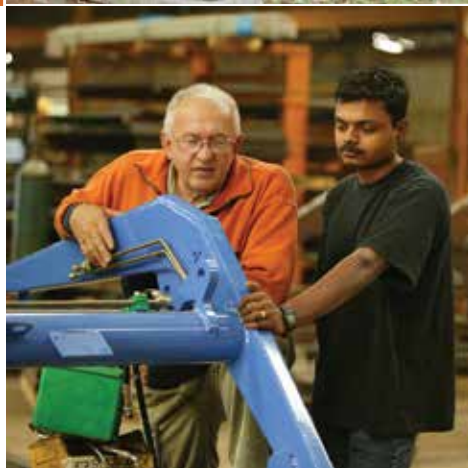


HUME REGIONAL GROWTH PLAN



Acknowledgement

The Hume Regional Growth Plan has been developed with input from a range of organisations, specifically those organisations represented on the Hume Regional Growth Plan Project Steering Committee and Technical Working Group, as follows:

Alpine Shire Council	Office of Aboriginal Affairs Victoria	Goulburn Broken Catchment Management Authority
Benalla Rural City Council	Alpine Resorts	Goulburn-Murray Water
Greater Shepparton City Council	Country Fire Authority	Goulburn Valley Water
Indigo Shire Council	Department of Education and Early Childhood Development	NevRwaste (North East Regional Waste Management Group)
Mansfield Shire Council	Department of Health	North East Catchment Management Authority
Mitchell Shire Council	Department of Human Services	North East Water
Moira Shire Council	Department of Environment and Primary Industries	Resource GV (Goulburn Valley Regional Waste Management Group)
Murrindindi Shire Council	Department of State Development, Business and Innovation	State Emergency Service
Strathbogie Shire Council	Department of Transport, Planning and Local Infrastructure	VicRoads
Towong Shire Council		
Wangaratta Rural City Council		
Wodonga Council	Environment Protection Authority Victoria	

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May 2014

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EXECUTIVE SUMMARY

The Hume Regional Growth Plan provides a regional approach to land use planning in the Hume Region, which includes the municipalities of Alpine, Benalla, Greater Shepparton, Indigo, Mansfield, Mitchell, Moira, Murrindindi, Strathbogie, Towong, Wangaratta and Wodonga. The plan is accompanied by a background paper, which documents the information and considerations that were taken into account when developing the plan. The plan identifies opportunities to encourage and accommodate growth and to manage change in the region over the next 30 years, building on the directions of the Hume Strategy for Sustainable Communities 2010–2020 and striving to help achieve the following vision for the Hume Region:

Hume Strategy for Sustainable Communities 2010–2020 Vision

The Hume Region will be resilient, diverse and thriving. It will capitalise on the strengths and competitive advantages of the four sub-regions, to harness growth for the benefit of the region and to develop liveable and sustainable communities.

The plan identifies:

- locations where future development will be supported, assessed at a regional scale
- environmental, economic, community and heritage assets that should be conserved, maintained or sensitively developed
- key regional priorities for future infrastructure planning and development to support growth.

Regional overview

The Hume Region is located strategically along major national road and rail transport routes that provide key opportunities for further growth and development.

In 2011, the region had a population of 276,300 people and is expected to grow to around 354,000 by 2041, an increase of approximately 80,000 people. This estimate excludes population growth in those areas in Mitchell Shire within the recently expanded urban growth boundary for metropolitan Melbourne.

Unlike many other regions, Hume is not dominated by a single city. Instead, it contains three large regional cities and a number of smaller regional centres, as well as a range of other settlement types including townships and villages, alpine resorts, rural residential locations and farming areas. The southern part of the region lies within the peri-urban influence of Melbourne. The regional cities and centres act as hubs, providing services to networks of smaller settlements.

The regional economy is based on access to natural resources such as water and productive land, environmental assets and proximity to major transport links. Agriculture, manufacturing and tourism are important industry sectors.

Challenges

Key challenges for the Hume Region are summarised in Section 8 of this plan and discussed in the background paper. They include finding the most effective ways to:

- adapt to the potential impacts of climate change
- support communities
- provide for residential, commercial and industrial expansion
- assist agricultural industries to remain competitive
- provide transport and other infrastructure to meet the needs of communities and industries
- protect and enhance environmental assets
- manage exposure to natural hazards
- diversify the economy, increase employment and fill skills gaps.

Principles

In line with the Hume Strategy, this plan seeks to develop:

- efficient and sustainable settlements
- sustainable rural communities
- a healthy environment and a celebrated heritage
- healthy, vibrant and resilient communities
- a thriving and dynamic economy
- a mobile and connected region.

Regional land use framework

Regional economy

Hume's economy relies heavily on agriculture and manufacturing, including processing of farm produce. Economic forces and policy changes at international and national levels are impacting on businesses in the region, providing challenges and opportunities. This plan seeks to assist in developing a more diverse regional economy, while maintaining and enhancing key regional economic assets.

Freight and logistics represent a major opportunity to capitalise on national and intrastate transport links. Ensuring serviced employment land is provided in proximity to urban growth areas, and that transport and infrastructure are integrated with development, will help facilitate economic and employment growth. Public and private sector investment will ensure Central Business Districts are vibrant and attractive places to do business.

Recent modernisation of irrigation systems in the region provides opportunities for additional investment to increase food production and attract new processing industries. Protecting strategically important agricultural land will maintain options for future changes in production in response to market demands. Alternative energy generation, mining and extractive industries are also sectors with strong growth potential. The region's key tourism assets will be supported and enhanced.

Maintaining liveability and access to transport, communications technology, education and lifestyle choices will be important to ensure the region remains attractive to businesses and individuals.

Environment and heritage

The Hume Region contains a rich array of environments and heritage places that are important for their intrinsic environmental and cultural values and their contribution to the economy.

This plan seeks to recognise and promote environmental and heritage assets and maximise the regional benefit from them, while planning for the potential impacts of climate change and natural hazards. It focuses on protecting and enhancing landscapes, terrestrial habitat, waterways, soils, the public land estate and Aboriginal cultural heritage and historic heritage.

Planning needs to manage exposure of communities, heritage, settlements, agricultural land and infrastructure to natural hazards and risks such as flood and bushfire.

Settlement

This plan seeks to focus, manage and direct future growth and development to take advantage of regional strengths and consolidate and build on existing settlement networks. Growth will be focused in the regional cities and will be supported in other settlements that can provide appropriate land, infrastructure and services.

Urban growth locations outlined in this plan have been selected on the basis of available physical and social infrastructure, access to employment, protection of environmental assets and avoidance of natural hazards. Increasing the diversity and affordability of housing will improve choice, provide for the needs of older people and those on low incomes and help to attract new residents to the region.

In the **Central Hume** sub-region, the links between Wangaratta and Benalla and their surrounding communities will be strengthened to improve access to employment and services. Wangaratta has sufficient land zoned or identified for future residential use to accommodate likely demand over the next 15 years. The growth frameworks developed for Wangaratta and Benalla identify strategic opportunities for urban development, including residential, commercial and industrial areas and potential infill sites. Growth is also likely in towns that have good access to Wangaratta or Benalla, including those in popular tourist areas. Key sub-regional settlements include Mansfield, Myrtleford and Bright (incorporating Porepunkah).

In the **Goulburn Valley** sub-region, major urban growth and development will be focused in Shepparton, including Mooroopna and Kialla. Shepparton has sufficient land zoned or designated for future residential use to meet likely demand over the next 15 years and the five residential growth corridors identified in the urban growth framework can accommodate up to 17,600 new residents. This level of population growth will require significant investment in physical and social infrastructure and increases in employment. Shepparton will continue to develop its role as a business, retail and services hub for the region, taking advantage of new opportunities in food production and processing, and transport and logistics. Redevelopment of the Central Business District and infill housing development will reinvigorate the centre of the city. Other urban areas in the sub-region will also grow, especially those that provide lifestyle opportunities or are located near popular tourist attractions. Key sub-regional settlements include Tatura, Numurkah, Nagambie, Nathalia, Euroa, Yarrawonga and Cobram.

The **Lower Hume** sub-region is close to Melbourne and has strong transport links to the metropolitan area. Melbourne's Urban Growth Boundary now encompasses Beveridge and Wallan in the southern part of the region. Zoned residential land and infill sites can provide between nine and 15 years' supply in different parts of the sub-region, and a further 15 years' demand can be accommodated on land identified for future residential use in the southern part of the sub-region. Lower Hume currently lacks a major regional city or centre. Economic development in Seymour will be bolstered to improve access to employment and higher order services and to take advantage of its strategic location on the rail line. This plan contains a conceptual urban growth framework for Seymour, but further strategic planning is required. Investment in physical and social infrastructure will be needed to support increased demand. *Plan Melbourne* (Chapter 6 – State of Cities) identifies Kilmore, Broadford and Seymour as peri-urban towns with potential to attract housing and population growth out of Melbourne. It is likely that demand for housing

in these centres would be accelerated in the future with the imposition of a permanent growth boundary around Melbourne. Other urban centres in the sub-region (outside metropolitan growth areas) are also expected to experience some growth and to continue to provide services to surrounding rural areas, including Yea and Alexandra.

In the **Upper Hume** sub-region, major urban growth and development will be focused in Wodonga. The city has over 15 years' supply of residential land, either zoned or identified for future development, as well as substantial infill opportunities. The urban growth framework for Wodonga shows strategic opportunities for residential, industrial and commercial development. Population growth in Wodonga will be accommodated in seven existing growth fronts and medium- to long-term developments are planned for the Baranduda-Leneva area, which can accommodate up to 35,000 additional people over the next 20 to 50 years. Wodonga will continue to be a major economic driver for the region and beyond and will build on existing strengths in freight and logistics, manufacturing, defence, education, health, business services, major sporting events and arts and culture. This plan also acknowledges the influence of the combined urban area of Albury-Wodonga (recognised as one of Australia's 18 major cities) in the Upper Hume sub-region. Other urban centres in Upper Hume will continue to grow consistent with retaining their character and environment, particularly heritage townships, lifestyle settlements and tourist localities. Key sub-regional settlements include Barnawartha, Beechworth, Bellbridge, Chiltern, Corryong, Rutherglen, Tallangatta, Tangambalanga, Wahgunyah and Yackandandah.

Some smaller settlements may experience population decreases. This plan encourages an integrated approach to planning for and servicing these communities.

Rural residential uses will be provided for in defined areas close to existing settlements to ensure this form of development does not impact adversely on productive agriculture or other broad scale rural uses.

Transport and infrastructure

This plan seeks to support system improvements for the movement of people and freight and to plan strategically for future infrastructure needs.

The Hume and Goulburn Valley road and rail corridors form the backbone of the transport network in the Hume Region and will provide the focus for future investment. East-west road linkages are also important but are generally less well developed. Improving the capacity of the transport network will involve maximising the use of existing infrastructure, constructing new transport links such as town bypasses and bridges, facilities such as freight and logistics precincts, better provision for cycling and walking in and between urban centres, improving public transport and enhancing rail capacity. Several airports in the region have the ability to play a greater role in freight transport. The nature of the freight transport task is likely to change in the future, both in terms of commodities carried and the size of freight vehicles. This may have implications for the rural road network.

Social infrastructure is critical to developing vibrant and sustainable communities such as facilities providing educational, health and community services and opportunities for leisure and recreation.

Provision of energy supplies, information and communications technology, water supply and sewerage systems and waste disposal needs to be integrated with planning for urban growth. Expansion of reticulated natural gas is a priority for the region, as is the rapid rollout of the National Broadband Network.

Key directions for regional growth

This plan is intended to complement and guide local land use planning by providing directions for managing future growth and change to capitalise on the Hume Region's competitive advantages, opportunities and strengths by:

- supporting the development of a more diverse regional economy while managing and enhancing key regional economic assets
- protecting environmental and heritage assets and maximising the regional benefits from them, while managing exposure to natural hazards and the potential impacts of climate change
- focusing growth and development to maximise the strengths of existing settlements
- supporting the improvement of people and freight movement and planning strategically for future infrastructure needs.

Table 4 sets out strategies consistent with these directions that will help achieve the objectives identified in this plan.

Delivering regional growth

The key planning directions of this plan will be implemented through municipal planning schemes. Table 5 identifies specific actions required, including detailed planning studies and cooperative programs. Implementation of the plan will be integrated with the overall implementation of the Hume Strategy and will be monitored and assessed through processes already established for that purpose. The plan is intended to be adaptable and able to respond to new information. It will be reviewed every four to five years.



Porepunkah, image courtesy of Alpine Shire Council



PART A | INTRODUCTION

1. What is a regional growth plan?

Eight regional growth plans have been developed to provide broad direction for land use and development across regional Victoria (refer to Map 1). They also provide more detailed planning frameworks for key regional cities and centres.

Increasing the growth of regional Victoria will help improve the state's competitiveness by strengthening regional labour markets, expanding markets for local goods and services and providing a greater diversity of affordable housing and employment opportunities.

Regional growth plans, together with the new metropolitan planning strategy, *Plan Melbourne*, have been aligned in a way that builds on the interdependence of our urban settlements and facilitates their development as a networked 'state of cities'. Unlocking the growth potential of these cities – so they can accommodate a greater proportion of the state's future growth, with good transport connections between them and Melbourne – will create a state of cities where there are greater choices for people about where to live, work or start a business. It is likely that demand for housing in regional cities and centres would be accelerated in the future with the imposition of a permanent growth boundary around Melbourne.

The regional growth plans respond to directions established in the regional strategic plans that were prepared across regional Victoria between 2007 and 2010.

Regional growth plans are the next stage in planning for growth and change in regional Victoria. They have been developed in a partnership between local government and state agencies and authorities. They reflect state and local government objectives.

Regional growth plans provide a long-term view of the region to 2041

and beyond, allowing for some short-term actions, and providing long-term strategic land use direction.

The regional strategic plan for the Hume Region, the Hume Strategy for Sustainable Communities 2010–2020 (the Hume Strategy), represents regional aspirations and sets an agenda for regional development and long-term strategic planning. It establishes strategic directions for the region under a number of themes, including land use and infrastructure.

The Hume Strategy includes goals focused on:

- natural resources protected and enhanced for current and future generations
- healthy, vibrant and resilient communities
- a thriving and dynamic economy
- an integrated network of efficient and high-functioning transport systems
- an efficient and sustainable pattern of urban and rural land use and development.

The Hume Strategy also establishes four key directions for regional settlement planning:

- directing future population growth to settlements with the greatest capacity to accommodate it
- maximising the use of existing infrastructure and services and facilitating strategic investment in future infrastructure and services
- retaining productive rural land for agriculture and other compatible rural uses
- ensuring efficient use of land use planning resources in the region.

The Hume Regional Growth Plan provides an opportunity to refine and implement these directions.

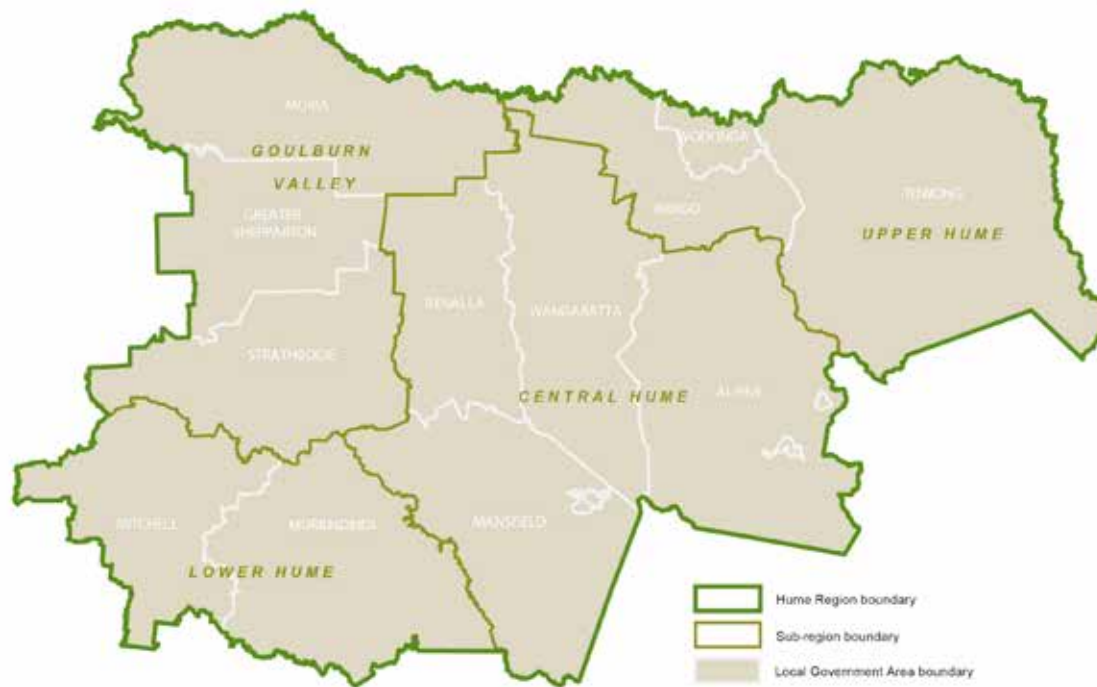
Map 1: The eight regional growth plans



Source: Department of Transport, Planning and Local Infrastructure

The Hume Strategy recognises the Hume Region is comprised of four distinct but interconnected sub-regions. The four sub-regions (Central Hume, Goulburn Valley, Lower Hume and Upper Hume) are shown in Map 2. These sub-regions cover the municipalities of Alpine, Benalla, Greater Shepparton, Indigo, Mansfield, Mitchell, Moira, Murrindindi, Strathbogie, Towong, Wangaratta and Wodonga.

Map 2: *Hume sub-regions*



Source: Department of Transport, Planning and Local Infrastructure

The Hume Strategy identifies the need to undertake regional scale planning work to provide a common approach to land use issues affecting the Hume Region. This plan provides land use planning responses to those issues, to help achieve the Hume Strategy's goals and implement its key directions.

This plan will provide high level guidance for land use planning at the local level and inform the decision making of a range of agencies regarding future investment in the region. Detailed direction on local issues will be provided through subsequent local planning processes such as structure plans, growth framework plans and amendments to planning schemes (see Figure 1).

Figure 1: *Where does the regional growth plan fit?*

Regional planning	Local planning
Regional strategic plans Shorter- to medium-term priorities and directions for regions	Council plans Shorter- to medium-term priorities and actions for councils
Regional growth plans Long-term strategic direction for land use planning for regions	Municipal Strategic Statements Long-term strategic direction for land use planning for councils

2. Why we need this plan

Regional growth plans translate and integrate emerging statewide regional land use planning policy. They provide the basis for regional coordination and future planning of infrastructure to support regional land use objectives.

This plan:

- establishes a framework for strategic land use and settlement planning that can sustainably accommodate growth
- identifies important economic, environmental, social and cultural resources to be conserved, maintained or developed
- provides direction for accommodating growth and change including residential, employment, industrial, commercial, agriculture and other rural activities
- identifies which areas of land can accommodate growth and which are to be maintained
- identifies opportunities for supporting regional level infrastructure, providing an essential contribution to the long-term sustainability of the region.

The plan will help councils by streamlining planning policy and potentially reducing the strategic workload of councils by providing a land use linkage between state government vision and direction and local level implementation. It will also contribute to broader regional goals.

The plan provides a regional strategic land use framework for growth¹ and change. It is a strategic direction-setting document that identifies long-term land uses and growth objectives. It is not intended to be used at a level where service planning or specific unquantified infrastructure could be committed. The plan will guide infrastructure decisions and provide priority for further investigations of regionally significant infrastructure.

Site-specific development proposals and processes are also outside the scope of the plan.

The plan provides solutions to common issues across Hume but will not reduce attention to local issues or replace local planning, for example, identification of future industrial and other employment locations or consistent regional approaches to matters such as planning for key resources, waste, tourism and heritage.

Note:

The Hume Region's boundary includes future metropolitan growth areas extending into the southern part of the region (Mitchell Shire). Metropolitan growth has been planned for in Plan Melbourne and this plan only considers regional growth outside future metropolitan areas.

¹ Unless specified, the term 'growth' used in this document refers to both economic growth and population growth and does not necessarily mean outward expansion of settlements.

3. How this plan will be used

The key land use planning directions of the Hume Regional Growth Plan will be implemented through the state planning system as it is applied by each council in the Hume Region. This will support decision making at a local level.

Implementation will occur in a number of ways, such as further specific amendments to planning schemes, preparation of infrastructure plans, land supply monitoring and other projects.

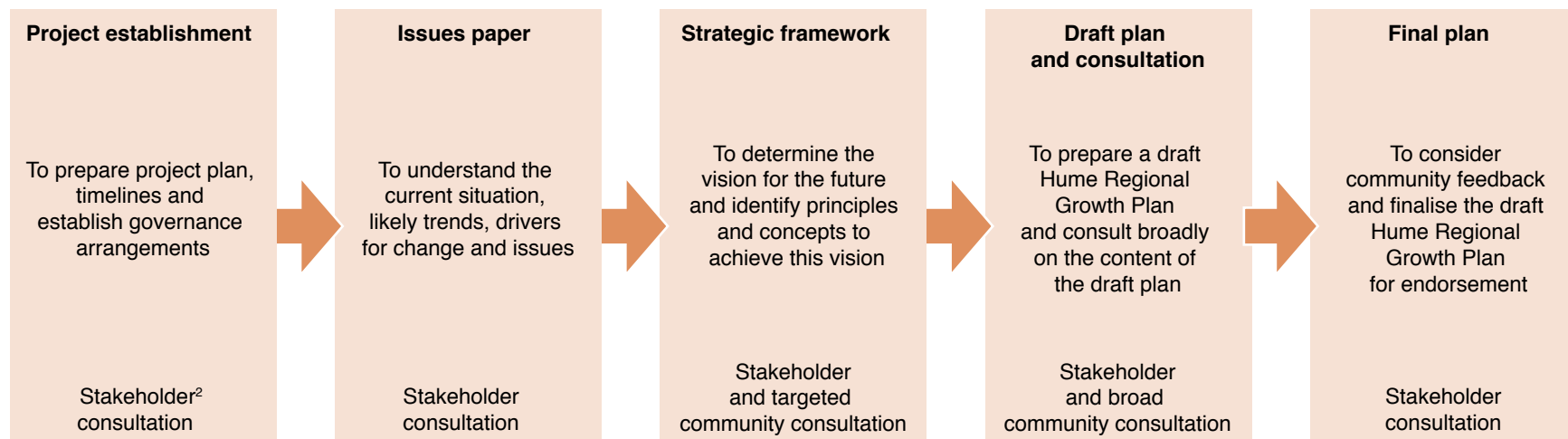
The plan will be used to guide and inform future land use planning work across the Hume Region, including subsequent reviews of each council's municipal strategic statement.

4. How the plan was prepared

The plan was developed in five broad phases. The purposes and consultation processes undertaken as part of each phase are shown in Figure 2.

The plan has been developed through a series of issues papers, regional workshops, analysis of information provided by all partners in the process and public consultation.

Figure 2: *Hume Regional Growth Plan process*



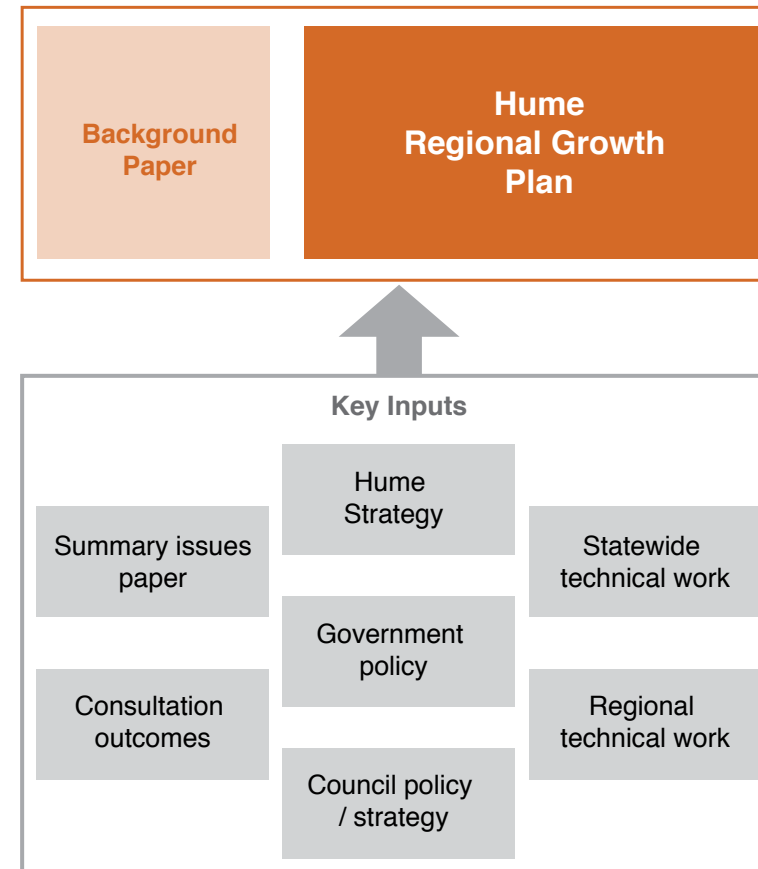
² Stakeholders include councils and state government agencies and authorities.

The Hume Strategy underpins directions and initiatives contained in the plan. This plan is accompanied by a background paper that documents the information and considerations that have been taken into account when preparing the plan. The background paper has been published alongside the plan to:

- provide background data on the existing characteristics of the region's environment, economy and communities
- summarise current information on the changes the region is expected to experience in the next 30 years
- discuss in more detail the challenges and opportunities facing the region during this period
- support the key strategic directions for land use and development set out in the plan.

A number of sources of information and reports have informed the development of this plan, as have extensive stakeholder and public consultation. Figure 3 provides an overview of key inputs and products as they relate to the plan.

Figure 3: *Hume Regional Growth Plan – Key products and inputs*



5. Components of this plan

The plan contains five parts:

Part A: Introduction

Provides an overview of the context of the plan, explains why it is needed and describes how it was prepared.

Part B: Regional overview

Provides a snapshot of the region, a vision for the region and land use principles to achieve the vision.

Part C: Towards the regional growth plan — Regional land use framework

Establishes the regional land use framework, which outlines land use directions in relation to the economy, environment, urban and rural settlement and infrastructure.

Part D: Regional growth plan

Provides an integrated strategic plan for growth and change, bringing together the key directions outlined in Part C.

Part E: Delivering regional growth

Identifies actions and outlines how the plan will be implemented.



American, image courtesy of Strathbogie Shire Council



Sculptures at Woodland Grove Wodonga, image courtesy of Tourism Victoria

PART B | REGIONAL OVERVIEW

This part of the Hume Regional Growth Plan includes a broad overview of the Hume Region including what is driving growth and change, what land use challenges the region faces, and a proposed vision outlining a desired future for the region.

6. Snapshot of the region

The Hume Region is growing and changing. It also has the capacity to accommodate a greater share of Victoria's growth. In the future the region will face challenges and opportunities that will affect its economy, environment and way of life.

The region is strategically located from a national perspective with key interstate transport linkages traversing the region. The region's location within a national context is shown in Map 3.

In 2011 the population of the region was around 276,300 people. This population is projected to increase by close to 80,000 people to 354,000³ by 2041, not including the metropolitan growth area in the southern part of Mitchell Shire.

The number of people aged 55 or over is predicted to increase significantly in the future. Such growth and demographic change can offer considerable economic benefits, but may also present challenges.

The region has a wide variety of settlement types ranging from Melbourne's peri-urban regions to regional cities such as Shepparton, Wangaratta and Wodonga (each with broader catchments), regional centres such as Benalla, townships and villages, rural residential areas and small and relatively isolated communities, including a number of alpine resorts.

Table 1: Projected population

Local Government Area	Estimated Resident Population			Land area (km ²)
	2011	2021	2031	
Alpine	12,900	13,200	13,600	5005
Benalla	14,300	15,300	16,000	2351
Greater Shepparton	63,900	71,300	77,800	2420
Indigo	16,200	17,200	18,200	2044
Mansfield	8000	9000	10,200	3892
Mitchell*	35,400	42,500	45,600	2862
Moir	29,500	33,200	36,900	4078
Murrindindi	13,600	16,500	17,900	3889
Strathbogie	10,100	10,500	11,100	3302
Towong	6300	6400	6600	6673
Wangaratta	29,000	30,300	31,600	3764
Wodonga	37,100	43,000	48,400	433
Total	276,300	308,400	333,800	40,713

* Figures for Mitchell Shire excludes expected metropolitan growth in the southern part of the LGA

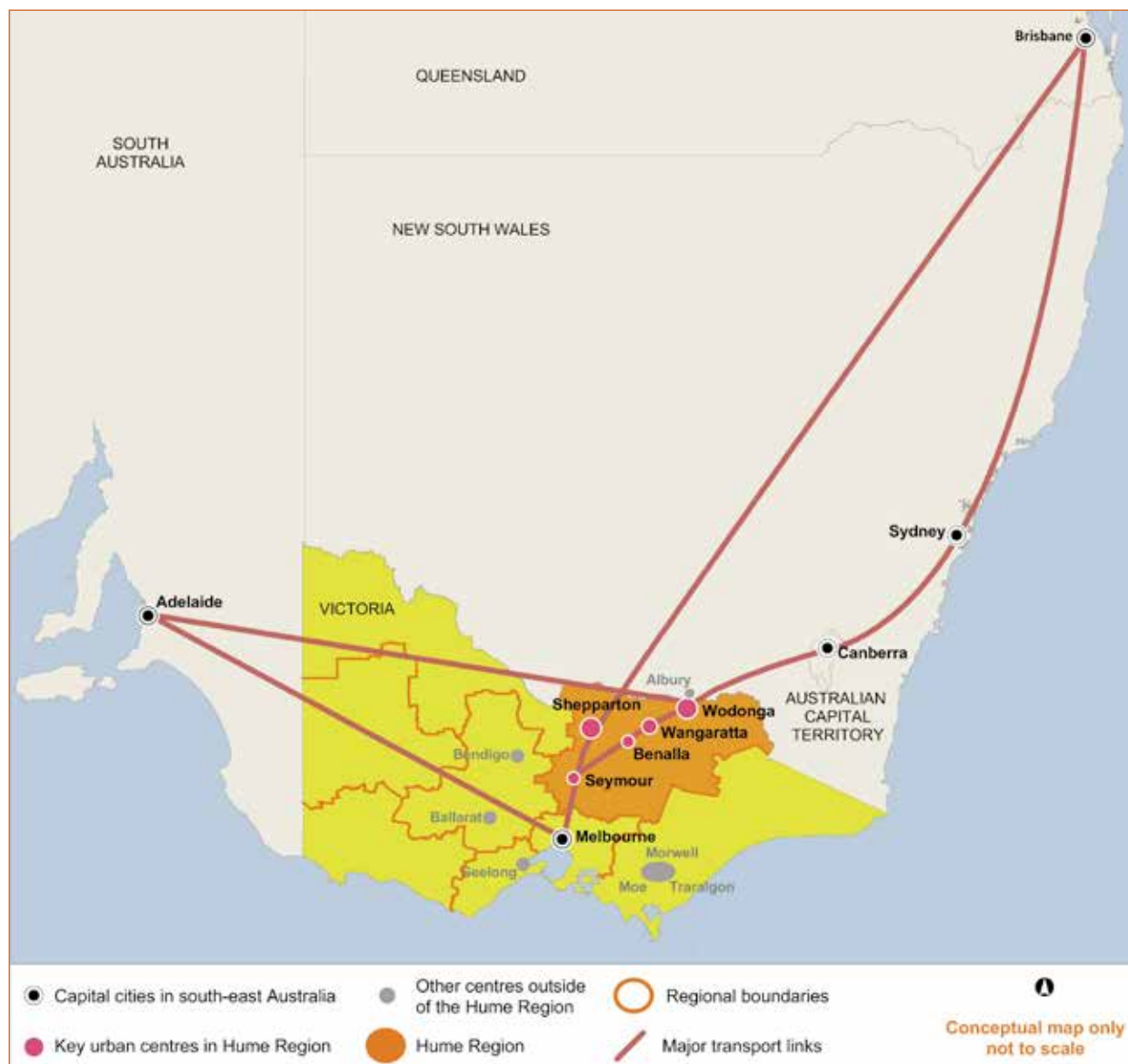
Source: Victoria in Future 2012 (Department of Transport, Planning and Local Infrastructure)

Note: Projected totals for LGAs beyond 20 years (2031) are not published as part of Victoria in Future 2012

3 Based on Department of Transport, Planning and Local Infrastructure unpublished projections 2012.

PART B | REGIONAL OVERVIEW

Map 3: National context



Source: Department of Transport,
Planning and Local Infrastructure

The larger regional cities of Shepparton, Wangaratta and Wodonga support a network of smaller settlements across the region extending into other regions and states (particularly the Campaspe Shire and the southern Riverina of New South Wales) making services and facilities reasonably accessible to most communities.

This dispersed pattern of services and infrastructure can mean long travel distances and a reliance on private vehicles.

The region's economy is based on access to natural resources, such as water and productive agricultural land (including extensive irrigated areas), environmental assets (such as significant areas of natural beauty), heritage assets and the strategically important Melbourne-Canberra-Sydney (Hume corridor) and Melbourne-Brisbane (Goulburn Valley corridor) national road and rail transport corridors. The economy is reliant on agriculture (largely irrigated in the Goulburn Valley) and a significant manufacturing industry. Tourism is also an important industry and employer for the Hume Region.

Strategic assets of regional or national significance include:

Network of settlements

Population centres around high-functioning regional hubs (Shepparton, Wangaratta and Wodonga), located along major transport routes, which support and are supported by a network of other settlements. Settlements also have distinct characteristics providing attractive places to live and work.

Accessibility

High performance, nationally significant interstate road and rail transport routes and airports that support regional connectivity and provide access to markets. Key transport links also provide access to services and infrastructure in large urban centres outside the region, such as Albury and Melbourne.

Water

Availability of reliable, high quality water resources, such as rivers and water infrastructure, providing a competitive advantage (particularly for irrigated agriculture), which is likely to become more important in the future under the influence of climate change and the Murray-Darling Basin Plan.

Attractive environment and heritage

Picturesque and valuable environments and landscapes, including large areas of public land, not only attracting new residents and visitors to the region, but also providing important environmental values. Tourism products that are based largely around the quality of the natural environment and the region's heritage assets.

Rural production

Land, water and associated infrastructure that provide for a variety of rural production throughout the region, contributing to the economy, including inputs into food manufacturing.

Facilities

Major health and learning facilities, including universities, TAFEs, schools and libraries. Education is available at all levels of the learning spectrum and at key locations across the Hume Region.

Diverse economic base

An economy built on manufacturing, agriculture and food processing, health and human services and facilities, defence, tourism, retail, freight and logistics industries.

Social capital

A growing, culturally diverse population within engaged, connected, safe and inclusive communities.

7. Drivers of change

Key drivers of land use change in the Hume Region are likely to include:

- preparing for the potential impacts and opportunities arising from climate change
- impacts of climatic conditions such as long-term droughts, wide spread flood and an increase in the number of days of extreme heat and fire danger
- the impacts and opportunities related to the Murray-Darling Basin Plan
- irrigation modernisation and investment opportunities created by the Goulburn-Murray Water Connections Project, previously known as the Northern Victoria Irrigation Renewal Project
- strong transport links connecting the region to intrastate and interstate markets and services as well as gateways for international trade, including potential future links such as high speed rail
- access to growing Asian markets
- decentralisation of freight handling in Victoria
- environmental and heritage assets and liveability attracting visitors and new residents to the region
- changes in economic sectors, particularly agriculture and manufacturing
- economic adjustments to initiatives that support national and global action to reduce greenhouse gas emissions, such as a price on carbon
- adaptation and take-up of information and communications technology, such as mobile phone coverage, the National Broadband Network and the 'Digital Hume' Project
- major redevelopment of central business areas and urban renewal in key urban centres
- regional demographic change, such as an ageing population and global demographic trends.

8. Challenges for growth

A number of key challenges have been identified and discussed in the background paper. Of the challenges identified, climate change is expected to cut across all themes. In the Hume Region, climate change is predicted to result in increasing temperatures, fewer and heavier rainfall days and an increase in the number and severity of events requiring emergency response. Other key challenges are briefly summarised as follows:

Supporting communities

How to support communities and meet their changing needs, including for different forms of housing and transport options, considering changing demographics, diversity and social indicators.

Settlement

How to ensure that residential growth areas maximise the use of infrastructure, retain urban character and avoid hazardous areas, and how to support the sustainability of small and rural communities.

Rural land use

How to assist agricultural industries to remain competitive in the face of climate change, industry restructuring, government policy, irrigation modernisation, economic conditions and pressure from non-agricultural uses.

Transport and infrastructure

How to meet community and business needs for transport and infrastructure, including public transport, roads, water, energy, information and communications technology, and waste management.

Environmental assets and natural hazards

How to protect and enhance biodiversity, reduce the potential impacts of climate change and irrigation system improvements on the natural environment and manage exposure to natural hazards, especially bushfire and flood.

Economy

How to support economic diversification and increase accessibility to employment while adapting to changes influencing the regional economy.

9. Vision for the region

The Hume Strategy vision for the region is:

The Hume Region will be resilient, diverse and thriving. It will capitalise on the strengths and competitive advantages of the four sub regions, to harness growth for the benefit of the region and to develop liveable and sustainable communities.

This plan is a long-term integrated regional land use plan. A vision has been developed for the plan to align with the strategic aspirations and directions set out in the Hume Strategy. According to this vision the region will have a range of characteristics in 2041 as shown in Figure 4.



Ballooning near Mansfield, image courtesy of Mansfield Shire and Tourism Victoria

Figure 4: Summary of the vision for growth in 2041



10. Principles to achieve the vision

Land use planning principles derived from the Hume Strategy:

Efficient and sustainable settlements

- Direct growth to settlements with the greatest capacity to accommodate it, such as the regional cities of Shepparton, Wodonga and Wangaratta, and Benalla
- Recognise and build on the strategic opportunities in and around Seymour
- Build on and strengthen the existing network of regional cities and settlement centres that support and are supported by a network of towns and villages
- Minimise risk to life and property from bushfire hazard
- Promote an efficient development pattern to maximise the use of existing infrastructure, complemented by investment in new infrastructure for growth areas
- Design settlements to maximise resilience to natural hazards and climate change and take advantage of the opportunities from climate change
- Enhance liveability and promote excellence in sustainable design
- Ensure land use planning decisions adopt a triple bottom line approach and are based on the best available land capability data

Sustainable rural communities

- Retain and protect productive rural land for agriculture and appropriate rural uses
- Support rural towns by providing access to key community infrastructure that can respond to changing needs over time
- Ensure future development makes a positive contribution to sustainability and embraces good urban design

A healthy environment and a celebrated heritage

- Protect and enhance environmental assets and values
- Protect, maintain and enhance the region's significant cultural landscapes
- Ensure land use planning decisions consider responding to potential climate change impacts and any adaptation policies
- Adopt a sustainable and coordinated approach to urban and rural water management
- Recognise and value Aboriginal cultural heritage and historic heritage
- Ensure planning and infrastructure investment decisions are based on the best available information on the environment and natural hazards, including climate change impacts

Healthy, vibrant, resilient communities

- Support innovative and flexible service delivery models and improve access to facilities and services
- Maximise the range of available and affordable housing choices to meet changing community needs
- Support culturally diverse communities and promote inclusive and connected communities
- Maximise opportunities for recreation and personal health outcomes

A thriving and dynamic economy

- Support the expansion and diversification of the region's economy
- Build on the region's economic strengths and competitive advantages
- Capitalise on national transport links and tourist routes
- Encourage the creation of job opportunities to meet the needs of the growing population
- Identify the need for education facilities to ensure the population has access to higher learning
- Support industrial growth through value-adding

A mobile and connected region

- Provide an efficient, integrated and connected transport network that responds to community, business and visitor needs
- Provide for efficient and effective transport movements within the region and to Melbourne and other key urban centres outside of the region
- Maximise community and business access to information and communications technology

The vision and principles above set the strategic directions for future land use in the Hume Region and provide the foundation on which this plan has been developed. The following parts of the plan provide more information about how this vision can be achieved.



Aquamoves Lakeside Shepparton, image courtesy Regional Development Victoria

PART C | TOWARDS THE REGIONAL GROWTH PLAN — REGIONAL LAND USE FRAMEWORK

11. Regional economy

The Hume Strategy aims for the Hume Region to have a thriving and dynamic economy into the future by capitalising on the region's competitive advantages, opportunities and strengths to continue to provide prosperity and vitality.

Key facts about the regional economy:

A recent economic profile (unpublished: 2013) prepared by Regional Development Victoria includes the following key facts about the regional economy:

- For the period 2001 to 2011, the region contributed above 18 per cent to regional Victoria's Gross Regional Product.
- As a proportion of state output, Hume's share was 3.5 per cent in 2011.
- Over the past decade, the regional economy grew at an annual average rate of 2.2 per cent.
- Employment growth in the Hume Region between 2001 and 2011 was 13.5 per cent compared to 20 per cent for regional Victoria and 26 per cent for the state.
- Manufacturing and Agriculture, Forestry and Fishing are the two most significant regional economic sectors in the Hume Region, contributing \$3.1 billion out of the region's \$9 billion Gross Value Added.
- Agriculture, Forestry and Fishing employs only 2.6 per cent of Victoria's workforce, but 13.1 per cent of the Hume Region's workforce.
- Manufacturing and Agriculture, Forestry and Fishing provide three-quarters of the Hume Region's exports. Manufacturing exports alone were approximately \$4.5 billion in 2011.
- Hume's Agricultural, Forestry and Fishing exports make up almost 20 per cent of Victoria's exports in this sector.
- In 2011, Manufacturing comprised 57 per cent of the total inter-regional imports while 20 per cent of inter-regional imports were from the agriculture sector. Almost half (47 per cent) of the manufacturing imports were from the food product manufacturing subsector.
- The three sectors with the highest rates of growth between 2001 and 2011 were Construction, Administrative and Support Services and Mining.
- Against the trend in the national, state and other Victorian regional economies, manufacturing in the Hume Region experienced positive growth between 2001 and 2011.

Key socioeconomic issues for the region that may have an impact on economic diversity and growth include:

- relatively high unemployment rates (the highest of all regions in the state)
- youth out-migration
- low levels of educational attainment
- low incomes.

The Hume Region's economy is driven by:

- the size and growth of its population
- availability of physical and social infrastructure
- the available labour force, density of manufacturing industries (co-location)
- access to natural resources, including water, irrigation infrastructure and productive agricultural land
- iconic tourism destinations such as the Alpine areas and the Murray River
- its strategic location on the Hume (Melbourne-Canberra-Sydney) and Goulburn Valley (Melbourne-Brisbane) national road and rail freight and transport corridors. Access to south-east Australia's population, industry and services is a significant locational advantage of the Hume Region, which continues to attract investment. Major interstate transport corridors (Hume and Goulburn Valley) offer opportunities for transport logistics and warehousing as well as freight movement through and within the region.

The regional economy is becoming more sophisticated and diverse, but there is still a high reliance on manufacturing and agriculture. This is an economic challenge, particularly due to exposure to changing climatic conditions, the impact of the Murray-Darling Basin Plan, fluctuations in the value of the Australian dollar, the global labour market and Australia's trade policies. How businesses respond to these challenges while improving productivity will be of paramount importance to the regional economy as will leveraging off and capitalising on the \$2 billion irrigation modernisation investment and on-farm irrigation efficiency program in the Goulburn Valley. Agricultural production and associated food processing will continue to be an important contributor to the region's economy. The region's natural beauty is a drawcard for the tourism industry, which will continue to be important to generate regional wealth and interest from investors.

Key challenges for the region are existing skills shortages and the provision of additional employment opportunities to support the projected regional population growth of around 80,000 people by 2041⁴. New job opportunities are likely to become available in the Melbourne metropolitan area, which will be growing into the southern parts of the region (to include places such as Beveridge and Wallan), but the majority of new jobs will need to be provided elsewhere across the region.

Overall approach

Taking into account the vision and principles set out in Part B of this plan, the Hume Strategy and other regional factors the overall approach is to **support the development of a more diverse regional economy while managing and enhancing key regional economic assets**. An expanded, diverse regional economic base will provide greater resilience to global changes. Future directions to achieve this are discussed in Sections 11.1 through to 11.3. These directions build on the strengths and opportunities of the regional economy.

⁴ This figure excludes expected metropolitan growth in the southern part of the region.

11.1 Business, industry and services: working in the Hume Region

a) Encourage urban growth where supported by employment, transport services and commerce

The availability of industrial and commercial development opportunities in key locations for urban growth and change will play an important role in providing employment and supporting the development of a more diverse economy. Physical infrastructure must be provided to ensure industrial areas are market ready.

A supply of good quality housing and social infrastructure, such as health and education facilities and recreation opportunities support economic development and liveability, and contribute to attracting and retaining a workforce. Recent increases in online shopping are influencing the region's retail sector. The amount and configuration of future retail floor space in urban locations requires further consideration.

b) Provide strategic employment locations

Employment areas need to be appropriately located and serviced to take advantage of water, infrastructure, information and communications technology, transport and energy connections. Key urban employment locations for the future include the regional cities of Shepparton, Wangaratta and Wodonga and the urban centres of Benalla and Seymour. Some residents will continue to access jobs outside the region in places such as Albury, Melbourne and in Campaspe Shire.

Providing sufficient amounts of serviced industrial land in urban locations will be critical to the economy of the Hume Region. Results from the Urban Development Program, Regional Industrial Reports⁵ for the City of Greater Shepparton, City of Wodonga and Rural City of Wangaratta,

indicate there is in excess of 15 years of industrial zoned supply in these three municipalities.

Investment in renewal or development of physical infrastructure and services will further support economic growth and employment in existing and emerging manufacturing enterprises. Existing employment areas will need to be protected from encroachment by new or changing sensitive land uses, including schools, hospitals and houses, to avoid potential adverse impacts, such as from noise and odour.

c) Improve land use planning processes to support improved responses to investment and business opportunities

In order to support a more diverse economy and key economic sectors, such as manufacturing, further consideration should be given to improving the ability of businesses to respond quickly to investment and business development opportunities. Streamlining land use planning processes and providing a consistent regional approach could contribute to improving this ability. A consistent, streamlined approach could be applied to industry clusters identified at a regional or sub-regional scale to support investment in these locations.

d) Build on existing business and industry and attract new investment

Adequate supplies of land, water, physical and social infrastructure, technology and transport, a skilled workforce, quality education and affordable housing are factors that will help attract new investment, support growth of existing business and industry, and increase economic development in the Hume Region.

Significant public sector investment will also be needed in the CBD of key urban centres, such as Shepparton and Wodonga, to reinforce their role as

⁵ These reports include the 2011 Urban Development Program, Regional Industrial Reports for the City Greater Shepparton and the Rural City of Wangaratta, and the 2009 Urban Development Program, Regional Industrial Report for the City of Wodonga.

major retail and service hubs. Public sector investment will help stimulate private sector investment in these areas, which in turn will help create vibrant and attractive CBD's and promote business activity and employment.

The recent \$2 billion investment in irrigation modernisation and on-farm irrigation efficiency improvements in the Goulburn Valley have significant potential to attract further investment and provide opportunities for capitalising on growing and emerging markets for food products in places like China and India.

The Hume Region is likely to be an attractive option for an expanded workforce due to its liveability and investment in educational facilities, information and communications technology and improved transport links. Technological advances will also support alternative working arrangements such as home-based businesses and telecommuting. Infrastructure will also be needed to support renewable energy initiatives, such as solar energy generation, and energy from waste, including green waste from primary production and the timber industry. Opportunities may exist in the region to co-locate industries to maximise resource use efficiency and minimise waste generation and waste treatment costs.

e) Protect, maintain and enhance tourism assets

The Hume Region will continue to offer tourism attractions such as food and wine, snow and other nature-based experiences, long-distance cycling, art and culture and unique cultural heritage. Environmental and cultural heritage assets such as alpine areas, national parks and other public land, water bodies and scenic landscapes contribute to the economy and liveability of the region by attracting visitors and new residents. Protecting, maintaining and enhancing these key regional assets will contribute to building a more diverse economy and sense of place for the region.

This plan supports nature-based tourism that takes advantage of environmental assets without compromising their values. Examples of key tourism places in the region include alpine resorts, lakes (such as Hume, Eildon and Dartmouth), rivers (such as the Murray River), wetlands (such as the Barmah Forest and Winton Wetlands) and public land (such as the Alpine National Park). Tracks and trails, including rail trails, will continue to offer recreation and tourism experiences in the region. Opportunities exist to develop complementary land uses, infrastructure and services, such as accommodation, transport to trails and cycle loops, to support and build on existing tracks and trails.

Alpine resorts have the potential to offer a range of tourism activities throughout the year. Supporting further development of year-round attractions will contribute to the long-term viability of alpine resorts and help diversify the region's tourism product, with winter tourism under threat from the potential impacts of climate change, which will reduce the average snow cover and number of snow days. The fire hazard presented by the environments within which alpine resorts are located will need to be considered when planning for the further development of these resorts. Locations in close proximity to alpine resorts support tourism activities at resorts by offering accommodation and alternative activities.

Tourism has become an important adjunct to many agricultural enterprises, providing additional income through activities such as cellar door and farm gate sales and accommodation. Attractive rural landscapes could provide opportunities for niche farming and associated tourism. Rural tourism activities could also contribute to the diversification of the region's tourism product and mitigate potential economic impacts on the tourism industry as a result of climate change, such as reduced snow cover and water available for recreational purposes.

Rural tourism activities should be strategically planned to ensure they are compatible with other rural land uses and protect landscape and heritage values. High quality and diverse tourist accommodation options, both urban and rural locations, will be encouraged in appropriate locations.

The Hume Region is home to several cultural and sporting events that attract a large number of visitors. Providing and improving venues for such events will strengthen the region's ability to accommodate these types of events and attract more visitors.

The improvement of infrastructure could also help support tourism activities in the region.

f) Maximise transport assets to support the regional economy

The Hume Region will continue to capitalise on its national transport links, for both passengers and freight, to support the regional economy. Making the best use of the region's strategic transport assets involves continuing development of the existing freight and logistics precinct at Wodonga (LOGIC freight activity centre), establishing a consolidated freight and logistics precinct south of Mooroopna and at the proposed Beveridge Interstate Freight Terminal, and exploring opportunities to develop a future freight logistics precinct (road, rail and air) and pilot training facilities at Mangalore Airport.

Freight and logistics precincts in the region form part of a national network including existing precincts in southern New South Wales, which also serve the region. Building the capacity of freight routes will assist with the movement of goods and support the regional economy. However, passenger rail services to Melbourne are inadequate in comparison to other regions and limit business and investment attractiveness. Affordable, regular and convenient passenger rail services could help attract a wider workforce to the region. Safeguarding transport and tourism routes, such as national touring routes, for future use will help support the regional economy.

The potential implementation of high speed rail between Melbourne and Sydney following a route through the region and associated station locations (as discussed in Section 14.1) could have significant economic advantages for the region, including improved access to and from the region. The progress of this potential project should be considered as part of future reviews of this plan.

11.2 Agriculture

The Hume Region will continue to be one of Australia's major food-producing areas. The Goulburn Valley is part of the Goulburn Murray Irrigation District, which is a significant agricultural area and is expected to continue to deliver a significant proportion of Victoria's agricultural product currently about 25 per cent of the total value of the state's agricultural production. Agricultural production will be supported through the protection and enhancement of key agricultural assets including land and water resources.

Maintaining and enhancing the contribution of these strategic resources to the production of a diverse range of agricultural commodities is a key component of the region's economic future. These resources support a resilient agricultural sector with the capacity to adapt to future economic and climatic changes and the potential impacts of the Murray-Darling Basin Plan.

Modernisation of irrigation and regional drainage infrastructure, together with improved on-farm efficiency will help protect valuable water resources and support future investment in agriculture. Some agricultural sectors are expected to become more intensive in the future. Opportunities to establish intensive agricultural clusters in strategic locations supported by ancillary infrastructure, including drainage works, will be explored further. New agricultural opportunities may emerge in the region over time including new commodities, technology changes and emerging industries, such as energy farming and carbon markets.

a) Support the protection of strategic farmland

High quality agricultural land is a finite resource and is an essential basis for many forms of agriculture. The reference in the Victoria Planning Provisions (Clause 14.01-1) to protecting 'productive farmland that is of strategic significance in the local or regional context' is an important precept in rural land use planning. It implies a selective approach, the identification of land of better productivity and versatility that has a long-term and strategic role in the production of food and fibre. It also helps support and protect the significant investment in irrigation modernisation in the Hume Region.

Strategic agricultural areas in the region are defined as having versatility in production, being of significant scale, located in proximity to value-adding processing and having access to secure water supplies (see Map 4).

Section 9 of the background paper provides more detail about how areas of strategic significance were identified. These areas will be given the highest level of protection to ensure agriculture remains a viable industry for the future, including providing certainty for investors. From a regional perspective, measures to protect areas identified as strategic agricultural land of national, state, regional or sub-regional significance should include:

- directing proposals for settlement in these areas to existing centres and townships
- directing large commercial tourism uses away from these areas to urban locations or to rural areas of lower agricultural value
- avoiding encroachment from rural residential settlement and other land uses that are non-complementary to agriculture.

In addition to areas shown in Map 4, councils may identify other important agricultural areas from a local perspective. Consideration should be given to a regional approach to mapping existing rural land use and strategic agricultural land of local significance at a scale that would assist councils with local rural land use planning.

b) Support and manage intensive agricultural production

Intensive forms of agriculture, such as broiler farms, piggeries, feedlots and horticulture, can contribute to food production and potential food security. They generate large outputs on small areas of land and are usually not dependent on high quality soils as the driver for location. Factors such as road access, power, water, processing facilities and feed supply can be important indicators or drivers for the productive potential of farmland. The relatively small footprint of these intensive agricultural industries, coupled with the buffers required from sensitive uses, provides an opportunity for other forms of agriculture to coexist and operate concurrently within or around buffer areas.

Areas could be identified in the region where these types of agricultural activities should be encouraged due to locational opportunities, such as access to water, energy and transport, and separation from sensitive land uses. Consideration will be given to clustering intensive agricultural production in these areas. However, encouragement to locate in these areas would not prevent these industries from locating in other suitable locations where compliance with the relevant code of practice and appropriate separation distances can be achieved.

c) Support changing farm sizes, methods, strategies and land uses

Increased productivity of agricultural land has led to a general decline in the price of farm produce, or terms of trade. Farmers seeking to maintain a consistent level of real income generally consider increasing the size of farms, diversifying activities, intensifying their production or seeking niche farming opportunities, or a combination of these. Aggregation of farmed land, particularly for broadacre cropping, has led to larger farm sizes and fewer farm enterprises in rural Victoria, including the Hume Region. This trend is expected to continue in the future.

Despite competition from amenity purchasers⁶ there are likely to be opportunities for farm businesses to expand production, either through purchasing land and diversifying income streams (such as by adding tourism products or changing the mix of uses) or by retaining existing land and intensifying production methods (such as by improving grazing management or introducing or expanding irrigation). Attractive rural landscapes may also offer opportunities for niche farming and associated tourism. Additional opportunities also exist for well-considered leasehold or share-farming.

The planning system should continue to support the viability of farming through providing for increasing farm sizes and changing agricultural methods and strategies.

Examples of agricultural industries that have declined over the past two decades are wool and tobacco farming. While tobacco production declined due to legislative change, wool production and other agricultural industries have declined due to a range of factors including drought conditions, changing markets, policy changes and difficulties in increasing productivity in labour-intensive industries. Some areas used by these industries could transition towards other uses such as different agricultural activities, forestry, renewable energy generation, carbon farming and conservation

activities. Planning for specific activities in these different areas will take place at a local level. Supporting compatible mixed uses in suitable locations within these areas could help diversify the regional economy.

d) Plan for the potential impacts of climate change on agriculture

In addition to reducing the availability of water, climate change may have other specific impacts on agricultural production in the Hume Region, such as an increased frequency of drought, increases in bushfire and more severe flood, storms and hail damage. On the other hand, climate change may create opportunities for different types of agricultural production and commodities. Land use planning in the region should support the ability of the agricultural sector to respond to the challenges and opportunities presented by climate change.

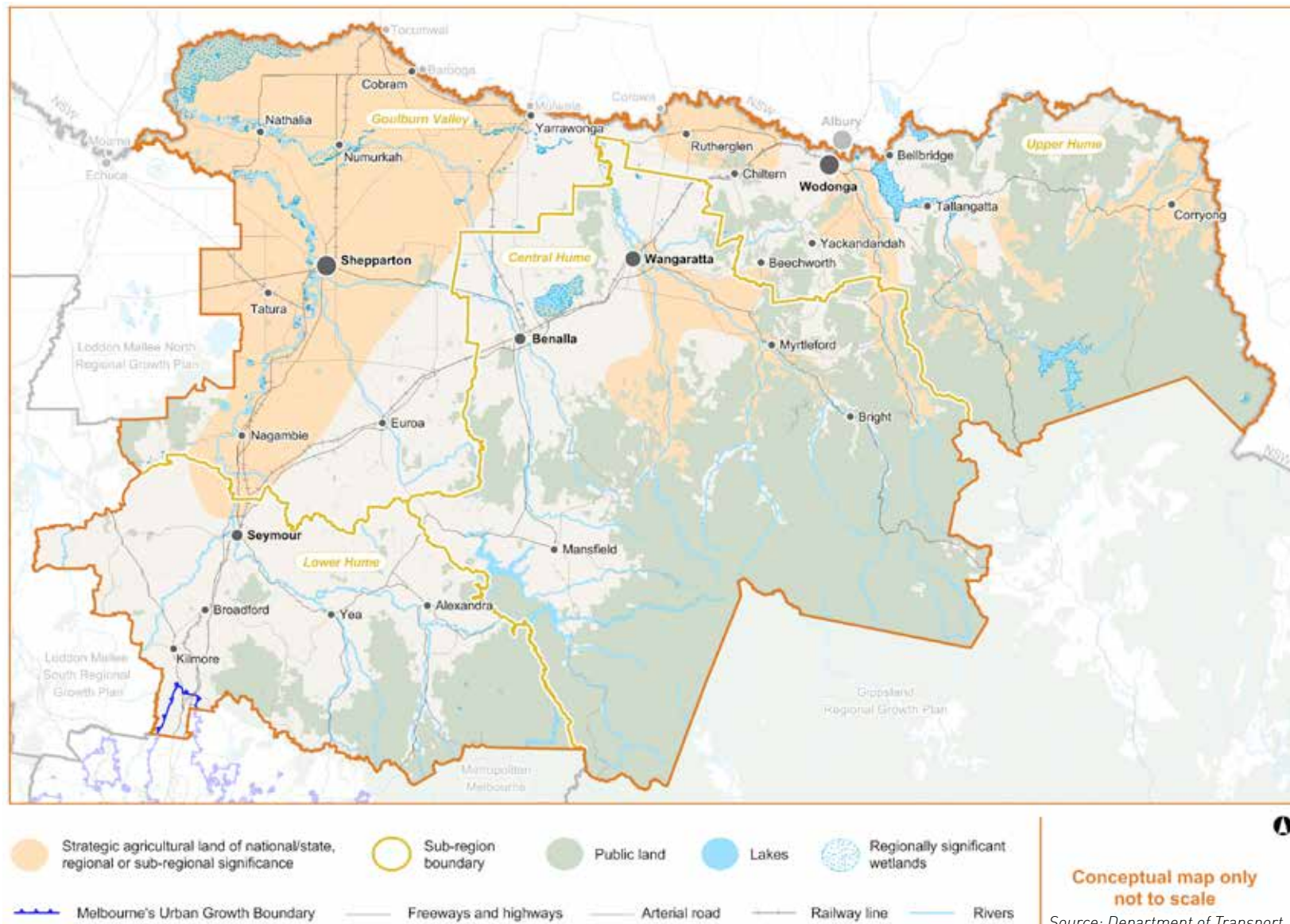
e) Respond to a changing irrigation landscape

The irrigation landscape in the Hume Region is changing. While the Murray-Darling Basin Plan is likely to have an impact on the water available for irrigation, the extensive network of irrigation infrastructure that supports the region's high level of production is undergoing the most significant upgrade in its 100-year history. This irrigation modernisation project will bring the network to a world-class standard and is the biggest investment of its kind in Australia.

By dramatically improving water delivery, security and efficiency modernisation will help secure the future of the region's agricultural economy. The project will provide a significant economic stimulus for the region, boost industry confidence, generate opportunities for co-investment and help create new jobs. Supporting the ability of the agricultural sector to adapt and take advantage of this changing irrigation landscape will help secure agricultural production in the region.

⁶ Rural land purchased primarily for residential use, to take advantage of the amenity of areas.

Map 4: Strategic agricultural land



f) Minimise fragmentation of agricultural land

Fragmentation of farmland occurs when traditional farming areas are broken up by the introduction of alternative, predominantly non-farming, uses such as lifestyle dwellings and rural residential subdivisions, tourism and boutique industries. These changes may limit agricultural intensification, diversification or expansion and restrict current farming practices or even make them untenable. This may result in irreversible land use change. Fragmentation is particularly prevalent where land has high landscape amenity value, is relatively inexpensive, is near sealed roads and has a historical pattern of small allotments.

In the Hume Region, pressure for residential development not related to farming appears to be focused in linear formations along roads and valleys, in areas where land is considered to have an uncertain agricultural future, in peri-urban regions, and in high amenity areas.

Strategic planning for these non-farming uses in rural areas should continue to take into account the potential impacts on farming activities.

g) Avoid conflicting land uses and activities

Introduction of sensitive uses, such as housing, can compromise opportunities for growth and investment in productive rural areas. Conflicts can arise as a result of noise, dust, spray drift, water usage and odours from farming activities. Considering the right to farm in these areas and providing for strategically located rural residential developments may help to minimise conflict between sensitive land uses and agricultural activities in rural areas. Applying appropriate buffers between agricultural uses or rural industries and sensitive land uses, such as residential uses, will also contribute to this.

Non-agricultural uses in productive rural areas need to be managed to minimise biosecurity risks and support ongoing agricultural production.

h) Maintain and enhance infrastructure supporting rural industry

Rural industries in the Hume Region are supported by significant infrastructure, including major transport corridors, irrigation networks and drainage systems, water storages, the natural gas supply network and electricity generation and transmission systems. The continued maintenance and enhancement of this infrastructure is essential to securing a productive and sustainable agricultural sector in the region.

11.3 Energy and earth resources

a) Explore opportunities for renewable energy generation and alternative waste treatment

Factors affecting future energy demands in the Hume Region include:

- rising electricity costs
- the high price of bottled liquefied petroleum gas and the limited coverage of the reticulated gas network, combined with hot summers and cold winters
- long-distance commuting
- the needs of the region's larger, more energy intensive industries.

Developing alternative energy sources such as solar, wind, geothermal, bioenergy and biofuels will contribute to securing a sustainable energy future for the region.

Opportunities exist in the region for sustainable electricity generation in close proximity to existing electricity distribution infrastructure. Potential and existing alternative energy resources in the region include:

- wind energy in the Strathbogie Ranges
- solar energy, particularly in the northern parts of the region
- hydro-electricity related to key water resources
- bioenergy and biofuel generation from waste products, such as agricultural wastes
- other opportunities for local power generation and distribution.

The region is home to key electricity distribution infrastructure, such as substations and networks. Sustainable electricity generation that is connected to existing infrastructure could offer a regional advantage, particularly as the technology used to generate sustainable electricity improves.

Opportunities also exist in the waste sector for localised waste management solutions relating to alternative treatment technologies for solid waste including waste composting, recycling and reuse. This is particularly relevant in areas where solid waste is generated, specifically around towns with industries processing food and fibre and near clusters of intensive animal raising industries.

b) Explore, support and manage opportunities to take advantage of earth resources

Earth resources, in the form of minerals and quarry products, make a valuable economic and social contribution to the Hume Region.

Opportunities to take further advantage of earth resources could support the diversification of the regional economy. Planning for these activities needs to continue to consider environmental and community values and access to markets. Opportunities to develop minerals and extractive industries should be further explored, supported and managed. Past mining activities in the region have degraded substantial areas of alluvial soils. Minerals and extractive industry activities are now regulated to manage environmental impacts such as potential impacts on ground water.

Extractive industry interest areas occur within the region and contain areas of known future interest to the extractive minerals industry, for example sand and stone. Areas are based on suitable geological occurrence and also take into account existing local government planning schemes. They are intended to provide a guide to local government in developing future planning policy. In response to the Economic Development and Infrastructure Committee's *Inquiry into greenfields mineral exploration and project development in Victoria*, the Victorian Government has committed to various activities that will undertake further data gathering and planning to better protect the state's extractive resources for future development. The outcomes of these activities may have implications for future planning provisions. Extractive industry interest areas located in the region are shown in Figure 14 of the background paper.

A locally available supply of earth resources, including heavy construction materials, will support settlement growth, economic development and the provision of cost-effective infrastructure. Consideration could be given to measures that help facilitate and manage the future extraction of earth resources in the region as part of diversifying its economy.

12. Environment and heritage

The Hume Strategy aims to protect and enhance the Hume Region's environmental assets for current and future generations by conserving these assets, protecting their intrinsic values and supporting sustainable communities.

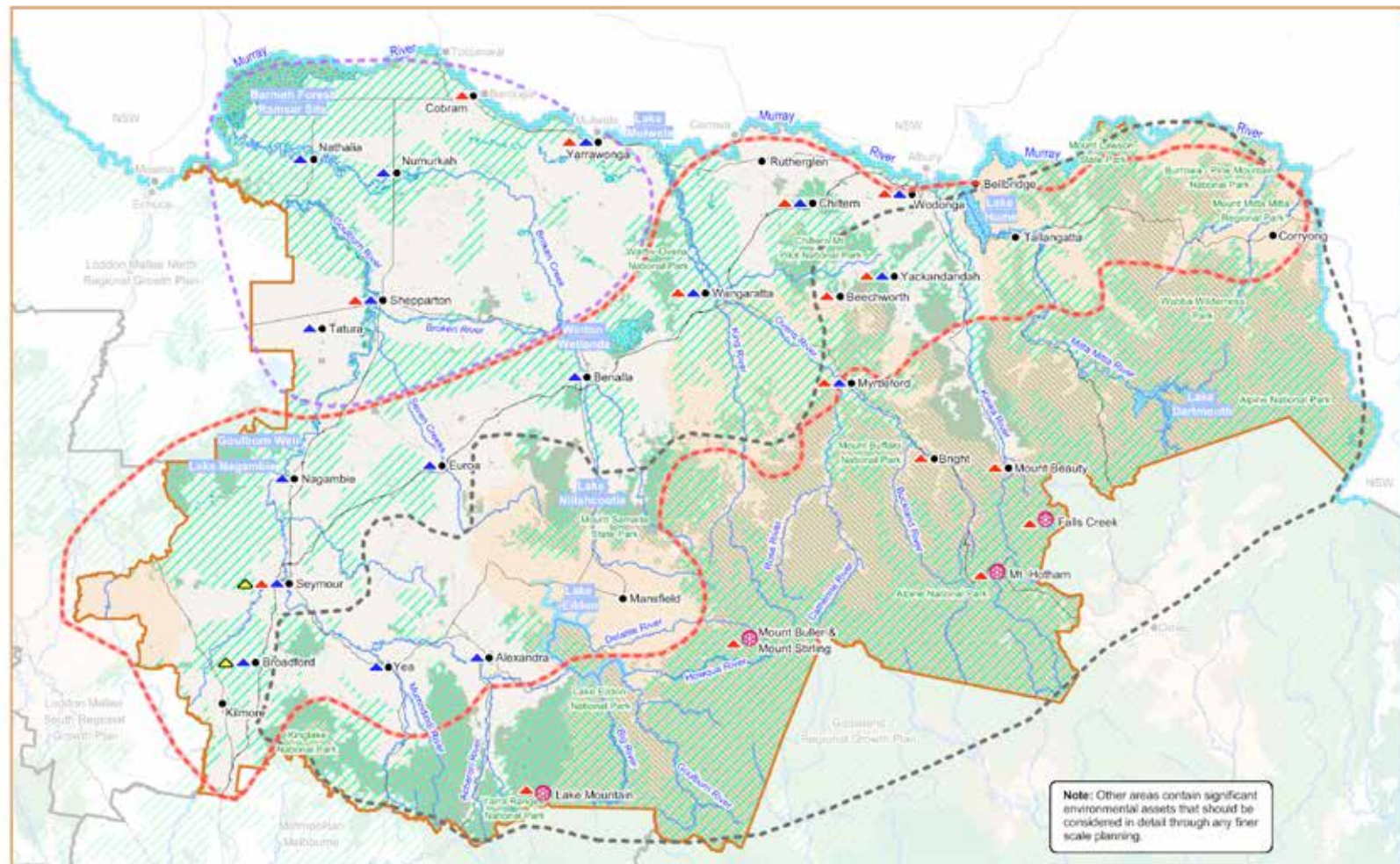
The Hume Region has rich and diverse environmental and heritage assets. These include snow-covered mountains, alpine areas, lush river valleys, forests and woodlands, granite outcrops and floodplains. They also include a myriad of cultural heritage, including both Aboriginal and historic places and objects. Cultural landscapes are important for their heritage and environmental values as well as their scenic beauty. Environmental and heritage assets contribute to the economic success of the region, enhance liveability for its residents and provide an attraction for visitors and tourists.

The region is home to waterway assets of state, national and international importance such as internationally recognised wetlands and the headwaters and catchments of many Murray-Darling Basin rivers.

The Hume Region has large numbers of endemic species (those found only in this region) and the greatest number of threatened flora and fauna species in Victoria. A large proportion of the region is public land, particularly in the east and south east. While much of the remainder of the region has been cleared, significant areas of remnant vegetation can still be found in these areas.

The region is subject to natural hazards such as bushfire, flood and drought, and the risk of these events may intensify as a result of climate change.

Map 5: Future directions – Environment and heritage



Avoid or minimise the impact of development on high value environment and heritage assets and significant landscapes through the use and application of consistent planning tools across the region.

Protect and improve the waterways of the region, in particular the Murray River corridor and significant wetland complexes.

Manage the risks to human life, property and infrastructure by avoiding areas at risk from natural hazards. Where a settlement is not identified as at risk on this map, the risk from natural hazards still needs to be carefully considered in local planning.

Manage growth to help maintain the health of water supply catchments and access to reliable water supplies.



(1) Represents the three highest levels of NaturePrint strategic natural values.
 (2) Urban flood and salinity considerations are based on existing overlays.
 (3) Bushfire considerations may be based on one or more of the following: existing overlays, advice from CFA or Regional Bushfire Planning Assessments. Does not include Bushfire Prone Areas.



Source: Department of Transport, Planning and Local Infrastructure

Key environmental and heritage issues for the plan include:

- adapting to the potential impacts of climate change
- protecting significant cultural landscapes
- protecting and enhancing terrestrial habitat assets
- using and protecting soils
- protecting water assets
- identifying and conserving significant cultural heritage.

The North East Catchment Management Authority and the Goulburn Broken Catchment Management Authority coordinate investment in the protection and enhancement of environmental assets throughout the region, along with public land managers. Regional catchment strategies have been developed to provide integrated regional strategies for achieving improved environmental outcomes in the region. Regionally significant environmental assets have been identified in this regional growth plan and these align with those identified in the regional catchment strategies. The plan proposes a land use response that complements the regional catchment strategies.

Key areas where potential growth or land use change may intersect with environmental and heritage assets have been identified in the plan. Natural hazards and risks have been mapped and form part of the considerations for urban growth. This plan provides direction on these issues.

Overall approach

Considering the vision and principles established in Part B of this plan, the Hume Strategy and the regional catchment strategies, the overall approach is to **protect environmental and heritage assets and maximise the regional benefit from them, whilst managing exposure to natural hazards and planning for the potential impacts of climate change.**

Future directions to achieve this are shown in Map 5 and discussed under Sections 12.1 and 12.2 below.

12.1 Environmental assets

a) Identify, manage and protect significant regional cultural landscapes

Landscapes in the Hume Region are highly valued by the community, tourists and visitors for their scenic amenity and heritage values. They contribute to the economy and liveability of the region and attract investment, residents and visitors. There is a need for these landscapes to be identified, classified and described in a consistent way so they can be protected and managed by suitable mechanisms such as land use planning tools.

Cultural landscapes are significant due to their aesthetic (including scenic), historic, scientific, social, archaeological and environmental values. These landscapes can be strong contributors to the character of a place. Although there has been no systematic identification, classification and recording of broader cultural landscapes across the Hume Region, it is highly likely the region would have national, state and regionally significant landscapes.

An integrated and comprehensive regional landscape study is needed to identify landscapes of value within the region, including consideration of both the scenic quality and heritage values of landscapes, and to identify suitable planning mechanisms for their protection.

The protection and promotion of cultural landscapes can help expand tourism opportunities and associated economic activity.

b) Protect and enhance terrestrial habitat

In order to protect and enhance terrestrial habitat, including associated biodiversity assets and their economic contribution, the impacts of land use change and development on these assets can be minimised by:

- directing growth towards areas identified as having lower environmental values
- avoiding development in areas with regionally significant terrestrial habitat
- protecting significant vegetation assets through strategic planning
- improving regional vegetation connectivity (landscape connectivity), including enhancing vegetation corridors between existing native vegetation.

Re-establishing vegetation links between areas of existing native vegetation and along waterways is important for sustaining the productivity of landscapes and for enhancing environmental values. Actions aimed at enhancing vegetation corridors will require careful planning that considers ecological benefits, bushfire management and implications for nearby settlements. Opportunities exist to strategically locate offset planting associated with clearing of vegetation for the enhancement of vegetation corridors within the landscape.

Strategic planning processes should continue to identify opportunities for the establishment of vegetation networks at a local and regional level to help maintain and enhance the region's terrestrial habitat and links to waterways and wetlands. The provision of strategic direction for vegetation protection and clearing is encouraged. Such strategic direction would help to enhance vegetation networks and could include measures such as permanently protecting native vegetation by establishing public reserves. An example of such an approach is the Wodonga Retained Environmental Network.

In the irrigated areas in Hume's north west, where a large proportion of vegetation has been cleared, opportunities will be sought to protect and enhance biodiversity that is representative of this part of the region. A range of measures could be used including protecting vegetation with appropriate land use planning mechanisms.

Pressure for urban and rural residential development in areas of high amenity or environmental value, such as in Melbourne's peri-urban hills, can present a threat to environmental assets, but also provides opportunities for tourism and other economic diversification in the region. Balancing these pressures, along with the natural hazards and potentially prohibitive infrastructure costs associated with these areas, is a key challenge for regional and local planning.

Future land use planning decisions will be guided by the strategic directions of the regional catchment strategies and sub-strategies, as well as other relevant strategic documents such as local government environment strategies and planning schemes. Revisions to these complementary strategies should also consider the directions of this plan.

c) Manage water as a key environmental, social and economic asset

The waterways (rivers and wetlands) of the Hume Region are highly significant environmental and economic assets, providing water supply to one of Australia's major food-producing areas. Along with providing water for the environment, these waterways also feed major water storages and significant irrigation infrastructure that supply water to settlements, industries and farms, particularly in the food bowl area in the north west of the region. Major rivers, such as the Murray River, water bodies and significant wetland complexes provide opportunities for nature-based and recreational tourism, which may be enhanced by environmental watering programs, such as those related to the outcomes of the Murray-Darling Basin Plan.

The potential impacts of climate change are expected to lead to a general reduction in stream flow and consequently water availability for the environment and water users.

Many urban settlements in the region are located adjacent to rivers, and riverbank improvements add to their attraction within the urban landscape. This enhances urban liveability and connections to environmental assets. Coordinating urban and water planning will help reduce the impact of urban development on rivers and wetlands, including water quality and flow. There is also continued pressure to develop residential uses around some water bodies, such as Lake Hume, which need to be carefully balanced with the environmental assets and natural hazards associated with these areas.

The highly dynamic nature of some waterways in the region needs to be considered as part of land use planning processes. Decisions regarding the use and development of land along major waterways, within floodplains and around water bodies should be consistent across the region to manage potential impacts on waterways and water assets.

Groundwater is a significant but variable resource within the Hume Region. Groundwater supplies in some areas may not be suitable for potable use and this could become an issue if access to groundwater is essential for meeting the future supply needs of settlements. This water is often a viable resource for agricultural and industrial use and some opportunities may exist to increase use of groundwater for these purposes. However, due to the links between rainfall, groundwater levels and salinity, groundwater resources need to be managed carefully. Land use planning supporting such activity will help promote diversification of the regional economy.

The region is home to a significant reticulated network of irrigation infrastructure in the Goulburn-Broken Valley. In other parts of the region irrigation water is extracted directly from the source, for example rivers, to support agricultural production.

Land use planning challenges arise due to the large areas of declared water supply catchments within the region, which are under pressure for development. In these catchments, land use and development, such as certain types of agriculture and unsewered residential development, have the potential to impact adversely on water quality if not managed appropriately. Land use planning decisions in these areas need to consider the management of risks relating to wastewater and the individual and cumulative implications of development on groundwater and surface water uses. Domestic wastewater management plans may need to be reviewed to enable effective planning for the type of economic and settlement growth that can occur in these areas while protecting catchment health.

d) Support the appropriate use and management of soils

Healthy soils are critical to the continued economic growth of the Hume Region, such as for agricultural production and maintaining biodiversity. The region has highly productive soils, often associated with the strategic agricultural land identified in Map 4. Appropriate use and management of soils is necessary to prevent their widespread degradation and minimise the potential impact on other assets that are affected by soil degradation. Soil degradation, particularly soil acidity, erosion and salinity can variously impact on roads, buildings and bridges, productive agricultural land and waterways.

Land use planning can assist in the protection of the region's soil assets by helping to avoid land use change that could result in deterioration of the soil asset within the region, or further contribute to the pollution or degradation of other assets. Overlays, such as the Environmental Significance or Erosion Management Overlay, can be used to help protect soils.

e) Recognise public land as a substantial environmental and economic asset

The substantial public land estate is a significant asset of the Hume Region. It will continue to be recognised and managed for the protection of environmental and heritage assets, for providing environmental values, such as ecosystem services that provide pollination, clean air and water, and for activities such as timber and firewood production, recreation and nature-based tourism. Public land will continue to be valued for its role in carbon storage.

The bulk of the region's public land is protected in parks, reserves and state forest, where land use is highly regulated. The Victorian Government has established new guidelines relating to private tourism development in national parks. There are some opportunities for private sector investment in sensitive development of tourism infrastructure within national parks. Land use is more likely to change on smaller pockets of public land such as roadsides, leased unused roads, land managed under committees of management and in streamside reserves.

In planning for land use and development in and adjacent to any public land, consideration needs to be given to managing threats to this substantial asset and minimising bushfire hazards to both public and private land. With the prospect of a drying climate, the buffering of public land from built development, especially residential development, will be a key consideration over the next 30 years. Buffering can also reduce other development pressures on the environmental values of public land.

12.2 Cultural heritage assets

Aboriginal cultural heritage and historic heritage in the Hume Region include places that demonstrate key phases and events in the history of the region, as well as the stories and ongoing cultural practices associated with them.

Aboriginal people have strong relationships with, custodianship of, and decision making roles about cultural heritage places and objects. The cultural obligation of Aboriginal people (and all Victorians) to manage and sustain heritage places is an important aspect of expressing, strengthening and maintaining relationships with these places. This contributes to a sense of place and the liveability of the region.



Ovens district hospital facade, Beechworth

The region's historic heritage places include those representing early European exploration and settlement, sites linked to bushrangers, important towns and buildings, parks and landscapes and places associated with the historic and cultural development of Victoria. Important historical themes include pastoral expansion, goldmining, industrial development and economic expansion and growth.

a) Maintain and enhance cultural heritage assets

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

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

Registered Aboriginal Parties will have an important role in planning and development, and there are benefits to engaging with the relevant Aboriginal community organisations early in strategic planning processes. Currently the Yorta Yorta Nation Aboriginal Corporation, Taungurung Clans Aboriginal Corporation, Wurundjeri Tribe Land and Compensation Cultural Heritage Council and Gunaikurnai Land and Waters Aboriginal Corporation have legislated responsibilities relating to the management of Aboriginal cultural heritage places in the Hume Region. This arrangement recognises the key role that Aboriginal traditional owners have in the protection and management of significant Aboriginal cultural heritage places.

12.3 Natural hazards and risks

This section outlines the natural hazards and risks impacting on the Hume Region. These natural hazards and risks are considered throughout this document.

a) Plan for the potential impacts of, and opportunities arising from, climate change

The future climate of the Hume Region is predicted to be hotter and drier than the long-term average, resulting in an increased risk of droughts and extreme fire danger days. Future land use planning decisions should be based on the best available information about the potential impacts of, and adaptation to, climate change.

Land use planning should also respond to opportunities for innovation and industry development arising from climate change and initiatives that support the reduction of greenhouse gas emissions and where appropriate remove any barriers to such action. Consideration must be given to the appropriate design of urban environments to address potential risks for local communities from climate change, such as the effects of increased urban temperatures.

b) Minimise flood risk

Parts of the Hume Region have been impacted by flood and climate predictions indicate future flood events may be more extreme although they may be less frequent. Many of the region's urban centres are located within the floodplains of major rivers including Benalla on the Broken River, Shepparton on the Broken and Goulburn rivers, Seymour on the Goulburn River, Wangaratta on the Ovens and King rivers and Wodonga on the Murray River.

The risks of flood must be considered in land use planning decisions. These decisions should be based on the best quality information on flood hazards to minimise risk to life, property, community infrastructure and environmental assets. Flood provisions in planning schemes should be used consistently across the region to avoid inappropriate development or require appropriate development responses, as well as to apply design responses. New development will be directed away from areas of highest

flood hazard and development should not be supported if it increases the flood risk for other sensitive areas or development. Flood hazard has been explicitly considered in the development of this plan, particularly in assessing potential future development directions for specific settlements.

Some existing urban areas are flood prone. Local planning for these areas should consider the inherent risk to these communities and help to build their resilience to such risk. Local plans should establish and confirm measures to manage development in these areas.

c) Minimise bushfire risk

Many of the landscapes most attractive to residents and visitors are also in locations containing large areas of bushfire hazard, and future climate predictions indicate bushfire risk is likely to increase. When addressing bushfire risk, community resilience will be strengthened by:

- prioritising the protection of human life over other policy considerations when planning to create or expand a settlement at risk from bushfire
- applying a precautionary approach to planning and decision making when assessing the risk to life, property and community infrastructure from bushfire
- taking advantage of existing settlement patterns where new development will not expose the community to increased risk from bushfire.

Regional and localised planning take into account bushfire hazard in detail, with the assistance of planning tools, such as the Bushfire Management Overlay, Regional Bushfire Planning Assessments and Bushfire Prone Areas, as well as input from the Country Fire Authority. Such planning should also consider potential risk from urban areas interfacing with areas of bushfire hazard. Some settlements identified for growth are located in areas with bushfire hazard (illustrated in Map 5). Bushfire hazard has been explicitly considered in the development of this plan, particularly in assessing potential future development directions for specific settlements. Growth opportunities in settlements constrained by bushfire hazard may occur by expansion in areas of lower bushfire risk and infill opportunities.

13. Living in the region

This section considers settlement in the Hume Region and how future growth can be focused, managed and directed to take advantage of regional strengths.

The Hume Strategy aims for an efficient pattern of urban and rural land use and development by consolidating the development of four sub-regions with high functioning networked centres.

13.1 Existing settlement network

The existing network of regional cities, which support their sub-regions, is a point of difference for Hume compared with most other regions in Victoria. In this regard the Hume Strategy states:

“The Hume Region is comprised of four distinct and interconnected sub-regions. The region is characterised by a network of high-functioning regional cities and centres located along major transport routes that support, and are supported by, a network of district towns, towns and villages. Unlike other regions in provincial Victoria, there is no single dominant major regional city in the Hume Region.”

The Hume Region is home to significant urban settlements such as Albury-Wodonga, which is recognised as one of Australia’s 18 major cities, and Shepparton, which is the fourth largest regional city in Victoria. The network of regional cities and their respective sub-regions is considered a major strength of the region.

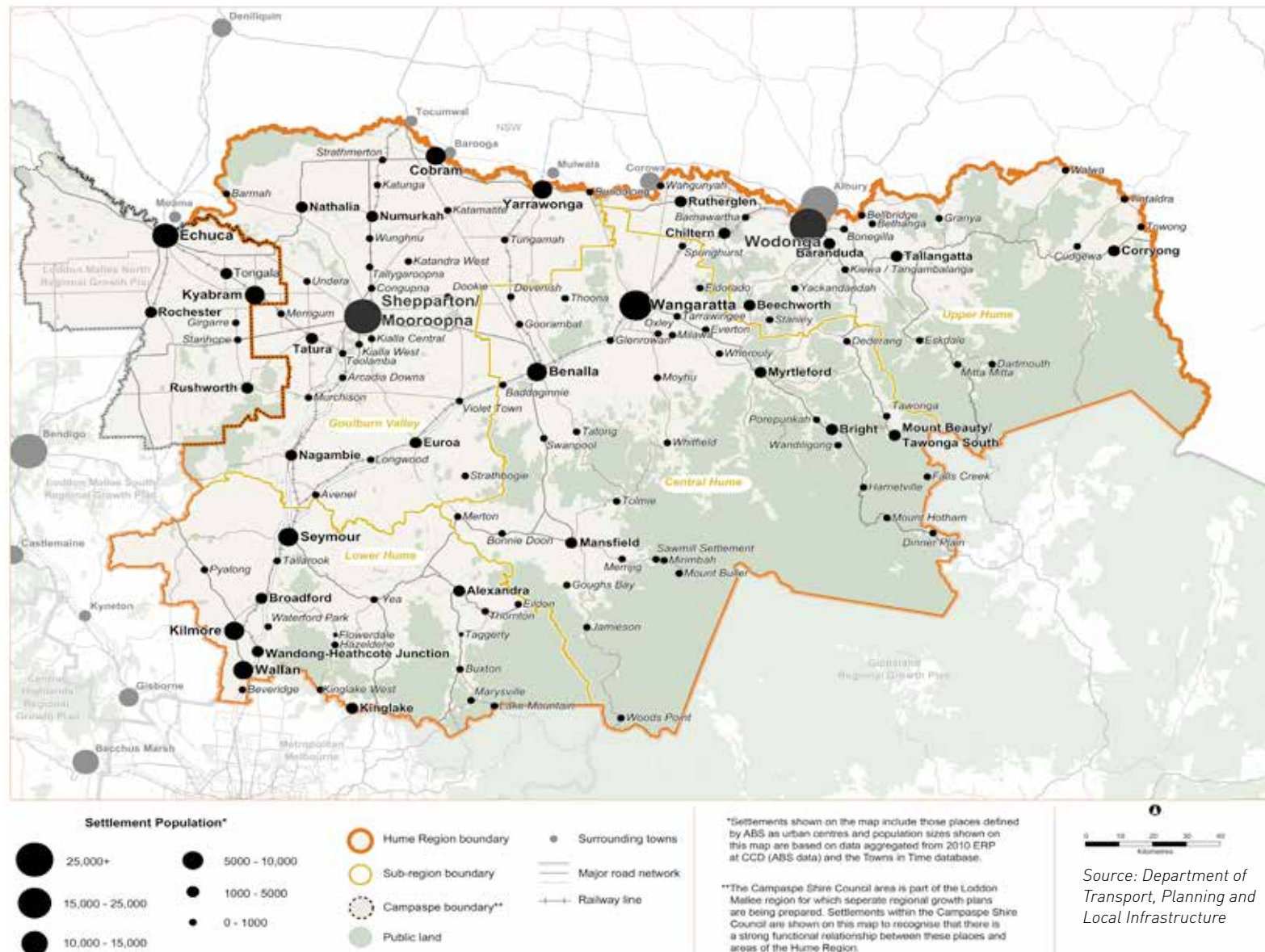
The Hume Strategy considers the sustainable growth and development of the region and the importance of making the best use of existing assets, including infrastructure and services. Larger settlements with a good base of existing services and facilities are spread across the region, supporting and complemented by a network of smaller settlements. This network provides communities with accessibility to services and facilities. In this network, the largest settlements of Shepparton, Wodonga and Wangaratta have the widest range of services and facilities and provide those services to a wider catchment extending beyond the region (into Campaspe Shire and southern New South Wales). Benalla and Seymour also provide a range of services and facilities to relatively smaller catchments.

The Hume Strategy recognises that having multiple centres means that higher order facilities and services are spread more evenly across the region making them accessible to even the most remote communities. Some services in Hume’s regional cities are not provided at a similar level to those provided in regional cities outside of the Hume Region. The four sub-regions, Central Hume, Goulburn Valley, Lower Hume and Upper Hume and the regional settlement network are shown in Map 6.

Overall approach

Considering the vision and principles established in Part B of this plan, the Hume Strategy and other regional factors, the overall approach is to **focus growth and development to maximise the strengths of existing settlements**. Future directions to achieve this are discussed below.

Map 6: Existing urban settlement network



13.2 Urban settlement framework

a) Build on and strengthen the existing urban settlement network

The key underlying principle for future urban growth is to build on the Hume Region's strengths by supporting and developing the existing network of settlements to ensure that infrastructure and services both present and future are used efficiently and maximise benefits for the community. Growth will be directed to those urban locations with the greatest capacity to accommodate it. Existing gaps in the provision of services and facilities in these urban settlements will also need to be addressed to support growth in these locations.

Direction 6.2 of *Plan Melbourne* seeks to rebalance Victoria's population growth from Melbourne to rural and regional Victoria over the life of the metropolitan planning strategy. Initiative 6.2.1 states: "In partnership with local government develop peri-urban town plans to increase the supply of land for housing and attract population growth out of Melbourne." Kilmore, Broadford and Seymour are identified as potential towns for growth.

The existing network of settlements in the region will be strengthened by focusing growth and change primarily in Shepparton⁷, Wodonga and Wangaratta, encouraging growth in Benalla, bolstering economic development in Seymour, and supporting growth in other settlements. This will help maximise the use of existing infrastructure and services, direct and prioritise future investment, and could help determine gaps. Residential, industrial and commercial development will be consolidated in settlements with strategic advantages, making efficient use of infrastructure and minimising the urban footprint. This approach recognises that regional cities function as hubs, each supporting a network of settlements.

Parts of urban locations identified for growth may be subject to natural hazards such as bushfire and flood. Such hazards and related risks must be considered in detail when planning for growth at a local level.

Urban growth and development will include consideration of access to employment and services that makes use of the existing transport network.

Regional perspective (refer to Map 7)

Major urban growth, development and change to support population and economic growth will be focused in Shepparton and Wodonga. Medium to high growth will be encouraged in Wangaratta and Benalla. Significant economic change will be supported in Seymour, exploring opportunities to grow Seymour into a significant employment hub as a consequence of its strategic location in relation to key transport corridors and Melbourne. These five urban locations will continue as the foundation of the urban settlement network in each of the four sub-regions.

A sufficient supply of residential, commercial and industrial land will be needed in urban locations to accommodate growth. This will support a diverse economy and improved access to employment and services. A broad assessment of residential land supply indicates that sufficient land has been zoned for residential use or identified for future residential expansion to accommodate a population well in excess of the projected increase for the Hume Region of 80,000 additional people by 2041, excluding expected increases in the metropolitan growth areas of Mitchell Shire⁸.

⁷ In this section, reference to Shepparton includes Mooroopna and Kialla.

⁸ The Melbourne metropolitan area is expected to grow into the region and places like Beveridge and Wallan will ultimately become metropolitan suburban areas. Planning for this metropolitan growth is being undertaken as part of the ongoing metropolitan planning process.

Map 7: Hume – Future urban growth



Source: Department of Transport, Planning and Local Infrastructure



Hume Weir, image courtesy of Wodonga City Council

A coordinated approach to plan and develop growth areas is preferred, including coordinated and timely provision of physical and social infrastructure. Some settlements have fluctuating populations due to factors such as tourism and seasonal labour. Providing services and infrastructure to support peak seasonal populations is a challenge for these locations. Land use planning processes relating to future growth areas will need to carefully consider environmental assets and natural hazards. The provision of emergency services needs to be considered when planning for growth.

Sub-regional perspective

Urban growth locations have been selected on the basis of factors such as available physical and social infrastructure, access to economic opportunities and employment, protection of environmental assets and exposure to natural hazards. Detailed structure planning is required in many instances to refine or update plans for identified growth locations.

Planning for growth and development will strive to provide a diversity of housing options, including residential development associated with the specific characteristics of a location, such as lifestyle and holiday housing, low density residential and higher density development. In major growth locations, medium to high growth locations and significant change locations, higher residential densities will be promoted in close proximity to central activity areas and other suitable locations. Infill development and urban renewal will also be encouraged in these locations.

Rural residential opportunities will be directed to selected locations in close proximity to urban centres to maximise the use of existing infrastructure, minimise the need to travel to services and facilities and minimise the potential impacts on rural production and environmental assets, while not impeding urban expansion.

i) Central Hume (refer to Map 8)

Medium to high urban growth and development in the Central Hume sub-region will be focused in Wangaratta and Benalla. Together these centres will continue to expand their higher order services to the communities of the Central Hume sub-region, specifically to those communities in the Ovens, King and Broken river valleys.

The relationship between Wangaratta and Benalla and surrounding communities will be important to provide access to employment and services. Strengthening linkages between them will enhance this relationship.

Population growth in Wangaratta and Benalla will be accommodated in a number of growth fronts, supported by investment in physical infrastructure and expansion of employment opportunities. Investment in new and upgraded social infrastructure will support future population growth in these two urban locations and their surrounding catchment areas. Some infill and urban renewal opportunities exist in Wangaratta and Benalla.

Results from the 2011 Urban Development Program, Regional Residential Report for the Rural City of Wangaratta indicate that:

- there was sufficient zoned land to provide approximately 870 residential lots
- a further 7200 lots could be created on land designated for future residential use
- approximately 50 infill lots were also available
- there is over 15 years' total supply of residential land stocks.

Maps 9 and 10 are conceptual urban growth frameworks for Wangaratta and Benalla and show strategic opportunities for urban growth, including key growth fronts, commercial nodes, industrial nodes, key linkages and potential sites for infill or urban renewal.

Further growth is likely to occur in other urban locations in this sub-region, particularly in those with good access to either Wangaratta or Benalla, including locations such as Mansfield, Myrtleford and Bright (incorporating Porepunkah). These towns will provide for increased tourist development while continuing to support surrounding rural communities by providing services and access to services in larger urban localities. Some of these localities offer unique growth opportunities related to natural characteristics and in some instances growth occurs due to the lifestyle offered, despite constraints. Growth needs to be managed to protect environmental assets and values and limit exposure to natural hazards such as bushfire and flood.

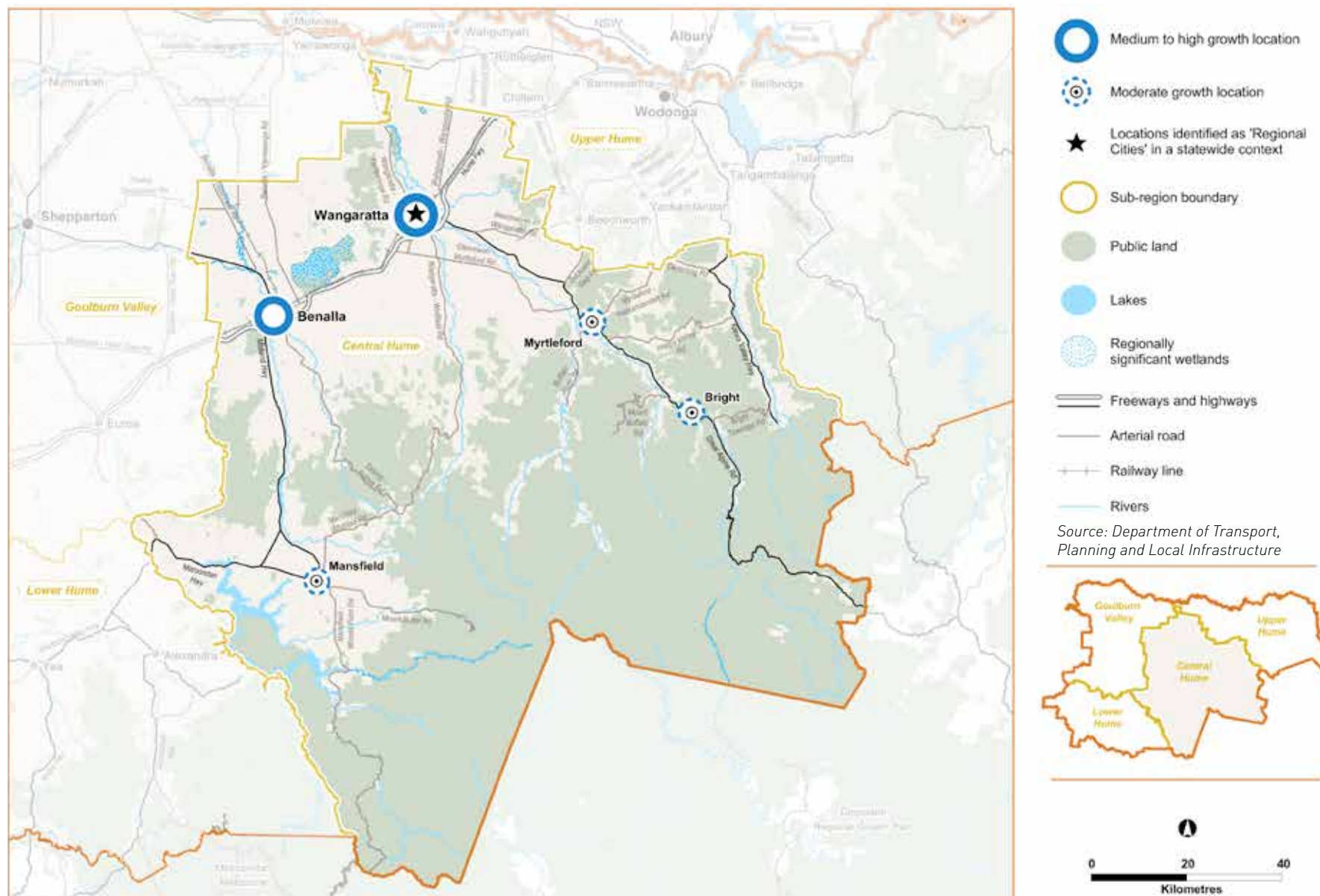
Settlements in the Kiewa Valley including Mount Beauty-Tawonga South are strongly linked to Albury-Wodonga, in the Upper Hume sub-region.



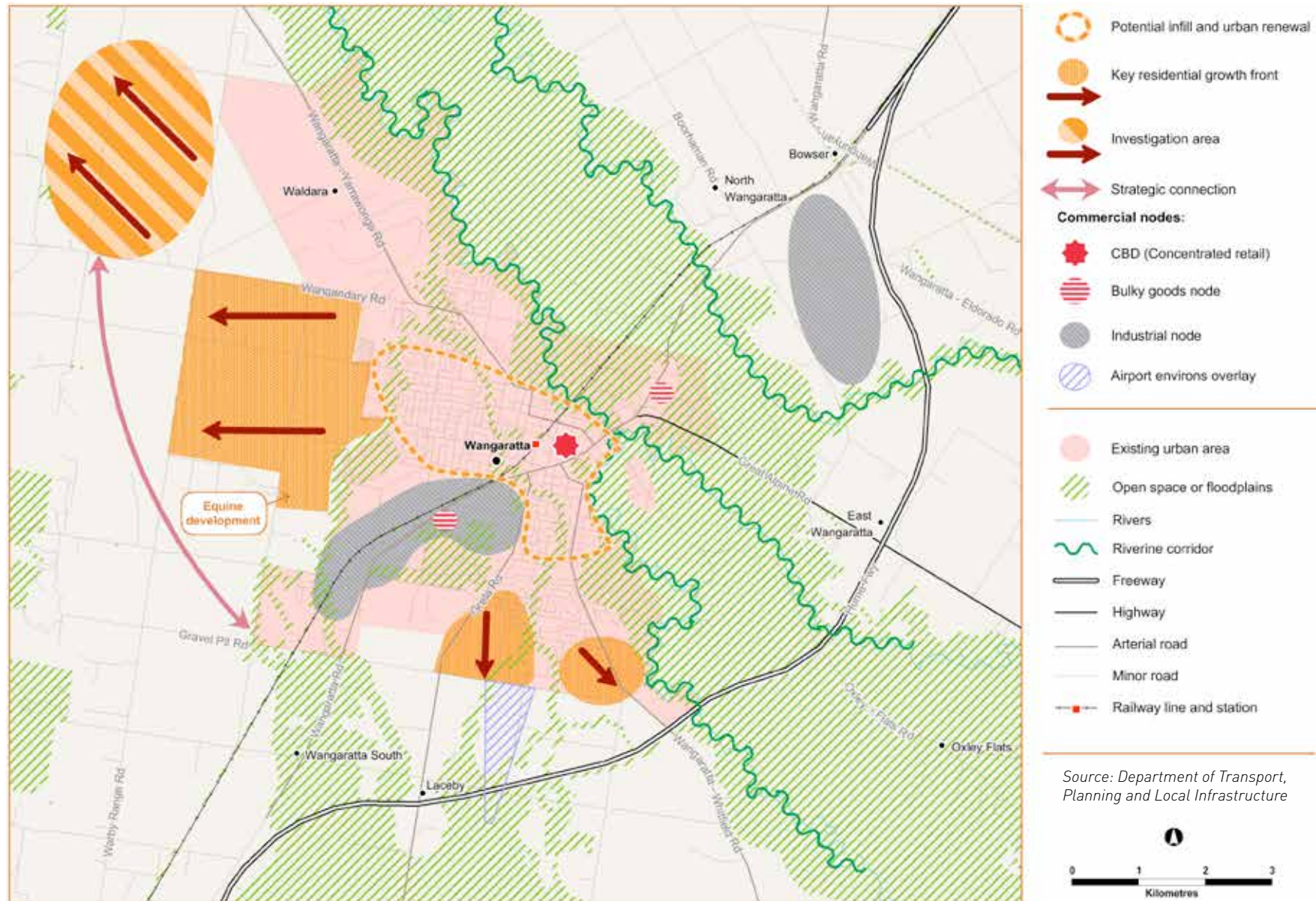
Benalla Art Gallery, image courtesy of Benalla Rural City Council

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Map 8: Central Hume – Future urban growth

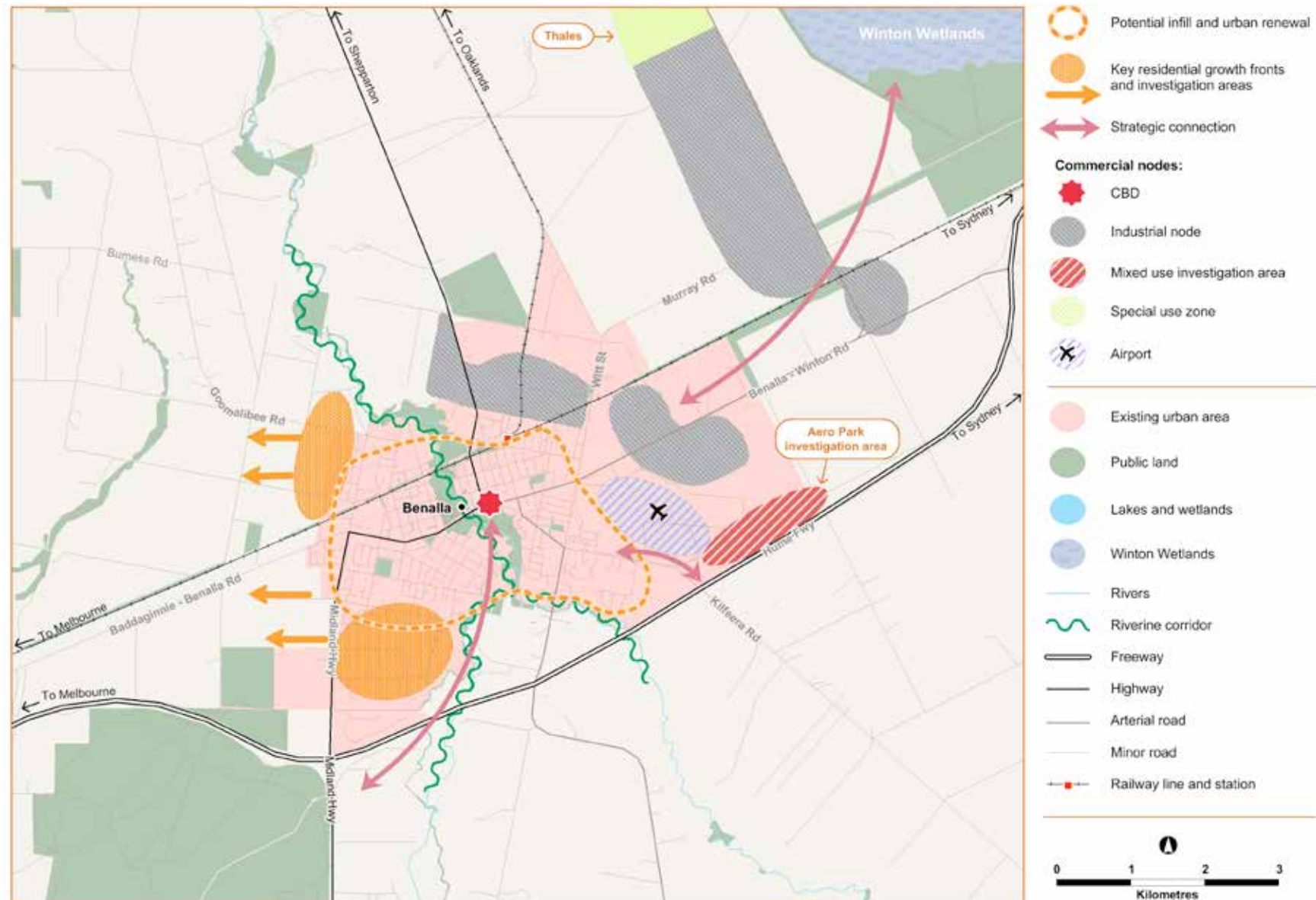


Map 9 : Wangaratta Urban Growth Framework



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Map 10: Benalla Urban Growth Framework



Source: Department of Transport, Planning and Local Infrastructure

ii) Goulburn Valley (refer to Map 11)

Major urban growth and development in the Goulburn Valley sub-region will be focused in the major regional city of Shepparton.

Results from the 2011 Urban Development Program, Regional Residential Report for the City Greater Shepparton indicate that:

- zoned land could potentially provide approximately 4000 residential lots
- a further 7400 further lots could be provided on land designated for future residential use
- approximately 100 infill lots were also available
- there is more than 15 years' total supply of residential land stocks.

Future population growth in Shepparton will be accommodated in a number of key growth fronts. These growth fronts, and the potential number of people they could accommodate, are shown in Table 2.

Table 2: *Growth corridors – Shepparton*

Growth Corridor	No of lots	Population
Mooroopna West	1600	4000
North	1000	2700
North East	1700	3900
South	1400	3650
South East	1450	3350

Source: Greater Shepparton City Council

Population growth will require significant infrastructure investment and expansion of employment opportunities. Shepparton is the fourth largest

regional urban centre in Victoria and will continue as the primary urban centre for the Goulburn Valley sub-region, but will also provide regional services and facilities to a wider catchment of some 230,000 people, including the Campaspe Shire area and southern Riverina in New South Wales.

Significant investment and support will be required for Shepparton and the Goulburn Valley to continue their development as a dynamic, investment-attractive and liveable city and sub-region. Investment is required to meet current service demands and service levels expected of a regional city when compared to other regional cities, and to support future population growth in Shepparton and its catchment area.

Further planning is needed for new and upgraded social infrastructure, including health, education, justice, sport and recreation facilities. Such new and upgraded facilities will support the needs of regional communities and help to:

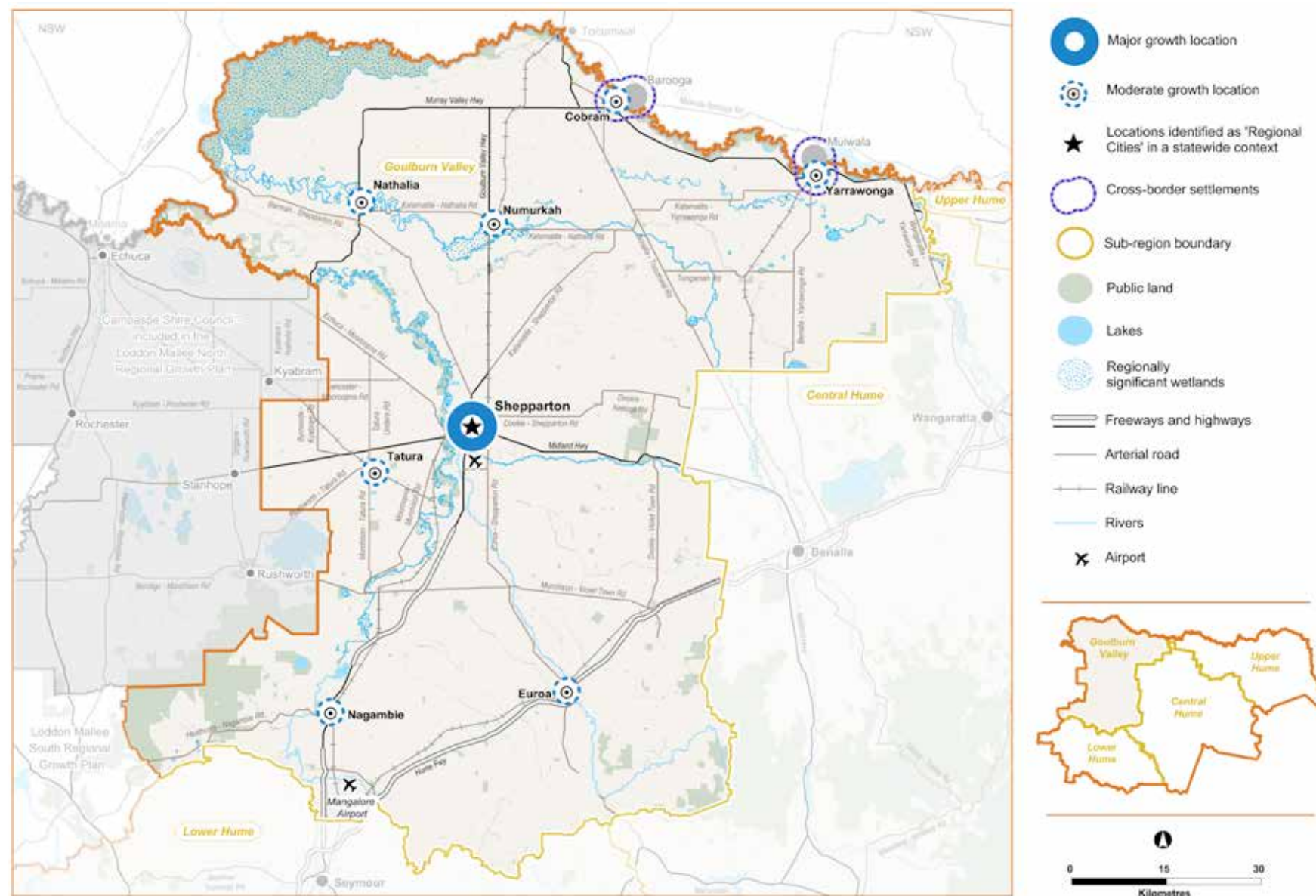
- provide additional service capacity to meet growing demand
- improve access to higher education and improve retention rates
- support a skilled workforce
- provide appropriate support services to culturally diverse communities and a significant Aboriginal population in Shepparton and the Goulburn Valley
- provide a catalyst for other redevelopment opportunities
- continue to strengthen and expand the already significant contribution that sport and events tourism makes to the regional economy.

Some infill and urban renewal opportunities exist in Shepparton.

Two preferred station locations for the potential high-speed rail (HSR) system between Melbourne and Sydney have been identified for the Hume Region. One of these preferred station locations is east of Shepparton. The establishment of this high-speed rail station could significantly enhance Shepparton's regional role and growth potential.

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Map 11: Goulburn Valley – Future urban growth



Source: Department of Transport, Planning and Local Infrastructure

The relationship between Shepparton and surrounding communities is important to provide these communities with access to employment and services in Shepparton.

Shepparton will continue to capitalise on and develop its role as a business, retail and services hub for the Hume Region. The nationally significant cluster of food manufacturing industries and transport and logistics providers in Greater Shepparton and the Goulburn Valley and its strategic location on the Goulburn Valley transport corridor (that links Melbourne and Brisbane) will continue to build and strengthen its role as a key Victorian and national logistics centre.

Transport and logistics related opportunities will be an important part of economic development of this sub-region. Investment in transport logistics, through the development of the GV Link project, will contribute to the state's freight and logistics capacity. Investment in the Shepparton Bypass and the Strathmerton Deviation are required to help achieve a more efficient transport network.

On-farm cool stores and packing sheds across the Goulburn Valley are being used as storage facilities for manufacturers, as a low-cost alternative to major consolidated investment in a freight and logistics precinct, such as the GV Link. These activities could lead to land use conflicts related to transport activity associated with these land uses. The development of the GV Link, providing a consolidated, fit for purpose site for such activities, would help address this land use issue.

Major industrial and commercial development opportunities will be strengthened in Shepparton as a result of population growth. The redevelopment of Shepparton's CBD will be an important factor in reinforcing its role as a regional retail and professional services centre.

Map 12 is a conceptual urban growth framework for Shepparton and shows strategic opportunities for urban growth, including key growth fronts, commercial nodes, industrial nodes, key linkages and potential locations

for infill and urban renewal. The Hume Strategy identifies Shepparton as the pre-eminent centre for population growth within the Goulburn Valley sub-region. Lack of public transport to Melbourne from the sub-region may be impeding competitiveness, investment attractiveness and liveability. Current passenger rail services between Melbourne and Shepparton are not comparable to that of the other regional cities and could be limiting business opportunities and access to education and services. This issue will need to be addressed, particularly considering the growth expected in Shepparton.

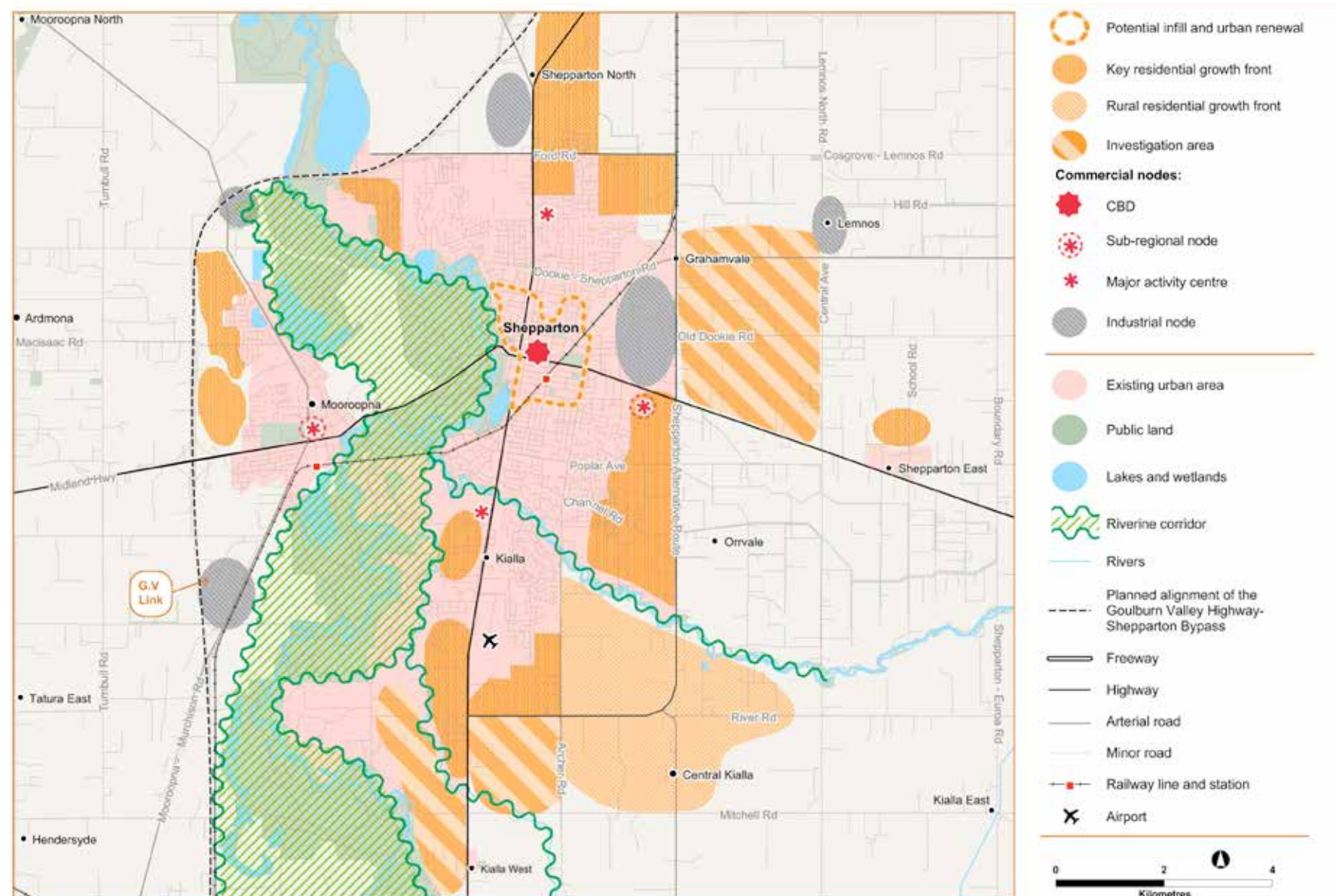
A number of other urban localities in the sub-region will continue to accommodate some growth including Tatura, Numurkah, Nagambie, Nathalia, Euroa, Yarrawonga and Cobram. Some of these locations offer natural attractions and lifestyle opportunities such as rural settings and access to significant water bodies. These towns will continue to support surrounding rural communities by providing services and access to services in larger urban localities. Some of these localities offer unique growth opportunities related to natural characteristics, but growth needs to be managed to protect environmental assets and values and limit exposure to natural hazards, especially bushfire and flood.

Cobram and Yarrawonga are located on the Murray River (Victoria-New South Wales border) and form part of the cross-border twin towns of Cobram-Barooga and Yarrawonga-Mulwala. These urban locations will continue to provide services to communities on both sides of the border. However, connections across the Murray River may need to be enhanced, particularly via a new bridge at Yarrawonga. Cobram is strategically located near the intersection of key transport routes linking Melbourne and Brisbane and Albury-Wodonga and Adelaide.

There is a strong relationship between the Goulburn Valley sub-region and the Campaspe Shire and linkages between settlements in these areas are important to continue to deliver services to the wider community.

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Map 12: Shepparton Urban Growth Framework



Source: Department of Transport, Planning and Local Infrastructure

iii) Lower Hume (refer to Map 13)

A key characteristic of the Lower Hume sub-region is its close proximity to the Melbourne metropolitan area and identified metropolitan growth areas. The northern expansion of metropolitan growth has been confirmed recently by the extension of Melbourne's Urban Growth Boundary to include parts of the Hume Region. The proximity of the Lower Hume sub-region to metropolitan Melbourne, and the strong transport linkages it has with Melbourne, have translated into significant growth pressures in this sub-region, particularly in those places closer to Melbourne on the Hume corridor.

Beveridge and Wallan are part of the Hume Region and are included in Melbourne's Urban Growth Boundary. Planning for growth and development in these locations is being undertaken as part of growth area planning and through the preparation of the new metropolitan planning strategy, *Plan Melbourne*. Significant metropolitan growth in Beveridge and Wallan may present future employment opportunities to communities in the Lower Hume sub-region outside the metropolitan area. The proposed Beveridge Interstate Freight Terminal may provide further employment opportunities.

Plan Melbourne (Chapter 6 - State of Cities) identifies Kilmore, Broadford and Seymour as peri-urban towns with potential to attract housing and population growth out of Melbourne.

In light of the growth expected in the southern part of Mitchell Shire and other strategic advantages, Seymour has been identified as an urban location that has the potential to accommodate significant change and develop into a significant employment centre over the next 30 years, accompanied by an increasing resident population. Seymour is located at the junction of the Hume and Goulburn Valley transport corridors and is serviced by regular passenger train services to and from Melbourne.

Seymour is also located close to Mangalore Airport, which is a potential key regional transport asset for the future. The town is located within the hinterland of Melbourne and has significant community and physical

infrastructure available to accommodate growth. These advantages represent opportunities for significant economic development and the potential to build a strategic employment hub in the southern part of the region. Further development opportunities will arise when the flood risk to Seymour's central area is substantially reduced, with the construction of a levee expected to be completed by 2020.

Seymour's role as a transit gateway between Melbourne and the Hume Region will be reinforced in the future. Seymour will continue to provide higher order services to regional communities in the Lower Hume sub-region but will require investment in upgraded and new physical and social infrastructure to support increased demand. As Seymour's employment develops and attracts new residents, investment in residential development and related infrastructure and services will also be required.

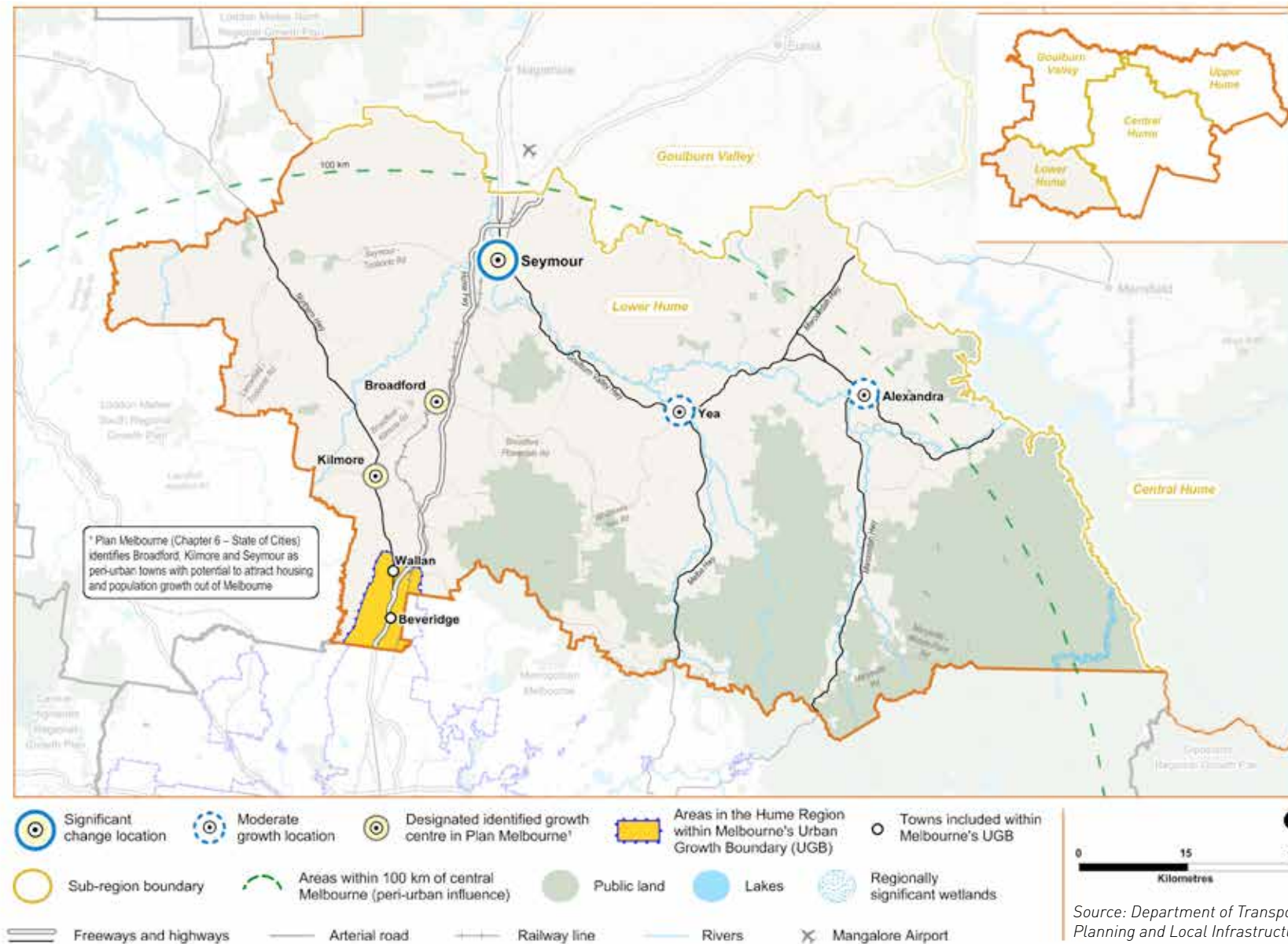
Current state planning policy for settlement within Melbourne's hinterland encourages development in 'selected discrete settlements within the hinterland of metropolitan Melbourne', and providing for development in Seymour could be considered to be in alignment with this policy direction.

Results from the 2011 Urban Development Program, draft Regional Residential Report for the Shire of Mitchell indicate that:

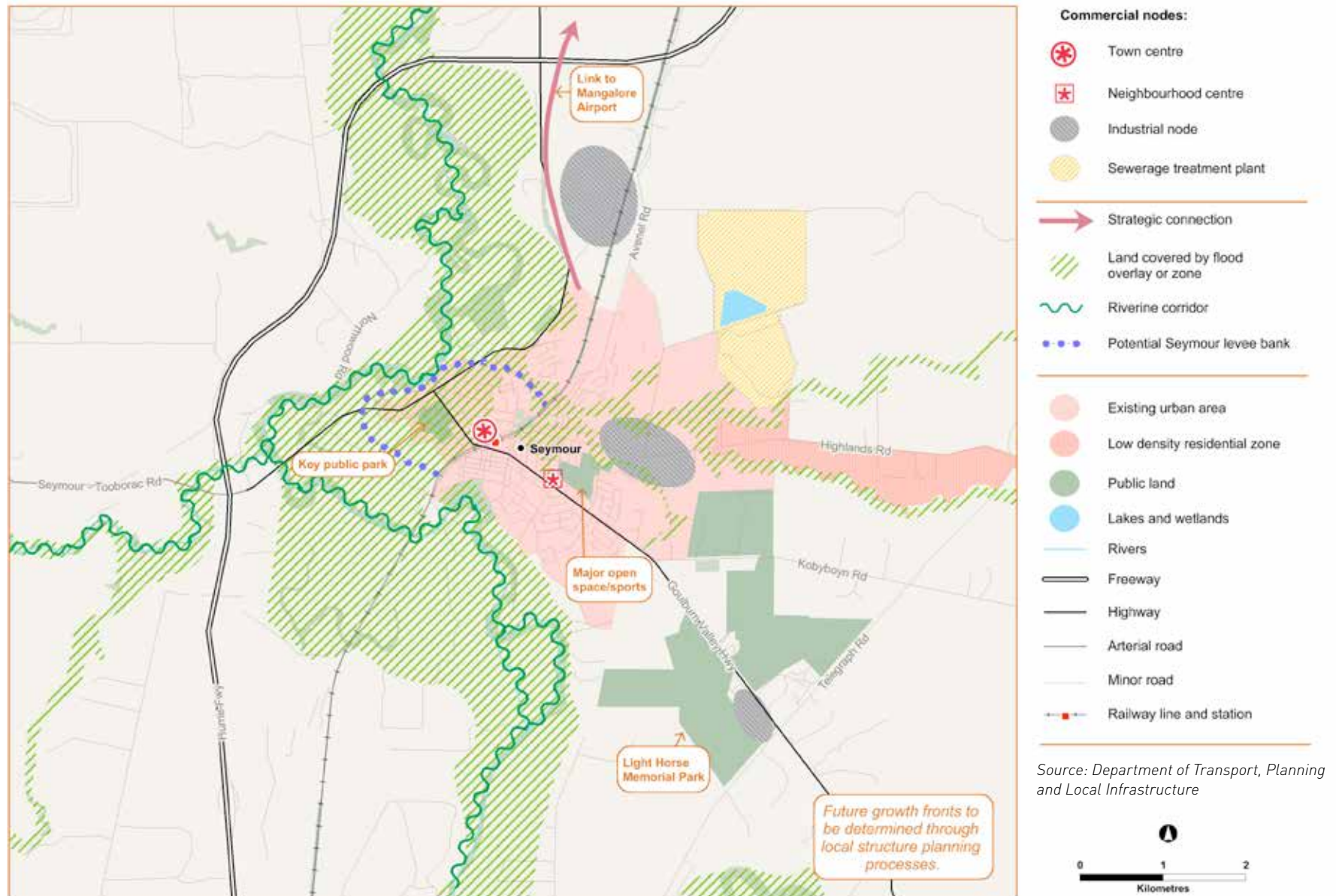
- there is the potential for 9190 lots to be created from land zoned for residential use or from infill. This would satisfy more than 15 years of future residential demand across the Mitchell Shire – North Statistical Local Area and nine years of future residential demand across the Mitchell Shire – South Statistical Local Area. Around 85 per cent of these lots are located in Wallan, Beveridge or Kilmore.
- a further 36,899 lots can be provided on land designated for future residential use, providing a sufficient supply land to satisfy more than 15 years of projected demand across the Mitchell Shire – South Statistical Local Area. There is no future identified residential stock within the Mitchell Shire – North Statistical Local Area (including Seymour).

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Map 13: Lower Hume – Future urban growth



Map 14: Seymour Urban Growth Framework



Map 14 is a conceptual urban growth framework for Seymour depicting strategic opportunities for urban growth, including commercial nodes, industrial nodes and key linkages.

Considering Seymour's potential to accommodate significant change and the lack of land identified for future residential development, strategic land use planning will be needed for this town.

Other non-metropolitan urban locations in this sub-region that are expected to support growth include Broadford, Kilmore, Yea and Alexandra. These places could attract growth due to their proximity and access to Melbourne and Seymour, and the availability of developable land and existing infrastructure. Some of these localities offer unique growth opportunities related to natural characteristics and in some instances growth occurs due to the lifestyle offered and despite constraints. Growth needs to be managed to protect environmental assets and values and limit exposure to natural hazards such as bushfire and flood.

The relationship between these urban locations and Seymour will be important to provide access to employment and services. This is particularly relevant for Yea and Alexandra as Seymour will also be a public transport access point to Melbourne for these communities. Strengthening linkages between these urban locations will enhance these relationships. Yea and Alexandra are located on the Maroondah and Melba Highways, which are important transport links between Melbourne and the region.

Yea and Alexandra have the capacity to accommodate population growth. These locations and surrounding areas are well serviced by infrastructure, including major road networks providing access to and from the region. These areas offer attractive settings in relatively close proximity to Melbourne, which draws both residents and visitors, particularly considering the transport linkages through this area connecting the main transport corridors in the western part of the sub-region with the natural assets in the east.

The extension of Melbourne's Urban Growth Boundary to include Beveridge and Wallan in the southern part of Mitchell Shire is likely to create further growth pressures on urban and rural locations outside Melbourne's Urban Growth Boundary, such as in and around Broadford and Kilmore. Broadford and Kilmore will support surrounding rural communities by providing services and transport nodes to enable access to services in larger urban centres.

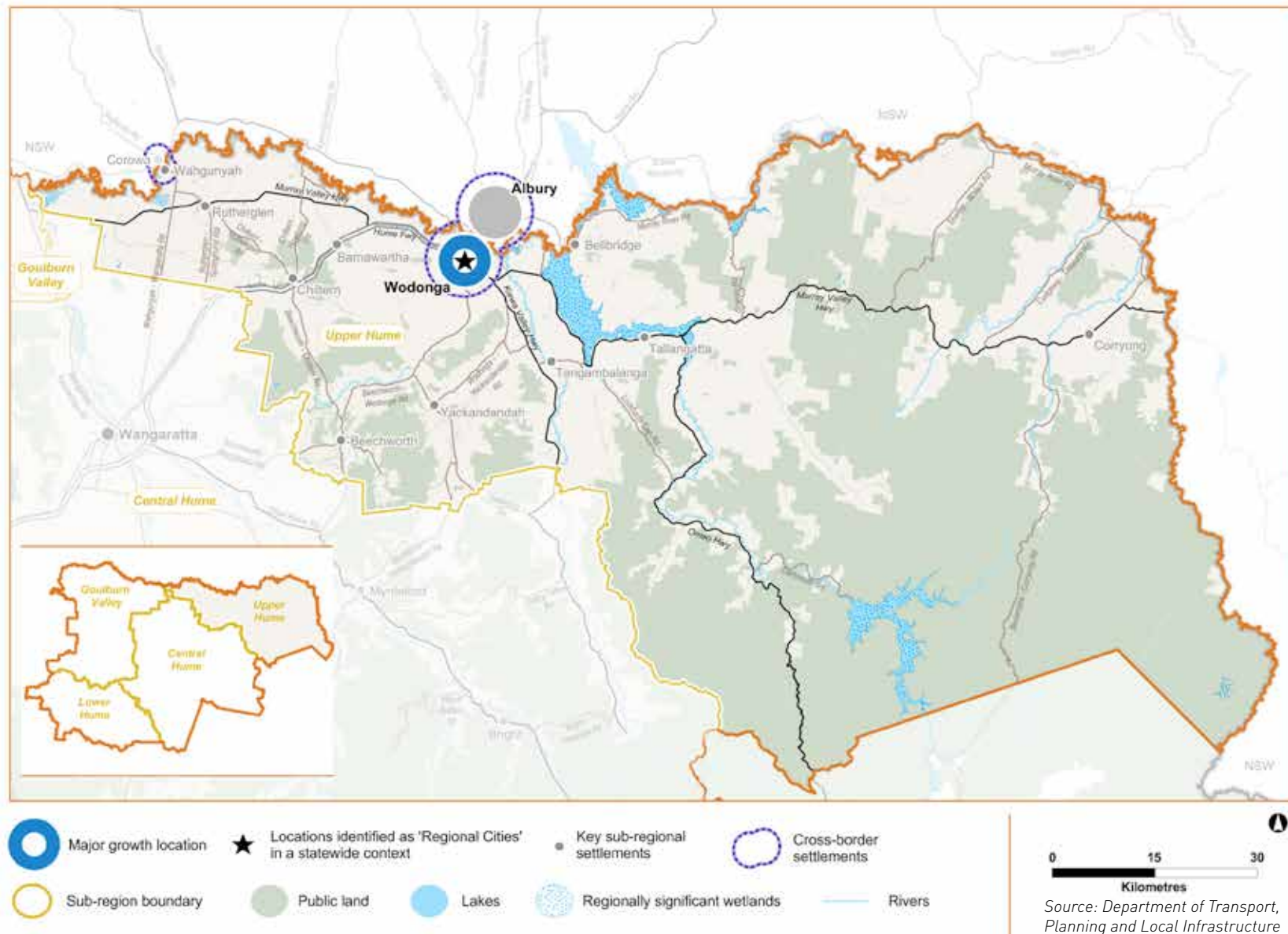
Communities in and around Broadford, Kilmore, Yea and Alexandra will have access to higher order services in Melbourne and Seymour. Growth in these locations may gain further momentum as Seymour develops into a significant regional employment centre. Pressure for rural residential development in non-urban areas within commutable distance from metropolitan Melbourne will also need to be managed.

iv) Upper Hume (refer to Map 15)

Major urban growth and development in the Upper Hume sub-region will be focused in the major regional city of Wodonga. This recognises the existing capacity of Wodonga to accommodate future growth and the extensive local strategic land use planning already undertaken for such growth. This planning aims to ensure that while Wodonga continues to experience significant growth, it also has the capacity to accommodate this growth with significant areas of serviced land ready for residential, commercial and industrial development.

Population growth in Wodonga will be accommodated in seven existing growth fronts to the west and east of the city, and medium- to long-term growth will be focused in the Leneva-Baranduda growth area, which will accommodate up to 35,000 people over the next 20 to 50 years. Infill and urban renewal opportunities exist in Wodonga, particularly in the current CBD and on existing VicTrack land in and around the CBD.

Map 15: Upper Hume – Future urban growth



Results from the 2009 Urban Development Program, Regional Residential Report for the City of Wodonga indicate that:

- approximately 7400 residential lots could be provided on land zoned for residential use
- a further 23,600 lots could be created on land designated for future residential use
- approximately 1200 infill lots were also available
- there is more than 15 years' total supply of residential land stocks.

Wodonga will continue to be an economic leader in the Hume Region and capitalise on its strategic location at the junction of major transport routes – the Hume Corridor linking Melbourne and Sydney and the Murray Valley Highway linking to Adelaide. Wodonga will be the major employment centre for the Upper Hume sub-region and will continue to be a major economic driver within the region and beyond. Existing major industrial and commercial development opportunities will be strengthened in Wodonga including:

- LOGIC, Wodonga's freight logistics precinct, more than 600 hectares of zoned industrial and business land providing 20 years of land supply for large-scale employers, at the junction of the Hume Corridor and Murray Valley Highway, which has already received over \$140 million of private investment
- redevelopment of Wodonga's CBD and new commercial developments associated with future growth areas.

Two preferred station locations for the potential high-speed rail system between Melbourne and Sydney have been identified for the Hume Region. One of these preferred station locations is at Barnawartha North close to the LOGIC freight activity centre. The establishment of this high-speed rail station could significantly enhance Wodonga's regional role and growth potential.

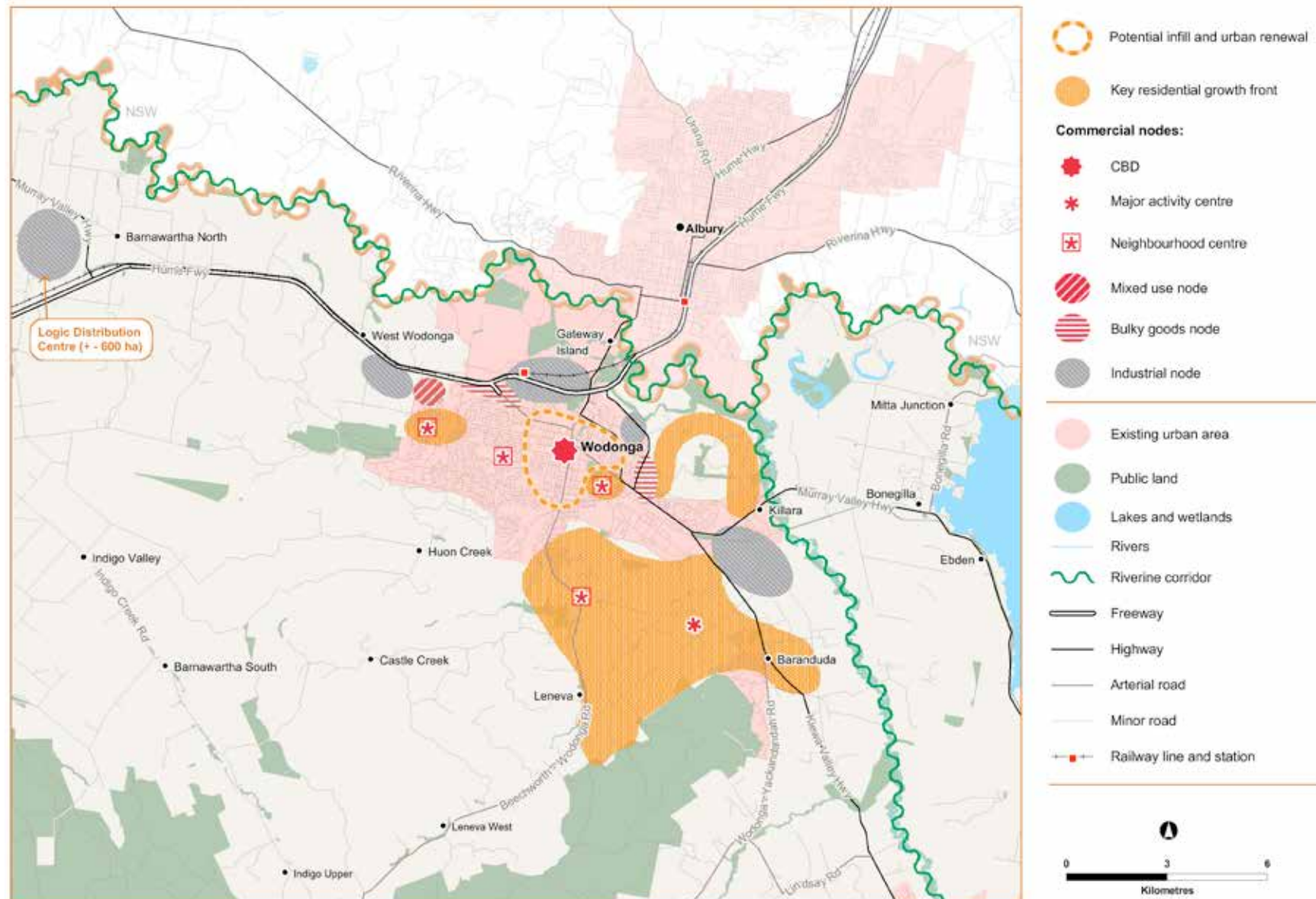
Investment in physical and social infrastructure will be needed to support Wodonga's critical role as a growing commercial, industrial and service hub for the Upper Hume sub-region, particularly in education, health, manufacturing, defence, professional services and retail. Wodonga also has the potential to be a significant hub for sporting events, with the opportunity to build on its strong arts and cultural sector and tourism attractions, such as the Bonegilla Migrant Centre, Gateway Island and the cultural precinct in its CBD.

The relationship between Wodonga and surrounding communities will be important to provide access to employment and services. Strengthening linkages between Wodonga and other urban locations in this sub-region will enhance this relationship.

Map 16 is a conceptual urban growth framework for Wodonga showing strategic urban growth opportunities including key growth fronts, commercial nodes, industrial nodes, important linkages and potential areas for infill and urban renewal.

The combined urban area (conurbation) of Albury-Wodonga is recognised by the Australian Government as one of the country's 18 major cities. This plan acknowledges the influence of Albury-Wodonga in the Upper Hume sub-region, and the Hume Region more broadly, and embraces the advantages that flow from it. Albury-Wodonga functions as a single economic zone, with employment, investment and services accessed across both locations. Both Albury and Wodonga are expected to grow significantly in the future and both councils are planning for major expansion of their urban areas. Albury-Wodonga offers a range of higher order regional services and facilities to a wider catchment of some 180,000 people. These services and facilities include universities, hospitals and transport facilities, including an airport with commercial flights to Melbourne and Sydney. Such higher order services and facilities in Wodonga will support the strong level of residential growth that is already approved and planned for over the next 20–50 years.

Map 16: Wodonga Urban Growth Framework



Source: Department of Transport, Planning and Local Infrastructure

While Wodonga provides some lifestyle opportunities in many of its neighbourhoods, such as Baranduda, Bonegilla and Leneva, settlements in areas surrounding Wodonga, such as Barnawartha, Beechworth, Bellbridge, Chiltern, Rutherglen, Tallangatta, Tangambalanga, Wahgunyah and Yackandandah, will continue to provide additional lifestyle opportunities. This demand is linked to attractive settings in rural areas, near water bodies, in areas with scenic amenity or in heritage towns, as well as to financial considerations such as cheaper land. These communities generally have good access to employment and higher order services in Albury-Wodonga. Corryong offers some growth opportunities as it provides a range of infrastructure and services to a relatively large catchment extending into New South Wales. The strong links between Albury (in New South Wales) and the Bethanga Peninsula (in Victoria) area may influence future development in this area. Growth in these locations should be managed to protect environmental assets and values and limit exposure to natural hazards, especially bushfire and flood.

The Kiewa Valley Highway provides a strong link between Albury-Wodonga and settlements in the Kiewa Valley, including those settlements located in this valley but not included in the boundaries of the Upper Hume sub-region such as Mount Beauty-Tawonga South.

b) Foster the sustainability of small settlements

Other urban locations not nominated for targeted growth are also an important part of the Hume Region. The majority of these locations are expected to experience incremental growth, which will be managed through planning at a local level. They will continue to play an important role in supporting agriculture and tourism and providing a diverse array of residential and lifestyle opportunities. Incremental growth will support the sustainability of these communities.

Changes in agricultural production methods have resulted in declining employment on farms and reducing numbers of farmers. This combined

with recent trends towards clustering of agricultural services and industries in major regional centres have led to a loss of employment opportunities in small towns. Young people are likely to continue to migrate to regional centres and metropolitan areas, resulting in decreasing populations and increasing average age levels in small towns in rural Victoria. The populations of some of these small towns, and the rural balance populations supporting these towns, are decreasing in some parts of the region.

In some instances the sustainability of these communities will need further support, especially where populations have declined. Communities will need to be resilient to enable them to adapt to future changes such as those in the economy, demographics and climate.

The resilience and sustainability of some small settlements could be supported by capitalising on assets such as heritage, liveability, amenity, environmental significance or the ability to provide specialised services and products. Community infrastructure should be designed to respond to changing needs over time. Transport connectivity with larger urban centres, reliable telecommunication services and opportunities provided by technology, such as the National Broadband Network, could also support the resilience and sustainability of small settlements.

Some smaller settlements are experiencing demand for growth and development, but the lack of infrastructure in these locations, for example reticulated water and sewerage systems, may limit growth options. Providing infrastructure to support growth in such locations needs further consideration.

The Understanding Small Settlements in Victoria report⁹ focuses on land use planning responses that support the adaptation and build the resilience of smaller settlements. Strategies recommended in the report are consistent with the directions of this plan. Further detailed work will be needed, based on the recommendations of the report, to identify appropriate measures to develop and support resilient small settlements in the Hume Region.

⁹ The Understanding Small Settlements in Victoria report was prepared for the Department of Transport, Planning and Local Infrastructure as an input to regional growth plans, to gain a greater understanding of the role and function of smaller settlements in a changing environment.

13.3 Other settlement directions

a) Provide a consistent approach to strategically plan for rural residential uses

Parts of the Hume Region are attractive for rural residential uses ('rural lifestyle settlement'). Areas of higher amenity, such as land close to lakes and waterways, undulating countryside, or locations with views, are particularly popular for this type of settlement. The Hume Region's tourism product, including ski fields, lakes, rivers, food and wine, outdoor recreation, arts and culture and heritage, provide a strong motivation to relocate or establish a holiday home in the region.

Management of rural land use will become increasingly important as the regional economy diversifies and the pressure for development in rural areas increases.

Two broad areas, the Goulburn River High Country and the north-east have attracted a large proportion of rural settlement due to their amenity and proximity to tourism product.

Most of the rural residential activity in the region has occurred in areas with high amenity but relatively low quality agricultural land. However, there are a few key areas of conflict between strategic agriculture and rural residential activity, most notably in the King Valley, Ovens Valley and in Nagambie.

While demand has been consistently strong for rural lifestyle properties in these areas, there has been an inconsistent approach to planning for rural lifestyle settlement across the Hume Region. Some municipalities have set aside significant areas of land for rural residential settlement and others have provided very little.

A consistent approach to planning for rural residential uses is needed to ensure the location of these uses considers regional assets, such as agricultural land and natural resources, sustainable settlement

patterns (including the cost of providing and maintaining services and infrastructure) and natural hazards, such as bushfire and flood. Sufficient areas of appropriately zoned land should be provided in strategic locations to help reduce development pressure on agricultural areas and accommodate a range of lot sizes.

b) Provide for a mix of housing types in appropriate locations

In the Hume Region, detached dwellings are the predominant housing stock and there is a lack of diversity to accommodate different types of households. Parts of the region are experiencing a shortage of rental supply and seasonal accommodation. This is particularly relevant in alpine areas as well as those areas requiring seasonal workers associated with agriculture and for professionals seeking both short-term and permanent accommodation. An older demographic structure means there is likely to be a greater number of households with one or two people, and as a result more dwellings are needed to accommodate a given population.

Low income households can often be attracted to areas where housing is cheaper. However, some of these areas tend to have poor access to community facilities and public transport, which can mean the cost of living (apart from housing) is higher than in better-served areas. People may suffer housing stress if their incomes do not keep pace with increases in mortgages, house prices or rents and other costs. Residents in low service areas may also be at risk if their needs for services change with age or infirmity, or if they want to seek employment. In addition, low income households living in or attracted to more remote areas may become trapped in a very low value housing market.

To help address these issues, new housing developments, particularly in the identified key settlements, must include a variety of diverse and affordable housing options for all income levels. These include different dwelling types, sizes, designs and densities to offer greater housing and lifestyle choices to meet the needs of a changing demographic profile. The

provision of sustainable, innovative and flexible housing options will be supported, and will also allow for 'ageing in place'. This will necessitate a number of agencies working together to maximise opportunities to increase the supply of appropriate and affordable housing.

The region will need a mix of housing types that are located close to commercial centres, employment and community, education, recreation and entertainment facilities. For larger urban settlements, mixed density development located outside central areas should be located near public transport services to provide access to these facilities. This could also help accommodate an ageing population and address disadvantage.

In some areas, opportunities should be considered to establish a more compact urban form with a complementary mix of land uses to allow people to work, live and play in the same area, minimising environmental impacts, increasing use of infrastructure and public transport and reducing dependence on private vehicles.

c) Maintain and enhance the distinctive character of key settlements

Urban settlements in the region generally have distinctive town characters, which contribute to the overall character and identity of the Hume Region. Maintaining and enhancing urban character will contribute to the liveability of urban centres and the region as a whole. Opportunities for each urban location to build on and further develop its identity and complementary role in the settlement network will be identified as part of local planning processes.

d) Recognise and plan for the influence of cross-border settlements

Parts of the region along the Murray River (the New South Wales border) are influenced by settlements on the New South Wales side of the river. In some instances these towns are part of cross-border settlements such as Albury-Wodonga, Cobram-Barooga, Corowa-Wahgunyah and Yarrawonga-Mulwala. These settlements are often interdependent and provide services

and facilities to communities on both sides of the river. These cross-border relationships are also important from an economic point of view as they have larger, relatively diverse economies when considered as combined settlements and not in isolation from each other.

Of these settlements, Albury provides a significant economic gateway to New South Wales and creates opportunities for Wodonga to leverage off this broader economic conurbation. The draft Murray River Settlement Strategy is being prepared to address the challenges faced by, and the opportunities available to, settlements along the Murray River corridor. Preliminary strategic directions from this strategy have been considered in the development of this plan. Consideration should be given to the implementation of these measures as part of future strategic land use planning processes.

e) Plan for hinterland (peri-urban) areas

Melbourne's peri-urban influence

Peri-urban literally means the area around a settlement. Melbourne's peri-urban region is diverse, containing a mix of people, places and experiences. This predominantly rural area includes key urban settlements and townships that face particular pressures for growth and change. Melbourne's peri-urban influence extends into the southern part of the Hume Region to include most of the Lower Hume sub-region.

Melbourne's peri-urban region includes a number of state significant land assets important to the functioning of Melbourne and Victoria as a whole. These include resources, infrastructure, environmental assets and cultural heritage assets (refer to Table 3). These land assets provide some of the most basic needs, which more than 5 million Victorians rely on every day, such as quality air and water, food, fibre, and building materials for homes and roads. The unique natural, cultural, and recreational assets of Melbourne's peri-urban regions provide great economic opportunities. This

is a significant strength for the state, providing opportunities to maximise the competitive advantage over other cities and regions within Australia and the Asia-Pacific region. The economic opportunities provided by the assets and appropriate growth will contribute to the economy, quality of life and environmental strengths. Considered land use planning will help ensure the continued enjoyment of the benefits that this area provides.

The proximity of the peri-urban region to Melbourne and high standard of road and rail infrastructure reinforces strong two-way connections between these areas, providing access to jobs, markets, customers and tourists. The peri-urban region has a particularly strong relationship to the Melbourne population. Visitation, tourism and commuting patterns occur between these areas and recreation and amenity areas are frequented by hundreds of thousands of people during weekends and holiday periods. These interactions have had a strong influence on growth and change within the peri-urban region. These areas have had high percentage increases in population and this trend is projected to continue.

If not managed, development pressures and sprawling growth can increase risks such as those from bushfire and flood, add to infrastructure costs, and lead to a loss of important non-urban assets including productive farmland, water catchments, earth resources, biodiversity and natural ecosystems. Retaining the economic and community value of these assets is a key consideration in planning for this area.

Collectively, the new metropolitan planning strategy, *Plan Melbourne* and the peri-urban regional growth plans (G21, Central Highlands, Loddon Mallee South, Hume and Gippsland) provide the vision and broad strategic direction for land use and development across Melbourne's peri-urban region. The regional growth plans include high level urban growth frameworks for key towns and cities. In the Hume Region, Wallan and Beveridge are located within Melbourne's Urban Growth Boundary and are identified for significant growth. Further north, Seymour has been identified as a significant change location. Growth opportunities are

identified for Kilmore, Broadford, Yea and Alexandra (see Section 13.2).

The government, in partnership with councils, will work to provide specific statements about Melbourne's peri-urban region to respond to the unique pressures and opportunities that are common to these locations. There is an opportunity to clearly articulate the outcomes envisaged for the complex peri-urban region at a finer grain, providing stronger and clearer guidance for making land use planning and development decisions in the peri-urban region, particularly where trade-offs between competing land uses are required.

Understanding the role of regional cities, peri-urban towns and rural communities and their relationship to one another and to Melbourne is a critical element in planning for Melbourne's peri-urban region. Peri-urban councils have already led the preparation of detailed research of many of the issues affecting the area, and have developed policy positions in a number of locations to inform decision making at the strategic land use level. The work of councils, together with *Plan Melbourne* and the regional growth plans, provide a strong foundation for preparation of statements about Melbourne's peri-urban region.

Other hinterland areas in the region

Larger cities in the region, including Albury-Wodonga, Shepparton and Wangaratta, have their own hinterland (peri-urban) areas. There is a need to develop a clear understanding of the growth and change in dynamics of settlements and drivers of housing choice within hinterland areas in order to establish a clear and consistent approach to managing and directing growth to appropriate places.

Particular attention will be needed to manage the demand for rural living in these areas to ensure that the benefits gained outweigh any disadvantages that may result. This will require greater clarity of objectives for both settlements and other rural activities, which can assist local authorities in making planning decisions. The principles derived from the proposed coordinated approach to planning for Melbourne's peri-urban regions could be applicable to the hinterlands of major regional centres.

PART C | TOWARDS THE REGIONAL GROWTH PLAN

Table 3: *State significant land uses present within Melbourne's peri-urban region*

Land uses	Why these land uses are considered significant to the state
Resources	
Extractive	The cost of transporting stone and sand products over long distances can account for a substantial proportion of product price at the construction site. Sourcing construction materials from local quarries within the peri-urban region enables cost-efficiencies and energy savings.
Forestry	A number of state forest reserves are located in the peri-urban region. They provide for a variety of uses, including providing timber for sustainable forestry, biodiversity and landscape conservation, protection of water catchments and providing opportunities for recreation.
Productive agriculture	Prime agricultural land provides food and fibre to the Victorian community, and supports employment and businesses. It also supports associated rural industries, such as food processing, abattoirs, shearing, irrigation supplies and stock feed producers that contribute to Victoria's economy.
Water catchments	The peri-urban catchments and storages remain essential to provide potable water for human and domestic animal consumption. The filtering action of the forested surrounds of our reservoirs avoids the need for expensive water treatment facilities for Melbourne and surrounding cities and towns.
Infrastructure	
Transport	The peri-urban region is traversed by an extensive arterial road and rail transport network linking major centres of population and industry across Victoria. Progressive transport expansion and safety improvements continue to influence land use activities and are likely to further improve travel times, reducing the commuting time and improving access between peri-urban region and with Melbourne.
Utilities	Water treatment plants, as well as electricity, gas and waste management facilities, pipelines and transmission corridors are located within the peri-urban region. These assets support the functioning of Victoria's urban areas.
Environment	
Biodiversity	Strong natural systems with a diversity of natural habitats for native plant and animals are important for the health and wellbeing of people living in urban areas. Opportunities for close connections with the natural world have high social, economic and educational value.
Landscapes	Landscapes help define the areas in which we live and work, and provide a connection with place and culture.
Parks/reserves	There are a large number of parks and reserves in the peri-urban region. These areas provide ecological, environmental and aesthetic value and the opportunity for leisure and recreation.
Waterways	There are many ecologically significant rivers traversing the peri-urban region, connecting our water catchments with bays.
Cultural	
Heritage	There are various places, sites, structures, relics and flora of heritage significance in the peri-urban region. Heritage assets generate social benefits, such as a sense of identity, direct user benefits through tourism and the benefits stemming from the intrinsic value of preserving these assets for future generations to appreciate and enjoy.
Tourism	The peri-urban region provides key day trip destinations for residents and visitors from interstate and overseas. Attracting visitors to the peri-urban region also results in indirect employment and additional spend in 'downstream' industries such as retail suppliers, food production and construction.

14. Regional infrastructure

The Hume Strategy aims for an integrated network of efficient and high functioning transport systems to provide for a mobile region. It also aims for access to services, facilities and other opportunities to support more healthy, vibrant and resilient communities.

Transport and other forms of infrastructure will be critical to cater for projected future growth in the Hume Region. Infrastructure will be required to support growth in both settlements and the economy. Investment in physical and social infrastructure needs to be strategically planned and coordinated, particularly in key growth locations identified in this plan and existing development areas.

The timely provision of infrastructure and services is required to support future growth and change of the region. The delivery of an appropriate settlement pattern where population fluctuations are both predicted and sequenced is necessary to achieve growth in a sustainable manner. In some instances, existing services and assets may have to be augmented or replicated to accommodate new levels of demand.

Overall approach

Considering the vision and principles established in Part B of this plan, the Hume Strategy and other regional factors the overall approach is to **support the improvement of people and freight movement and plan strategically for future infrastructure needs**. Future directions to achieve this are discussed below.

14.1 Transport networks

Statewide context

The transport system is a facilitator of economic and social activities. Local transport and internal town and city activities are addressed in municipal and local plans. Urban design and place-based integration with land use is the role of local government. Region-wide and inter-regional transport systems and infrastructure are considered as part of this plan.

The regional economy relies on an effective freight system including connectivity to the national system. Regional connections to port facilities in Melbourne and other hubs such as Portland, Geelong and Hastings are essential. Airport facilities include those at Melbourne Airport, Avalon Airport and regional airports.

The integration of major logistics and freight precincts in the region, in conjunction with the transport network, has been considered with a view to the long-term freight demand of the Hume Region. This plan seeks to optimise freight-related activities and support efficient and effective operations. It seeks to achieve efficiencies and apply sustainable practices while achieving economic and social benefits. The use of airports now and for the next 30 years has also been considered, along with appropriate land use and buffers around these critical facilities.

People living in and visiting the region undertake a variety of activities locally and within other parts of Victoria. The plan seeks to ensure residents have access and connectivity in their region for work, services, education or leisure. Long-term access patterns are matched to population, current planned infrastructure, anticipated service demands and identified employment locations. The plan provides directions for meeting these long-term needs in response to growth and change.

The transport network is a critical facilitator supporting regional growth. Strategic decisions regarding growth will need to be aware of transport constraints and opportunities. The plan recognises the importance of maximising the availability of sustainable transport options to support social and environmental objectives.

Regional context

The interstate links of the Hume corridor and the Goulburn Valley corridor provide the backbone of the transport network in the Hume Region. These corridors have major highways and railway lines that run in parallel and provide for people and freight movement. Future investment opportunities should be focused around existing and proposed development that can take advantage of these strategic networks. The two most populous settlements in the region, Shepparton and Wodonga, are located adjacent to the Goulburn Valley corridor and the Hume corridor, respectively. Other large settlements such as Wangaratta and Benalla are also located adjacent to the Hume corridor. The corridors converge at Seymour, providing a strategic advantage for the town, and then become one route into Melbourne for both road and rail.

While the Hume and Goulburn Valley transport corridors have a north-south alignment, key east-west road linkages such as the Maroondah Highway, Midland Highway, Murray Valley Highway, Great Alpine Road and the Omeo Highway to Gippsland, serve an important regional function. The Murray Valley Highway also links the region to South Australia and New South Wales.

The Australian Government is undertaking a strategic study regarding the implementation of high-speed rail on the east coast of Australia. Phase 2 of the study depicts a preferred alignment for the high-speed rail system between Melbourne, Canberra, Sydney and Brisbane through the region. The study also recommends two station locations within the Hume Region, one west of Albury-Wodonga (north of the Hume Freeway/

Murray Valley Highway interchange), and one east of Shepparton (along the Midland Highway). Key stakeholders in the region, such as the Hume Regional Development Australia Committee and the Hume Regional Management Forum, support a route alignment through the Hume Region and associated stations. The progress of this potential project should be considered as part of future reviews of this plan.

The Hume Region has a number of regionally significant airports. Land use around these and other transport assets, such as road and rail routes and freight and logistics precincts, will need to be managed to protect their future operations.

Freight and people movements have differing needs, requiring differing solutions. The future directions of the transport network have to be considered with this in mind. It will be important to enhance and build on existing infrastructure to ensure access and connectivity. Current policy, local and regional strategies and projects being investigated, planned and implemented will all contribute to and support future growth.

a) Improve transport network capacity

Existing transport infrastructure in the Hume and Goulburn Valley corridors can be harnessed and enhanced to support a strong and diverse regional economy. The capacity of specific road and rail links will need to be upgraded in the future to meet growing demands for local, regional and interstate freight movements. Freight and logistics precincts, including the existing facility at Wodonga (LOGIC) and a new facility at Shepparton (GV Link), may help improve network capacity for freight movement in the region and beyond.

In addition, as key locations in the Hume Region grow, there may be a requirement to mitigate traffic issues associated with growth such as heavy freight congestion in major urban centres. This will require investment in key infrastructure to support efficient movement of passenger and freight transport.

Opportunities for improving network capacity include:

- the east coast high-speed rail system
- maximising the use of existing infrastructure
- new roads, bypasses of towns and inner town centres and associated link roads, Shepparton Bypass, the Kilmore-Wallan Bypass and Strathmerton Deviation are specific examples
- expansion of road space such as widening, sealed shoulders, duplication and clearways
- improved walking and cycling links
- improved public transport and associated facilities to meet demand
- enhancements to rail services, which potentially could include additional passing loops.

b) Ensure access and connectivity

Access and connectivity for both people and freight will be crucial for the future of the regional economy.

For example, improving and modifying the network of public transport services to better meet market needs, such as improving the frequency of passenger rail to Melbourne from Shepparton that could significantly contribute to regional growth, investment attractiveness and liveability. Moreover, infrastructure provision such as the Shepparton Bypass, the Strathmerton Deviation and a Kilmore-Wallan Bypass could help alleviate congestion within urban environments. This would allow for greater use of high productivity freight vehicles and contribute to improved liveability in existing and new urban areas such as the CBDs of Shepparton, Kilmore and Wallan. Enhancements to the region's major transport routes, particularly east-west links, will be important to ensure continued access and connectivity to towns and markets for freight commodities within and outside the region.

Improved access could further realise higher growth potential as the Hume Region becomes more attractive for people wishing to relocate to the region. However, not all areas will grow. Ensuring smaller communities have access to resources will be critical as the demography of the region changes over time. Transport, such as expanded community transport, between these communities and larger urban settlements and outreach services taking resources to people may help to achieve this aim.

Opportunities for enhancing access and connectivity over the short, medium and long term include:

- constructing bypasses, such as the Kilmore-Wallan and Shepparton bypasses, and associated Strathmerton Deviation
- improving cross-border connections, such as improving river crossings and providing new river crossings, for example a new bridge at Yarrawonga
- improving links from the region to international gateways, interstate gateways and hubs
- improving links within the region and to cities outside the region such as Melbourne, other Victorian regions, interstate capitals and regional cities
- strategically improving local road access to the national freight network
- addressing rail network constraints such as multiple gauges and curfews
- the east coast high-speed rail system
- improving and modifying the network of public transport services to better meet market needs, such as passenger rail services between Shepparton and Melbourne
- improving accessibility, such as cycle access and *Disability Discrimination Act 1992* compliance on public transport.

c) Provide a safe, reliable and resilient network

Parts of the Hume Region are in close proximity to New South Wales, Melbourne and other Victorian regions, providing opportunities to access different, and in some cases higher order, services and facilities. For example, many people travel to Melbourne for healthcare and in Albury-Wodonga there is a reciprocal agreement that provides a single public health service, available to residents of either state. Hospital facilities in Shepparton, Albury-Wodonga and Wangaratta provide higher order services to the wider region, including southern New South Wales in some cases, and therefore need to be accessible. Travel to these centres for healthcare services depends on appropriate transport links.

The current rail line in the Hume corridor between Wodonga and Seymour has recently been upgraded to standard gauge. However, further work is required to improve passenger rail services on this line, including improved reliability of services, and to ensure that the network, providing critical linkages, is safe, reliable and resilient into the future.

Freight operations are likely to change in the future. Vehicle and fleet characteristics, such as the trend towards higher-volume freight vehicles, may mean that small local roads cannot cope with the traffic required to take products to processing or export locations. Maintenance funding and weight restrictions may need to be reviewed into the future to accommodate these types of changes.

A network that is safe and able to stand up to major disruption will help ensure ongoing connectivity with other parts of the state and Australia.

Opportunities for providing a safe, reliable and resilient transport network include:

- contingency plans for major disruption, such as flood and bushfire
- maintenance and improvement of rail and road networks to appropriate standards, incorporating the need to minimise the impacts of natural hazards and risks such as bushfire and flood
- recognising that changing vehicle/fleet characteristics and numbers of vehicles will impact on roads, including local roads, which may not be fit for purpose for increasingly larger vehicles serving regional industries
- removing network constraints, such as weight and size restrictions
- safeguarding transport and tourism routes for continued future use
- improving the network of rest areas
- improving the reliability of passenger rail services between Wodonga and Seymour
- providing alternative routes to regional cities.

d) Develop freight and logistics precincts

The development of a potential freight and logistics precinct in the vicinity of Seymour/Mangalore Airport should be investigated. Mangalore Airport has the capacity to become a future air freight logistics hub.

Freight could be distributed to the major ports of Melbourne and Geelong and other locations from this site. Mangalore's position in close proximity to the junction of the Hume and Goulburn Valley road and rail corridors, and its significant and underutilised airport facilities, make it an ideal site.

There are also opportunities to continue to develop the existing freight and logistics precinct at Wodonga (LOGIC) and create new freight and logistics precincts at Beveridge (Beveridge Interstate Freight Terminal) and Shepparton (GV Link, which is ready for construction).

Freight and logistics precincts in the Hume Region form part of a national network including existing precincts in southern New South Wales, which also serve the region.

Opportunities for developing freight and logistics precincts could include:

- international, interstate, regional airports
- potential intermodal freight and logistics precincts, considering industry needs
- freight terminals including inland ports such as LOGIC, GV Link and the Beveridge Interstate Freight Terminal
- activity-specific centres, such as distribution warehouses and processing plants.

Opportunities for developing locally significant, smaller scale freight facilities will be identified and planned for at a local level.

e) Consider technological advancements in the transport provision mix

Technological advancements such as the rollout of the National Broadband Network may, in some cases, replace the need for travel, as the use of technology increases through more people working at home or accessing teleservices in the health and education sectors. An increasing number of services are being provided online.

Opportunities for technological advancements that could be relevant to transport include:

- the National Broadband Network
- use of electronic devices, such as tablets, smart phones or portable computers to provide updates on traffic conditions or blockages in the transport system
- vehicles using alternative fuels, such as electric, hydrogen or biofuels
- transport network and service information
- new vehicle designs.



Hume Freeway, image courtesy of Wangaratta Rural City Council

f) Ensure amenity and useability

People use the Hume transport network for both business and pleasure. Ensuring the network is maintained in a safe and useable condition will be important in the future to support a more diverse economy and make the best use of regional products and opportunities. This applies to recreational networks as well as the road and rail system. For example, the use and expansion of tracks and trails, such as rail trails, can be supported by improving access and connections between them.

Opportunities for ensuring amenity and useability of transport networks include:

- developing tourist routes for all users, including cyclists
- enhancing accessibility to cycling and pedestrian networks
- improving facilities, such as freeway service centres, trailer exchange areas and wayside rest areas, signage and information hubs
- developing and marketing new products such as package tours for day trips.

g) Understand and support efficient supply chains

As the Hume Region's economy diversifies, there may be changes in the mix of commodities being transported. It will be important to understand the impact of such changes on freight movements and relationships. Key transport spines and associated infrastructure such as freight facilities will require good connections not only to Melbourne, but to other parts of the state and interstate in order to provide efficient and effective freight movements to ports, airports and markets.

Internal freight movements are also critical in the supply chain and logistics network, particularly considering:

- the number of transport operators and logistics and warehousing providers in parts of the Hume Region, particularly the Goulburn Valley and Upper Hume sub-regions
- major points for freight agglomeration in the region, such as Greater Shepparton and Albury-Wodonga, exporting nationally significant products
- Shepparton is a catchment area for freight from the national food bowl
- manufacturing and production sites are scattered across the region particularly in the Goulburn Valley (including Campaspe) generating two-way freight movements on local roads.

The contribution of local roads to the success of broader supply chains, and the impact of freight movements on these roads, will need further consideration, particularly in areas such as the Goulburn Valley where transport activities are established in an ad hoc manner using existing on-farm packing sheds and cool stores.

Opportunities for developing efficient supply chains include:

- understanding relationships, movements and modes between the production location, markets, distribution centres and gateways for various commodities such as extractive industries and agricultural products
- technological advancements.

Map 17 shows relevant future directions in a spatial context.

Map 17: Future directions for transport



14.2 Social infrastructure

Statewide context

Social infrastructure includes community facilities, services and networks that help communities meet their social needs and maximise their potential wellbeing, such as sports and recreation facilities, schools and hospitals.

Social services that support regional and rural communities should be provided in an equitable way so that communities have access to the services and infrastructure they need, thereby supporting healthy communities. The delivery of services should aim to match both the location and time sequence of development and population growth. The broad settlement pattern should also provide for community recreation and leisure activities that support protection of valued landscapes and recreation assets at the regional scale.

To support expected future growth, there is a need to maximise the use of existing infrastructure, plan the delivery of new social infrastructure and consider existing capacity issues.

Regional context

Social infrastructure is broadly available across the region with higher order facilities and services concentrated in regional cities and centres and some higher order services provided in Melbourne. The region is well supplied with health services, including two designated regional health services at Albury-Wodonga and Shepparton and a sub-regional service at Wangaratta. The accessibility of health services may need further consideration. A full range of educational facilities is available in the region including public and private schools, TAFEs and university campuses in Shepparton and Wodonga.

Other facilities are available in the region, particularly in larger townships such as Shepparton, Wodonga, Wangaratta and Benalla. These facilities include regional justice, sport and recreation facilities and performance venues.

To support the needs of regional communities, further planning is needed for new and upgraded social infrastructure.

a) Provide equitable, integrated and accessible social infrastructure

Future challenges for the provision of social infrastructure include:

Social services and facilities

- providing social services and facilities that are comparable to other regions, particularly in regional cities
- demand for facilities and services considering inequalities in health status and behaviours in the Hume Region, such as a significant older population, low education attainment levels, poor access to public transport, high unemployment rates and high levels of obesity and alcohol consumption
- the need to create efficiencies in social infrastructure provision and capitalise on synergies between services at a regional and sub-regional scale
- the need to improve responsiveness in the location (including co-location), design and scope of facilities and services

Housing

- providing a more diverse mix of housing types throughout the region, including social and affordable housing
- mixed density housing not located near community and commercial centres or near public transport routes

Built environment

- providing land for future service provision
- the need to ensure that the built environment is planned to encourage greater health outcomes such as increased opportunities for physical activity.

Opportunities for providing equitable, integrated and accessible social infrastructure include:

- encouraging service providers to coordinate the provision of facilities and services that deliver efficiencies and synergies at a regional and sub-regional scale
- improving access to services by ensuring social infrastructure is prioritised and provided in an equitable and integrated fashion, and provided in readily accessible locations
- providing community facilities that are designed to meet local needs and are inclusive, accessible and culturally appropriate to build community connections
- ongoing review considering the social determinants of health to help ensure the provision of social infrastructure and services meet the changing demands of communities
- embracing improvements in technology to help improve access to services and allow people to age where they reside.

Areas of priority for health services in the region include:

- infrastructure to support growth in Mitchell Shire
- supporting the role of Goulburn Valley Health and Albury Wodonga Health as regional health services and the role of North East Health Wangaratta as a sub-regional health service
- responding to the needs of an ageing population by providing appropriate aged care facilities.

b) Support improved access to a range of education opportunities

Almost all personal, social and economic benefits such as income, employment, longevity and health correlate strongly with education attainment levels. Lifelong learning, education (including tertiary education) and skills development are important at all ages and build a diverse and resilient community and economy. Increasing the provision of, and improving access to, a range of educational opportunities will enhance the region's education outcomes and contribute to retaining and attracting young people. Partnerships to help ensure courses offered contribute towards meeting regional employment demands will support the ongoing sustainability of key education providers, such as universities, in the region.

Opportunities to support improved access to a range of education and employment opportunities include:

- providing education facilities that accommodate regional needs and are located to be accessible
- linking education opportunities with regional employment needs.

c) Provide regional open space networks and opportunities to engage in physical activity

It is mandatory for councils to have health and wellbeing plans. Some councils also have open space or recreation strategies that highlight future requirements, prioritise required future investment and support community participation in sport and recreation activities. However, there is no integrated regional or sub-regional approach to such planning. The built environment helps to determine the opportunities residents have to engage in physical activity and shapes the way in which people can participate in community life.

Well planned, designed and managed urban places and spaces (as well as tracks and trails) can deliver personal, social and environmental benefits to the community. Opportunities for physical activity can improve community cohesion and provide significant economic benefits from events, recreation activities and tourism. Community health and wellbeing needs to be considered in the early stages of planning for urban growth.

Opportunities for supporting physical activity include:

- linking existing publicly accessible open space networks and tracks and trails in the region to provide enhanced regional and sub-regional vegetation corridors and improved links between settlements
- investing in sporting infrastructure in key urban growth locations, such as Shepparton, Wodonga and Wangaratta, to help meet existing and future demand for sporting activity in the region.



Vineyard, King Valley

14.3 Energy, communications, water and waste

Growth in the towns and cities of the Hume Region will result in demand for additional water, energy and utility infrastructure. Efficient use of existing systems and preservation and identification of utility infrastructure corridors and urban location have been considered as part of this plan. The projected population and settlement patterns take into account high level planning for currently planned and anticipated service utilities.

a) Support infrastructure provision to facilitate urban growth, environmental enhancements and key economic development initiatives

Infrastructure provision should be planned to keep pace with growth. This includes energy, particularly natural gas, information and communications technology, reticulated water and sewerage and solid waste management. Infrastructure upgrades that facilitate urban growth, environmental enhancements and key economic development initiatives will be encouraged and supported.

Opportunities for supporting efficient infrastructure provision include:

Energy

All towns within the Hume Region have access to electricity and this network will need to be augmented to accommodate future growth. Electricity options such as renewable generation and decentralised systems should continue to be developed as part of this network. Many parts of the region do not have access to reticulated natural gas. Access to natural gas will be important in the future and will help to make areas attractive for settlement and investment. An example of how the provision of natural gas could support growth and investment is the potential for a gas-gate at the LOGIC freight activity centre, which could help attract manufacturers to the location. The extension of the natural gas network to those areas currently not serviced and alternative delivery systems should be further considered.

Telecommunications

High quality information and communications technology in the Hume Region will help drive economic competitiveness. It is unclear exactly what the effects of the National Broadband Network will be on regional growth. Education and health providers are already using technology to provide remote education courses and patient care. This is likely to expand in the future with an ageing population, including generations accustomed to using technology. Improvements to technology and access to it will provide further opportunities to improve and broaden service delivery.

The potential uneven distribution of quality access to the internet may be a challenge for regional growth and ongoing review of such access, through the rollout of the National Broadband Network, will help support regional service delivery.

Mobile phone coverage in major urban settlements in the Hume Region tends to be good. However, in smaller communities coverage can be unreliable and improvements are needed to enhance connectivity and access. Technological advances associated with the National Broadband Network will contribute to upgrading these services.

Reliable telecommunication services are vital during emergency events. This is especially important in small, isolated communities exposed to natural hazards such as bushfire and flood.



Residential development at Beveridge, Mitchell Shire

Reticulated water and sewerage

The key urban locations earmarked for growth are all serviced by reticulated water and sewerage systems, as are many smaller urban locations. Reticulated water and sewerage is being installed in other areas, such as Milawa, Oxley and Tungamah. Distribution master plans have been developed, with 20-year infrastructure programs to provide for residential and commercial growth and expansion. It will be important to understand the likely distribution and timing of growth to ensure infrastructure keeps pace with demand. Consideration should be given to installing such systems in locations where there is demand for growth, but the lack of such infrastructure may be limiting development options. Reticulated water and sewerage systems do not only support growth in towns, but can also deliver environmental benefits, such as within declared water supply catchments. Planning should provide and maintain appropriate buffers between sewerage treatment facilities and settlement areas.

North East Water and Goulburn Valley Water have developed water supply and demand strategies to plan for the provision of adequate water to their respective areas for the next 50 years, allowing for a significant increase in demand, necessary improvement works and applying water restrictions in response to climatic conditions. North East Water has identified augmentation options for settlements where reliability of supply is lower. Goulburn Valley Water has identified actions necessary to improve the balance between demand and supply in specific supply systems.

When integrated water cycle strategies¹⁰ are developed by these organisations, the growth proposed in the regional growth plans will need to be taken into account to identify any potential capacity and infrastructure planning needs. Further consideration will need to be given to the link between the urban and rural water cycle and the implications of reduced water availability when planning for new growth and development.

Irrigation infrastructure

Irrigation infrastructure underpins the success of many agricultural activities in the Hume Region, including dairy and horticultural activities. The region's irrigation infrastructure is undergoing significant modernisation to improve water delivery and efficiency, and ultimately save water by reducing significant loss through the ageing system. This involves upgrades to both public and private (on-farm) infrastructure. These upgrades help provide surety for future economic development within the irrigation district. They also provide environmental benefits and improve urban water supplies. Irrigation infrastructure, supported by associated drainage works, is essential for the continued success of the region's economy.



Violet Town Hotel, image courtesy of Strathbogie Shire Council

¹⁰ Integrated water cycle strategies will be developed by water corporations by 2017 to replace their current water supply demand strategies, and will consider maintaining demand and supply balances, water supply system resilience, and future water cycle services options (including recycling sewage or trade waste, storm water capture and reuse, and demand management).

Waste

The current capacity of existing landfills in the region is 10 to 25 years. Much of the solid waste generated in the northern parts of the Hume Region is exported to landfills in New South Wales. The future viability and environmental sustainability of this arrangement needs to be reviewed to ensure there are adequate waste facilities to manage the region's solid waste.

The Hume Region also contains a number of inactive landfills that may require rehabilitation in the future. Opportunities presented by these sites, such as energy generation, will need further consideration.

As the region's population and industry grows, there will be an increased demand for waste and resource recovery management within the region. This creates a challenge for securing land for future waste management facilities, including for sorting and processing, recycling and reprocessing, export, reuse and disposal of waste. Any opportunities to establish new industries in this field and to generate energy from waste (including inactive landfills) should be explored and supported.

There is a risk that expanding towns could encroach on solid waste management and resource recovery facilities and associated buffers, resulting in conflicts between these land uses and incompatible neighbouring land uses such as residential development. To manage these potential conflicts, waste management facilities must be considered when planning for growth, including providing and maintaining buffers around these facilities.



Hydroponic tomato growing, image courtesy of Greater Shepparton City Council



Wangaratta Performing Arts Centre, image courtesy of Rural City of Wangaratta

PART D | REGIONAL GROWTH PLAN

This part of the Hume Regional Growth Plan brings together all the elements of the regional land use framework (economy, environment and heritage, settlement and regional infrastructure) to identify the plan for growth and change over the next 30 years. It provides direction on where future growth should occur and has been informed by advice, analysis, investigation and stakeholder and community feedback.

15. Future directions for regional growth

The overarching objective of this plan is to ensure growth and change is managed to capitalise on the Hume Region's competitive advantages, opportunities and strengths by:

- supporting the development of a more diverse regional economy while managing and enhancing key regional economic assets
- protecting environmental and heritage assets and maximising the regional benefit from them, while managing exposure to natural hazards and planning for the potential impacts of climate change
- focusing growth and development to maximise the strengths of existing settlements
- supporting the improvement of people and freight movement and planning strategically for future infrastructure needs.

The following overarching principles will help achieve the vision for the Hume Region (as identified in Section 10):

- efficient and sustainable settlements
- healthy, vibrant, resilient communities
- a mobile and connected region
- a thriving and dynamic economy
- sustainable rural areas
- a healthy environment and a celebrated heritage.

These principles underpin the strategies identified in Table 4. These strategies have been developed to achieve the objective above through the future directions described in Part C of this plan (and referenced in Table 4). The strategies apply specifically to the Hume Region and should be considered in conjunction with broader strategies included in the State Planning Policy Framework, which applies to the entire state.

Map 18 provides a broad spatial representation of key future directions for growth in the Hume Region with a brief description of key elements.

PART D | REGIONAL GROWTH PLAN

Table 4: Strategies

Regional economy – Supporting the development of a more diverse regional economy while managing and enhancing key regional economic assets	Reference to future directions (Part C)
Plan for a more diverse and sustainable regional economy by supporting existing economic activity and encouraging appropriate new and developing forms of industry, agriculture, tourism and alternative energy production	11.1–11.3
Contribute to the attraction of new investment and increased economic development by providing an adequate supply of land, water, physical and social infrastructure, technology, transport, a skilled workforce, quality education and affordable housing	11.1 (a)(b)(d)
Support tourism activities (including nature-based tourism) that take advantage of environmental and cultural heritage assets and the rural environment without compromising the future of these assets	11.1 (e), 12.2
Support opportunities for nature-based tourism throughout the region, including those arising from the restoration of the Winton Wetlands and other wetlands of national and regional value such as the Barmah Forest and the lower Ovens River	11.1 (e), 12.1 (c)
Direct large commercial tourism uses to urban locations or to rural areas of lower agricultural value and away from areas identified as strategic agricultural land (national/state, regional and sub-regional)	11.2 (a)
Consider the directions in the Hume Regional Rural Land Use Study (2012) when planning for land use in rural areas	11.1 (e), 11.2 (a), 13.3 (a)
In areas identified as strategic agricultural land (national/state, regional or sub-regional): <ul style="list-style-type: none"> • avoid encroachment from rural residential settlement and other land uses that are non-complementary to agriculture • direct proposals for settlement in these areas to existing centres and townships 	11.2 (a)
Support agricultural production through the protection and enhancement of infrastructure and strategic resources such as water and agricultural land, including areas of strategic agricultural significance identified in this plan	11.2 (a)(e)(f)(h), 12.1 (c), 14.3 (a)
Support industrial uses and intensive agricultural processing by: <ul style="list-style-type: none"> • strategically planning for new uses including considering how to manage potential environmental impacts • preventing encroachment of incompatible uses on existing activities 	11.1 (b), 11.2 (b)
Encourage clustering of intensive rural industries, including agricultural production, to take advantage of locational opportunities including access to key infrastructure such as transport, power, water, information and communications technology, and separation from sensitive land uses	11.2 (b)
Consider the potential impact on the long-term agricultural productivity of the Hume Region when planning for the establishment of extractive industries	11.3 (b)
Facilitate rural tourism activities that support agricultural enterprises such as cellar door and farm gate sales and accommodation in appropriate regional locations	11.1 (e)
Promote the establishment of renewable energy hubs to co-locate industries to maximise resource use efficiency and minimise waste generation. Key potential locations for such hubs include Shepparton, Wodonga, Wangaratta, Benalla and Seymour	11.1 (d), 11.3 (a), 14.3
Consider the location of earth resources, the potential for their future extraction and how to minimise impacts on sensitive uses and the environment as part of strategic land use planning for rural areas	11.3 (b)
Support the availability of construction materials locally and consider measures to facilitate and manage their extraction	11.3 (b)
Maintain and develop buffers around mining and quarrying activities to manage potential land use conflicts	11.3 (b)

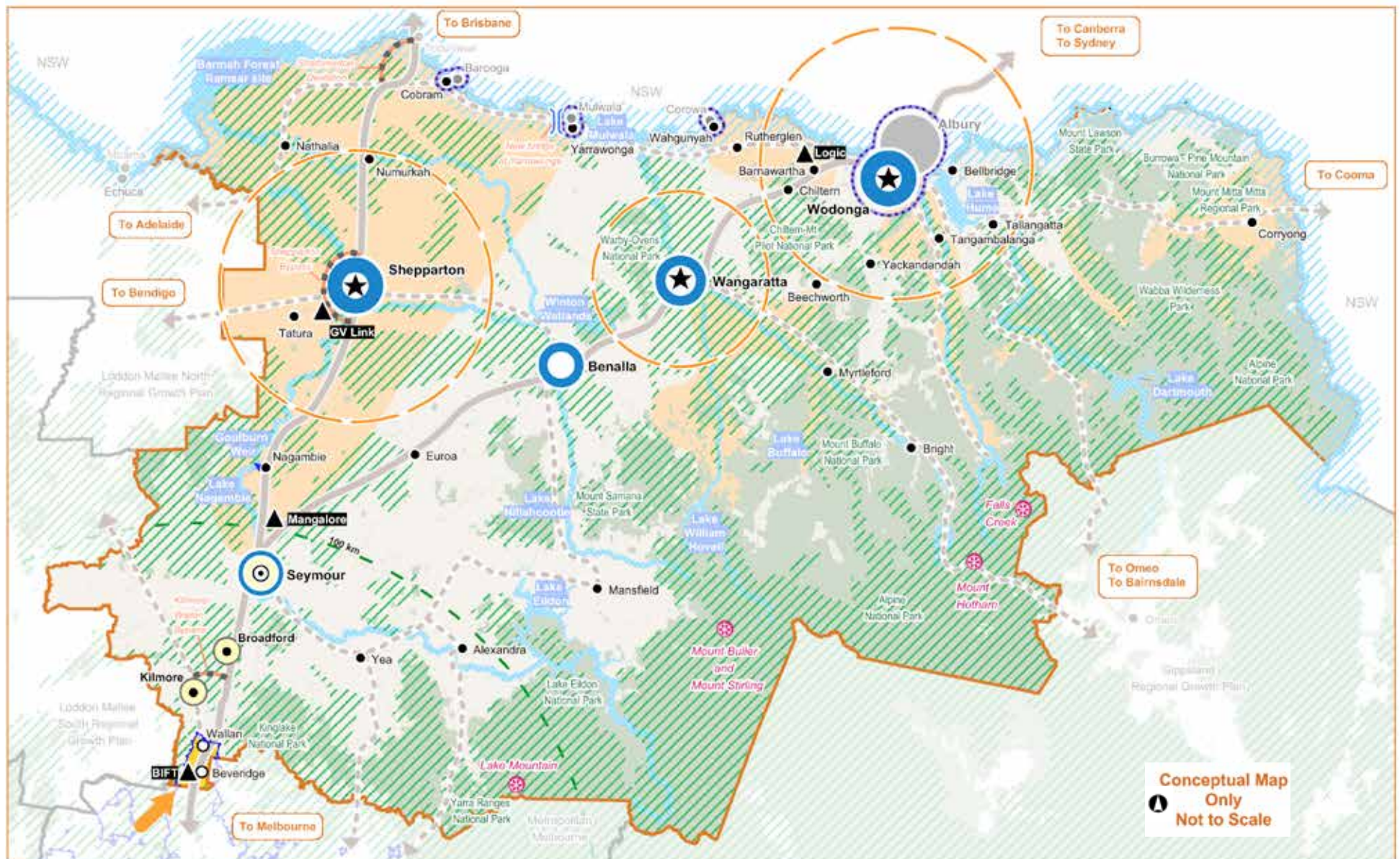
Environment and heritage – Protecting environmental and heritage assets and maximising the regional benefit from them while managing exposure to natural hazards and planning for the potential impacts of climate change	Reference to future directions (Part C)
Plan for the potential impacts of and opportunities arising from climate change	11.1 (e), 11.2 (d), 12.1 (c), 12.3 (a)
Identify, protect and maintain the Hume Region's cultural landscapes, including potential areas of scenic landscape amenity identified in the background paper	12.1 (a)
Identify, protect and (where appropriate) take advantage of the region's rich and diverse cultural heritage	12.2
Protect and enhance significant terrestrial habitat and biodiversity by: <ul style="list-style-type: none"> • avoiding development in areas with regionally significant terrestrial habitat • protecting significant vegetation assets through strategic planning exercises • enhancing vegetation corridors between existing native vegetation 	12.1 (b)
Encourage planning processes that provide strategic direction for vegetation and clearing and enable permanent protection of native vegetation in new public reserves	12.1 (b)
Manage water as a key environmental, social and economic asset, considering the number and extent of vital waterways and storages located in the Hume Region	12.1 (c)
Recognise the value of ecosystem services provided by land and soil	12.1 (e)(d)
Recognise public land as a substantial environmental and economic asset; land use planning decisions relating to areas in or adjacent to public land should recognise the environment and economic value of public land and seek to minimise risks to this regional asset	12.1 (e)
Utilise waterways as focal points to enhance urban liveability, provide connection to the natural environment and provide nature-based recreation opportunities	12.1 (c), 14.2 (c)
In land use planning decisions, primarily those related to dwellings, consider the risks related to wastewater and the individual and cumulative implications of development, such as from unsewered developments on groundwater and surface water uses	12.1 (c)

Living in the region – Focusing growth and development to maximise the strengths of existing settlements	Reference to future directions (Part C)
Focus growth and development specifically in the regional cities of Shepparton, Wangaratta and Wodonga, and in Benalla	13.2 (a)
Strengthen the economic role of Seymour, whilst supporting population growth	13.2 (a)
Support growth and development in other existing urban settlements and foster the sustainability of small rural settlements	13.2 (a)(b)
Planning for growth should consider the impacts of the Murray-Darling Basin Plan and irrigation modernisation, the influence of larger settlements outside the region such as Melbourne and Albury, as well as directions included in the draft Murray River Settlement Strategy	11.1 (d), 11.2 (e), 13.3 (d), 13.3 (e), 14.3 (a)
<p>Direct settlement growth and development:</p> <ul style="list-style-type: none"> to prioritise human life and respond to the following principles with regard to bushfire risk management: <ul style="list-style-type: none"> direct development to locations of lower bushfire risk and carefully consider development in locations where significant bushfire risk cannot be avoided avoid development in locations of extreme bushfire risk avoid development in areas where planned bushfire protection measures may be incompatible with other environmental objectives to avoid areas of extreme risk from flood. A precautionary approach will be adopted directing growth and development to areas of low flood hazard. Where development in flood hazard areas is unavoidable, suitable building and infrastructure controls will be implemented to protect life and property, while considering environmental assets to areas where it will avoid impacting on high value environmental assets. If impacts are unavoidable, every effort will be made to minimise them to minimise urban growth impacts on areas of strategic agricultural land, key environmental assets, strategic earth resources and identified scenic and heritage landscapes to minimise urban footprint expansion to occur in sympathy with environmental and heritage assets and to occur in balance with natural hazards to enable protection of significant environment and heritage assets and appropriate risk mitigation 	11.2 (a), 12.1 (a)(b), 12.2 (a), 12.3 (b)(c), 13.2, 13.3
Maintain and enhance the distinctive and valued characteristics of settlements in the Hume Region, including townships associated with early settlement and the Gold Rush	13.3 (c)
Support improved access to a range of employment and education opportunities, particularly in key urban locations such as Shepparton, Wodonga, Wangaratta, Benalla and Seymour	11.1 (a)(b), 13.2 (a), 13.3 (b), 14.1, 14.2 (a)(b)
Encourage residential growth in areas where there are supporting employment, transport services and commercial activities. Urban growth frameworks included in this plan broadly identify these areas for Shepparton, Wodonga, Wangaratta and Benalla	11.1 (a)(b), 13.2
<p>Plan for rural residential use to ensure:</p> <ul style="list-style-type: none"> it is located where it will not impact adversely on regional assets, such as agricultural land, landscapes and the natural environment it has a sustainable settlement pattern there are sufficient areas of rural residential zoned land in strategic locations to help reduce development pressures on agricultural land there are a range of lot sizes to meet differing needs 	11.2 (a), 11.2 (g), 13.2 (a), 13.3 (a)

Regional infrastructure – Supporting the improvement of people and freight movement and planning strategically for future infrastructure needs	Reference to future directions (Part C)
Plan for transport services and infrastructure provision that keep pace with growth and change in the key urban areas and respond to changes in demographics, land use and economic and social development	13.2, 14.1, 14.3 (a)
Plan for freight connectivity to the network that is flexible and adaptable to changes in the mix of commodities and freight logistic operations into the future	11.1 (f), 14.1
Support improved east-west transport links including those into Gippsland	14.1
Promote the Hume Region's network of tracks and trails and support activities that complement and extend their use	11.1 (e), 14.1 (f), 14.2 (c)
Support the development of freight and logistics precincts in strategic locations along key regional freight transport corridors	11.1 (f), 13.2, 14.1 (a), 14.1 (d)
Maximise the strategic position of the transport network and associated infrastructure to encourage settlement and economic growth	11.1 (f), 13.2, 14.1
Support infrastructure upgrades that facilitate urban growth, environmental enhancements and key economic development initiatives	11.1, 13.2, 14.1, 14.2, 14.3
Provide for appropriate settlement buffers around sewerage treatment areas, solid waste management and resource recovery facilities and industrial areas to minimise potential impacts on the environment such as noise and odour	11.2 (g), 14.3 (a)
Avoid locating water treatment plants close to development nodes	14.3
Support provision of adequate facilities to manage the Hume Region's solid waste, including resource recovery facilities	11.3 (a), 14.3 (a)
Support development of opportunities to generate renewable energy from waste	11.1 (d), 14.3 (a)
Support the supply of high quality information and communications technology	11.1 (b), 11.1 (d), 14.3 (a)
Growth should be supported through strategic investment in sustainable new physical and social infrastructure that is resilient to natural hazards and risks and climate change	13.2, 14.1 - 14.3
Plan for the provision of social infrastructure in sequence with new residential development with good access to public transport services, as well as to employment and education opportunities	11.1 (a)(b), 13.2, 14.2 (b)
Support the co-location and integration of community facilities and services to improve service delivery and efficiency	14.2 (a)
Provide for integrated regional and sub-regional scale community, cultural and recreation facilities that contribute to social inclusion and connectivity, community health and wellbeing, amenity, environmental sustainability and the economy	14.2
Coordinate the development of growth areas to ensure required land, infrastructure and services (including education and health services) are provided in a timely manner	13.2, 14.1 - 14.3

PART D | REGIONAL GROWTH PLAN

Map 18: Hume regional growth plan



Source: Department of Transport, Planning and Local Infrastructure

SETTLEMENT NETWORK



Settlement network

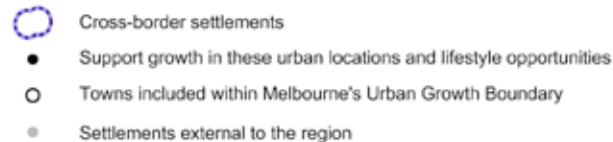
These urban locations continue to form the foundation of the urban settlement network and will build on and strengthen the existing urban network by:

- focusing growth in the regional cities of Shepparton, Wodonga and Wangaratta, and in Benalla.
- supporting strong economic development in Seymour.

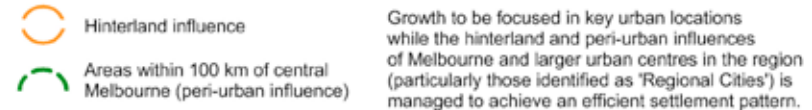
These urban locations provide key regional employment centres.

¹Plan Melbourne (Chapter 6 – State of Cities) identifies Broadford, Kilmore and Seymour as peri-urban towns with potential to attract housing and population growth out of Melbourne

OTHER KEY URBAN SETTLEMENTS



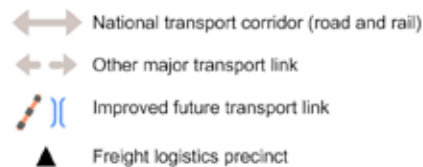
URBAN GROWTH AND HINTERLAND INFLUENCE



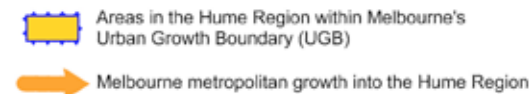
CONNECTIVITY

Transport links (road and rail)

Optimise the use of existing transport links and new transport infrastructure.



Key relationships to Melbourne



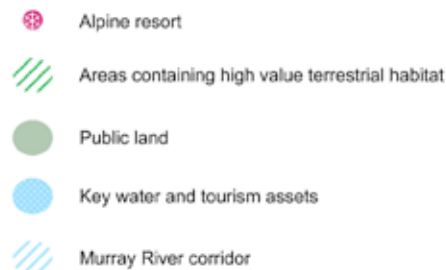
ECONOMIC DEVELOPMENT



Strategic agricultural land

Support continued agricultural production by protecting strategic agricultural land. Support a mix of compatible land uses in rural areas to help develop a more diverse regional economy.

ENVIRONMENT



Natural assets (including water assets)

Protect and manage environmental assets (including water assets) for their intrinsic value, their cultural values and as key parts of the regional economy. Protect and maintain significant regional landscapes. Opportunities exist to enhance and establish vegetation corridors and connections, building on existing assets such as river corridors and existing native vegetation. Such corridors and the connections they provide are particularly important in those parts of the region which have been extensively cleared for uses such as agriculture and urban settlement.

Murray River corridor

Protect the Murray River corridor as a key environmental (scenic, biodiversity, riverine), cultural and economic asset.



Canola crop and silos, image courtesy of Greater Shepparton City Council

PART E | DELIVERING REGIONAL GROWTH

16. Implementation

16.1 Planning schemes

The Hume Regional Growth Plan will have status as part of the Victoria Planning Provisions and planning schemes. This will give the plan's strategic directions status in each local government area's planning scheme.

Councils in the Hume Region will work in partnership with State Government to facilitate the required planning scheme amendment process and content as an immediate priority.

An Advisory Committee has been appointed to conduct a review of the State Planning Policy Framework in order to deliver regional growth plans and other major planning policies, such as the new metropolitan planning strategy, *Plan Melbourne*.

The plan will guide and inform future strategic planning across the Hume Region, including future reviews of each council's Municipal Strategic Statement and will help provide justification for planning scheme amendments that are consistent with the plan.

The plan will provide councils in the Hume Region with a clearer regional land use context to inform and influence future local strategic planning, planning scheme amendments and local decisions. As the plan indicates preferred locations for future urban development and valued areas for protection, it can be used as a high level context for regional and local infrastructure planning and investment.

The plan establishes a context for growth and settlement planning to inform and assist in frameworks for town and city growth plans and infrastructure requirements. This more detailed level of planning will continue in partnership between local and state planning authorities. Careful monitoring of urban projects, land development and population change during the life of the plan will be established to assist in the delivery of the plan.

16.2 Links to Regional Strategic Plan implementation

The plan is closely aligned to the Hume Strategy for Sustainable Communities 2010–2020. Implementation of the plan should also be considered in relation to other ongoing work to implement the strategic directions of the Hume Strategy. This will strengthen the capacity for achieving shared objectives and targeting efforts to secure funding for the highest priorities in the region.

Regional leadership and high level support for the implementation of the Hume Strategy is provided through a partnership between the Hume Regional Local Government Network, Hume Regional Management Forum and Hume Regional Development Australia Committee. Implementation of the plan could be advanced through the same processes and governance structures (see Figure 5). These structures allow for inter-agency cooperation to implement regional priorities.

Development of this plan was identified as a regional 'flagship project' in the State of the Hume Region 2010–2012 (August 2012) progress report on Hume Strategy implementation and has been supported through the land use planning sub group of the Regional Management Forum. It is anticipated that key regional growth plan implementation initiatives may be adopted as priorities by the Hume Regional Management Forum and advanced through this structure. Implementing the actions identified in this plan through this existing structure could include identifying regional priorities, determining a timeframe for implementation and considering how actions are implemented.

In addition, the performance monitoring framework established for implementing the Hume Strategy will support ongoing performance monitoring, reporting and review of strategic projects and activities that flow from this plan.

16.3 A plan for implementation of actions

Implementation of this plan is critical to achieve its strategic directions for growth and change. An implementation plan will ensure that the region is able to respond to key regional challenges and strategic directions of the plan relating to infrastructure provision, key asset protection and management of future growth.

Table 5 sets out the actions developed to achieve the future directions described in Part C of this plan. These actions build on the strategies identified in Table 4.

Implementation of this plan is critical to achieve its strategic directions for growth and change. Short-term implementation priorities include:

- amending planning schemes to include key elements of the plan
- developing a detailed implementation plan focusing on prioritising the actions identified in Table 5 and inter-agency cooperation. This plan should include a program for the implementation of actions and consider ways to coordinate and deliver priority projects, including funding options
- facilitating further detailed work and investigations identified as short-term regional priorities in the implementation plan.

Figure 5: *Hume Strategy partnership governance structure and regional growth plan implementation*

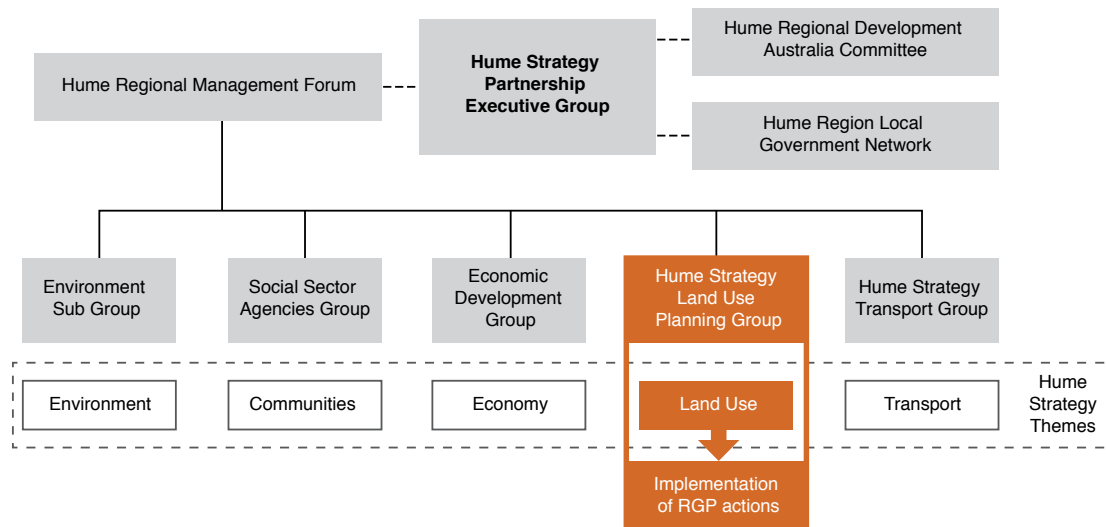


Table 5: Actions

Regional economy – Supporting the development of a more diverse regional economy while managing and enhancing key regional economic assets	Reference to future directions (Part C)
Support initiatives to identify and secure land for resource recovery facilities, waste landfill sites and associated potential energy generation activities	11.1 (d), 11.3 (a), 14.3 (a)
Prepare a regional retail and commercial strategy considering factors such as the use of improved technology (for work and shopping), online purchasing, the preferred design and location of commercial areas and the potential impact of changing planning provisions	11.1 (a)
Identify opportunities to invest in ongoing redevelopment of CBDs	11.1 (d), 13.2 (a)
Identify areas suitable for the expansion of nature-based and cultural heritage tourism	11.1 (e), 12.1 (c), (e), 12.2
Support the use of the Hume Region's tracks and trails by improving public transport access, providing a greater range of accessible accommodation opportunities and by improving links to tourism activities and precincts	11.1 (e), 14.1 (f), 14.2 (c)
Undertake a regional study to identify future opportunities for the sustainable development of resource opportunities such as extractive industries and energy generation including renewable energy	11.1 (d), 11.2 (c), 11.3 (a), 11.3 (b), 14.3 (a)
Investigate applying consistent, streamlined land use planning processes to industry clusters to be identified at a regional or sub-regional scale	11.1 (c)
Undertake a detailed investigation of settlements for latent and undeveloped commercial and industrial capacity. This investigation should examine future market growth potential in the intensive agriculture and industrial sectors. Priority areas include, but are not limited to areas in and around Shepparton, Wodonga, Wangaratta, Benalla and Seymour	11.1 (a), 13.2 (a)
Map existing rural land use and strategic agricultural land of local significance, based on a consistent methodology, for use by local government to inform local rural land use planning processes	11.2 (a)
Prepare a plan for the establishment of strategic clusters of intensive rural industries, including intensive agricultural production, by identifying locations where these uses are encouraged from a regional perspective	11.2 (b)
Environment and heritage – Protecting environmental and heritage assets and maximising the regional benefit from them, while managing exposure to natural hazards and planning for the potential impacts of climate change	Reference to future directions (Part C)
Undertake an integrated, regional cultural landscape study (including consideration of scenic and heritage values), that identifies and documents cultural landscapes, integrates scenic preference and visual exposure, considers the economic value of landscapes and makes recommendations for the protection and management of these landscapes	12.1 (a)
Consistently apply appropriate planning tools to recognise and protect environment and heritage assets across the Hume Region, in particular: <ul style="list-style-type: none"> • terrestrial habitat (incorporating relative habitat value), including vegetation found in extensively cleared agricultural landscapes • waterways, wetlands and water quality (including threats to these asset, such as soil erosion) • significant cultural and heritage assets • significant landscapes • strategically significant agricultural land • soil health and degradation processes 	11.2 (a), 12.1 (a)–(d), 12.2 (a)
Support initiatives to establish, protect and reconnect ecosystems through large-scale integrated vegetation corridor projects such as the Mountains to Murray and Central Victoria Biolinks projects	12.1 (b), 14.2 (c)

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Develop a strategic regional native vegetation offset plan to identify opportunities to utilise offset plantings (associated with land use and development and vegetation clearing) to enhance vegetation corridor connectivity across the Hume Region (landscape connectivity) and consider implementation mechanisms for such an approach	12.1 (b)
Align information (mapping of assets) between Regional Catchment Strategies and local government planning processes and strategies	12
Establish minimum setbacks to guide the use and development of land along major waterways and around key water bodies to protect buildings and works, to make allowance for natural variance in beds and banks and to protect important regional natural features	12.1 (c)
Councils, water authorities and catchment management authorities, develop and implement management plans for declared water supply catchments to inform planning strategies and decisions. This could include review of domestic wastewater management plans to enable effective planning for the type of settlement and economic activity that can occur in declared water supply catchments while protecting catchment health	12.1 (c)
Support implementation of the Improving Flood Warning Systems Implementation Plan, which will help to ensure flood modelling is undertaken (that incorporates predicted climate change impacts) where floodplain behaviour is not well understood and there are significant risks to life and property. As a matter of priority, investigate opportunities to implement the findings of flood studies and floodplain management strategies through a range of means including amendments to planning schemes	12.3 (b)
Update planning tools related to bushfire hazard and risks, including the Bushfire Management Overlay, when necessary to reflect new understanding of this hazard	12.3 (c)
Exchange mapped and modelled data of environmental assets and natural hazards to provide for accurate interpretation of the best available data in planning decisions	12.1, 12.3
Complete mapping areas that are affected by salinity and incorporate this information into planning schemes	12.1 (c), 12.1 (d)
Monitor, assess and act on the potential impacts and opportunities of climate change across the region and consider the outcomes of regional climate change adaptation planning activities to inform future land use planning decisions	11.1 (e), 11.2 (d), 12, 12.1 (c), 12.3 (a)
Living in the region – Focusing growth and development to maximise the strengths of existing settlements	Reference to future directions (Part C)
Report on residential (including rural residential), commercial and industrial land supply and demand at five-yearly intervals to inform government decision-making	11.1 (a) - (b), 13.2 (a)
Prepare a detailed framework plan for Seymour and surrounds to guide the development of this area as a sub-regional employment hub. The plan should consider: <ul style="list-style-type: none"> opportunities to capitalise on existing transport interchanges and networks within and near Seymour opportunities to provide business enterprise (incubator) precincts provision of social infrastructure provision of a range of housing choices 	13.2 (a)
Measure the resilience of settlements (using best practice socio-economic indicators) and recommend measures to support their sustainability	13.2 (b)
Participate in a coordinated approach to planning for growth and development in Melbourne's peri-urban regions (building on existing work) and consider applying such an approach to peri-urban regions within the Hume Region such as those around the regional cities of Shepparton, Wangaratta and Wodonga	13.3 (e)
Form a regional partnership to prepare a regional accommodation strategy that builds on existing work and: <ul style="list-style-type: none"> identifies gaps in the regional housing market (taking into account demographic and population projections), and includes aspects such as the supply of housing for elderly people, affordable housing, housing for professionals, rental accommodation and accommodation for tourists and visitors identifies how gaps can be addressed, such as through the redevelopment of public housing stock, development of urban renewal sites, by allowing for increased densities in urban centres and planning for rural residential development makes recommendations on affordable housing provision, such as through joint programs with Places Victoria, the Office of Housing, local councils and the not-for-profit sector 	11.1 (e), 13.3 (b)

Identify opportunities to establish or improve publicly accessible, regional and sub-regional open space linkages	11.1 (a), 12.1 (b), (e), 13.3 (b), 14.2 (c)
<p>Develop and implement a consistent set of regional criteria to be used when undertaking local planning for rural residential uses, building on the statewide guidance (such as provided by Practice Note 37: Rural residential development). This work should include considerations such as:</p> <ul style="list-style-type: none"> • providing land within a regular commuting distance to a major regional centre • providing safe and easy transport and access • consolidating existing rural settlement patterns • visual and physical linkages to areas with high amenity such as lakes, rivers and national and state parks • avoiding areas of strategic agricultural importance • avoiding areas of landscape significance and ensuring the protection of strategic views and vistas • avoiding areas of environmental significance • access to infrastructure such as power and sustainable water supply • avoiding areas subject to natural hazard such as bushfire and flood risk • minimising potential conflicts with other rural land uses 	11.2 (g), 12.1 (b), 13.2 (a), 13.3 (a)
Regional infrastructure – Supporting the improvement of people and freight movement and planning strategically for future infrastructure needs	Reference to future directions (Part C)
Investigate the strengthening of transport and information and communications technology linkages between key growth locations and surrounding communities to enhance access to education, employment, services and facilities	11.1 (d), 13.2 (a)(b), 14.1 (c)(e), 14.2 (a), 14.3 (a)
Undertake a study to consider the potential economic benefits of improved road and rail passenger transport in the Hume Region	11.1 (f), 13.2 (a), 14.1 (a) – (c)
Develop a model and guidelines for the provision of social infrastructure as part of a co-locational and integrated approach to the design, development and delivery of community facilities	14.2 (a)
Collaborate with relevant stakeholders to review planning controls and guidance relating to separation distances for solid waste management and resource recovery facilities	14.3 (a)
<p>Build on existing work and develop a strategic regional infrastructure plan to:</p> <ul style="list-style-type: none"> • identify and prioritise key regional infrastructure (social and physical) needed to support economic and population growth in the Hume Region, including consideration of: <ul style="list-style-type: none"> • existing capacity issues • infrastructure required in smaller settlements where the lack of infrastructure may be limiting development options • instances where infrastructure provision does not only support growth, but can also deliver environmental and social benefits • make recommendations on future regional and sub-regional scale sport, recreation and cultural facilities, open space, tracks and trails • investigate ways to coordinate and deliver priority projects including funding options <p>The strategic regional infrastructure plan could consider key regional infrastructure items such as freight and logistics precincts, improvements to key transport infrastructure (including bypasses) and social and physical infrastructure to support growth areas</p>	11.1 (a)(b)(d), 11.2 (h), 13.2 (a)(b), 14

16.4 Review and performance

It is intended that this plan will inform any subsequent review of the Hume Strategy for Sustainable Communities 2010–2020.

The plan is intended to be a living and adaptable plan, able to respond to new data and information as it arises, including information from state or regional strategies and programs. The plan is to be reviewed on a four-to five-year cycle. Any review process will involve broad community and stakeholder engagement.

Implementation of this plan will be integrated with the overall implementation of the Hume Strategy and included in the performance monitoring framework already established for the implementation of the Hume Strategy. This framework includes an assessment of performance and project progress and sets out performance measures for the key directions of the Hume Strategy.

16.5 Implementation summary

The key implementation actions, priorities, partners and responsibilities are summarised below:

Action	Priority	Timing	Lead responsibility	Key partners
1. Planning scheme implementation of regional growth plan	High	2013-2014	Department of Transport, Planning and Local Infrastructure	Hume Region councils
2. Implementation Plan	High	2014-2015	Hume Region lead governance entity	Hume Regional Growth Plan project partners
3. Hume region Municipal Strategic Statement reviews	Medium	To coincide with Municipal Strategic Statement review cycles	Hume Region councils	Department of Transport, Planning and Local Infrastructure
4. Review	Medium	2016–2018	Hume Region lead governance entity	Hume Regional Growth Plan project partners

GLOSSARY

Aboriginal cultural heritage: means Aboriginal places, Aboriginal objects and Aboriginal human remains. They tell the story of Aboriginal use and occupation of the land. An Aboriginal place can be an area of land or water, a natural feature, formation or landscape, an archaeological site, as well as a building or structure. Aboriginal cultural heritage also includes intangible places where there may be no physical evidence of past cultural activities. These include places of spiritual or ceremonial significance, places where traditional plant or mineral resources occur, or trade and travel routes.

Biodiversity: the variety of all life forms – different plants, animals and micro-organisms, the genes they contain and the ecosystems of which they form a part.

Bioenergy: energy generated from organic matter, such as agricultural waste.

Biofuels: liquid or gaseous fuels derived from biomass.

Biomass: includes agricultural residues and waste products, forestry residues, organic wastes, purpose-grown energy crops, woody weeds, algae and biodegradable municipal waste streams.

Carbon farming: a method of allowing farmers and land managers to earn carbon credits by storing carbon or reducing greenhouse gas emissions on the land.

Central Business District (CBD): the area comprising the core commercial, civic and community functions of a town.

Cultural heritage: captures both Aboriginal cultural heritage and historic heritage.

Declared Water Supply Catchments: Catchment areas as proclaimed under the *Soil Conservation and Land Utilization Act 1958* in conjunction with the *Land Conservation Act 1970* and subsequently incorporated into the *Catchment and Land Protection Act 1994*.

Domestic wastewater management plan: a document seeking to reduce the potential health and environmental impacts of on-site wastewater disposal.

Earth resources: these comprise minerals, petroleum, gas, extractive and geothermal industries.

Ecosystem services: the conditions and processes through which natural ecosystems and the species of those natural ecosystems, sustain and fulfil human life.

Environmental asset: a tangible biophysical element of the environment, such as terrestrial habitat, waterways, significant landscapes and soils.

Environmental value: the attributes of an environmental asset that make it valuable or important based on environmental, social or economic values.

Extractive Industry Interest Area (EIIA): identified areas around major centres in Victoria where it is possible that a quarry could be placed within defined constraints.

Food bowl: the Greater Shepparton, Moira, Swan Hill, Campaspe, Gannawarra Mildura and Loddon municipalities all form part of Victoria's food bowl, which specialises in irrigation-based industries including dairy, horticulture and viticulture, as well as dry land farming operations and agriculture-related industries, such as food processing, packaging and transport.

Freight and logistics precincts: places where large volumes of freight are received, stored and despatched. These precincts may support port, airport or rail and road intermodal terminals and may include manufacturing activity, warehouses and distribution centres within the broader precinct of complementary freight and freight-related activities.

Goulburn-Murray Water Connections Project: formerly known as the Northern Victoria Irrigation Renewal Project (NVIRP), it is a \$2 billion irrigation modernisation project in Victoria's food bowl.

Higher order services: services that are only provided in a limited number of locations and have a large catchment area, such as a university or department store.

Historic heritage: refers to the fabric of our past that we value today and includes archaeological sites, buildings and precincts, structures, gardens, trees, cemeteries, cultural landscapes, shipwrecks and significant objects and artefacts.

Housing diversity: the provision of a range of different housing types to suit different ages, lifestyles and incomes.

Housing stress: where the cost of housing is high relative to household income.

Industry or agricultural clusters: geographic concentration of businesses and activities that relate to each other or work together.

Infill development: the development of additional dwellings in established urban areas.

Intensive agriculture: land used to intensively produce agricultural products through ventures such as poultry farms, piggeries, feedlots, aquaculture, hydroponics, greenhouses and glasshouses. This includes 'intensive animal husbandry' and intensive 'crop raising' as defined in planning schemes.

Landscape connectivity: broad corridors of vegetation that have been established to connect areas of high natural value such as national parks.

Living Murray Icon sites: the Murray-Darling Basin Ministerial Council's Living Murray program identified six priority Icon sites that will benefit from improved water management regimes. The sites have ecological, economic and cultural heritage significance to Aboriginal people and to the whole community, but have historically been subject to negative impacts from river regulation. The Barmah-Milewa Forest is the only Icon site in the Hume Region.

National Broadband Network (NBN): high-speed internet network being provided across Australia.

Natural hazard: a naturally occurring source of potential harm or a situation with the potential to cause loss, for example, bushfire or flood.

Natural resources: naturally occurring commodities such as oil, gas, sand and stone, minerals, fisheries, timber or places of solar or geothermal energy potential.

Nature-based tourism: any activity that relies on experiences directly related to natural attractions including ecotourism, adventure tourism, wildlife tourism and extractive tourism for example, fishing or gold panning.

Overlays: planning scheme provisions generally related to a particular issue, such as heritage or flood.

Peri-urban hinterland: the area around a large settlement into which cities expand or which cities influence.

Planning scheme: policies and provisions for the use, development and protection of land, prepared by councils or the Minister for Planning.

Regional catchment strategy: a document setting out the management of natural resources, such as rivers, wetlands, terrestrial habitat and agricultural land.

Regional cities: the 10 largest cities outside metropolitan Melbourne (Ballarat, Bendigo, Geelong, Horsham, Latrobe, Mildura, Shepparton, Warrnambool, Wangaratta and Wodonga). The relevant municipalities are represented by the Regional Cities Victoria group and together they advocate a whole-of-government approach to delivering services and infrastructure.

Registered Aboriginal Party: represents Aboriginal people in the management and protection of Aboriginal cultural heritage.

Rural land use: a broad term representing the use of land outside urban areas, and includes activities such as agriculture, rural living, forestry and extractive industry.

Rural living: land in a rural setting used and developed for dwellings that are not primarily associated with agriculture.

Sensitive uses: land uses that have high amenity expectations such as housing, schools or hospitals.

Social infrastructure: includes community facilities, services and networks that help communities meet their social needs and maximise their potential wellbeing.

Terrestrial habitats: combinations of biological and physical features of the landscape (including native vegetation, fallen timber and litter, soil, rocks, etc) that enable populations of each native plant or animal species (or group of species) to live and reproduce. Features can be considered at the site scale, for example, the food sources used by individuals, and the landscape scale, for example, the linkages used for movement between areas, or the refuges used to cope with disturbance events.

