



# LOWER HUME SUB REGIONAL PLAN

*The **Hume Strategy** for sustainable communities*

*2010-2020*



A Victorian  
Government  
initiative



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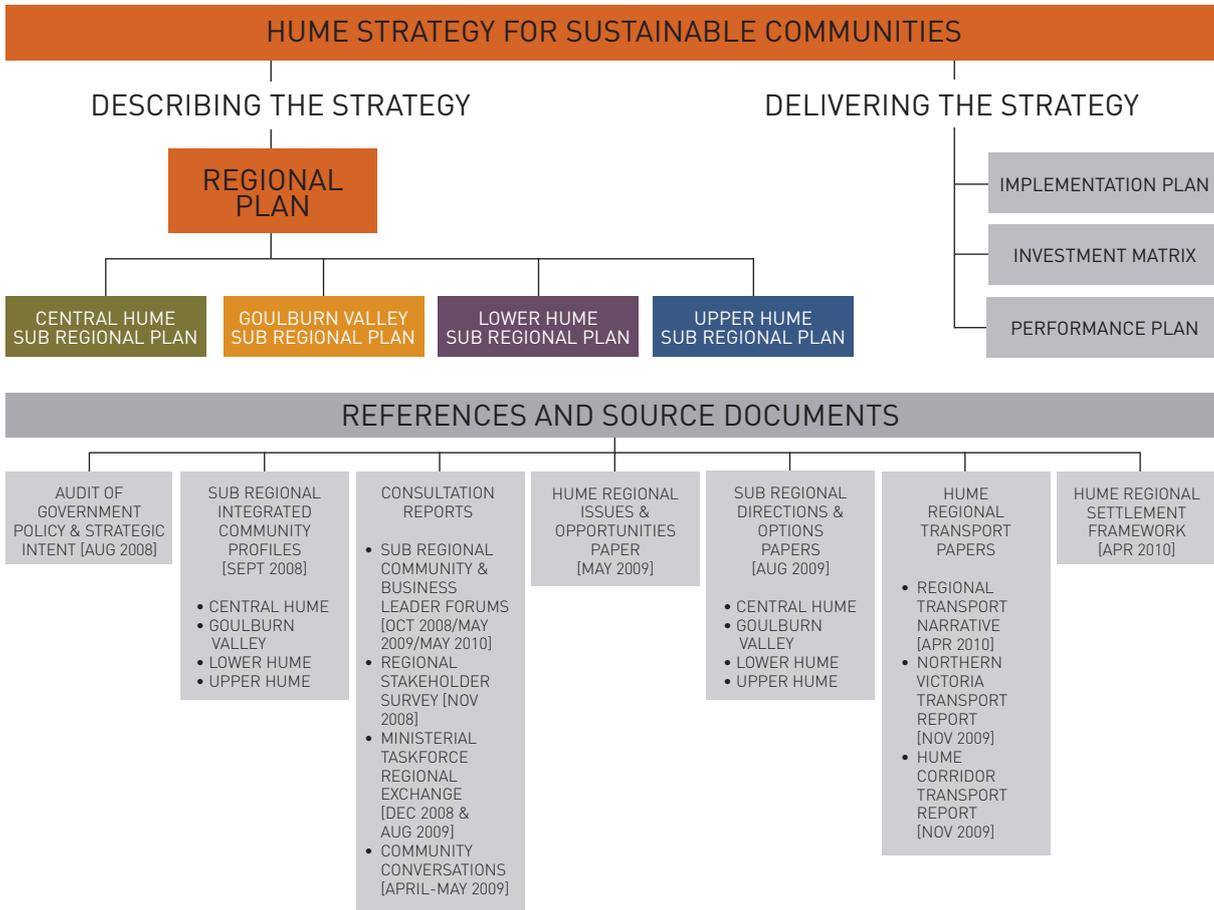
# LOWER HUME SUB REGIONAL PLAN

The **Hume Strategy** for sustainable communities

The Hume Strategy for Sustainable Communities (Hume Strategy) is an integrated plan connecting the four distinct sub regions that make up the Hume Region in North East Victoria and providing a framework for long-term cooperation and investment (Map 1).

The Lower Hume Sub Regional Plan is one of five volumes that describe the Hume Strategy and is a companion document to the Hume Regional Plan. The Lower Hume Sub Regional Plan sits alongside the Upper Hume, Central Hume and Goulburn Valley Sub Regional Plans (Figure 1).

FIGURE 1. HUME STRATEGY DOCUMENT STRUCTURE



PREFACE



The Hume Regional Plan describes in detail the strategic framework and rationale for the directions and strategies included in all five volumes. Users are encouraged to read the regional plan prior to considering the sub regional plans because some of the higher-level strategic material has not been replicated in the sub regional documents. However, a short summary is provided below.

## HUME STRATEGY: KEY COMPONENTS

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### 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.

### ACHIEVING THE VISION

The vision will be achieved by focusing effort on five key themes of environment, community, economy, transport and land use. The goals for these themes are articulated and developed further through a set of key directions. Underpinning each key direction is a series of recommendations for action at the regional level.

The five Hume Strategy themes and related goals that comprise the framework for action as set out in the Hume Regional Plan in summary are:

#### **Environment: Natural resources protected and enhanced for current and future generations**

Conserve the region's natural resources in order to protect their intrinsic values and support sustainable communities.

#### **Communities: Healthy, vibrant and resilient communities**

Strengthen communities by enhancing their liveability and sense of connectedness and improve their access to services, facilities and other opportunities.

#### **Economic: A thriving and dynamic economy**

Capitalise on the region's competitive advantages, opportunities and strengths, in order to continue to deliver prosperity and vitality.

#### **Transport: An integrated network of efficient and high functioning transportation systems**

Develop a network of integrated transport infrastructure and services in order to ensure that Hume will be a mobile region, with a capable transport system that provides quality, fast, safe efficient links for rural and regional communities.

#### **Land Use: An efficient and sustainable pattern of urban and rural land use and development**

Consolidate the development of four sub regions with high functioning networked centres, which together provide quality services and meet diverse needs. Stronger linkages will be developed between regional cities and centres and with other key cities and towns outside the Hume Region.

### KEY CONCEPTS

The following key concepts underpin the Hume Strategy:

#### **Networked settlements**

The Hume Region has a relatively dispersed pattern of settlements, not dominated by a single large city. The larger towns and cities support networks of smaller settlements. The Hume Strategy proposes to build on this existing pattern by adopting a model of a 'networked multi-centred region', supported by integrated planning for mobility and transport.

#### **Mobility**

The major road and rail corridors and other transport links play crucial roles in connecting settlements and making services and facilities accessible to communities in the Hume Region. Equity of mobility is a fundamental objective of planning for transport and access in the Hume Region. The concept seeks to improve the ability of individuals to travel for employment, education, health, household needs and leisure. It also recognises that in some cases it may be more efficient to bring services to people, rather than people travelling to a centralised location for services.

#### **Competitive advantage**

Competitive advantages are the characteristics of a region or area that give it an edge over other comparable places. They may be natural or built assets, locational advantages or a combination of these factors. Building on competitive advantage is a fundamental tenet used in the Hume Strategy to frame actions for future success.

The Hume Strategy deals only with matters that are of strategic significance at a regional or sub regional level. To achieve this, the following criteria are applied:

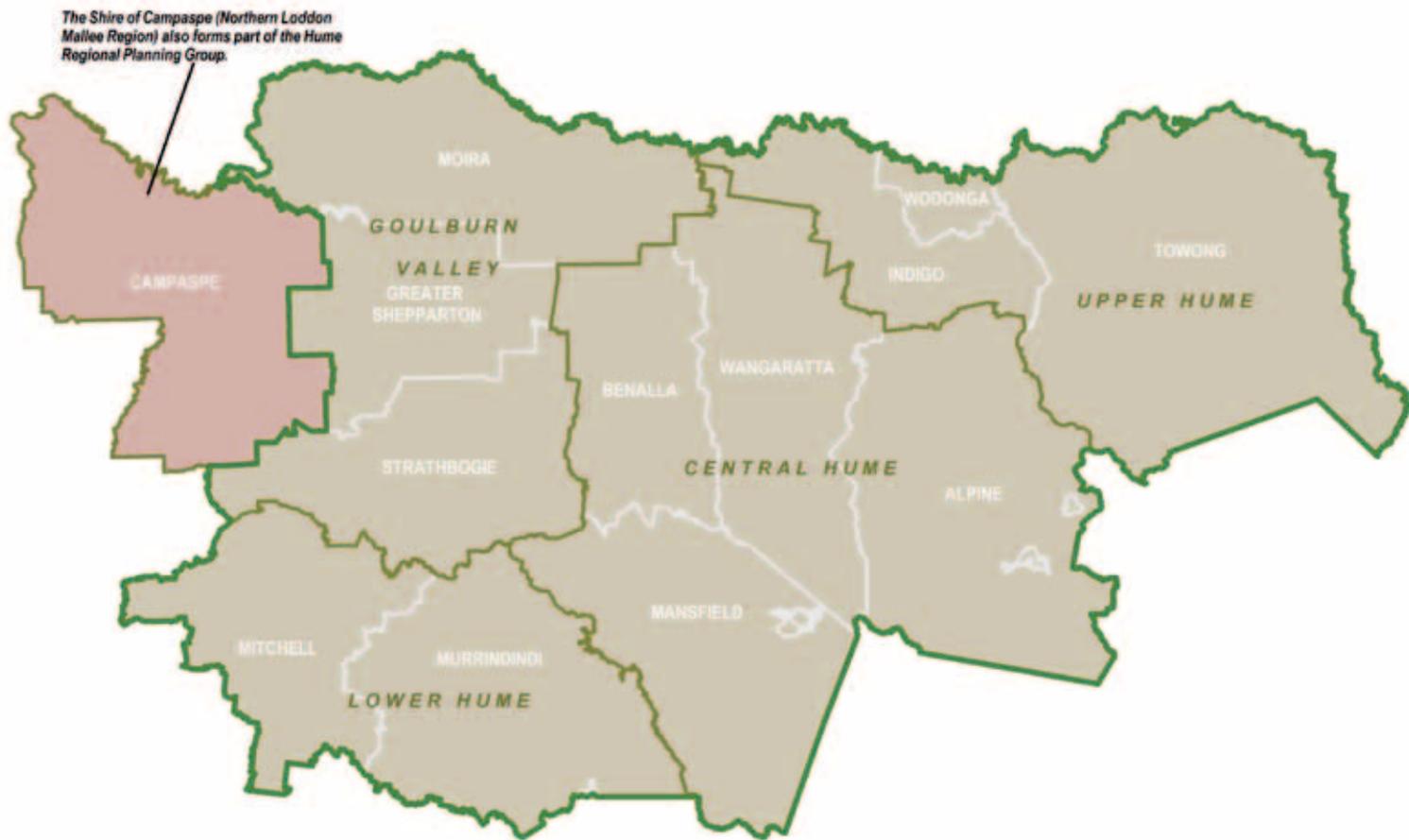
**Regional:** Matters that extend over or impact beyond a sub region.

**Sub Regional:** Matters that extend beyond a single municipality, but are unlikely to have a region wide impact.

**Local:** Matters that are unlikely to be significant beyond the municipality concerned.

When reading the regional plan and the accompanying recommended region level actions, it is important to appreciate that the regional recommendations apply to all sub regions. The background studies that inform the regional plan also incorporate material of relevance to each sub region. The specific actions applying to the Lower Hume sub region are set out below and accompany the regional level actions that are contained in Appendix 1.

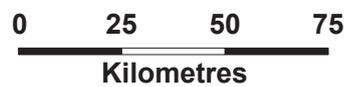
The purpose of the Lower Hume Sub Regional Plan is to articulate specific actions for this sub region. These include recommendations for collaboration and partnerships that can benefit communities which share interests and opportunities that extend beyond a single municipality.



MAP 1. HUME SUB REGIONS



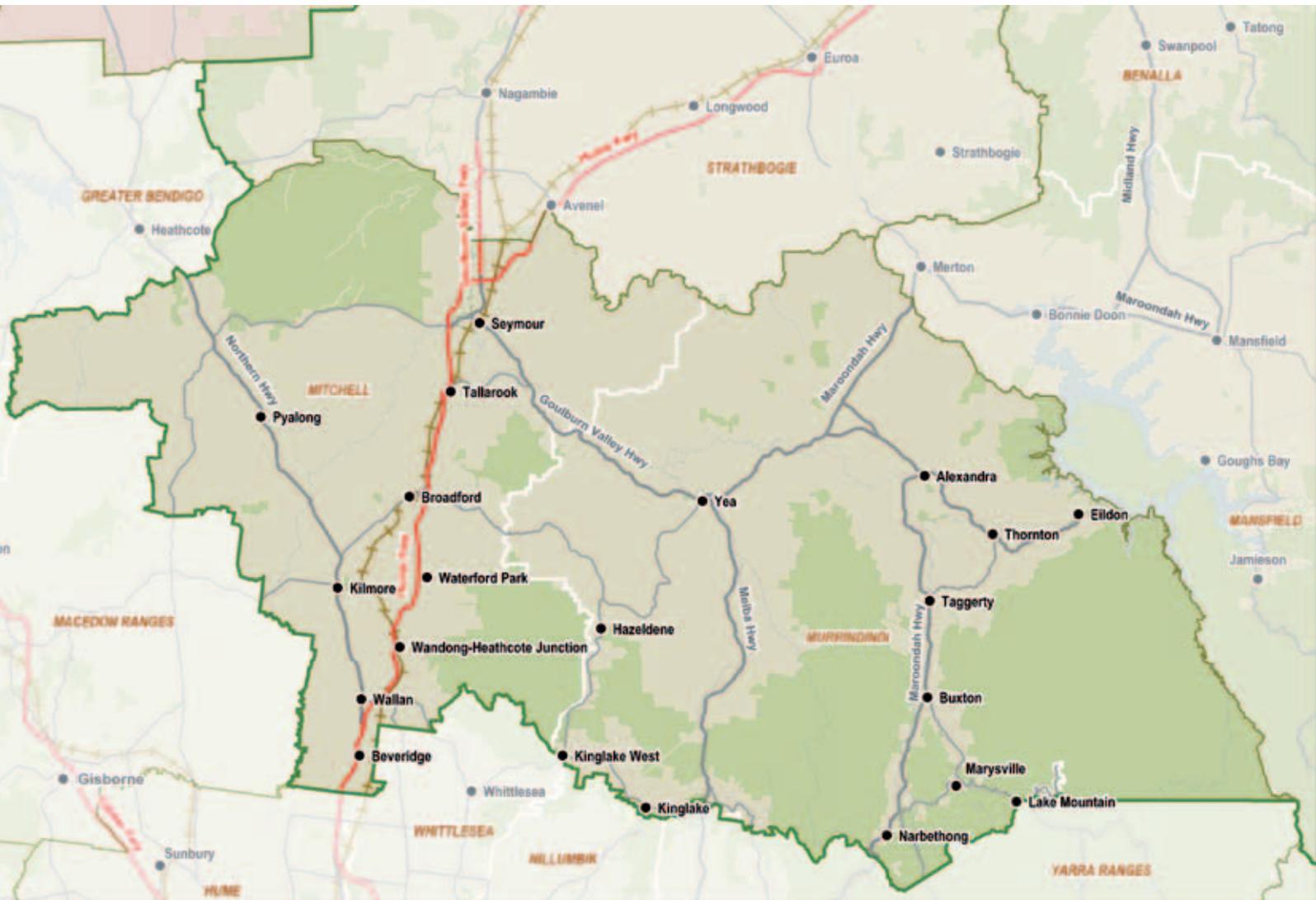
-  Hume Region Boundary
-  Sub Region Boundary
-  Local Government Area Boundary



PART 1: SETTING THE SCENE



# THE LOWER HUME SUB REGION



MAP 2. LOWER HUME SUB REGION



Lower Hume Sub Region comprises two local government areas in the southernmost part of the Hume Region:

**Mitchell Shire**

**Murrindindi Shire**

- Freeway
- Highway
- Major Arterial
- Rail
- River
- Water Body
- Hume Region Boundary
- Sub Region Boundary
- LGA Boundary
- Public Land



## STRATEGIC CONTEXT

With a land area of 6,734 square kilometres and a population of 46,219 in 2006, Lower Hume is the smallest of the Hume Strategy sub regions. Its growth rate — 1.3 % per annum over the past decade — is the highest in the Hume Region, due to the extent of peri-urban development occurring in the sub region.

There are several large settlements in the Lower Hume sub region — Yea in Murrindindi Shire and Seymour, Kilmore and Wallan in Mitchell Shire — but none is currently of a sufficient size or range of functions to be identified as a regional centre. Seymour has the strongest potential to evolve into such a higher order centre in future. The lack of a regional centre, combined with the topography, means that there is less interaction between the municipalities that make up Lower Hume than is the case in other Hume sub regions. The common factor between Mitchell and Murrindindi Shires is their close connection to the outer-metropolitan growth corridors of Melbourne.

The sub region overall has an ageing population, although this is more marked in the rural areas. The Indigenous population in Lower Hume is more dispersed than in other sub regions. Seymour has a significant number of residents who are relatively disadvantaged and there are pockets of disadvantage in the smaller townships of Broadford, Kilmore, Yea, Alexandra and Eildon.

There are a number of towns in Mitchell Shire that provide an important mix of urban and rural development. Population growth has largely been the result of major residential development in the shire's south, particularly in Kilmore and Wallan, and is likely to be accelerated with significant growth also forecast for Beveridge.

This growth will place continuing demands on land, services and infrastructure — including water supplies for urban use — across the southern parts of the Lower Hume sub region, particularly in Mitchell Shire.

The impact of wildfire in peri-urban areas was highlighted by the 2009 Black Saturday bushfires, which severely affected communities in the Kinglake Ranges and Marysville areas of Murrindindi Shire, as well as in the southern areas of Mitchell Shire. These communities need ongoing and substantial support and resources for recovery and rebuilding, to overcome the devastation caused by the fires.

Regular rail passenger services link Seymour and Melbourne, and the Melbourne-Sydney rail line also runs through Seymour adjacent to the Hume Freeway. The upgraded Wallan Railway Station provides park-and-ride facilities and a bus bay. Access to Melbourne from Murrindindi Shire is via the Hume Freeway to the west the Melba Highway through the Yarra Valley and the Maroondah Highway through Healesville to Lilydale in Melbourne's outer east. The Goulburn Valley Highway links Shepparton to Seymour and the Hume Freeway.

The Lower Hume sub region has a significant local economy, with Mitchell Shire producing close to \$25 million in agricultural products annually and Murrindindi Shire producing 12% of Victoria's timber and 75% of Victoria's aquaculture. These industries provide a range of local job opportunities. Grazing is the dominant agricultural land use and the proximity of the Lower Hume sub region to Melbourne accounts for the relatively high value of production, particularly from the poultry industry. Pockets of horticulture also exist in the sub region, including nurseries, cut flowers, cultivated turf, tomatoes and berries produced primarily for the Melbourne market. The sub region also has viticulture and aquaculture industries (trout and salmon).

Manufacturing is a key employer for Lower Hume residents, particularly in the sub region's southern parts and along the Hume Freeway, where many residents commute to manufacturing jobs in Melbourne's northern suburbs. Retail trade also accounts for a large share of employment in the sub region and housing growth has strengthened demand in construction trades. Mitchell Shire is the location of the military area and defence force community west of Seymour at Puckapunyal.

The Lake Mountain Alpine Resort is a significant tourism destination for the sub region. The Lake Eildon and Kinglake National Parks and Cathedral Ranges State Park are also major tourist attractions in the eastern part of the sub region.

The relatively small population numbers and low population density create challenges for agencies in the Lower Hume Sub Region in providing higher education, cultural and recreational amenities. There is a TAFE campus and a number of community services based in Seymour, but the lack of a single regional centre and the scattered nature of towns and settlements across the sub region reduces the capacity of providers to deliver other locally accessible services. Many social and health services are provided via outreach by agencies based outside the sub region and residents frequently access large facilities and specialist services in Melbourne.



## PART 2: THE LOWER HUME SUB REGIONAL FRAMEWORK FOR ACTION



## ENVIRONMENT THEME

### NATURAL RESOURCES PROTECTED AND ENHANCED FOR CURRENT AND FUTURE GENERATIONS

#### CONTEXT

The Lower Hume sub region is rich in biodiversity with an array of natural landscapes and areas of environmental significance. The rural areas are highly valued by the community, providing quality landscapes and high-amenity settings. Within Murrindindi Shire there are significant areas of native forests, productive agricultural land, national parks and clean watercourses. The majority of the Lower Hume sub region is located in the wider Goulburn Murray water catchment and is within the boundaries of the Goulburn-Broken Catchment Management Authority (GBCMA).

The sub region has significant public land areas, most of which have been affected by the major bushfires in 2006/07 or 2009. The 2009 Victorian Black Saturday fires had an extensive and devastating impact on the Lower Hume sub region, but the full extent of their effect on biodiversity is still unknown. Understanding and repairing the impact of these fires on biodiversity and hydrological systems is a major focus within the Lower Hume sub region. Ongoing and intensive restoration efforts will be required to ensure the future of native flora and fauna, ecosystems and vegetation communities in fire affected areas.

The future climate of the Goulburn Broken catchment is expected to be hotter and drier than it is today, which will have consequences for the health of indigenous flora and fauna. Impacts could involve changes in species distribution, abundance and behaviour. Climate changes are likely to amplify threats of habitat loss and there may also be increased risks from predators, invasive species, parasites and diseases. There is evidence of a trend in decreasing snow in alpine regions, which could affect winter tourism and visitor activities at Lake Mountain and across the towns of the sub region. Indeed there may be tourism impacts year round as a result of climate change.

The natural resources, flora, fauna and biodiversity of the sub region have suffered from many years of continuous drought. Key biodiversity issues in the sub region include the condition and sustainability of the Goulburn-Broken catchment based on soil characteristics, water quality, and the effects of pest plants and animals on public and private land holdings. Careful planning and management by councils and others is necessary to ensure that urban and agricultural activities do not impact adversely on the biodiversity of the sub region.

Ongoing drought and water availability for farming, intensive agriculture, aquaculture and industrial, commercial and residential needs are significant concerns in the sub region. Average annual rainfall in the Lower Hume sub region is predicted to decline by approximately three per cent by 2030, while average annual runoff into the Goulburn and Broken Rivers will decrease by up to 35%. By 2070, runoff to both rivers could potentially decrease by over 50%.

The Hume Regional Plan identifies the following four key directions under the environment theme – *Natural resources protected and enhanced for current and future generations*:

- 1 Anticipating and adapting to the effects of climate change**
- 2 Managing our water resources sustainably**
- 3 Protecting native habitat and biodiversity**
- 4 Harnessing renewable energy sources, reducing greenhouse gas emissions and pursuing innovative waste management approaches**

Related priority strategies and actions that have significance at the Lower Hume sub regional level are shown on the following pages.

## KEY DIRECTION 1

### ANTICIPATING AND ADAPTING TO THE EFFECTS OF CLIMATE CHANGE

#### PRIORITY STRATEGIES

- 1.1 Reducing the Hume Region's carbon footprint
- 1.2 Being informed about climate change
- 1.3 Local leadership supporting local initiatives
- 1.4 Harnessing opportunities
- 1.5 Integrated planning approaches

#### SUB REGIONAL ACTIONS

Apart from the regional actions listed in Appendix 1 of this plan, there are no specific actions identified as significant to the Lower Hume sub region.

## KEY DIRECTION 2

### MANAGING OUR WATER RESOURCES SUSTAINABLY

#### PRIORITY STRATEGIES

- 2.1 A water view for the region
- 2.2 Water management through innovation
- 2.3 Water guiding planning outcomes
- 2.4 Valuing ecosystem services of rivers, streams and wetlands

#### SUB REGIONAL ACTIONS

- 2.3.LH1: Develop and implement domestic wastewater plans for settlements surrounding Lake Eildon to assist in improving water quality.
- 2.3.LH2: Develop and implement domestic wastewater plans for settlements surrounding the Goulburn River to assist in improving water quality.
- 2.4.LH1: Ongoing implementation of fire recovery programs that monitor and protect the sub region's important rivers and streams.

## KEY DIRECTION 3

### PROTECTING NATIVE HABITAT AND BIODIVERSITY

#### PRIORITY STRATEGIES

- 3.1 Management of regional biodiversity
- 3.2 Land use planning and biodiversity
- 3.3 Protection and management of native habitat
- 3.4 Education, incentives and community

#### SUB REGIONAL ACTIONS

In addition to the regional actions listed in Appendix 1 of this plan, the following further action has been identified as significant to the Lower Hume sub region:

- 3.1.LH1: Ongoing planning, implementation and monitoring to facilitate a coordinated fire recovery program that enhances the protection of key biodiversity assets of the Lower Hume sub region.
- 3.3.LH1: Accelerate funding to repair and restore high value riparian ecosystems, particularly in the bushfire affected areas of the Upper Goulburn.
- 3.3.LH2: Accelerate funding to repair and restore rural land, particularly in the bushfire affected areas of the Murrindindi Shire.
- 3.3.LH3: Accelerate funding to repair and restore public land, particularly in the bushfire affected areas of the Murrindindi Shire.

## KEY DIRECTION 4

### HARNESSING RENEWABLE ENERGY SOURCES, REDUCING GREENHOUSE GAS EMISSIONS AND PURSUING INNOVATIVE WASTE MANAGEMENT APPROACHES

#### PRIORITY STRATEGIES

- 4.1 Regional energy planning
- 4.2 Energy and innovation
- 4.3 Regional energy action
- 4.4 Waste management and innovation

#### SUB REGIONAL ACTIONS

In addition to the regional actions listed in Appendix 1 of this plan, the following further actions have been identified as significant to the Lower Hume sub region:

- 4.1.LH1: Support opportunities for employment and training in 'ecosystem services' including renewable energy credits, carbon offsetting and green technologies.
- 4.1.LH2: Investigate the viability of establishing a commercial level solar generation facility within the sub region.
- 4.1.LH3: Investigate the potential and viability for small scale bio-energy production within the sub region.
- 4.1.LH4: Investigate potential for a waste to energy facility within the sub region.
- 4.3.LH1: Investigate the potential for a waste to energy facility within the sub region.

## COMMUNITIES THEME

### HEALTHY, VIBRANT AND RESILIENT COMMUNITIES

#### CONTEXT

Population characteristics and communities within the Lower Hume sub region vary more by location than in other Hume sub regions. Areas in the north of the Lower Hume sub region have similar rural characteristics to the other parts of Hume Region, while the southern area bordering metropolitan Melbourne has a more urban or peri-urban character.

Townships such as Kinglake, Beveridge, Wallan and Kilmore in the south have experienced significant growth over the past decade. Many people have been attracted to relocate from Melbourne to live in towns and rural areas within relatively close proximity to metropolitan services and employment opportunities. Seymour provides a gateway to Melbourne at the confluence of the Goulburn Valley and Hume transport corridors. Murrindindi Shire in particular has a relatively high proportion of absentee landholders who use their properties as holiday homes.

The location and rate of population growth in Lower Hume has implications for provision of social services and infrastructure. In particular, improved access to diverse housing options, child care and other early childhood services, schools and recreational facilities is needed in the southern part of the sub region to support communities experiencing significant population growth and a changing age structure.

Managing the impacts of urban growth on communities close to the metropolitan area is a priority in the southern part of the Lower Hume sub region, including protecting valued rural characteristics and landscapes. Many people in the peri-urban areas will continue to relate to Melbourne as a source of social services and infrastructure, but the sub region will also need to respond to increased demand on service delivery points in Wallan and Seymour. A key priority for the Lower Hume sub region's health services is planning to meet emerging needs in the Wallan-Kilmore-Seymour corridor for education, primary care, dental services, general practitioners and community health services. Ensuring these services are available within the sub region will continue to grow in importance. The northward focus of the major health service providers elsewhere in the Hume Region means that improvements in services to Lower Hume may depend on developing stronger relationships with agencies in metropolitan Melbourne.

There are no Indigenous-specific health services available in the Lower Hume sub region. The Hume Region 'Closing the Gap' plan is acutely concerned with addressing this service omission and will be supported.

In common with other areas of the Hume Region, communities in the northern part of the Lower Hume sub region have expressed a desire for social services and infrastructure that respond to changes in the population profile including rural ageing, the influx of 'tree change' retirees, and the loss of young people as they move away to capital and major regional cities for education and employment. The 2009 Victorian Black Saturday bushfires highlighted the importance in the southern part of Lower Hume of community strengthening activities that build community leadership and resilience.

The Hume Strategy identifies the following four key directions under the communities theme – *Healthy, vibrant and resilient communities*:

- 5 Embracing learning for life**
- 6 Providing appropriate and accessible social services and infrastructure**
- 7 Developing innovative and flexible service delivery models**
- 8 Strengthening communities, increasing resilience and enhancing liveability**

Related priority strategies and actions that have significance at the Lower Hume sub regional level are presented on the following pages.

## KEY DIRECTION 5

### EMBRACING LEARNING FOR LIFE

#### PRIORITY STRATEGIES

- 5.1 Create 21st Century spaces for communities through growth and sharing of resources
- 5.2 Provide opportunities for young people to engage with learning through multiple pathways and seamless transitions
- 5.3 Foster a culture of excellence and aspiration in learning

#### SUB REGIONAL ACTIONS

In addition to the regional actions listed in Appendix 1 of this plan, the following further action has been identified as significant to the Lower Hume sub region:

- 5.2.LH1: Strengthen service access and education opportunities to develop the skills base in early childhood services aged care, hospitality and trades.

## KEY DIRECTION 6

### PROVIDING APPROPRIATE AND ACCESSIBLE SOCIAL SERVICES AND INFRASTRUCTURE

#### PRIORITY STRATEGIES

- 6.1 Build networked communities
- 6.2 Expand service access pathways
- 6.3 Develop and renew services and infrastructure
- 6.4 Enhance participation in arts, culture, sport and recreation

#### SUB REGIONAL ACTIONS

In addition to the regional actions listed in Appendix 1 of this plan, the following further actions have been identified as significant to the Lower Hume sub region:

- 6.1.LH1: Undertake a feasibility study for the future provision of consolidated health services in the Lower Hume sub region.
- 6.1.LH2: Explore the role and connectivity of Seymour as a service delivery point in Lower Hume and a gateway to Melbourne for communities in Hume Region that are connected to the major transport corridors.
- 6.3.LH1: Undertake planning for new health and community services and infrastructure in peri-urban growth areas within Lower Hume and establish services and infrastructure concurrent with changing population age structures and growth.

## KEY DIRECTION 7

### DEVELOPING INNOVATIVE AND FLEXIBLE SERVICE DELIVERY MODELS

#### PRIORITY STRATEGIES

- 7.1 Sub regional service and infrastructure planning
- 7.2 Service coordination and resource sharing

#### SUB REGIONAL ACTIONS

In addition to the regional actions listed in Appendix 1 of this plan, the following further actions have been identified as significant to the Lower Hume sub region:

- 7.1.LH1: Consider and accommodate the different needs of peri-urban and rural communities in service planning and delivery for the Lower Hume sub region.
- 7.1.LH2: Improve health service access and the relationship of the communities of the Lower Hume sub region to metropolitan Melbourne.
- 7.2.LH1: Support measures in the Hume Region 'Closing the Gap' plan that lead to the provision of indigenous health services in Lower Hume sub region.

## KEY DIRECTION 8

### STRENGTHENING COMMUNITIES, INCREASING RESILIENCE AND ENHANCING LIVEABILITY

#### PRIORITY STRATEGIES

- 8.1 Engagement and capacity building of people and places
- 8.2 Housing diversity and local amenity
- 8.3 Safer and capable communities

#### SUB REGIONAL ACTIONS

In addition to the regional actions listed in Appendix 1 of this plan, the following further actions have been identified as significant to the Lower Hume sub region:

- 8.1.LH1: Explore the development of more formal links with the existing community leadership programs in Hume Region to strengthen community leadership development in Lower Hume.
- 8.2.LH1: Provide ongoing advice and strategic input to fire affected communities in Lower Hume, local government and the Victorian Bushfire Reconstruction and Recovery Authority (VBRRA) in relation to community planning and reconstruction.

## ECONOMIC THEME

### A THRIVING AND DYNAMIC ECONOMY

#### CONTEXT

Main economic contributors in the Lower Hume sub region include an agriculture base worth over \$25 million annually in terms of beef, horticulture, aquaculture, eggs and forestry. Murrindindi Shire produces 12% of Victoria's timber and softwood, approximately 160,000 tonnes a year.

Other significant contributors to the economy are manufacturing, construction, wholesale trade, retail trade, transport and storage, property and business services, defence (mainly at Puckapunyal in Mitchell Shire) and government administration Education, health and social services and tourism — such as accommodation, retail, hospitality and skiing and other snow activities at Lake Mountain — are also important.

Seymour is the largest retail centre in Mitchell Shire and services a catchment that extends into Murrindindi and Strathbogie Shires. Seymour is important as a transit point for movements into the region and to/from Melbourne. Planning for a stronger transit role for the future will be done in concert with local structure planning for this settlement. The northern part of Mitchell Shire has potential to build on its current role in the equine and horse racing industries. Within the sub region there are studs, training facilities and two major regional tracks that hold at least 20 race meetings a year.

There are productive industrial estates located in Seymour, Kilmore and Broadford. The estates take advantage of the Hume and Northern Highways running through the townships. Wandong and Broadford have small town centres that provide mainly for day-to-day needs, weekly grocery and other convenience shopping, as well as having a small range of specialty shops. Kilmore has a key role in providing retail and professional services to residents in the township and its surrounding area.

The sub region's proximity to Melbourne strongly influences its growth and development, as is evidenced by a high proportion of residents employed in the metropolitan area. Housing development in Wallan is increasing significantly and as a result the town's retail role is expanding and changing. The extension of metropolitan growth areas into Mitchell Shire — under the State Government's Melbourne @ 5 Million investigations — is likely to have significant implications for population growth, infrastructure provision and service delivery in Mitchell Shire.

The Hume Strategy identifies the following four key directions under the economic theme – *A thriving and dynamic economy*:

- 9 Strengthening a capable workforce**
- 10 Adapting and diversifying agriculture in an environment of change**
- 11 Facilitating research and innovation in tourism, manufacturing and industry to encourage new and evolving business**
- 12 Developing information and communications technology (ICT) and energy infrastructure that builds on existing competitive advantages**

Related priority strategies and actions that have significance at the Lower Hume sub regional level are presented on the following pages.

## KEY DIRECTION 9

### STRENGTHENING A CAPABLE WORKFORCE

#### PRIORITY STRATEGIES

- 9.1 Matching skills to employment needs
- 9.2 Improving, expanding and retaining a skilled workforce
- 9.3 Fostering links between schools, employers and post compulsory education providers
- 9.4 Stimulating business and jobs growth

#### SUB REGIONAL ACTIONS

In addition to the regional actions listed in Appendix 1 of this plan, the following further actions have been identified as significant to the Lower Hume sub region:

- 9.1.LH1: Prepare an industry skills study to analyse the skills required for community renewal processes in fire affected areas and communities, particularly in the construction trades, retail, hospitality health, aged care and education sectors.
- 9.2.LH1: Ensure locally accessible trade training is available in Lower Hume. Pursue innovative methods for delivering training through opportunities such as workplace learning delivery and eLearning.
- 9.3.LH1: Investigate the potential for a campus of a major university to be located in the southern part of Lower Hume.

## KEY DIRECTION 10

### ADAPTING AND DIVERSIFYING AGRICULTURE IN AN ENVIRONMENT OF CHANGE

#### PRIORITY STRATEGIES

- 10.1 Supporting the next generation of agricultural opportunities
- 10.2 Ensuring the future viability and adaptability of productive rural land

#### SUB REGIONAL ACTIONS

Apart from the regional actions listed in Appendix 1 of this plan, there are no specific actions identified as significant to the Lower Hume sub region.

## KEY DIRECTION 11

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### FACILITATING RESEARCH AND INNOVATION IN TOURISM, MANUFACTURING AND INDUSTRY TO ENCOURAGE NEW AND EVOLVING BUSINESS

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#### PRIORITY STRATEGIES

- 11.1 Strengthening a tourism industry that builds on the competitive advantages of the Hume Region
- 11.2 Facilitating leadership in innovation, research and development
- 11.3 Identifying development capacity that will contribute to stimulating industry expansion

#### SUB REGIONAL ACTIONS

In addition to the regional actions listed in Appendix 1 of this plan, the following further actions have been identified as significant to the Lower Hume sub region:

- 11.1.LH1: Encourage and support business opportunity development including funding for promotional needs in response to the future construction of the Mansfield to Tallarook off road cycling path.
- 11.1.LH2: Examine the feasibility of linking the Mansfield to Tallarook off road cycle trail to Benalla along the Hume corridor as well as an extension to Eildon as the Goulburn River High Country Rail Trail.
- 11.3.LH1: Investigate the latent and undeveloped commercial and industrial capacity of Seymour and Wallan.

## KEY DIRECTION 12

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### DEVELOPING ICT AND ENERGY INFRASTRUCTURE THAT BUILDS ON EXISTING COMPETITIVE ADVANTAGES

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#### PRIORITY STRATEGIES

- 12.1 Securing world class ICT infrastructure and services for the Hume Region
- 12.2 Establishing the future of the Hume Region as a centre of excellence for renewable energy technology and infrastructure

#### SUB REGIONAL ACTIONS

In addition to the regional actions listed in Appendix 1 of this plan, the following further actions have been identified as significant to the Lower Hume sub region:

- 12.2.LH1: Evaluate the commercial potential for additional hydroelectric power generation in the river systems of Lower Hume.
- 12.2.LH2: Develop a feasibility study for commercial solar energy and bio-energy infrastructure in Lower Hume.

## TRANSPORT THEME – AN INTEGRATED NETWORK OF EFFICIENT AND HIGH FUNCTIONING TRANSPORTATION SYSTEMS

### CONTEXT

The Lower Hume sub region comprises the confluence of two major national transport corridors, the Hume and Goulburn Valley transport corridors. The Hume transport corridor section in Lower Hume sub region incorporates the Melbourne to Wodonga rail line and the Hume Freeway between Beveridge and north of Seymour. The Goulburn Valley transport corridor includes the rail line between Seymour leading to Shepparton as well as the Goulburn Valley Highway junction with the Hume Freeway running north at Seymour. The Lower Hume sub region is traversed by other major roads including: the Northern Highway to the west; and the Melba and Maroondah Highways running north-south through Murrindindi Shire.

The Lower Hume sub region has a total of 171 kilometres of declared roads, with denser road patterns on the flatter land and in areas closer to Melbourne in Mitchell and Murrindindi Shires. Priorities for road upgrades in the sub region are the Whittlesea - Yea Road and then the Whittlesea - Kinglake Road. Moreover, the proposed E 14 Transport Corridor north to Kalkallo should incorporate bus lanes and extend northwards to Wallan. It is important that the proposed intermodal transport exchange north of Beveridge is linked to significant transport infrastructure across Victoria.

The main form of freight transport in the sub region is by road, catering for the dairy, beef, sheep, nursery, poultry production, aquaculture and horticulture industries.

Growing urban populations will require increased capacity for passenger transport between major centres and particularly to Melbourne. Improvements to public transport services will be pursued if they are shown to be feasible and economically justifiable. Regional transport plans and strategies will inform and be integrated with local structure plans. The V/Line road-coach network and connections between rail and local bus services will continue to be important for regional communities. For smaller towns, the challenge is to ensure that flexible transport solutions are developed to enable residents to travel to employment, education, other vital services, shops and entertainment. Transport services within settlements also need improvement.

The findings of the 2009 Victorian Bushfires Royal Commission will need to be evaluated in terms of the implications for further transport responses.

The Hume Strategy identifies the following four key directions under the transport theme – *An integrated network of efficient and high functioning transportation systems*:

- 13 Enhancing integrated planning for mobility**
- 14 Developing a proficient land transportation system**
- 15 Linking communities through improved public transport and transport linkages**
- 16 Strengthening the sustainability of the transport system**

Related priority strategies and actions that have significance at the Lower Hume sub regional level are presented on the following pages.

## **KEY DIRECTION 13**

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### **ENHANCING INTEGRATED PLANNING FOR MOBILITY**

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#### **PRIORITY STRATEGIES**

- 13.1 Plan and advocate for a high quality regional transport system
- 13.2 Building an integrated transport system

#### **SUB REGIONAL ACTIONS**

In addition to the regional actions listed in Appendix 1 of this plan, the following further action has been identified as significant to the Lower Hume sub region:

- 13.1.LH1: Develop road transport plans to address the expected increase in population in Lower Hume due to growth pressures from the expansion of metropolitan Melbourne.

## **KEY DIRECTION 14**

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### **DEVELOPING A PROFICIENT LAND TRANSPORTATION NETWORK**

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#### **PRIORITY STRATEGIES**

- 14.1 Accelerating the completion of high standard road links
- 14.2 Delivering important rail infrastructure
- 14.3 Future-proofing existing transport routes by maintaining a high level of service

#### **SUB REGIONAL ACTIONS**

In addition to the regional actions listed in Appendix 1 of this plan, the following further action has been identified as significant to the Lower Hume sub region:

- 14.1.LH1: Develop a high quality east—west road network in Lower Hume consistent with the Hume Corridor Regional Transport Strategy.

## KEY DIRECTION 15

### LINKING COMMUNITIES THROUGH IMPROVED PUBLIC TRANSPORT AND TRANSPORT LINKAGES

#### PRIORITY STRATEGIES

- 15.1 Enhance key transport linkages between settlements
- 15.2 Provide safety upgrades of the region's land transportation system

#### SUB REGIONAL ACTIONS

In addition to the regional actions listed in Appendix 1 of this plan, the following further actions have been identified as significant to the Lower Hume sub region:

- 15.1.LH1: Forecast and plan for increased public transport service demand to cope with population growth and seek to increase local employment opportunities which reduce transport demand. This work should include assessing:
  - > the feasibility of a high functioning public transport service between Seymour and Bendigo;
  - > increasing the frequency of the Kinglake to Whittlesea service connecting to metropolitan buses at Whittlesea;
  - > evaluating the potential for a Whittlesea to Donnybrook service as an alternative connection to Melbourne via V/Line services; and
  - > evaluating the potential for a Toolangi to Healesville service.
- 15.1.LH2: Identify opportunities for transit-oriented developments.
- 15.2.LH1: Undertake further analysis to identify additional safety improvements and emergency routes that may be required on the Maroondah Highway over the Black Spur.

## KEY DIRECTION 16

### STRENGTHENING THE SUSTAINABILITY OF THE TRANSPORT SYSTEM

#### PRIORITY STRATEGIES

- 16.1 Develop travel options to increase public transport patronage
- 16.3 Partnerships for delivering the Hume Region transportation system

#### SUB REGIONAL ACTIONS

In addition to the regional actions listed in Appendix 1 of this plan, the following further actions have been identified as significant to the Lower Hume sub region:

- 16.1.LH1: Review the funding and delivery of the Murrindindi Transport Connections Program and the 'Connecting Mitchell' program in order to maximise the benefits from allocated funding.
- 16.2.LH1: Ensure transport and land use are integrated into the bushfire reconstruction planning work of the Victorian Bushfire Reconstruction and Recovery Authority (VBRRRA) and local government.

## LAND USE THEME

### AN EFFICIENT AND SUSTAINABLE PATTERN OF URBAN AND RURAL LAND USE AND DEVELOPMENT

#### CONTEXT

The key urban and rural land use planning issues for the Lower Hume sub region are:

- > Planning for future development in areas at risk from fire hazards.
- > Implications of the extension of Melbourne's Urban Growth Boundary (UGB) into Mitchell Shire.
- > Managing future demands for rural living opportunities.
- > Directing and managing growth in identified urban development locations.
- > Protecting natural resources to maintain the integrity of biodiversity and critical water catchments.

The February 2009 bushfires had devastating impacts on social, economic and environmental conditions in the Lower Hume sub region. The Victorian Government's establishment of the Victorian Bushfire Reconstruction and Recovery Authority (VBRRA) and the mandate given to it represent a significant opportunity to plan carefully for rebuilding of fire affected areas, to create communities that are sustainable, attractive and competitive in the long term.

Land in the southern section of Mitchell Shire forms part of an investigation area under the State Government's Melbourne @ 5 Million plan for the future extension of the metropolitan area. Due to its proximity to Melbourne, Lower Hume is a popular location for commuters. Seymour is emerging as a focus for public transport with all coach services from the north-east corridor now 'hubbing' at Seymour, connecting to trains, plus daily services bus from Alexandra.

Melbourne acts as a major source of migrants to the region, including high income 'tree-changers' attracted by its rural amenity. The combination of urban proximity, attractive hilly surroundings and boutique agricultural activities such as winemaking, encourages people to this sub region.

Pressures exist for rural living in Murrindindi Shire around Alexandra, Yea, Eildon and Marysville. Murrindindi Shire's Municipal Strategic Statement (MSS) recommends that growth should occur in and around the townships of Alexandra, Yea and Eildon, whilst limiting residential development in Kinglake and surrounds until infrastructure and service issues are resolved. The question of servicing Kinglake is being addressed as part of the work of VBRRA. A recent amendment to the Murrindindi MSS states that the significant role that Marysville played in service provision, tourism and the general vitality of the southern section of the Shire will be re-established as part of rebuilding the town. Population growth in Murrindindi will place demands on the

management of key water catchments, agricultural land, infrastructure and services, and design and construction standards to address environmental risks.

The Alpine Resorts 2020 Strategy guides the long-term planning and management of Victoria's six alpine resorts, including Lake Mountain in Lower Hume, which was also significantly damaged by the 2009 fires. The strategy identifies opportunities for Lake Mountain and provides a picture of how the resort may look in the future and the range of experiences that could be available to visitors. The Alpine Resorts Planning Scheme covers all Victoria's alpine resorts and sets out policies and controls for protection and development of land within them. Lake Mountain has its own specific local planning policy framework. The State Government's future vision for the Lake Mountain Alpine Resort and its development direction need to be factored into implementation of the Hume Strategy.

The Hume Strategy identifies the following four key directions under the land use theme – *An efficient and sustainable pattern of urban and rural land use and development*:

- 17 Directing future population growth to settlements with the greatest capacity to accommodate it**
- 18 Maximising the use of existing infrastructure and services and facilitating strategic investment in future infrastructure and services**
- 19 Retaining productive rural land for agriculture and other compatible rural uses**
- 20 Ensuring efficient use of land use planning resources in the region**

Related priority strategies and actions that have significance at the Lower Hume sub regional level presented on the following pages.

## KEY DIRECTION 17

### DIRECTING FUTURE POPULATION GROWTH TO SETTLEMENTS WITH THE GREATEST CAPABILITY TO ACCOMMODATE IT

#### PRIORITY STRATEGIES

- 17.1 Facilitate and plan for growth in regional cities and centres as the key drivers for growth and service delivery in the region supported by a network of district towns, towns and villages
- 17.2 Manage growth in small settlements

#### SUB REGIONAL ACTIONS

In addition to the regional actions listed in Appendix 1 of this plan, the following further action has been identified as significant to the Lower Hume sub region:

- 17.1.LH1: Investigate settlement patterns and strategically assess the demand and opportunity for rural residential development across the Lower Hume sub region.

## KEY DIRECTION 18

### MAXIMISING USE OF EXISTING INFRASTRUCTURE AND SERVICES AND FACILITATING STRATEGIC INVESTMENT IN FUTURE INFRASTRUCTURE AND SERVICES

#### PRIORITY STRATEGIES

- 18.1 Coordinate service delivery in strongly linked settlements
- 18.2 Plan for growth in settlements within relatively close proximity to Melbourne

#### SUB REGIONAL ACTIONS

In addition to the regional actions listed in Appendix 1 of this plan, the following further actions have been identified as significant to the Lower Hume sub region:

- 18.2.LH1: Develop specific land use strategies for Wallan and surrounds to guide expected future development resulting from the area's close proximity to areas that could potentially be included within the Melbourne Urban Growth Boundary.
- 18.2.LH2: Investigate the opportunity to develop Seymour as a transit hub and the potential for its evolution into a future centre with higher order functionality.

## KEY DIRECTION 19

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### RETAINING PRODUCTIVE RURAL LAND FOR AGRICULTURE AND OTHER COMPATIBLE RURAL USES

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#### PRIORITY STRATEGIES

- 19.1 Manage land use in rural areas to sustainably accommodate all rural land uses

#### SUB REGIONAL ACTIONS

In addition to the regional actions listed in Appendix 1 of this plan, the following further action has been identified as significant to the Lower Hume sub region:

- 19.1.LH1: Continue to develop and implement rural land use strategies at a local/sub regional level. Rural land use strategies for areas in the Lower Hume sub region should specifically consider:
- > managing future agricultural land use;
  - > natural resource management and risk issues
  - > catchment management and demands for rural residential development in alignment with relevant state policy (Ministerial Direction No.6); and
  - > the *Ready for Tomorrow* Blueprint for Regional and Rural Victoria.

## KEY DIRECTION 20

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### ENSURING EFFICIENT USE OF LAND USE PLANNING RESOURCES IN THE REGION

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#### PRIORITY STRATEGIES

- 20.1 A regional / sub regional partnership approach to strategic land use planning
- 20.2 Training of land use planning professionals and increasing the availability of expert advice

#### SUB REGIONAL ACTIONS

Apart from the regional actions listed in Appendix 1 of this plan, there are no specific actions identified as significant to the Lower Hume sub region.

(NOTE - ALL ACTIONS LISTED IN THE TABLE BELOW ARE ACTIONS OF SIGNIFICANCE FOR IMPLEMENTATION IN THE LOWER HUME SUB REGIONAL PLAN)

## PART 3: APPENDIX LIST OF REGIONAL AND LOWER HUME SUB REGIONAL ACTIONS



NATURAL RESOURCES PROTECTED AND ENHANCED FOR CURRENT AND FUTURE GENERATIONS		
Key Direction	1	Anticipating and adapting to the effects of climate change
Priority Strategy	1.1	<b>Reducing the Hume Region's carbon footprint</b>
Actions of regional significance	1.1.1	Development of a comprehensive and integrated Regional Climate Change Strategy, consistent with Victoria's Climate Change White Paper, detailing reduction of greenhouse gas emissions, climate change adaptations, and opportunities for green industry development.
	1.1.2	Undertake social, environmental and economic impact assessment of the consequences of a changed Hume Region climate.
	1.1.3	Investigate the utility and potential scope of a Regional Carbon Management Plan which directs and coordinates the Hume Regions response to climate change, through the economic, social and environmental assessment of identified regional opportunities.
	1.1.4	Investigate impact of Carbon Pollution Reduction Scheme on local agriculture and industries.
	1.1.5	Commit Hume Region to incorporating high levels of energy and water efficiency in all major projects and both industrial and residential developments.
	1.1.6	Critically identify, analyse and promote economic opportunities resulting from climate change which provide competitive advantages for the region.
	1.1.7	Investigate transferability of Climate Change Adaptation Research Projects (for example the Alpine and Towong Shires Climate Change Adaptation Project) occurring within the region.
	1.1.8	Investigate potential for the setting of regional and sub regional targets to reduce carbon emissions.
Priority Strategy	1.2	<b>Being informed about climate change</b>
Actions of regional significance	1.2.1	Investigate and develop programs to tackle climate change applied through an integrated, multi-disciplinary approach, based on knowledge and science.
	1.2.2	Establish a 'Centre of Excellence' for climate change with a 'think tank' of technical experts to generate evidence and research into climate change impacts in specific areas or industries, building on the significant amount of environmental, agricultural and social science research undertaken already in response to sustainability and climate change issues.
	1.2.3	Strongly support analysis of available information and science for the development of climate change adaptation programs and strategies.
	1.2.4	Investigate opportunities for adaptive integration between sectors, for example carbon sequestration/forestry/biolinks/riparian management/water quality.
	1.2.5	Develop a 'Climate Watch' program for schools and community groups modelled on the 'Water Watch program.
	1.2.6	Develop an online Clearing House which provides a range of tools such as a library of natural resource management information relevant to the Hume Region, for example state and local plans, policies and strategies.
Priority Strategy	1.3	<b>Local leadership supporting local initiatives</b>
Actions of regional significance	1.3.1	Create better links between government and community, promote and support local leadership on climate change to inform future thinking about local initiatives.
	1.3.2	Establish a Hume Regional Climate Change Forum comprising a network of leaders in community, government and business to build capacity for the region to adapt to climate change and provide leadership, coordination and advocacy for coordination of sustainability and climate change responses.
	1.3.3	Explore the development of a web based tool for community to access up to date information on regional climate change mitigation and adaptation and to promote regional events and opportunities.
	1.3.4	Promote and build the capacity of community sustainability and climate change networks by offering practical support for participants, such as training opportunities and funding grants.
Priority Strategy	1.4	<b>Harnessing opportunities</b>
Actions of regional significance	1.4.1	Support local government to address climate change collectively by building economies of scale for initiatives such as bulk purchasing of energy, to support local leadership to harness new opportunities.
	1.4.2	Support local government to form partnerships with government, community groups, and greenhouse alliances to deliver climate change mitigation and adaptation initiatives that are practical and community based.
	1.4.3	Promote innovative and collaborative approaches to environmental sustainability and climate change through support for local government programs and initiatives.
	1.4.4	Investigate development of energy emission data tracking systems to accurately report greenhouse emissions in state and local government facilities, with corresponding targets to reduce greenhouse emissions, consistent with international, national, state and local targets.
	1.4.5	Climate change reporting and energy emissions data to be integrated into state and local business planning and reporting.
Priority Strategy	1.5	<b>Integrated planning approaches</b>
Actions of regional significance	1.5.1	Integrated land use and transport planning to reduce car dependency and increase use of public transport, cycling and walking as alternative modes of transport.
	1.5.2	Development of green transport projects: through the integration of sustainable transport planning into new and existing developments; and creation of TravelSmart or green transport plans.
	1.5.3	Develop an assessment tool which measures potential impacts and risks to environmental and agricultural assets as a result of climate change. Results to be mapped at an appropriate scale to inform appropriate land use planning.
	1.5.4	Investigate the information required to improve integration of climate change considerations in regional and local planning.
	1.5.5	Utilise and develop regional expertise to improve links between research institutions and regional planning and development outcomes.
	1.5.6	Develop an Environmental Constraints Assessment Tool for use in pre-planning stages to highlight environmental limitations and constraints of proposed new developments.

NATURAL RESOURCES PROTECTED AND ENHANCED FOR CURRENT AND FUTURE GENERATIONS		
Key Direction	2	Managing our water resources sustainably
Priority Strategy	2.1	A water view for the region
Actions of regional significance	2.1.1	Promote best practice in efficient water usage across the region, including recycling and grey water treatment, high value water use industries, environmental allocations and consideration of water use close to the source.
	2.1.2	Improve the understanding and use of water accounting information to support local and regional planning.
	2.1.3	Apply the learnings of the Northern Victoria Irrigation Renewal Project (NVIRP), with a view to expanding irrigation infrastructure upgrades across Hume Region to maximise social, economic and environmental benefits.
	2.1.4	Prioritise development of recycled water projects within the region such as industrial reuse, irrigation and watering systems for parks and sports grounds.
	2.1.5	Apply an integrated planning approach which utilises Hume Region water reliability information to identify gaps and opportunities and enhance planning, settlement sustainability and future growth.
	2.1.6	Ensure relevant stakeholders and communities are informed to improve understanding and influence in the development and implementation of the Australian Government's policies and strategies for the Murray Darling Basin.
	2.1.7	Develop a scientifically robust and integrated understanding of the impacts of climate change, drought and water management systems to identify and pursue improved water security measures.
	2.1.8	Improve the understanding of surface and groundwater use in unregulated systems to better inform planning and policy change options being considered.
	2.1.9	Actively participate and monitor the implementation of policies related to domestic and stock water use in the region.
	2.1.10	Ensure active participation in the implementation of key elements of the Northern Region Sustainable Water Strategy particularly where they link to regional planning matters.
	2.1.11	Undertake an integrated approach to dry inflow contingency planning across the region.
	2.1.12	Improve drinking water quality in childcare centres, schools and school camps not connected to a reticulated water supply system.
Priority Strategy	2.2	Water management through innovation
Actions of regional significance	2.2.1	Encourage and support the development of a series of demonstration projects located in new residential/commercial/industrial/agricultural developments which focus on applying and promoting new technology in water management, water sensitive urban design and best practice efficient water usage.
	2.2.2	Advocate for incentives (and other Market Based Instruments, such as tariffs, eco-labelling etc) to encourage the use of alternative water sources by local government, developers and households.
	2.2.3	Promote business opportunities related to waste water treatment, including bio-solids processing and water recycling.
	2.2.4	Develop and deliver sustainable water use programs to support landowners adapting to decreasing water availability and climate change impacts.
Priority Strategy	2.3	Water guiding planning outcomes
Actions of regional significance	2.3.1	Consider water availability and the potential impacts of climate change, as a key driver for all future planning and development within the Hume Region.
	2.3.2	Ensure future settlement assessments consider water availability and sustainable use as an important determinant of settlement sustainability.
	2.3.3	Foster a collaborative approach between government, industry and business, to explore opportunities for water recycling and grey-water systems in existing and new developments; floodplain management; emergency response and planning for management of environmental flows.
	2.3.4	Strengthen links between local government and catchment planning with respect to water usage, quality and quantity through renewal of the Regional Catchment Strategies.
	2.3.5	Ensure new developments consider impacts on surface and ground water resources and plan to have a neutral or beneficial effect on wetlands, rivers and streams.
	2.3.6	Investigate viability of requiring new development in residential zones to have dual water supplies and integrated infrastructure rolled out for newly subdivided areas.
	2.3.7	Investigate access and availability of domestic water supplies in areas not connected to a reticulated water supply system.
Actions of sub regional significance	2.3.LH1	Develop and implement domestic wastewater plans for settlements surrounding Lake Eildon to assist in improving water quality.
	2.3.LH2	Develop and implement domestic wastewater plans for settlements surrounding the Goulburn River to assist in improving water quality.

## NATURAL RESOURCES PROTECTED AND ENHANCED FOR CURRENT AND FUTURE GENERATIONS

Priority Strategy	2.4	Valuing ecosystem services of rivers, streams and wetlands
Actions of regional significance	2.4.1	Improve the management of septic tanks through coordinated programs that include monitoring, education and training to overcome detrimental health and environmental impacts.
	2.4.2	Pursue funding opportunities and increase community support for the design, planning and construction of reticulated sewer systems or alternative technology sewerage solutions in small settlements across the region.
	2.4.3	Encourage and support improving Index of Stream Condition and Index of Wetland Condition to higher levels to showcase the region's pristine waters.
	2.4.4	Increase quality and quantity of native vegetation in riparian areas to improve the condition of Hume Region waterways.
	2.4.5	Build on innovative programs to maintain and enhance riparian health such as willow removal and crown land frontage management agreements.
	2.4.6	Evaluate findings of the 2009 Bushfire Royal Commission to assess water quality preparedness for bushfire affected streams.
	2.4.7	Deliver water and biodiversity awareness programs to support, protect and promote the region's natural environmental assets and major river systems, to the community and visitors.
	2.4.8	Ensure the consideration of planning and development implications in the renewal of regional river health strategies by the CMA's (or the proposed Northern Rivers Natural Resource and Catchment Authority).
	2.4.9	Maximise the benefits of environmental water flows for the region through integrated planning processes.
Actions of sub regional significance	2.4.LH1	Ongoing implementation of fire recovery programs that monitor and protect the sub regions important rivers and streams.
Key Direction	3	Protecting native habitat and biodiversity
Priority Strategy	3.1	Management of regional biodiversity
Actions of regional significance	3.1.1	All regional planning for biodiversity including the protection of core assets and development of biodiversity networks or biolinks, will be consistent with Victoria's new policy direction provided in 'Securing Our Natural Future – A white paper for land and biodiversity at a time of climate change'.
	3.1.2	Establish Regional Biodiversity Networks linking biodiversity assets consistent with Native Vegetation Precinct Planning principles, for example the Wodonga Retained Environmental Network (WRENS).
	3.1.3	Development of a Regional Biodiversity Plan to guide local government in implementing conservation outcomes, consistent with DSE, CMA's (or the proposed Northern Rivers Natural Resource and Catchment Authority) and local biodiversity plans and strategies.
	3.1.4	Utilise existing mapping of biodiversity assets on private and crown land to inform a consistent and coordinated regional approach, with particular regard to management, priorities and partnerships. Results to be mapped at an appropriate scale to inform appropriate land use planning.
Actions of sub regional significance	3.1.LH1	Ongoing planning, implementation and monitoring to facilitate a coordinated fire recovery program that enhances the protection of key biodiversity assets of the Lower Hume sub region.
Priority Strategy	3.2	Land use planning and biodiversity
Actions of regional significance	3.2.1	Commit to the ongoing development of projects through the Rural Land-Use Planning Program, to improve planning outcomes for significant environmental and biodiversity assets.
	3.2.2	Land use planning must consider protection, restoration and management of biodiversity values.
	3.2.3	Commit to undertaking strategic environmental strategies and programs at a sub regional and local level, including opportunities to include these in local planning schemes.
	3.2.4	Identify areas of biodiversity value within the Farming Zone and utilise planning scheme tools as appropriate to ensure protection of biodiversity assets.
	3.2.5	Investigate the application of planning scheme tools to protect biodiversity sites of high to very high conservation significance.
Priority Strategy	3.3	Protection and management of native habitat
Actions of regional significance	3.3.1	Ongoing implementation of Victoria's Native Vegetation Management: A Framework for Action planning requirements to protect remnant vegetation in the Hume Region through the planning and development process.
	3.3.2	Secure funding which enables Catchment Management Authorities (or the proposed Northern Rivers Natural Resource and Catchment Authority) to provide incentives to landholders to actively manage land for conservation.
	3.3.3	Promote a collaborative approach to the identification and protection of high quality roadside vegetation, implementing existing roadside management and actively protecting and managing roadsides with medium to high conservation value.
	3.3.4	Secure core funding for local government for regionally agreed priorities to undertake the standard projects involving pest plant and animal management.
Actions of sub regional significance	3.3.LH1	Accelerate funding to repair and restore high value riparian ecosystems, particularly in the bushfire affected areas of the Upper Goulburn.
	3.3.LH2	Accelerate funding to repair and restore rural land, particularly in the bushfire affected areas of the Murrindindi Shire.
	3.3.LH3	Accelerate funding to repair and restore public land, particularly in the bushfire affected areas of the Murrindindi Shire.
Priority Strategy	3.4	Education, incentives and community
Actions of regional significance	3.4.1	Seek funding for incentives that encourage new or existing partnerships between landholders, community groups and government to improve management of high priority biodiversity sites.
	3.4.2	Deliver water and biodiversity awareness programs to support, protect and promote the region's natural environmental assets and major river and wetland systems, to the community and visitors.
	3.4.3	Encourage community engagement partnerships and practices which protect and enhance regional biodiversity.
	3.4.4	Build community capacity to engage with and manage the regional environment by assisting the development of 'green skills/jobs' education and training.
	3.4.5	Expansion of innovative landholder incentive programs which protect and enhance biodiversity such as Bush Tender and River Tender.

NATURAL RESOURCES PROTECTED AND ENHANCED FOR CURRENT AND FUTURE GENERATIONS		
<b>Key Direction</b>	<b>4</b>	<b>Harnessing renewable energy sources, reducing greenhouse gas emissions and pursuing innovative waste management approaches</b>
<b>Priority Strategy</b>	<b>4.1</b>	<b>Regional energy planning</b>
Actions of regional significance	4.1.1	Development of a Regional Energy Action Plan: to investigate and assess opportunities and viability of renewable energy projects; identify and develop opportunities for development of renewable energy resources across the region; seek to establish the Hume Region as a renewable energy 'region of excellence'; and pursue government and industry support for development of renewable energy projects across the region.
	4.1.2	Investigate the economic incentives and financial implications of the development of commercial solar power generation and bio-fuels throughout the Hume Region.
	4.1.3	Identify and develop proposals that establish renewable energy supplies and structures.
	4.1.4	Investigate possible carbon capture and storage facilities across Hume Region.
Actions of sub regional significance	4.1.LH1	Support opportunities for employment and training in 'ecosystem services' including renewable energy credits, carbon offsetting and green technologies.
	4.1.LH2	Investigate the viability of establishing a commercial level solar generation facility within the sub region.
	4.1.LH3	Investigate the potential and viability for small scale bio-energy production within the sub region.
	4.1.LH4	Investigate potential for a waste to energy facility within the sub region.
<b>Priority Strategy</b>	<b>4.2</b>	<b>Energy and Innovation</b>
Actions of regional significance	4.2.1	Encourage and facilitate the development of a series of energy-efficient, greenhouse friendly demonstration projects, potentially located in new residential developments, which encourage the minimisation of energy and water consumption through energy and water efficient subdivision and building design.
	4.2.2	Investigate the implementation of market mechanisms that facilitate low emission building design.
	4.2.3	Investigate opportunities to create or expand innovative projects within the Region, such as bulk solar purchasing and agricultural waste to energy conversion.
	4.2.4	Support and expand housing and industry energy auditing and retrofitting.
<b>Priority Strategy</b>	<b>4.3</b>	<b>Regional energy action</b>
Actions of regional significance	4.3.1	Develop a Hume Region application for Regional Infrastructure Development Funding (RIDF) to extend the natural gas network consistent with this plans 'networked centres' model, to nominated towns within the Hume Region through the Natural Gas Extension Program (NGEP).
	4.3.2	Investigate and develop opportunities for a local waste to energy industry within the Hume Region.
	4.3.3	Encourage development to be located in clusters for efficient use of energy to enable efficient and cost effective provision of energy infrastructure, to ensure opportunities to maximise resource use efficiency and minimise waste generation.
	4.3.4	Implement data tracking systems to measure the Hume Region's current carbon emissions and establish targets for a reduction in emissions.
Actions of sub regional significance	4.3.LH1	Investigate the potential for a waste to energy facility within the sub region.
<b>Priority Strategy</b>	<b>4.4</b>	<b>Waste management and innovation</b>
Actions of regional significance	4.4.1	Use state and local planning frameworks to support regional waste management plans and ensure that land use planning decisions are consistent with and encourage regional waste management plans and suitable buffers for waste management facilities are protected and maintained.
	4.4.2	Investigate opportunities for the development of innovative re-use and recycling enterprises (for example organics and crushed concrete), and incentives for industries actively reusing products.
	4.4.3	Investigate and implement outcomes for improved efficiencies in the transport of waste, both within and from the region.
	4.4.4	Regional support and recognition of community initiatives for waste awareness and management.
	4.4.5	Develop strategies to increase waste diversion from landfill, consistent with the State Government's 'Towards Zero Waste' Strategy.
	4.4.6	Promote opportunities and advocate for reuse of resources (formerly waste).
HEALTHY, VIBRANT AND RESILIENT COMMUNITIES		
<b>Key Direction</b>	<b>5</b>	<b>Embracing learning for life</b>
<b>Priority Strategy</b>	<b>5.1</b>	<b>Create 21st Century spaces for communities through growth and sharing of resources</b>
Actions of regional significance	5.1.1	Reform infrastructure through regeneration of existing resources to support 0 – 24 year olds learning needs.
	5.1.2	Develop new learning infrastructure in 'greenfield' settlements as integrated centres. Identify opportunities to collaborate with other learning sector providers such as the Catholic and Independent schools sector on potential resource sharing.
	5.1.3	Build integrated hubs at town and village settlement level that include schools as possible spaces for community facilities and services.
	5.1.4	Advocate for 21st Century technology access and resourcing to all Hume Region schools, parents and students to support 21st Century learning and teaching.
<b>Priority Strategy</b>	<b>5.2</b>	<b>Provide opportunities for young people to engage with learning through multiple pathways and seamless transitions</b>
Actions of regional significance	5.2.1	Increase the availability and diversity of education pathways and tertiary education opportunities and involve industry leaders to strengthen training and boost capacity in key economic sectors.
	5.2.2	Further develop Centres for Higher Education and Research in the tertiary education sector, particularly in relation to climate change and natural system impacts that build on strengths and address needs at sub regional level
	5.2.3	Expand locally accessible and relevant learning and leadership opportunities as a mechanism to attract and retain young people, and harness the capabilities of older residents.
	5.2.4	Identify barriers to school retention / completion and tertiary entrance, and implement strategies to improve educational outcomes for young people in Hume Region.

HEALTHY, VIBRANT AND RESILIENT COMMUNITIES		
Actions of sub regional significance	5.2.LH1	Strengthen service access and education opportunities to develop the skills base in early childhood services, aged care, hospitality and trades.
<b>Priority Strategy</b>	<b>5.3</b>	<b>Foster a culture of excellence and aspiration in learning</b>
Actions of regional significance	5.3.1	Develop a Hume 'Regional Education Framework' that addresses quality, outcomes and sustainability issues so as to promote excellence and aspiration in learning.
	5.3.2	Advocate for resources to undertake the pilot project to build regional aspirations towards participation in higher education.
	5.3.3	Develop and increase e-learning and blended delivery options to improve locally available adult learning opportunities.
	5.3.4	Build the skill levels of adult education practitioners to ensure high quality adult education options are available locally.
	5.3.5	Guide and strengthen the capacity of adult education providers to recognise and respond to government and industry priorities.
	5.3.6	Promote opportunities for greater integration of community based education with community engagement initiatives.
	5.3.7	Strengthen the capacity of adult education providers, including TAFE, ACE, schools and higher education, to identify and address legitimate and recognised needs within the community.
<b>Key Direction</b>	<b>6</b>	<b>Providing appropriate and accessible social services and infrastructure</b>
<b>Priority Strategy</b>	<b>6.1</b>	<b>Build networked communities</b>
Actions of regional significance	6.1.1	Undertake transport and telecommunications developments that link communities to services in regional cities and centres and along major transport corridors.
	6.1.2	Develop plans for key growth areas that integrate population planning with transport and telecommunications development.
	6.1.3	Provide walking and cycling paths, and associated infrastructure, within and between settlements to support mobility and healthier lifestyles.
Actions of sub regional significance	6.1.LH1	Undertake a feasibility study for the future provision of consolidated health services in the Lower Hume sub region.
	6.1.LH2	Explore the role and connectivity of Seymour as a service delivery point in Lower Hume and a gateway to Melbourne for communities in Hume Region that are connected to the major transport corridors.
<b>Priority Strategy</b>	<b>6.2</b>	<b>Expand service access pathways</b>
Actions of regional significance	6.2.1	Develop regionally accessible 'centres of excellence' in sub acute health care.
	6.2.2	Develop a regional integrated cancer centre.
	6.2.3	Employ innovation and flexibility in transport and telecommunications infrastructure and service delivery to provide stronger community connections to mainstream and specialist services.
	6.2.4	Develop service delivery models that assist people in smaller communities who currently have to travel long distances to access services including sub regional service delivery networks built upon partnerships with service providers, business, community and government.
	6.2.5	Mainstream and specialist health and community services to be supported to develop culturally appropriate strategies that are sensitive to the needs of Indigenous people and others from culturally and linguistically diverse (CALD) backgrounds.
	6.2.6	Increase community support for older people and strengthen the aged care service skill base.
<b>Priority Strategy</b>	<b>6.3</b>	<b>Develop and renew services and infrastructure</b>
Actions of regional significance	6.3.1	Ensure settlement plans investigate services and infrastructure requirements to keep pace with population growth, changing demography and emerging needs. These plans must consider water and waste water requirements as well as energy efficiency innovations.
	6.3.2	Expand aged care services and infrastructure to support regional population growth and changing demographics.
Actions of sub regional significance	6.3.LH1	Undertake planning for new health and community services and infrastructure in peri-urban growth areas within Lower Hume and establish services and infrastructure concurrent with changing population age structures and growth.
<b>Priority Strategy</b>	<b>6.4</b>	<b>Enhance participation in arts and culture, sport and recreation</b>
Actions of regional significance	6.4.1	Provide access to community arts programs, events and facilities. Develop opportunities for activities and facilities that can provide a range of recreational, gathering and creative pursuits.
	6.4.2	Foster a culture of civic participation in festivals and events so as to contribute to encouraging and celebrating community life.
	6.4.3	Develop sub regional strategies for development of significant cultural infrastructure such as performing arts centres.
	6.4.4	Develop sub regional strategies for development of significant recreational infrastructure such as recreation/leisure centres and aquatic centres.
<b>Key Direction</b>	<b>7</b>	<b>Developing innovative and flexible service delivery models</b>
<b>Priority Strategy</b>	<b>7.1</b>	<b>Sub regional service and infrastructure planning</b>
Actions of regional significance	7.1.1	Audit and evaluate the various human service delivery models that currently operate in Hume Region.
	7.1.2	Review service delivery planning based on the 'networked centres' model. The review should consider demography, catchments, communities of interest and priority needs at the sub regional, regional and state level.
	7.1.3	Develop a 30 year regional profile to forecast requirements for each social service, including skill requirements and transport implications.
	7.1.4	Prepare a Hume Region plan for Mental Health.
	7.1.5	Prepare a long term integrated Aged Care Plan for Hume Region. The plan must incorporate significant consideration for dealing with dementia as a major social disease.
	7.1.6	Develop plans for the provision of community, health and education facilities as part of planning for growth and ensuring accessibility to communities in adjacent areas, with planning to be integrated with transport and telecommunications development.
	7.1.7	Develop and link benchmarks for infrastructure and service delivery to functionality of settlements.
	7.1.8	Ensure learning by participants is built into planning and delivery of community engagement activities.

HEALTHY, VIBRANT AND RESILIENT COMMUNITIES		
Actions of sub regional significance	7.1.LH1	Consider and accommodate the different needs of peri-urban and rural communities in service planning and delivery for the Lower Hume sub region.
	7.1.LH2	Improve health service access and the relationship of communities in the Lower Hume sub region with metropolitan Melbourne.
<b>Priority Strategy</b>	<b>7.2</b>	<b>Service coordination and resource sharing</b>
Actions of regional significance	7.2.1	Continue to plan and resource the Hume Region 'Closing the Gap' requirements to improve the lives of Indigenous people,
	7.2.2	Investigate the social, economic and environmental benefits of 'community hubs' in larger towns and enhancing schools and halls in smaller communities for co-locating community facilities, encouraging social interaction and improving access, efficiency and flexibility.
	7.2.3	Pursue sub regional approaches to future community and primary health services that includes workforce training and management needs. Ensure the sub regional specific impacts of tourism are built into future service delivery models.
	7.2.4	Remove access barriers and inefficiencies resulting from cross-border service delivery and infrastructure issues.
	7.2.5	Continue with the agenda for the integration of all health services in Albury / Wodonga.
	7.2.6	Develop models and tools to guide integration of social and health planning with the key strategic statutory planning requirements for local government.
	7.2.7	Develop a regional attraction strategy for medical and allied health professionals.
Actions of sub regional significance	7.2.LH1	Support measures in the Hume Region 'Closing the Gap' plan that lead to the provision of Indigenous health services in the Lower Hume sub region.
<b>Key Direction</b>	<b>8</b>	<b>Strengthening communities, increasing resilience and enhancing liveability</b>
<b>Priority Strategy</b>	<b>8.1</b>	<b>Engagement and capacity building of people and places</b>
Actions of regional significance	8.1.1	Undertake community strengthening activities that are appropriate and tailored to local needs.
	8.1.2	Adopt and adapt place-based engagement models to community planning and strengthening projects.
	8.1.3	Provide incentives and resources that enable the development and expression of community leadership.
	8.1.4	Implement strategies to strengthen engagement of new residents and young to middle aged adults in volunteering.
	8.1.5	Reduce socio-economic disadvantage and build resilience in the most vulnerable locations by engaging affected communities in action to improve service access and responsiveness and participation in education, training and employment.
	8.1.6	Embed a culture and approach to education in the region's community development and engagement initiatives.
	8.1.7	Develop a regional adjustment assistance framework including strategies and tools that can be used flexibly by communities which need to manage the social and other impacts of change.
Actions of sub regional significance	8.1.LH1	Explore the development of more formal links with the existing community leadership programs in Hume Region to strengthen community leadership development in Lower Hume.
<b>Priority Strategy</b>	<b>8.2</b>	<b>Housing diversity and local amenity</b>
Actions of regional significance	8.2.1	Undertake detailed sub regional housing studies examining future housing needs (including numbers, stock type such as social / affordable, and localities) to underpin the development of local housing strategies.
	8.2.2	Prepare development plans including preferred lot sizes, variety and type of housing stock and community infrastructure requirements, and collaborate with property developers in growth areas to provide diverse and affordable housing stock which meets the spectrum of community needs.
	8.2.3	Explore opportunities in established settlements to pursue urban renewal with a focus on local assets, landscape and streetscape amenity and diversification of existing housing stock.
	8.2.4	Promote best practice neighbourhood and service precinct design in identified locations to enhance amenity, public areas and open spaces in towns and residential areas.
Actions of sub regional significance	8.2.LH1	Provide ongoing advice and strategic input to fire affected communities in Lower Hume, local government and the Victorian Bushfire Reconstruction and Recovery Authority (VBRRA) in relation to community planning and reconstruction.
<b>Priority Strategy</b>	<b>8.3</b>	<b>Safer and capable communities</b>
Actions of regional significance	8.3.1	Develop and support specific region wide road toll measures.
	8.3.2	Evaluate existing safety audits with a view to preparing a region wide safety audit of key road and rail tourism network requirements. Ensure the region wide audit encompasses visitor expectations of safe travel.

A THRIVING AND DYNAMIC ECONOMY		
Key Direction	9	Strengthening a capable workforce
<b>Priority Strategy</b>	<b>9.1</b>	<b>Matching skills to employment needs</b>
Actions of regional significance	9.1.1	Strengthen relationships and partnerships between education providers, the community, business, government and local government agencies to more effectively roll out the State Government's Skills Reform Agenda.
	9.1.2	Assist adult education providers to recognise and capitalise on the opportunities offered under the Skills Reform initiatives.
	9.1.3	Increase access by TAFE and ACE to resources available under the Skills Reform agenda.
	9.1.4	Identify best practice models of workforce development, audit the regions business capacity and develop strategies to strengthen a skilled workforce matched to the needs of a diversified economy.
	9.1.5	Stimulate immigration to the region through marketing and relocation programs that are linked to the targeting of specific workforce skill needs.
	9.1.6	Assess the utility of the 'Wangaratta' and 'Wodonga' skills and training review forums as a model for supporting industry across the Hume Region.
	9.1.7	Investigate the utility of a 'Workforce Development Group' that would include key employer stakeholders in order to advance the regions workforce development strategies. Such a group would require representation from Trades as well as Professional/Technical occupations.
	9.1.8	Improve capacity of adult education providers to identify and meet the workforce needs identified by industry and community members.
Actions of sub regional significance	9.1.LH1	Prepare an industry skills study to analyse the skills required for community renewal processes in fire affected areas and communities, particularly in the construction trades, retail, hospitality, health, aged care and education sectors.
<b>Priority Strategy</b>	<b>9.2</b>	<b>Improving, expanding and retaining a skilled workforce</b>
Actions of regional significance	9.2.1	Secure appropriate funding, promote and provide opportunities for re-skilling the existing workforce so as to contribute to building a wider skill base in the region.
	9.2.2	Support industries' ability to promote local careers and the determination of future skill needs.
	9.2.3	Increase the pool of labour supply to industry by developing focused approaches based on demographic characteristics.
	9.2.4	Implement workforce attraction and retention strategies in health and education.
	9.2.5	Investigate and recommend on transport options that provide enhanced workforce mobility and access to employment options within the region and major centres outside of the region.
	9.2.6	Develop a strategy to increase small business employers understanding of how to engage and work with young employees.
	9.2.7	Develop a strategy to provide ongoing employment options for older persons in the workforce. Such a strategy to ensure accessible transport needs is a key component.
	9.2.8	Undertake an industry wide review of regional pay structures with a particular emphasis on seasonal labour market issues.
	9.2.9	Develop and increase e-learning and blended delivery options to improve locally available adult skill development opportunities.
	9.2.10	Build the skill levels of adult education practitioners to ensure high quality adult education options are available locally.
Actions of sub regional significance	9.2.LH1	Ensure locally accessible trade training is available in Lower Hume. Pursue innovative methods for delivering training through opportunities such as workplace learning delivery and eLearning.
<b>Priority Strategy</b>	<b>9.3</b>	<b>Fostering links between schools, employers and post compulsory education providers</b>
Actions of regional significance	9.3.1	Further develop partnerships and models between education and industry with a focus on enhanced skills based training in schools, including Technical Education Centres. Other examples of partnerships may include graduation programs, vacation work, work experience and scholarships.
	9.3.2	Develop partnership arrangements between the providers of adult education and skills development to ensure locally available training opportunities are maximised.
	9.3.3	Expand the capacity and robustness of careers advice available to young people.
	9.3.4	Investigate the potential for a network of 'centres for higher education and research' that match industry need by sub region.
Actions of sub regional significance	9.3.LH1	Investigate the potential for a campus of a major university to be located in the southern part of Lower Hume.
<b>Priority Strategy</b>	<b>9.4</b>	<b>Stimulating business and jobs growth</b>
Actions of regional significance	9.4.1	Expand the provision of 'government centres' through the regionalisation of state and commonwealth services.

A THRIVING AND DYNAMIC ECONOMY		
<b>Key Direction</b>	<b>10</b>	<b>Adapting and diversifying agriculture in an environment of change</b>
<b>Priority Strategy</b>	<b>10.1</b>	<b>Supporting the next generation of agricultural opportunities</b>
Actions of regional significance	10.1.1	Develop the Alpine Valley's Agrifood Project as a means of supporting sustainable agriculture.
	10.1.2	Investigate expanding AAVAF (Australian Alpine Valleys Agribusiness Forum) or establishing a complimentary Agribusiness Forum to support the lower sub regions.
	10.1.3	Facilitate continued investment in irrigation modernisation (regional irrigation infrastructure and on-farm irrigation efficiency measures).
	10.1.4	Facilitate integrated investment in infrastructure, skills development, training and social services as a consequence of irrigation modernisation.
	10.1.5	Ensure intermodal access and efficient transport costing through upgrades to the transport network in order to simplify agriculture export and distribution to and from the major regional logistics centres.
	10.1.6	Work in partnership to support agribusiness development, transition, diversification and change including value adding of primary products, food processing, niche markets, up-take of farm technology, business skill development and alternative crops.
	10.1.7	Assist the dairy sector in responding to major climate and economic impacts on the industry.
	10.1.8	Provide a coordinated approach to structural adjustment activities across the region, building on the experience gained over recent years by the network of local government drought response coordinators and Rural Financial Counsellors.
<b>Priority Strategy</b>	<b>10.2</b>	<b>Ensuring the future viability and adaptability of productive rural land</b>
Actions of regional significance	10.2.1	Develop Hume Region specific responses to the 'Future Farms' planning project. Plan for future agricultural opportunities such as relocation of operations from other regions and Melbourne into Hume Region.
	10.2.2	Encourage state and local governments to collaborate on and consolidate existing local rural land use strategies and encourage other local studies where gaps are evident.
	10.2.3	Develop and implement regional industry strategies to assist the timber and aquaculture sectors deal with the impact of bushfires.
	10.2.4	Utilise the Ovens Aquifer and the Delatite and Goulburn Rivers to support new economic opportunities.
<b>Key Direction</b>	<b>11</b>	<b>Facilitating research and innovation in tourism, manufacturing and industry to encourage new and evolving business</b>
<b>Priority Strategy</b>	<b>11.1</b>	<b>Strengthening a tourism industry that builds on the competitive advantages of the Hume Region</b>
Actions of regional significance	11.1.1	Establish strategic tourism boards to ensure a cohesive regional based approach to facilitating product development and marketing.
	11.1.2	Develop and implement a Regional Tourism Strategy that draws upon the strengths of the four sub regions.
	11.1.3	Establish and coordinate sub regional tourism bodies based on the strategic competitive advantages of each sub region for the purpose of pursuing product development and marketing.
	11.1.4	Pursue tourism opportunities for Hume Region centred around eco-tourism, natural landscapes, the arts and cultural activities, high quality produce and products.
	11.1.5	Develop tourism loops, trails and drives with consistent marketing and signage.
	11.1.6	Develop a Hume Region cycling strategy to capitalise on and further develop, recreation cycling infrastructure and associated service industry to support the expansion of cycle tourism in Hume Region.
	11.1.7	Expand the provision of regional walking and cycling infrastructure for tourism purposes.
	11.1.8	Leverage the Victorian Transport Plan's commitment to funding cycling by expanding the constructed on and off road cycling infrastructure to complement tourism in the region.
	11.1.9	Maximise the regional opportunities presented by the Winton Wetlands development.
Actions of sub regional significance	11.1.LH1	Encourage and support business opportunity development including funding for promotional needs in response to the future construction of the Mansfield to Tallarook off road cycling path.
	11.1.LH2	Examine the feasibility of linking the Mansfield to Tallarook off road cycle trail to Benalla along the Hume corridor as well as an extension to Eildon as the Goulburn River High Country Rail Trail.
<b>Priority Strategy</b>	<b>11.2</b>	<b>Facilitating leadership in innovation, research and development</b>
Actions of regional significance	11.2.1	Take a lead role in advancing a Hume Region Framework for 'Innovation' to include Research and Development, future needs assessment, cluster development, advocacy and venture capital structures.
	11.2.2	Explore the potential and promote the concept of, 'Excellence' in research and training in areas of industry demand including climate change, health, agriculture, tourism and sport. Ensure strategic alignments exist between the concept of existing and future 'Centres for higher education and research' and regional learning hubs.
<b>Priority Strategy</b>	<b>11.3</b>	<b>Identifying development capacity that will contribute to stimulating industry expansion</b>
Actions of regional significance	11.3.1	Undertake detailed investigation of settlements in Hume region for latent and undeveloped commercial and industrial capacity. This investigation should examine future market growth potential in the intensive agriculture and industrial sectors.
	11.3.2	Direct industry development in areas capable of supporting it through access to appropriate labour and material resources, infrastructure, services and proximity to transport links.
	11.3.3	Examine and support opportunities to develop new and innovative community enterprise initiatives.
Actions of sub regional significance	11.3.LH1	Investigate the latent and undeveloped commercial and industrial capacity of Seymour and Wallan.

A THRIVING AND DYNAMIC ECONOMY		
<b>Key Direction</b>	<b>12</b>	<b>Developing ICT and energy infrastructure that builds on existing competitive advantages</b>
<b>Priority Strategy</b>	<b>12.1</b>	<b>Securing world class ICT infrastructure and services for the Hume Region</b>
Actions of regional significance	12.1.1	Establish a regional project to develop a business case that seeks to maximise the reach of the NBN into Hume Region.
	12.1.2	Advocate for open access to latest generation internet technology for all settlements.
	12.1.3	Secure access to high speed broadband availability for every school age young person and their families and carers for equality of access to quality education support measures.
	12.1.4	Build and operate a telecommunications grid that extends to key 'end points' consistent with the Hume Strategy networked centres model.
<b>Priority Strategy</b>	<b>12.2</b>	<b>Establishing the future of the Hume Region as a centre of excellence for renewable energy technology and infrastructure</b>
Actions of regional significance	12.2.1	Undertake a region wide capability assessment of all renewable energy options.
	12.2.2	Develop regionally significant 'eco estates' as profile projects for high quality energy efficient design.
	12.2.3	Encourage research and facilities for non carbon based and renewable energy power generation within the Hume Region.
	12.2.4	Extend the natural gas grid to settlements consistent with the 'networked centres' model advocated in the Hume Strategy.
	12.2.5	Provide a secure and stable uninterrupted power supply (UPS) to meet the service business needs of all Alpine Resorts in Hume Region.
Actions of sub regional significance	12.2.LH1	Evaluate the commercial potential for additional hydro-electric power generation in the river systems of Lower Hume.
	12.2.LH2	Develop a feasibility study for commercial solar energy and bio-energy infrastructure in Lower Hume.
AN INTEGRATED NETWORK OF EFFICIENT AND HIGH FUNCTIONING TRANSPORTATION SYSTEMS		
<b>Key Direction</b>	<b>13</b>	<b>Enhancing integrated planning for mobility</b>
<b>Priority Strategy</b>	<b>13.1</b>	<b>Plan and advocate for a high quality regional transport system</b>
Actions of regional significance	13.1.1	Establish and resource the administration of a regional coordination mechanism to oversee implementation of strategies contained in the Northern Victoria and Hume Corridor Regional Transport Strategy reports.
	13.1.2	Advocate for major investment in transport service delivery and infrastructure consistent with agreed priorities in the Northern Victoria and Hume Corridor Regional Transport reports.
	13.1.3	Develop an integrated Hume Region wide public transport 'Mobility Strategy'.
	13.1.4	Investigate the potential of settlements in Hume Region to be developed as future transit oriented development centres.
	13.1.5	Study the long term potential transport needs and opportunities that can be derived from road linkages between Canberra, Hume Region and Gippsland. Apply the findings of such research to advocate for long term infrastructure that enhances regional strengths such as rail contributing to efficiencies in agricultural exports.
Actions of sub regional significance	13.1.LH1	Develop road transport plans to address the expected increase in population in Lower Hume due to growth pressures from the expansion of metropolitan Melbourne.
<b>Priority Strategy</b>	<b>13.2</b>	<b>Building an integrated transport system</b>
Actions of regional significance	13.2.1	Identify opportunities to boost collaboration between councils, Department of Transport, VicTrack, V/Line and public transport bus operators as well as other stakeholders when considering land use planning, development or renewal opportunities on or near transport nodes such as railway stations.
	13.2.2	Investigate strategic locations in Hume Region as contributing handling capacity to the nominated Freight Activity Centres (FACs).
	13.2.3	Create investment leverage opportunities resultant from the North East Rail Revitalisation and Wodonga Rail Bypass projects.
	13.2.4	Develop a networked system of key transport interchanges on the primary transport corridors.
<b>Key Direction</b>	<b>14</b>	<b>Developing a proficient land transportation network</b>
<b>Priority Strategy</b>	<b>14.1</b>	<b>Accelerating the completion of high standard road links</b>
Actions of regional significance	14.1.1	Conduct a regional freight task audit.
	14.1.2	Build the Goulburn Valley Highway to M (freeway) level from Seymour to Shepparton and the Shepparton Bypass and investigate the feasibility of the Goulburn Valley Highway to M level from Shepparton to NSW border (Tocumwal).
	14.1.3	Upgrade the Echuca - Mooroopna Rd, Goulburn Valley Hwy between Seymour and Yea, Melba Hwy south of Yea, Great Alpine Road between Wangaratta and Bright. Upgrade the Murray Valley Highway to A level between Wodonga and Echuca.
	14.1.4	Plan to duplicate the Northern Highway south of Kilmore.
	14.1.5	Duplicate key sections of the Midland Highway at Shepparton east and Mooroopna west. Further analyse and identify locations that need overtaking lanes between Shepparton and Benalla.
	14.1.6	Advocate for the improvement of the main agriculture transport links in the region.
Actions of sub regional significance	14.1.LH1	Develop a high quality east-west road network in Lower Hume consistent with the Hume Corridor Regional Transport Strategy.

AN INTEGRATED NETWORK OF EFFICIENT AND HIGH FUNCTIONING TRANSPORTATION SYSTEMS		
<b>Priority Strategy</b>	<b>14.2</b>	<b>Delivering important rail infrastructure</b>
Actions of regional significance	14.2.1	Advocate for a single rail gauge standardisation.
	14.2.2	Build a bi-modal facility at the Logic Centre, Barnawartha.
	14.2.3	Construct an intermodal terminal at Mooroopna on the Seymour to Tocumwal line in order to support the establishment and operation of the Goulburn Valley Freight and Logistics Centre.
	14.2.4	Maximise use of the infrastructure upgrade of the Oaklands line to distribute freight within and out of the region.
	14.2.5	Investigate the potential role and contribution of Mangalore airport in the network of Victoria's logistics capability; as contributing to Victoria's network of airport connections; and, role resultant from impacts of urban growth in Lower Hume Sub Region.
<b>Priority Strategy</b>	<b>14.3</b>	<b>Future-proofing existing transport routes by maintaining a high level of service</b>
Actions of regional significance	14.3.1	Upgrade and ensure the Hume Freeway is maintained and can meet the demands of the next generation HPFV task, as well as a growing public and private transport task.
	14.3.2	Ensure all transport routes are supported by high quality telecommunications infrastructure.
<b>Key Direction</b>	<b>15</b>	<b>Linking communities through improved public transport and transport linkages</b>
<b>Priority Strategy</b>	<b>15.1</b>	<b>Enhance key transport linkages between settlements</b>
Actions of regional significance	15.1.1	Improve east-west transport linkages.
	15.1.2	Investigate the need for increased public transport frequency on the Hume and Goulburn Valley transport corridors.
	15.1.3	Investigate the future role, function and contribution of the regions two most populous settlements, Shepparton and Wodonga, to a multi-centred-state in the state-wide network of Major regional cities.
	15.1.4	Aggregate and build on the work prepared under the Northern Victoria and Hume Corridor Regional Transport Strategies as a Hume Region Integrated Transport Strategy.
	15.1.5	Increase funding and frequency of public transport services across the network in order to strengthen the region's transport capability on the existing corridors as well as expand the east / west arcs.
	15.1.6	Support the development of a business case for the expansion of the Regional Fast Rail program on the major transport corridors.
	15.1.7	Consider the divergence between supply and demand in the development of regional public transport mobility strategies.
	15.1.8	Pursue feasibility studies aimed at improving links between aerodromes / airports and the transport system with the objective to add freight and passenger transport capability in the region.
	15.1.9	Promote walking and cycling as legitimate alternative modes of transport.
	15.1.10	Expand the provision of regional walking and cycling infrastructure for residents and business.
Actions of sub regional significance	15.1.LH1	Forecast and plan for increased public transport service demand to cope with population growth and seek to increase local employment opportunities which reduce transport demand. This work should include assessing: a high functioning public transport service between Seymour and Bendigo; increasing the frequency of the Kinglake to Whittlesea service connecting to metropolitan buses at Whittlesea; evaluating the potential for a Whittlesea to Donnybrook service as an alternative connection to Melbourne via V/Line services; and evaluating the potential for a Toolangi to Healesville service.
	15.1.LH2	Identify opportunities for transit-oriented developments.
<b>Priority Strategy</b>	<b>15.2</b>	<b>Provide safety upgrades of the region's land transportation system</b>
Actions of regional significance	15.2.1	Upgrade railway stations with better bus interchanges, taxi ranks and car parks.
	15.2.2	Evaluate existing safety audits with a view to preparing a region wide safety audit of key road and rail tourism network requirements. Ensure the region wide audit encompasses visitor expectations of safe travel.
Actions of sub regional significance	15.2.LH1	Undertake further analysis to identify additional safety improvements and emergency routes that may be required on the Maroondah Highway over the Black Spur.
<b>Key Direction</b>	<b>16</b>	<b>Strengthening the sustainability of the transport system</b>
<b>Priority Strategy</b>	<b>16.1</b>	<b>Develop travel options to increase public transport patronage</b>
Actions of regional significance	16.1.1	Promote, encourage and expand participation in the Transport Connections Program.
	16.1.2	Encourage and provide incentives for innovation in energy efficient, low carbon emission transport systems.
	16.1.3	Advocate for the provision of energy efficient, higher frequency, fast passenger services to regional cities and centres at service levels consistent with the Victorian Transport Plan.
	16.1.4	Expand community based regional bus routes consistent with the 'networked centres' model.
	16.1.5	Investigate opportunities for enhanced inter-modal timetable services alignment.
	16.1.6	Increase awareness by promoting an understanding of the available sustainable travel options in order to influence travel demand, behaviour and culture. Advocate for all public transport service contracts to require the use of a common public transport logo / branding for all Hume Region services.
Actions of sub regional significance	16.1.LH1	Review the funding and delivery of the Murrindindi Transport Connections Program and the 'Connecting Mitchell' program in order to maximise the benefits from allocated funding.
<b>Priority Strategy</b>	<b>16.2</b>	<b>Partnerships for delivering the Hume Region transportation system</b>
Actions of regional significance	16.2.1	Develop strong links with federal and state funding bodies and advocate for the overarching actions recommended in the Hume Strategy and its supporting documentation on transport and mobility.
	16.2.2	Regularly update the Hume Corridor and Northern Victoria Regional Transport Strategy reports. Ensure these reports and their key strategies are able to adapt to new knowledge in areas such as climate change and population growth.
	16.2.3	Maintain a continuous improvement methodology in regards to the needs for transport by engaging with and seeking advice from key community and business leaders.
	16.2.4	Establish a Freight Quality Partnership working group that encourages an environmental, economic and efficient approach to the transportation of goods within the region.
Actions of sub regional significance	16.2.LH1	Ensure transport and land use are integrated into the bushfire reconstruction planning work of the Victorian Bushfire Reconstruction and Recovery Authority (VBRRA) and local government.

AN EFFICIENT AND SUSTAINABLE PATTERN OF URBAN AND RURAL LAND USE AND DEVELOPMENT		
<b>Key Direction</b>	<b>17</b>	<b>Directing future population growth to settlements with the greatest capability to accommodate it</b>
<b>Priority Strategy</b>	<b>17.1</b>	<b>Facilitate and plan for growth in regional cities and centres as the key drivers for growth and service delivery in the region supported by a network of district towns, towns and villages</b>
Actions of regional significance	17.1.1	Implement a rolling program of developing sub regional settlement plans.
	17.1.2	Ensure the Murray River Settlement Strategy investigates all relevant environmental, social (including health and education), economic and land use issues for managing settlements in the river corridor including the transportation network.
	17.1.3	Develop a model for urban renewal of central business areas within regional cities and centres.
	17.1.4	Identify and develop flood mitigation projects in flood prone areas in regional cities and centres and investigate the need to review floodplain management principles for settlements.
Actions of sub regional significance	17.1.LH1	Investigate settlement patterns and strategically assess the demand and opportunity for rural residential development across the Lower Hume sub region.
<b>Priority Strategy</b>	<b>17.2</b>	<b>Manage growth in small settlements</b>
Actions of regional significance	17.2.1	Investigate the impact of changes in the agricultural sector on the viability of small towns.
	17.2.2	Investigate the demand and options for a diversity of housing choice in small settlements providing housing options that may not be available in larger urban areas.
<b>Key Direction</b>	<b>18</b>	<b>Maximising the use of existing infrastructure and services and facilitating strategic investment in future infrastructure and services</b>
<b>Priority Strategy</b>	<b>18.1</b>	<b>Coordinate service delivery in strongly linked settlements</b>
Actions of regional significance	18.1.1	Investigate specific opportunities to coordinate service delivery relating to 'cross-border' settlements. Ensure the Murray River Settlement Strategy which will be prepared in the near future, investigates all relevant service delivery issues for managing settlements in the river corridor.
<b>Priority Strategy</b>	<b>18.2</b>	<b>Plan for growth in settlements within relatively close proximity to Melbourne</b>
Actions of regional significance	18.2	Sub regional strategic actions only.
Actions of sub regional significance	18.2.LH1	Develop specific land use strategies for Wallan and surrounds to guide expected future development resulting from the area's close proximity to areas that could potentially be included within the Melbourne Urban Growth Boundary.
	18.2.LH2	Investigate the opportunity to develop Seymour as a transit hub and the potential for its evolution into a future centre with higher order functionality.
<b>Key Direction</b>	<b>19</b>	<b>Retaining productive rural land for agriculture and other compatible rural uses</b>
<b>Priority Strategy</b>	<b>19.1</b>	<b>Manage land use in rural areas to sustainably accommodate all rural land uses</b>
Actions of regional significance	19.1.1	Develop a model strategy framework for rural land use planning and undertake a Regional Land Use Study, building on work already undertaken by individual councils, and incorporating policy directions arising from the Future Farming Rural Planning Group. Such a study would be aligned with relevant state policy such as the Land and Biodiversity White Paper and would attempt to overlay agricultural capability, environmental constraints and opportunities, infrastructure, and economic and social issues.
	19.1.2	Continue with the implementation of new suite of rural zones by developing and implementing rural land use strategies at a local/sub regional level.
	19.1.3	Compile, and make available to landholders and investors, information on alternative agricultural enterprises and land uses potentially suitable to sub regions across the Hume Region. Information would include identification of opportunities and constraints for different enterprises, impacts of climate change scenarios on potential enterprises, and gross margin analyses.
	19.1.4	Further investigate and, where appropriate, facilitate the establishment of suitable areas zoned specifically for the development of mutually compatible intensive agricultural industries, similar to the Strathbogie Intensive Agricultural Area (SIAA) proposal.
Actions of sub regional significance	19.1.LH1	Continue to develop and implement rural land use strategies at a local/sub regional level. Rural land use strategies for areas in the Lower Hume Sub Region should specifically consider managing future demands for rural residential development in alignment with relevant state policy (Ministerial Direction No.6) and the 'Blueprint for Regional and Rural Victoria'.
<b>Key Direction</b>	<b>20</b>	<b>Ensuring efficient use of land use planning resources in the region</b>
<b>Priority Strategy</b>	<b>20.1</b>	<b>A regional / sub regional partnership approach to strategic land use planning</b>
Actions of regional significance	20.1.1	Review planning schemes and identify opportunities for applying consistent approaches across local government boundaries (for example consistent residential design guidelines in places with similar characteristics or consistent approaches on either side of Murray River).
	20.1.2	Review the models, and outcome of the rural land use planning studies currently being undertaken throughout Victoria (such as the Shepparton, Moira and Campaspe project) and consider how it could be used for other strategic land use planning projects in the region.
	20.1.3	Provide a consistent approach for planning policy for land use and development along major rivers and water supply catchments.
<b>Priority Strategy</b>	<b>20.2</b>	<b>Training of land use planning professionals and increasing the availability of expert advice</b>
Actions of regional significance	20.2.1	Identify the training needs of land use planning professionals within the region.



