GREAT SOUTH COAST REGIONAL GROWTH PLAN

REGIONAL GROWTH PLANS
A VISION FOR VICTORIA

CORANGAMITE SHIRE

GLENELG SHIRE

MOYNE SHIRE

Southern Grampians
SHIRE COUNCIL

WARRNAMBOOL
CITY COUNCIL

State Government
Victoria

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EXECUTIVE SUMMARY

The Great South Coast Regional Growth Plan provides a regional approach to land use planning in the Great South Coast region. It covers the municipalities of Corangamite, Glenelg, Moyne, Southern Grampians and Warrnambool.

The Great South Coast region is a significant contributor to Victoria's prosperity and liveability. Agriculture, manufacturing and healthcare contribute around 40 per cent of its Gross Regional Product of over $4 billion per annum. It is a highly productive region and exports nationally and internationally. The region is also highly valued for its liveability, heritage and environment by local people and the many thousands of visitors who are attracted to the region each year.

The plan provides the land use planning framework to underpin a prosperous and sustainable future for the region. The plan supports economic and population growth, building on regional strengths and opportunities. It also identifies that infrastructure, services and workforce will be needed to harness the potential and benefits of growth.

The plan identifies opportunities for encouraging and accommodating growth and managing change over the next 30 years by:

- providing a clear picture of regional level growth challenges and opportunities
- identifying two primary growth corridors for population and economic growth, capitalising on the region's competitive advantages, opportunities and strengths
- supporting a population target of 142,000 for the region by 2041
- identifying that economic opportunities will underpin growth and prosperity, including industry productivity, diversification and a Gross Regional Product of $4.29 billion
- outlining the land and infrastructure issues that may impact growth
- being an enabling document that facilitates growth, building on and aligning with supporting strategies and studies
- identifying important regional economic, environmental, infrastructure, community and cultural assets and resources to be preserved, maintained or developed
- outlining the potential impacts of climate change and exposure to natural hazards (especially bushfire and flood) that may impact growth.

EXECUTIVE SUMMARY

The plan contains a 30-year vision for the Great South Coast:

> The Great South Coast region will create a thriving, multifaceted and resilient economy, while valuing and managing our natural resources and environment. Our people will be healthy, well educated and have great lifestyle choices. We will work together for a stronger, more prosperous, equitable and liveable Great South Coast.

The following principles have been identified to achieve this vision:

- Strengthen the region's economy through increased industry diversification, innovation and development
- Attract more people to the region
- Enhance our liveability through improved health, education and standards of living
- Build on our network of towns and the roles played by them
- Manage and utilise our strategic assets and support agricultural productivity
- Sustainably manage our natural resources and environmental assets
- Enhance equity of access to infrastructure, facilities and services
- Strengthen connections to other regions
- Ensure that land and infrastructure needed to support growth are identified and appropriately planned

The plan is flexible and provides guidance to local level planning and decision making. It encourages implementation of actions contained both in this document and the Great South Coast Regional Strategic Plan. The plan builds on the work and directions within the strategic plan. This includes alignment with the vision and future settlement framework, continuation of key themes and providing land use responses to opportunities and drivers of change.

This plan has been prepared through a partnership between the State Government and regional councils, including input by the Colac Otway Shire Council. This Shire adjoins the Great South Coast region to the east.

This plan has been developed through research and identification of growth issues, regional workshops and analysis of information provided by all partners in the process. This has included consultation on potential strategic directions for the plan that were published in November 2012. The plan is supported by a background report that provides detailed data and information on the plan's development.

PART A | INTRODUCTION

1. What is a regional growth plan?

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

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

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

It is likely that demand for housing in regional cities and centres would be accelerated in the future with the imposition of a permanent growth boundary around Melbourne.

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

The Great South Coast Regional Growth Plan provides a long-term view of the region to 2041 and beyond, allowing for some short-term actions, and provide long-term strategic land use direction.

The plan considers a wide range of land uses and land use planning responses relating to agriculture, tourism, residential, commercial and industrial development and the protection of environmental assets.

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

Map 1: *The eight regional growth plans*

Regional Growth Planning

- G21
- Great South Coast
- Central Highlands
- Wimmera Southern Mallee
- Loddon Mallee North
- Loddon Mallee South
- Hume
- Gippsland
- ● Regional cities and centres
- — DTPLI administrative boundary
- Council boundary
- – – Areas within 100 km of central Melbourne

*Latrobe City is the grouping of Traralgon, Morwell, Moe and Churchill

0   50   100
Kilometres

Source: Department of Transport, Planning and Local Infrastructure

Strategic directions of the Great South Coast Regional Strategic Plan

1. Position the Great South Coast for economic growth

Our healthy economy faces new challenges in securing skilled workers, providing suitable employment land and improving infrastructure efficiency to allow growing and emerging industries to compete in a global market. These include:

- agriculture, forestry and fishing – the cornerstones of the Great South Coast economy
- manufacturing – adding value to our primary assets
- new and renewable energy – a major opportunity for the region and Victoria
- tourism – a broader and greater yield from nature-based and cultural heritage tourism.

2. Improve connections

Strong physical, electronic, environmental and social connections are vital ingredients for a prosperous, equitable and sustainable region, including:

- transport – productivity, liveability and sustainability
- power and telecommunications – economic competitiveness and social cohesion
- social networks and infrastructure – critical and challenged.

3. Sustain the natural assets of the Great South Coast

Addressing environmental challenges including climate change, water security, land use and health of our ecosystems. Issues include:

- natural resources – valuable and vulnerable
- climate change impacts – unprecedented terrestrial, aquatic and human challenges
- settlements and land use – managing our land, towns and populations.

4. Strengthen the communities of the Great South Coast

People's access to transport, education, health services, housing and support networks will help determine the strength of the region's future. Key challenges include:

- skills, jobs and education – a smarter, more skilled community and workforce
- health and wellbeing – living longer, healthier and more active lives
- healthy liveable communities – a fairer Great South Coast.

5. Increase collaboration in the Great South Coast

Leadership, communication, strong commitments to agreed priorities and innovative ways of getting things done will take the plan from vision to reality. Important aspects include:

- governance and resources – getting ready to implement the plan
- prioritising projects – addressing the strategic goals of the plan
- measuring results – checking progress and adjusting the course.

2. Why we need this plan

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

The Great South Coast Regional Growth Plan:

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

The plan will help councils by streamlining planning policy and potentially reducing their strategic workload. It will also contribute to broader regional goals.

The plan provides a regional strategic land use framework for growth and change. It is a strategic document that identifies long-term land uses and growth objectives. The plan is not intended to identify specific infrastructure but rather inform priorities and directions at a regional scale that will guide future land use planning.

The plan will provide solutions to common issues across the region but will not reduce attention on local issues or replace local planning. For example, the plan will be used to identify future industrial and other employment locations or develop consistent regional approaches to matters such as planning for key resources, waste, tourism and heritage.

The term 'growth' used in this document refers to both economic growth and population growth and does not necessarily mean outward expansion of settlements.

3. How this plan will be used

Implementation of this plan is critical to achieving several strategic directions for growth and change.

Short-term implementation priorities include:

- amending planning schemes to include key elements of the plan
- developing a detailed implementation plan focusing on infrastructure planning to identify regional infrastructure investment priorities and guide the timing of delivery
- where required, facilitating further detailed work and investigations as identified in this plan.

The key land use planning directions of the plan will be implemented through the state planning system as it is applied through each council's planning scheme. The plan will be used to guide and inform future land use planning across the Great South Coast region, including subsequent reviews of each council's municipal strategic statement. This will support decision making at a local level, specific amendments to planning schemes, preparation of infrastructure plans, land supply monitoring and other projects.

The implementation plan will set out the land use policies, strategies and actions identified in the regional growth plan and provide timelines and responsibilities for each of the items. This will provide greater certainty on infrastructure priorities to inform future decision making about growth and development.

4. How the plan was prepared

This plan was developed through research and identification of growth issues, regional workshops and analysis of information provided by project partners.

The plan was prepared in partnership between the State Government, Corangamite Shire Council, Glenelg Shire Council, Moyne Shire Council, Southern Grampians Shire Council and Warrnambool City Council. Colac Otway Shire is included in the G21 Regional Growth Plan (for Greater Geelong and surrounding municipalities), but given the Shire's strong economic and community links to the Great South Coast region, the council has also provided input into this plan. Map 2 shows the areas covered by the regional growth plan.

The process for preparing the plan was as follows:

1. Project establishment

2. Data review

3. Establish the plan's strategic directions – public consultation

4. Prepare draft regional growth plan – public consultation

5. Prepare final regional growth plan

A background report containing additional information that supports this plan, and a brochure that was used to consult with stakeholders about proposed strategic directions for the plan, are available on the Department of Transport, Planning and Local Infrastructure website **www.dtpli.vic.gov.au/regionalgrowthplans**

Map 2: *Great South Coast region*

Source: Department of Transport, Planning and Local Infrastructure

5. Components of this plan

Part A: Introduction – provides an overview of the context of this plan and how it was prepared.

Part B: Regional overview – provides a snapshot of the region, a vision for the region and land use principles to achieve the vision.

Part C: Towards the regional growth plan — Regional land use framework – outlines land use directions and future actions in relation to the economy, environment, urban and rural settlement and infrastructure.

Part D: Regional growth plan – provides an integrated strategic plan for growth and change, bringing together the key directions outlined in Part C.

Part E: Delivering regional growth – outlines how the plan will be implemented and progress monitored.

PART B | REGIONAL OVERVIEW

Part B of the Great South Coast Regional Growth Plan provides a broad overview of the region including drivers of growth and change, land use challenges and a vision for a desired future for the region.

6. Snapshot of the region

The key economic, environmental and community assets of the Great South Coast region are outlined below.

The region is rich in environmental assets, natural resources and amenities and it boasts a strong and diverse economy and a range of lifestyle choices. These advantages are reinforced by strong links to surrounding regions and major regional centres.

Population and settlement

In 2011, the population of the region was 101,624 people (see Figure 1). This figure is projected to reach 124,798 by 2031 and 131,239 by 2041. This plan supports growth at a higher rate than current projections, including a population target of 142,000 for the region by 2041.

Warrnambool is the largest urban centre, with a population of 29,130 in 2011, followed by Portland (9698 people) and Hamilton (9307 people). Approximately 50 per cent of the region's population lives outside these main population centres.

Significant demographic changes are forecast in the region. The percentage of the population over 60 years in the City of Warrnambool is projected to increase from 20.4 per cent to 27.5 per cent by 2031, while in the region as a whole the representation of these age groups is forecast to grow from 22.9 per cent in 2011 to 31.3 per cent by 2031.

Population changes in the region will have significant impact on the number and nature of households and dwellings. As the average household size across the region reduces from 2.5 people to 2.3 people, the number of dwellings required to house the forecast population will increase at one per cent per annum, which will be faster than the rate of population growth.

The region's strategic assets are shown in Map 3.

Figure 1: *Current population projections*

Local Government Area	Current total population projections by year		
	2011	2021	2031
Corangamite	16,504	18,172	18,821
Glenelg	19,843	22,214	23,155
Moyne	16,175	18,496	19,884
Southern Grampians	16,510	18,256	19,004
Warrnambool	32,592	39,416	43,934
Total Great South Coast	**101,624**	**116,554**	**124,798**

Source: ABS Catalogue 3218.0 Regional Population Growth, Victoria in Future 2012

Map 3: *Strategic assets*

Source: Department of Transport, Planning and Local Infrastructure

Economy and employment

Agriculture is the dominant land use and a significant economic driver and employer in the region. The region provides a significant contribution to national agricultural production and has demonstrated flexibility and resilience in rural production due to moderate temperatures and good rainfall. The main agricultural industry is dairying across the south with significant forestry in the west and increasing livestock and grains industries in the north. Various commercial, aquaculture industries and recreational fishing activities take place along the coast and in the region's lakes, estuaries and rivers. Manufacturing, retail and healthcare sectors are significant contributors to the regional economy and important employers. Education institutions also generate significant employment while adding to the knowledge and research capacity of the region.

There is a growing professional and service economy within the region. The region is also a hub for alternative energy production with established geothermal, natural gas, wave and wind energy projects either in operation or with planning approvals.

Figure 2: *Economic facts*

Economic Facts	
Median individual income ($/week) (i)	$501
Estimated labour force (2011) (ii)	49,116
Major industry of employment (iii)	Agriculture, forestry, fishing (18 per cent)
Unemployment rate (2011) (iv)	5.17 per cent
Number of businesses (v)	11,469
Gross Regional Product 2011 (vi)	$4.29 billion
Total value of trade through Port of Portland (output) (vii)	$2 billion
Milk production (viii)	2.1 billion litres per year from 1500 farms and 440,000 cows (strategy to increase to 3 billion per year by 2020)

Source: (i) Australian Bureau of Statistics Census, Usual Resident Population; (ii) Australian Bureau of Statistics Census, Usual Resident Population; (iii) Access Economics 2011; (iv) Department of Education, Employment and Workplace Relations Small Area Labour Markets estimates, smoothed series 2011; (v) Australian Bureau of Statistics Census, Regional Development Victoria 2012; (vi) RDV unpublished data 2011; (vii) www.portofportland.com.au/about-us/future-growth.html; (viii) West Vic Dairy.

Transport and access

The state road system in the region forms part of a radial network focused on Melbourne, Geelong and Ballarat. The two major east-west highways are the Princes Highway and Hamilton Highway. The Glenelg Highway crosses the northern part of the region, linking Ballarat to Hamilton and Mt Gambier in South Australia. The Great Ocean Road hugs the coast. The two major north-south corridors are the Henty Highway between Portland and Hamilton and into the Wimmera region and northern Victoria and the Hopkins Highway between Mortlake and Warrnambool.

The most important of these corridors is the Princes Highway, which links Melbourne, Geelong and all the major southern centres of the region – Colac in the G21 region to the east, Camperdown, Terang, Warrnambool, Port Fairy, Portland and then west to Mt Gambier.

The region contains two railway corridors. The standard gauge line that links Maroona, near Ararat, with Portland is a branch of the Australian Rail Track Corporation corridor between Melbourne and Adelaide, and is used principally for freight traffic. The second rail corridor is the broad gauge Warrnambool-Geelong-Melbourne line, which carries both freight and passengers.

The Port of Portland is a deep water bulk-handling port that is of state and national significance. It handles increasing volumes of commodity exports and is a potential future entry point for tourists. There are several airports located throughout the region that cater for a range of commercial, emergency and tourism-related services.

Environmental assets and natural resources

The Great South Coast region has diverse environmental assets and natural resources. Its environmental assets include extensive areas of native vegetation, important rivers and wetlands, and coastal and marine assets. Together they form many significant landscapes, spanning the unique coastline in the south to the Grampians National Park in the north. These diverse landscapes reflect the geological, climatic and human history of the region. There is rainforest in the Otway Ranges in the south-east of the region and a range of other significant features, ranging from rivers and wetlands to volcanic cones, lakes and plains.

The region's environmental assets are a major attraction for the tourism industry as well as critical to sustaining the lifestyle of its residents. They provide habitat for flora and fauna, underpin the region's urban water supply needs, and support valuable industries such as agriculture (food and fibre production) and nature-based tourism such as recreational fishing. The region's reliable water supply and rainfall together with high quality soils underpin the region's economic capacity including its contribution to national food production.

The region's natural resources include native timber, fisheries, wind resources, natural gas, coal, sand and stone resources.

Facilities and services

The regional city of Warrnambool provides higher order services, such as regional medical facilities, to the whole region, while the regional centres of Portland and Hamilton also have a major service role. A range of inland and coastal small towns services the more sparsely populated areas of the region. There are several key settlement networks where individual smaller towns provide a specific service that is shared with other localities in the network. For example, Casterton's medical and health facilities see it function as a hub for the surrounding communities, providing access to these services without people having to travel to larger centres.

Cultural heritage and tourism

The region has a rich and diverse representation of heritage assets, including Aboriginal[1] cultural heritage and historic heritage, the internationally known iconic Great Ocean Road and the Shipwreck Coast. Portland is the site of Victoria's first permanent European settlement. Cultural heritage and recreational assets underpin the high levels of amenity and liveability in the region.

The region hosts a range of important recreational and cultural assets and activities including markets and festivals, and has potential to grow heritage tourism significantly. The region contains some of Victoria's best-known national parks, landscapes and cultural heritage places. These include the Great Ocean Road, the Grampians National Park, the Budj Bim National Heritage Landscape, Lake Condah and the Kanawinka Geopark[2].

1   Throughout this document the term 'Aboriginal' is used to refer to both Aboriginal and Torres Strait Islander people. Use of the terms 'Koori', 'Koorie' and 'Indigenous' is retained in the names of programs and initiatives, and unless noted otherwise, are inclusive of both Aboriginal and Torres Strait Islander peoples.
2   A Global Geopark is a unified area with geological heritage of international significance. Kanawinka Geopark is Australia's first, and the world's largest, United Nations sanctioned geopark.

Surrounding regions

The region has strong links to neighbouring regions (see Map 4). Warrnambool, Portland and Hamilton play a major regional role by providing health, education, retail and business services to the western parts of the G21 region, southern Wimmera, western Central Highlands and eastern Limestone Coast (South Australia). Freight and business interactions associated with major industries and agricultural production also connect the region to South Australia, and to the north and east. As one of the primary tourist attractions in Victoria, the Great Ocean Road links the region to the east, where Geelong acts as a gateway to Warrnambool from Melbourne.

There are major transport linkages connecting production and markets both within and beyond the region. The primary export gateway in the region is the Port of Portland with key external export gateways being the ports of Melbourne and Geelong, and Melbourne and Avalon airports. For instance, mineral sands and agricultural products from the Wimmera are exported through Portland and dairy products are exported through the Port of Melbourne.

The proximity of Geelong to the east, and Ballarat to the north-east, means these cities are also important to the region, particularly for the provision of specialist medical services that may not be available in the region. There are opportunities to improve connections to these centres. Camperdown is intimately linked to other towns to its east, particularly Colac, with towns in the north-east of the region having strong relationships with the Central Highlands and G21 regions. The same connections and opportunities also apply in the west and north where Mt Gambier and Horsham are important nearby centres for the adjoining part of the Great South Coast region.

Key tourism routes, such as the Great Southern Touring Route and the Great Ocean Road, also provide links to other regions including Wimmera Southern Mallee, Central Highlands, G21 (Geelong) and through to Melbourne.

Map 4: *Links to surrounding regions*

Source: Department of Transport, Planning and Local Infrastructure
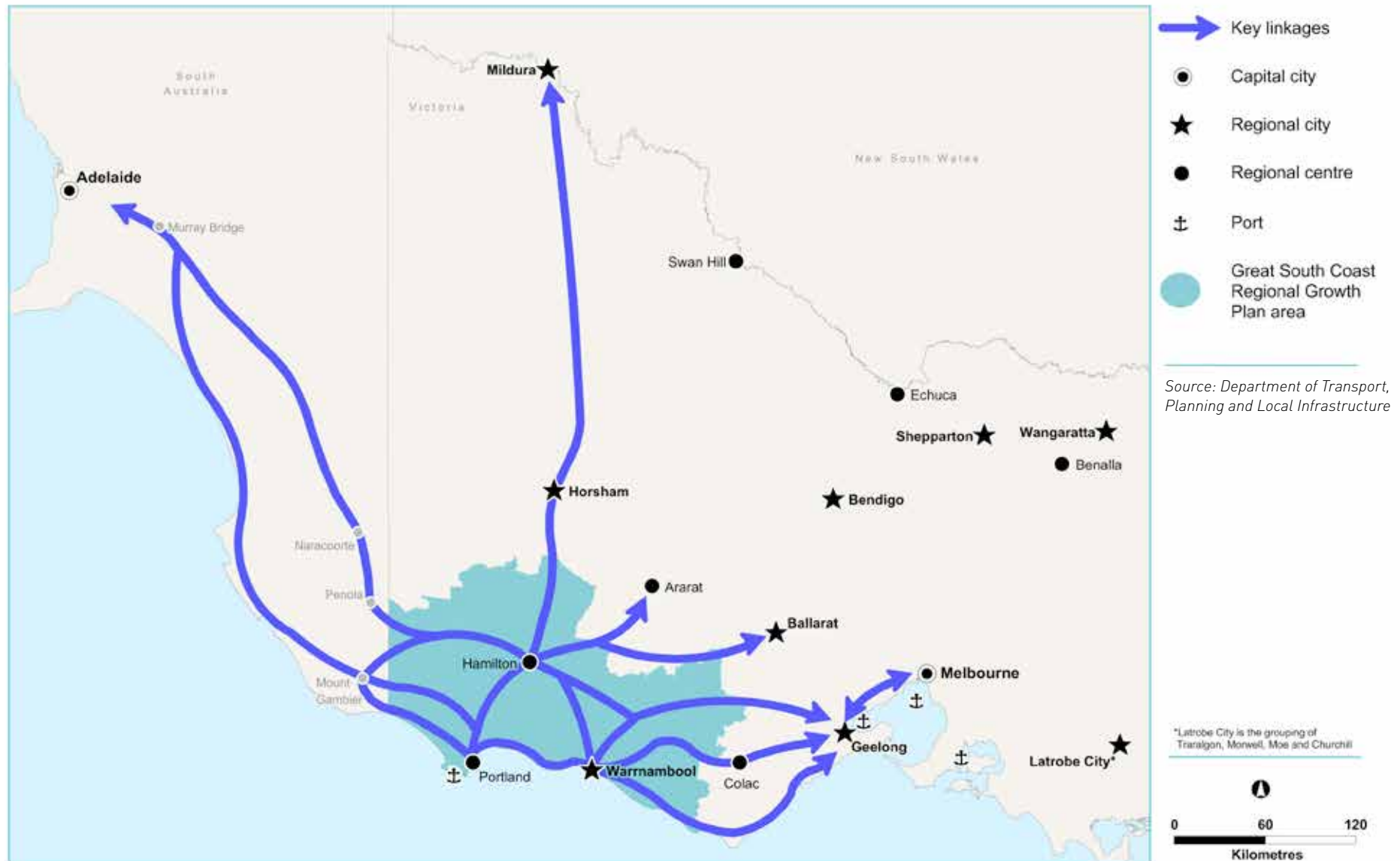
7. Drivers of change

Drivers of change that are the key influences on future growth in the Great South Coast region include:

- economic development and industrial expansion, rather than population increase

- key industries where new investment is anticipated, in particular dairying, forestry, mining, mineral sands processing, waste and resource recovery, energy and tourism

- significant opportunities for further value-adding in major industries, as well as for diversification of economic activity

- increased demand for food that enhances the region's potential to increase its contribution to national food production and exports, potentially supported by changes in climate offering new growing conditions for the agriculture sector

- the need for an expanded population and larger, more skilled workforce to ensure economic activity is not constrained, and to support local communities

- maximising economic opportunities for increases in productivity and innovation, improved education and training, and supporting infrastructure

- development of the digital economy and its growing influence on business, education, health and social inclusion

- the continuing growth of Warrnambool, as the regional city, benefits the whole region and increases access to retail, healthcare, education and professional services and is a major attractor of new residents, accounting for over half the region's population expansion over the past five years

- sustainably developing and managing the region's environmental and cultural heritage assets, contributing to future prosperity and liveability – these assets (soils, water resources, biodiversity landscapes and cultural heritage) constitute major competitive advantages and supply a wide range of environmental and cultural values

- an abundance of energy assets, including natural gas and renewable energy resources for wind, geothermal and marine energy technologies – building on these opportunities could make the region Australia's alternative energy capital

- the Port of Portland, an asset of national significance, retains great potential for expansion and growth to service existing and new export markets

- impacts of climatic conditions such as long-term droughts, widespread floods and an increase in the number of days of extreme heat and fire danger.

8. Challenges for growth

Challenges for growth that may limit the potential for growth in the region include:

- managing competing demands for agricultural land, particularly in the corridor from Warrnambool to Portland, including limiting urban encroachment into highly productive agricultural areas

- maintaining and upgrading road and rail networks and transport services to provide for private vehicles, freight and public transport, to meet the needs of the growing economy and of residents and visitors

- maintaining and upgrading tourism infrastructure, particularly along the Great Ocean Road

- planning, funding and delivering key physical infrastructure, including drainage, water supply, natural gas, waste infrastructure and sewerage, in sequence with residential and industrial development

- overcoming constraints to the expansion of the Port of Portland and development of related industries in the port precinct

- elevating the priority given by the National Broadband Network to the provision of information and communications technology to the Great South Coast region

- enlarging the capacity of the local electricity distribution system to overcome current constraints on investment

- maximising the potential benefits of energy production, including local use and component manufacturing while managing the impacts on amenity, roads and environment

- sourcing local sand, stone and mineral resources, including identification, protection and extraction approval, to support economic development and minimise heavy freight movement

- improving levels of education, youth retention and engagement in higher education or training, to expand the workforce and increase skills, while also reducing social disadvantage

- increasing population growth rates above current and forecast trends, to support industry and community services and facilities and to offset an ageing population

- sustaining growth rates to support the economy and manage land and infrastructure needs

- providing sufficient, well-located and accessible housing to accommodate current demand and attract new residents, increasing access to health and community services, especially in smaller towns, and enhancing wellbeing through health promotion strategies and improved urban design

- fostering social and community connections, especially for small towns in transition, including community resilience, access to essential services and access to the local economy

- planning to reduce the potential impacts (and take advantage of opportunities) resulting from a changing climate, including locating new developments in areas that minimise the risks to life, property and environmental values

- managing climate change risks and opportunities across the environment, economy and social sectors

- the sustainable management of the region's natural resources, and its significant environmental assets

- ensuring planning around areas of high environmental value is undertaken to avoid and minimise potential negative impacts.

9. Vision for the region

The following vision for the Great South Coast is drawn from the Great South Coast Regional Strategic Plan and describes how the region will look and function in 30 years:

> The Great South Coast region will create a thriving, multifaceted and resilient economy, while valuing and managing our natural resources and environment. Our people will be healthy, well educated and have great lifestyle choices. We will work together for a stronger, more prosperous, equitable and liveable Great South Coast.

10. Principles to achieve the vision

The following principles for growth have been developed in consultation with key stakeholders to give effect to the directions in the Great South Coast Regional Strategic Plan and the vision of this plan:

- Strengthen the region's economy through increased industry diversification, innovation and development.
- Attract more people to the region.
- Enhance our liveability through improved health, education and standards of living.
- Build on our network of towns and the roles played by them.
- Manage and utilise our strategic assets and support agricultural productivity.
- Sustainably manage our natural, cultural and environmental assets.
- Enhance equity of access to infrastructure, facilities and services.
- Strengthen connections to other regions.
- Ensure that land and infrastructure needed to support growth is identified and appropriately planned.

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

11. Regional economy

11.1 Overview

The Great South Coast regional economy is prosperous, dynamic and diverse. The region is near full employment and with forecast economic growth, is facing skills and workforce shortages.

The region had a Gross Regional Product of $4.29 billion in 2011 with agriculture, manufacturing and healthcare contributing around 39 per cent of the Gross Regional Product. The region's exports have grown at an average annual rate of 3.5 per cent from 2001 to 2011, which is above the regional Victoria growth rate (3.3 per cent) but slightly lower than the state average (3.9 per cent). Most of the region's exports in 2011 came from Glenelg (31 per cent) and Warrnambool (24 per cent). Moyne, Southern Grampians and Corangamite accounted for 17 per cent, 16 per cent and 13 per cent of the region's 2011 exports, respectively.

Improving the productivity and innovation of the region is a key factor in raising living standards, enhancing liveability, attaining higher educational standards and better health outcomes, and contributing to social and environmental sustainability. Productivity can be enhanced through expanding and diversifying existing industries, linking more closely with educational and research institutions, securing world-class regional telecommunications and lifting educational standards to improve innovation within the region.

Overall, the region exports around 30 per cent of its output, which is above that of other Victorian regions. Improving access to export markets through the key ports of Portland, Melbourne and Geelong is essential to encourage further growth in export sales and increases in standards of living.

The relative diversity and resilience of the local economy has helped it to adapt to changing economic conditions and to expand over the past decade. Agriculture is the most significant sector of the regional economy, despite a decline over the past decade, followed by manufacturing, which is dominated by food production and processing. Service sectors, such as finance, retail, health and education, are increasingly important. Construction and mining are also substantial economic contributors.

By 2031 the largest sectors in the economy are projected to be healthcare, agriculture, manufacturing and construction. Other high growth sectors will include retail trade, financial, professional and scientific services and accommodation. This highlights a shift from primary production to a more service-based economy and will require workforce changes and services to support skills development and productivity improvements. Employment in manufacturing is expected to decline between 2011 and 2031, with healthcare, retail trade, accommodation and food being the largest employers by 2031.

The region faces challenges in the medium- to long-term to further strengthen and diversify strategic economic sectors. These include improving the region's physical infrastructure to facilitate access to key domestic and global markets, building on regional strengths in tourism as a basis for further growth and increasing participation in the digital economy. Great Ocean Road tourism has been identified by the G21 region as one of the highest priorities. The forecast growth of the economy, coupled with an ageing population, will require above projected population growth to ensure an available and skilled workforce for local businesses, services and industries. Attracting people to the region and sustaining strong centres like Hamilton, Portland and Warrnambool will support local industry and support surrounding small towns even if they continue to experience a declining population, such as in the northern part of Glenelg Shire.

The future economic directions for the region are shown in Map 5.

Map 5: *Future economic directions*

Source: Department of Transport, Planning and Local Infrastructure

Future directions

- Sustainably manage areas of high quality agricultural land to support growth in food production
- Support higher value-adding and diversification of existing industries and land uses including the forestry, dairy, meat, grain, mineral sands, energy and tourism sectors, where they build on existing infrastructure and do not compromise the region's agricultural, environmental and cultural heritage significance
- Foster opportunities for investment, infrastructure, innovation and research that support and strengthen the rural economy
- Maintain and enhance key infrastructure including the Port of Portland and direct transport links to and from production, processing and markets
- Utilise natural resources and environmental assets sustainably, including secure, competitively priced water and high quality soils, to underpin economic development and liveability within the region, ensuring protection from incompatible land use and development
- Identify and source construction materials and manufactured products close to their location of use
- Identify potential economic opportunities and risks resulting from climate change to strengthen the rural economy
- Attract, develop and retain a skilled workforce, particularly young people, and improve school retention and educational attainment levels
- Support population in rural areas to provide a workforce for agricultural production and major projects

- Support industrial development that takes advantage of the region's natural resources and infrastructure and direct development to towns, or other appropriate places where the industry is dependent on a rural location or it has significant amenity impacts
- Support existing and new industrial areas that build on existing assets, infrastructure and proximity to towns and the growth corridors
- Encourage local energy production, 'smart' electricity distribution systems, and across the eastern part of the region encourage investment in natural gas infrastructure
- Strengthen distributed health and service centres throughout the region
- Support appropriate development and investment to strengthen the role and economy of towns including small towns facing economic and population challenges
- Facilitate the development of the Port of Portland, through investment in infrastructure, planning controls, access to land and new opportunities and markets including cruise ships
- Support the sustainable development of the region's marine environment and infrastructure to support industry and recreational uses
- Encourage the sustainable development of the tourism sector including investment in infrastructure to improve access to regional tourism assets and linkages with surrounding regions to develop integrated tourism experiences
- Sustainably manage and enhance existing and new tourist attractions throughout the region, including the Great Ocean Road, attractive townships and villages, unique environmental and cultural heritage assets, the Grampians National Park and the Great Southern Touring Route

11.2 Rural land use

The Great South Coast economy and standard of living are closely tied to its agricultural industries and the export incomes they generate. The region's dairy and forestry industries, which are closely related to those in and around Colac, are of national significance. Development of value-adding opportunities will play a major role in the region's future economic development.

The region is well placed to develop a more diversified agricultural economy and play a more significant role in the nation's food production. Changes in climate may create rural land use opportunities as well as challenges for the region. As the climate changes agricultural activities could shift. Some primary producers in the region may experience an increase in productivity due to longer growing seasons and increased carbon dioxide concentrations, while others may experience a decline due to more frequent and extreme events such as frosts, heatwaves and heavy rainfall.

Proximity to key infrastructure such as the Port of Portland and direct transport links to Melbourne and Geelong will make the region attractive to producers to relocate from existing areas, such as around Werribee, as they experience increasing pressure from urban expansion. The dairy, meat production and forestry industries all provide opportunities to develop clusters of enterprises that build on existing production and processing.

The development of new industrial corridors from Portland to Heywood, and in the east of the region, will take advantage of the transport infrastructure in the region, including the Port of Portland as detailed in section 14.3 – Transport networks.

New developments in tourism, renewable energy generation and extractive industries offer opportunities to diversify the economy, particularly in rural areas. Rural residential development opportunities need to be managed to avoid natural hazards, environmental assets and negative impacts on other rural uses as identified in section 13.5 – Rural residential development.

Land use policies, strategies and actions

- Apply best practice approaches to rural land use planning, such as adapting to changes in climate, avoiding potential conflicts from non-productive uses, matching land use to land capability and sustainably managing environmental assets
- Support rural production and associated economic development opportunities including rural industry, rural sales, accommodation and tourism
- Support rural land uses that can integrate with and complement adjacent uses or assets while managing potential land use conflicts
- Adopt a coordinated approach to rural land use planning to maximise opportunities related to regional scale assets
- Provide for planned rural residential development where it supports sustainable communities while avoiding areas of high value, risk or future urban development potential (in accordance with Planning Practice Note 37)
- Support and manage rural land use diversification opportunities including, but not limited to, those identified in Map 5: Future economic directions
- Consider appropriate lot sizes to support agricultural uses and associated industry

11.3 Business, industry and services

A significant risk facing the regional economy is not being able to source and retain sufficient and appropriate skills to service growing demands. There are already skills shortfalls across the region and this situation is likely to become more pronounced due to the impacts of demographic change, which will see an increase in the average age of the population.

Key industries for value-adding growth include meat production within the region and dairying in the south. There is sufficient milk processing capacity within the region to cater for the expected growth until around 2020. After this time, further processing is likely to be needed to respond to forecast increases in production.

Industrial growth will result from increased production and improvements to transport infrastructure throughout the region including, but not limited to, those identified in Map 5: Future economic directions. Existing industrial areas in the region, including at Hamilton, Portland and Warrnambool, and adjacent to the region, including in South Australia and Colac, will support agricultural production and a diversity of job opportunities for the region. Portland and Hamilton have existing stocks of heavy industrial zoned land.

Existing and new industrial areas will be required to support local processing, manufacturing and logistics. Industrial areas will need to manage any amenity and environmental impacts. Industry opportunities, including energy intensive production and processing industries, will be able to take advantage of the availability of transport, infrastructure and services, including the gas pipeline along its route from the south east to the north west of the region as identified in Map 6: Strategic energy options.

Natural gas is now being sourced offshore from Port Campbell, presenting an opportunity to connect reticulated gas to the eastern part of the region. This area is well serviced by road and rail transport links to the east and west and is close to existing population centres and planned residential growth areas. Natural gas, together with a sufficient supply of industrial land, will increase the attractiveness of this area to industry. The availability of reticulated gas may also alleviate some of the challenges the region is facing from capacity constraints in the electricity distribution system. Existing industrial consumers, such as the dairy industry, would be able to convert from electricity to natural gas for some or all of their needs.

Improving access to key services and employment across the region is a critical feature of this plan. This will involve taking advantage of the diversity of lifestyle choices offered, enhancing liveability, providing appropriate housing (particularly affordable housing near key coastal settlements), services and facilities, and maintaining the amenity and character of settlements. Improved connectivity will be needed between towns in key settlement networks, notably surrounding Hamilton and district towns in the Corangamite and Glenelg Shires.

Land use policies, strategies and actions

- Support industry growth in designated locations, while minimising impacts on rural settings and town character and amenity
- Support the provision of appropriate and timely infrastructure to support industries
- Plan for natural gas extension across the eastern and south-eastern parts of the region
- Ensure industrial activity is separated from sensitive uses
- Increase industrial land supply in line with forecast demand
- Identify key liveability and amenity-related attributes of towns and plan to enhance town character
- Plan for sufficient available land for new industrial areas at key nodes along major transport and infrastructure corridors

11.4 Health, education and research

Education and health are recognised as cornerstones of liveability. The region currently has below-average levels of educational attainment and, in many areas, lower than average health outcomes. Providing quality educational opportunities will improve living standards, support the economic drivers of growth and encourage younger people to remain within the region for study and subsequent career choices.

Dairying and alternative energy production can underpin development of higher order, value-adding service industries and manufacturing, supported by building and improving strong links to regional universities and research institutions. The opportunity to influence regional career pathways can also be fostered through schools, parents, career networks and TAFE institutions. Having career opportunities in these fields will act to draw higher order skills into the region.

Using existing institutions to form a cluster of related industries and skills is a recognised strategy to boost higher order services and increase regional innovation, an area that has further potential. Innovation within the region will also improve long-term prosperity.

Better health outcomes will require improved links across the region to major health institutions, facilitating collaboration and clustering of health services and encouraging active lifestyles, for example, by providing walking and cycling paths in townships. The increasing proportion of older people in the population will affect the type and nature of services required and will have implications for planning of infrastructure and access.

Land use policies, strategies and actions

- Support the renewal, maintenance and improvement of health and educational facilities
- Build and improve linkages between secondary and tertiary education institutions and with industry sectors such as the health sector
- Build connections between key educational and health institutions and major population centres throughout the region
- Ensure access to educational, research, health facilities and infrastructure for active lifestyles is built into settlement network planning
- Set aside land surrounding key educational and health institutions to encourage co-location, clustering and collaboration

11.5 Alternative energy production

The region has a strong history in energy production, notably wind and gas, with significant further development planned and approved in the near future.

Gas power plants are located near Mortlake and Port Campbell, with two proposed in the Moyne Shire. Further opportunities exist for gas extraction in the Southern Ocean south of Port Campbell. The region has a pilot project demonstrating small-scale commercial distributed energy systems. Wave energy provides longer-term potential, particularly near Portland. Map 6 identifies potential gas and wave energy locations as marine resources and shows the locations of higher wave and methane energy potential.

Two biofuel mills are proposed in or near the region, one in Heywood and the other in Mount Gambier (South Australia. A biogas plant will be built in Colac. Carbon capture and storage (geosequestration) is being trialled near Peterborough. The dairy industry may provide a future source of energy through methane capture from the dairy herd if research successfully identifies ways in which this lost energy can be efficiently redirected back into production. Sites for small scale, local energy generation using methane produced by livestock are being investigated in the region. The region's advantages for alternative energy make it well suited to being a research centre for renewable technologies.

The region has a rare asset in the 500 kilovolt transmission line that operates at around 25 per cent capacity. However, many of the local energy distribution systems are nearing capacity, limiting the ability of industrial and processing expansion. Energy production will be attracted to locate adjacent to the 500 kilovolt transmission line to minimise loss of energy, cost and uncertainty associated with transporting electricity over long distances.

Geothermal energy is a potential future energy source for the region. Map 6 indicates the areas that have higher subsurface temperatures and therefore greater potential for the investigation of geothermal power.

The extension of natural gas from pipelines in the eastern part of the region presents an opportunity to support existing industry, notably the energy-intensive milk production and processing industries as well as to encourage new industrial firms to the region. With large amounts of energy production occurring in the region, the development of smart electricity grids and distribution systems to allow local firms and residents to access locally produced power would create a competitive advantage for the region and also result in greater levels of energy efficiency.

While the development of alternative energy within the region is producing economic, social and environmental benefits, cumulative impacts, such as road deterioration, will need to be appropriately managed. This may be partly addressed through obtaining local sources of construction material, particularly approval of on-site or local sand and stone extraction, as well as strategic management of the road network.

Land use policies, strategies and actions

- Support the development of energy facilities in appropriate locations where they take advantage of existing infrastructure and provide benefits to the regional community
- Require the protection and proper maintenance of infrastructure and assets, including local roads, during the development and construction of energy projects
- Encourage the use of off-site landscape plans to help address the impacts, on landscapes and communities, of alternative energy developments
- Plan for and sustainably manage the cumulative impacts of alternative energy development
- Secure access to key construction material resources in the region, including on-site quarrying

Map 6: *Strategic energy options*

Source: Department of Transport, Planning and Local Infrastructure
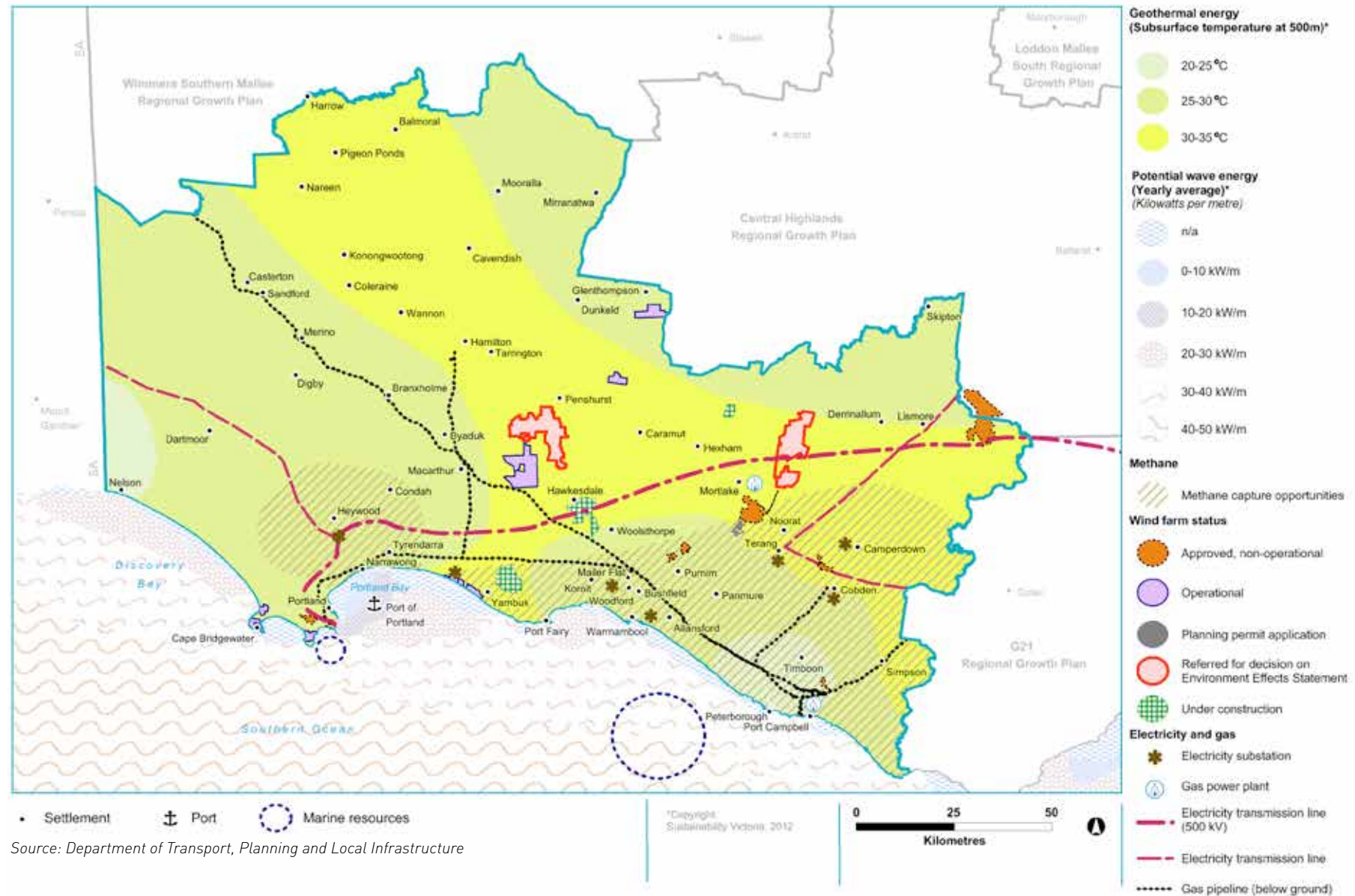
11.6 Food and fibre production

Continued agricultural development (in addition to those already discussed) is supported by well-established allied industries such as processing facilities, particularly around Koroit, Allansford and Cobden. Land prices are competitive on a statewide basis and land is available in most areas to provide adequate distance between urban centres and agricultural uses with potential off-site impacts.

This plan seeks to ensure that not only is food produced within the region, but that it is also processed locally and the services required to support value-adding are developed in the region. Opportunities exist for future development of a boutique food industry within the region.

The meat and dairying industries have already made considerable progress in downstream processing in the region and further opportunities exist, for example, in meat production research and development activities around Hamilton. Aquaculture is a new industry in the region but has potential for development. Sufficient zoned land should be made available to take advantage of opportunities while ensuring there is flexibility to allow for changes to agricultural production and support diversification of production and processing enterprises.

Victoria's sheep meat and wool growing industry is an established sector within the northern half of the region. Wool has significantly influenced the past economic prosperity of the region, and has a continuing role to play. According to the Department of Environment and Primary Industries, while wool production has declined in recent years its value has increased.

Agricultural industries can be impacted by the growth of settlements, while also impacting on cultural and environmental assets. Sustainable management of environmental and cultural assets will be a major consideration as agricultural industries develop. The expected growth of Warrnambool, in particular, will place farm land at the city's fringe under pressure. The southern area of the region, predominantly between Warrnambool and Port Fairy and across to Portland, is also at risk of encroachment by urban housing and rural residential housing. The area surrounding Tower Hill is particularly significant for its suitability for horticulture with friable soil depth measured in the 1988 Warrnambool Region Geological Survey between 0.5 and 30 metres, this being rare in a national context. Planning support may be provided by designating highly productive agricultural land inappropriate for housing development.

Climate change is expected to have various impacts on food and fibre production in the region. There may be opportunities for businesses and local communities including the growth of new crops within the region and diversifying rural land uses to take advantage of the developing carbon market, for example, through the Carbon Farming Initiative. Agricultural zones could also shift within the region and the state, changing the mix and proportion of food and fibre commodities produced within the region over time.

Land use policies, strategies and actions

- Identify strategically important agricultural land that requires planning protection from encroachment from urban expansion, rural residential and other potentially incompatible uses
- Facilitate the development and integration of new forms of production, processing and research
- Facilitate changes in agricultural activities over time, encourage diversification and value-adding, and provide appropriate timely infrastructure to realise these opportunities

11.7 Port of Portland

The Port of Portland is an asset of national significance. It is an export and, to a lesser extent, import gateway for products including timber, livestock, mineral sands, grains and woodchips. It provides the region and surrounding regions in Victoria and South Australia with a significant competitive advantage. It drives significant economic activity within the region and surrounding regions. Being a rare deep water port in south east Australia, and with surrounding heritage and landscape tourism assets, the port has also attracted cruise ships.

The Port of Portland is constrained by having a limited area for expansion, difficulties coordinating freight volumes, noise restrictions and planning overlays that are incompatible with port activities. Climate change poses potential risks and costs, particularly through the risk of damage or inundation of infrastructure from sea level rises and storm surges.

The Green Triangle Region Freight Action Plan identifies priority projects to improve road and rail entry into the Port of Portland.

Significant regional economic opportunities will be placed at risk if the port cannot continue to expand and develop.

Land use policies, strategies and actions

- Support the port's expansion through appropriate land use planning and overlay controls

- Ensure infrastructure servicing the port, particularly rail and road networks, is developed in conjunction with port expansion plans

- Plan for and implement improvements to road and rail entry into the Port of Portland

- Identify areas in and around Portland, Hamilton, Heywood and Casterton suitable for long-term industrial use to support port needs, including storage, service industries and processing

- Plan for the potential impacts of climate change including sea level rise

11.8 Marine environment and assets

The region has unique marine assets that are underdeveloped in terms of their potential to support economic growth. Opportunities include recreational fishing and marine-based tourism, sustainable commercial fishing, aquaculture, renewable energy production and marine and environmental science research and education.

Land use planning can ensure that infrastructure is planned and zoned to support recreational and economic opportunities, while sustainably managing the marine environment. Planning must also take account of potential sea level rises and the impact this will have on existing and future infrastructure.

Land use policies, strategies and actions

- Complete a full audit and assessment of existing marine infrastructure and assets and utilise existing studies, including the Western Boating Coastal Action Plan and the Victorian Coastal Strategy

- Undertake research and planning to support future development of marine industries and infrastructure

- Plan for marine development and infrastructure that is sensitive to marine national parks and environmental assets

11.9 Tourism

The Great South Coast Regional Strategic Plan and this regional growth plan support sustainable development of the tourism industry, consistent with the development of other key industries in the region. The region's tourism areas include:

- Great Ocean Road and coastal towns
- Crater and lakes around Camperdown
- Portland and the Discovery Coast
- Warrnambool, Koroit and Port Fairy
- Grampians and Western District towns

Appropriate land use provisions and investment in infrastructure are needed to support growth in tourism, including cultural heritage tourism, garden and landscape tourism, art galleries, eco tourism and marine-based tourism such as recreational fishing and whale watching. Development should be based primarily around the region's environmental and cultural heritage assets, with a focus on continued enhancement of centres along the Great Ocean Road and Great Southern Touring Route.

There are many other tourism routes and walks throughout the region that are based on unique cultural and environmental assets. Tourism routes and infrastructure should extend tourism opportunities throughout the region and link attractions in and beyond the region, including west to Penola/Coonawarra, north to the Grampians, and east to Ballarat, Great Otway National Park, Greater Geelong and Melbourne.

There are a number of gateways and routes linking to regional and inter-regional tourism assets. These include western gateways to the Coonawarra wine region and scenic roads leading to the Great Ocean Road, northern gateways to and from the Grampians National Park, and eastern gateways to the Great Ocean Road and Great Otway National Park.

Planning policy should recognise and support the role of tourism in the region's economic development and diversification, while sustainably managing environmental and heritage assets. Port Fairy tourism, as an example, supports its culture and history while providing important economic development to the region. Tourism can provide a new focus for small towns, as seen with Dunkeld and Nelson, which can help sustain communities and population levels.

The central pillars of the region's tourism development activities, the Great Ocean Road and the Great Southern Touring Route, traverse several regions. To support a seamless tourism experience, it will be necessary to integrate the planning response across these different regions.

Land use policies, strategies and actions

- Sustainably manage regionally significant tourism attractions such as the Great Ocean Road, Great Southern Touring Route, national parks, major inland waterways such as Lake Corangamite, key coastal assets including Discovery Bay, and cultural heritage sites
- Prioritise appropriate tourism development at key tourist destinations to maximise benefits for the region
- Provide flexibility and opportunities for a diverse range of tourism development, including an increase in the supply of appropriate accommodation and tourism infrastructure
- Support the development and implementation of tourism strategies that identify attractions and opportunities for the region, including its environment and heritage assets and its large and small towns
- Support tourism strategies that consider regional and inter-regional connections between assets
- Pursue key links in the road network as preferred tourist routes to maximise and extend the benefits of tourism throughout the region and minimise potential conflicts with commercial and farm traffic. Support tourism development in locations that:
  - have been identified for sustainable and appropriate development
  - have access to settlements, transport infrastructure and other services
  - sustainably manage, link and are compatible with nearby environmental and cultural heritage assets and other economic activities, particularly agriculture
  - can be managed for risks from natural hazards such as bushfire and flood
  - assist small towns that are facing economic and population challenges

11.10 Natural resources

The Great South Coast region has a wealth of natural resources including native timber, fisheries, wind resources, natural gas, coal, earth resources, and deep water access. These natural resources underpin the competitive advantages of the region. They provide the basis for much of the region's economic success and present diversification opportunities. Planning needs to achieve a balance between utilising these resources to support economic development while ensuring they are sustainably managed. In particular, residential, commercial and industrial growth should be directed away from areas where inappropriate development might threaten or damage these assets, or hinder their future management and use.

Given the likelihood of climate variability, it is imperative to appreciate the interdependence between the region's natural resources and how these might change over the life of this plan and beyond, as well as what impact this is likely to have on those industries that utilise the region's natural resources. It is also imperative to provide additional protection for these natural resources, including through appropriate planning controls, so that they are available for future generations.

Gold, mineral sands, oil shale and sand and stone resources are some of the earth resources found in the region. The region is also an important location for processing and exporting mineral sands from other regions.

The region's sand and stone resources will become increasingly important if the expected increases in mining, timber and renewable energy activities occur within the region, to appropriately provide and maintain the infrastructure (such as roads) needed to support these industries. Locally sourced sand and stone resources will be important to reduce costs to these industries and support the region's economic growth.

Extractive industry interest areas occur within some areas of Victoria, however they are yet to be mapped in the Great South Coast region. Such areas are based on suitable geological occurrence of resources and also take into account existing local government planning schemes. They are intended to provide a guide to local government in developing future planning policy. In response to the Economic Development and Infrastructure Committee's *Inquiry into greenfields mineral exploration and project development in Victoria*, the Victorian Government has committed to various activities that will undertake further data gathering and planning to better protect the state's extractive resources for future development. The outcomes of these activities may have implications for future planning provisions. Extractive industry interest areas located in the region are shown in Figure 4 of the Great South Coast Regional Growth Plan Background Report.

The forestry and timber processing industries are some of the fastest growing industries in the region. While there has been a significant softwood plantation industry in the region for the past 100 years, a large increase in blue gum plantations (hardwood) has occurred in the region over the past decade. A near doubling of the total volume of wood harvested is expected once harvesting and chipping of the blue gum plantations commences. This will have significant implications for haulage requirements, transport infrastructure, and demand for skilled employment in the near future. The Port of Portland, as the export gateway for the region, can expect to become the largest blue gum woodchip port in Australia if timber plantation harvest forecasts are realised.

The expansion of forestry plantations has implications for water supply, in particular, catchment run-off and groundwater levels. Any further expansion of timber plantations should be in appropriate locations to minimise impacts upon the region's water supply (surface and groundwater).

An increase in tree cover in the landscape, including through forestry plantations, should also consider other implications for land use planning such as potential change in landscape, bushfire and flood risks.

Land use policies, strategies and actions

* Identify, manage and facilitate access to natural resources, including oil, gas, sand and stone, minerals, fisheries, timber or solar energy potential

12. Environment and heritage

12.1 Overview

The Great South Coast region has rich and diverse environmental and cultural heritage assets. These assets contribute significantly to the economic prosperity and liveability of the region. Heritage (both historic and Aboriginal) is intrinsically tied to the natural landscape and environment. In many locations, natural, Aboriginal cultural heritage and historic heritage values coexist layer upon layer, revealing the history of human interaction with the environment. The region is also subject to risks from natural hazards such as bushfire and flood that require management to protect human life and property.

With its extraordinary natural beauty recognised both internationally and nationally, the Great Ocean Road is of considerable cultural significance. In 2011, it received National Heritage listing in recognition of this. Constructed by more than 3000 ex-servicemen in memory of those who lost their lives in World War 1, the Great Ocean Road has been recognised as the world's largest war memorial. The 80th anniversary of its completion occurred in 2012.

The region's high value environmental assets provide opportunities for tourism and other economic diversification including carbon farming and income from providing ecosystem services[3]. At the same time, urban growth, commercial, industrial and rural residential development can present some risks to environmental and cultural heritage assets, including water supply catchments, if not well planned and managed. Balancing these pressures with the natural hazards and risks associated with these areas, such as from bushfire, coastal erosion and inundation, and flood, is a key challenge for this plan and more detailed local planning will be required.

Sustainable management of environment and heritage assets will assist in maintaining the region's capacity and productivity in primary production, tourism and liveability. There is also the opportunity to capitalise on the region's environmental and cultural assets to reposition the region as a national destination for nature-based tourism.

Environment and heritage assets in the region include, but are not limited to:

- Budj Bim National Heritage Landscape (which incorporates the Mount Eccles' Lake Condah area, and the Tyrendarra area)
- National parks, such as the Port Campbell, Lower Glenelg, Mount Richmond, Grampians, Cobboboonee and Great Otway national parks and the Bay of Islands Coastal Park
- Marine national parks, such as the Twelve Apostles and Discovery Bay marine national parks
- Rivers, such as the Glenelg, Wannon, Moyne and Hopkins rivers
- Cape Bridgewater
- Cape Nelson Lighthouse
- Western District lakes – Ramsar listed wetlands
- Rocklands Reservoir
- Griffiths Island
- Bonney Upwelling
- Tower Hill
- Shipwreck Coast.

Registered Aboriginal Parties will have an important role in planning place-based activity and development, and there are benefits to engaging with the relevant Aboriginal community organisations early in strategic planning processes. Currently the Gunditj Mirring Traditional Owners Aboriginal Corporation, Barengi Gadjin Land Council Aboriginal Corporation, Martang Pty. Ltd., and Wathaurung Aboriginal Corporation have legislated responsibilities relating to the management of Aboriginal cultural heritage places in the region. This arrangement recognises the key role that Aboriginal peoples have in the protection and management of significant Aboriginal cultural heritage places.

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3   Providing ecosystem services through market-based approaches (including competitive tenders such as EcoTender and BushTender), can provide farmers with income for undertaking environmental works that conserve and enhance the environment.

Native title is also held over Crown land in a significant portion of the region by the Wotjabaluk, Jaadwa, Jadawadjali, Wergaia and Japagulk peoples and the Gunditjmara and the Eastern Maar peoples.

The Glenelg Hopkins and Corangamite Catchment Management Authorities coordinate investment in the protection and enhancement of environmental assets throughout the region, along with public land managers. Regional catchment strategies have been developed by catchment management authorities to provide integrated regional strategies for achieving improved environmental outcomes in the region. This plan identifies regionally significant environmental assets that align with those identified in the regional catchment strategies and proposes a land use response that complements the regional catchment strategies.

The Western Coastal Board oversees strategic coastal and marine planning issues for the Great South Coast region. The Western Coastal Board has developed coastal action plans to manage key issues and areas along its coast.
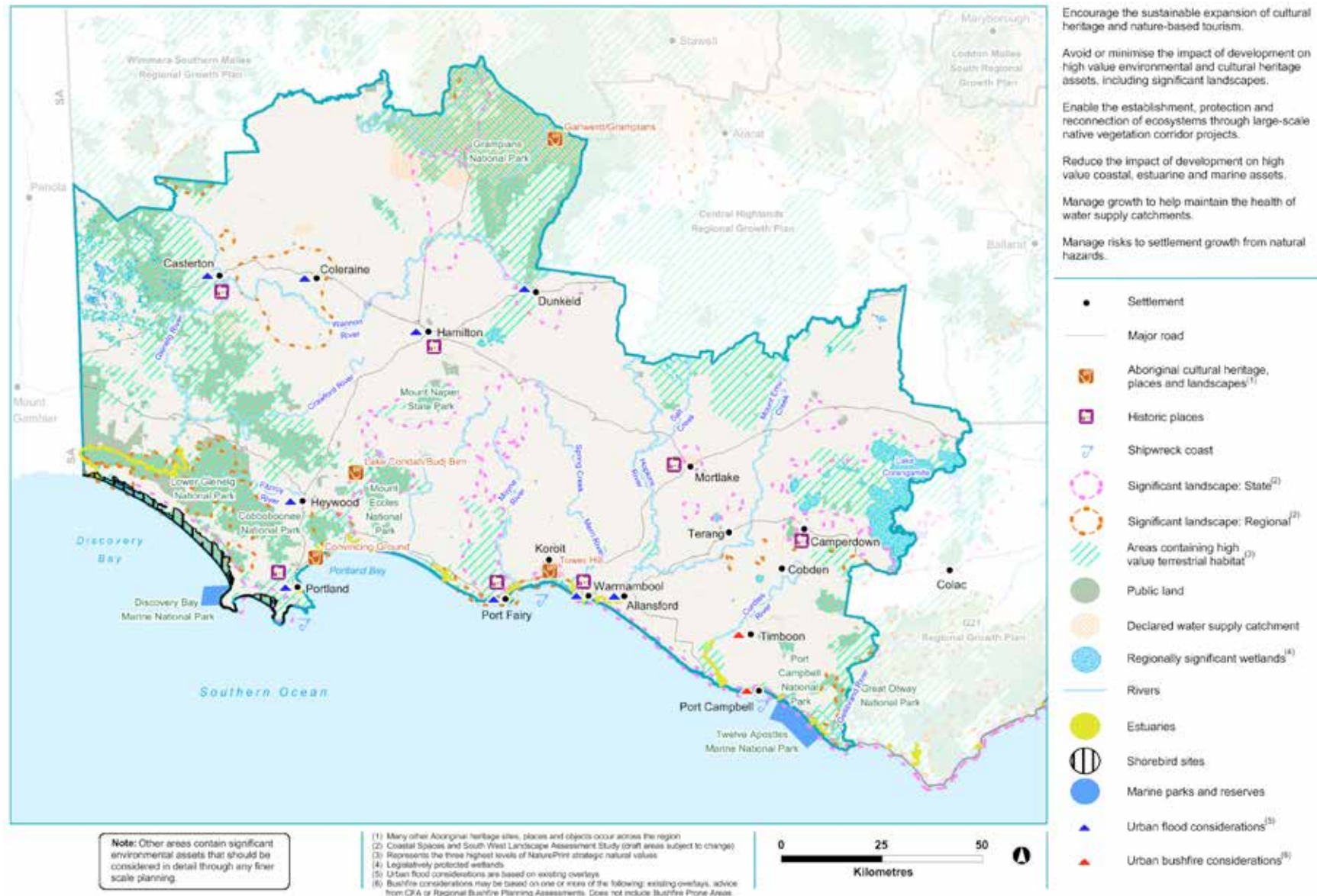
Residential, commercial and industrial growth should take into account areas of high value environmental and cultural assets and identify where inappropriate development may constrain future use of these assets.

Key areas where potential growth or land use change may intersect with environmental and heritage assets have been identified in this plan. Key cultural heritage and significant landscapes and environmental assets are shown in Map 7. Where natural hazards intersect with key growth locations, these are also shown.

Future directions

- Avoid settlement growth in areas of high environmental, heritage or scenic value and in areas at extreme risk from natural hazards including bushfire, catchment flood, coastal erosion and coastal storm inundation

- Direct settlement growth and development to:
  - areas where it will avoid or minimise impacts on high value environmental and cultural heritage assets, applying appropriate offsets if land is cleared of native vegetation
  - areas of low bushfire risk (not covered by the Bushfire Management Overlay) or low flood risk (not covered by the Floodway Overlay or the Land Subject to Inundation Overlay). Development in flood or bushfire risk areas is to be avoided unless suitable planning, building and infrastructure controls are provided to protect life and property
  - minimise the expansion and impacts of urban development on areas of highly productive agricultural soils, natural resources, environmental assets or areas of heritage and environmental value
- Consider regionally significant environmental assets and regional catchment strategy priorities in local planning decisions and in the implementation of this plan
- Enable appropriate tourism opportunities around cultural heritage and environmental assets, where impacts and risks can be managed
- Identify the preferred location, configuration and composition of native vegetation corridors, including those containing offsets for native vegetation clearance, through collaboration with natural resource management agencies
- Encourage projects that improve the management and sustainable use of water resources
- Develop a flexible approach to land use planning in order to adapt to land use changes resulting from climate change, economic diversification and future growth trends
- Recognise the importance of environmental assets for the delivery of a range of environmental values, including a range of ecosystem services and economic opportunities through market-based instruments such as the native vegetation offset markets

Map 7: *Environment and heritage future directions*

Encourage the sustainable expansion of cultural heritage and nature-based tourism.

Avoid or minimise the impact of development on high value environmental and cultural heritage assets, including significant landscapes.

Enable the establishment, protection and reconnection of ecosystems through large-scale native vegetation corridor projects.

Reduce the impact of development on high value coastal, estuarine and marine assets.

Manage growth to help maintain the health of water supply catchments.

Manage risks to settlement growth from natural hazards.

Legend:

- Settlement
- Major road
- Aboriginal cultural heritage, places and landscapes[1]
- Historic places
- Shipwreck coast
- Significant landscape: State[2]
- Significant landscape: Regional[2]
- Areas containing high value terrestrial habitat[3]
- Public land
- Declared water supply catchment
- Regionally significant wetlands[4]
- Rivers
- Estuaries
- Shorebird sites
- Marine parks and reserves
- Urban flood considerations[5]
- Urban bushfire considerations[6]

Note: Other areas contain significant environmental assets that should be considered in detail through any finer scale planning.

(1) Many other Aboriginal heritage sites, places and objects occur across the region
(2) Coastal Spaces and South West Landscape Assessment Study (draft areas subject to change)
(3) Represents the three highest levels of NaturePrint strategic natural values
(4) Legislatively protected wetlands
(5) Urban flood considerations are based on existing overlays
(6) Bushfire considerations may be based on one or more of the following: existing overlays, advice from CFA or Regional Bushfire Planning Assessments. Does not include Bushfire Prone Areas.

Source: Department of Transport, Planning and Local Infrastructure

12.2 Environment and heritage assets

Cultural heritage

The region contains some of Victoria's best-known national parks, landscapes and Aboriginal cultural heritage and historic heritage places. These include part of the national heritage listed Great Ocean Road, the Grampians National Park, the Budj Bim National Heritage Landscape, the Kanawinka Geopark, lighthouses, Flagstaff Hill Maritime Museum and other maritime features and outstanding architecture and built heritage throughout the region. There are also numerous landmark destinations including picturesque and historic villages such as Port Campbell, Koroit and Port Fairy.

The whaling and seal industry was active in the region from the early 1800s, with the industry establishing a whaling station in Portland Bay prior to the establishment of Victoria's first permanent European settlement at Portland in the 1830s. There are still over 200 buildings within Portland from these early activities. Once the settlement was established agricultural activities developed around the area. Whaling activities also occurred across much of the region's coast, such as at Warrnambool, Port Fairy and Peterborough. There are over 200 shipwrecks along the coast between Port Fairy and Cape Otway, many of which would have been carrying immigrants during the gold rush. The 'Shipwreck Coast' is a well-known tourist destination.

The Budj Bim National Heritage Landscape incorporates the Mount Eccles-Lake Condah area, and the Tyrendarra area. The Budj Bim National Heritage Landscape was included on the National Heritage List in 2004, in recognition of the landscape's outstanding heritage value to the nation, its significant Aboriginal heritage and its value to all Australians. The landscape is protected under the *Environment Protection and Biodiversity*

Conservation Act 1999. The Budj Bim area contains one of Australia's largest aquaculture systems. The system dates back thousands of years, showing evidence of a large, settled Aboriginal community systematically farming and smoking eels for food and trade.

The Condah Mission Station existed from 1868 to 1950. Following the *Aboriginal Land (Lake Condah and Framlingham Forest) Act 1987*, the 53 hectare former reserve was vested to the Kerrup Jmara Elders Corporation before it was eventually vested to the Gunditj Mirring Traditional Owners Aboriginal Corporation (Registered Native Title Corporate) in 2008 by the federal government.

Other significant Aboriginal places include the Convincing Ground at Allestree where the first recorded massacre of Aboriginal people allegedly occurred in 1834[4] and the Framlingham Aboriginal Reserve, established in 1861.

There is an opportunity to strengthen the region's tourist product so that it can become a major national destination, particularly by increasing development associated with nature-based attractions and cultural heritage. Regional cultural heritage should be more widely promoted and linked to broader tourism experiences such as recreational fishing, surfing, whale watching, volcanic landscapes, iconic walks and coastal features.

Land use policies, strategies and actions

- Apply suitable planning tools to identify and sustainably manage key cultural and heritage assets
- Aim to retain the character and heritage of historic towns
- Develop stronger links between environmental and heritage assets across the region and support appropriate tourism development associated with these assets

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4   Heritage Victoria, Statement of Significance.

Native vegetation and terrestrial habitats

Forested areas on public and private land and nationally significant habitats such as the Basalt Plains Grasslands will play a role in ensuring the region's productive future. These assets need to be managed and protected, but also create opportunities for economic diversification. Activities such as management of ecosystem services, on-farm carbon sequestration and initiatives to improve the quality and extent of native vegetation help to better integrate natural resource management into agricultural, rural residential and industrial land uses.

Coordinated planning will help identify where such activities can complement land use change and growth, while considering other aspects of catchment management, such as impacts on water quality, water yield and bushfire hazards.

Land use policies, strategies and actions

- Encourage appropriate integration of natural resource management and land use planning activities

Waterways

The region includes parts of six natural water catchments: the Glenelg River, Hopkins River, Lake Corangamite, Portland Coast, Otway Coast and Millicent Coast catchments. Each of these catchments includes various rivers and creeks. Part of the Glenelg River is listed and protected by legislation as a heritage river. There are numerous environmentally important wetlands in the region including those listed in Ramsar and the Directory of Important Wetlands in Australia. Many rivers and lakes within the region are critical for attracting tourism, particularly in smaller settlements. Waterways also provide recreational opportunities and support significant Aboriginal cultural heritage values. Land use planning needs to consider the impacts of growth on these assets to protect their values.

Land use policies, strategies and actions

- Utilise land use planning controls to reduce threats to waterways from urban and rural land use changes, such as changes to flow regimes and water quality impacts
- Develop consistent and suitable planning tools across the region to protect the values that waterways provide to the region's economy and community

Coastal, estuary and marine assets

Victoria's south-west coast contributes significantly to the region's economic, cultural and environmental values and the recreational activities of its residents and visitors. The coastal zone contains significant ports and industry and many areas of the coast and the marine environment present opportunities for economic and population growth. The Bonney Upwelling, an area of nutrient-rich water off the south west coast, plays an important role in the life cycle of marine species such as blue whales and southern bluefin tuna. Land use planning needs to recognise the significance of coastal and estuarine environments and protect them appropriately.

Land use policies, strategies and actions

- Carefully manage growth around coastal, estuary and marine assets to protect environmental values, while achieving regional economic and community benefits
- Recognise, manage and protect significant coastal, estuary and marine assets to maintain the amenity of the region

Water supply catchments

The quality and quantity of water supply is critical to the continued liveability and economic success of the region and to provide for proposed population growth. Pressure for increased settlement and tourism development in some declared water supply catchments (supplying water for human consumption) needs to be carefully managed. Some expanding land uses, such as forestry plantations, have implications for catchment run-off and groundwater levels.

Council domestic wastewater management plans will help to manage land use planning for appropriate settlement and economic activity in these areas.

Land use policies, strategies and actions

- Identify the most appropriate locations for expanding commodities, especially timber production, to minimise impacts on the region's water supply (surface and groundwater)
- Prioritise growth to established settlements where water and wastewater can be managed

Soils

Healthy and productive soils are essential for the continued economic success of the region, particularly for food and fibre production. Ongoing maintenance and improvement of soil within the region is essential. Land use planning can assist by restricting land use changes that may result in deterioration of the soil asset or contribute to pollution of waterways.

Planning tools such as the Environmental Significance Overlay or the Erosion Management Overlay can be used to sustainably manage soils across the region. As part of improving integration between strategic natural resource management and land use planning, such planning controls will be developed in close collaboration with key catchment and local government stakeholders.

Encouraging the best use of the region's strategically important agricultural land (including soils) is important to achieving the objectives of this plan so that this land is not lost to urban encroachment or other inappropriate uses or development.

Land use policies, strategies and actions

- Define strategically important agricultural and primary production land across the region and use land use planning mechanisms to sustainably manage its use for these purposes

- Use overlays to assist appropriate soil conservation and use

Significant landscapes

There are many significant landscapes in the region, identified through the South West Landscape Assessment Study and the Coastal Spaces Landscape Assessment Study, with a further study underway in the Southern Grampians Shire. These studies assess the visual character and significance of the landscape in order to prepare planning guidance on retaining and respecting landscape values. The recommendations of the Coastal Spaces Landscape Assessment Study have been implemented across the region. Some broad area landscapes have been designated through the South West Landscape Assessment Study as regionally significant and others as of state significance (or higher).

Land use policies, strategies and actions

- Apply the Significant Landscape Overlay to recognise and sustainably manage significant landscapes

- Carefully manage the landscapes between settlements to protect and retain the visual amenity of the region, particularly in the areas identified for corridor growth[5]

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5   See Section 13 – Living in the region.

12.3   Natural hazards and risks

Natural hazards and risks need to be explicitly considered in land use planning to identify growth and development opportunities across the region in areas that are not constrained by natural hazards. Responses to identified risks need to be proportional to the extent and nature of the risk from natural hazards.

Flood

The risks presented to land use from flood hazards must be considered in strategic and localised planning decisions. Land use planning decisions should be based on the best quality information on flood hazards to minimise risk to life, property, community infrastructure and environmental assets. Accurate flood mapping is critical in this regard.

Flood provisions in planning schemes should be used consistently across the region to avoid inappropriate development (or redevelopment) or require appropriate development responses, as well as to apply design responses through the building code.

This plan has been informed by existing flood studies that consider risks to growth on a regional level, particularly in relation to settlement growth (see Map 8: Future regional settlement framework).

Bushfire

Within the region there is a strong correlation between areas of high fire risk with settlements and areas that are experiencing rural residential and tourism expansion. Planning considers bushfire risk with the assistance of planning tools such as the Bushfire Management Overlay, Regional Bushfire Planning Assessments and Bushfire Prone Areas, as well as input from key authorities such as the Country Fire Authority. This plan has been informed by existing bushfire information and mapping regarding risks to growth on a regional level, particularly in relation to settlement growth. New mapping is being prepared and will more accurately reflect areas where bushfire hazards require specific bushfire protection measures to reduce risk to an acceptable level.

When addressing bushfire risk, community resilience to bushfire will be strengthened by:

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

Potential acid sulfate soils

Coastal acid sulfate soils are known to occur in areas of the Great South Coast region and there is a high probability that acid sulfate soils also exist in association with inland wetlands. These soils should remain undisturbed to prevent serious consequences to infrastructure and human health that can result from their mismanagement. The regional level growth identified within this plan considers the potential for acid sulfate soils.

Climate change and coastal hazards

The Great South Coast Regional Strategic Plan recognises the risks to natural resources, environmental and cultural heritage assets and agricultural systems from the potential impacts of climate change, along with potential opportunities for economic diversification such as new industries. Projected changes in climate within Victoria include more days over 35°C and higher annual mean temperature, reduced average rainfall and stream flows, fewer and heavier rainfall days, possible sea level rises and storm surges. These projections suggest an increased risk of bushfire, heatwave, flood, drought, and coastal impacts. Future land use planning decisions should be based on the best available information about the potential impacts of, and adaptation to, climate change.

More information is needed on the likely impacts of climate change on existing and emerging industries across the region to assist with strategic land use planning, including consideration of any potential increase in risks associated with natural hazards.

The Victorian Climate Change Adaptation Plan, regional catchment strategies and local government projects outline proposals to develop climate change adaptation plans, improve knowledge of the impacts of climate change in the region and to identify opportunities for carbon sequestration in the landscape.

Coastal hazards include coastal inundation, saline intrusion, coastal erosion and damage to engineered coastal features, such as groynes. Coastal hazards are already considered in planning decisions for developments along the coast, and their consideration will be increasingly important as climates change. Important built assets, infrastructure and environmental and cultural assets along the region's coast may be at increased risk due to coastal storms, sea level rises, coastal erosion and inundation as a result of climate change. Losses in residential and commercial property, services and infrastructure may potentially occur as a result of these events. Areas most vulnerable to inundation are the immediate foreshore and low-lying coastal areas in the region.

This plan considers the potential increase in coastal hazards and supports the coordination of climate change adaptation initiatives across the region. As natural resource management and other agencies continue to investigate the implications of coastal hazards and climate change, new information should be incorporated into strategic planning. The current local coastal hazard assessment for Port Fairy will assist with such planning.

Land use policies, strategies and actions

- Exchange mapped and modelled data of environmental assets and natural hazards to provide for accurate interpretation of the best available data in planning decisions

- Encourage natural resource management agencies to consider implications for land use planning, for example when preparing sub-strategies under regional catchment strategies or identifying strategic locations for large-scale vegetation planting (corridors, carbon farming, ecosystem services and offset market activities)

- Recognise and protect the region's high value environmental assets, in particular habitat values

- Undertake research and a climate change adaptation plan to understand and model climate change impacts on agricultural areas and associated smaller settlements and settlement networks

- Settlement planning and rural residential decisions should prioritise human life and respond to the following principles with regard to bushfire risk management:
    - direct development to locations of lower bushfire risk
    - carefully consider development in locations where there is a significant bushfire risk that cannot be avoided
    - avoid development in locations of extreme bushfire risk
    - avoid development in areas where planned bushfire protection measures may be incompatible with other environmental objectives

13. Living in the region

13.1 Overview

The population of the Great South Coast region is forecast to continue to grow to 131,000 by 2041[6].

This plan targets a higher than forecast population growth scenario for the region as the basis for a stronger local economy, more liveable communities and sustainable infrastructure and services. Given the region's ageing population, more workers are required to support the growth of existing and new industries.

Higher population growth would see the region's total population potentially reaching 142,000 by 2041 and 160,000 by 2050. This would include Warrnambool reaching a population of 55,000 by 2041.

Based on this population aspiration, the number of households in the region will increase from around 54,800 to approximately 59,800. Growth profiles will be uneven across the region, with higher rates of population increase forecast in the southern and eastern parts of the region, and Warrnambool expected to experience significant growth.

High levels of amenity, population, housing, services and the role and function of settlements all increase liveability, attracting people to any region. The amenity of established residential areas should be enhanced while providing new and more diverse housing opportunities in areas where appropriate services can be delivered. Land use planning can help create attractive towns by protecting and building on the attributes that are valued by local communities and that contribute to a settlement's distinctive character and identity.

Settlement patterns in the region have been strongly influenced by transport corridors. Future growth will be promoted in locations that are well supported by existing transport networks and in particular locations with capacity for transport enhancements. The plan identifies settlements that have the greatest opportunities to attract economic and population growth based on a consideration of factors such as current infrastructure levels, economic and demographic trends and proximity to major centres beyond the region.

This growth will avoid areas at high risk from natural hazards such as bushfire and flood, and protect environmental and cultural heritage assets. Based on available information, there is sufficient residential land supply (either zoned or strategically identified) throughout the region to cater for the target growth levels identified in this plan. However, if growth remains modest, economic development and living standards enjoyed in the region will be at risk due to workforce constraints and the possible lack of skills to service the economic, health and social requirements of the region.

This plan identifies the future directions and actions that will support and encourage higher growth, in accordance with the principle of attracting people to the region. The region's liveability, natural environment, infrastructure and existing industry contain opportunities to support higher growth and a sustainable region.

Future population growth will be accommodated across the existing network of towns. The region has a diverse range of large and small settlements that have complex relationships with each other. This includes sub-regions focused on Portland, Hamilton and Warrnambool that have different drivers of development and change. Many small settlements are not large enough to be self-sufficient and require good access to other towns and regional centres outside the region (Colac, Mount Gambier and Horsham) for a range of services, economic activities, education, health, community activities and recreation. Major centres outside the region such as Ballarat and Geelong also provide these services to Great South Coast residents.

Map 8 shows the future regional settlement framework.

6   Based on projections from Victoria in Future 2012.

Map 8: *Future regional settlement framework*

Source: *Department of Transport, Planning and Local Infrastructure*

The settlement hierarchy of the region reflects the diversity of the region and the roles played by various towns. The major regional city of Warrnambool is the dominant settlement and service centre for the region. Portland to the west and Hamilton to the north are also important regional centres. Networks of smaller towns surround each of these major centres. However, approximately 50 per cent of the region's population lives outside the three major cities and smaller towns and settlements play a critical role in the social, environmental, and economic functioning of the region, its liveability and resilience.

The relationship between towns is often based on historical, social, transport and economic connections rather than the distance to each other. Connectivity to major regional centres drives growth and change and increases community resilience. Public and community transport are therefore crucial to maintain access to employment and services.

Hamilton plays a significant role servicing areas to the east in the Central Highlands region, to the west in the Limestone Coast region and to the north in the Wimmera region. The roles of these townships and the linkages created are a key feature of the Great South Coast settlement framework. Growth in Hamilton and Portland will support the social, economic and environmental fabric that weaves these networks together and allows smaller townships to remain viable. A network approach to development will limit social disadvantage and improve community resilience associated with lack of employment opportunities in many smaller settlements.

Hamilton will continue to support the network of regional towns surrounding it, from Coleraine in the west and Cavendish in the north, across to Dunkeld and Glenthompson in the east. Numerous small settlements in this area, such as Tarrington, will rely on the effective functioning of the network to remain liveable and provide lifestyle alternatives for residents.

The relationship between Portland and Heywood, and other small settlement towns in this area, is expected to become more interdependent over time. Residential growth opportunities in Portland are somewhat constrained and the expected growth of the Port of Portland requires additional skills and workers to be available within commuting distance.

Coastal regions have their own unique pressures, often as a result of their high levels of liveability and increased populations over holiday periods. Medium growth is expected in the key coastal settlements of Port Fairy and Port Campbell, but they may come under pressure for growth. There are natural and policy barriers and infrastructure constraint to high growth in these towns. Managing the rate of growth in these areas will be a challenge, together with some of the consequences of limiting growth, such as reduced housing affordability.

District and smaller towns perform an important role by providing services to local catchments, for example Terang and Camperdown, and providing alternate lifestyles to adjacent larger towns, for example Allansford. Many of these towns face challenges in demographic change such as adapting to an ageing and declining population. Some towns, such as Port Fairy, have a unique role and contribute to the identity and liveability of the entire region. Further examples include Dunkeld, which has a clear role as a niche tourism provider, whereas Coleraine, with its newly developed medical facilities, can provide services to many smaller settlements in its immediate area.

Future directions

- Support a 'network of towns' approach to planning, development, infrastructure, transport and service provision

- Promote the region's lifestyle advantages and employment opportunities to attract people to the region including young families and skilled workers

- Support growth in towns that have easy access to regional cities or regional centres, including Warrnambool, Colac, Ballarat and Geelong, and along two primary corridors: east-west (Princes Highway) and north-south (Henty Highway)

- Direct urban development to existing townships including identified growth areas, undeveloped land and infill opportunities within existing town boundaries

- Reinforce the role of Warrnambool as the key population and employment centre for the region with key links back to the cities of Geelong and Melbourne, and support growth in Hamilton and Portland to reinforce their service centre role and the expected increase in economic activity in these locations

- Reinforce the role of district towns in supporting local communities, industry and services and support the connections from district towns to regional centres and cities

- Support towns with limited opportunity for growth to sustain their communities and key services and improve connections to larger towns

- Support the provision and maintenance of infrastructure and services to enable the growth of settlements

- Plan for sub-regions or settlement networks to manage growth, create or retain local identity, support service delivery, avoid land use conflicts, manage natural hazards and sustainably manage environmental and cultural heritage assets

- Protect and promote the liveability and amenity attributes of towns, together with their festivals and events that are critical in attracting and retaining residents, businesses and visitors

- Set aside land surrounding key educational and health institutions to encourage co-location, clustering and collaboration, and build connections between institutions and major centres throughout the region

- Encourage co-location, collaboration and clustering of community services, health and education providers (including early years) and recreational infrastructure, to create a network of active community hubs across the region

- Promote healthy and active lifestyles through land use planning, including adequate levels of open space and off-road trails for accessibility, and passive and active leisure pursuits

- Improve access to health services and raise educational attainment levels throughout the region

- Support industry through population retention and growth across the region, particularly in locations where continued economic and industrial development is expected

- Develop linkages to other regional cities and Melbourne, to bring the region 'closer' to these cities

- Maintain discrete settlements and breaks between settlements, both for the integrity of urban and rural character and to minimise potential land use conflict

- Direct rural residential development towards existing locations and designated areas around townships so that it will not compromise agricultural use, economic opportunities, urban development or environmental policy objectives, and to avoid areas of high environmental value or areas subject to high risk from natural hazards, especially bushfire, flood and coastal hazards

- Protect significant environmental and cultural assets that underpin the character and liveability of the region and ensure industrial activity is separate from sensitive areas
- Direct development on the coast to locations within existing modified and resilient environments where the demand for development is evident and the impact can be managed
- Manage the potential risk to assets and infrastructure from severe coastal erosion and inundation
- Locate higher order services according to assessments of population, need and demand
- Locate social infrastructure so it is accessible to residents, transport services, employment and educational opportunities, and is consistent with the role of each settlement as part of a regional network settlement
- Support the renewal, maintenance and improvement of health and educational facilities
- Encourage new and renewed housing stock that is in keeping with the character of settlements, contributes to vibrant city centres and responds to the needs of present and future residents
- Promote diversity of housing to ensure affordability, access for people with disabilities and older people, and options for students around major educational and health institutions

13.2 Regional settlement strategy

A regional settlement strategy requires land use planning to consider the functioning of towns and settlements collectively, rather than treating individual settlements in isolation. Understanding the function each settlement plays in the network can inform specific planning and infrastructure requirements. Roles in the network may change over time as settlements grow and change.

The Great South Coast region benefits from its existing settlement pattern by supporting growth in Warrnambool, Portland and Hamilton, which provides services, housing and jobs throughout the region.

These and other centres will continue to attract retail, commercial and higher order services based on regional needs and demand as well as population.

Settlements along the Princes Highway and Henty Highway corridors will be the focus of growth in the region as these are key infrastructure corridors with links to the Geelong region to the east and the Wimmera region to the north. There is adequate residential land supply within township boundaries to accept increases in population, with Warrnambool having designated future growth areas.

Parts of the region east of Warrnambool will support medium growth. This area is well placed to capitalise on predicted population increases given its available supplies of residential land, significant levels of existing infrastructure and services, and lifestyle choices that include commuting to either Warrnambool or Geelong. Further industrial zoned land is required to support development opportunities in the agriculture and energy sectors.

In the west of the region, Portland, Heywood and Hamilton will support medium growth. With key infrastructure, primary production, processing and links to wider production activities, the area is well placed to attract economic development. The corridor from Portland to Heywood has been strategically identified for industrial development.

Warrnambool will continue to be the predominant growth area of the region, growing its population and attracting new and improved services to the region. It will facilitate growth in adjacent towns, including Port Fairy and Koroit that provide unique lifestyle choices.

To support the network of towns, population growth and urban development should be directed to existing centres. New isolated urban development can remove land from agricultural production and provide challenges for servicing, risk management, and supporting existing communities. This can be avoided by having local structure plans for towns and ensuring adequate zoned and serviced land is provided for development.

Land use policies, strategies and actions

- Identify new land for industrial uses where required to support economic development and use existing infrastructure, including around townships in the region's east and along the Portland-Heywood corridor
- Identify urban growth areas (notably around Warrnambool) and provide sufficient zoned and serviced land for industrial, commercial, residential and open space and community uses
- Design and manage open space areas for multiple uses, such as community gardens, sports and recreation, active transport routes, wildlife corridors, and flood storage basins
- Plan for a network of settlements based around Warrnambool, Hamilton and Portland drawing on the proximity to services, affordable living and a variety of lifestyle opportunities of surrounding towns
- Plan for the network of settlements in the east of the region including Terang, Mortlake, Cobden, Timboon, Camperdown and Port Campbell
- Identify impediments to growth and coordinate land and infrastructure supply to support the growth of settlements
- Support integrated land use and transport planning, settlement planning and infrastructure priority and needs analysis that efficiently provides access to services and employment across a network of towns throughout the region
- Establish or reinforce settlement boundaries to balance population growth with sustainable land management

13.3 Liveability

The standard of living offered in the region is a current and prospective competitive advantage. The quality of living environments and diversity of choice mean residents have a unique combination of lifestyle options. Maintaining these high standards is critical to the region retaining existing residents and attracting new ones.

Features of environmental value will be complemented through an attractive range of urban environments, from larger centres to smaller settlements. The landscapes, boulevards and botanic gardens connect to the region's past while providing distinctive character and amenity to towns.

Connectivity to key services and employment options that are diverse and geographically spread will be enhanced by planning for networked towns and communities, to reduce the need for long-distance commuting. Improved public transport along key corridors will enhance the region's liveability.

Land use planning has a major role to play in enhancing liveability. Enhancing the diversity and roles of the region's towns and settlements will assist in maintaining settlement character, key attributes and heritage values. A combination of heritage, urban design, neighbourhood character and environmental controls will be needed to preserve each settlement's assets. This approach will also guide programs to implement change in some communities.

Liveability will be supported by proximity and access to services, education and employment. The region has a dispersed population with nearly half living outside the three main centres. With an ageing population and modest average household incomes, the region will continue to rely on its predominantly road-based public transport network to connect communities.

Land use policies, strategies and actions

- Encourage infrastructure that enhances the liveability and attractiveness of the region to residents and commercial activities
- Direct major growth and urban development to existing centres, to maximise efficient use of infrastructure and sustain communities
- Support design guidelines and heritage controls to promote and enhance the uniqueness, attractiveness, valued character and healthy lifestyles of towns
- Encourage urban development that promotes and supports high quality streetscapes and urban design, and contributes to attractive, high amenity and healthy urban environments

13.4 Linking to other regional cities and metropolitan Melbourne

The metropolitan planning strategy discussion paper, *Melbourne, Let's talk about the future*, highlighted the need to understand the growth and roles of regional areas in more detail, and their interactions with metropolitan Melbourne. The growth of Ballarat and Geelong as adjacent regional cities provides benefits for the Great South Coast region. These cities will be amongst the fastest growing in Victoria and will provide a strong market for Great South Coast tourism and other products. The transport network links the region to Geelong and Melbourne including to the Port of Geelong, Avalon Airport and the Port of Melbourne.

The Great South Coast region has significant economic and social interactions with the G21 region and Melbourne in terms of freight movement, access to key services (including health and education) and the operation of the region's economy. A prosperous region that continues to grow in economic strength can offer an attractive alternative to Melbourne and other regions. Upgrading existing connections and developing regional cities, such as Warrnambool, will make them an attractive alternative to metropolitan areas and help facilitate their role in areas such as agribusiness, manufacturing, education and tourism. If the region does this successfully, it will be well placed to accommodate growth.

Land use policies, strategies and actions

- Investigate improvements to road and rail connections to regional cities in adjoining regions and to Melbourne, for example between Warrnambool and Geelong

- Identify the strategic opportunities and impacts to facilitate linkages between regional cities from significant growth areas in the G21 region.

13.5 Rural residential development

Rural residential development may attract new residents to the region, but such developments can lead to conflicts between residential and other land uses. Rural residential areas are often used as a way to create a buffer between towns and farming zones. Smaller lot sizes may undermine this approach and could create infrastructure issues and distort local property markets. This form of land use is not preferred in farming areas as it uses productive agricultural land in an inefficient manner. The market-driven dispersal of dwellings throughout rural areas may also place individuals and communities at risk from natural hazards such as bushfire.

Land use policies, strategies and actions

- Manage rural residential development by locating it in areas that:
  - consolidate this form of development to provide servicing efficiencies next to existing townships
  - are adjacent to towns with limited growth demand to sustain population levels and communities
  - avoid unmanageable exposure to natural hazards, especially bushfire, flood and coastal hazards
  - avoid impact on regional assets including highly productive land
  - are not strategically identified for standard density urban growth

- Monitor the supply of rural residential land to better understand the needs of various settlement networks and sub-regions of the Great South Coast

13.6 Coastal areas and management

Victoria's south-west coast[7] contributes significantly to the economic, cultural, environmental and recreational life of the region's residents and visitors. Coastal and marine environments are highly valued. The coastal zone contains rich environmental and heritage assets along with significant ports and industry. Attractive landscapes and coastal amenity make it a desirable place for other uses such as residential and tourism.

Land use policies, strategies and actions

- Coordinate land use planning responses and further implement coastal action plans
- Plan and manage coastal population growth and increased visitation so that impacts do not cause unsustainable use of coastal resources
- Identify clear settlement boundaries around coastal settlements to ensure that growth in coastal areas is planned and coastal values are protected
- Encourage the use, development or management of private land adjacent to coastal Crown land to support the long-term maintenance and conservation of the coast's environmental assets
- Avoid linear development along the coastal edge and major transport routes, and within rural landscapes, to preserve areas between settlements for non-urban use
- Undertake coastal hazard assessments to determine the location and severity of existing and future erosion and inundation hazards, and the subsequent impacts on environmental and built assets

13.7 Housing diversity and affordability

The region has a wide range of alternative dwellings types. While housing affordability across the region is generally high, there are signs of stress in both accessibility and affordability around the major growth centre of Warrnambool and in areas where major projects have been undertaken.

Large-scale projects requiring housing for workers, students and seasonal industries, increasing demographic challenges and a need to increase the housing stock to accommodate population growth are all factors influencing the affordability and diversity of housing across the region. Many of these issues are more pronounced at a sub-regional level than others. Most towns have sufficient residential land to cater for forecast population growth past 2041.

However, the rate at which houses are needed will increase faster than population growth. An increase in the number of elderly residents across the region, and notably in some sub-regions, will require housing that is suitable for this age group. Affordable housing in towns in the region's north and west provides opportunities for renewal and economic development, particularly where there are existing infrastructure and services. There will be a need for affordable housing near major industrial centres, particularly across the southern part of the region, to attract families to the region. Transport and services will need to be located in close proximity to these homes and housing will need to have good access to transport and services.

There is a risk that housing demands associated with major projects, and seasonal industries, may drive up the price of existing homes and displace workers on lower wages in other industries. Creative solutions will be needed to overcome this problem. Ensuring appropriate social and community infrastructure to support families moving into the region on a temporary basis will be critical to encourage them to stay on.

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7   Coast refers to all private and coastal Crown land directly influenced by the sea or directly influencing the coastline.

To help develop regional centres into vibrant communities, residents will need to be attracted to live in central areas. Provision of housing alternatives and management of interactions between residents and other urban centre users will play a major role in developing these opportunities.

Land use policies, strategies and actions

- Recognise the importance of diverse and affordable housing, which takes into account emerging demographic, social, economic and sub-regional trends

- Allow for increased housing densities and infill developments in urban areas and locations that are accessible to shops, transport networks and other community services and facilities. Take into account the need for multiple users to integrate in such areas

- Support the provision of suitable housing for elderly people to cater for projected demographic change

- Support sufficient and affordable housing near major employment centres

- Develop a housing strategy that addresses the impacts on housing affordability and accessibility as a result of the influx of key workers on major projects such as wind farms, mining and forestry developments

13.8 Regional city

Warrnambool – Regional city

Future directions

- Support Warrnambool's role as a regional city and the key population and employment centre for the region by focusing major development in designated growth areas to the north west, south west, north and north east, while supporting the central business district as the primary location for retail, services and facilities

- Support connections to Hamilton and Portland and to the district towns surrounding Warrnambool, and improve the linkages to Geelong, Ballarat and Melbourne

- Identify and promote the economic and social benefits to the region that result from the growth of Warrnambool

- Build on Warrnambool's strengths in planning for growth, development and services. In particular:
  - enhance the civic and education precincts including consideration of accommodation needs within or adjacent to these precincts
  - capitalise on the strong health and education services that support Warrnambool and the broader region
  - acknowledge and celebrate Warrnambool's significant heritage, coastal and cultural assets

Warrnambool is expected to accommodate 50 to 60 per cent of the population growth in the Great South Coast under this plan, leading to an increase in the number of residents from 32,592 people to around 55,000 people by 2041. Warrnambool's growth will offer economic and social spill-over benefits for the region, including the attraction of new higher order services, facilities and services industries.

Health and community services are the largest employment sector in Warrnambool, followed by retail and commercial trade. These sectors are growing while the traditional manufacturing and wholesale trade base is stable.

Warrnambool's important professional services and administrative role is supported by the presence of state government agencies in the city. The city also plays a key educational role in the region, with the campus of Deakin University and South West TAFE attracting new residents from Melbourne, and several large public and private secondary schools. Warrnambool has two hospitals: South West Healthcare (Warrnambool campus) and St John of God Hospital. The former is a teaching hospital and provides a full range of medical, surgical and community health services to Victoria's south-west region. The hospital has recently been redeveloped and expanded. Future development of these sectors could offer additional benefits to the region by improving their linkages to the broader economy.

The strategic framework for Warrnambool is shown in Map 9.

Land use policies, strategies and actions

- Strengthen the role of Warrnambool's CBD as the region's primary location for retail, office, health, entertainment, cultural, civic and community facilities through the implementation of the Warrnambool City Centre Structure Plan and the Warrnambool Land Use Strategy

- Implement the Moyne – Warrnambool Rural Settlement Strategy

- Promote land use policy changes to accommodate increased housing choice in the central areas of Warrnambool

- Direct population growth into designated growth areas and investigate opportunities for further urban consolidation

- Capture sufficient development contributions in key urban growth areas

- Facilitate the development and expansion of the medical, railway station and education precincts

- Review height controls and policies that restrict medium density development

- Undertake further structure planning for identified long-term growth areas to the north-east of the city

- Direct employment growth into designated industrial areas including the new Horne Road Industrial Precinct in East Warrnambool

- Facilitate the expansion of the Eastern Activity Centre as the secondary retail centre and service centre in Warrnambool

Map 9: *Warrnambool strategic framework*
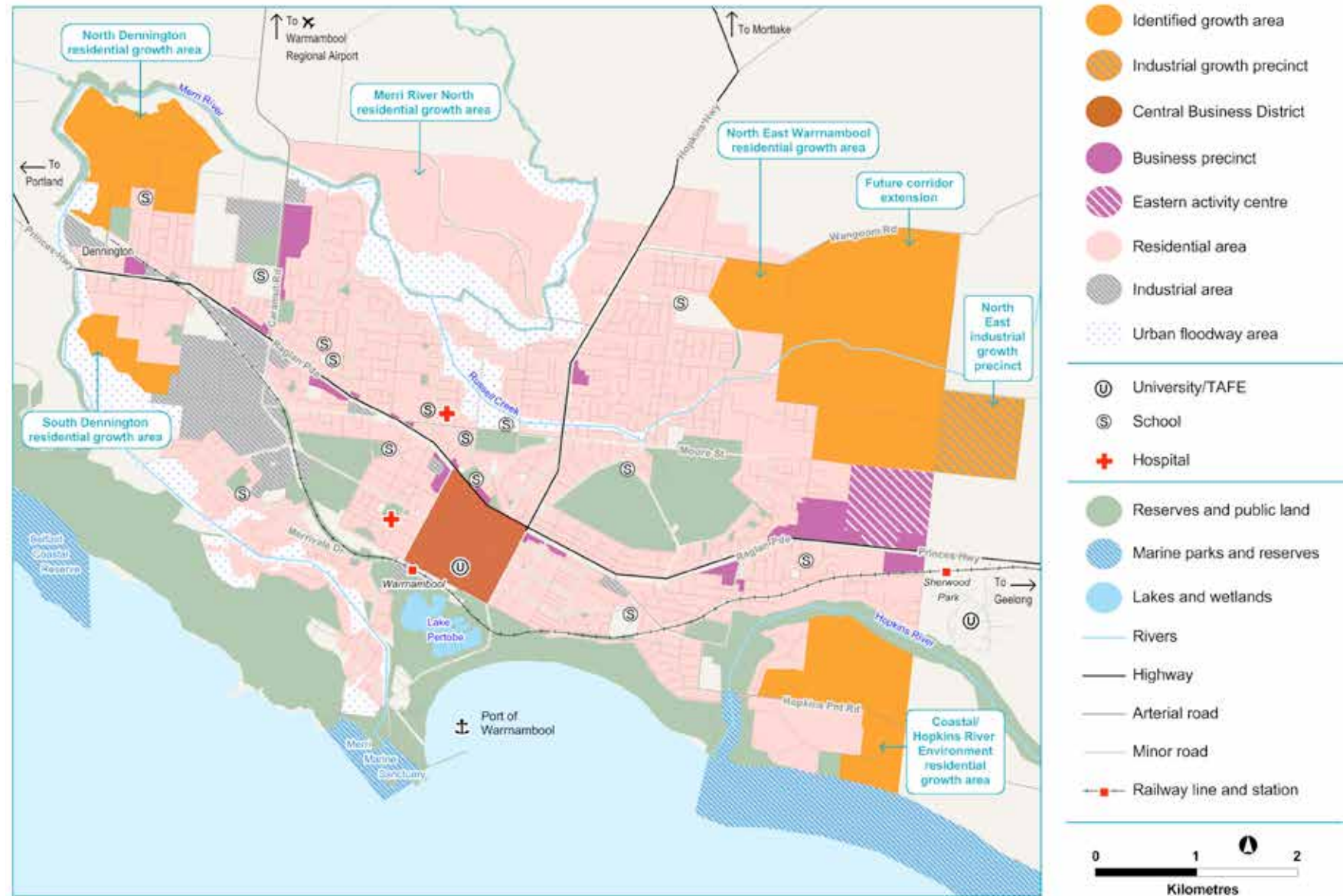
Source: Department of Transport, Planning and Local Infrastructure

13.9 Regional centres

Hamilton – Regional centre

Future directions

- Support the role of Hamilton as an important regional centre for the Southern Grampians Shire and as a gateway to northern regions
- Attract people and business to benefit from Hamilton's health, education and services while enhancing its research, processing and logistics functions
- Support the revitalisation of Hamilton's CBD as well as residential development within existing township boundaries while responding to the community's changing population and accommodation needs
- Plan for the sustainable supply and development of residential land, providing for infrastructure needs and the sustainable management of the environment, particularly around Lake Hamilton
- Better utilise and sustainably manage key assets of the town, in particular Grange Burn and Lake Hamilton, community parkland and heritage buildings

Hamilton has a strong retail centre and service sector. The latter includes employment-related health and significant tertiary and secondary education facilities that serve a wide catchment. Hamilton's reputation as a high quality education centre attracts a range of demographic groups to the city. Hamilton also plays a major role in servicing regional agricultural industries.

Hamilton, like Portland, is a major services centre for the surrounding sub-region offering agricultural, health, community, commercial, retail and government services. With highly regarded educational facilities such as an RMIT University campus and significant health services provided by Western District Health Services, its importance to the broader region is likely to increase over time. Hamilton also has the capacity to become a centre for high level technical and research services supporting rural and regional industries, building on its reputation as the capital of the western district. Growth in the mineral processing and wind farm industries will contribute to the resident population at least in the short to medium term, and generate service needs.

Hamilton performs a service centre role for a wide catchment, including beyond the region into the Wimmera Southern Mallee region. Hamilton's important professional services and administrative role is supported by the presence of state government agencies in the city and the National Centre for Farmer Health.
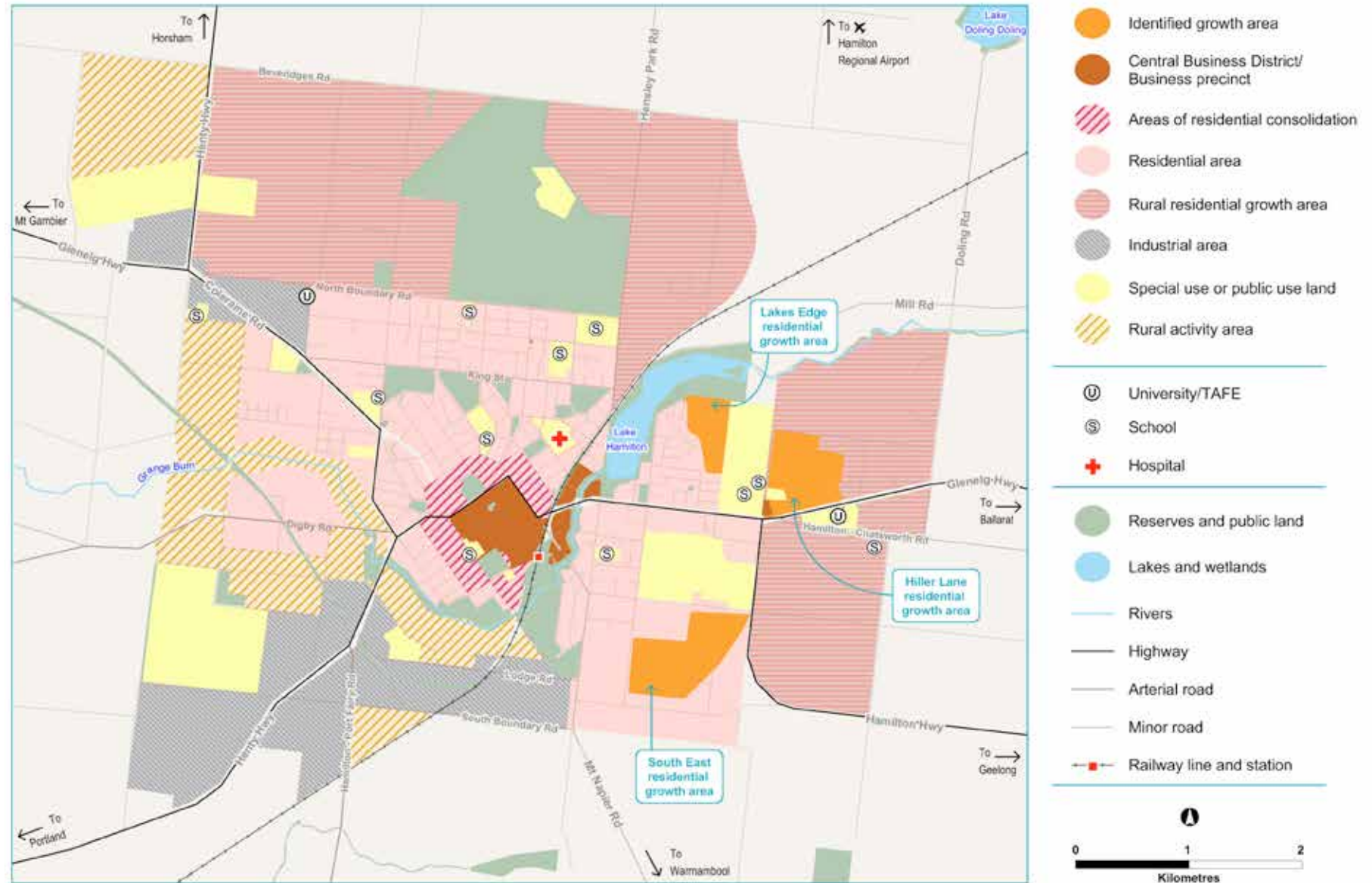
This plan promotes a growing, strong and vibrant Hamilton, offering high standards of liveability and significant lifestyle choices in Hamilton itself or in the settlement network surrounding and supported by it.

The strategic framework for Hamilton is shown in Map 10.

Land use policies, strategies and actions

- Implement the recommendations of the Hamilton Structure Plan
- Provide an efficient and safe primary transport route that supports CBD amenity and enhanced movement of freight through Hamilton
- Direct urban residential development growth to Hensley Park Road, Lakes Edge and South East Residential Precinct and plan for residential development in the Hiller Lane area
- Maintain the primacy of the Hamilton CBD as the preferred location for higher order retail, office, entertainment, cultural, civic and community facilities
- Consolidate industrial uses within two key precincts, the north-west Coleraine Road precinct and the south-west industrial precinct, with longer-term development south-west along the Henty Highway
- Utilise Hamilton's location and supply of zoned industrial land to develop freight and related service industries supporting key north-south and east-west transport corridors and infrastructure
- Ensure development in the south west area of the town does not compromise the ongoing operation and future expansion of the Hamilton Saleyards
- Establish a health precinct around the Hamilton Base Hospital and an education precinct around RMIT University's campus to the east of the city

Map 10: *Hamilton strategic framework*

Legend:
- Identified growth area
- Central Business District/Business precinct
- Areas of residential consolidation
- Residential area
- Rural residential growth area
- Industrial area
- Special use or public use land
- Rural activity area

- Ⓤ University/TAFE
- Ⓢ School
- ✚ Hospital

- Reserves and public land
- Lakes and wetlands
- Rivers
- Highway
- Arterial road
- Minor road
- Railway line and station

Source: Department of Transport, Planning and Local Infrastructure

Portland – Regional centre

Future directions

- Support Portland to service the region's south west and for the Port of Portland to be a national and international gateway for exports
- Support the function and development of the Port of Portland, access to the port and its linkages to Heywood
- Support Portland's CBD as the primary commercial centre of the Glenelg Shire and a hub of community, civic and cultural activity through growth to the north, increased tourism and a range of housing options within existing city boundaries
- Support opportunities to diversify the economy, taking advantage of environmental, heritage and infrastructure assets, and increasing industrial land supply
- Conserve Portland's unique cultural heritage

Portland is a nationally significant seaport gateway to global markets for the region and other parts of Victoria. Major economic growth is predicted for the town and its surrounding settlements, primarily in its port-related industrial base. There is also potential for tourism growth building on environmental and cultural heritage assets including nature-based tourism and for development of a cruise ship terminal. New energy servicing roles are expected to evolve, with the development of wave energy technology being centred in Portland. These growth opportunities need to be supported by labour market retention and infrastructure improvements.

Development of the Port of Portland is a key strategic growth priority, and support for this development is vital for achieving this plan's regional aims. The changing land use and economic impact of the development of the port will be a major driver of the urban design, infrastructure needs, industrial base and social cohesiveness of Portland.

To develop the industrial base of the sub-region, it will be critically important to align land use opportunities to existing infrastructure corridors and protect them from inappropriate development. The proximity of land to rail and road transport corridors will be important to attract industry. Council is to undertake further investigation into potential sites for industrial growth.

Like Hamilton, Portland has a major role as a service centre for the network of settlements that surround the town and are supported by it. In particular, Portland and Heywood are expected to develop stronger economic and social connections over the period of this plan.

Portland TAFE is located to the north-west of the hospital and near the rail corridor. This area could provide an opportunity to develop an educational precinct in a reasonably central location, subject to any rehabilitation of former industrial sites that is required.

The Portland and District Hospital has become the catalyst for a dedicated health clinic, including a specialist centre and nursing home to the south, a 'super clinic' to the west and general practice surgeries in a residential zone to the north. This is consistent with the projected requirements of a maturing community and the role of Portland as a major service centre. Further development of this precinct will be supported.

The strategic framework for Portland is shown in Map 11.

Land use policies, strategies and actions

- Investigate Percy Street, immediately north of Henty Street, for potential CBD expansion and provide for further expansion and development around the corner of the Henty Highway and New Street

- Support opportunities in the CBD to consolidate small lots, develop vacant sites and redevelop buildings that are past their useful life where this does not conflict with heritage values

- Preserve the rail corridor to maximise future service opportunities to better meet market needs

- Investigate former industrial land around Kennedy Street for future land use options

- Provide strong policy direction within the Glenelg Planning Scheme to reinforce the role of the CBD as the primary location for retailing and business within the sub-region

- Identify an alternative future use for fragmented land on the periphery of Portland through the planning scheme and protect larger rural lots from further fragmentation

- Implement foreshore revitalisation including improving connectivity between the CBD, foreshore and civic precinct

- Support land use and development that complements the Port of Portland operations

- Investigate the development of well-designed industrial estates near the Henty Highway and the Portland-Maroona railway and direct future heavy industrial uses to this precinct

- Investigate Portland West for rural residential and residential growth including preserving areas for long-term urban development

Map 11: *Portland strategic framework*
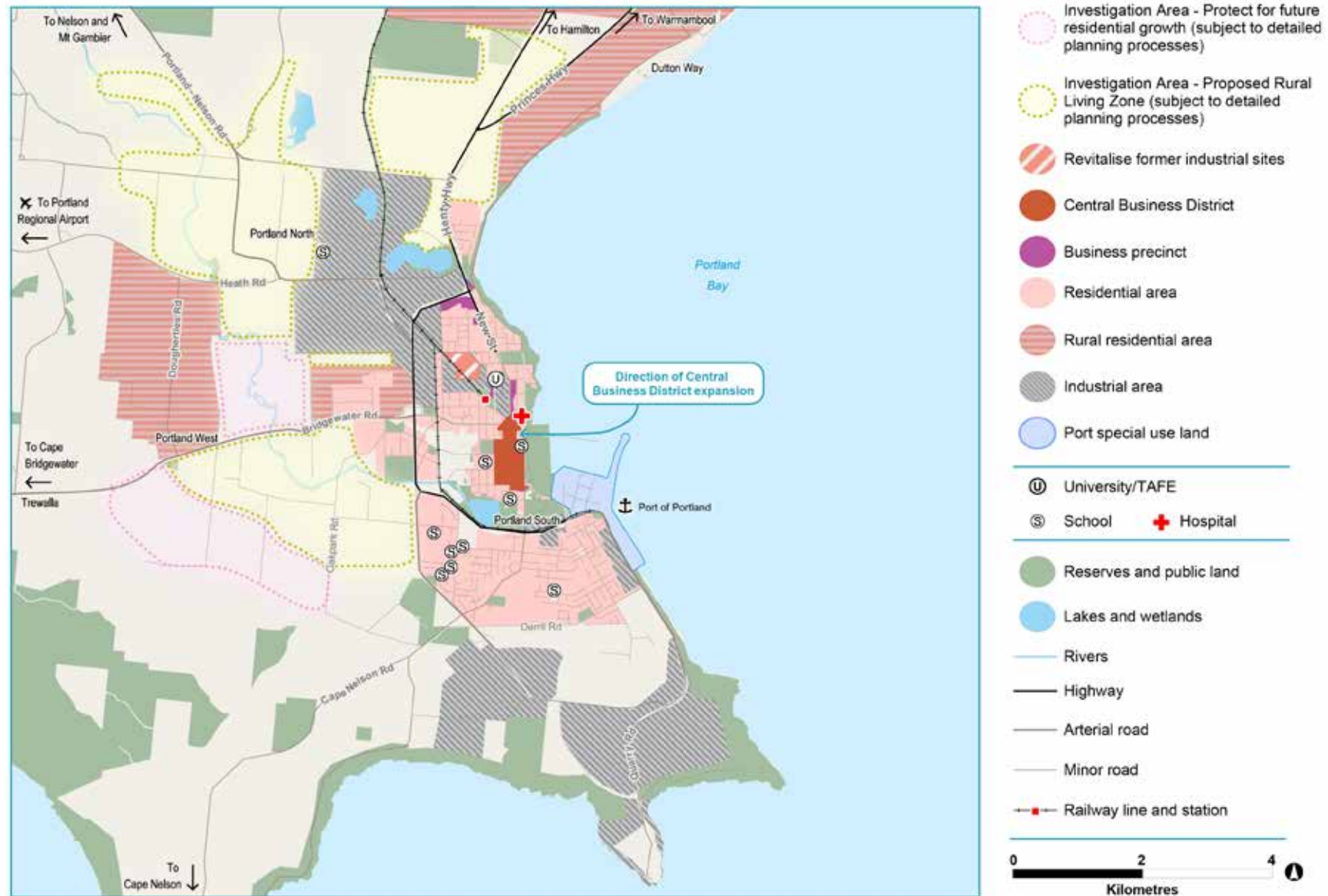
Source: Department of Transport, Planning and Local Infrastructure

13.10 District towns

Future directions

- Recognise and support the role of district towns in providing a range of middle order health, education, retail, municipal and emergency services

- Provide for residential growth through infill development and strategically identified growth areas

- Provide additional industrial land to facilitate employment, where required

- Maintain, enhance and promote valued character and environments

- Improve connections to adjacent district towns and Warrnambool, Hamilton and Portland

- Facilitate investment, development and attract more people, including through the provision of supporting infrastructure

- Encourage development that may help to retain younger people

District towns perform an important role by providing goods and services to sub-regional catchments and providing alternate lifestyles to adjacent larger towns, for example, Allansford. Some face pressures for growth, for example, Port Fairy and Koroit, while many need to adapt to an ageing and declining population.

This plan identifies potential growth in district towns, informed by the Great South Coast Regional Strategic Plan future settlement hierarchy, but does not limit unexpected opportunities or interventions.

This plan recognises that district towns will have different levels of population and economic growth informed by:

- past trends

- economic opportunities

- infrastructure and environmental constraints

- proximity to other growth nodes and regional cities and regional centres.

Land use policies, strategies and directions

- Implement actions from existing strategic plans including structure plans, strategy plans, development plans and urban design frameworks and the regional strategic plan where appropriate or still relevant, including as identified in Figure 3

Figure 3: *Land use policies, strategies and directions for district towns*

District town	Municipality	Growth level	Land use policies, strategies and actions
Allansford	City of Warrnambool	Medium growth	• Support the growth of the Sungold Stadium Speedway to foster employment opportunities • Encourage higher densities around the east and west nodes of Allansford • Encourage urban growth to expand into the existing Low Density Residential Zones by progressively rezoning land to Township Zone in Allansford
Camperdown	Corangamite Shire	Medium growth	• Encourage growth in agricultural services and manufacturing functions to generate employment opportunities • Encourage and attract residential growth through promotion of Camperdown's character and liveability
Casterton	Glenelg Shire	Support sustainable change	• Support Casterton's role as a centre providing services to the surrounding area of Victoria's western district and tourism opportunities linked to its history as the 'birthplace of the kelpie' • Direct development in Casterton to the western side of the township, which is not affected by the flood plain of the Glenelg River • Support development of Casterton's industrial estate to the east of the township around the Casterton saleyards • Investigate industrial opportunities in proximity to the gas pipeline
Cobden	Corangamite Shire	Medium growth	• Support industry development that builds upon natural resources, including dairying and tourism, and supports commuter living opportunities • Support continued residential growth to expand the commuter role of Cobden
Coleraine	Southern Grampians	Support sustainable change	• Maintain features and elements of the town that are integral to the social and community functioning of Coleraine as a place to live • Adhere to the original block and street subdivision pattern
Dunkeld	Southern Grampians	Medium growth	• Grow and diversify the economy including rural industry and the tourism offerings • Improve the 'main street' and enhance the pedestrian experience through the town and to the Grampians National Park • Enhance the rural and vegetated character and protect key views and vistas to the Grampians National Park and the rural surrounds • Provide a diversity of residential lot sizes to meet demand while minimising exposure to potential bushfire and flood risk
Heywood	Glenelg Shire	Medium growth	• Support tourism, including as a gateway to Budj Bim • Develop Heywood's residential corridors to the north of the Fitzroy River and the west of Beavis Street • Develop Heywood's industrial corridors based on the existing industrial area, and to the south, along the Princes Highway and the railway
Koroit	Moyne Shire	Medium growth	• Conserve historic heritage values and facilitate an appropriate level of commercial and industrial activity and community and health services • Provide protection for Koroit's heritage buildings and support sensitive town centre design • Support residential growth to expand commuter living opportunities
Mortlake	Moyne Shire	Medium growth	• Use the increase in tourist numbers to grow the town's service industry and take advantage of the Mortlake gas power station to attract economic growth and expand employment opportunities • Provide protection for Mortlake's heritage buildings • Investigate industrial opportunities in proximity to the gas pipeline
Port Campbell	Corangamite Shire	Medium growth	• Encourage appropriate development within the settlement boundary to protect surrounding land of significant environmental value
Port Fairy	Moyne Shire	Medium growth	• Maintain features and elements of the town that are integral to the social and community functioning of Port Fairy as a place to live • Avoid development in Port Fairy on flood prone areas or areas at risk from coastal hazards • Control Port Fairy's development to protect the quality and presentation of Port Fairy's setting, including the Moyne River and Belfast Lough • Retain the existing Port Fairy bypass route designated in the planning scheme
Terang	Corangamite Shire	Medium growth	• Support the local dairy industry and encourage growth in other industries • Support the continued growth of residential development to expand the commuter role of Terang • Support the provision of natural gas to Terang to facilitate economic opportunities
Timboon	Corangamite Shire	Medium growth	• Support the local dairy industry and encourage growth in other industries • Support continued growth of residential development to expand the commuter role of Timboon

13.11 Small towns

Future directions

- Plan for small towns to respond to local challenges including changes in demographic, migration and economic trends and help these communities to be adaptable and resilient
- Support and promote the valued character, affordability and lifestyle of small towns, particularly where there is good access to services and connection to larger towns
- Support small towns to develop stronger linkages to district towns and regional centres (a network of settlements approach) to strengthen access to services, improve community resilience and respond to economic and population challenges

Small towns across the region perform an important role in providing jobs, services and a community focus to rural areas. Many smaller towns have limited demand to grow or have constraints to growth, due to natural hazards and limited infrastructure. Some smaller towns perform an important tourism role, such as Dunkeld, which is currently experiencing a higher level of growth than other small towns in the region.

Others, like Nelson, experience significant changes in seasonal populations. Smaller towns, such as Tarrington, can also provide an affordable and alternative lifestyle to that found in larger centres.

Economic development opportunities are often welcomed, with small communities often better placed to manage localised amenity impacts. Smaller towns can overcome challenges by supporting boutique industry, developing unique attractions and attracting development that may not need to be located in larger centres, for example, aged care facilities.

Land use policies, strategies and actions

- Encourage planning and service delivery that takes account of communities of interest
- Support improved transport access between closely linked settlements
- Undertake planning for settlements significantly affected by changes in demographic, migration and economic trends
- Monitor the role of growing small towns to identify whether they should be elevated in the regional settlement framework
- Direct residential development to existing townships having regard to economic and environmental assets and natural hazards such as bushfire
- Support flexibility in planning schemes to facilitate housing and economic development, including tourism and industrial development
- Support infrastructure for seasonal population and tourism facilities

14. Regional infrastructure

14.1 Overview

Timely provision of infrastructure and services is required to support future growth and change in the region. Delivering a sustainable urban growth program requires development to be sequenced and provision of services to be scheduled accordingly. Some existing services and facilities may have to be augmented or replicated to accommodate new levels of demand.

Infrastructure plays a key role in liveability and economic prosperity and enables the region's natural resources to be converted into tradeable commodities. It is central to improving the connectivity of the region, which this plan sees as crucial for ensuring ongoing growth. Use of the settlement networks concept allows infrastructure requirements to be assessed from this perspective, rather than on the basis of individual townships.

Existing infrastructure facilities and networks, particularly the local and arterial road systems, need to be maintained and developed to provide an appropriate level of service. This plan contemplates a future where the region's natural resources are made more widely available to support regional growth and economic development. Limiting distribution costs and expanding the utilities network could enable energy to be made available more cheaply and more broadly across the region. This would provide a competitive advantage and support industrial development in the region.

Infrastructure important to the growth of the Great South Coast includes, but is not limited to:

- utility infrastructure (water, waste, gas, and sewer)
- transport infrastructure (road, rail, sea and air)
- public transport
- National Broadband Network
- telecommunications
- electricity
- marine infrastructure
- freight infrastructure
- Port of Portland
- tourism infrastructure
- community infrastructure.

Future directions for infrastructure in the region are shown in Map 12.

Map 12: *Future directions for infrastructure*

General Infrastructure
Identify new and improved infrastructure to support growth, including road, rail, water, waste, gas, sewer and social infrastructure. Maximise the efficient use of infrastructure and sustain communities by directing major growth and urban development to existing centres.

Infrastructure for growth areas
Plan and capture developer contributions and coordinate the delivery of infrastructure to ensure it is supplied efficiently and when required to support growth.

Transport connections (road, rail and sea freight)
Investigate improvements to the road and rail networks and port infrastructure to improve access and connectivity. Improved road connections and rail services to and from Warrnambool will facilitate its growth and support increased visitors to the region from Geelong and Melbourne. Improved road and rail connections to and from the west, north and north-east to Hamilton and Portland will support tourism, industry and community connections.

National Broadband Network
Encourage the early provision and take-up of the National Broadband Network by households and industry across the region.

Telecommunications
Improve the coverage and reliability of telecommunications across the region.

Electricity
Encourage local energy production and use with supporting smart electricity distribution systems. Encourage using the spare capacity in the 500 kV transmission line including improving local energy distribution systems and supporting adjacent energy production.

Marine
Support the sustainable development of the region's marine environment and infrastructure for industry and recreational uses.

Freight
Investigate industry need for an intermodal freight terminal. Maintain and enhance key infrastructure including the Port of Portland and direct transport links from production, processing and markets.

Port of Portland
Support the port's expansion through appropriate planning controls, infrastructure provision (particularly rail and road networks) and areas to meet the long-term industrial land needs in and around Portland, Hamilton, Heywood and Casterton.

Tourism Infrastructure
Maintain and develop tourism infrastructure to support and connect assets such as the Great Ocean Road, Great Southern Touring Route, Lake Condah and the Grampians National Park.

Community
Support the renewal, maintenance and improvement of health and educational facilities and other community infrastructure that enhance the liveability and attractiveness of the region.

Legend:
- Enhance processing capacity for local and inter-regional products
- Electricity transmission line (500 kV)
- Improved regional connection
- Investigate the future role and required infrastructure for regional airports
- Support the expansion of the Port of Portland
- Port
- Key road corridor
- Key rail corridor
- Sea freight
- Support the development of tourism infrastructure
- Public land
- Lakes and wetlands

0   25   50
Kilometres

Source: Department of Transport, Planning and Local Infrastructure

14.2 Water, energy and utilities

Growth in towns and agricultural production throughout the region will result in demand for additional water, energy and utility infrastructure. Efficient use of existing systems and preservation of utility infrastructure corridors have been considered in developing the population and settlement pattern proposed in this plan.

Electricity

Future directions

- Support continued development of the energy industry
- Develop a smart energy distribution system to provide low-cost energy to the region

The region aims to be an increasingly significant supplier of alternative energies over the next 30 years and to take advantage of locally generated power to attract new industrial development. Necessary infrastructure will need to be developed to ensure the energy can be distributed into the Victorian and national grid distribution systems as well as locally through a 'smart' energy distribution.

The region has a significant supply advantage in the form of the presently underutilised 500 kilovolt transmission line, which means additional energy production could be distributed at low marginal cost. However, the local distribution network is at 90 per cent capacity and will need to be expanded to ensure population and industry growth can continue.

Gas

Future directions

- Continue development of the gas industry
- Expand the pipeline network

The region has an extensive natural gas industry with wells located both on and off shore. Gas-fired power stations across the region are at varying stages of planning or development. Natural gas reticulation exists in key centres and there is an extensive pipeline network across the region. This network includes gas pipelines from South Australia through Casterton in the region's north-west through to Port Campbell with a number of branches, all providing economic opportunities for the region.

A key aim of this plan is to develop the eastern part of the region to take advantage of its location on the east-west corridor and its proximity to Geelong and metropolitan Melbourne. Due to the reliability and cost-effectiveness of natural gas, expansion to this sub-region is important to support economic and industrial development. Gas connection can facilitate residential and industrial development and further consideration could be given to the feasibility of extending the existing network.

Land use policies, strategies and actions

- Continue to develop the gas industry within the region
- Plan for a natural gas pipeline extension to the eastern part of the region
- Investigate increasing the number of towns connected to the natural gas network

Telecommunications (including NBN)

Future directions

- Encourage the early provision and take-up of the National Broadband Network by households and industry across the region
- Improve the extent, quality and resilience of the telecommunication network

Once the National Broadband Network is rolled out across the region (expected to be after 2015), major regional cities and towns will have fibre optic connections, with smaller settlements and rural areas serviced by fixed wireless.

Ensuring the region is adequately supported by high quality information and communications technologies will be critical for the expansion and diversification of industries and institutions, supporting improved educational and health outcomes and safeguarding the liveability of the region. The region may be at a competitive disadvantage and growth prospects may be constrained until new technologies, such as broadband, are accessible to industry and residents.

Land use policies, strategies and actions

- Land use and infrastructure planning for the region should seek to take advantage of the planned sequencing of NBN rollout, particularly along identified growth corridors
- Land use planning across the region should make provision for towers and new cable installations, should these be necessary

Water supply and management

Future directions

- Prioritise infrastructure investment towards supporting growth

One of the region's competitive advantages is the quality and security of its water supply, delivered from a network of rivers, extensive groundwater resources, wetlands and reliable rainfall. Projections undertaken by water authorities indicate that sufficient water will be available for urban use through to 2055. It is expected the relative abundance of water within the region will allow it to be supplied at a competitive price compared with other regions.

As land use patterns change, consideration will need to be given to how such changes will impact on water catchment areas. Planning policies need to adequately reflect future requirements and capture infrastructure levies, such as developer contributions, accordingly.

Land use policies, strategies and actions

- Land use planning and subdivision controls can play an important role in protecting key water supply catchments, and ensuring they remain healthy

Recycled water and sewerage

Future directions

- Develop recycled water infrastructure to support food processing and food production systems
- Facilitate efficient investment in all water cycle services, including recycling sewage or trade waste, stormwater capture and reuse, and demand management
- Provide innovative, affordable and adequate sewerage systems to support existing communities and future development

The Great South Coast economy has numerous large-scale water users, ranging from food processors to gas-fired power plants and mineral sands processing. Further growth in food processing and other large-scale projects in the region will increase opportunities to develop the use of recycled water for agriculture, embedding one of the region's key competitive advantages.

The region has a large sewerage network, but some of the infrastructure is ageing and some towns do not have a networked sewerage system, which limits residential and industrial growth.

Land use policies, strategies and actions

- Investigate the feasibility of developing large-scale industrial recycled water systems to augment existing supplies for agricultural purposes
- Allocate appropriate land for development of water treatment and recycling facilities
- Investigate the feasibility of upgrading and expanding the collection and treatment of sewage where required to facilitate residential and industrial development

Waste management

Future directions

- Provide appropriate waste management and resource recovery infrastructure to support existing and future communities

As the region's population and industry grows there will be increased demand for waste and resource recovery management across the region. This includes managing the changing volumes of waste in the region resulting from seasonal fluctuations in population. This creates a challenge for securing the land for future waste management facilities, including for sorting and processing, recycling, composting and reprocessing, export, reuse and disposal of waste. Any opportunities to generate new industries in this field, and to generate energy from waste (including from inactive landfills), should be explored and supported where costs and benefits consider environmental, economic and social factors.

Land use policies, strategies and actions

- Identify regional priorities for improved waste management and resource recovery infrastructure
- Identify and secure appropriate land for future waste management and resource recovery uses
- Encourage the development of new industries in waste management, such as energy production from waste materials

14.3 Transport networks

Transport systems facilitate economic and social interactions through the movement of people, goods and services. This plan considers region-wide and inter-regional transport systems and infrastructure, including the directions contained within the Great South Coast Regional Transport Strategy 2013 and the Green Triangle Freight Transport Plan. Planning for local services and integration of urban development with transport are the responsibilities of local government, but they should be considered within this broader structure.

Business and the regional economy rely on a mature freight system including Victoria's connectivity to the Australian freight system. Regional connections to port facilities in Melbourne and other hubs such as Portland, Geelong and Hastings are essential, as are linkages to airport facilities such as Melbourne Airport, Avalon Airport and regional airports.

Taking into account the long-term freight demand generated by the region, this plan identifies preferred locations for freight-related and logistics activities and seeks to support efficient and effective intermodal and modal operations, allowing for freight generated from other areas that traverses the region. Achieving efficiencies in freight and logistics processes can reduce energy costs and increase sustainability while achieving economic and social benefits. Improving the efficiency of airports and provision of appropriate buffers around these critical facilities has also been considered.

People undertake a variety of activities in their local areas, in the wider Great South Coast region and in other parts of Victoria. This plan seeks to ensure that residents of towns and cities in the region have improved transport options for access to work, school or leisure. This access is primarily on road, including a bus network providing public transport access throughout the region. Access to Melbourne and other regional centres has been assessed and key access demands identified.

Long-term access patterns, including to Melbourne and other regional centres, have been assessed against population distribution, planned infrastructure provision, anticipated service demands and identified employment locations. This plan provides a conceptual framework for long-term needs related to growth and change and identifies the possible staging of responses.

Strategic decisions regarding growth will need to take account of transport constraints and opportunities identified in Map 13: Future directions for transport, and maximise sustainable transport options.

Transport infrastructure

The road and rail transport network in the Great South Coast region is the primary means of connectivity and accessibility for people and freight and will continue to be critical for supporting regional population and economic growth. Passenger rail services run from Warrnambool to Geelong and on to Melbourne, via Terang, Camperdown and Colac, and outside the region from Ararat via Ballarat to Melbourne. Strategic decisions regarding growth will need to take into account transport constraints and opportunities and maximise sustainable transport options.

Map 13: *Future directions for transport*

There is a comprehensive network of road and rail infrastructure in the region, enabling access to services and facilities. The main arterial road network comprises five major roads:

- the Princes Highway connecting Geelong and Mount Gambier via Colac, Warrnambool, Port Fairy and Portland
- the Hamilton Highway, which connects Geelong and Hamilton via Mortlake
- the Henty Highway connecting Hamilton and northern Victoria, via Horsham, with the Port of Portland
- the Hopkins Highway linking Mortlake with Warrnambool
- the Glenelg Highway linking Mount Gambier to Hamilton and Ballarat.

The Princes and Henty highways form part of a designated heavy vehicle network and are earmarked as being suitable for High Productivity Freight Vehicles. The Great Ocean Road forms part of the transport network and is a significant tourism asset as well as a road asset for the region.

The Great South Coast and the adjoining Geelong region contain two major ports: Portland and Geelong. The deep water Port of Portland and the road and rail infrastructure serving it are critical components of the state and regional freight transport system, providing Victorian and South Australian producers with a gateway to global markets, particularly for bulk commodities.

Freight and people movements require different transport solutions and future directions for the transport network need to be considered in this light. It will be important to enhance and build on existing infrastructure. Current policy directions, local and regional strategies, and projects that are being investigated, planned or implemented will all contribute to and support future growth.

Future directions

Improve the operation of the transport network

Existing infrastructure such as the Princes and Henty highways can be harnessed to ensure a strong economy. Future capacity upgrades and enhancements may be required to meet growing demands for local, regional and interstate transport movements. The duplication of the Princes Highway between Geelong and Colac and improved rail services to Warrnambool will support the importance of Colac and the Great South Coast's connections with Geelong and Melbourne.

Growth may also be supported by improving existing rail capacity and public transport service both inside and outside of the region particularly to Melbourne, South Australia and from Ararat and Ballarat to the north. Investigation into passenger rail services to Hamilton and Portland could assist in supporting growth.

Opportunities for improving network capacity include:

- improving and maintaining the existing transport network
- improving the freight network to support local production, imports and export
- improving road safety and efficiency, for example, passing lanes, widening, sealed shoulders
- enhancing rail capacity, for example, track duplication, signalling, larger rolling stock
- increasing gateway capacity, for example, handling facilities, cranes, bulk loaders, shipping berths, rail sidings
- maximising use of existing infrastructure
- improving and modifying the network of public transport services to better meet market needs
- providing new and more frequent public transport services.

Enhance access and connectivity

In the future it will be important that transport access for people and freight is flexible and adaptable. For example, the expansion of community transport and taking services or resources to people in smaller communities may supplement the use of private vehicles. Well-maintained and accessible transport infrastructure that is suitable for freight movements will be crucial to the future of the region's key industries.

Opportunities for ensuring access and connectivity exist around:

- improving links to cities outside the region, for example, Geelong, interstate capitals, regional cities, including through air services
- coordinating freight, business, domestic and emergency air functions and associated airport infrastructure across the region
- improving connectivity from the region to international gateways, interstate gateways and transport hubs
- overcoming rail network constraints, for example, multiple gauges, curfews
- improving intra-regional transport, for example, urban bus networks including hinterland areas and links to small communities
- enhancing cross-border connections
- aligning the public transport network to better service demand
- increasing accessibility, for example, improving access to public transport facilities and services for people with a disability, and upgrading cycle access.

Develop and enhance freight and logistics precincts

Future development and enhancement of the freight precinct in and around the Port of Portland will be important to improve access for key regional export industries. The existence of the deep water port may also attract new industries or activities such as cruise ships, leveraging off the key tourist attractions of the region. This will in turn create a need to review transport requirements to ensure access and connectivity for freight and people movements within, into and out of the region. Airports play an important role in supporting emergency services and local industry.

Opportunities for developing and enhancing freight hubs and logistic precincts could include:

- seaport, for example container, bulk, general cargo
- airport, for example, regional or interstate facilities
- investigation of industry needs for a potential intermodal freight terminal as an inland port
- activity specific centres, for example, distribution warehouses, processing plants.

Provide for a safe, reliable and resilient network

The Port of Portland and the major arterial road network will need to be resilient not only to natural hazards such as bushfire, flood and climate change but to changes in commodities to be carried and associated logistics. These changes may mean increases in cartage of commodities such as mineral sands and potential increases in weights and volumes of trucks. Consideration also needs to be given to facilitating movements of people to main regional centres to access higher order services and facilities such as healthcare and educational services.

Opportunities for providing for a reliable and resilient network could be developed around:

- preparing contingency plans for major disruption by flood or bushfire
- addressing on-time running limitations, such a single track rail lines
- improving the network of rest areas
- maintaining and improving the network of road and rail to appropriate standards
- increased truck capacity to improve reliability and reduce delays
- removing network constraints such as weight and size restrictions.

Consider technological advancements in the transport provision mix

Technological advancements such as the rollout of the National Broadband Network may mean that people make more use of technology and therefore have less need to travel. The health and education sectors, for example, are already providing some services online. This could in turn free up capacity in the existing transport network.

Opportunities for considering technological advancements could include:

- access to and utilisation of the National Broadband Network
- use of electronic devices such as tablets, smart phones, portable computers to deliver up-to-date transport information
- alternative fuelled vehicles
- new vehicle designs.

Understand and ensure efficient supply chains

Changes to vehicle and fleet characteristics may mean that small local roads may not be able to cope with the number and use of higher volume trucks taking products to processing or export locations. Understanding how local roads are used to provide connections to the main arterial road network may help identify links that need to be upgraded to provide greater efficiencies in supply chains.

Opportunities for efficient supply chains involve:

- understanding relationships, movements and modes between the farm gate, markets, distribution centres and gateways
- taking advantage of technological advances
- building evidence to support enhancements to the freight network such as by industry input.

Ensure amenity and useability

Improving the transport network's useability for both business and pleasure will be important to strengthening and diversifying the region's economy. Examples include enhancing the region's tourism product by expanding walking and cycling facilities.

Opportunities for ensuring amenity and useability of the transport network include:

- identifying and developing touring routes for all users, including cyclists
- improving facilities for the travelling public, such as wayside rest areas, signage and information hubs
- marketing, for example, developing package tours for 'day' trips
- minimising the impact of freight routes on future residential growth areas.

Land use policies, strategies and actions

- Integrate strategic transport planning directions from the Great South Coast Transport Strategy 2013 and the Green Triangle Region Freight Action Plan when considering land use within key transport corridors
- Strategically renew, maintain and develop infrastructure to maximise opportunities to meet anticipated needs
- Consider industry needs and plan for flexible and adaptable freight connections to the transport network to cater for future commodity changes and freight logistics operations
- Incorporate future directions for infrastructure development into regional structure planning and planning schemes
- Maintain the quality of the road and rail networks by ensuring the appropriate level of service is provided
- Plan for infrastructure, taking into account changes in demography, land use and economic and social development
- Support the National Airports Safeguarding Framework
- Set aside land to provide for future major road and rail projects, using zoning and overlays
- Maximise the strategic position of the transport network to encourage settlement and economic growth along existing transport corridors
- Support future infrastructure projects to assist with growth

14.4 Social infrastructure

Social services should be provided in an equitable way to enhance community resilience and ensure communities have access to the services they need at a local and regional level. The delivery of services needs to be matched with both the location and timing of development and population growth. The broad settlement pattern should also provide for community recreation and leisure and protect valued landscapes and recreation assets at the regional scale.

Future directions

- Provide social infrastructure that is well located and accessible to residential areas, transport services, employment and education opportunities
- Support opportunities to increase the supply of affordable housing and the renewal of housing stock to meet changing demographic needs
- Support the renewal, maintenance and improvement of health and educational facilities

Education

Educational facilities such as Deakin and RMIT universities, and a quality offering of secondary colleges across the region, can play a major role in attracting people to the region. Key actions to improve educational outcomes across the region include: strengthening linkages between secondary and tertiary education systems and between industry and educational institutions; clustering of and collaboration between education providers; and developing early intervention strategies to improve educational retention and attainment rates, and address equity issues.

Access to educational facilities across the region will be pivotal to ensuring outcomes for all age groups.

A lifelong learning approach needs to be encouraged and supported within settlement networks and through the use of technologies such as broadband internet access.

Land use policies, strategies and actions

- Support access to lifelong learning facilities through integration into network settlement planning and implementation
- Encourage clustering of and collaboration between educational institutions and industry
- Support appropriate transport services and infrastructure to maximise accessibility

Health and wellbeing

Health and wellbeing are pivotal to achieving the population and economic ambitions outlined in this plan. Settlement networks will need to incorporate health planning into their land use planning considerations and consider allied services in addition to health and wellbeing.

Health planning for the region has recognised the importance of emphasising health promotion strategies and ensuring timely and early intervention where necessary and appropriate. Land use planning initiatives should support this strategy by encouraging active lifestyles, for example, by providing walking tracks and bike paths in and around settlements. These initiatives should continue to be linked to the natural environment and tourism assets.

Future healthcare will increasingly use technologies such as broadband to assist in diagnosis and treatment, so access to technology will need to be factored into health-related land use planning. As the region's population grows and the population of Warrnambool heads towards 60,000 people, consideration will need to be given to the future location of higher order health services in the region.

Land use policies, strategies and actions

- Support accessibility to a range of health, wellbeing and allied services by using a settlement network approach to health-related planning
- Support appropriate transportation services and infrastructure to maximise accessibility
- Use land use planning to support and develop key preventative health measures such as off-road pathway connections
- Commence planning to enhance higher order health service provision for the region in Warrnambool

Recreation and open space

The region has a range of recreation and open space assets. Natural areas and public land are complemented by a range of constructed recreational and open space facilities. These assets are valuable in their own right, increase general public wellbeing and help define and maintain regional character.

Maintaining and enhancing significant open spaces and public land assets will support the region's ambitions of improving amenity and regional liveability.

To enable open space and recreational assets to be adapted flexibly to changing community needs and demands, there needs to be recognition that their role can and should change over time, particularly as demographic impacts are felt.

Land use policies, strategies and actions

- Support the accessibility of recreational facilities by using the settlement network approach to planning
- Protect key open space, including breaks between settlements and public land assets, through land use planning mechanisms such as the Significant Landscape Overlay and implementation of the recommendations of the South West Victoria Landscape Assessment Study
- Maintain discrete settlements to enhance the integrity of urban and rural character and protect highly productive agricultural land

Community infrastructure, arts and culture

Community arts, cultural assets and institutions have long been recognised as contributing to a region's liveability and its attractiveness to people. Assets of this nature can play a significant role in supporting continued education, cultural tourism, engaging communities, health and wellbeing, as well as tourism and economic development.

The region has a rich and diverse array of heritage and culturally significant assets ranging from Aboriginal culture and heritage, to heritage linked to the Shipwreck Coast, markets and festivals.

Land use policies, strategies and actions

- Support community infrastructure, arts, public art initiatives and cultural facilities

PART D | REGIONAL GROWTH PLAN

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

15. Future directions for regional growth

Figure 4: *Future key directions for regional growth*

Principle	Key directions	Rationale	How (see Map 14 for further direction)
1. Strengthen the region's economy through increased industry diversification, innovation and development	• Increase the region's contribution to the nation's food production • Support agriculture as a primary source of economic prosperity • Support higher value-add and diversification of existing industries • Foster opportunities for investment in infrastructure, innovation and research • Encourage appropriate local energy production and tourism development • Identify economic opportunities for the region's environmental, cultural heritage, landscape and marine assets • Support growth along two key corridors: east-west (Princes Highway) and north-south (Henty Highway)	Key industries such as dairying, tourism, timber and energy will continue to be the main sources of growth. Research, innovation, a skilled workforce and improved transport and utility infrastructure are needed to support future development and foster new value-adding. The unique land, sea and climatic assets of the region provide opportunities for new industries.	• Support economic opportunities throughout the region, especially along the northern and eastern corridors identified in Map 5: Future economic directions • Facilitate agricultural production and associated development • Facilitate local energy production and natural gas extension • Sustainably manage key cultural/heritage and environmental assets • Provide transport and service infrastructure improvements to help deliver economic development opportunities
2. Attract more people to the region	• Promote liveability as a key attribute of the region • Build on the diversity of lifestyle choices within the region • Facilitate a range of affordable housing options across the region • Provide for sufficient residential land to support population growth, particularly around Warrnambool • Attract, develop and retain a skilled workforce	To support the economy and liveable communities, the region needs to plan for population growth above the currently projected additional 29,615 people by 2041. With the average age of the region's population increasing, more workers are required to support the growth of existing and new industries.	• Encourage infrastructure that enhances the liveability and attractiveness of the region to residents and commerce • Utilise built form and design guidelines to promote and enhance the uniqueness and attractiveness of small towns and regional centres • Allow for increased housing densities and infill developments in central city areas and locations that are accessible to shops, transport networks and other community services and facilities • Support sufficient and affordable housing located near major employment centres • Utilise the region's significant natural and cultural heritage assets to enhance the desirability of the region as a place to live and do business

Principle	Key directions	Rationale	How (see Map 14 for further direction)
3. Enhance our liveability through improved health, education and standards of living	• Provide access to health and education to further improve liveability and grow the region's population • Cater for demographic changes and the impact this will have on residents' ability to access key services • Sustainably manage environmental assets that underpin lifestyle choices and the attractiveness of the region	Appropriately managing growth in the region should enhance the liveability of the region for current and prospective residents and workers. Liveability will support growth through sustainable communities, access to jobs, education and services, affordable and diverse housing and protecting and enhancing the unique attributes of the region, including its natural environment.	• Plan at a regional and sub-regional level the provision of and access to educational, research, health facilities and infrastructure • Identify and support the key liveability and amenity-related attributes of towns • Build connections between key educational and health institutions and major centres throughout the region • Set aside land surrounding key educational and health institutions to encourage co-location, clustering and collaboration with industry • Separate industrial activity from sensitive land uses • Identify the need for additional heritage or design controls to enhance the valued character of urban areas and their surrounds
4. Build on our network of towns and the roles played by them	• Manage urban development and rural residential development to support existing communities, realise efficient service and infrastructure provision and manage impacts on other land uses • Avoid settlement growth in areas of high environmental or scenic value and also areas of high risk from natural hazards, especially bushfire, flood and coastal hazards • Reinforce the role and connections of Warrnambool as the region's regional city; Hamilton and Portland as regional centres, and other district towns • Support and promote active and attractive towns through the provision and enhancement of open space, trails, streetscapes and gardens	With approximately 50 per cent of the region's population living outside major centres, smaller towns and communities play a critical role in the social, environmental and economic functioning of the region and its liveability. Improved connections to all towns are vital as is the provision of key services in the regional centres of Warrnambool, Hamilton and Portland to support the dispersed population of the region.	• Implement the framework for the future role and growth of settlement shown in Map 14: Regional growth map • Establish or reinforce settlement boundaries • Direct urban development to existing townships including identified growth areas, undeveloped land and infill opportunities within existing town boundaries • Plan for rural residential development where it supports sustainable communities while avoiding areas of high environmental value, at high risk from natural hazards or that have future urban development potential • Plan for employment and services in towns based on need and opportunity • Encourage safe, attractive and healthy urban development • Recognise and avoid natural hazards, such as bushfire or flood, in planning for population growth • Support development and investment in small towns that are facing economic and population challenges

Principle	Key directions	Rationale	How (see Map 14 for further direction)
5. Manage and utilise our strategic assets and support agricultural productivity	• Encourage the development of marine infrastructure to support economic development of marine assets • Sustainably manage key agricultural land • Grow food production related industries	The quality and abundance of environmental and constructed assets – including major transport infrastructure, marine environments and fertile agricultural land – provides sustainable competitive advantages for the region. The use and improvement of these assets support the region's increasing role in food and fibre production for domestic and international markets. Planning must sustainably manage valuable agricultural land, together with the water, air and ecosystems that support it, and the environmental assets (including significant landscapes) that contribute to the identity of the region and its growing tourism industry.	• Use best practice contemporary approaches to rural land use planning such as adapting to climate change, avoiding potential conflicts with non-agricultural uses, matching land use to land capability and sustainably manage environmental assets • Provide support and direction on appropriate locations for the establishment of new agricultural industries
6. Sustainably manage our natural, cultural and environmental assets	• Tourism opportunities will be enabled, where appropriate, around cultural heritage and natural environments where impacts and risks from natural hazards can be managed • Identify and facilitate opportunities for improved connections, water management and response to natural hazards • Identify potential economic opportunities and risks resulting from climate change • Sustainably manage and enhance the features of the region that attract development, agriculture, residents and tourists	Natural resources such as fish, timber, sand and stone and gas, and environmental assets such as native forests, waterways, coasts and soils, all contribute to the liveability and economic prosperity of the region. Sustainable management will include a combination of use, protection and enhancement. Environmental assets are also recognised for their natural beauty, and their contribution to visitor experiences and quality of life for existing residents.	• Direct urban settlement to existing towns and rural activities to appropriate locations • Establish vegetation corridors between high value environmental assets • Identify and sustainably manage natural resources, environmental assets and features of environmental value in the planning schemes • Direct urban growth, commercial, industrial and rural residential development away from areas where it would limit the ability to utilise environmental assets and natural resources

Principle	Key directions	Rationale	How (see Map 14 for further direction)
7. Enhance equity of access to infrastructure, facilities and services	• Provide well-located, flexible and accessible social infrastructure • Recognise that the entire region needs to be serviced by infrastructure, facilities and services. Adopting a network of settlements approach will assist in achieving this aim • Improve equity and access through the enhanced telecommunications and broadband internet availability	The Great South Coast's dispersed population provides lifestyle choices for residents, diverse communities and a workforce distributed throughout the region. Equitable access to infrastructure, facilities and services will need to be maintained and enhanced, including through technology, coordinated service delivery and transport improvements.	• Focus key facilities and services in the most accessible locations, particularly the regional city, regional centres and towns shown in Map 14: Regional growth map • Ensure access to educational and health facilities is built into settlement network frameworks • Examine opportunities for providing facilities that service clusters of small or remote settlements • Provide new service and social infrastructure to support the areas of growth shown in Map 14: Regional growth map • Support greater housing choice • Develop a housing strategy that addresses housing for key workers on major projects
8. Strengthen connections to other regions	• Develop transport and infrastructure connections • Cross-regional relationships between settlement networks are understood and developed • Develop the eastern area of the region and integrate it with the G21 region • Integrate cross-regional tourism routes and assets	The region exports goods to other parts of Victoria, Australia and internationally. It has townships that service dispersed communities that are also close to large cities in adjacent regions. Improved inter-regional connections will promote economic activity, social inclusion and facilitate access for residents and visitors.	• Investigate improvement to road and rail connections to regional cities in adjoining regions and to Melbourne, including for example between Warrnambool and Geelong • Identify the strategic opportunities and impacts to facilitate linkages between regional cities from significant growth areas in Geelong and the G21 region • Plan for improved and flexible freight connections to link areas of production and manufacturing to export markets in and beyond the region • Maximise the transport network to encourage settlement and economic growth on and around existing transport corridors • Link the broader tourism experiences throughout the region

Principle	Key directions	Rationale	How (see Map 14 for further direction)
9. Ensure that the land and infrastructure needed to support growth is identified and appropriately planned	• Manage the impact from major projects on regional infrastructure and surrounding land • Supply sufficient and appropriate industrial land to support economic development • Investigate and prioritise infrastructure needs to facilitate economic development and population growth in settlements • Maintain and enhance key infrastructure including the Port of Portland and direct transport links from production, processing and markets	New and improved infrastructure that supports growth – including road, rail, water, waste, gas, sewer and social infrastructure – must be planned and coordinated to ensure it is supplied efficiently and when required. To support economic and population growth, land supply must be monitored to ensure availability of the right type of land in the right location.	• Support the provision of appropriate and timely infrastructure to facilitate growth • Increase industrial land supply to support the areas of growth • Identify opportunities and plan for marine industries and infrastructure • Develop infrastructure servicing the Port of Portland, particularly rail and road networks, in conjunction with expansion plans • Support the Port of Portland's expansion through appropriate land use planning and overlay controls • Review transport and infrastructure provision in key urban areas to keep pace with growth • Support the National Airports Safeguarding Framework • Require planning approvals for major projects to consider the impacts on regional infrastructure and surrounding land

Map 14: *Regional growth map*

Source: Department of Transport, Planning and Local Infrastructure

0   25   50
Kilometres

SETTLEMENT ROLE AND GROWTH

★ Warrnambool - Regional city ● Regional centre

○ District town ☆ Regional city external to the region • Settlement external to the region

◉ Major growth ◯ Medium growth ◌ Sustainable change

Warrnambool - Regional city
Reinforce the role of Warrnambool as the key population and employment centre for the region with key links back to the cities of Geelong and Melbourne. Focus major development to designated growth areas to the north-west, north and north-east, while supporting the CBD as the primary location for retail, services and facilities. As Warrnambool attracts new higher order services, facilities and service industries, the growth of Warrnambool will produce economic and social benefits for the region.

Portland - Regional centre
Support Portland to service the region's south west and for the Port of Portland to be a national and international gateway for exports. Support Port development linkages to Heywood. Support CBD growth to the north and residential development within existing township boundaries. Support opportunities to diversify the economy that take advantage of natural, heritage and infrastructure assets, including increasing industrial land supply.

Hamilton - Regional centre
Support Hamilton to service the region's north west and surrounding areas. Expand research and development, processing and logistics. Support CBD redevelopment and residential development within existing township boundaries. Attract people and businesses to take advantage of connections to the north and quality education facilities and lifestyle.

District town
Reinforce the role of district towns in supporting local communities, industry and services. Support the connections from district towns to regional centres and cities. Focus urban development within existing townships and minimise intrusion into surrounding areas of high agriculture value, environmental quality or natural hazard.

Growth
Support possible population growth while maintaining the role of settlements.

CONNECTIVITY

➤ Improved regional connections

→ Road ⇢ Rail

⇨ Sea ✈ Airport ⚓ Port

Key transport links (road, rail and sea freight)
Investigate improvements to the road and rail networks and port infrastructure to improve access and connectivity. Ensure transport provision facilitates growth in the key locations identified in this plan. Provide access for freight and goods to ports and markets. Support connections to adjacent regional cities and regional centres, including Mt Gambier, Horsham, Ballarat, Colac and Geelong.

Improved regional connections
Improved road connections and improved rail services to and from Warrnambool will facilitate its growth and support increased visitors to the region from Geelong and Melbourne. Improved road and rail connections to and from the west, north and north-east, to Hamilton and Portland, will support tourism, freight, industry and community connections.

ECONOMIC DEVELOPMENT

▨ Primary growth corridor ◯ Agricultural production

◌ Enhance tourism assets ◌ Marine resources

▲ Portland freight and industry gateway

— Electricity transmission line (500 kV)

Primary growth corridor
Support higher economic and/or population growth within the corridor by capitalising and building on existing connections, strengths and infrastructure. Direct population growth to existing towns, utilise existing residential land supply and enhance connections, services and infrastructure. Support industrial development, including adequate zoned and serviced land. Support increasing prosperity through education, innovation, productivity, and diversifying the economy. Investigate opportunities in food and fibre, alternate energy sources, mining, tourism and the service, education, health and retail sectors. Improve key connections from Portland to Hamilton and beyond, and connections from Warrnambool to Geelong.

Agricultural production
Sustainably manage areas of high quality agricultural land to support growth in food production. Support higher value-adding and diversification of existing industries and land uses including the forestry, dairy, meat, grain, mineral sands, energy and tourism sectors, where they build on existing infrastructure and do not compromise the region's agricultural, environmental and cultural heritage significance.
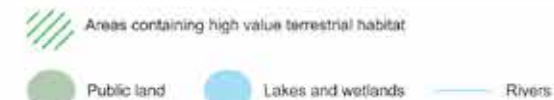
Enhance tourism assets
Support the development of the tourism sector in iconic locations.

Marine resources
Investigate potential for alternative energy sources, including wave and gas.

ENVIRONMENT

▨ Areas containing high value terrestrial habitat

● Public land ● Lakes and wetlands — Rivers

Areas containing high value terrestrial habitat
Sustainably manage the region's environmental assets and encourage greater connectivity between areas with high natural values. Ensure significant landscapes are recognised and protected.

PART E | DELIVERING REGIONAL GROWTH

16. Implementation

16.1 Planning schemes

The Great South Coast Regional Growth Plan will have status as part of the Victoria Planning Provisions and planning schemes. Key strategic directions of the plan will be incorporated into the state policy section of each council planning scheme.

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

The councils will then need to work in partnership with the state government to identify any required changes to bring local policy into alignment with the regional growth plan. This should be an immediate implementation priority.

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

16.2 Links to Regional Strategic Plan implementation

This regional growth plan has been informed by, and is aligned with, the Great South Coast Regional Strategic Plan that was developed in 2010. Implementation of the regional growth plan should be considered in relation to other ongoing work to implement the strategic directions of the Great South Coast Regional Strategic Plan. This will strengthen the capacity for achieving shared objectives and targeting efforts to secure endorsement and funding for the highest priorities in the region.

Ensuring alignment between the directions and priorities in the regional growth plan and the regional strategic plan will help to ensure a consistent and united focus on what is important for the region.

Opportunities for implementing the key directions and actions in both plans and the regional strategic plan will be explored with councils, state and federal governments and the Regional Development Australia Barwon South West Committee. These entities are key stakeholders in overseeing the ongoing development and implementation of the Great South Coast Regional Strategic Plan. Appropriate regional governance arrangements should be developed to promote integrated planning and delivery in relation to agreed actions regarding future land use. These could include building on the function of the Project Steering Committee established for the Great South Coast Regional Growth Plan.

16.3 A plan for implementation of actions

Further work to develop a plan for implementation of the regional growth plan is critical to achieve its strategic directions for growth and change. An implementation plan will ensure that regional priorities for action are well substantiated and agreed, and that the region is well positioned to respond to opportunities for funding and investment in infrastructure, asset protection and management of future growth.

Purpose and scope

An implementation plan will provide information and recommendations to support the next phase of housing, employment and infrastructure planning across the region according to the directions and principles of the regional growth plan.

An implementation plan will be an important planning tool for the Great South Coast region identifying funding priorities for critical infrastructure. It will also be used by project partners and other service

providers and agencies to plan future investment and strategies. It will identify opportunities and benefits for investment, positioning projects to be considered in future budgets. It will also establish a framework for monitoring and reporting on the delivery of actions in the regional growth plan.

The regional growth plan has identified a number of further pieces of work or investigations that are required to improve land use planning policy and assess the feasibility of strategic investment proposals for the region. Opportunities to progress these studies will be identified as part of the implementation plan.

The implementation plan should focus on regional (as opposed to the local) level priorities. Regional scale actions may include key transport links between town centres and employment nodes, people and business attraction, main distribution lines for reticulated services, skills and employment, infrastructure supporting the regional economy and regional service needs.

The consideration of regional priorities would need to include:

- benefit-cost assessment
- integration with critical infrastructure
- socio-economic benefit
- environmental impact
- contribution to the regional growth plan principles:
    - risk management, including consideration of natural hazards
    - responsibility, funding and timing.

Timing and phases

An implementation plan may include the following phases over 2014-2015:

Phase	Engagement
Phase 1 – Project set-up	Project partners
Phase 2 – Project overview (scope and analysis)	Project partners, targeted stakeholder consultation
Phase 3 – Draft implementation plan	Project partners, targeted stakeholder consultation
Phase 4 – Final implementation plan	Project partners, targeted stakeholder consultation, community engagement on draft implementation plan
Phase 5 – Final implementation plan considered by councils and government	Project partners

Governance

Great South Coast councils would have lead responsibility for the development of an implementation plan. It would involve working with state government departments and infrastructure and service delivery agencies. Governance arrangements would build on existing partnership arrangements as strengthened through the development of the regional growth plan. Consideration would need to be given to governance arrangements including connection to existing regional groups and, if required, the formation of a Project Steering Committee and project team.

Resources

The development of an implementation plan would require resources. In addition to the in-kind contribution of time from project partners, funding may be required for:

- additional studies or analysis
- project management, staff and administration
- stakeholder engagement
- document production.

Relevant strategies

There are a number of strategic and infrastructure planning projects completed and currently under way that will inform the development of the implementation plan. These include the:

- the new metropolitan planning strategy, *Plan Melbourne* and the adjoining regions' regional growth plans
- Victoria – The Freight State: the Victorian Government Freight and Logistics Plan
- Great South Coast Regional Strategic Plan
- Great South Coast Group Priority Projects
- Great South Coast Major Projects Cumulative Impact Study
- State and regional transport, health, coastal, catchment strategies and studies, etc.

16.4 Review and performance

It is intended that this plan will inform any subsequent review of the Great South Coast Regional Strategic Plan. The regional growth plan is intended to be a living and adaptable plan, able to respond to new data and information as it arises, including information from state or regional strategies and programs. The plan is to be reviewed on a four-to five-year cycle. Any review process will involve broad community and stakeholder engagement.

Implementation of this plan will be integrated with the overall implementation of the Great South Coast Regional Strategic Plan and included in the performance monitoring framework for the implementation of the regional strategic plan. This framework includes an assessment of performance and project progress and sets out performance measures for the key directions of the regional strategic plan.

16.5 Implementation summary

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

Figure 5: *Implementation actions*

Action	Priority	Timing	Lead responsibility	Key partners
1. Completion of Great South Coast region land supply analysis	High	2014	Department of Transport, Planning and Local Infrastructure	Great South Coast region councils
2. Planning scheme implementation of regional growth plan	High	2013-2014	Department of Transport, Planning and Local Infrastructure	Great South Coast region councils
3. Implementation Plan	High	2014-2015	Great South Coast Group / councils	Great South Coast Regional Growth Plan and Great South Coast Regional Strategic Plan project partners
4. Great South Coast region Municipal Strategic Statement reviews	Medium	To coincide with Municipal Strategic Statement review cycles	Great South Coast region councils	Department of Transport, Planning and Local Infrastructure
5. Great South Coast Regional Growth Plan Review	Medium	2016-2018	Lead governance entity to be determined	Great South Coast Regional Growth Plan project partners

GLOSSARY

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

Alternative energy: energy generated from renewable sources and natural gas. Other alternative energy sources include wind, geothermal, solar, wave and bioenergy.

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

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

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

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

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

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

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

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

Growth corridor: the area this plan identifies as experiencing higher levels of economic and-or population growth, including focusing urban development towards existing settlements and yet still supporting development opportunities throughout the region.

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

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

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

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

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

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

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

GLOSSARY

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

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

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

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

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

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

Rural residential land: land in a rural setting that is used and developed for dwellings that are not primarily associated with agriculture. It generally includes lot sizes smaller than surrounding farms.

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

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

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