty priority areas highlighted in the Rural Residential Strategy will be synthesised with further analysis of the existing operation of land subject to the Farming Zone. Euroa and Avenel have both received detailed analysis, with development plans being recently prepared.



**Photo 6.1 Rural living in Strathbogie Shire**

Recognising the value of farming property to the Shire’s economy, careful management is required to control speculation of rural properties as lifestyle or ‘residential’ areas. The Shire has made a commitment to the strategic management of Rural Living through development of the Rural Living Strategy and current Planning Scheme implementation of this strategy. The proliferation of excised titles or small lot subdivision within rural areas can have both positive and negative impacts (Table 6.1).

As outlined in Table 6.1, positive impacts from lifestyle farms can include diversity, greater rural population, increased land values and a focus on conservation outcomes. Conversely, negative impacts can include land use conflicts, rapid turnover of properties, less land used for production, loss of amenity and increased land values resulting in agricultural producers being unable to expand their operations. Small, part time farms cannot form the basis of an agricultural industry.

**Table 6.1 The social, economic and environmental value of small lifestyle farms (Source: Hollier & Reid, 2007)**

Indicator	Positive Impact	Negative Impact
Social	<ul style="list-style-type: none"> <li>▪ Breakdown in divide between urban and country dwellers</li> <li>▪ More people in some rural areas maintaining communities</li> <li>▪ Greater cultural diversity</li> <li>▪ New people, new skills, ideas and financial capital</li> <li>▪ Improved lifestyle for individuals within the community (in response to diversity, new business ventures)</li> <li>▪ Improved infrastructure to cater for population increase</li> <li>▪ Provide scenic attributes</li> </ul>	<ul style="list-style-type: none"> <li>▪ Loss of cultural heritage associated with traditional farming and farm life</li> <li>▪ Diminished cultural integrity (continuation of local culture and traditions)</li> <li>▪ Conflicts between values, attitudes, aspirations and practices of small and large farmers</li> <li>▪ Rapid turnover of properties eroding social capital in rural communities</li> <li>▪ Increased social tension</li> <li>▪ Increased pressure on services</li> </ul>
Economic	<ul style="list-style-type: none"> <li>▪ More diversified and resilient rural economies</li> <li>▪ Increased land values in certain areas</li> <li>▪ Flow-on wealth to landowners, real estate</li> </ul>	<ul style="list-style-type: none"> <li>▪ Fewer farmers leading to loss of agricultural production and agricultural income.</li> <li>▪ Rising land value of agricultural land limiting expansion of fully commercial enterprises</li> <li>▪ Inefficiency (It is generally recognised that economies of size accrue in farming)</li> </ul>
Environment	<ul style="list-style-type: none"> <li>▪ More people to undertake conservation work</li> <li>▪ Land planning</li> <li>▪ Attraction to nature and land stewardship ethic</li> <li>▪ Increased biodiversity due to more diverse land management practices</li> <li>▪ Act as buffers against urban encroachment</li> <li>▪ Lower intensity of land use</li> <li>▪ Greater reliance on conservation practices</li> </ul>	<ul style="list-style-type: none"> <li>▪ Smaller property sizes and higher population densities leading to increased environmental impacts (eg. Farm dams).</li> <li>▪ Difficulties in coordination of land management activities</li> <li>▪ Loss of amenity, urban sprawl</li> <li>▪ Lack of experience, knowledge, interest leading to poor land management of weeds, less awareness of pest and disease risk, less work on environmental problems like soil health</li> </ul>

Strathbogie is well positioned to provide a strategic approach to the management of Rural Living in the Shire as a result of their existing policy base and current planning scheme assessment. However, strength of policy is required to ensure that a process of ‘death by a thousand cuts’ does not occur through non agricultural development in Farming Zoned areas.



## 6.2 Tourism and recreation

Tourism in the Shire is largely focused around Lake Nagambie, incorporating the Rowing Regatta Centre. In addition to the lake attraction, another key tourist destination is a number of vineyards and wineries, some of which are heritage listed. Nagambie also offers sky diving and paragliding activities which are a draw card for the region and in close proximity to the Nagambie town centre. Council seeks to encourage sustainable tourism development in the Shire. The rural character of the Shire comprises small historic townships, the natural environment features including forested areas, landscapes and tourist operations and facilities.

### 6.2.1 Lake Nagambie

Lake Nagambie is a key tourist destination in the Shire and is 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.

The lake area is underutilised in relation to boating and jet ski activities, as evident by the existing number of operating licences. Goulburn-Murray Water has indicated of the possibility to further increase the number of licences issued for activities on the lake, to further encourage use of the lake and enhance its continued attraction. However, many tourism uses and activities are prohibited under the Farming Zone, including renting and hiring canoes and associated water equipment activities.



Photo 6.2 Lake Nagambie Regatta Centre

## 6.3 Extractive industries

There are a number of extractive industry operations in the Shire. There is a sand extraction operation to the west of the Avenel township and an existing quarry in Violet Town on the south side of the freeway. In addition, there is a current permit application for a quarry in Goorum. Under the Farming Zone, mineral, stone or soil extraction requires a planning permit.

## 6.4 Home-based industries

There are a number of home-based industries operating in the Shire. The Farming Zone prohibits industry, which includes all forms of manufacturing. However, if the business is classified as a “home occupation” and meets the requirements of Clause 52.11-1 of the Victoria Planning Provisions it is a use that does not require a planning permit in the Farming Zone. However, if relying on issue of a permit through Clause 52.11-2, the provisions of the Farming Zone prohibit home occupation which falls into the category of an innominate use in the zone. This modification to “innominate uses” in the Farming Zone is a significant restriction from the requirements of the previous Rural Zone.

The recently completed Industrial Land Study should address a lack of light industrial land within the shire, providing an option for such businesses.

## 6.5 Flexibility & structural changes

A key purpose of the Farming Zone is to encourage the retention of productive agricultural land. There is often a marked difference between the arrangement of titles and the management of farming properties across a number of existing titles. Assessment of subdivision arrangement in conjunction with farming tenements provides a useful means to understand the Shire’s rural areas capacity to change. As increasing pressure from world markets and the impacts of climate change continue to influence farming practices, the ability for flexibility in land management becomes paramount across rural areas. The impact of non-agricultural uses, including dwellings and other activities throughout primarily agricultural areas has the ability to fetter future agricultural activity.

The average farm size in the Shire in 2006 was over 300ha. This is the highest average in the entire Hume region. In contrast, the average farm size in Greater Shepparton was less than 150ha (DPCD, 2008:19) which is fundamentally as a result of the number of horticultural enterprises and irrigated areas. However, there is increasing pressure on Strathbogie due to its proximity to Melbourne, accessibility and relatively affordable areas of high rural amenity. Property size is potentially an important constraint on the capacity of land managers to adapt to changed circumstances. Research by Curtis et al. (2001) revealed that the proportion of land managed by small property owners within the Goulburn Broken Catchment was relatively small. Conversely a relatively small proportion of the landholders who responded to the survey owned most of the land. 77 per cent of land was owned by the 30 per cent of respondents with properties larger than 300 hectares. This research also revealed that only 15 properties surveyed reported a profit in excess of \$50,000 and the median property size for this group was 1,090 hectares. Survey data showed that 53 per cent of respondent’s properties were less than 150 hectares and that 70 per cent of respondents properties were less than 300 hectares. The same survey found that in 2001 total off-property income equated to \$11.7 million compared with \$3.3 Million on-property. This information suggests that there are few properties in the Goulburn Broken Catchment who operate as viable grazing or cropping enterprises without a reliance on ‘off farm’ income.

### 6.5.1 Landowners

Given the population of the Shire will be increasingly comprised of older age groups; we believe it is important to have a greater understanding of the role of people choosing the Shire as a lifestyle and retirement destination. Understanding what influences the choices of absentee landowners is also important given the relatively high number of non resident ratepayers in the Shire. This segment of the population was promoted as a significant driver of economic activity within the shire by some stakeholders during the first phase of consultation.

The proximity to Melbourne has made the Shire of Strathbogie a popular location for weekend retreats and the landscape has proven popular with those seeking a rural getaway. This has resulted in a relatively high level (17 per cent) of non resident ratepayers in the Shire. This compares to Mitchell (21 per cent), Campaspe (13 per cent), Shepparton (8 per cent) and Benalla (12 per cent). However the level of non resident ratepayers is not as high as Murrindindi (30 percent) or Mansfield (50 percent). An assessment of the spatial distribution of these properties demonstrates ownership from outside of the Shire is not concentrated to one area. Ownership along peripheral areas of the Shire boundary ownership is often related to adjacent or adjoining properties. This is particular the case in rural areas where farms or properties are managed as contiguous areas that do not reflect administrative boundaries such as the Local Government boundaries.

Mapping of ownership by residential postcode (Appendix B) demonstrates the broad coverage of owners from postcode locations outside of Strathbogie who own properties within the Shire. Predominantly ownership of land is concentrated to residents of the Shire (75%) with a broad representation across the State and Melbourne. Analysis of net migration by age highlights that the age cohort representing the largest inward migration to Strathbogie is 60 to 64 year olds. Between 2001 and 2006 approximately 100 people within this age cohort moved into the Shire. The combination of ownership patterns and inward migration suggests that a number of properties are lifestyle-farming enterprises for retirees and people with off-property work.

However evidence from research undertaken by Curtis et al (2001) suggests that the over 65 years age group are managing a substantial proportion of land (18 per cent) within the Goulburn Broken Catchment. This is consistent with 2006 census data which revealed that over 96 per cent of over 55's in the Shire are employed (ABS census data 2006) and the recognised average age of farmers within their 50's and 60's. A majority (63 per cent) of the over 65 years group surveyed believed that ownership of their property would stay within the family; however only 31 per cent of all respondents indicated that their family had agreed on a plan to manage the transfer of their property to the next generation. It is difficult to reconcile that successful family succession will occur without a plan, given the poor financial viability of many properties and the trend for younger people to move away from rural areas.



## 7. Environmental values

This section outlines environmental values of the Strathbogie Shire, as identified through a desktop study and consultation with the Strathbogie Shire Council and Goulburn Broken Catchment Management Authority. The desktop study encompasses the extent of Strathbogie Shire. It is based on an assessment of:

- The Commonwealth Department of the Environment, Water, Heritage and the Arts (DEWHA) [Protected Matters Search Tool](#) (accessed 05/05/2008).
- The Victorian Department of Sustainability and Environment (DSE) Biodiversity Interactive Map (accessed 05/05/2008).
- Aerial photography of the Shire.
- Documents from the Goulburn Broken Catchment Management Authority.

For ease of reporting, the identified environmental values associated with the Shire have been separated into four sections focusing on forests and parks, waterways, areas of remnant native vegetation and fauna species of significance.

### 7.1 Terrestrial values – forests and parks

Strathbogie Shire contains a number of forests and parks of significant ecological value. These include the Heathcote-Graytown National Park, Mt Wombat Garden Range Flora and Fauna Reserve and the Rushworth-Heathcote State Forests which make up part of the Bendigo Forest Management Area.

#### 7.1.1 Heathcote-Graytown National Park

The Heathcote-Graytown National Park covers an area of 12,833 Ha and is located within the western boundary of the Shire. Nine ecological vegetation communities (EVCs) are thought to be represented across the park, with Box-Ironbark Forest (77%) and Heathy Dry Forest (19%) being the most predominate (Parks Victoria 2008). The Bioregional Conservation Status (BCS) of the Box-Ironbark and Heathy Dry Forest communities is considered depleted and of least concern; respectively. In 2004 a study (Parkes et al. 2003) was conducted within the park to assess the quality of these major vegetation types. Findings from this study detailed limited understorey diversity and recruitment, limited numbers of old trees and limited ground habitat as compared to EVC benchmarks.

Wildlife within the Park is abundant with more than 186 native fauna species, of which 26 are deemed threatened (DSE 2006b). Threatened species include the Powerful Owl, Squirrel Glider, Brush-tailed Phascogale and Swift Parrot.

### 7.1.2 Mount Wombat-Garden Range Flora and Fauna Reserve

The Mt Wombat-Garden Range Flora and Fauna Reserve is approximately 1400Ha and located approximately 4.2km from the Strathbogie Township. The reserve supports six EVC classes, predominantly Grassy Dry Forests, Herb-rich Foothill Forest and Granitic Hills Woodland. The BCS of these communities is considered depleted, of least concern and vulnerable respectively.

Wildlife within the reserve includes the Threatened Powerful Owl and fish species supported by tributaries of Seven Creeks including the Macquarie and Pygmy Perch.

### 7.1.3 Rushworth-Heathcote State Forests

The Rushworth-Heathcote State Forests group includes a number of State forests located in the south west of the Shire including the Costerfield and Redcastle-Graytown forests. Box-Ironbark Forest is dominant within these communities and is considered depleted according to its BCS. The Rushworth-Heathcote State Forests support a range of threatened species including the Squirrel Glider and Regent Honeyeater (Slijkerman 2006).

## 7.2 Aquatic values - waterways

The Shire is contained within the Mid Goulburn Broken sub-catchment and is drained by rivers and creeks within the Goulburn and Broken Basins (Refer to the map in Appendix A-8 Rivers and Creeks). Tributaries of the Goulburn River within the Shire include Honey Suckle Creek, Sheep Pen Creek, Seven Creeks, Faithful Creek, Castle Creek, Creighton’s Creek and Pranjip Creek. Tributaries of the Broken River within Strathbogie are limited solely to Five Mile Creek, as the river forms the boundary in the north east corner of the Shire between Benalla Rural City Council and Greater Shepparton City Council.

Table 7.1 below indicates the stream condition index scores (SCI) for each river and creek section identified in the Strathbogie Plains. The SCI system incorporates information from a variety of sources and assigns indicative values in terms of overall stream quality using five categories including very poor, poor, moderate, good and very good. Although SCI categories are typically assigned to individual streams, the total sum of the average SCI scores for each stream segment identified in Table 7.1 indicates an overall rating within the “Good” category.

**Table 7.1 Index of Stream Condition Scores**

Stream Name	Hydrology	Physical Form	Streamside Zone	Water Quality	Aquatic Life
Goulburn River	NA	8	7	9	4
Broken River	NA	5	7	7	8
Honey Suckle Creek	9	5	5	NA	8
Sheep Pen Creek	10	4	3	NA	NA
Seven Creeks	8	5	4	NA	8
Faithful Creek	10	5	3	NA	NA

Stream Name	Hydrology	Physical Form	Streamside Zone	Water Quality	Aquatic Life
Castle Creek	6	6	5	8	8
Creighton's Creek	10	7	5	NA	8
Pranjip Creek	10	7	5	NA	NA
Average	9	6	5	8	7

Source: Goulburn Broken Catchment Management Authority, 2005

The primary physical threat towards rivers and streams within the Shire is stock access, which has the potential for causing severe erosion and water contamination. Other threats to creeks and rivers within the shire include flow deviation and exotic fauna, unlimited access and unauthorised works by landowners.

Major lakes within the Shire include Reedy Lake, and the Goulburn Weir, which forms Lake Nagambie. The Goulburn Weir supplies water to the Shepparton Irrigation Area through a series of gravity-driven channels.

### 7.3 Remnant native vegetation communities

The most extensive remnant vegetation within the Shire remains on soils too steep to farm, or in forests and parks set aside for timber production or conservation (Refer to the map in Appendix A-9 Ecological Vegetation Groups).

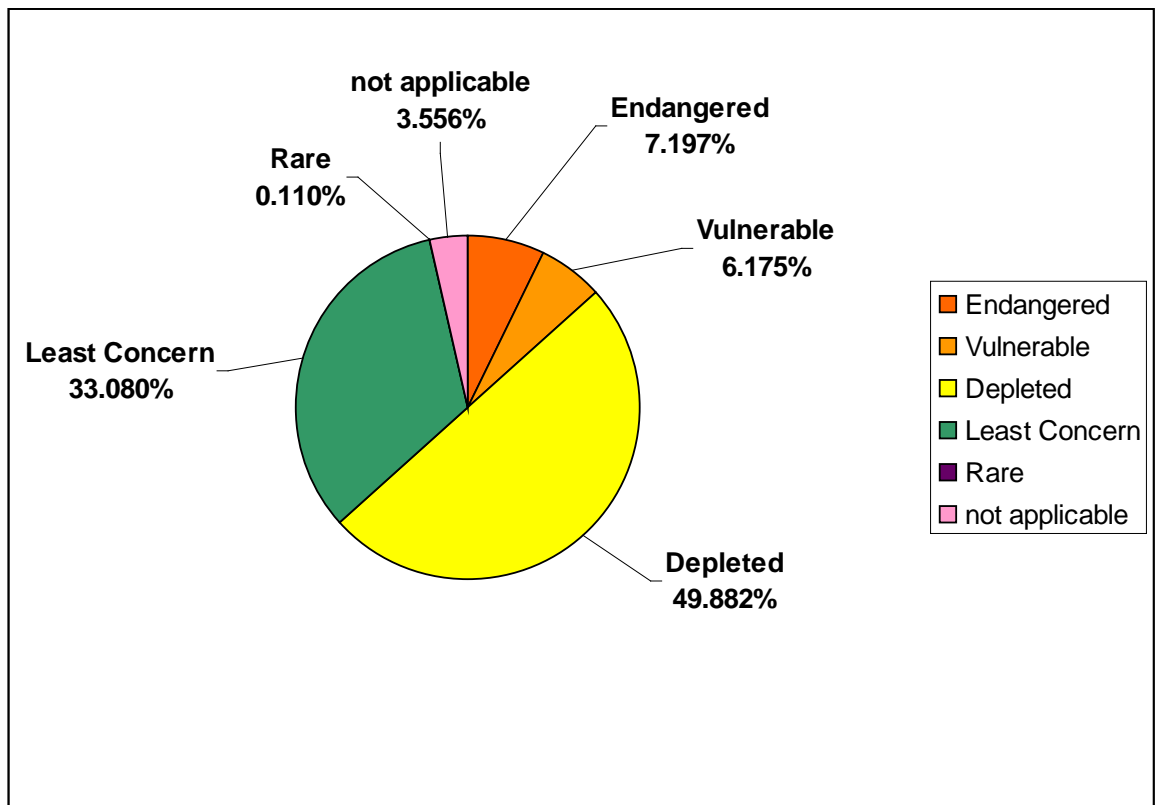


**Photo 7.1 Examples of Remnant Native Vegetation within Strathbogie Shire**

Mapping of EVCs – specifying the extent and type of indigenous vegetation – shows that approximately 27% of the Shire is covered by native vegetation.

The map in Appendix A-9 (Ecological Vegetation Groups) illustrates the diversity of EVC groups found within the shire. A total of 52 EVC classes occur, with Dry forest (EVCs 20, 22, 47, 176, 241, 174, 23, 21, 248, 268) Plains Woodland or Forest (EVCs 55, 235, 287, 803) and Riverine Grassy Woodland or Forest (EVCs 56, 68, 168, 255, 256) groups being most dominant. The areas of highest EVC concentration are found in the south east and western extents of the Shire.

Figure 7.1 below details BCS percentages of the total EVC area found within the Shire. As indicated, almost half of the EVC area is considered depleted. Endangered EVCs have an area percentage of approximately 7% and are found scattered throughout the fragmented farming landscape and along riparian systems. (Refer to Appendix A-10 Bioregional Conservation Status).



**Figure 7.1 Bioregional Conservation Status of Ecological Vegetation Communities**

The Protected Matters Search Tool is a database maintained by DEWHA that identifies potential ‘matters of national environmental significance’ of a particular study area (e.g. threatened species & communities, Ramsar Wetlands, Commonwealth Land). This tool is not site specific and the data provided is in general terms only.

A search of the DEWHA’s Environment Protection and Biodiversity Conservation Act Protected Matters Search Tool (05 May 2008) indicated the potential for four threatened plant species (Table 7.2).

**Table 7.2 Plant Species of Significance Recorded within Strathbogie Shire**

Scientific name	Common name	Status	Type of presence
<a href="#">Amphibromus fluitans</a>	River Swamp Wallaby-grass	Vulnerable	Species or species habitat may occur within area
<a href="#">Brachyscome muelleroides</a>	Mueller Daisy	Vulnerable	Species or species habitat may occur within area
<a href="#">Glycine latrobeana</a>	Purple Clover, Clover Glycine	Vulnerable	Species or species habitat may occur within area
<a href="#">Hibbertia humifusa subsp. erigens</a>	Euroa Guinea-flower	Vulnerable	Species or species habitat may occur within area

Source: DEWHA's Environment Protection and Biodiversity Conservation Act Protected Matters Search Tool

Search results also indicated two Nationally Threatened Ecological Communities that may exist within the Shire.

### 7.3.1.1 Buloke Woodlands of the Riverina and Murray-Darling Depression Bioregions (Endangered)

The scattered range of the Buloke Woodlands extends across the northern half of the Shire, encompassing the Violet Town, Nagambie and Longwood townships.

Within the Shire the community is most likely a component of the Grassy Woodland/Plains Grassy Woodland Complex (EVC 274) and Grassy Woodland (175) communities. An overview of the condition of remaining Buloke Woodlands provided by DEWHA states:

*“The woodlands have been extensively cleared in the past, and the remnants that survive face ongoing major threats from incremental clearance, grazing by rabbits and stock, invasion by exotic plants, weedicide application and fertiliser drift. The community is poorly represented in conservation reserves throughout its range”.*

### 7.3.1.2 White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (Critically Endangered)

The scattered range of this community is significant and encompasses the Shire extending north into Queensland along the western slopes and tablelands of the Great Dividing Range and as far inland to Swan Hill.

Within the Shire the community is most likely a component of the Valley Grassy Forest (EVC 47), Plains Grassy Woodland (55) and Grassy Woodland (175) communities.

An overview of the remaining community provided by the DEWHA states:

*“Data from Victoria shows that the Ecological Vegetation Classes containing this ecological community have been heavily depleted, with only 6% of the original, pre-1750 distribution remaining. As this ecological community tends to occur on fertile soils, it has been preferentially cleared, and is highly modified through grazing where it remains”.*

Weeds are a significant threat within the shire. They include many grasses such as Parramatta Grass (*Sporobolus africanus*) and Mullumbimby Couch (*Cyperus brevifolius*) and plants introduced for pasture cover or ornamental purposes such as Patterson's Curse (*Echium plantagineum*), Blackberry (*Ribes fruticosus*) and English Broom (*Cytisus scoparius*).



## 7.4 Fauna species of significance

A search of the DEWHA's Environment Protection and Biodiversity Conservation Act Protected Matters Search Tool (05 May 2008) indicated the potential for 14 threatened species of fauna (five birds, one frog, one insect, three ray finned fish, two reptiles and two mammals) within the Shire (Table 7.3). Again this tool is not site specific and the data provided is in general terms only.

**Table 7.3 Significant species of fauna recorded within Strathbogie Shire**

Scientific name	Common name	Status	Type of presence
<b>Birds</b>			
<a href="#">Lathamus discolor</a>	Swift Parrot	Endangered	Species or species habitat may occur within area
<a href="#">Pedionomus torquatus</a>	Plains-wanderer	Vulnerable	Species or species habitat may occur within area
<a href="#">Polytelis swainsonii</a>	Superb Parrot	Vulnerable	Species or species habitat may occur within area
<a href="#">Rostratula australis</a>	Australian Painted Snipe	Vulnerable	Species or species habitat may occur within area
<a href="#">Xanthomyza phrygia</a>	Regent Honeyeater	Endangered	Species or species habitat likely to occur within area
<b>Frogs</b>			
<a href="#">Litoria raniformis</a>	Southern Bell Frog	Vulnerable	Species or species habitat may occur within area
<b>Insects</b>			
<a href="#">Synemon plana</a>	Golden Sun Moth	Critically Endangered	Species or species habitat likely to occur within area
<b>Ray Finned Fish</b>			
<a href="#">Maccullochella macquariensis</a>	Trout Cod	Endangered	Species or species habitat likely to occur within area
<a href="#">Maccullochella peelii peelii</a>	Murray Cod	Vulnerable	Species or species habitat may occur within area
<a href="#">Macquaria australasica</a>	Macquarie Perch	Endangered	Species or species habitat may occur within area
<b>Reptiles</b>			
<a href="#">Aprasia parapulchella</a>	Pink-tailed Worm-lizard	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Delma impar</a>	Striped Legless Lizard	Vulnerable	Species or species habitat likely to occur within area

Scientific name	Common name	Status	Type of presence
<b>Mammals</b>			
<a href="#">Dasyurus maculatus maculatus</a>	Spot-tailed Quoll	Endangered	Species or species habitat may occur within area
<a href="#">Pseudomys fumeus</a>	Smoky Mouse	Endangered	Species or species habitat may occur within area

Source: DEWHA's Environment Protection and Biodiversity Conservation Act Protected Matters Search Tool

The Goulburn Broken Catchment Management Authority Biodiversity Status and Condition Report (2007) studied the population trends of 55 threatened species within the Goulburn Broken Catchment. Conclusions from this study indicate the majority of threatened populations within the catchment are static, with very few believed to be increasing. Table 7.4 below indicates the changes in threatened species populations.

**Table 7.4 Population Trends of Threatened Species in the Goulburn Broken Catchment**

	Unknown	Declining	Static	Improving	Total
<b>Model Confidence</b>					
<b>Low</b>		6	12	0	
<b>Medium</b>		3	6	4	
<b>High</b>		8	7	3	
<b>NA</b>	6				
<b>Total</b>	6	17	25	7	55

Source: GBCMA, 2007.

## 8. Cultural heritage assessment

### 8.1 Summary

A number of Aboriginal and European culturally significant areas have been identified within Strathbogie Shire. European areas of cultural significance are diverse in nature and range from bridges through to schools and historic mining sites. The variety of areas of Aboriginal significance is similar in diversity and particularly concentrated around lakes, and regions of natural resource prosperity including riparian areas.

### 8.2 Discussion

A desk-top review was undertaken for the shire; the assessment included the following:

- a search of Heritage Victoria, Victorian Heritage Register (Search: Strathbogie)
- a search of the DEWHA's Protected Matters Search Tool for listed "World Heritage Sites"
- a search of Strathbogie Shire Councils' Sites of cultural heritage significance dataset.

A search of the Victorian Heritage Register for registered heritage sites located in 'Strathbogie' returned 76 results. The results included the following:

- Strathbogie Aerial Navaid, Polly McQuinns Road, Strathbogie
- Kirwans Bridge, over Goulburn River
- Euroa Court House, 99 Binney Street, Euroa
- Camerons Saw Mill, Reedy Lake State Forest, Bailieston
- Royal Mail Hotel, 1 Henry Street, Avenel

See Appendix A-11 Areas of Cultural Significance.

The map in Appendix A-12 (Indigenous Heritage Sites) illustrates Aboriginal cultural heritage sites for the Strathbogie Shire as adapted from plans created by Aboriginal Affairs Victoria (March 2006).

Aboriginal features predominately comprise scarred trees (83) and artefact scatters (69), however other features throughout the shire include aboriginal places (2), shell middens (1), art sites (2), grinding grooves (1), mounds (4), quarry/stone sources (1), rock wells (1) and sub-surface cultural deposits (1).



## 9. Community consultation and engagement

### 9.1 Community sessions

The consultation phase for the Farming Zone Review was conducted over five days in September and early October 2008. Community consultation sessions were conducted in Nagambie, Euroa, Strathbogie, Violet Town and Avenel. In addition, two focus group workshops were conducted with land management agencies, real estate agents and surveyors.

**Table 9.1 Community consultation sessions 2008**

Date	Location
Wednesday 17th September 6:30pm	Violet Town Community Hall, Violet Town
Wednesday 17th September 7:00pm	Avenel Memorial Hall, Avenel
Tuesday 30th September 7:00pm	Strathbogie Memorial Hall, Strathbogie
Tuesday 30th September 6:30pm	Regatta Centre, Nagambie
Wednesday 1st October 6:30pm	Euroa Community Conference Centre, Euroa

Community sessions were well attended with 104 people participating across the Shire, with average meeting sizes of approximately 20 people.

Following a short presentation by the consultants, participants were invited to engage in a workshop process in small groups. The workshop process was facilitated by the consultant team who ‘floated’ amongst participant tables and assisted with discussions. Data from the conversations was collected by a nominated scribe on each table.

Facilitated discussions at the consultation sessions focussed around the values and assets that the residents enjoy within the Strathbogie Shire and any constraints to their operations and activities. Additionally, the residents were asked to consider the future opportunities for the Shire.

The main themes of the consultation sessions are discussed below:

#### Assets and values

Many residents had similar views on the assets and values of the Strathbogie Shire. Numerous respondents highlighted the value of **water** in the region, the landscape and natural environment including **flora and fauna, ecosystems** and local **rivers and creeks**. In addition many said the lack of traffic leading to peaceful and quiet surrounds is a value of the area leading to a great lifestyle.

Two industries of the region were regarded as assets, being the **equine industry** and **farm tourism** which is enhanced by the proximity to Melbourne including both the freeway and railway services.

## Opportunities

Farming was a future opportunity discussed in all of the community consultation sessions. Many identified **farming** as a key component of the Shire and ongoing opportunities should continue to provide primary produce with the assistance of farmer's rebates.

Intensive animal industries and odour was a topic that was discussed a number of times. It was suggested that **buffer distances** for offensive industries should be included in the property boundaries. In addition, it was suggested that intensive animal industries should not be permitted to expand because of health & odour issues, and potential **conflict with tourism activities**.

**Tourism** was a component of the Shire which was discussed by many in the context of both an asset and further opportunity. Many participants regarded tourism as a good industry that should continue to expand as it provides large employment numbers for the region. Some participants highlighted ecotourism as a particular industry that holds potential opportunities for the region. A number of other industries that were suggested for future growth were the **equine, wine and cottage industries**. In addition to the existing industries it was suggested that there is potential opportunity to harness and use **new technologies** by using biomass electricity generation and solar power operations for a reduced environmental impact.

The **environment** is also a key feature of the region and many commented that it is important to balance the residential growth with the environment to ensure that the landscape is not compromised and ensure that housing is developed in clustered settlements.

The Shire's **proximity to Melbourne** was regarded as a great feature and the projected growth of region is a fantastic opportunity to ensure there are more adequate trains and public transport infrastructure. With the projected increase in population it is also required to improve the associated services, particularly the **medical services**. Other potential opportunities were to ensure that there are Landcare and DPI representatives in the region to ensure consultation is conducted in relation to future developments in the Shire.

## Constraints

The future of **water** in the Shire was a large concern raised at all of the consultation sessions. There is concern over the existing water supply, lack of water and dams resulting in water not flowing downstream, a lack of rain and concerns about **climate change** and the environmental impacts.

Interestingly, some farmers reported higher yields from paddocks that were once too wet to crop. This anecdotal evidence is aligned with climate change projections for cropping in the Goulburn Valley. Cropping is expected to contract further up the catchment in a response to low water allocations and increased evaporation.

Again, farming was a large feature of the constraints discussion, including the restrictions placed on farms, the notion of the right to farm, concerns of **farm viability** and the uncertain future of farming. Many raised the issue of money associated with farming and highlighted that selling farms is often for the owner's superannuation and therefore stressed the importance to get a good return. In light of the importance to gain a good return from the farm sale, it was mentioned numerous times that the existing minimum lot size for subdivision is too restrictive.

**Buffer distances** from offensive uses was a concern raised by many, particularly broiler farms and suggested that the buffer distance should be incorporated within the property boundaries.

**Infrastructure services** in the region was raised a number of times and the fact that limited and unsatisfactory services do affect farming and dwellings. The deterioration of infrastructure in the Shire is of concern, particularly with an increasing population in the region. It was stressed that decent infrastructure should be provided to continue to attract people to the area. The safety and maintenance of roads and bridges is also of concern and the lack of government funding to ensure the roads and bridges are maintained and safe.

The road connectivity to Melbourne is an important link to the Shire. However, many urged the need for enhanced **public transport** due to the increasing population as well as the increasing fuel and transport costs.

## 9.2 State government agencies

A consultation session was held on Wednesday 1st of October in Euroa with State Government agencies including VicRoads, Department of Planning and Community Development, Department of Sustainability and Environment and the Environmental Protection Authority. The feedback from this session was relatively positive, with discussion around possible constraints in the future.

Many officers appreciate the diversity within the Strathbogie Shire, including the plateaus, high amenity, access to Hume Freeway, water and air quality and diverse biodiversity to name a few.

The constraints and negative aspects of the region include: lack of services, rising cost of petrol and insufficient train services, pressure on growth towns such as Nagambie, lack of access to and crossing the Hume Freeway, limited access to water, weed problems, old inappropriate subdivisions, buffer distances, rising rate costs affecting farm viability and natural physical constraints.

The land managers discussed the Native Vegetation Management Framework, Regional Catchment Management Strategies, Bushbroker schemes and other policies and strategic tools to positively influence many sectors of the Shire in the future.

## 9.3 Real estate agents and surveyors

A consultation session was held on Wednesday 1st of October in Euroa with a number of land surveyors and real estate agents. The real estate agents session was largely focused around farm viability, the demand for farms and properties and a few of the key components attracting people to the region. Positive aspects of the area were tourism as it is a great attraction, the distance from Melbourne and regional areas such as Shepparton, lifestyle and the hillside nature of towns. A lot of the discussion with the real estate agents focused on the current markets and supply of and demand for farming properties in the region. Indication was given that there is demand for properties, generally from Melbourne investors, often looking for a second home. Some of the constraints mentioned were the Farming Zone is too restrictive, incorrect titles stating roads that actually don't exist, lots around the bypass are too small, farmers have limited income and financial resources.

General comments from the real estate agents were that people are just sitting and waiting, not selling or subdividing and there is no demand for farm land. In addition, it was stated that farmers had a lack of education about the planning process in particular whole farm plans, and there needs to be more flexibility in the Farming Zone.

## 9.4 Individual written submissions

In addition to the community consultation sessions a number of individuals made submissions. These submissions are summarised below.

Submission Number	Values of Shire	Concerns	Opportunities
1	Need to protect water, environment, native animals, lifestyle	Rural land use planning controls need review  Intensive industries damaging amenity	Carbon capture  Boutique tourism  Contain intensive factory farming
2	Value rural identity and agricultural enterprise	Need to remove planning restrictions on community activities  Noxious activities should not reduce the amenity of the area and substantial buffer distances are required	Increasing population, but lot size requirements may impact this opportunity  Potential for new industries
3	Environment, high quality water, roadside vegetation	A fair and transparent system, don't develop on sensitive areas, ensure environmental services such as water catchments, threatened species are protected and visual amenity and passive recreation	High value viticulture and horticulture, nurture sensitive areas
4		Loss of land due to Nagambie Bypass, potential for RLZ near Bypass route	Continue farming in the area and preserve water
5	Soil and water	Inconsistent building controls	Wind farms
6	Agriculture enterprise		

## 9.5 Discussion

### Tourism

Throughout the consultation sessions, tourism was considered a significant opportunity and one to pursue in the future to continue to expand this industry and attract people to the Strathbogie Shire. This opportunity could be assisted by the sustainable application of the Rural Activity Zone and designating areas around the Nagambie Lakes for future tourism uses and development.

## **Location**

The Strathbogie Shire is located in an excellent position, in terms of access from Melbourne but also regional centres such as Shepparton. Many discussions at the consultation sessions focused on the future opportunities to draw people from these areas to visit and possibly stay in the Strathbogie region. The area is serviced by the Goulburn Valley Highway and the Hume Freeway, as well as train services.

The strategic location of the Shire has long been recognised. Increasingly this feature will highlight future opportunities for the Shire, including: sustainable lifestyle opportunities; management and maintenance of areas with rich biodiversity and the appropriate management of agricultural industries in a rural location with excellent accessibility to both metropolitan areas as well as regional centres. The V-Line train service from Melbourne connects Avenel, Violet Town and Euroa to Wangaratta and Wodonga and interstate services. The train service to Shepparton branches from Seymour.

## **Buffers**

The Strathbogie Shire has a number of intensive uses which require significant buffer distances in accordance with relevant Codes of Practice. Currently under the Strathbogie Planning Scheme Clause 15 generally provides reference to required buffer distance whilst Clause 52.10 details the required threshold distances for a range of uses. The buffer distance does not have to be included in the subject site; the distance applies from the location of the intensive industry to the neighbouring property boundary. As raised in a number of the consultation sessions many residents want the buffer distance to be included entirely on the subject property.

## **Environment**

The preservation of the environment was a key consideration mentioned by many of the attendees at the consultation session. The flora fauna and biodiversity of the area were considered values and assets of the area that need to be preserved in the future. This can be achieved by appropriate planning zoning, and overlays, and ensuring there are conservation areas that are protected from development to ensure this key feature of the Shire remains.

## **Energy**

The environment was considered a large concern by many and one aspect that was focused on was potential energy improvements in the Shire. This included using solar power and biomass generation.

It is understood that there are future plans in Victoria to develop solar power facilities. It is not known whether there are any future plans or potential to develop such a facility in the Shire. Future discussion around investment and energy related activities in the Shire could harness the potential for renewable energies. This would have significant environmental benefits also for the numerous industries operating in the Shire.

## **Other issues**

While all issues were documented during the consultation, some of the discussion was outside the scope of the Farming Zone Review, for example, weekend medical and ambulance services.

## 10. The Strategy

### 10.1 Sustainable, productive and resilient

This project arose out of an understanding by the Council and community that the broad application of the Farming Zone across the rural land in the shire was not responsive to the needs, opportunities and aspirations of all areas. This project sought to consider whether the use of the full range of the rural zones would deliver a more sustainable outcome for the community.

The future of the Strathbogie Shire rural areas reflects the diversity of landscape, natural assets and strategic location. Positioned at the axis of many development forces and economic trends both within and outside the local government area, the alignment of land use across the municipality requires an integrated rural land use strategy that recognises the need for balance between sustainable land management, production and rural activity objectives. The protection and enhancement of rural areas will also assist in strengthening and improving opportunities for access to services, movement of people and management of natural resources through contributing to a strategic approach to population settlement.

This strategy proposes that Strathbogie Shire will remain fundamentally a rural shire with an agricultural future. Agricultural production totalled approximately \$77M in 2006 representing over 20% of employment within the Shire, the largest employment sector. Structural modification over time is anticipated within Strathbogie Shire as the effects of climate change and opportunities for further irrigation develops in the long term. As such land needs to be set aside and protected for agricultural growth and development through use of the Farming Zone.

In addition to recognising that agriculture will play a significant role in the future of the Shire, the strategy recognises the value of other rural land uses such as tourism, and the important environmental assets of the Shire. The Farming Zone does not sufficiently provide for these other values.

The Farming Zone is focussed on the promotion of agriculture and rightly seeks to minimise non-agricultural related uses and developments. Rural land uses, such as tourism operations, have minimal ability to establish and operate within Farming Zoned areas. Further, there is an inherent incompatibility between the objectives of the Farming Zone that relate to agricultural production and the protection of environmental values.

Strathbogie Shire has established a reputation for its wine and horse breeding industry. It is considered that use of the Rural Activity Zone can promote the ongoing development of these industries as it allows for a broader range of commercial uses that are compatible with agriculture and the rural landscape. Application of the Rural Activity Zone can support the clustered development of these industries, and related retail, hospitality and service industries in appropriate locations with necessary infrastructure.

Strathbogie Shire also includes significant environmental features that contribute to the character and amenity of the Shire, as well as the viability of many rural activities such as agriculture. The Rural Conservation Zone provides the opportunity to specifically identify and protect areas with environmental values and functions.

## 10.2 Policy to match a diverse landscape

Research and analysis suggests that the Farming Zone remains the most appropriate rural zone for the majority of the rural areas within the Shire to support agriculture. However, there are a number of changes to the current application of the Farming Zone that should be considered to support the strategy of a diverse rural area. In broad terms these are:

- application of the Rural Conservation Zone west of the Goulburn River;
- application of the Rural Activity Zone in areas with potential tourism and equestrian related uses;
- application of the Rural Living Zone in accordance with the adopted Rural Residential Strategy.

In addition, appropriate zoning should be applied to ensure an appropriate interface between rural areas and towns.

## 10.3 Farming areas

Agriculture is a key economic driver of the Strathbogie economy and provides significant employment opportunities. Animal production for meat continues to underpin the agricultural industries with sheep dominating the sector on the back of sustained high prices for lamb. Broiler production has emerged as a valuable new sector.

The performance of agricultural businesses in the Shire in recent years, particularly with below average rainfall has been excellent. In particular, businesses have capitalised on high grain and meat prices to boost income. Grape production has been impacted by low grape prices, but production has remained steady.

The land in the Shire north of the Hume Freeway is considered of better agricultural capability than land south of the Hume Freeway, particularly the steeper rocky areas of the Strathbogie Ranges and commensurate land uses should be encouraged in this area.

The future of agriculture in Strathbogie will be strongly influenced by climate change, with reduced production in the grazing industries forecast. These scenarios may see grazing in the steep hills of the Strathbogie Ranges become less viable and a change in the cropping/grazing mix on the plains. Producers that have access to irrigation water will have more options available for production. There may be opportunities for new or expansion of irrigation development on the back of upgrade and modernisation of irrigation infrastructure in the Goulburn Broken catchment and a shift in production/irrigation areas from the northern to the southern parts of the catchment driven by climate change.

Flooding issues associated with the river flats largely limit development options other than agriculture.

The Strategy recommends the application of the Farming Zone in the areas with a primarily agricultural future, in particular north of the Hume Freeway and some areas south of the Freeway. The Farming Zone will limit other land uses in these areas, and allow for agricultural uses to prevail.



The area north of the Hume Freeway holds significant prospects for broadacre cropping and grazing and intensive agriculture, and potentially in the future, the opportunity for expansion of the irrigation area from the Goulburn Valley. The value of this area is in the soil type, topography, size of lots, limited non agricultural development and access to infrastructure.

The area south of the Hume Freeway will continue to be used for grazing, as well as some cropping. The hills area also has value for viticulture and other smaller scale and specialised farming operations.

Similar to subdivision and dwelling development, house lot excisions also pose a threat to agricultural prospects of an area through introducing a non farming use, and potentially creating the need or opportunity for another farm dwelling on the balance lot. To further minimise the fragmentation of rural land and the potential for inappropriate new dwellings in farming areas, where it can be demonstrated that a house lot excision is required to further the agricultural prospects of a property, Council will encourage the house lot excision to be in the form of a boundary restructure with the balance lot achieving the minimum subdivision size of 40ha as currently specified in the Planning Scheme.

## 10.4 Rural conservation area

The Strathbogie Shire includes a diverse range of ecosystems, habitat and landscapes. This includes private land that is adjoining or in close proximity to National Parks and Crown Land. These areas contribute to the character of Strathbogie and provide significant draw for investment. They are fundamental to the environmental health of the region. Management of private land across these landscapes varies significantly at the ecosystem level. Fundamentally, these areas are concentrated around three broad areas. This includes:

1. Areas of Box Ironbark and associated forest types at the interface or adjoining larger areas of public land, including land abutting the local government areas boundary.
2. Riparian areas throughout the plains associated with the significant tributaries of the Goulburn Broken Catchment that are generated from the Strathbogie Ranges. This includes the Goulburn River, Sevens Creek and Hughes Creek.
3. Intact areas of remnant vegetation associated with the Strathbogie Ranges. These include ranges between Avenel and Ruffy; Gooram and Strathbogie; and, Strathbogie and Boho.

Essentially the protection of remnant vegetation and associated significant landscape values including important habitat, views, management of water quality and protection of unstable slopes and retention and enhancement of significant vegetation drives the application of the Rural Conservation Zone. These areas within the Shire are often in close proximity or adjoining large areas of public land such as National Parks, State Parks and other Crown Land.

The Strategy recommends the application of the Rural Conservation Zone to the land at the interface and adjoining the Box Ironbark Forests west of the Goulburn River and an Environmental Significance Overlay to the remaining areas of the Strathbogie Ranges to ensure sustainable land management and protection of assets.

The Vegetation Protection Overlay (VPO) is recommended to provide for protection of significant remnant vegetation in the Shire. Some mapping has been undertaken, but this may not be adequately detailed to provide for the use of the VPO. Application of the VPO may need to be subject to further strategic work. An area of remnant vegetation that should be protected by the VPO is that vegetation that forms the basis of the biolink proposed by the Goulburn Broken CMA.

## 10.5 Rural activity areas

The legacy of diverse rural land uses that have proliferated through the former, more general, Rural Zone provides both opportunities and constraints for areas of the Strathbogie Shire.

The Shire has a solid agricultural industry based on traditional sectors, it also has a strong and developing reputation for its equestrian based businesses, wineries and tourism. Given the dominance and opportunities of these sectors, it is considered that there is a need to provide for them specifically within this rural strategy, and recognise that rural land use extends beyond farming.

The view of rural land use has changed. The former Rural Zone recognised that a rural setting provided natural attenuation between uses and a level of flexibility in uses that could be approved. However, the new suite of rural zones and broader policy positions on the environment have highlighted the impact of ongoing rural activities on the fragmentation of farming land and potential impact on significant natural values. This strengthening in policy position at both a State and local level requires the clear identification of farming areas and a strategic approach to the identification and development of 'precincts' or consolidated areas of similar uses in a co-ordinated location which can have a rural function in addition to agriculture through the application of the Rural Activity Zone.

Although there are rural based tourism businesses successfully established across the shire, the assets and features around Nagambie provide the opportunity to specifically elevate tourism uses and actively provide for them whether associated with farming or not. The Nagambie focus builds on existing wineries, such as Mitchelton and Chateaux Tahbilk, the Goulburn River, Lake Nagambie and Nagambie itself. Therefore, it is proposed that the Nagambie Area be included within the Rural Activity Zone to support these uses into the future.

The Strathbogie tourism sector is dependent on the ability to provide accommodation and other visitor experiences within rural areas and although the Farming Zone permits some tourism accommodation and other tourism related uses, they generally must be associated with the farming land use. The intention of this area is that new rural tourism businesses will be supported, regardless of agricultural land use, where it can be demonstrated they will contribute to the local tourism economy, and are compatible with the rural landscape and surrounding farming businesses. The Rural Activity Zone provides for areas that are to be used for agriculture and other compatible rural land uses. It allows for a broader range of accommodation, retail and hospitality uses than does the Farming Zone, as its purpose extends beyond agriculture.

The focus of this area will be to support development of these businesses, and there should be a strong recognition that these areas are not rural living areas, as this would compromise their purpose and displace appropriate businesses. Development of these areas for tourism businesses, in particular, is also dependant on preservation of a rural amenity. As such, small lot subdivision and industrial type developments are not appropriate. This area will also have a significant agricultural production function arising from access to irrigation, as such any tourism development should not compromise agricultural activity.

In addition to this focus on tourism at Nagambie, farming and wine related tourism will be supported across the shire, through the use of the Farming Zone.

The equine industry in Strathbogie is another sector of the local economy that is considered may benefit from the ability to cluster, and specific planning controls that are not agriculture focussed. Although the Farming Zone provides for breeding and ancillary training facilities, allied and associated uses such as retail businesses that could support the growth of the industry are restricted. There are currently a number of projects being conducted in Strathbogie and the surrounding region to promote the horse sector of the economy. At this time there is not sufficient information to specifically identify the value of clustering equine related businesses, nor where this may be, but it is recommended that further research be conducted into this as a basis for consideration of the use of the Rural Activity Zone to support growth of the equine industry.

Through this project, Council also sought to accommodate industry type uses such as logistics and home industries in rural areas, building on its transport infrastructure assets and historical development trends. Council has expressed a view that there is an opportunity to expand the purpose of the Rural Activity Zone so that it can deliver a more diverse rural role, in addition to agriculture, that is responsive to the particular opportunities and strengths of rural local government areas. Presently, the Rural Activity Zone can provide for tourism and retail uses that are compatible with agriculture. Strathbogie Shire Council believes that in their situation transport and logistics are rural land uses that could sit within an agricultural landscape but are not supported by any of the rural zones, in particular the Rural Activity Zone and the Farming Zone do not allow for transport terminals.

Council has addressed this issue in part through the proposed agribusiness park to be located between Euroa and Nagambie. It will capitalise on the logistics, transport and processing opportunities within the Shire. It has been proposed that a Special Use Zone be applied to support this use. Should there be other sites that offer a strategic opportunity for a transport terminal, a rezoning to either Industrial or Special Use Zone can be considered.

The Rural Activity Zone and the Farming Zone provide for home occupation and rural industry, which offers some opportunities for these rural land uses. Rural industry includes land used to handle, treat, process, or pack agricultural produce, or service or repair plant, or equipment, used in agriculture. The Farming Zone provides for a rural store, which includes land used to store unprocessed agricultural produce, or products used in agriculture, and the Rural Activity Zone accommodate the use of land for a store, which allows for a broader storage function.

Implementation of the Industrial Land Study will also address a shortage of industrial land in the Shire, and limit the need for such developments to occur within Farming Zoned areas.

# 11. Implementation plan

The following implementation plan seeks to provide the necessary recommendations to realise the Shire of Strathbogie Sustainable Land Use Strategy (SLUS).

Importantly, the SLUS seeks to provide recommendations that include statutory planning measures, non-statutory planning measures and requirements for further analysis on a localised level. The Implementation Plan provides the following:

- **Statutory Planning measures - Planning Scheme modifications** - a clear outline of recommended modifications or alterations to the Strathbogie Planning Scheme;
- **Non – statutory planning measures** – including alignment with Catchment Management Planning, investment strategies and relevant sustainable land management strategies.

## 11.1 Statutory planning measures

The review of the application of the Farming Zone within Strathbogie Shire has indicated that the adoption of the full range of rural zones will assist in providing a land use policy position that promotes a sustainable, productive and resilient future for Strathbogie rural areas.

### 11.1.1 Proposed rezoning

The rezoning investigation map is presented at Appendix C.

#### 11.1.1.1 Farming zone

Apply the Farming Zone to the areas that are to be primarily used and protected for agriculture. These areas can be generally described as north of the Hume Highway, and land south of the Hume Highway that does not have significant environmental values.

All land located within the Farming Zone will maintain the existing subdivision size currently identified in Attachment 1 to the Farming Zone within the Strathbogie Planning Scheme.

#### 11.1.1.2 Rural conservation zone

Apply the Rural Conservation Zone to the areas that are to be managed with a focus on protection of environmental assets, This area includes land in the west of the shire with forest values.. Any new development, including housing development, must enhance the environmental values of the area. Existing subdivision sizes should be maintained.

#### 11.1.1.3 Vegetation protection overlay

Investigate application of the Vegetation Protection Overlay to provide for protection of significant remnant native vegetation. In particular, this could be used to protect existing elements of the biolinks as proposed by the Goulburn Broken CMA Dryland Landscapes Strategy.

#### 11.1.1.4 Rural activity zone

Apply the Rural Activity Zone to land around the Lake Nagambie and along the Goulburn River, south of Nagambie. The purpose of this area is to provide for rural tourism and recreation, in particular that which relates to local wineries and the lakes. It is recommended that the existing minimum subdivision size of 40ha be maintained to preserve the rural amenity of the area and maintain agricultural prospects, particularly those related to irrigation.

## 11.2 Non statutory planning measures

The following actions are recommended to support the Sustainable Land Use Strategy:

- Investigate the opportunities and benefits of clustering equine uses within a rural area, and the role of the Rural Activity Zone in this, as a means to support growth of the equine industry in Strathbogie.
- Promote eco services programs, such as Bush Tender, Bush Broker, Eco Tender (not currently available in this area) and carbon storage within the local community to support environmental enhancement and provide alternative income streams for rural land holders.
- Support development of the Biolink as proposed by the Goulburn Broken CMA.
- Support the provision of appropriate infrastructure within the Rural Activity Zone areas to further enhance business development within these areas.
- Support agricultural development programs to enhance the viability of the region's farmers.

## 12. Statement of Limitations

### Scope of services and reliance of data

This report has been prepared in accordance with the scope of work/services set out in the contract, or as otherwise agreed, between PB and the client. In preparing this report, PB has relied upon data, surveys, analyses, designs, plans and other information provided by the client and other individuals and organisations, most of which are referred to in the report (the data). Except as otherwise stated in the report, PB has not verified the accuracy or completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in this report (conclusions) are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data. PB will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to PB.

### Study for benefit of client

This report has been prepared for the exclusive benefit of the client and no other party. PB assumes no responsibility and will not be liable to any other person or organisation for or in relation to any matter dealt with in this report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in this report (including without limitation matters arising from any negligent act or omission of PB or for any loss or damage suffered by any other party relying upon the matters dealt with or conclusions expressed in this report). Other parties should not rely upon the report or the accuracy or completeness of any conclusions and should make their own inquiries and obtain independent advice in relation to such matters.

### Other limitations

To the best of PB's knowledge, the facts and matters described in this report reasonably represent the conditions at the time of printing of the report. However, the passage of time, the manifestation of latent conditions or the impact of future events (including a change in applicable law) may have resulted in a variation to the conditions.

PB will not be liable to update or revise the report to take into account any events or emergent circumstances or facts occurring or becoming apparent after the date of the report.



## 13. References

- ABS Census data (various) [www.abs.gov.au](http://www.abs.gov.au)
- Barr, N., 2005, Understanding Rural Victoria.
- Curtis, A., Lockwood, M., and MacKay, J. (2001a) Exploring landholder willingness and capacity to manage dryland salinity in the Goulburn Broken Catchment. Australian Journal of Environmental Management. 8: 20-31
- Department of the Environment, Water, Heritage and the Arts (DEWHA) Protected Matters Search Tool (accessed 05/05/2008). [www.environment.gov.au/erin/ert/epbc/index.html](http://www.environment.gov.au/erin/ert/epbc/index.html)
- Department of Planning and Community Development (DPCD) 2007, Victorian population bulletin 14, August 2007, Department of Planning and Community Development, Melbourne.
- Department of Planning and Community Development (2008) Goulburn Valley Region Integrated Community Profile, Department of Planning and Community Development (Spatial Analysis and Research Branch). Unpublished.
- Department of Primary Industries (DPI), 2006 Socio-economic profile of the Goulburn Broken Catchment including all of the Shepparton Irrigation Region, Department of Primary Industries, Echuca.
- Department of Sustainability and Environment (DSE) Biodiversity Interactive Map (accessed 05/05/2008) [www.dse.vic.gov.au/DSE/dsencor.nsf/LinkView/836EE128E54D861FCA256DA200208B945FD09CE028D6AA58CA256DAC0029FA1A](http://www.dse.vic.gov.au/DSE/dsencor.nsf/LinkView/836EE128E54D861FCA256DA200208B945FD09CE028D6AA58CA256DAC0029FA1A)
- Department of Sustainability and Environment (DSE), 2007 VPP Practice Note Applying the rural zones, Department of Sustainability and Environment, Melbourne.
- Department of Sustainability and Environment (DSE), 2006a, Land and biodiversity at a time of climate change Our Environment Our Future Green Paper Summary, Department of Sustainability and Environment, Melbourne.
- Department of Sustainability and Environment (DSE), 2006b, Atlas of Victorian Wildlife.
- Department of Sustainability and Environment (DSE), 2005, Our Environment Our Future Victoria's Environmental Sustainability Framework, April 2005. [www.dse.vic.gov.au/CA256F310024B628/0/57E3ADC456387BFCCA256FE800239E30/\\$File/Enviro-Sustainability-Framework-Final.pdf](http://www.dse.vic.gov.au/CA256F310024B628/0/57E3ADC456387BFCCA256FE800239E30/$File/Enviro-Sustainability-Framework-Final.pdf)
- Department of Sustainability and Environment (DSE) 2004a Victoria in Future 2004 - Population Projections, Department of Sustainability and Environment, Melbourne.
- Department of Sustainability and Environment (DSE) 2004b Climate change in Goulburn Broken [http://www.climatechange.vic.gov.au/CA256F310024B628/0/8A0C70EB89FBCF23CA25719B00059258/\\$File/Goulburn+Broken.pdf](http://www.climatechange.vic.gov.au/CA256F310024B628/0/8A0C70EB89FBCF23CA25719B00059258/$File/Goulburn+Broken.pdf)

- Goulburn Broken Catchment Management Authority 2007, Biodiversity Status and Condition Report, January 2007.  
[www.gbcma.vic.gov.au/downloads/Biodiversity/GBCMA\\_Biodiversity\\_Status\\_and\\_Condition\\_Report\\_web.pdf](http://www.gbcma.vic.gov.au/downloads/Biodiversity/GBCMA_Biodiversity_Status_and_Condition_Report_web.pdf)
- Goulburn Broken Catchment Management Authority 2005, Regional River Health Strategy 2005-2015. Goulburn Broken Catchment Management Authority, Shepparton.
- Parkes D., Newell G. & Cheal D. 2003, Assessing the quality of native vegetation: The 'habitat hectares' approach, in Ecological Management and Restoration vol. 4. (supplement), February 2003.
- Parks Victoria 2008 Heathcote-Graytown National Park and Spring Creek Nature Conservation Reserve, February 2008 Parks Victoria Epsom.
- Plantations North East Inc (2002) The Timber Industry in North East Victoria: A Social – Economic Assessment.
- Slijkerman 2006, Forest Notes: Heathcote and Rushworth State Forests Department of Sustainability and Environment, April 2006.
- Strathbogie Shire Council n.d. (Supporting Business>Statistics>Industry by Employment) [www.strathbogie.vic.gov.au/Page/page.asp?Page\\_Id=210&h=1](http://www.strathbogie.vic.gov.au/Page/page.asp?Page_Id=210&h=1)