Introduction

In my response to the ESC Draft Rate Capping Recommendation I would like to highlight the impact of this on the Macedon Ranges Shire Council into the future.

Firstly what is the current strategy and long term borrowing of the Macedon Ranges Shire Council and its future debt level? Secondly how does this strategy impact future rate capping for our shire?

For the purpose of this discussion we will call it Debt financing.

What is the strategy and long term borrowing and intergenerational equity?

Sections 144 -150 of the Local Government Act 1989 govern a council's power to borrow. Subject to the principles of sound financial management, Council may borrow money to perform its functions and exercise its power.

The use of loans to fund capital expenditure is an effective mechanism of linking the payment for the asset to successive generations who will receive benefits over the life of that asset. This matching concept is frequently referred to as "intergenerational equity" because the costs of servicing debt through rate revenue and/or customer fees/charges enables the cost of the asset to be matched with the benefits from consumption of the services over the life of the asset, thereby promoting intergenerational equity.

However with the pending introduction of rate capping to CPI (currently 1.5%' over the last twelve months) many councils because of low interest rates have previously taken out large loans to do these capital works expenditure for the community now and into the future and will be severely impacted on the way forward. In the Macedon Ranges Shire because of our Settlement Strategy and current strong population growth we have invoked this process through many key loans which have been taken up and yet to be. They are:

2013/14 Budget	1	
Gisborne Council Office Extension Part 1	\$700,000	
Hanging Rock East Paddock Development Part 1	\$550,000	
Kyneton Market Street Land Purchase (for Car Park)	\$320,000	
Defined Benefits Superannuation Plan Liability	\$3,638,000	
Gisborne Secondary College Stadium Contribution Part 2 (Note Part 1 in the 2012/13 Budget was \$500,000)	\$1,000,000	
Total		\$6,208,000
2014/15 Budget		
Gisborne Council Office Extension Part 2 Note: It will be recommended that the budgeted borrowings be reduced by \$355,000	\$800,000	
Hanging Rock East Paddock Development Part 2	\$450,000	
Total		\$1,250,000
2015/16 Budget		
Gisborne Early Learning Centre Construction	\$2,300,000	
Kyneton Landfill Rehabilitation	\$1,775,000	
Total		\$4,075,000
Grand Total		\$11,533,000

yneton Market Street Land Purchase (for Car Park)	\$320,000	
efined Benefits Superannuation Plan Liability	\$3,638,000	
otal		\$3,958,000
		\$3,500,00

Sisborne Council Office Extension Part 1 Hanging Rock East Paddock Development Part 1	\$700,000	
Tanging Rock East Paddock Development Part 1	3000,000	
Bisborne Secondary College Stadium Contribution	\$1,500,000	
an channa a' a' ann ann an an ann an ann an ann an		
Sisborne Council Office Extension Part 2	\$900.000	
Note: It will be recommended that the budgeted borrowings be educed by \$595,000)		
langing Rock East Paddock Development Part 2	\$450,000	
Sisborne Early Learning Centre Construction	\$2,300,000	
Cyneton Landfill Rehabilitation	\$1,775,000	
fotal		\$7,676,000

Amount of outstanding loans as at 30 June 2013.
\$3.9 million.
Amount of outstanding loans as at 30 June 2015.
\$6.6 million.
Amount of outstanding loans as at 30 June 2016 – assuming that all budgeted loans will have been taken up.
\$13.2 million.
Macedon Ranges Stile Council 7

repa		t debt level, and interest years.	
	Net Debt *	Debt Repayments *	Interest Payment
2015/16	\$13.2 million	\$1.16 million	\$0.48 million
2016/17	\$11.6 million	\$1.58 million	\$0.34 million
2017/18	\$10.2 million	\$1.6 million	\$0.65 million
2018/19	\$8.8 million	\$1.7 million	\$0.65 million
2019/20	\$7.7 million	\$1.8 million	\$0.68 million
order to accu		h will be transferred each year to vill be required to pay back the bo	
	Macedon Ranges	8	
	Shire Council	8	

As you can see from previous council extract budget slides we are investing for the future in our shire with community support and expectations from a growing shire.

However with a significant shortfall in rates income because of rate capping to CPI our Council Plan and Strategic Resource Plan will all have to be revisited and changed for the ensuring years because our finance model and that of other councils has changed.

In determining an appropriate debt level, the following factors are seen as important: level of debt servicing costs as a proportion of rate revenue; ability to raise revenue in addition to rates; level of realisable assets to support the indebtedness; achieving the right mix of capital works and debt commitments; population growth and demographics; and community needs.

What is the Macedon Ranges Shires Council future debt level?

Council's Long Term Capital Works Guide covers the period up to 2023/24. The Guide aligns with the SRP financial assumptions in section 9 with respect to expenditure and revenue. The Guide predicts that in order to respond to the growing population there will be substantial capital investment in community buildings, community facilities and open space.

Because of the intergenerational nature of this type of capital investment, Council is willing to borrow money to fund capital investment works that may take place. The council graph below shows the estimated debt levels from 2014/15 to 2023/24.



The estimated debt levels in the preceding graph are based on the assumption that all projects within the Long Term Capital Works Guide will proceed. Of course this will now be impacted because of rate capping to CPI.

Whether all projects proceed or not will depend upon circumstances at that time, particularly the availability of government grants. If grants are available the projects may proceed and if they proceed Council may borrow money. For example our "Early Years" facilities are reaching capacity and will need to be expanded. Expansions of this kind are only required about once every 20 years or so. Therefore on the principle of intergenerational equity, it is proposed that borrowings would be used as opposed to funding these works through an abnormal rate increase in the year of construction.

However rate capping to CPI at a lower level will impact the opportunity to increase rate or take out further capital loans.

What is Council's Future Strategic Direction in terms of Debt?

1. Council will borrow funds for investment in capital projects of an intergenerational nature.

2. Council will retain its debt commitment (interest and principal repayments) at or below 6% of rate revenue.

3. Council will ensure its debt level does not exceed \$14 million over the ten year financial forecast

Our Rating Strategy, which establishes a framework by which rates and charges will be shared by the community, can be found in our Strategic Resource Plan. Our financial forecast is based on the assumption that rate revenue will increase by 6.6%. This assumption is based on two contributing factors. Firstly, based on historical evidence, we will continue to experience 1.8% growth in rate revenue from

new subdivisions and new constructions. Secondly to retain works and services at current levels and standards, we will continue to increase rates and the municipal charge by 4.8%. The proposed rates setting downward will now change this outcome as a result of rate capping.

Between, 1 January 2014 and 31 December 2014, the Consumer Price Index (All Capital Cities) rose by 1.7%.

The costs of providing services, infrastructure and facilities are closely linked to wage costs, construction costs, material costs and contract costs. These costs have nothing to do with the CPI. These costs often increase by more than CPI. There is no doubt that, if the State Government requires local councils to keep the annual increase in total rate revenue (rates, municipal charge and waste service charges) to no more than the annual CPI, then, over time, to remain financially sustainable, local councils will have to reduce their expenditure on services, infrastructure and facilities.

The total rate revenue that we need to generate (rates, municipal charge and waste service charge) in order to balance our 2015/16 draft budget is \$41.9 million. This is almost a 6.6% increase (\$2.5 million) compared to last year. This is because there is a 1.8% growth each year in our rate revenue due to new subdivisions and new constructions, this results in a 4.8% increase for the average Ratepayer.

Based on the 2015/16 draft budget, the difference between a 6.6% and a 1.7% increase in total rate revenue (rates, municipal charge and waste service charges) in 2016/17 should be -

6.6% increase = \$2.7m 1.7% increase = \$0.7m Difference = \$2m

In 1995, the Victorian Parliament gave the Minister (under section 185B of the Act) the authority to limit the amount by which councils are able to increase their total rate revenue (rates, municipal charge and waste service charges). The current Victorian Government has said that it will use this authority to restrict the annual increase in total rate revenue to no more than the CPI.

The Victorian Government has asked the Essential Services Commission to develop a "rates capping" framework to apply after 1 July 2016. The Essential Services Commission will take the following factors into account – federal budget cuts to core local government grants; cost shifting by other governments, such as the imposition of additional taxes or levies or increased statutory responsibilities; extraordinary circumstances such as natural disasters; other sources of income available to a council; the council's overall financial position; and the need to maintain essential community services and infrastructure. The Government has asked the Essential Services Commission to prepare a draft report by July, invite comments from local councils and others and submit its final report by October.

If we make the assumption that rate capping will be set to the current annual CPI of 1.5% and the current minimum rates set by Macedon Ranges Shire Council is 4.8%

this is a shortfall of 3.3% which equates to \$300,000 rate revenue per 1% equals \$990,000 dollars in arrears in the first year of rate capping for a worse case scenario.

It is too early to make any predictions about taking out debt (future loans at a low interest rate) to support future major infrastructure projects now for our community as you can see our financial planning and modelling has been thrown a significant curve ball with rate capping which will impact our future finances.

However, if the Government accepts the ESC final report and recommendations, we should know what the impact will be on our total rate revenue in 2016/17, before we start preparing our 2016/17 Budget. The key ingredient is to ensure the future financial sustainability of council prior to incurring future debts for infrastructure projects which can wait until we can afford it but we need to ensure we have the rates income funding to all those capital works projects which we have previously committed in previous budgets to the community. Perhaps if the rate capping to CPI is set to low then may be as a council we will have to review our previous commitments to these projects with the community if as a council we cannot afford them.

Below is supporting building permits issued in MRSC as evidence to our previous and current growth during my time on council as a positive outcome for our shire but opposed to this future trend is the shadow of rate capping looming overhead and its unknown impact.

Building Permits issued in MRSC				
	Total	PBS	MBS	% issued by Council
2012	988	921	67	7
2013	1081	978	103	10
2014	1205	1050	155	13
2015*	459	387	72	16

* 2015 to 30/06/2015 onlyPBS: Private Building SurveyorMBS: Council's Municipal Building Surveyor





In summary I have grave fears that if or when rate capping is implemented then we as a council will have to look at other means to balance the books and ensure we keep paying our debts and maintain our current operational levels into the future.

Some of these considerations will be:

- a) What is the core services of Council with a comprehensive review?
- b) Undertake a 'cost benefit analysis' of those services deemed non-core.

Council has a finite income and outgoings to manage our current population needs and expectations and this will be significantly challenged as a shire whatever the ESC final recommendations with State Government endorsement sets as a future rating for our shire.

Therefore it is important for the State Government to seriously consider the impact of a future rate capping to CPI on our shire as previously stated with supporting evidence.

To ignore this may cause current and future state governments some consternation to again review this policy and its implications into the local government sector and community.

Regards

Cr Russell Mowatt

Deputy Mayor

Macedon Ranges Shire Council

To:	localgovernment@esc.vic.gov.au
From:	Cr Russell Mowatt
Date:	30/08/2015 12:05:34 AM
Subject:	RE: ESC Rate Capping Submission - Addendum

To whom it may concern.

Below and attached is an addendum to my original ESC Rate Capping Submission dated 28th August 2015.

I'm submitting copies of the Southern Regional Strategic Plan Final and the Loddon Mallee South Regional Growth Plan as supporting evidence of my original submission to the ESC.

Fundamentally it is very important the ESC and State Government give these plans significant weighting prior to any future fixed rate capping to CPI for the Macedon Ranges Shire Council.

Why?

Because without the adequate monetary resources 'council allocated rates' our council and other councils in our region will not be in a financial position to deliver the outcomes planned for our communities future in these plans.

It would be remiss of the ESC and the current State Government to ignore these facts when determining any future fixed rate capping to 'CPI' in our shire and region.

It would be a reasonable assumption based on my original submission that when monies are taken out of the local government sector there is a considered risk to providing some future services, capital projects, asset renewal and intergenerational equity.

Perhaps there is also an argument that a recessionary economic climate may ensue with the loss of jobs in the local government sector as a result of a fixed rate capping to 'CPI'.

Therefore a SWOT Analysis would be strongly suggested by the ESC to ensure all options and there associated risks are considered prior to any implementation of any rate capping policy by the state government.

Regards

Cr Russell S Mowatt Deputy Mayor MRSC

LODDON MALLEE SOUTH REGIONAL GROWTH PLAN

















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May 2014

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11.3 Agriculture

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EXECUTIVE SUMMARY

The Loddon Mallee South region is the geographic centre of Victoria, making it highly accessible to and from Melbourne and surrounding regional areas. The region extends from the floodplains of the mid-Loddon River in the north west to the Macedon Ranges in the south east. At its closest point, the region is 50 kilometres from central Melbourne and offers a variety of high level services that provide an attractive alternative to Melbourne and other regions. It has a rich natural and built heritage, attractive towns, a pleasant climate and social and economic diversity. Its central location and excellent transport links allow safe and efficient travel to Melbourne and other centres.

The Loddon Mallee South Regional Growth Plan is the strategic land use plan for the region to guide growth and change for the next 30 years. The plan covers the local government areas of the Central Goldfields Shire, the City of Greater Bendigo, Loddon Shire, Macedon Ranges Shire and Mount Alexander Shire. It is one of eight regional growth plans being prepared in Victoria. The Loddon Mallee South region has many important physical and lifestyle assets, which are the foundation of its economy and communities. The region's rich goldfields history, rural production areas, earth resources industries, forests and natural landscapes surround a diverse network of settlements. These assets have and will continue to attract people to the region to live, work and visit.

Over the past decade, the region has outpaced the rest of regional Victoria for economic growth. Gross Regional Product (GRP) increased from \$4.62 billion in 2001 to \$6.63 billion in 2011 (Regional Development Victoria, 2013). The key sectors contributing to this growth are financial, health and insurance services, manufacturing and mining.

Agriculture continues to be a significant employer in the region particularly horticulture, viticulture, poultry and swine. Populationdriven sectors such as healthcare, construction, education and retail trade are also significant to the regional economy. Earth resource industries include diverse mining and quarrying operations and will continue to contribute to the economy of the region.

The City of Greater Bendigo is a vibrant, growing regional city with an urban and rural population of over 100,000 people, providing quality education and healthcare facilities, a strong economy and thriving cultural life. The growth and wellbeing of the region as a whole depends heavily on the success of this regional city. A prosperous Bendigo that continues to grow in economic strength can offer an attractive alternative to Melbourne and other regions.

i.

The network of larger and smaller towns in the Loddon Mallee South region, most of which connect closely to Bendigo, are central to the region's unique character. Larger centres such as Gisborne, Kyneton, Castlemaine and Maryborough act as hubs to smaller surrounding settlements and rural areas both inside and beyond the regional boundaries. These larger centres offer a diversity of retail and community services and recreational and cultural opportunities, which complement those in Bendigo and Melbourne.

The majority of the region is made up of non-urban land, a significant portion of which is used for agricultural production. The region is agriculturally diverse, with irrigated dairying, cropping and grazing in the north east and large-scale productive cropping, dry land and mixed farming in the north-west (predominantly Loddon Shire). Wineries, orchards and olive groves are located throughout the region, with clusters in the Macedon Ranges, Harcourt Valley and Bendigo areas. One of the world's largest single estate olive groves is located near Boort.

The Loddon Mallee South region has experienced, and continues to experience, strong population and economic growth. This plan provides guidance to help achieve sustainable growth across the region, while maintaining its highly attractive, liveable and accessible characteristics, which offer a range of lifestyle and work opportunities for existing and future residents and visitors.

The plan identifies where future growth is promoted and supported in the region. It identifies environmental, economic, community and infrastructure resources of regional importance that should be preserved, maintained or developed. It also outlines key planning considerations, such as natural hazards that may influence growth, and seeks to guide future land use planning to ensure the region continues to thrive. Map 1 – Future growth framework highlights the key directions for growth of the region, directing population and economic growth to the regional city of Bendigo, managing and supporting growth in key regional centres and fostering growth in some key hinterland towns around Bendigo.

The region can build on its economic strengths in a variety of sectors, such as health and finance, as well as emerging industries such as the tourism and equine sectors. The plan aims to facilitate ongoing agricultural productivity and new opportunities that respond to climate change. Opportunities for manufacturing and building on supply chain linkages are supported. Important environmental assets will be protected and improved.

Vision for Loddon Mallee South region

In 2041 our communities continue to enjoy regional liveability with urban accessibility. We are a region with vibrant, innovative, sustainable and connected communities offering a diversity of lifestyles, building on our heritage, natural environment and agricultural landscapes.

The region is home to some 300,000 people by 2041, with access to employment, infrastructure, educational opportunities, healthcare and other services. The region continues to attract new investment and a diverse range of jobs, anchored within a diversifying economy, capitalising on competitive advantages.

EXECUTIVE SUMMARY

Map 1: Future growth framework





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 as shown in Map 2. 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 Loddon Mallee South Regional Growth Plan is the strategic regional land use plan for the Loddon Mallee South region comprising the following local government areas: Central Goldfields Shire; the City of Greater Bendigo; Loddon Shire; Macedon Ranges Shire; and Mount Alexander Shire.

Regional growth plans respond to directions established in the regional strategic plans that were prepared across regional Victoria between 2007 and 2010. The Loddon Mallee Regional Strategic Plan – Southern Region 2010 (Strategic Plan 2010) identifies the most important regional issues and presents a framework to work together as a region. The Strategic Plan 2010 seeks to maximise opportunities and manage future growth and change in a way that strengthens the regional economy, helps people to thrive and protects the region's rich natural and cultural heritage. The Strategic Plan 2010 and its subsequent updates underpin directions and initiatives in this plan.

The strategic directions identified in the Strategic Plan 2010 have been built on to develop the vision and principles for this plan outlined in Part B. This plan specifically delivers on **Strategic Direction No. 1** of the Strategic Plan 2010, to "manage our population growth and settlements" and Priority Action 1.1 "Establish a Regional Settlement Framework that respects the amenity, functionality and connectedness of existing cities and towns, and accommodates growth accordingly"¹. The Regional Strategic Plan Annual Report 2011–12 outlines further work that has occurred in the region to underpin the strategic directions and actions.

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

This plan will provide a long-term view of the region to 2041 and beyond, allowing for some short-term actions, and providing long-term strategic land use direction.

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

1 Loddon Mallee Regional Strategic Plan – Southern Region, 2010, p11.

PARTA | INTRODUCTION

Map 2: The eight regional growth plans



Table 1: Planning framework context



A Localised Planning Statement is being prepared for the Macedon Ranges to provide the basis for state recognition of the valued attributes of the area. This regional growth plan will provide broad strategic direction for land use in the Macedon Ranges Shire. The Localised Planning Statement will provide the basis for greater recognition and protection for the area and supplement the more general state level strategies and policies.

2. Why we need this plan

The 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 Loddon Mallee South Regional Growth Plan:

- establishes a framework for strategic land use and settlement planning that can accommodate growth within ecologically sustainable development principles
- 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 for other uses
- identifies opportunities for supporting regional level infrastructure, providing an essential contribution to the long-term sustainability of the region.

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

It provides a regional strategic land use framework for growth and change. It is a strategic direction-setting document that identifies long-term land uses and growth objectives.

PARTA | INTRODUCTION

This plan is not intended to be used at a level where service planning or specific unquantified infrastructure could be committed. This plan will guide infrastructure decisions and provide priority for further investigations of regionally significant infrastructure. Site-specific development proposals and processes are also outside the scope of the plan.

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

3. How this plan will be used

The key land use planning directions of this plan will be implemented through the state planning system as it is applied by each council in the Loddon Mallee South region. This will support decision making at a local level.

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

The plan will be used to guide and inform future land use planning work across the Loddon Mallee South region, including subsequent reviews of each council's Municipal Strategic Statement.

The future land use directions in this plan should be taken into consideration in planning decisions.



Maryborough, Central Goldfields Shire

4. How the plan was prepared

This plan has been developed through research and analysis of information provided by all partners in the process and regional workshops to develop the plan's strategic directions. A draft plan was published and made available for public comment in April and May 2013. Feedback from the consultations has informed the final regional growth plan and background report. A background report contains more detailed information and justification related to the contents of the plan.

The plan has been prepared through a partnership approach to regional planning across five municipalities and state government departments and agencies, including the Department of Transport, Planning and Local Infrastructure, Regional Development Victoria, the Department of Environment and Primary Industries, VicRoads and the North Central Catchment Management Authority.

The plan has been informed by a Project Steering Group and a Technical Working Group, both formed as part of this project. Preparation of the plan occurred through five phases:

- 1. Project establishment
- 2. Prepare background issues paper
- 3. Establish draft strategic directions
- 4. Prepare draft regional growth plan (public consultation)
- 5. Prepare final regional growth plan

5. Components of this plan

This plan contains five parts:

A: Introduction – Provides an overview of the context of the plan and how it has been prepared.

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

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

The regional land use framework contains the key directions for growth in four key sections:

- Regional economy
- Environment and heritage
- Living in the region
- Regional infrastructure

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

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

The background report contains additional information that was relied upon in the development of this plan. The background report is available on the Department of Transport, Planning and Local Infrastructure website www.dtpli.vic.gov.au/regionalgrowthplans



PART B | REGIONAL OVERVIEW

This part of the Loddon Mallee South Regional Growth Plan provides a broad overview of the Loddon Mallee South region including what is driving growth and change, what land use challenges the region faces, and a vision statement outlining a desired future for the region.

6. Snapshot of the region

Geographic area and settlements

The Loddon Mallee South region is 14,563 square kilometres in total area and made up of five municipalities as shown in Map 3 – Loddon Mallee South region. The region currently accommodates a population of 188,000² people, nearly half of whom reside in the urban centre of Bendigo.

The Loddon Mallee South region is the geographic centre of Victoria, making it highly accessible to and from Melbourne and surrounding regional areas and an alternative to Melbourne in terms of high level service provision. The region extends from the floodplain of the mid-Loddon River in the north west to the Macedon Ranges in the south east. At its closest point, the region is 50 kilometres from central Melbourne. It has a rich natural and built heritage, attractive towns, a pleasant climate and social and economic diversity. Its central location and excellent transport links allow safe and efficient travel to Melbourne and other centres³.

The mix of towns, farmland and forest in the region's south and east, and its goldfields heritage provide an attractive landscape that draws tourists from within and outside the state.



Source: Department of Transport, Planning and Local Infrastructure

Map 3: Loddon Mallee South region

Total population of Loddon Mallee South Region – Victoria in Future 2012.
 Loddon Mallee Regional Strategic Plan 2010, p7.

Rural areas support a variety of farming operations, produce food, fibre and employment and contribute to the regional economy. The region's rural, infrastructure and social relationships extend beyond regional boundaries to communities of interest in other regions. These links and relationships have been considered in the development of this plan.

The City of Greater Bendigo has a total urban and rural population of 100,617⁴ people. The urban centre of Bendigo is a vibrant, growing regional city with a population of 82,794⁵ people, providing quality education and healthcare facilities, a strong economy and thriving cultural facilities. The network of larger and smaller towns, most of which connect closely to Bendigo, are central to the region's unique character.

Larger centres such as Gisborne, Kyneton, Castlemaine and Maryborough act as district hubs to smaller surrounding settlements and rural areas, both inside and beyond the regional boundaries. These larger centres offer a diversity of retail and community services and recreational and cultural opportunities that complement those on offer in Bendigo and Melbourne. Maryborough has strong links to Ballarat as well as Bendigo.

Melbourne's peri-urban hinterland

Peri-urban literally means the area around a settlement. Melbourne's peri-urban region is diverse, containing a mix of people, places and experiences. This predominantly rural area includes key urban settlements and townships, which face particular pressures for growth and change. In the Loddon Mallee South region it extends across the Macedon Ranges and part of Mount Alexander Shire between the north-western fringe of metropolitan Melbourne and Castlemaine. Urban settlements likely to experience these challenges for growth and change include Gisborne, Kyneton and smaller settlements, for example Romsey and Riddells Creek.

The peri-urban region includes a number of state significant land assets important to the functioning of Melbourne and Victoria as a whole. These include resources, infrastructure, environmental assets and cultural heritage assets (refer to Table 2). These land assets provide some of our most basic needs, which over five million Victorians rely on every day, such as quality air and water, food, fibre, and building materials for our homes and roads. The peri-urban region's unique natural, cultural and recreational assets provide great economic opportunities. This is a significant strength for the state, providing opportunities to maximise our competitive advantage over other cities and regions within Australia and the Asia-Pacific region. The economic opportunities provided by the assets and appropriate growth will contribute to the economy, our quality of life and environmental strengths. Considered land use planning will ensure we, and future generations, can continue to enjoy the benefits that this area provides.

⁴ Population of Greater Bendigo LGA – Australian Bureau of Statistics Census 2011.

⁵ Population of Urban Centre/Locality of Bendigo – Australian Bureau of Statistics Census 2011.

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

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

Collectively, the metropolitan planning strategy, *Plan Melbourne* and the peri-urban regional growth plans (G21, Central Highlands, Loddon Mallee South, Hume and Gippsland) provide the vision and broad strategic direction for land use and development across this area. The regional growth plans include high level framework plans for towns and cities where urban growth will be supported. In the Loddon Mallee South region, Gisborne, Kyneton and Castlemaine have been identified as peri-urban locations where growth is supported. The government in partnership with councils will work to provide specific statements about the peri-urban region to respond to the unique pressures and opportunities that are common to these locations. There is an opportunity to clearly articulate the outcomes envisaged for the complex peri-urban region at a finer grain. Stronger and clearer guidance for making land use planning and development decisions in the peri-urban region is needed, particularly where trade-offs between competing land uses are required.

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

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Table 2: State significant land uses present within Melbourne's peri-urban region

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

People and population growth

The Loddon Mallee South region has experienced, and is expected to continue to experience, strong population and economic growth, however this growth is unlikely to be evenly distributed across the region. There are areas of the region experiencing high levels of growth and others where population is decreasing. Based on current projections the region's population is projected to reach 242,200 by 2031⁶ and approximately 266,900 by 2041 (Victoria in Future 2012).

The Victorian Government uses Victoria in Future (VIF) 2012 as its official population projections. Population projections are estimates of future populations if current demographic, economic and social trends continue, and include analysis of Census data. They are based on observable, 'on the ground' changes in the population. Projections are not predictions of the future or targets for growth, but rather give an indication of what is likely to happen. These projections may differ as a result of different data sources used by councils, communities and individuals.

Table 3: Projected population changes across the Loddon Mallee Southregion to 2031

Local Government Area	Total Population			
	2011	2021	2031	
Central Goldfields (S)	12,800	13,500	14,000	
Greater Bendigo (C)	105,600	122,600	139,800	
Loddon (S)	8000	7800	7600	
Macedon Ranges (S)	43,200	51,300	58,900	
Mount Alexander (S)	18,400	20,100	21,900	
	188,000	215,300	242,200	

Source: Department of Planning and Community Development, Victoria in Future 2012

In Table 3, the total populations in 2011 represent the base populations for the VIF 2012 projections and are equal to the Australian Bureau of Statistics Estimated Resident Population at 30 June 2011.

In the Loddon Mallee South region there will be more people in all age ranges; however there is much higher growth in the older age ranges across the region. Providing appropriate housing and services for an ageing population is a challenge that needs to be managed. One role of this plan is to set out a desired future that ensures sustainable and viable communities and a strong economy while protecting the valued assets and character that define the Loddon Mallee South region.

Currently, both population and economic growth across the region is not uniform. The existing Calder transport corridor (road and rail) has accelerated growth in locations with ease of access to transport. Most growth is occurring in the corridor between Bendigo and Melbourne. The Greater Bendigo and Macedon Ranges municipalities have experienced rapid growth, above the region's average. Mount Alexander Shire has experienced steady growth, below the region's average. There has been a small amount of growth in Central Goldfields Shire and a decrease in overall population in Loddon Shire.

This plan does not predict a growth rate or forecast population size at specific periods in time. Instead, it acknowledges that there is likely to continue to be steady growth in the region and that the population is likely to reach the projected 266,900 by 2041. The plan considers the implications of growing to a population of 300,000 in this period, with 150,000 to 200,000 people residing in the City of Greater Bendigo. More information on population growth can be found in the background report.

6 VIF 2012 population projections are only available at local level for the period 2011 until 2031. Only a regional total projection is provided for 2041.

Economic growth

Over the past decade, the region has outpaced the rest of regional Victoria in economic growth. The key sectors contributing to this economic growth are financial, health and insurance services, manufacturing and mining. Agriculture continues to be a significant employer in the region, particularly horticulture, viticulture, poultry and swine. Population-driven sectors such as healthcare, construction, education and retail trade are also significant to the regional economy.

Bendigo has driven much of the economic growth in the region, through its function as the regional city. Bendigo had the highest annual average growth rate on Gross Regional Product among regional cities (2001 to 2011). While manufacturing is Bendigo's largest industry in terms of economic output, there has been substantial growth in all business sectors and 48,246 people are employed in the City of Greater Bendigo. The City of Greater Bendigo is home to over 4000 businesses including finance, information and communication technology, business, manufacturing, health, education and government. These sectors are anticipated to grow significantly in the future.

Attracting and maintaining younger age groups for both education and further employment will be critical to maintaining community diversity and a vital economy. The desire for the regional city and settlements to grow and sustain viable populations also relies on attracting families to the region, which in turn depends on offering a range of employment opportunities and appropriate access to social infrastructure.

Environmental and heritage assets

The Loddon Mallee South region contains significant environmental assets including native vegetation, waterways, soils and water supply catchments. These assets occur on both public and private land and need to be considered carefully when planning for the settlement and economic growth in the region. These environmental assets provide numerous environmental values to the region beyond supporting natural systems and processes, such as recreation and tourism destinations, supporting the attractiveness and liveability of the region, and enabling the provision of water and food for communities.

The region's cultural heritage assets include a rich goldfields history, rural production areas, historic settlements and places and landscapes of Aboriginal cultural heritage significance. These assets have always attracted, and will continue to attract, people to the region to live, work and visit.

The region has many well-known areas that contain multiple environmental and heritage assets, including the Castlemaine Diggings National Heritage Park, Hanging Rock, the Macedon Ranges, Terrick Terrick National Park, Kooyoora State Park and the numerous wetlands in the Loddon River Floodplain.

Transport access and infrastructure

The Calder transport corridor (road and rail) is the key transport spine in the region providing access to Melbourne to the south and Mildura through to Adelaide to the north west. Recent infrastructure investments have encouraged the growth of towns and communities along the corridor. Upgrades to the Calder Freeway and Bendigo rail line over the past decade have resulted in greater movement along this important transport spine. These networks and movements are critical to business and commuter transport.

Other key road links include the Northern and Sunraysia highways, which provide strategic routes to intra-regional cities such as Ballarat and Geelong; the Midland Highway, which provides a north-south link between the Hume Freeway and the Port of Geelong via Benalla, Shepparton, Bendigo and Ballarat; the McIvor Highway, which links Bendigo with Kilmore and Melbourne; and the Wimmera Highway, which provides a link from Bendigo to Horsham and South Australia. The Bendigo rail line enables commuting to larger centres for education and employment and access to a range of higher order services. The rail line has two branches north to Echuca and Swan Hill. This movement is between regional townships as well as to and from Melbourne.

The provision of infrastructure and the protection of assets are critical to achieving and managing growth. The provision of safe drinking water is essential and the quality of water sources has a major impact on human health. The region includes Lake Eppalock and Loddon River catchments, and their protection is important to help maintain the region's water supplies. Significant irrigation infrastructure is located in the north of the region, which provides water to extensive areas of irrigated farmland.

Relationships with other regions

The region has strong links with its neighbouring regions. The region is closely linked to the Loddon Mallee North, Hume, Central Highlands and Wimmera Southern Mallee regions, and to Melbourne at its southern end, sharing communities of interest, agricultural landscapes and production, as well as movement of people and goods between these regions. The proximity to metropolitan Melbourne is an advantage to access services and employment, but also puts residential growth pressure on parts of the region that are within 100 kilometres of Melbourne.

The Loddon Mallee South region's relationship with metropolitan Melbourne is important and will continue to influence regional growth. Many residents commute to Melbourne for work, it is the location through which exports take place and its residents are major consumers of regional products and tourism. As transport links with Melbourne are improved, this interrelationship will continue to strengthen. The links to Loddon Mallee North are through existing passenger rail transport connections to Echuca and Swan Hill with road, freight, farming links and vegetation corridors across both regions. Towns such as Maryborough in the south-west of the region also have a strong relationship with Ballarat, another growing regional city in the Central Highlands region. Bendigo, as the regional city in Loddon Mallee South, is located at the junction of the Calder, Loddon Valley, Midland, Wimmera and McIvor highways, providing connections to interstate and trade routes. Bendigo provides employment and services to communities within and outside the region. Some towns in Loddon Mallee North and Hume regions rely on Bendigo for high level services such as health and education.

Map 4 shows links between Loddon Mallee South and surrounding regions.

6.1 Strategic assets

This plan builds on the region's strategic assets to support growth while respecting the natural attributes that characterise the region.

Map 5 shows the key strategic assets including:

- significant tourism areas, such as the Goldfields region, the Macedon Ranges and Bendigo
- the central role Bendigo plays in providing high level services and facilities to the region and surrounding regions
- the central location of the region within Victoria, making it highly accessible from other areas and a strong location for business
- the Calder transport corridor and other major transport networks, which provide easy access for both passenger and freight transport
- a well-established agricultural industry, including significant irrigation infrastructure
- environmental assets including forests, rivers and water bodies.

PART B | REGIONAL OVERVIEW

Map 4: Links to surrounding regions





REGIONAL OVERVIEW | PART B

Strong transport networks

The region is located centrally in the state and is highly accessible and attractive to live, work and visit. The existing transport corridors provide links within and outside the region, providing for capacity for the region to grow. Strategically renew, maintain and develop infrastructure to maximise opportunities and services to meet anticipated need. The upgrade of Bendigo airport will facilitate existing emergency services access and potential future passenger services.



Water ways

The region contains significant water assets. These rivers, waterways and wetlands contribute to the attractive natural environment and support important ecosystems, heritage values and provide essential water supply to the region's people, industry and environment.

Health, education, finance and research facilities

These assets service communities both within and outside the region. The upgrade to the Bendigo Hospital, the growth of institutions such as Latrobe University and the strong finance sector attract people to the region. They are significant to the economy and growth for the future.

Settlements

The region has a network of connected unique settlements which provide for a variety of lifestyle options. These settlements are nestled within forest and rural areas providing high amenity and attractive landscapes.

Areas containing high value terrestrial habitat

Significant areas of high natural value occur across the region that attract tourists, residents and industry and contain important and environmental assets.

Mixed farming

The region is agriculturally diverse and can continue to adapt and evolve due to good soils, efficient flexible farming systems and vast tracts of land.

Irrigation.

State significant irrigation.

Public land

Public land protects many natural, amenity and heritage values within the region and generates tourism and forestry income.

Significant tourist area

Includes some significant cultural heritage places and landscapes.

(1) Represents the three highest levels of NaturePrint strategic natural values

Source: Department of Transport, Planning and Local Infrastructure



7. Drivers of change

The Loddon Mallee South region is growing in population, the economic profile is changing and so are the means of rural production and the quality of landscapes. These critical drivers of change have been identified through input from the Loddon Mallee South Regional Growth Plan Project Steering Group and Technical Working Group.

Drivers of change range from global economic trends and impacts to more state and regional considerations.

In summary, the key drivers of change in the region include:

- the proximity to Melbourne and strong transport links of the Calder transport corridor, increasing the movement of people and goods and the interrelationship of employment and tourism
- improved accessibility with connections to the north, east, west and south to support the movement of people and goods
- the relative affordability of housing compared to Melbourne, combined with the regional lifestyle, amenity and culture
- Bendigo, the regional city, providing many higher order services and offering an alternative to Melbourne
- changes in economic sectors, particularly agriculture and manufacturing, influencing employment and population movement within the region
- managing growth within a naturally hazardous landscape, particularly when considering flood and bushfire risk
- federal and state government policy having a significant impact on growth
- impacts of climatic conditions such as long-term droughts, widespread flood and an increase in the number of days of extreme heat and bushfire danger.

8. Challenges for growth

There are a range of challenges for growth in the region, aspects of which this plan seeks to manage or address. These include:

- the uneven distribution of both population and economic growth across the region, and the need to support smaller communities
- managing growth so that it does not overwhelm the environmental and social attributes that are attracting growth
- ensuring land supply for employment and housing
- adapting to the potential impacts of changing climate
- managing growth in a way that protects the environmental assets and natural resources of the region
- ensuring all growth is supported by sustainable reticulated or independent infrastructure services, such as water, power and waste and resource recovery in particular
- supporting residential and commercial growth of centres throughout the region and access to employment, education and services, including from dispersed settlements
- stimulating sustainable growth over the long term while maintaining the distinctive character of the region's rural areas and towns
- maintaining the extent of the region's agricultural areas recognising its importance to the region's economy
- managing the risk to settlements from natural hazards such as bushfire and flood
- supporting capacity enhancements to infrastructure to enable sustainable growth
- future-proofing transport routes to support efficient freight and people movement
- the ongoing maintenance and replacement of ageing infrastructure.

9. Vision for the region

The vision and principles for the Loddon Mallee South Regional Growth Plan have been developed from the Strategic Plan 2010 and in conjunction with the Loddon Mallee South Regional Growth Plan Project Steering Group and Technical Working Group. The vision for the Loddon Mallee South Regional Growth Plan is: In 2041 our communities continue to enjoy regional liveability with urban accessibility. We are a region with vibrant, innovative, sustainable and connected communities offering a diversity of lifestyles, building on our heritage, natural environment and agricultural landscapes.

The region is home to some 300,000 people by 2041, with access to employment, infrastructure, educational opportunities, healthcare and other services. The region continues to attract new investment and a diverse range of jobs, anchored within a diversifying economy, capitalising on competitive advantages.

10. Principles to achieve the vision

Principles	Future Directions
1. Manage our population growth and settlements	Focus growth to the region's existing settlements with capacity for growth
Sustainable growth is encouraged to enhance the integrated network of settlements that characterise our region. Our settlements will continue to be attractive places to	 Reinforce the role of Bendigo as the regional city, offering a range of employment and services as an alternative to Melbourne
live, with high amenity and access to services.	 Target new growth to settlements including Bendigo, Maryborough, Castlemaine, Gisborne and Kyneton
	 Plan for settlement growth away from areas of high risk from natural hazards such as bushfire and flood
	• Favour development proposals that maximise existing infrastructure and provide significant economic or community benefit
	 Manage settlement growth to limit the impact on agricultural productivity, natural resources and ecological values
	Value the region's unique and connected communities

Principles	Future Directions
2. Strengthen our communities, especially in our small towns Small towns and villages play an essential role in the function and character of the region. Many of the small towns have significant historic or landscape value and offer an alternative lifestyle from the more urbanised and larger centres. Supporting the diversification of the economy of these (and other) small towns is important, as is maintaining social infrastructure and services.	 Support the ongoing role of the region's small towns and settlements Acknowledge the non-urban population's contribution to the region Invest in liveability, infrastructure and urban design initiatives to make the region's towns great places to live Build community connectedness and reduce areas of social disadvantage Build a skilled and adaptable workforce by attracting skilled workers and providing access to high quality education and training opportunities, which provide pathways to employment Plan for the facilities and infrastructure needed for delivery of education and training to support growth
3. Strengthen and diversify our economy Ensuring access to diverse employment, recreation, retail and cultural activities will develop Loddon Mallee South as a preferred destination and self-sustaining region. Strategic opportunities for the growth of the region's economic base, including agricultural diversification, minerals and extractive industries and new industries, will also be facilitated.	 Enable residents to work and participate in the region by continuing to expand the region's diverse economy Leverage greater employment and investment outcomes from growth sectors such as health, education and professional services Develop employment areas that are located, serviced and sited to take advantage of water, infrastructure, transport and energy connections Support and develop emerging and potential growth sectors such as tourism, renewable energy, resource recovery and other green industries
4. Improve our infrastructure Good infrastructure enables our communities to remain connected, sustainable and vibrant. Planning for growth is undertaken alongside planning and development of infrastructure to enable economic and settlement growth in strategic locations.	 Strategically direct growth to locations with good existing infrastructure and infrastructure with the capacity for enhancement Provide adequate waste and resource recovery infrastructure and services to support new developments and population growth in the region Ensure that the current and future operation of major infrastructure of state and regional significance, including highways, railways, airports, communications networks and energy generation and distribution systems, is not adversely affected by urban development in adjacent areas Prioritise infrastructure that connects the region's communities through physical and electronic means, such as transport and internet access Strategically renew, maintain and develop infrastructure to maximise opportunities and services to meet anticipated need Protect water quality and quantity Provide for the future of waste management and resource recovery
Principles	Future Directions
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5. Improve education and training outcomes Whole-of-life education and training is critical to overall health and wellbeing. Educational attainment brings personal, social and economic benefits to individuals and communities. It also creates opportunity through increased access to employment for individuals and helps to address regional skill shortages and assists in strengthening and diversifying the economy.	 Build a skilled and adaptable workforce by attracting skilled workers and by providing access to high quality education and training opportunities, which provide pathways to employment Plan for the facilities and infrastructure needed for delivery of education and training to support growth
6. Protect and enhance our natural and built environment Settlement growth and development will occur in sympathy with environmental and heritage assets including native habitat, waterways, wetlands, soil health, water quality and Aboriginal cultural heritage and historic heritage. This will involve celebrating how our environmental assets contribute to the liveability of the region, attracting visitors as well as supporting community wellbeing.	 Protect and improve the condition of the region's important environmental assets such as the forests, wetlands and rivers Protect identified visually important landscapes, and cultural and built heritage places Plan for settlement growth to occur in locations that avoid areas of high risk from natural hazards such as bushfire and flood Manage settlement growth to limit the impact on agricultural productivity, natural resources and environmental assets Maintain the non-urban breaks between settlements Minimise the impacts of land use change and development on areas with significant environmental assets
7. Ensure our food, water and energy security Our farming and food production areas will be strengthened to optimise opportunities for the production of energy. Protection of our water sources and infrastructure is important to sustain growth for our urban and rural areas.	 Facilitate ongoing agricultural productivity and investment in high value agriculture Support ongoing adaptation and flexibility for the agricultural sector Facilitate ongoing agricultural productivity and new opportunities that respond to the potential impacts of climate change Support the sustainable use of rural land, including the development of regional catchment strategies and other suitable tools Encourage and facilitate development in renewable energy, waste to energy, carbon sequestration and other new energy opportunities Protect water quality and quantity
8. Collaborate to achieve our region's goals	• Utilise existing regional and local networks, for example, Regional Development Australia, the Regional Management Forum and local community planning networks, and other suitable forums to share information, identify agency leads and collaborate on regional projects



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

11. Regional economy

Future directions

- Enable residents to work and participate in the region by continuing to expand the region's diverse economy
- Leverage greater employment and investment outcomes from growth sectors such as health, education and professional services
- Develop employment areas that are located, serviced and sited to take advantage of water, infrastructure, transport and energy connections
- Support and develop emerging and potential growth sectors such as tourism, renewable energy, resource recovery and other green industries

Overview

This section outlines the existing and potential future economic sectors and strengths of the Loddon Mallee South region, including its business, industry and services, natural resources and agricultural assets. Economic growth and prosperity can improve with population growth. Many people choose to live in the region for liveability reasons, but employment options and economic growth are critical for a viable future. This section outlines the future directions and actions to grow the regional economy and regionally important industry sectors.

To build on the region's economy, planning for employment growth needs to occur alongside planning for population. There needs to be adequate serviced and zoned land in strategic locations and appropriate levers to attract and maintain businesses in the region. Developing a broad range of employment options that build on existing economic strengths and opportunities will contribute to the overall wellbeing of the region's communities.

The three structural drivers of growth in the economy are productivity, labour force participation and population. Loddon Mallee South's population growth rate over the past decade has been less than the state average but higher than other regional areas. Labour force participation rates, and the latest unemployment figures, were lower than the state average. However, the region has performed comparatively well in terms of productivity growth⁷.

While the region does not yet have a regional economic development strategy, recent work undertaken by Regional Development Victoria on the Loddon Mallee South's economic outlook has informed the directions outlined in this plan. More information about this regional economic work and associated reports is contained in the background report. The regional economy is diverse and based on traditional sectors such as manufacturing, earth resources and agriculture as well as servicesbased sectors such as healthcare and finance. The region encompasses a broad range of agribusiness activity including agriculture, forestry, fishing and processing. Livestock products, including milk production, livestock processing and crops, are strong basic economic sectors. These are supported by growing service sectors including finance, health and education, as well as retail and wholesale trade and tourism-related industries.

Bendigo, as the regional city, is the powerhouse of the region's economy, and will accommodate the majority of future jobs growth. A detailed discussion of this regional city and its settlement and economic role in the region is contained in Section 13.2 Bendigo – the regional city.

It is estimated that around 50,000 new jobs will be required to support a projected future additional regional population of 120,000 people. This assumes one job per household with no net increase in commuter travel to Melbourne or outside the region.

The Calder transport corridor has historically influenced settlement patterns. Future strategic settlement needs to be appropriately located, serviced and sited to take advantage of water, infrastructure, transport and energy connections. Improved transport links and services within the region and the regional rollout of the National Broadband Network, when combined with other targeted initiatives, seek to increase current workforce participation levels and reduce commuting to Melbourne. Increased workforce participation within the region improves economic and social activity, a key direction of this plan.

11.1 Building on economic strengths

Each municipality in the region has existing and emerging economic strengths that can be leveraged to further develop a regional economy.

While each local government area has its current and future strengths and opportunities, the development of a truly 'regional' economy has wider benefits for the region. This includes taking advantage of:

- a wide variety of population-driven jobs, which includes health, education, finance and a fast-growing professional services sector, and underpins the region's economic success
- higher value agricultural production, food processing and freight links within the region and to the north
- existing earth resource industries
- competitive environment and conditions, such as land prices and labour costs, for industry to relocate to the region
- the already strong health, education, finance and professional service sectors in Bendigo
- the natural and cultural tourism assets across the region
- existing transport networks that enable movement of goods and people within and through the region.

Ensuring the future economic success of the region requires a variety of levers, investment and initiatives that are beyond the consideration of this plan but are considered in the Strategic Plan 2010 and other initiatives and actions.

Bendigo, as a growing regional city, is the key service centre for its hinterland and the significant economic and employment base for the region. The regional city's economy has strengthened and diversified in recent years, with employment now more orientated towards services industries.

Key shifts in the contribution of various industries to the regional economy include:

- the healthcare and social assistance sector, including justice facilities, has emerged as an important sector for regional employment
- the construction sector is important to regional employment and workforce expenditure on other goods and services
- the finance and insurance services sector is one of the fastest growing employment sectors in the region
- the professional, scientific and technical services sectors are growing
- the mining sector had the highest employment growth rate over the past decade but accounted for only two per cent of total employment in the region in 2011
- the manufacturing sector, while still being one of the largest and most important regional sectors in terms of output and employment, has been out-performed by other sectors.

There is a range of emerging opportunities in the region that will be supported to develop and diversify the economy. These include:

- innovation, research and development in, for example, medical and agriculture and animal industries, and renewable and alternative energy
- telecommunications
- defence equipment manufacturing
- engineering and transport-related production
- equine industry
- hospitality and related food and wine products and services
- tourism, including nature-based and agritourism
- agricultural diversification and intensification.



Wine production, Loddon Shire

11.2 Working in the Loddon Mallee South region

Business, industry and services

Health, finance, and education

The economic drivers of population growth in the Loddon Mallee South region include health and community services, higher education, vocational training, secondary education, specific government services, banking, including Australia's only bank headquartered in a regional city, and business services.

Infrastructure investment in the already strong education and health sectors is expected to ensure these sectors flourish.

The existing road and rail network, including recent upgrades, has influenced locations for economic growth. There are opportunities to promote further growth in locations that are well serviced by transport networks and with the capacity for transport enhancements.

Manufacturing

The region has a traditional reliance on a strong manufacturing base. The manufacturing sector is currently the largest employer across all local government areas except for Loddon Shire, where agriculture dominates⁸.

Dominant manufacturing sectors include food and beverage, metals and engineering, transport manufacture, building products, and textiles and clothing. Currently the local manufacturing sector has a high degree of expertise as evidenced by the development of new technologies exported throughout the world⁹. Defence equipment manufacturing and engineering has emerged as a strong sub-sector. There are opportunities to further support the manufacturing sector through developing supply chain linkages, particularly with the Loddon Mallee North region where there are opportunities to process products from the north. Attracting significant investment in high value agricultural production, processing and manufacturing is important to growing this sector.

Ensuring adequate industrial zoned land is critical to attracting and maintaining manufacturing businesses and industry in the region. The development of the Marong Business Park is a significant project aimed at attracting and growing such businesses in the region.



City Family Hotel and Bendigo Bank, Bendigo

8 Street Ryan, 2012, Loddon Mallee South Economic Profile and Outlook, p12.

9 Department of Business and Industry, 2011, "Loddon Mallee region, Victoria Australia, an ideal investment location"

Tourism and recreation

The Loddon Mallee South region is an attractive tourism destination known for its natural assets and landscapes, with popular activities including recreational fishing, bushwalking, cycling and horse riding. Visitors are drawn to the region for its rich goldfields and cultural heritage, attractive towns, food and wine, and a variety of festivals and events. These visitors help support art and recreation, tourism and hospitality services.

The Bendigo Art Gallery has hosted significant events in recent years. Further growth in tourism across the region will require adequate accommodation and facilities, promotion and continued investment in existing tourism infrastructure, from walking trails to convention centres. Castlemaine Diggings National Heritage Park is a significant tourism asset, for which World Heritage designation is being sought to underpin tourism.

The region's natural tourism assets, such as forests and rivers, need to be protected from development impacts. There may be future opportunities, in accordance with government policy and guidelines, to attract private investment in appropriate tourism infrastructure on public land to benefit regional tourism. Flexibility for the development of agritourism opportunities, in conjunction with agricultural uses, is supported.

Natural resources

Energy generation

Innovation in new technologies, farming practices and renewable markets will foster opportunities for carbon sequestration, biomass and renewable energy production. On-farm options for new energy generation include bioenergy and biofuels produced from agriculture and forestry wastes through various future technologies. Many technologies can occur concurrently with the primary agricultural use of the land. Programs and land use controls that allow for such uses are both required to facilitate these activities on farms.

Carbon market initiatives and energy generation activities, and their potential effect on the long-term agricultural viability of high value agricultural land, need to be carefully considered in land use policy. These same carbon initiatives and energy generation activities can coexist and complement agricultural land uses, supporting diversification and growth opportunities for the agricultural sector. Further work is required in the region to identify strategically important land for agriculture and alternative uses, such as energy production.

Earth resources

Renewed interest in the region's gold deposits over recent years has grown into a significant driver of the local economy. Goldmining has contributed direct benefits through growth in related industries such as quarrying services and hydraulic manufacturers to meet the needs of the sector.

Emerging mineral sands mining in the Loddon Mallee North region also has benefits and impacts on the southern region in relation to industry links and freight (refer also to Section 14.2 Transport networks).

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Significant deposits of earth resources, including gold, and sand and stone resources have significant economic potential for the region and it is recognised that residential growth or infrastructure developments in proximity to extractive industry resources, especially quarries, can lead to constraints in earth resources operations. Appropriate buffers to protect existing and new activities need to be recognised. Retaining access to locally sourced construction materials such as sand and stone can help to reduce construction costs, which will benefit regional growth.

Extractive industry interest areas occur within the region, which contain areas of known future interest to the extractive minerals industry, for example, sand and stone. Areas are based on suitable geological occurrence and also take into account existing local government planning schemes. They are intended to provide a guide to local government in developing future planning policy. In response to the Economic Development and Infrastructure Committee's *Inquiry into greenfields mineral exploration and project development in Victoria*, the Victorian Government has committed to various activities that will undertake further data gathering and planning to better protect the state's extractive resources for future development. The outcomes of these activities may have implications for future planning provisions. Extractive industry interest areas located in the region are shown on the map included as figure 21 in the background report.

Future economic land use actions

- Support the growth of Bendigo as the regional city and major employment and services hub
- Increase social and economic participation within the region through increased employment options, improved telecommunications and transport access
- Ensure there is adequate zoned and serviced commercial and industrial land for employment in the regional city and centres as sub-regional hubs
- Accelerate the development of the Marong Business Park as a key new location for industry and business
- Attract new manufacturing and food processing industries to build on supply chain linkages and take advantage of cheaper land prices and location attributes
- Achieve designation of Castlemaine Diggings National Heritage Park as a World Heritage place to underpin tourism
- Maintain and develop buffers around mining and quarrying activities
- Identify, manage and facilitate access to natural resources where appropriate, including sand and stone, minerals, timber and renewable energy potential
- Increase opportunities for emerging sectors through policy support, investment and incentives
- Protect existing transport corridors and precincts, including opportunities for capacity enhancement, to support economic growth
 Map 6 shows future economic directions for land use in the region.

Map 6: Future economic directions



Source: Department of Transport, Planning and Local Infrastructure

11.3 Agriculture

Future directions

- Facilitate ongoing agricultural productivity and investment in high value agriculture
- Support ongoing adaptation and flexibility for the agricultural sector
- Facilitate ongoing agricultural productivity and new opportunities that respond to the potential impacts of climate change
- Support the sustainable use of rural land, including the development of regional catchment strategies and other suitable tools
- Encourage and facilitate development in renewable energy, other new energy opportunities and in carbon sequestration activities
- Protect water quality and quantity

Overview

The majority of the Loddon Mallee South region is rural in character, a significant portion of which is used for agricultural production. The region is agriculturally diverse, with irrigated dairying, cropping and grazing in the north-east and large-scale productive cropping, dry land and mixed farming in the north-west (predominantly in Loddon Shire). Wineries, orchards and olive groves are located throughout the region, with clusters in the Macedon Ranges, Harcourt Valley and around Bendigo. Intensive animal industries are a significant economic contributor. Mixed farming also occurs in the south of the region, such as in the Central Goldfields and Mount Alexander shires.

While agriculture remains an important economic sector for the region, according to research undertaken by Regional Development Victoria (2012), its growth has declined over time. Nevertheless, the region has a clear goal to support and promote the growth of its agricultural sector.

Priority Action 3.2 of the Strategic Plan is to, "Attract investment in high value agriculture production and added-value processing, including in intensive agriculture-related industries leveraging off the region's strengths of good soils, efficient, flexible farming systems and vast tracts of land to deliver new jobs and encourage efficient resource use".

Agriculture provides employment and exports for the region, particularly for Loddon Shire. Beyond the economic significance, the continued viability of agricultural areas is critical to land and environmental management, social wellbeing for rural communities and an important aspect of the regional landscape. With the climate and economy changing, the ability of farming communities and practices to adapt will be critical to a viable future. Support is necessary for farming communities to transition from traditional irrigation practices towards investments in new technologies and diversification of economies.

Cropping and grazing

The size, scale and products of the region vary significantly, with Loddon Shire the predominant rural production area. Productive dry land farming is also a feature of Central Goldfields Shire. There is a range of mixed farming and grazing, dry land farming and cropping on broadacre land. Generally the soil type and water availability (from irrigation networks, rainfall, rivers and groundwater supplies) enable this productivity. In the face of climate change, the region may experience reduced average rainfall and stream flow, which may result in reduced availability of water for irrigated and non-irrigated enterprises and for communities. Changes in average temperatures may change the mix of industries that can be viable into the future, but may also generate opportunities for some.

A consistent regional approach to identifying strategically important agricultural land is required. The North Central Catchment Management Authority is leading the Innovative Farming Program that aims to assist farming communities to achieve a confident and prosperous region, healthy resilient environment, sustainable profitable farming and regional growth. The reformed rural zones are to be applied to protect large-scale farming and focus any smaller rural lot development only to strategically low value land.

Intensive agriculture

As discussed in the Loddon Shire Rural Zones Review (2012): "Intensive agriculture refers to production systems that require high capital inputs in terms of buildings, storage and infrastructure. Examples are poultry and egg production, piggeries, dairy farming and some types of horticulture¹⁰." Feed needs to be brought in as stocking rates are higher than can be fed on acreage, requiring transport access and movements.

Within the region the most common forms of intensive agriculture are broiler farms, egg production and piggeries. Future expansion of these industries is sought with strong links to other emerging strengths in food processing and freight-related industries.

Areas most suited for further development of these industries are in the north and west of the region where there are large farms with appropriate separation distances for biosecurity and amenity protection. While intensive agriculture is encouraged in these areas, this does not prevent these industries exploring other locational opportunities where appropriate separation distances can be achieved. These industries need to be located with access to water and electricity infrastructure and proximity to processing facilities and markets. Planning for the establishment and expansion of these industries needs to occur in a manner consistent with orderly and proper planning and protection of the environment.

Equine industry

The equine industry is an important existing and emerging sector in the region. Currently most prominent in the Macedon Ranges *"the horse forms a large part of the local economy from the breeders to the support industries such as vets, farriers, dentists, trainers and instructors, suppliers and manufacturers of horse-related products as well as fencing and other horse property building and maintenance*¹¹." The industry also contributes to the community through its recreational activities such as pony and adult riding clubs, riding for the disabled, trail riding clubs, dressage clubs and local competitions and training.

There are links to other equine-related businesses in Bendigo, and further opportunities to develop the industry in the Central Goldfields region, leveraging from the existing racing facilities. A key to further developing the equine industry is applying zones or nominating precincts in suitable locations that allow for the optimum operations of equine activities.

Orchards, vineyards, groves and plantations

There are existing highly productive and emerging boutique industries throughout the region including vineyards, olive groves and orchards mostly on medium or smaller farming allotments. A variety of complementary activities can be associated with these businesses, from farm-gate sales to wine tasting and events. In many cases, these rural uses are linked to the region's tourism potential, for example, the food and wine trails and farmers' markets that exist in the region.

One of the world's largest single estate olive groves is located near Boort, and includes an on-site olive processing plant to make premium extra virgin olive oil.

¹⁰ Loddon Shire Rural Zones Review 2012, p30.

¹¹ Macedon Ranges Equine Strategy 2012, p2.

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There is opportunity to develop regional agribusiness and agritourism strategies. Identification of appropriate clusters and locations needs to occur combined with appropriate rural zones that allow for additional complementary uses to be developed.

Rural small lot development

There is ongoing pressure to provide for small lot rural living development within the region. The intensity of this pressure, the justification for the use and development of such lots and housing, and the demand and supply of rural living land varies significantly across the region. In some locations, smaller lots already exist but have been restricted for the construction of dwellings, while in other locations there is pressure to establish smaller lots from larger productive agricultural land holdings.

While these proposals should be dealt with on a case-by-case basis at a local level, the development of a regional approach to small lot development would assist and support decision making. This approach would be informed by the classification of strategically important land and the appropriateness of development within declared water supply catchments.

Smaller lot development should be located to:

- integrate with existing urban areas
- avoid or complement strategically important, highly productive agricultural land, natural resources, significant natural hazards (especially bushfire), significant landscapes, environmental and cultural heritage assets
- assist to achieve better land use management outcomes.

Future rural and agricultural land use actions

- Support agricultural activity through management of land use conflicts and appropriate land use strategies
- Identify emerging agribusinesses and location clusters including the equine industry, and intensive animal industries such as cattle feed lots, piggeries and poultry farms
- Identify agribusiness and tourism clusters in the region and implement appropriate land use measures to facilitate agricultural tourism activities through the application of the reformed zones
- Develop a regional approach to small lot development using the reformed rural zones implementation
- Develop a consistent regional approach to identify strategically important agricultural land, land use clusters and links to processing, manufacturing and freight opportunities in the region through a combined food, freight and energy strategy for the region
- Support the increased efficiency of irrigated agriculture
- Work cooperatively with catchment management authorities to develop a carbon action plan

Map 7 shows future directions for rural land use in the region.

Map 7: Future rural land use directions



12. Environment and heritage

Future directions

- Protect and improve the condition of the region's important environmental assets such as the forests, wetlands and rivers
- Protect identified visually important landscapes and cultural and built heritage places
- Plan for settlement growth to occur in locations that avoid areas of high risk from natural hazards such as bushfire and flood
- Manage settlement growth to limit the impact on agricultural productivity, natural resources and environmental assets
- Maintain the non-urban breaks between settlements
- Minimise the impacts of land use change and development on areas with significant environmental assets

Overview

The Loddon Mallee South region has rich and diverse environmental and heritage assets. The Strategic Plan 2010 recognises that the natural ecosystems, rural landscapes and water catchments of the region are critical to the region's attractiveness, liveability, cultural heritage and economy. The Strategic Plan 2010 aims to protect and enhance the region's natural and built environment and to foster the resilience and intrinsic values of the natural environment and farming systems. It also recognises that the Aboriginal cultural heritage and historic heritage, particularly goldfields heritage, in the region provide tourism opportunities and have a significant influence on land use patterns and decisions. The region will benefit from its significant environmental and heritage assets through advancing sustainable economic diversification opportunities including tourism, renewable energy and green industries. Detailed land use planning consideration is required to manage the impacts of growth. These planning considerations are illustrated in Map 8 – Future environment and heritage directions. Key aspects of the region are explored further in Section 12.1 Environment and heritage assets and Section 12.2 Natural hazards and risks.

Pressure for urban and rural residential development in areas of high amenity or natural value, such as the Macedon Ranges, presents a challenge for land use planning, but also presents opportunities for tourism and other economic diversification in the region¹². Communities in these areas value their natural environment highly and want to see it protected from inappropriate development. The impacts of land use change on surface water quality and quantity need to be considered especially in declared water supply catchments. Balancing these pressures, along with the natural hazards associated with these areas, such as bushfire, flood and salinity, are a key challenge for this plan and more detailed local planning.

The North Central, Goulburn Broken and Port Phillip and Westernport catchment management authorities coordinate investment into the protection and enhancement of the environment throughout the region, along with public land managers. Regional catchment strategies are the primary integrated regional strategies for achieving improved environmental outcomes in the region. Regionally significant environmental assets¹³ are clearly described in these regional catchment strategies. This plan can complement catchment management authority activities and initiatives through appropriate land use planning mechanisms. Regionally significant assets identified in regional catchment strategies should be considered in local planning decisions.

12 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.

13 For the purpose of this plan, regionally significant environmental assets cover all assets that are of regional, state, national or international significance.



Map 8: Future environment and heritage directions

Source: Department of Transport, Planning and Local Infrastructure

12.1 Environment and heritage assets

Environmental and heritage assets are essential to the Loddon Mallee South region's continued growth, providing foundations and attractors for many industries and people. Protection and enhancement of environmental assets present many opportunities for the region and will be managed in the context of growth. Key environmental and heritage assets are discussed below. More detail on the region's environment and heritage assets, including more detailed mapping, is included in the background report.

Cultural heritage

A priority action of the Strategic Plan 2010 is to establish Australia's first heritage region, linked to the goldfields heritage, as an iconic destination to increase awareness of our natural heritage and promote tourism in the region. A major initiative, Goldfields – Australia's Premier Heritage Region, is under way in partnership with the neighbouring Grampians region to establish the Castlemaine Diggings National Heritage Park as a World Heritage site and to have the whole goldfields region recognised worldwide as Australia's premier heritage region. The Strategic Plan 2010 also contains initiatives to develop cultural heritage and other tourism opportunities around natural heritage, such as a Box-Ironbark interpretation program.

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 Dja Dja Wurrung Clans Aboriginal Corporation, Taungurung Clans Aboriginal Corporation and the Wurundjeri Tribe Land and Compensation Cultural Heritage Council Inc. have legislated responsibilities relating to the management of Aboriginal cultural heritage places in the Loddon Mallee South region. This arrangement recognises the key role that Aboriginal people have in the protection and management of significant Aboriginal cultural heritage places. Native title is also held over Crown land in a significant portion of the region by the Dja Dja Wurrung Peoples.

Native vegetation

Aside from the region's well-known significant forested areas, such as the Macedon Ranges and Box-Ironbark forests, there are also significant areas of native grasslands, often on private land. These assets pose a challenge for land use planning, but also create opportunities around nature-based tourism and access to income from providing ecosystem services.

Key initiatives of the catchment management authorities include improving the quality of remnant habitat and increasing connectivity between remnant vegetation, especially significant vegetation asset areas as identified in the regional catchment strategies. The Strategic Plan 2010 further supports this through its priority action 6.1 to "engage the Loddon Mallee South community in actions such as the BushTender program and Landcare activities to protect rural land and improve connectivity of native vegetation along major corridors, ultimately linking to the Murray River".

Other initiatives and opportunities in the region to enhance the native vegetation coverage in the region include capitalising on ecoMarkets, biodiversity offset markets and carbon markets to link high value native vegetation on private land to public land reserves. Additional opportunities are emerging in the region since the Strategic Plan 2010 was released, including enhancing native vegetation coverage in the region through capitalising on initiatives that support national and global action to reduce greenhouse gas emissions, such as carbon markets.

Regional natural resource management planning and land use planning will need to consider any potential increase in natural hazards as a result of such activities. This is particularly relevant to any changes in landscape fire and flood risks that may result from increasing treed vegetation cover, especially where occurring in close proximity to settlements.

Waterways

The region covers parts of the Avoca, Loddon, Campaspe, Goulburn, Maribyrnong and Werribee river catchments. Rivers and wetlands are highly valued by regional communities for their intrinsic environmental values and also support communities by providing water to farms, towns and industry. Waterways play a key role in providing tourism and recreational opportunities and support significant cultural values.

Many rivers and wetlands within the region are critical for supporting tourism within smaller settlements, for example, Little Lake Boort and the Loddon River at Bridgewater. Land use planning can help address some of the threats to the region's highly valued waterways from urban and rural land use changes, such as changes to flow regimes and poor water quality. Water supply is discussed in Section 14 Regional infrastructure.

Catchment health

Significant pressure for increased urban and rural settlement exists in some declared water supply catchments, which needs to be carefully managed to protect both water quality and water supply. The rapid growth of domestic and stock dams that is occurring in rural residential areas across the region will have implications for water supply, particularly in drier years. The impacts of increased density urban development, such as increased pavement area and runoff, and from some rural activities, such as intensive animal industries, can also impact on the rate and quality of water runoff to waterways through drainage lines. The overall impact of activity within water supply catchments needs to be constantly monitored and managed.

Land use planning decisions in these areas need to consider the appropriate management of risks to water quality, for example, from wastewater. Councils and water authorities need to work closely together to identify and plan for rural residential developments in these areas. Councils may need to consider reviewing their domestic wastewater management plans to support this planning. As new technologies and guidelines emerge relating to development in these catchment areas, the region will need to consider their implications on the type of settlement and economic activity that could then emerge, and carefully plan for these in a way that maintains and protects catchment health. This is especially important within the Loddon Mallee South region, given that most of the south of the region is part of declared water supply catchments (refer to Map 8 – Future environment and heritage directions).

Soils

Healthy and productive soils are essential for the continued economic success of the region, particularly for agricultural enterprises. Land use planning can assist in the protection of the region's soil resource by ensuring that land use change does not disturb soils to a level that could result in deterioration of the soil asset within the region, or further contribute to the pollution of waterways in any significant volume. Overlays such as the Environmental Significance Overlay or the Erosion Management Overlay can be used to enhance the protection of soils across the region. Protection of significant agricultural land through suitable planning mechanisms will also help to protect the region's soils.

12.2 Natural hazards and risks

The risks from natural hazards need to be explicitly considered in both strategic and statutory planning to ensure the safety of settlements from, for example, bushfire and flood. An overview of the regional planning implications of natural hazards is provided below. More detail on natural hazards, including mapping, is included in the background report.

Flood

There are a significant number of urban settlements within the Loddon Mallee South region that are exposed to flood risk (see Maps 8 and 9) which needs to be considered in future planning for growth. Wider landscape risks are discussed in the background report. It is important for this plan to address any increased hazard posed by potential land use change in the region. The risks presented to land use from flood hazards must be considered in regional and local planning decisions. These decisions should be based on the best quality information on flood hazards to minimise risk to life, property and infrastructure.

Flood mapping is critical to the continued success of land use planning. Mapping of the January 2011 flood in some areas, the highest on record, is still being translated into planning scheme overlays. New flood investigations will help inform a consistent and accurate approach to flood risk management in planning schemes across the region.

With a changing climate, there will be an increased risk of flood. Though there will be fewer rainfall days, there is likely to be an increased incidence of heavier rainfall events, which may result in riverine flood, flash flood and storm damage.

The extent and coverage of flood controls in the region's current planning schemes varies between councils. The region would benefit from a more consistent approach to flood-related planning controls to avoid inappropriate development or redevelopment and support appropriate development responses. The growth directions in this plan for individual settlements (refer to Section 13 Living in the region) consider flood hazards.

Bushfire

Challenges exist within the Loddon Mallee South region given the large number of high bushfire hazard areas that intersect with settlements (refer to Maps 8 and 9), and the number of areas experiencing rural residential and tourism expansion. Regional and local planning consider bushfire risk in detail, with the assistance of planning tools, for example, the Bushfire Management Overlay, Regional Bushfire Planning Assessments and Bushfire-Prone Areas, as well as input from key stakeholders such as the Country Fire Authority.

Further detailed analysis needs to be undertaken for each council to provide a greater understanding of vegetation and area-specific fire risk to support settlement planning. The growth directions in this plan for individual settlements consider bushfire hazards (refer to Section 13 Living in the region).

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

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

More detailed information on the bushfire hazards in the region is included in the background report.

Salinity

Salinity issues are a key consideration of some settlements in the region, mostly in dry land, non-irrigated areas. Salinity also impacts on the broader landscape in both dry land and irrigated areas. The history of salinity in the region is well documented and an ongoing planning consideration.

Salinity Management Overlays are used in some parts of the region to inform localised planning decisions. This overlay has generally been used on rural areas in the region, but has been applied in some urban areas to assist in settlement planning decisions, particularly in Bendigo. Catchment-scale salinity management actions are coordinated by the catchment management authorities to try to manage the overall salinity threat.

Climate

Short-term climate variability and longer-term climate change present numerous risks to the region's economy and its environment and heritage assets. The region generally responds well to the effects of climate variability, for example, droughts. The potential impacts of longer-term climate change include an increase in temperature, reduced average rainfall and stream flow, increased frequency of drought, and an increase in the number and severity of events requiring emergency responses, especially bushfire and flood.

More information is needed on the likely impacts of climate change on specific industries across the region, and the opportunities that may arise from these changes, for example, new industries and expanded commodities. An improved understanding of these impacts will assist with strategic land use planning, including consideration of any potential increase in natural hazards. Opportunities may include growth of new crops, new innovative manufacturing industry opportunities, for example, climate-resilient building products, and initiatives that support national and global action to reduce greenhouse gas emissions, such as carbon markets and programs such as the Carbon Farming Initiative.

Other agencies, such as the catchment management authorities, have proposed development of climate change adaptation plans and carbon action plans. The Strategic Plan 2010 also contains key initiatives to assess risks to the region's natural environment and agricultural systems from climate change to identify priorities to maintain or build resilience of natural and rural environments, ecosystems and dry land and irrigated farming systems. Each of these investigations and planning exercises should be integrated with strategic land use planning and economic development planning to best enable the region to adapt as a whole.

The 'Creating a climate resilient Southern Loddon Mallee project' has recently commenced, supported by the Victorian Government's Adaptation and Sustainability Partnership, and will analyse current and future climate-related vulnerability of the regional economy and its communities in order to inform future opportunities and approaches. Catchment management authorities have recently received confirmation of funding to develop Carbon Action Plans, which will be developed in the next one to two years.

12.3 Approach to our settlement planning and environmental management

Settlement growth and development will occur in sympathy with environmental and heritage assets, including natural habitat, waterways, wetlands, soil, water and Aboriginal cultural heritage and historic heritage, including assets identified in regional catchment strategies. This growth will also be mindful of natural hazards, including flood, bushfire, climate change, salinity and potentially contaminated land, to enable protection of significant environment and heritage assets and appropriate risk mitigation.

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A precautionary approach will be taken to manage settlement growth to avoid areas of high risk from bushfire and flood. Future studies will inform settlement structure planning and form.

Collaboration between land use planning and natural resource management agencies should facilitate initiatives to increase vegetation connectivity and strategically link areas of remnant habitat and ecological value, while considering implications for land use planning such as potential change in landscape bushfire and flood risks.

These agencies can encourage projects that improve the management and use of water resources, so as to minimise risks to the environment, including risks to surface and groundwater supply, and provide for potential growth and liveability. This includes encouraging projects to investigate appropriate management of small domestic and stock dams in rural living areas.

Integrated, strategic land use planning will be adaptable to land use changes that result from challenges for growth such as climate change, and enable related economic diversification.

Future environment land use actions

- Direct settlement growth and development:
 - to areas where it will avoid impacting on high value environmental assets. If impacts are unavoidable, every effort will be made to minimise them
 - to areas of low flood risk, and managed through relevant planning overlays. Where development in flood risk areas is unavoidable, suitable building and infrastructure controls will be implemented to protect life and property while considering environmental assets

- Settlement planning decisions should prioritise protection of 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 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
- Monitor, assess and act on the potential impacts and opportunities of climate change across the region and collaborate with other climate change adaptation planning activities, such as the 'Creating a climate resilient Southern Loddon Mallee project', to inform future land use planning decisions
- Support the implementation of the regional catchment strategies
- Undertake a domestic wastewater management pilot study regarding the impact of activity and development on open potable water supplies
- Use existing networks and strategies to support local government to undertake detailed bushfire analysis and behaviour studies to inform settlement planning
- Encourage tourism opportunities, in appropriate locations, around cultural heritage and natural environments
- Consistently apply planning tools to recognise the values of waterways and wetlands across the region
- Encourage the implementation of planning policies and initiatives to manage and reduce the impacts of dams on water yield and the health of the Campaspe and Loddon river systems

13. Living in the region

Future directions

- Focus growth to the region's existing settlements with capacity for growth
- Reinforce the role of Bendigo as the regional city, offering a range of employment and services as an alternative to Melbourne
- Target new growth to settlements including Bendigo, Maryborough, Castlemaine, Gisborne and Kyneton
- Plan for settlement growth that avoids areas of high risk from natural hazards such as bushfire and flood
- Manage settlement growth to limit the impact on agricultural productivity, natural resources and ecological values
- Value the region's unique and connected communities
- Support the ongoing role of the region's small towns and settlements
- Acknowledge the non-urban population's contribution to the region

13.1 Loddon Mallee South urban settlement

Overview

The Loddon Mallee South region currently accommodates a population of 188,000 people (Victoria in Future 2012), nearly half of whom reside in the regional city of Bendigo¹⁴. This plan considers the implications of the region's population growing to 300,000 by 2041, with 150,000 to 200,000 people residing in Bendigo.

The demand for growth in individual settlements varies across the region with some locations, such as areas closer to Melbourne, experiencing high demand and other locations experiencing more modest growth. Bendigo is likely to continue to experience a strong growth rate. Settlement patterns have been strongly influenced by the accessibility provided by transport corridors. Future growth will be promoted in locations that are well supported by the existing transport network and in particular locations with capacity for transport enhancements, while protecting the role, function and character of these towns.

This plan identifies key settlements where growth is to be directed. This growth will avoid sites of high natural hazard such as bushfire and flood, and protect environmental assets. Growth will be directed to locations with existing and future links to Bendigo, Melbourne and other settlements to provide access to employment and services.

The existing network of settlements will be strengthened through the provision of access to employment and services within the region, delivered through the Strategic Plan 2010 and other regional initiatives.

The Loddon Mallee South region is characterised by settlements nestled within the forest or surrounded by agricultural and farming land. The non-urban breaks between settlements and their valued natural environment are to be preserved and protected as a means of maintaining the character and identity of these settlements. The surrounding forest also brings bushfire risk, which needs to be managed through considered siting of any new greenfield growth areas for Bendigo and other towns.

The majority of growth in the region will be accommodated in the regional city of Bendigo, maximising the yield of accessible and well connected development within the existing urban growth boundary, prior to further greenfield land release.

Beyond the forest surrounding Bendigo, the hinterland towns of Bridgewater, Inglewood and Harcourt have the infrastructure and opportunity to grow, offering an alternative country town lifestyle accessible to the regional city. The growth of these smaller towns also has benefits for outlying agricultural areas and communities.

Growth will also be managed and supported in the regional towns of Gisborne, Kyneton, Castlemaine and Maryborough, each playing an important role in providing sub-regional services to surrounding communities with opportunities for social and economic participation. It is anticipated that other settlements, particularly in areas between Melbourne and Bendigo, will experience some increase in population, expanding within their existing settlement boundaries. Small towns and villages play an essential role in the function and character of the region. Many small towns have significant historic or landscape value and offer an alternative lifestyle from the more urbanised and larger centres. Growth is limited in some settlements based on sound strategic planning¹⁵, availability of infrastructure, for example, water or sewer provision, natural hazards and environmental considerations.

Townships in the north of the region such as Wedderburn, Boort and Pyramid Hill provide local services for their communities and the broader outlying farming and agricultural areas. Their sustainability is important and any opportunities for growth are supported, leveraged by new investment or employment.

Further information on land supply, planned and future growth of settlements is contained in the background report. The term 'planned growth' means the growth that can be accommodated by existing zoned land and land identified for future urban purposes in a planning scheme, including under an approved structure plan, outline development plan or settlement strategy.

Future population profile

Along with much of Victoria the Loddon Mallee South region has an ageing population. This will have an impact on service provision such as medical and aged care provision. It also has the potential to impact on employment and the economy.

Attracting and maintaining younger age groups for education and then employment, will be critical to maintaining a diverse community and a vital economy. The desire for the regional city and settlements to grow and sustain viable populations also relies on attracting families to the region, which in turn relies on offering a range of employment opportunities and appropriate access to social infrastructure.

A key aim of this plan is to attract a diverse population to the region, particularly people of working age. This will be achieved by improving tertiary education and providing housing diversity and lifestyle options in the region.

Urban and housing form

Each of the region's settlements has a unique character, influenced by its built form, heritage and the natural landscape within which it sits. To accommodate growth and change across the region, urban design principles that are appropriate for regional areas need to be taken into consideration.

Change in the demographic profile of the region indicates the number of single person households will continue to increase. Settlement planning and provision for growth need to focus on providing housing diversity, including higher density development in cities and centres, while respecting the regional and heritage character of towns.

Alternative forms of housing (beyond the traditional greenfield development) need to be explored, such as shop-top housing and multi-unit developments. The provision of housing for older people needs to be considered across the region.

Map 9 shows future settlement growth directions for the region.

15 Macedon Ranges Settlement Strategy 2010.



Source: Department of Transport, Planning and Local Infrastructure

13.2 Bendigo – the regional city

Bendigo will accommodate the majority of growth in the Loddon Mallee South region over the next 30 years. The City of Greater Bendigo is expected to continue to experience strong and steady population growth to 2041, with a projected population of 150,000 (an additional 44,400 people compared to 2011). This plan considers the implications for the City of Greater Bendigo of a population growing beyond 150,000 and closer to 200,000 (an additional 94,400 people compared to 2011). Growth of this scale at Bendigo will help drive investment and economic growth in the region.

Based on current data, the city has planned for growth to accommodate an additional 38,000 people including infill potential for a population of 10,200 people. There are further opportunities for growth within the existing urban growth boundary, including the potential to provide for greater housing choice, types and tenure to meet the needs of the existing and future population.

The focus of growth in Bendigo will be on infill development. This is in response to both the need to provide for higher density development within the city's boundaries and new urban design approaches to create a stronger urban edge in locations adjacent to forest presenting bushfire risk. Some of this will be achieved through the review of lot size controls on zoned yet undeveloped land. Areas previously planned for large lot development, for example, minimum lot sizes of 1200 square metres in Maiden Gully, will be revisited with a view to revise planning controls to encourage higher densities.

Other infill opportunities to be investigated include disused Crown land, surplus golf courses and redundant mine sites. Planning considerations, such as potentially contaminated land, would need to be taken into account with these opportunities. While medium density housing and infill development has had some success in Bendigo, stimulus for mixed use and higher density development in key locations needs to occur to overcome market barriers, such as a perceived lack of demand. There is also a need to provide student housing to support the growing universities in the city. The Bendigo Residential Development Strategy (2004) is currently under review and will deliver some of this planning work for future land supply to manage the city's projected and aspired growth.

Bendigo's growth is constrained by surrounding forests, but nearby Marong provides an opportunity for a population of 1300 to 8000 people depending on future planning for the area. Other investigation areas outside the existing urban growth boundary may also have potential and will be identified as part of the review of the Bendigo Residential Development Strategy (2004).

Locations for population growth in Bendigo will build on existing strengths to ensure that infrastructure and services are used efficiently. New housing, employment and education areas will be located to maximise opportunities for increased use of public transport, walking and cycling.

Planned growth for Bendigo and Marong is adequate to accommodate projected growth until 2031. Further information on the regional city's planned growth is in the background report.

The economy

Bendigo's role as a key regional city in Victoria has helped it maintain a strong and diverse economy. The city's performance against innovation and agglomeration measures clearly demonstrates its role as the engine of economic growth in the region (Regional Development Victoria, 2012).

As well as planning for Bendigo's residential growth, proactive planning for employment growth needs to occur.

The growth and wellbeing of the region as a whole is heavily dependent on Bendigo's success. A prosperous Bendigo means continued economic strength and services that are an attractive alternative to Melbourne and other regions.

Over the past decade, the region has outpaced the rest of regional Victoria in economic growth. Bendigo has driven much of this growth through its function as the regional city. Bendigo had the highest annual average growth rate in Gross Regional Product among regional cities (2001 to 2011).

The city's economy has outperformed the rest of the state in several key sectors such as knowledge-intensive services with additional strengths in mining, transport, and tourism-related sub-sectors.

Employment growth

Bendigo's population growth will require provision of around 25,000 to 40,000 new jobs. A critical success factor for Bendigo and the region will be to attract and maintain a population of working age.

Much of the regional economy is concentrated in the city. In 2011, Bendigo accounted for 64 per cent of the Gross Regional Product and 56 per cent of the regional population. In 2009, around 50 per cent of the region's employing businesses were based in the city.

Bendigo will not only provide employment and services for its increasing population, but also continue to grow its role as the service and employment centre for the Loddon Mallee South region and adjoining regions.

Key regional industries that could be expanded include the finance, health and education sectors, and the links between them, public administration and safety, as well as manufacturing. These sectors need to grow and attract and develop new employment opportunities. There is adequate zoned land for employment in Bendigo.

Transport

Existing road and rail links that provide easy access from Bendigo to Melbourne and other settlements within the region are a competitive advantage. The completion of the Calder Freeway and capitalising on the new \$4 billion Regional Rail Link will improve reliability to and from Bendigo for both road and rail users. Bendigo railway station acts as a hub for broader regional public transport, with bus and rail links to Swan Hill, Echuca, Mildura and Adelaide.

Improvements to Bendigo's intra-city public transport network are needed, including investigation of the extension of train services to Eaglehawk and Epsom with associated station upgrades. The City of Greater Bendigo is preparing the Bendigo Integrated Transport and Land Use Strategy to provide future directions for road upgrades and movement of people and goods through, into and around the city and region.

Further discussion on transport directions for the region is included in Section 14 Regional infrastructure.

Marong

The Marong Plan envisages development of the rural town into a settlement of around 8000 residents over the next 20 years.

Plans are also proposed for the future development of the Marong Business Park to integrate it with the Marong and Maiden Gully townships, and the Bendigo urban area. This plan envisages 300 hectares of industrial and business land. The City of Greater Bendigo has investigated the potential development of the Marong Business Park, although the timing for further work and implementation is unclear. The development of the Marong Business Park is a priority for the region as it provides significant employment opportunities and land for important economic sectors and supply chain links such as food processing and freight.

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The Marong Plan also considers nearby districts and towns in Loddon Shire, such as Bridgewater and Newbridge, in terms of access to employment and links to agricultural and freight processing and production.

Future Bendigo economic and settlement land use actions

A key priority for Bendigo is precinct and structure planning to facilitate increased commercial and residential densities, mixed use development and revitalisation projects for underutilised sites and land. Opportunities to enhance economic activity exist in the following locations:

- Bendigo CBD including the Gillies and Crystal Ice sites
- Bendigo railway station precinct
- Bendigo Hospital redevelopment and precinct planning
- Latrobe University precinct
- Bendigo Theatre precinct tourism destinations

Some priority actions should include:

- Facilitate the development of a Bendigo railway station precinct plan for future revitalisation of land around the station in the short- to mediumterm and plan for the long-term upgrade of Bendigo railway station's facilities
- Support the development and expansion of tourism infrastructure in the city
- Promote the growth of Bendigo as the regional city
- Prioritise the implementation of the Marong Plan and Marong Business Park development
- Support the development of the Bendigo Integrated Transport and Land Use Strategy and associated land use recommendations



Alexandra Fountain, Bendigo

- Support the Bendigo Residential Development Strategy (2004) review and resulting land use planning initiatives and changes
- Support the Bendigo Hospital Precinct Planning Project and housing and mixed use planning and developments within the precinct
- Facilitate a student accommodation demonstration project in the city

Map 10 shows future land use directions for Bendigo City.

Map 10: Bendigo City future land use directions



Planned growth in new residential development areas

There is current planned growth for around 38,000 people within the urban growth boundary. Review of land use controls is required to facilitate higher densities than currently envisaged. An additional area is proposed to be added in at Maiden Gully (Amendment C190).

Infill development

Major infill opportunities within the urban growth boundary will be identified to provide for medium and higher density housing in appropriate locations. Other opportunities for infill to be investigated include disused Crown land, surplus golf course and redundant mine sites.

The Bendigo hospital redevelopment and precinct planning

The new Bendigo hospital will provide new jobs in the short- to medium-term with precinct planning to occur to identify and manage change in this and adjoining precincts. Precinct planning is underway to improve linkages to the CBD in terms of movement and access and define future housing and business opportunities.

Latrobe University precinct

The role of the universities and education in the economy is significant. The continued growth of Latrobe University and development of student accommodation are priorities. A demonstration project for student housing

Bendigo CBD including the Gillies and Crystal Ice sites, and the Bendigo railway station precinct

The Bendigo railway station is a regional transport hub with train services to Melbourne and to the northern region. The station is a regional bus terminal. In the medium- to long-term the railway station building and surrounds will require upgrading to accommodate additional population and patronage and reinforce its role as the regional transport hub and interchange. The broader area around the station is underutilised with To _____ opportunities to consolidate and redevelop sites and improve the movement network in and around the precinct.

Arts and cultural precinct

Significant development in the cultural and tourism sectors will attract visitors to the region.

Further detailed investigation and planning for growth should consider natural hazards (including bushfire, flooding and erosion), environmental assets (including water and assets identified in regional catchment strategies), cultural heritage assets (including Aboriginal and historic heritage) and natural resources (including Extractive Industry Interest Areas, other mapped earth resources and timber plantations).



13.3 Growth of regional centres and towns

Regional centres and towns identified as having capacity for growth in the Loddon Mallee South region are Maryborough, Gisborne, Castlemaine and Kyneton. These centres and towns will be the focus of future population growth and act as sub-regional employment centres. They will also act as a network for each other and surrounding smaller towns.

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

Maryborough

Maryborough has the social and service infrastructure and land supply to accommodate a significant increase in its current population of around 8000 residents. The centre has extensive retail services that serve a wide population catchment. Growth in tourism and retail activity will continue. Major manufacturing businesses, such as True Foods, provide employment. There is existing vacant industrial land suitable for attracting further large-scale manufacturing. Maryborough has strong links to both Bendigo and Ballarat and excellent transport links providing access to jobs, services and education facilities in these regional cities.

Current vacant residential land supply provides for an approximate total population of 14,000, with future areas for investigation identified.

Challenges for growth in Maryborough include its historically low growth rates. However, programs to attract residents, combined with the managed growth of other settlements in the region, will seek to encourage Maryborough's growth. Towns within the Ballarat-Maryborough corridor also have potential to grow and the corridor's road and rail transport infrastructure provides a direct link from the Loddon Mallee South region to other regions. Expansion beyond Maryborough's existing urban boundary will need to give careful consideration to bushfire risk and bushfire planning provisions, flood hazards and urban salinity risks. Map 11 shows future land use directions for Maryborough.

Gisborne

Gisborne is experiencing strong population growth and recent strategic work has identified the potential for this town to grow to around 15,000 residents by 2036. Gisborne will develop its role as a sub-regional employment and service centre. It provides a range of services for its community and surrounding smaller settlements. Gisborne attracts new residents due to its proximity to Melbourne, its location on the Calder transport corridor, affordable land and housing (relative to Melbourne), and its existing and available infrastructure.

The region's councils desire a reduction in dependence on commuting to Melbourne for work through increased choice of local and regional jobs and improved transport services to Bendigo. There is estimated existing land supply for approximately 17,000 people in the Gisborne¹⁶. Planning for settlement growth will need to consider bushfire risk, bushfire planning provisions and potential flood hazards. Map 12 shows future land use directions for Gisborne.

Map 11: Maryborough future land use directions





Further detailed investigation and planning for growth should consider natural hazards (including bushfire, flooding and erosion), environmental assets (including water and assets identified in environmental advectory including water advectory advectory including regional catchment structuregies), cultural heritage assets (including Aboriginal and historic heritage) and natural resources (including Extractive industry interest Areas, other mapped earth resources and traiter plantations).

Source: Department of Transport, Planning and Local Infrastructure



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Map 12: Gisborne future land use directions



Source: Department of Transport, Planning and Local Infrastructure

Castlemaine (including Campbells Creek)

With strong transport links to Melbourne and Bendigo and a central location in the region, Castlemaine is experiencing moderate growth. It will increase its role as a sub-regional employment centre in the future.

However, opportunities for expansion of Castlemaine beyond the existing township boundaries are limited due to bushfire risk. Flood hazards are also a significant planning consideration. Future planned growth will be focused within the existing urban area, including Campbells Creek, with current vacant and planned residential zoned land supply for an additional 1500 people. Additional growth areas and land supply need to be investigated.

Infill housing opportunities, such as shop-top housing and some medium density in Castlemaine's inner urban area will be explored, while having regard for the historic character of the town.

Managed growth in surrounding small towns, such as nearby Harcourt, is encouraged to accommodate demand from Castlemaine. The historic character and lifestyle of these small towns needs to be respected in planning for growth. Map 13 shows future land use directions for Castlemaine.

Kyneton

There is a large supply of existing residentially zoned land available in Kyneton. Supply estimates indicate there may be potential capacity for approximately 8600 people to be accommodated on existing residentially zoned land, depending on the density of future development. Planning for settlement growth will need to consider the bushfire risk, bushfire planning provisions and potential flood hazards. The town has significant infrastructure including the Kyneton Hospital, and is located on the Calder road and rail corridor providing ease of access to Bendigo and Melbourne¹⁷. The town has a rich legacy of heritage buildings and streetscapes that need to be protected and enhanced. Map 14 shows future land use directions for Kyneton.

Other district towns

Riddells Creek

Riddells Creek is likely to continue to grow at a moderate rate. Current population projections indicate the town could reach a population of just over 6000 people by 2041. Supply estimates indicate potential capacity for approximately 4900 additional people on existing residentially zoned land. Further investigation is required to identify future areas for greenfield growth as well as opportunities for infill and medium density development within the township boundaries.

Riddells Creek provides a rural township lifestyle option that Gisborne has traditionally delivered. It is well connected to existing railway infrastructure, services industries and businesses¹⁸. Planning for settlement growth will need to consider potential bushfire and flood hazards.

Romsey

Romsey will continue its role as a rural town. Supply estimates indicate potential capacity for approximately 6000 people on existing residentially zoned land. However, the town has limited services and transport infrastructure. Future transport links would need to be provided to accommodate projected future growth. While growth is to be accommodated, there is an opportunity to retain the unique village atmosphere of the township¹⁹. Planning for settlement growth will need to consider potential flood considerations.

¹⁷ Macedon Ranges Settlement Strategy, Kyneton Structure Plan.

¹⁸ Macedon Ranges Settlement Strategy, Riddells Creek Outline Development Plan 2011.

¹⁹ Macedon Ranges Settlement Strategy, Romsey Outline Development Plan.

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Map 13: Castlemaine future land use directions



Map 14: Kyneton future land use directions



13.4 Growth of Bendigo's hinterland towns

A key outcome of this plan will be to facilitate moderate growth for some of the hinterland towns around Bendigo. The provision for growth of these towns also serves to protect the forest surrounding Bendigo, and provides for alternative housing and lifestyle options in proximity to employment and services.

Bridgewater and Inglewood

Although they are only small rural towns at present, Bridgewater and Inglewood in Loddon Shire have the potential to develop as complementary and alternative lifestyle townships in the hinterland of Bendigo. Current trends show limited demand for growth, however future directions of this plan, combined with proactive planning, liveability marketing and incentives could promote growth. The growth of these towns would support the sustainability of outlying agricultural areas and provide additional services to the broader community.

With its charming riverside location, Bridgewater is an attractive village. The town has existing physical infrastructure that can support population growth. Comprehensive planning for growth needs to be undertaken to address flood and environmental impacts, and the interface with agricultural activities. Limited expansion of the town centre or commercial land would be required due to the proximity to Inglewood, which has more extensive services.

Inglewood provides a range of retail, community and social services including a hospital, aged care facilities and schools. Communities serviced in this area include the townships of Bridgewater, Korong Vale, Serpentine, Wedderburn, Newbridge, Tarnagulla and surrounding townships. Inglewood has good physical infrastructure combined with limited growth constraints. However, planning for growth in Inglewood needs to consider bushfire hazards.

Harcourt

Harcourt is a small town in Mount Alexander Shire strategically located adjacent to the Calder road and rail corridor, 30 kilometres from Bendigo and seven kilometres from Castlemaine.

There is potential for growth of Harcourt beyond the existing town boundaries. Rezoning of land for urban development needs to occur in appropriate locations with regard to the surrounding horticultural land and bushfire hazard. Further strategic and structure planning work is currently underway²⁰.

Heathcote

Heathcote is a district town in the City of Greater Bendigo with the potential to grow to around 3000 people, with appropriate structure planning. A range of local services exist that service the town and outlying areas. Currently, around 20 per cent of the existing dwellings are not connected to reticulated sewerage. The town has the potential to accommodate some future growth with regard to environmental and infrastructure considerations. Planning for growth in Heathcote needs to consider bushfire hazards.

Further strategic and structure planning work is required to accommodate future growth.

20 Harcourt Town Centre Masterplan, Mount Alexander Shire.

Small towns and rural areas

Small settlements in the north of the Loddon Mallee South region, such as Boort, Mitiamo and Pyramid Hill, provide lower order services with employment highly dependent on agriculture. The social and economic impact of changes in water policy, particularly the implementation of the Murray-Darling Basin Plan and completion of irrigation infrastructure renewal, will need to be monitored and considered into the future.

The ability of the agricultural sector to adapt to changes to the climate and economy will be critical to a viable future. Restructuring will result in some land transitioning from irrigated to mixed agriculture, which may still occasionally be irrigated. Planning needs to support transitional land uses to enable such innovative agricultural enterprises to develop throughout the irrigation region.

Supporting the diversification of the economy of these and other small towns is important, as is maintaining social infrastructure and services. Support is necessary for transitioning the agricultural landscape and associated communities as the irrigation districts are refined by policy and infrastructure investment. This support may include diversification of agricultural practices and economies as well as investment in new technologies. This may also deliver opportunities for further investment to increase food production and attract new processing industries.

Many rural areas in the region are also desirable places to live. In particular, there is an increasing demand for rural residential allotments. This growth pressure is particularly apparent in Melbourne's peri-urban areas and along the Calder corridor. Development of a consistent regional approach to managing small lot development in rural areas and avoiding the highest quality and productive agricultural land would support land use planning decision making. Continued attention and management of land is important to ensure the interface between urban and rural settlements is well defined so that the settlement future of the region is clear. The siting, form and management of future urban and rural living settlements should consider the impacts on existing agricultural industries and environmental assets in both planning and implementation.

The growth and expansion of some settlements will occur on land that is currently allocated for farming. Achieving a balance between facilitating the growth of settlements, such as Bendigo's hinterland towns, while protecting strategically important agricultural land, needs to occur through regionally integrated land use planning. Balancing the protection of farming activities and production areas is critical, with appropriate land management practices, protection of natural resources and environmental ecosystems, and consideration of dwellings in these areas.

Future regional land use settlement actions

- Support the current structure planning for Kyneton, Woodend and Riddells Creek
- Investigate land supply opportunities and impediments to accommodate further growth in Castlemaine
- Undertake structure planning and programs to promote the growth of Maryborough
- Commence investigation projects for the growth of Bridgewater, Inglewood and Harcourt
- Investigate the sewering of some townships, including Talbot and Newbridge
- Support the sustainability of small towns through investment and diversification of their economies and appropriate flexible zoning provisions

13.5 Social inclusion

Future directions

- Invest in liveability, infrastructure and urban design initiatives to make the region's towns great places to live
- Build community connectedness and reduce areas of social disadvantage
- Build a skilled and adaptable workforce by attracting skilled workers and providing access to high quality education and training opportunities, which provide pathways to employment
- Plan for the facilities and infrastructure needed for delivery of education and training to support growth

Overview

Social services that support regional and rural communities should be provided in an equitable way so that communities have access to the services they need at a regional level. The delivery of services needs to be matched with both the location and time sequence of development and population growth. The broad settlement pattern should also provide for community recreation and leisure activities that protect valued landscapes and recreation assets at the regional scale.

Current and future population change and composition and location disadvantage will affect towns and small settlements in the Loddon Mallee South region. Some towns will face pressure on their existing services and will need to plan for new and additional services. Other towns and smaller settlements that are facing a decrease in population will require creative solutions to ensure access to social infrastructure to support community participation, health and wellbeing.

Education

Workforce skills gaps have been identified in key economic growth areas including construction, education, transport and logistics, and health. These gaps suggest the region should better integrate secondary school and post-secondary education with regional economic development. Ongoing training is also required to ensure workers' skills continue to meet the changing needs of industry and are positioned to take advantage of any emerging industry opportunities.

Tertiary education facilities, such as La Trobe and Monash universities in Bendigo, and post-secondary education facilities, such as TAFE, offer an alternative to studying in Melbourne or other regions. Increasing tertiary enrolments will contribute to the regional economy, potentially retain a skilled workforce and attract younger people to settle in the region. A current inhibitor to increasing tertiary participation is the lack of student accommodation in Bendigo. Beyond this, further development and investment in university programs and facilities will be required to drive growth and participation in tertiary education across the region.

Whole-of-life education and training is critical to overall health and wellbeing. Educational attainment brings personal, social and economic benefits to individuals and communities. It also creates opportunities through increased access to employment, helps address regional skill shortages and assists in strengthening and diversifying the economy.
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Health and wellbeing

The economic, social, environmental (natural and built), democratic and cultural life of communities influences health and wellbeing. This includes access to recreation and cultural facilities, as well as infrastructure such as health services and hospitals. Challenges for the region include the variations in socio-economic status and access to services that aid community connectedness and participation. This is particularly important in more remote areas of the Loddon Mallee South region.

The aim of this plan and the Strategic Plan 2010 is to support equitable access to services that provide social support, education and employment, as well as cultural and social activities. This relies on both strong transport and communication links as well as local or regional programs focused on improving health and wellbeing.

Significant projects that will contribute to improved health and wellbeing in the region are highlighted throughout this plan, including the Bendigo Hospital redevelopment.

Future social inclusion land use actions

- Coordinate government agencies' land and infrastructure strategies for the provision of public and community facilities, including existing and new education facilities
- Recognise Development Contribution Plans are essential to fund infrastructure for communities
- Utilise telecommunications and transport infrastructure to improve access to social infrastructure



Students, Latrobe University, City of Greater Bendigo

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14. Regional infrastructure

Future directions water, energy and utilities

- Strategically renew, maintain and develop infrastructure to maximise opportunities and services to meet anticipated need
- Favour development proposals that maximise existing infrastructure and provide significant economic or community benefit
- Ensure that the current and future operation of major infrastructure of state and regional significance, including highways, railways, airports, communications networks and energy generation and distribution systems, is not adversely affected by urban development in adjacent areas
- Prioritise infrastructure that connects the region's communities through physical and electronic means, such as transport and internet access
- Strategically direct growth to locations with good existing infrastructure and infrastructure with the capacity for enhancement
- Provide adequate waste and resource recovery infrastructure and services to support new developments and population growth in the region
- Protect water quality and quantity
- Provide for the future of waste management and resource recovery

Overview

Future social and physical infrastructure provision is vital for sustainable communities. Directing growth to locations with good existing infrastructure and infrastructure with the capacity for enhancement is a priority. Many of the towns earmarked for significant growth in the Loddon Mallee South region have good existing infrastructure, such as water and sewerage and transport links that enable growth to take place.

It is essential that planning for growth is undertaken alongside planning and infrastructure investment to enable economic and settlement growth in strategic locations. Current policy settings, local and regional strategies and infrastructure projects underway, planned or implemented, such as the Regional Rail Link, the Rail Revival Study, the Calder Highway alternative interchange, and the National Broadband Network rollout, will all contribute to and support future growth.



Solar energy, Bridgewater, Loddon Shire

14.1 Water, energy and utilities

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

Gas and electricity

There are many areas within the region that do not have access to natural gas and rely on bottled gas. There is a need for reticulated gas supply to be extended to benefit both businesses and residents.

Investigations for upgrades and extensions to natural gas supplies are being undertaken through the Energy for the Regions Program (Regional Development Victoria). Locations within the region identified in the program include Heathcote, Marong, Huntly and Maldon.

The traditional electricity network is capable of accommodating projected growth for the region. There are significant opportunities to produce energy through alternative methods, such as renewable energy and supplies from biomass (refer to Section 11.2 Working in the Loddon Mallee South region). Initiatives to support energy generation in the region should be pursued, such as agreeing on a target for regional energy generation.

Telecommunications

The National Broadband Network rollout is anticipated for the Loddon Mallee South region by 2016. The implementation rollout map is contained in the background report. This service will be essential to the vitality of the region. It will contribute to social wellbeing through education and access to e-services, and it will contribute to the regional economy by increasing competition in technology and information services as well as value-adding to businesses.

The region would benefit from a better understanding of the potential impacts and opportunities of the National Broadband Network rollout. There is the potential to provide greatly improved access to information, services, training and employment and potentially to reduce the need to travel. It could reduce commuting outside the region, for example, from the Macedon Ranges to Melbourne through options to work remotely, or aid the development of new businesses. The National Broadband Network rollout also has the potential to impact on the regional economy with services outside the region being easier to access. Gaining an understanding of the economic and social opportunities provided by improved telecommunications and the potential land use implications would be of benefit to the region.

Water supply and management

Water supply throughout the region will have a strong bearing on the type of industries that can operate in both rural and urban areas, and on the future sustainability of settlements. Water supply to rural areas is changing as part of water reform across the state, which should provide a more secure water future for the region for the next 30 years and beyond. Within the Loddon Mallee South region, the Goulburn-Murray Water Connections Program is a big driver of change in the north, while upgrades to Coliban Water's supply network is affecting much of the rest of the region.

Much of the southern parts of the region are within declared water supply catchments that supply potable water to settlements within and outside the region. Protecting water quality and yield will continue to be a key role of land use planning. Bulk water supply issues for the Loddon Mallee South region are being managed through sustainable water strategies predominantly through the Northern Region Sustainable Water Strategy, but also the Central Region Sustainable Water Strategy. The implementation of the Murray-Darling Basin Plan and The Living Victoria program will further influence the future of the region's water supply. Water supply demand strategies for the urban water corporations within the region generally identify there is likely to be shortfalls in water supply across some areas at some stage during the life of this plan. Solutions to these shortages are already proposed in the water supply demand strategies, including water demand management measures, improving supply system efficiency, the use of water savings rules, and purchasing more water.

Ongoing investments in water infrastructure and management of water resources are required to enhance security and efficiency of water supply to irrigators, farms and urban areas. This is particularly important in light of the region's expected population growth, projected water supply reductions due to climate change, and changes in water allocation policy. The future integrated water cycle strategies of urban water corporations to replace water supply demand strategies will need to take into account the growth proposed in this plan.

In response to the prolonged drought in Victoria, significant investments in infrastructure have already occurred. With the Goldfields Superpipe, Coliban Water and Central Highlands Water can now access water from both the Campaspe system and the much larger Goulburn system. Coliban Water and Central Highlands Water both hold water shares in these systems and can also access the water market to purchase additional temporary and permanent water to supplement any shortfalls.

This infrastructure, combined with Coliban Water's strategies, seek to manage secure water supplies to accommodate future growth in the region, and have measures to respond to severe drought or water shortages. Refer to the background report for specific projects and further detail on delivery of water to urban areas.

Recycled water

Recycled water is now an important part of our water supply. Recycled water is used in a number of towns to irrigate public areas such as parks, golf courses and race tracks. The use of recycled water will be further investigated to promote economic development in the region, where feasible.

A number of new housing areas in Bendigo are supplied with recycled water. The use of recycled water will be delivered in new growth areas that are able to be supplied with this service in a sustainable manner.

Sewerage

The provision of sewerage services to small towns can increase the capacity for growth, but is not the sole stimulus. Coliban Water provides sewerage services within the region, with some towns planned for upgrades while others are under investigation. Investigations for the sewering of Talbot and Newbridge should be considered in the medium- to longer-term to support growth.

Sewerage service providers should be consulted in the development of domestic wastewater management plans.

Waste management

Much of the Loddon Mallee South region relies on the Bendigo Waste Transfer Station for the management of waste, with towns having smaller local facilities, many of which are reaching capacity. Future management of waste disposal and recycling in the region needs to be planned. As the region's population and industry grows, there will be an increased demand for waste and resource recovery management. This will create a challenge for securing land for future waste management facilities, including for sorting and processing, recycling, composting and reprocessing, export, reuse and disposal of waste. Suitable locations for such facilities need to be planned for to avoid impacts on more sensitive land uses.

Any opportunities to generate new industries in this field and to generate energy from waste (including inactive landfills) should be explored and supported, where costs and benefits consider environmental, economic and social factors.

Innovative waste disposal and recycling technologies are encouraged. Locations for investigation of new waste disposal and recycling plants include north of Bendigo and along the Calder Highway between Bendigo and Wedderburn.

Future waste, water and utilities land use actions

- Agree on a target for regional energy generation
- Support the provision of facilities that efficiently manage the region's solid waste
- Initiate a study to gain an understanding of the economic and social opportunities provided by improved telecommunications, and the potential land use implications
- Support investigation of sewering for townships including Talbot and Newbridge
- Support ongoing investment in water infrastructure and management of water resources to enhance security and efficiency of water supply to irrigators, farms and urban areas

Map 15 shows future infrastructure directions for the region.



Dunolly Grain Handling Facility, Central Goldfields Shire

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Map 15: Future infrastructure directions



Support the investigation of sewering, gas provision/extension and improved water quality projects for small towns.

Ensure local government land and infrastructure strategies support future development of existing and new education campuses.

Support local government in preparing Development Contribution Plans to assist funding of physical and social infrastructure.

Understand the economic and social implications of the NBN rollout in the region.

Foster health and education facilities in Bendigo.

- Sewering under investigation
- Upgrades or extensions to natural gas supply
- Provision for improved water quality under investigation
- Maintain and monitor water infrastructure and provision for a secure water future for the region.¹¹
- NBN Construction commenced
- NBN Construction commences within 3 years⁽²⁾
- Goldfields superpipe⁽³⁾
- Underground water pipe (existing)
- Hospital
- University

Maintain and strengthen key transport networks, both road and rail for the transporting of freight and people.







Source: Department of Transport, Planning and Local Infrastructure

14.2 Transport networks

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

Strategically significant transport routes traverse this sub-region. The Loddon Mallee South regional economy is supported by an efficient freight transport network. The Calder road and rail corridor is well utilised and has supported growth and increased movement between settlements and economic centres. The Calder Freeway between Melbourne and Bendigo is also a designated route for high productivity freight vehicles. This allows larger vehicles to more efficiently transport goods.

Freight networks that traverse the region enable movement of goods throughout northern Victoria and southern New South Wales through to ports and activity centres in Melbourne and southern Victoria. Protecting these important freight corridors, taking into account future transport needs, and integrating with land use planning will lead to continued prosperity.

This plan acknowledges the importance of the Calder transport corridor and key freight transport networks through appropriate land use planning responses, including reserves and buffers.

The region will experience strong population growth over the next 30 years with most of this growth directed to the regional city of Bendigo. Strong growth is also planned for Maryborough, Castlemaine, Gisborne and

Kyneton. To support sustainable growth, land use planning is undertaken alongside transport planning to increase opportunities for choice in transport modes. This plan directs growth to appropriate locations that better enable sustainable transport choices.

The transport network is a critical facilitator of regional growth. Strategic decisions regarding growth will need to be aware of transport constraints and opportunities. In developing this plan it will be important to maximise sustainable transport options. Urban land use planning supports sustainable transport choices by directing growth to key activities that enable cycling and walking, such as education, employment and retailing, and by encouraging increased urban density to support efficient public transport networks.

Bendigo is currently experiencing substantial infrastructure investment, including upgrades to health, education and arts facilities. These facilities and services are of benefit to the wider region. Therefore, accessibility to Bendigo from outlying townships and centres is essential. This plan takes into account the anticipated increased movement into and around Bendigo by land use planning that supports transport mode choices and creates more equitable access to goods and services.

Future directions transport

- Strategically renew, maintain and develop transport infrastructure to maximise opportunities to meet anticipated need
- Ensure that the current and future operation of major infrastructure of state and regional significance, including highways, railways, airports, communications networks and energy generation and distribution systems, is not adversely affected by urban development in adjacent areas
- Strategically direct growth to locations with good existing infrastructure and infrastructure with the capacity for enhancement

Private, community and public transport, along with freight movements and other infrastructure, are critical to support growth in the Loddon Mallee South region.

The existing road and rail network, including recent upgrades and infrastructure investments, have helped accelerate population and economic growth in the region. There are opportunities to promote further growth in locations that link well with the existing transport network and locations with the capacity for transport enhancements.

The Calder road and rail corridor is the key transport spine in the region providing access to and from Melbourne in the south and Mildura in the north west. Upgrades to the Calder Freeway and the Bendigo rail line over the past decade have helped support strong growth in the movement of people and goods along this important transport corridor.

Other key road links include the Northern and Sunraysia highways, which provide strategic routes to intra-regional cities such as Ballarat and Geelong; and the Midland Highway, which provides a north-south orbital link between the Hume Freeway and the Port of Geelong via Benalla, Shepparton, Bendigo and Ballarat. The Bendigo rail line has experienced strong growth in patronage following recent upgrades. This includes high levels of commuting from Bendigo to Melbourne on a daily basis, and increasing levels of commuting from surrounding townships to Bendigo, such as townships within Macedon Ranges Shire, both by car and rail, for example, Kyneton to Bendigo. These commuter trends are expected to continue and are critical for businesses in and outside the region.

Different solutions are required for the movement of people and the movement of freight. The future directions in this plan provide some guidance to help ensure the transport network supports changes to the economy, settlement patterns and demographic changes.

Improve the capacity and functioning of the transport network

There are a number of options to improve the capacity and functioning of the transport network as growth occurs in key areas including regional cities such as Bendigo. It is important to ensure the operation of major state and regional infrastructure, including highways, railways, airports, communication networks, is not adversely affected by urban development. For example, urban growth in Gisborne and New Gisborne has occurred along a transport spine of the main road. New developments in this area seek to support an increase in walking, cycling and public transport accessibility. In addition, alternative road routes are planned in the long to medium term to minimise congestion. Transport implementation opportunities for improving network capacity could include:

- enabling or managing diverse travel choices such as walking and cycling links, shared zones and park and ride
- expanding road space via widening, sealed shoulders, duplication, clearways and cycle paths
- increasing rail capacity to provide passing opportunities, signalling and increased track axle loads to enable heavier loads to be transported
- improve and modify the network of public transport services to better meet market needs.

Ensure access and connectivity

Improvements to the Calder road and rail corridor have helped accelerate growth in locations with ease of access to this corridor. In the future this corridor is likely to play an increasingly important role in facilitating the growth of settlements along the corridor or with good access to it.

It is likely that as Bendigo grows and provides further employment opportunities, reverse commuting to Bendigo will increase, not just to Melbourne. However, this corridor also serves as a major freight route and amenity issues in the centre of Bendigo may need to be managed as the freight task grows. It will be important to ensure there is flexible and adaptable freight access with interventions such as the clustering of intensive agricultural industries and the potential upgrade of Bendigo Airport to provide alternative access for some types of freight such as perishable goods.

Improved connections between Geelong, Ballarat and Bendigo (via Maryborough and Castlemaine) were investigated through the Rail Revival Study (Public Transport Victoria, 2013). The study recommended a staged approach to the improvement of public transport services with a restructure of coach services proposed in the short term. These services would encourage increased commuter usage, as well as provide a social and tourist connection for the region.

In planning for the future, the study also identified the following land use and planning opportunities to preserve railway stations and railway lines between Ballarat and Bendigo, via Maryborough and Castlemaine:

• In the short to medium term, lease currently disused station buildings along the railway corridor for public purposes. This would preserve the buildings for potential future railway purposes and encourage development around the railway stations to create a focal point for the local community. • For the longer term, to support any future reactivation of rail services and the potential for higher line speeds between Ballarat, Maryborough and Castlemaine, land that may be required for future track realignments would need to be protected to ensure that the opportunity for future rail realignments is preserved.

Transport implementation opportunities for ensuring access and connectivity exist around:

- linking the region to international gateways, ports, state capitals and other regional cities
- intra-regional connections such as regional city urban bus networks, including hinterland and surrounding small communities
- aligning the public transport network to better service demand
- accessibility for people of all ages and abilities to public transport
- improved commuter facilities at railway stations as patronage grows
- improved intra-town commuter links such as cycle paths.



Cycling, Lake Weeroona, Bendigo

Provide a safe, reliable and resilient network

Bendigo provides higher order services and facilities to the Loddon Mallee South region and beyond. For example, upgrades to Bendigo Hospital may result in more people within and outside the Loddon Mallee South region travelling to Bendigo instead of Melbourne to access healthcare services. Therefore, it will be important to plan accessible and appropriate transport connections to improve linkages throughout the region and beyond. It will also be important to ensure the network can withstand major disruption.

Transport implementation opportunities for providing a safe, reliable and resilient network exist around:

- maintenance of rail and road networks
- contingency plans for major disruptions such as those due to flood or bushfire
- increased track capacity to improve reliability and reduce delays
- identify and promote safety improvements.



Calder Freeway, Mount Alexander Shire

Consider technological advancements in the transport provision mix

The Loddon Mallee South region already has a strong service sector covering health, education and finance industries. This economic base is likely to continue developing. However, technology will be crucial to the development of the service sector economy to help provide new and improved services.

The rollout of the National Broadband Network may have a significant impact in this regard. It may mean that work patterns change, with greater numbers of people working flexibly using new technology, for example, working from home full or part-time, which in turn could reduce the need for daily travel. The health and education sectors are leading the way in using this technology for online courses and rehabilitation of patients. Into the future there could be opportunities to enhance and make use of new technologies.

Transport implementation opportunities through technological advancements could include:

- National Broadband Network
- increased use of mobile electronic devices
- alternative fuelled vehicles and new vehicle designs
- advanced transport network planning tools.

Ensure amenity and useability

The Loddon Mallee South transport network is used by a variety of people for both business and pleasure. Ensuring the network is maintained in a safe and useable condition will be important. This will be necessary to support a more diverse economy and to access tourism products and opportunities such as those in the goldfields area, for example, supporting the use and expansion of rail trails by improving connections between and access to trails.

Transport implementation opportunities for ensuring amenity and useability could include:

- tourist routes for all users, including cyclists
- facilities such as wayside rest areas, signage and information hubs
- marketing such as package tours for day trips.

Develop and protect freight and logistics precincts

Potential for freight and logistics precincts in the region exist at the proposed business park in Marong and in Maryborough. These sites may attract new industries and create the need to review transport requirements to provide efficient and effective freight movements to ports, airports and markets not only in Melbourne but also throughout the state and interstate.

A major upgrade of Bendigo Airport is being considered with a planning scheme amendment being lodged to assist with the land use aspect of future development. The airport currently caters for emergency and medical air services. However, it has the potential to provide new freight and passenger services, and house a business park that would create employment opportunities. Transport implementation opportunities for developing freight and logistics precincts could include:

- airports
- a potential intermodal freight terminal such as an inland port
- activity-specific centres such as distribution warehouses or processing plants.

Investigate and implement efficient and sustainable ways to facilitate transport of products between producers and markets

Understanding freight movements and transport supply chain networks will be important into the future as the economy diversifies and the types of commodities being carried potentially changes. Changes to fleet characteristics may also mean that small local roads are not able to cope with increasing numbers of higher volume trucks taking products to processing or export locations. Therefore key transport spines within the region will require good connections not only with Melbourne, but also with other parts of the state and interstate.

Transport implementation opportunities to support efficient supply chains exist around:

- building evidence to support enhancements to the freight network such as by industry input
- understanding transport supply chain networks, movements and modes between the farm-gate, market, distribution centre and gateways
- technology advancements such as smart roads networking planning
- the impact of changing vehicle and fleet characteristics and regulations on rural roads, for example, local roads may not be fit for purpose for increasingly larger vehicles.

PART C | TOWARDS THE REGIONAL GROWTH PLAN

Future transport land use actions

- Ensure the current and future operation of major infrastructure of national, state or regional significance is not adversely affected by urban development
- Set aside land to preserve 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 infrastructure corridors
- Use this plan to support infrastructure projects to assist in managing growth

Map 16 shows future directions for transport in the region.



Gisborne Railway Station, Macedon Ranges Shire

TOWARDS THE REGIONAL GROWTH PLAN | PART C





Access and connectivity

As the region grows, attracting people from within and outside the region to its key services and facilities will be crucial. Improving and modifying the network of public transport services to better meet market needs will assist.

In order to ensure that products can reach key markets and access new market opportunities, an understanding of industry needs and freight movements will be required and associated facilities provided to ensure this access.

Safe, reliable and resilient network

The transport network is crucial for the economic development and settlement of the population within the region. Ensuring that there is a safe, reliable and resilient network that is well maintained and able to stand up to major disruption will be a requirement in the future.

Source: Department of Transport, Planning and Local Infrastructure





PART D | REGIONAL GROWTH PLAN

This part of the Loddon Mallee South Regional Growth Plan brings together all of the elements of the regional land use framework (economy, environment and landscape, settlement and regional infrastructure) to identify a way forward for growth and change over the next 30 years. This plan 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

Key directions for growth are shown on Map 1 – Future growth framework in this section. This map provides a snapshot of the future growth directions for the Loddon Mallee South region, and is supported by more detailed directions and actions contained in Part C of this plan.

The future directions and land use actions in this plan respond to the drivers and challenges for growth, as well as the vision and principles articulated in Part B of this plan. Map 1 draws together this information.

Principles	Future Directions	Rationale	How
Principles 1. Manage our population growth and settlements Sustainable growth is encouraged to enhance the integrated network of settlements that characterise our region. Our settlements will continue to be attractive places to live, with high amenity and access to services.	 Focus growth to the region's existing settlements with capacity for growth Reinforce the role of Bendigo as the regional city, offering a range of employment and services as an alternative to Melbourne Target new growth to settlements including Bendigo, Maryborough, Castlemaine, Gisborne and Kyneton Plan for settlement growth away from areas of high risk from natural hazards such as bushfire and flood Settlement planning 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 significant bushfire risk that cannot be avoided avoid development in areas where planned bushfire protection measures may be incompatible with other 	Rationale If planned well, settlement growth will be distributed to the places best suited to accommodate it, stimulating growth in locations that will support the economy and the long-term sustainability of the region.	How Refer to Maps 1, 9, 10, 11, 12, 13, 14, 15 and 16 that provide a framework for future growth in the Loddon Mallee South region, including settlement directions for the regional city of Bendigo and regional centres and towns, and for the infrastructure needed to support growth.
	environmental objectives • Manage settlement growth to limit the impact on agricultural productivity, natural resources and ecological values • Value the region's unique and connected communities		

PART D | REGIONAL GROWTH PLAN

Principles	Future Directions	Rationale	How
2. Strengthen our communities, especially in our small towns	 Support the ongoing role of the region's small towns and settlements 	Current and future population change and composition and	Refer to Maps 1, 9, 15 and 16 that
All settlements, including small towns and villages, play an essential role in the function and character of the region. Many small towns have significant historic or landscape value and offer an alternative lifestyle from the more urbanised and larger centres. Supporting the diversification of the economy of these and other small towns is important, as is maintaining social infrastructure and services.	 Acknowledge the non-urban population's contribution to the region Invest in liveability, infrastructure and urban design initiatives to make the region's towns great places to live Build community connectedness and reduce areas of social disadvantage Build a skilled and adaptable workforce by attracting skilled workers and providing access to high quality education and training opportunities, which provide pathways to employment Plan for the facilities and infrastructure needed for delivery of education and training to support growth 	location disadvantage will affect our towns and small settlements. Some of our towns will face pressure on their existing services and will need to plan for new and additional services. Populations in other towns and smaller settlements that are facing a decrease in population require creative solutions to ensure access to social infrastructure to support community participation, health and wellbeing.	highlight the role and function of the Loddon Mallee South region's communities, especially its small towns, and the infrastructure needed to support growth and change.
3. Strengthen and diversify our economy Ensuring access to diverse employment, recreation, retail and cultural activities will develop the Loddon Mallee South region as a preferred destination and self-sustaining region. Strategic opportunities for the growth of the region's economic base, including agricultural diversification, the minerals industry and new industries, will also be facilitated.	 Enable residents to work and participate in the region by continuing to expand the region's diverse economy Leverage greater employment and investment outcomes from growth sectors such as health, education and professional services Develop employment areas that are located, serviced and sited to take advantage of water, infrastructure, transport and energy connections Support and develop emerging and potential growth sectors such as tourism, renewable energy, resource recovery and other green industries 	The planning and provision of infrastructure will ensure access to services for all people and enhance social and economic wellbeing and participation.	Refer to Maps 1, 6, 7 and 8 that outline future directions for the economy, for rural production and for managing and leveraging off the region's significant environmental assets.

REGIONAL GROWTH PLAN | PART D

Principles	Future Directions	Rationale	How
4. Improve our infrastructure Good infrastructure enables our communities to remain connected, sustainable and vibrant. Planning for growth is undertaken alongside planning and development in infrastructure to enable economic and settlement growth in strategic locations.	 Strategically direct growth to locations with good existing infrastructure and infrastructure with the capacity for enhancement Provide adequate waste and resource recovery infrastructure and services to support new developments and population growth in the region Ensure that the current and future operation of major infrastructure of state and regional significance, including highways, railways, airports, communications networks and energy generation and distribution systems, is not adversely affected by urban development in adjacent areas Prioritise infrastructure that connects the region's communities through physical and electronic means, such as transport and internet access Strategically renew, maintain and develop infrastructure to maximise opportunities and services to meet anticipated need Provide for the future of waste management and resource recovery 	The provision of appropriate infrastructure is a key enabler of population and economic growth. Strategically locating urban growth to locations well served by existing infrastructure helps facilitate growth. Land use planning that protects existing transport precincts and corridors supports economic growth and minimises conflict of land uses.	Refer to Maps 1, 15 and 16 that highlight the region's infrastructure assets and opportunities, and provide future directions for infrastructure required to support regional growth.
5. Improve education and training outcomes Whole-of-life education and training is critical to overall health and wellbeing. Educational attainment brings personal, social and economic benefits to individuals and communities. It also creates increased access to employment for individuals, helps address regional skill shortages and assists in strengthening and diversifying the economy.	 Build a skilled and adaptable workforce by attracting skilled workers and by providing access to high quality education and training opportunities, which provide pathways to employment Plan for the facilities and infrastructure needed for delivery of education and training to support growth 	Workforce skills gaps have been identified in key economic growth areas including construction, education, transport and logistics, and health. These gaps suggest the region should better integrate secondary school and post- secondary education with regional economic development. Ongoing training is also required to ensure workers' skills continue to meet the changing needs of industry and are positioned to take advantage of any emerging industry opportunities.	Refer to Map 15 that provides future infrastructure directions for the development of local government land and infrastructure strategies to support future development of existing and new education campuses and other social infrastructure needed for a skilled and adaptable workforce.

PART D | REGIONAL GROWTH PLAN

Principles	Future Directions	Rationale	How
6. Protect and enhance our natural and built environment Settlement growth and development will occur in sympathy with environmental and heritage assets, for example, native habitat, waterways, wetlands, soil health, water quality and Aboriginal and post-contact heritage. Celebrating our natural assets contributes to the liveability of the region and attracts visitors as well as supports community wellbeing.	 Protect and improve the condition of the region's important environmental assets such as the forests, wetlands and rivers Protect identified visually important landscapes, and cultural and built heritage places Plan for settlement growth to occur in locations that avoid areas of high risk from natural hazards such as bushfire and flood Manage settlement growth to limit the impact on agricultural productivity, natural resources and environmental assets Maintain the non-urban breaks between settlements Minimise the impacts of land use change and development on areas with significant environmental assets 	Growth of our region will capitalise on environmental and heritage assets through advancing tourism, settlement and economic diversification opportunities, while improving environmental assets, where possible.	Refer to Maps 1, 5, 8 and 9 that provide direction for protecting and enhancing the region's environmental assets and heritage features, and managing natural hazards in order to support regional growth through diversification, tourism and technological advancement.
7. Ensure our food, water and energy security Our farming and food production areas will be strengthened to optimise opportunities for the production of energy. Protection of our water sources and infrastructure is important to sustain growth for our urban and rural areas.	 Facilitate ongoing agricultural productivity and investment in high value agriculture Support ongoing adaptation and flexibility for the agricultural sector Facilitate ongoing agricultural productivity and new opportunities that respond to the potential impacts of climate change Support the sustainable use of rural land, including the development of regional catchment strategies and other suitable tools Encourage and facilitate development in renewable energy, waste to energy, carbon sequestration and other new energy opportunities Protect water quality and quantity 	Agriculture provides employment and exports for the region (particularly for Loddon Shire). Beyond the economic significance, the continued viability of agricultural areas is critical to land and environmental management, social wellbeing for rural communities and an important aspect of our region's landscape. With the climate and economy changing, the ability of farming communities and practices to adapt will be critical to a sustainable future. Support for the transitioning of towns from changes to irrigation through investments and diversification of economies is necessary.	Refer to Maps 1, 6, 7 and 8 that provide directions for the region's future in farming and food production, and as an energy provider, in response to a changing climate and ongoing adaptation of the region's economy.
8. Collaborate to achieve our region's goals	• Utilise existing regional and local networks, for example, Regional Development Australia, the Regional Management Forum and local community planning networks, and other suitable forums to share information, identify agency leads and collaborate on regional projects	There are existing groups and forums that can be utilised to facilitate actions and further work identified in this plan. Leveraging from these forums will ensure implementation and ongoing monitoring of performance.	Refer to Part E that outlines proposed actions to deliver this plan through collaboration between regional partners, industry and the community.

* (\bullet) expansion. Loddon Muthe North . Serbenti Bridgewater . . Bendigo 6. * Newbridge/ . Maidor . Castle . . Chevetti ddells Creek

Map 1: Future growth framework

REGIONAL GROWTH PLAN | PART D

Bendigo - Regional city - Significant growth

Promote growth of Bendigo as the regional city. Significant population growth with major residential development. It will be the major population and economic growth hub for the region.



Explore further opportunities to develop freight-related activities in Marong and Maryborough.

Maintain and strengthen key transport networks, both road and rail for the transporting of freight and people.



Facilitate ongoing agricultural productivity and new opportunities that respond to climate change through ongoing adaptation and flexibility.

11,	Protect and improve the condition of the region's high value terrestrial habitat.	Source: Department of Transport, Planning and Local Infrastructure		
۲	Public land			
	Lakes	0		
-		0	20	40
-	Rivers	Kilometres		



PART E | DELIVERING REGIONAL GROWTH

16. Implementation

Future directions

- Engage in regional development and thinking decisions should not only consider the impact on one place, but the region as a whole
- Utilise our people, networks and strengths to achieve our region's goals

16.1 Planning schemes

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

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 Loddon Mallee South region councils will work in partnership with State Government to facilitate the required planning scheme amendment process and content as an immediate priority. The plan will guide and inform future strategic planning across the Loddon Mallee South region, including future reviews of each council's Municipal Strategic Statement. The plan will help provide justification for future planning scheme amendments that are consistent with the plan.

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

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

16.2 Links to Regional Strategic Plan implementation

The plan is closely aligned with the Loddon Mallee Strategic Plan – Southern Region 2010. Implementation of this plan will also be considered in relation to other ongoing work to implement the strategic directions of the Strategic Plan 2010. This will strengthen the capacity for achieving shared objectives and targeting efforts to secure endorsement and funding for the highest priorities in the region.

Other related and relevant work includes the Regional Economic Outlook and Profiles, which have been developed for the region, and the work being undertaken on regional cities by Regional Development Victoria. Further work is being undertaken to develop economic assessment tools that will help identify key economic opportunities for the region. As identified in this plan, the development of a Loddon Mallee South Economic Development Strategy is a priority.

Further, opportunities for implementation of key directions and actions expressed in this plan will be explored with the Loddon Mallee Regional Management Forum and the Loddon Mallee Regional Development Australia group. The Regional Management Forum and Regional Development Australia group are key stakeholders in overseeing the ongoing development and implementation of the Strategic Plan 2010. It is appropriate to facilitate and ensure alignment between the regional growth plan and the regional strategic plan in order to promote outcomes that are consistent with common directions expressed in each plan.

Possible regional governance arrangements to promote integrated planning and delivery of agreed future land use include actions partnering and integrating with an existing cross-government group that has alignment with the focus of the regional growth plan or establishing a new cross-government stakeholder group that has links to an existing regional planning governance structure.

16.3 A plan for implementation of actions

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

Short-term implementation priorities include:

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

Table 4 sets out actions identified in the development of this plan that will further support delivery of the plan's strategic directions.



Castlemaine, Mount Alexander Shire

Table 4: Land use actions

Recommended actions	Reference to future direction, land use strategy, action or policy (Part C)
Regional economy	
Support the growth of Bendigo as the regional city and major employment and services hub	Section 11.2 Working in the Loddon
 Ensure there is adequate zoned and serviced commercial and industrial land for employment in the regional city and centres as sub-regional hubs 	Mallee South region
Accelerate the development of the Marong Business Park as a key new location for industry and business	
• Achieve designation of Castlemaine Diggings National Heritage Park as a World Heritage place to underpin tourism	
 Identify emerging agribusinesses and location clusters including the equine industry, and intensive animal industries such as cattle feed lots, piggeries and poultry farms 	Section 11.3 Agriculture
 Identify agribusiness and tourism clusters in the region and implement appropriate land use measures to facilitate agricultural tourism activities through the application of the reformed zones 	
Develop a regional approach to small lot development using the reformed rural zones implementation	
Work cooperatively with catchment management authorities to develop a Carbon Action Plan	
Environment and heritage	
 Undertake flood mapping and implement flood overlays into planning schemes in the City of Greater Bendigo and Loddon, Mount Alexander and Central Goldfields shires 	Section 12.3 Approach to our settlement planning and environmental
 Monitor, assess and act on the potential impacts and opportunities of climate change across the region and collaborate with other climate change adaptation planning activities, such as the 'Creating a climate-resilient Southern Loddon Mallee project', to inform future land use planning decisions 	management
• Undertake a domestic wastewater management pilot study regarding the impact of activity and development on open potable water supplies	
• Encourage tourism opportunities, in appropriate locations, around cultural heritage and natural environments	
• Support the sustainable use of rural land, including the development of regional catchment strategies and other suitable tools	

PART E | DELIVERING REGIONAL GROWTH

Recommended actions	Reference to future direction, land use strategy, action or policy (Part C)
Living in the region	
Bendigo – the regional city	Section 13.2 Bendigo the regional city
Prioritise the implementation of the Marong Plan and Marong Business Park development	
• Support the development of the Bendigo Integrated Transport and Land Use Strategy and associated land use recommendations	
• Support the Bendigo Residential Development Strategy (2004) review, and resulting land use planning initiatives and changes	
 Support the Bendigo Hospital precinct planning project, and housing and mixed use planning and developments within the precinct 	
Facilitate a student accommodation demonstration project in the city	
Enhance economic activity, especially in the following locations:	Section 13.2 Bendigo the regional city
Bendigo Central Business District including the Gillies and Crystal Ice sites	
Bendigo railway station precinct	
Bendigo Hospital precinct	
Latrobe University precinct	
Bendigo Theatre precinct	
Growth of regional centres/towns and Bendigo's hinterland	Section 13.3 Growth of regional centres
Support the current structure planning for Kyneton, Woodend and Riddells Creek	and towns
Investigate land supply opportunities and impediments to accommodate further growth in Castlemaine	Section 13.4 Growth of Bendigo's hinterland towns
Undertake structure planning and programs to promote the growth of Maryborough	
Commence investigation projects for the growth of Bridgewater, Inglewood and Harcourt	
• Support the sustainability of small towns through investment and diversification of their economies and appropriate flexible zoning provisions	
Social inclusion	Section 13.5 Social inclusion
• Coordinate government agencies' land and infrastructure strategies to align the provision of public and community facilities, including existing and new education facilities	

DELIVERING REGIONAL GROWTH | PART E

Red	commended actions	Reference to future direction, land use strategy, action or policy (Part C)
Reg	ional infrastructure	
•	Agree on a target for regional energy generation	Section 14.1 Water, energy and utilities
•	Support the provision of facilities that efficiently manage the region's solid waste	
	Initiate a study to gain an understanding of the economic and social opportunities provided by improved telecommunications, and the potential land use implications	
•	Support investigation of sewering for townships including Talbot and Newbridge	
	Support ongoing investment in water infrastructure and management of water resources to enhance security and efficiency of water supply to irrigators, farms and urban areas	
	Support the Harcourt modernisation project to replace the existing concrete and earthen gravity channel system with a pressurised pipeline reticulation network	
•	Support reticulated water mains renewals and replacement for New Gisborne, Woodend, Mount Macedon and Riddells Creek	
	Support the development of the New Bendigo Hospital to provide additional crucial facilities in preparation for growth in the region	
•	Support upgrades to Bendigo Airport to improve access and infrastructure to support emergency services	
•	Support the NBN rollout	
•	Improve water quality for Bridgewater, Laanecoorie, Tarnagulla, Inglewood, Dunolly and Bealiba	
•	Improve transport connections between Geelong, Ballarat and Bendigo (via Maryborough and Castlemaine)	
•	Undertake infrastructure planning as part of the structure plans for Harcourt, Bridgewater, Heathcote and Inglewood	
•	Investigate the extension of reticulated gas	
•	Investigate extended public transport networks from towns in Bendigo's hinterland to Bendigo City	Section 14.2 Transport networks
	Support the capacity and functioning of the transport network through maintenance and upgrade works that facilitate increased transport movements and ensure safety	

PART E | DELIVERING REGIONAL GROWTH

A number of issues have been identified during the development of this plan that require further detailed planning and investigation to support implementation. Many of these are identified in Section 14 Regional infrastructure. In addition, the following projects are identified as regionwide priorities for further investigation and facilitation; not all are the responsibility of this plan to implement. Some of these projects will require funding, state agency collaboration and local council support. The outcomes of these projects will assist in the delivery of many actions identified in this plan.



Maryborough, Central Goldfields Shire

These projects include:

- preparation of a Loddon Mallee Economic Development Strategy
- developing a regional approach to small lot development, using the reformed rural zones
- preparation of a combined food, freight and energy strategy for the region, classifying strategically important agricultural land, land use clusters and links to processing and manufacturing and freight opportunities in the region. This strategy will inform many of the actions identified for rural areas and transport
- working cooperatively with the North Central Catchment Management Authority to develop a Carbon Action Plan that includes the majority of the Loddon Mallee South region. This will aid in the delivery of actions such as carbon farming, on-farm bioenergy and renewable energy initiatives
- supporting the 'Creating a climate resilient Southern Loddon Mallee project'
- facilitating a pilot catchment study regarding the impact of activity and development on open potable water supplies
- developing an e-strategy for the region to better understand economic and land use implications and potential change.

16.4 Review and performance

This plan sets out a growth framework for the next 30 years. It is impossible to anticipate exactly what will occur in the future, and there may be substantial 'game changers' that dramatically influence aspects of the Loddon Mallee South economy and its settlements. Significant shifts in policy, major investment, natural disasters and the impact of climate change all have the capacity to impact upon the region.

The plan is intended to be a living and adaptable plan, able to respond to unpredictable events and 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.

It is intended that this plan will inform any subsequent review of the Strategic Plan 2010.

Implementation of this plan will be integrated with the overall implementation of the Strategic Plan 2010 and included in the performance monitoring framework already established or being established in future for the implementation of the Strategic Plan 2010. This framework includes an assessment of performance and project progress and sets out performance measures for the key directions of the Strategic Plan 2010.



Loddon River, Loddon Shire

16.5 Implementation summary

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

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

 Table 5: Key implementation actions, priorities, partners and responsibilities



View Street, Bendigo

GLOSSARY

Aboriginal cultural heritage: means Aboriginal places, Aboriginal objects and Aboriginal human remains. They tell the story of Aboriginal use and occupation of 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.

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

Biofuels: biofuels are liquid or gaseous fuels derived from biomass.

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

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

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

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

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

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

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

Ecologically Sustainable Development: using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life now and in the future can be increased.

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.

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

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

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

Greenfield land: non-urban land designated for future urban development.

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.

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

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

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

Mixed use development: a development that integrates two or more uses, such as housing and retail.

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

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

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

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

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

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: represent Aboriginal people in the management and protection of Aboriginal cultural heritage.

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

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

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.









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FOREWORD

It is our pleasure to present the Loddon Mallee Regional Strategic Plan.

The Plan is the result of extensive input - over nearly two years - from community, business and government leaders located in the region.

The Loddon Mallee region is expansive and diverse running from the north-west through to central Victoria and bordering South Australia and New South Wales.

Because of the region's size and diversity, two sub-plans have been prepared for the north and south of the region, reflecting the different challenges and opportunities they face. Accordingly each of the Plans identifies priority areas for focus over the coming years.

The Northern Loddon Mallee is about 45,000 square kilometres. The Murray River is the 'lifeblood' of the region, which is a major food producer for Victoria, Australia and export markets.

It is a highly productive agricultural and horticultural region. Some of its larger urban areas - Echuca, Swan Hill and Mildura - are experiencing sustained population growth and tourism interest, while some smaller towns are experiencing population decrease.

The region has a dispersed population and a strong Indigenous heritage with about 3,100 people identifying as Indigenous at the last census. About 8 per cent of the region's population reported being born overseas. Echuca, Swan Hill and Mildura also service significant cross-border populations.

The Plan identifies a range of opportunities for the northern Loddon Mallee that focus on water; transport; infrastructure; diversification of the economy; education and training; healthcare; community resilience; the natural environment; and cross-border issues.

The Southern Loddon Mallee is the geographic centre of Victoria, and its location and transport linkages make the region highly accessible, particularly from Melbourne. It also includes the thriving provincial centre of Bendigo. The region is experiencing strong population growth which is projected to continue at almost 50 per cent above the Victorian regional average, with drivers including improved road and rail links, more jobs and investment, and the region's liveability appealing to 'tree-changers'. The main industry employers in the region are retail, health and manufacturing.

The region has a significant migrant population, with almost 13,500 people born overseas and overseas migration projected to stay strong.

In managing the region's growth we also face challenges in achieving social equity and reducing pockets of social disadvantage.

The Plan identifies priorities for the southern Loddon Mallee, focused on managing population growth; community resilience; healthcare; education and training; arts, culture and other infrastructure that promotes 'liveability'; diversification of the economy; transport; telecommunications infrastructure; water; and natural environment.

The delivery of the overarching Loddon Mallee Regional Strategic Plan will be overseen by the Loddon Mallee Regional Management Forum and the Regional Development Australia Loddon Mallee Committee. These groups will continue to provide strong regional leadership and work collaboratively to implement the actions outlined in this plan.

This Plan, combined with government support, will deliver the action and investment to keep the Loddon Mallee region flourishing into the future.

Penny Armytage

Regional Champion, Loddon Mallee Regional Management Forum, Secretary, Department of Justice

Jenny Dawson

Chair, Loddon Mallee Regional Development Australia Committee



The following Councils have endorsed this Plan, as has Loddon Mallee Regional Development Australia Committee and the Loddon Mallee Regional Management Forum



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ABOUT THIS PLAN

What is the Plan and why is it important?

Over the next ten to fifteen years, the Southern Loddon Mallee will face a number of challenges and opportunities that will affect our economy, our environment and our way of life. These impacts will cross municipal and state borders and will continue beyond current local, state and federal government terms.

This Plan identifies our most important issues and presents a framework for us to work together as a region to maximise opportunities and manage future growth and change in a way that strengthens our economy, helps our people to thrive and protects our rich natural and cultural heritage.

The Plan presents a framework for planning that has been developed and endorsed by all our local councils, our key industries and community organisations and the state government. This united approach will dramatically improve the way we identify, prioritise, support and deliver projects that will make a real difference to the future of our region.

How was the Plan developed?

In 2008 the Regional Strategic Planning Initiative was launched statewide and funding was made available to undertake regional planning. The Loddon Mallee Regional Management Forum, comprising representatives of local and state government, identified regional strategic planning as a key priority and formed a project control group to support the planning process. To reflect the diversity and differences between Loddon Mallee north and the south planning occurred at a sub-regional level.

The planning process included significant research and policy analysis culminating in the development of an issues paper

Stakeholder consultation has been critical in developing this Plan. Throughout each stage of the process representatives of local government, industry, community organisations and state government agencies have been consulted. This process has resulted in a stronger understanding of the challenges and opportunities faced as a region and the development of agreed aspirations for the future.

Drawing on government policy, contemporary research and the extensive consultation the final Plan has been developed. A similar plan has been prepared for the Northern Loddon Mallee region (including the Buloke, Gannawarra, Campaspe, Swan Hill and Mildura municipalities).

How will the Plan lead to action?

The Plan provides the three tiers of government together with the community and private sector with a guiding framework for governance and implementation of strategies and actions that will strengthen the region.

In June 2010, the Victorian Government released their statement for regional Victoria "Ready for tomorrow, a blueprint for Regional and Rural Victoria". The statement recognises significant issues affecting the future prosperity, equity and sustainability of regional Victoria and sets out a new framework for regional development and a suite of programs that may be accessed to implement regional actions, such as the ones in this Plan.

The Plan provides a strategic basis also for attracting Local and Federal government, industry and community support as well as encouraging collaboration to implement the diverse range of actions.

How this Plan is structured

Over the following pages, we present a snapshot of our region today and a brief outline of our aspirations for the future.

To focus our efforts in addressing our challenges and embracing our opportunities we have identified six strategic directions. Each of these strategic directions explores an area of regional focus in greater detail and presents agreed priority actions and key initiatives to help us achieve the future we want for our region.

Following the strategic directions, we discuss how we will work together as a region to form new partnerships and processes that will allow us to develop and implement these important projects on an ongoing basis.


The Southern Loddon Mallee today

Our aspirations, strategic directions and priority actions

TH	E SOUTHERN L	ODDON MALL	EE REGIONAL	STRATEGIC PL	AN
STRATEGY 1: Manage our population growth and settlements	STRATEGY 2: Strengthen our communities, especially in our small towns	Strengthen and diversify our economy	STRATEGY 4: Improve our infrastructure	STRATEGY 5: Improve education and training outcomes	STRATEGY 6: Protect and enhance our natural and built environment
Basis for action	Basis for action	Basis for action	Basis for action	Basis for action	Basis for action
Priority actions	Priority actions	Priority actions	Priority actions	Priority actions	Priority actions
Key initiatives	Key initiatives	Key initiatives	Key initiatives	Key initiatives	Key initiatives

Projects identified locally and prioritised regionally

Projects resourced through local, state and federal collaboration

Projects delivered - regional vision for the future realised

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LOCATION MAP



A SNAPSHOT OF THE SOUTHERN LODDON MALLEE TODAY

Our environment

The Southern Loddon Mallee region is the geographic centre of Victoria. It extends from the floodplains of the Loddon River in the north-west to the Macedon Ranges in the south-east. At its closest point, the region is 50 km from metropolitan Melbourne. It has rich natural and built heritage, attractive towns, a pleasant climate and social and economic diversity. Its central location and excellent transport links allows safe and efficient travel to Melbourne and other centres.

Bendigo is the vibrant hub of our region, with quality education and healthcare facilities, a strong economy and thriving cultural life. The network of larger and smaller towns, most of which connect closely with Bendigo, are central to our region's unique character. Larger centres are local hubs, offering a diversity of retail and community services and recreational and cultural opportunities which complement those on offer in Bendigo or Melbourne.

The mix of towns, farmland and forest in our region's south and east provide an attractive landscape that draws tourists and offers alternative lifestyle options. Rural areas support a variety of farming and horticultural operations, produce food, fibre and employment and contribute to the regional economy.

Bendigo is the only city of any size in Australia to be encircled by a National Park. Our region retains many important natural ecosystems with high conservation and amenity value including riverine and wetland ecosystems along the major rivers and their floodplains; Box-ironbark and Stringybark forests through the Goldfields and along the Great Dividing Range; and grassy woodlands of the Loddon and Campaspe Plains. The volcanic soils north of Heathcote are known for the exceptional quality of their shiraz wines and have resulted in substantial investment into an area that is rivaling the nationally known Coonawarra region in South Australia.

The Southern Loddon Mallee environment provides exceptional cultural riches including Australia's only Cultural Heritage Park at the Mount Alexander diggings - which is also only the second site in Victoria to be nominated by the state government for World Heritage listing. Maldon is Australia's first notable heritage town and our region is the site of the finding of the world's largest ever gold nugget.

Our economy

The Southern Loddon Mallee is a major manufacturing hub of Victoria, specialising in the areas of metals and engineering, defence, building and construction, textiles and transport manufacturing and generating more than \$2.6 billion in gross estimated output.

Bendigo is now the leading regional service centre for a large area of northern Victoria and including into southern New South Wales. Economic growth areas driven by our expanding population include health and community services, higher education, vocational training, secondary education, specific government services, banking (including Australia's only bank headquartered in a regional city) and business services.

Rapid population growth and the development of supporting social and physical infrastructure will help to drive the economy of Bendigo and strengthen its role as the significant provincial centre. Infrastructure investment in the already strong education and health sectors will ensure they continue to flourish and tourism will be strengthened as the Goldfields region becomes an Australian significant heritage region.

Agriculture remains an important source of employment and economic activity in our region's rural areas, although its contribution to the regional economy is contracting. The gross value of our agricultural production (in 2006) was about \$408 million, which was just 4.7% of the state's total. Intensive animal production (chickens, eggs, pigs) accounted for over a quarter of the regional value of production and 18.5% of the state's production. Production from dryland farming areas accounted for almost 50% of our region's output.

The structure of employment in the region has changed significantly since 1996. Retail, health and manufacturing are now the dominant industry employment sectors. Employment has grown by over 30% in construction; retail trade; accommodation and food services; professional and technical services; public administration and safety; and health care and social assistance.

Employment in mining has experienced rapid growth over the past 10 years, with the workforce directly employed in the sector rising from 221 to 595 (a 270% increase) between 2001 and 2006. The industry still represents less than 1% of the total workforce in the Loddon Mallee region.

Employment opportunities within the region are concentrated in major towns, particularly Bendigo. Many of the region's residents, particularly those living in towns along the Calder corridor, are employed outside of the region.

Employment trends for top 10 employment sectors in the Southern Loddon Mallee Region



Industry sectors

Major regional employment sectors

Local government area	Accommodation & food services	Retail	Manufacturing	Health	Education	Construction
Central Goldfields	5.2% (8)	14.3% (2)	21.0% (1)	12.3% (3)	9.0% (4)	6.2% (6)
Greater Bendigo	5.7% (7)	13.7% (2)	10.9% (3)	13.9% (1)	8.4% (5)	9.1% (4)
Loddon	3.2% (10)	5.6% (5)	9.2% (2)	6.6% (4)	7.2% (3)	4.4% (6)
Macedon Ranges	8.6% (6)	13.3% (1)	10.1% (4)	9.9% (5)	10.4% (3)	11.0% (2)
Mount Alexander	5.7% (6)	11.5% (3)	23.4% (1)	11.9% (2)	7.0% (5)	7.3% (4)
Southern region	6.1% (6)	13.0% (1)	12.5% (3)	12.6% (2)	8.6% (5)	8.9% (4)

Note: Table shows % of total employment and ranking (in brackets) of the main employment sectors for each local government area and the region as a whole. Source: SGS, 2009, based on ABS 2006 census



Our people

The strong and widely acknowledged liveability of the Southern Loddon Mallee provides a diverse range of urban centres and environmental settings for lifestyle choices.

Our region has experienced, and is projected to maintain, strong sustained population growth. The projected annual rate of growth (1.7%) is almost 50% greater than the average for regional Victoria overall. Much of that growth is associated with the region's proximity to and ease of access to Melbourne.

Overseas migration is projected to increase, with approximately 14,000 additional overseas migrants living in the region by 2036. Our region

has a relatively low proportion of Aboriginal and Torres Strait Islander people, compared to other areas of regional Victoria.

Regional population and population projections

	Population (% of region)						
Local government area	2006	2009	2026	% Change 2006-2026			
Central Goldfields	12,739 (7%)	12,899 (7%)	14,401 (6%)	13%			
Greater Bendigo	96,741 (55%)	102,373 (56%)	134,705 (58%)	39.2%			
Loddon	8,095 (5%)	8,079 (4%)	7,674 (3%)	-5.2%			
Macedon Ranges	39,989 (22%)	42,015 (23%)	54,039 (23%)	35.1%			
Mount Alexander	17,656 (10%)	18,283 (10%)	22,756 (10%)	28.8%			
TOTAL	175,220	183,659	233,575				

Source: ABS, 2006;2009; VIF, 2008

The age profile of our people is similar to regional Victoria and Victoria as a whole. The proportion of young people (24 years and under) is slightly higher than in regional Victoria and Victoria as a whole and we have a higher proportion of older people (aged 65+ years) than Victoria as a whole, but a lower proportion than elsewhere in regional Victoria. However, differences in age profile within the region are pronounced, with Central Goldfields, Loddon and Mount Alexander having significantly older populations than Greater Bendigo and Macedon Ranges.

Differences in levels of socio economic disadvantage are also pronounced within our region.Central Goldfields and Loddon were both ranked amongst the five most disadvantaged municipalities in Victoria, reflecting their lower income, educational attainment and workforce participation. Similar levels of disadvantage are experienced in parts of Bendigo, although this is not reflected in the ranking for Greater Bendigo. In contrast, Macedon Ranges ranks among Victoria's ten least disadvantaged municipalities.

SEIFA Index of disadvantage rank in Victoria

Local government area	Rank
Central Goldfields	2
Greater Bendigo	33
Loddon	4
Macedon Ranges	71
Mount Alexander	30

Source: ABS, 2006 Census

Low ranking reflects higher level of disadvantage.

People living in the region report good health and well-being more frequently than is the case for Victoria as a whole. Around 55% of the regional population reported excellent or very good health, compared with about 54% for Victoria as a whole. Average personal well-being at almost 79% was also higher than the Victorian average (76%).

However, we have significantly higher incidence of diabetes, cardiovascular diseases, smoking, physical inactivity and selfassessed mental and behavioural problems in our region, than the Victorian average. The life expectancy for both males and females across the region is also lower than the Victorian average. In fact, life expectancy for males born in the Loddon Shire (74.4 years), is the lowest of all Victorian municipalities.

Regional growth and economic development will pose a challenge to many of the features of the region that our communities value. Growth will need to be planned for and managed so that our liveability and natural environments, cultural heritage and open spaces are enhanced and protected as we welcome more people to our region.

Our challenges

- Managing the growth so that it does not overwhelm the attributes that are attracting growth, and ensuring that all growth is supported by a sustainable water supply system.
- Ensuring that growth occurs in a sufficiently diverse way that the benefits are spread across our region's cities and towns and that growth in Bendigo is not at the expense of other cities and towns.
- Stimulating sustainable growth over the long term.
- Providing the range, quality and depth of services and facilities across the region and within Bendigo so that the regional network prospers such that the degree of dependence on Melbourne for higher order services can be minimised.

This Regional Strategic Plan is an agreed framework for a new way of working together towards the future we want for our region. It will help us to be more focussed, collaborative and effective in addressing our challenges and seizing the equally significant and exciting opportunities that the future presents.

OUR ASPIRATIONS

Our communities will continue to enjoy regional liveability with urban accessibility. We will be a region with vibrant, innovative, sustainable and connected communities offering a diversity of lifestyles, building on our heritage and natural environment.

Over the next 10-20 years, this Regional Strategic Plan will assist us to build a region that has:

- Prosperous places our region's towns and settlements and the people within them will form a network and continue to share in the region's vibrancy, diversity and opportunity. They will retain great access to services and infrastructure in Bendigo and Melbourne.
- A vibrant provincial city the population of Greater Bendigo will grow towards 135,000 people. Arts, recreation and culture will thrive. The city will have quality infrastructure, educational opportunities, health care and other services.
- A thriving, diverse economy our region will continue to attract new investment and a diverse range of jobs building on the region's competitive advantages. Health, education, construction, retail, tourism, agriculture and renewable energy all provide opportunities for the region. Manufacturing will continue to prosper through investment in innovation.
- Enhanced natural and cultural heritage

 our natural, indigenous and goldfields
 heritage is widely appreciated and
 protected. The forests of the Great Dividing
 Range and Goldfields interconnect and will
 provide linkages to the Murray River.



Strategic Direction 1 - Manage our population growth and settlements

Priority Action 1.1:

Establish a Regional Settlement Framework that respects the amenity, functionality and connectedness of existing cities and towns, and accommodates growth accordingly.

Strategic Direction 2 - Strengthen our communities, especially in our small towns

Priority Action 2.1:

Invest in and advocate for place based community planning, strengthening community leadership models, improving transport connections, encouraging joined up government service delivery and investing in urban renewal (including community hubs, recreation facilities and streetscape enhancement) to improve the liveability of small towns and their ability to manage change.

Priority Action 2.2:

Continue to invest in major infrastructure in Bendigo as the Regional Centre including the redevelopment of the Bendigo Hospital, arts, cultural and recreational precincts and facilities, Convention Centre and the Bendigo Airport to boost liveability to support and encourage further growth in the region.

Priority Action 2.3:

Maximise the benefits of the upgrades to Bendigo Hospital by strengthening its links with supporting primary health services and local hospitals in smaller communities to relieve pressure on the Regional Health Service.

Strategic Direction 3 - Strengthen and diversify our economy

Priority Action 3.1:

Implement initiatives that stimulate local employment opportunities including increasing the stock of serviced industrial land, serviced office opportunities, regionally-based government positions and inter-regional transport connections where employment opportunities exist.

Priority Action 3.2:

Attract investment in high value agriculture production and added value processing, including in intensive agriculture related industries leveraging off the regions strengths of good soils, efficient flexible farming systems and vast tracks of land to deliver new jobs and encourage efficient resource use.

Priority Action 3.3:

Establish Australia's first heritage region, linked to the goldfields heritage, as an iconic destination to value our natural heritage and promote tourism within the region.

Strategic Direction 4 - Improve our infrastructure

Priority Action 4.1:

Further upgrade the Calder Freeway to improve access to Melbourne as outlined in the 2009 State submission to Infrastructure Australia. Identify and support intraregional rail and bus public transport improvements and coordination, and public transport access to Melbourne, to support employment and education.

Priority Action 4.2:

Support Coliban Water in the review and renewal of long term supply and demand strategies to meet future settlement planning needs as identified by the Regional Settlement Framework (Priority Action 1.1).

Priority Action 4.3:

Improve broadband access, take up and telecommunications infrastructure across the region to improve accessibility, reduce social disadvantage and achieve competitiveness as a place for business, in particular by facilitating the development of the National Broadband Network in our towns and across our region.

Priority Action 4.4:

Undertake a strategic analysis of regional energy needs and develop an energy demand management action plan to inform business cases for future infrastructure development and encourage efficient energy use.

Strategic Direction 5 - Improve education and training outcomes

Priority Action 5.1:

Increase tertiary education participation in the region and grow the region's skilled workforce by increasing provision of student accommodation in Bendigo, and expanding university teaching, cultural and recreational facilities and services.

Strategic Direction 6 - Protect and enhance our natural and built environment

Priority Action 6.1:

Engage our communities in actions such as the BushTender program and Landcare activities to protect rural land and improve connectivity of native vegetation along major corridors, ultimately linking to the Murray River.

STRATEGIC DIRECTION 1

Manage our population growth and settlements

Our objectives:

We will manage and respond to projected population growth and change by:

- Maintaining a well-connected network of towns and settlements which are the focus of high-quality development, activity, employment and living.
- Concentrating new urban development in existing towns and settlements that can accommodate growth and in approved growth areas, whilst preserving our township/regional character.
- Providing a diverse range of housing options to meet the community's needs.
- Developing physical infrastructure that keeps pace with growth.



Basis for action:

The projected growth of Melbourne to five million people before 2030 is likely to intensify population growth within our region, particularly in Greater Bendigo, the Macedon Ranges and Mount Alexander. Current trends show lesser growth in Central Goldfields and Loddon Shires. Our region has strong settlement patterns with towns nestled in the surrounding forests and agricultural landscapes. These non-urban breaks must be protected. Detailed capacity analysis and growth area planning for settlements is required to protect the lifestyle that attracts so many new residents to our region.

Our settlement patterns

Our region's settlement patterns and character are heavily influenced by the gold rush era. Most of our main towns, including Bendigo, Castlemaine, Kyneton, Gisborne, Maryborough and Wedderburn, were either important gold production areas or key staging posts for those travelling between the goldfields and Melbourne. The strong character of the settlements is defined by the surrounding bush or rural landscapes which significantly enhances their amenity. Rural residential land uses are concentrated in and near major towns primarily on the outskirts of Bendigo and towns along the Calder Corridor.

Existing settlement patterns are concentrated around established towns, the metropolitan Melbourne interface, and major road and rail transport links to Melbourne, Bendigo and Ballarat. Towns across the region form a network connected by transport routes and accommodate the majority of our residential, employment and industrial land uses.

Significant areas of public land are retained for nature conservation, forestry and other uses. Our region includes important conservation reserves, including the Castlemaine Diggings National Heritage Park and the Terrick Terrick and Greater Bendigo National Parks.

These attributes contribute to a strong settlement character with a diversity of distinct and defined townships separated by either the surrounding bush or rural landscapes.

Population growth

In 2006 our region's population was 175,220, representing a growth of approximately 5,000 people since 2001. The Victorian Government projects that our region will grow to over 233,000 people by 2026. The projected annual rate of growth (1.7%) is almost 50% greater than the average for regional Victoria overall. Most of the projected growth is expected to be concentrated in Greater Bendigo, Macedon Ranges and Mount Alexander with lower growth in Central Goldfields and a population decrease in Loddon. The region has become a popular lifestyle alternative to metropolitan Melbourne due to its proximity, accessibility, and attractiveness. The improvements to the rail and road infrastructure of the Calder Transport Corridor have also influenced growth in the region.

Continuing to plan for future population growth and associated urban growth is essential to retaining our region's liveability, natural assets and heritage character. The growth pressures in Melbourne's hinterland are significant. The distinct rural and bush buffers between our settlements shall be protected and retained, and urban sprawl prevented. Detailed settlement planning will identify the capacity of towns for growth incorporating environmental, physical and services opportunities and constraints. The amount and location of urban growth must be carefully managed to avoid the challenges that uneven distribution of population growth would present. The majority of anticipated growth will be accommodated in Bendigo, the provincial centre, where there are nominated growth areas located within an urban growth boundary. Currently all other settlements within the region are towns and small towns with populations of less than 10,000 people. Depending on where growth is directed, the role and function of some of the larger settlements may change to become district centres. Further settlement planning will determine the preferred future role and function of these towns and include strategies to direct and manage growth within the region.

Capacity for growth

The capacity for expansion of many of our settlements is limited by surrounding forest. Proximity to bushland also means that these settlements are exposed to risk from fire. Urban expansion needs to be carefully considered, particularly in the light of findings from the 2009 Bushfires Royal Commission.

Macedon, Woodend and Gisborne are significant lifestyle towns with more than 40% of their populations commuting to Melbourne. With the recent rapid growth in population predicted to continue, Macedon Ranges Shire are currently undertaking detailed settlement planning to determine where to direct population growth and the future role and function of these settlements.

The towns of Castlemaine, Chewton, Campbells Creek, Maldon and Newstead will be capable of meeting projected population growth. In Harcourt, a major upgrade of the wastewater transfer main will be required in order to cope with the projected population growth. For the currently unsewered towns of Elphinstone, Taradale and Guildford an innovative wastewater management system will be necessary to accommodate the projected growth, as the cost to connect the towns to sewer is likely to be very high.

Maryborough has significant infrastructure and is capable of accommodating population growth. Whilst current projections are modest, there are strategies in place to attract residents and promote growth of the town. Smaller towns such as Clunes and Talbot have capacity for growth if the appropriate sewer infrastructure is provided.

Towns in the Loddon Shire are located in Bendigo's hinterland and could provide alternative lifestyle opportunities to living in the provincial centre. To facilitate such growth secure water supplies need to be implemented in towns such as Bridgewater, Newbridge, Inglewood and Laanecoorie.

Bendigo

Bendigo is the provincial centre servicing the broader region and is projected to experience the highest levels of growth. As one of Victoria's regional cities, Bendigo is a service and employment hub with a diversity and depth of cultural, tourism and entertainment facilities. As the population of Greater Bendigo and our region grows, the city must adapt to provide the necessary health, education and employment services and infrastructure for a larger population.

Settlement planning has been undertaken for Greater Bendigo to identify growth areas for new housing and industrial development. However, outward growth of the city is constrained by the surrounding forest. The development of infill sites, higher density housing and other urban consolidation initiatives will assist in providing appropriate accommodation choices.

STRATEGIC DIRECTION 1

District centres and small towns

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There are several district centres in the region, Gisborne, Kyneton, Castlemaine and Maryborough. These towns provide retail, education, health and other services to their local population and surrounding smaller settlements. The proximity and accessibility of many of these towns to both Bendigo and Melbourne, combined with the attractive provincial lifestyle, rich heritage and environment, make them an attractive and desirable place to live.

The Loddon Shire is unique, in that is has no district centre. Instead Loddon Shire comprises a network of small towns in a largely agricultural landscape. More distant from Melbourne, these towns rely on Bendigo for higher order services and facilities. As part of Bendigo's hinterland, these towns also offer an alternative rural living environment. Population in Loddon Shire is currently decreasing, due partly to a lack of available housing. Strategies to increase population growth could encourage a more even distribution of people across our region.

Central Goldfields, with the district centre of Maryborough has strong relationships to Bendigo and Ballarat. Maryborough offers a range of retail and education services and infrastructure and though population growth is currently low, strategies such as the reintroduction of the Maryborough railway line, are being implemented to attract people and industry to the municipality.

Our region also has many small towns which offer varying levels of local facilities and lifestyles. The character and services that small towns offer are to be protected but also considered in the context of the networks and facilities available from larger settlements. A number of small towns in the region require some infrastructure improvements, particularly in areas such as water, sewerage, gas or broadband. Encouraging growth in small towns, particularly those in Bendigo's hinterland will form part of an overall settlement strategy for the region; where rapid growing towns may reach capacity, the removal of obstacles to growth in other towns will assist in more even distribution of the population.



Regional Settlement and Context Map - Southern Region

Southern Loddon Mallee Regional Strategic Plan

MANAGE OUR POPULATION GROWTH AND SETTLEMENTS

Liveability

The forces of growth have the potential to overwhelm the lifestyleliveability assets of our region, that are driving the growth in the first place. Critical choices need to be made about the shape and form of urban development, about the links between places, and about the type of urban development that will support sustainable water provision and transport systems.

The majority of new urban development will need to be contained within existing towns and settlements or designated growth areas with good access to services, education, employment, transport and social networks.

Transport and employment planning are critical to determining the future capacity of growth settlements. We must also protect water catchment areas, land with high environmental or amenity value and to ensure non-urban breaks between settlements are maintained.

Rural living

Rural living is an attraction of the region. There is a continuing tension between the protection of viable farming land and the demand for smaller rural allotments. Set against the general trend of consolidation of farming landholders, there are also a variety of opportunities to more intensively develop rural land for the equine industry, boutique wineries, and orchards.

Our land use has historically been dominated by dryland and irrigated agriculture. Almost all of our irrigated agriculture is located in Loddon Shire, although pockets of irrigated horticulture or viticulture are distributed through the region. The main dryland agricultural land uses are livestock grazing and cropping. Although much of the land to the south and east of Bendigo is classified as being used for agriculture, limited commercial-scale agriculture occurs and land is often valued for its amenity for rural living, rather than its potential for agricultural production. Settlement planning must ensure that the development in these areas does not generate demand for unsustainable expansion to services or infrastructure.

Housing choices

Identification of regional housing needs in light of projected population growth, changing household composition and needs may be best coordinated at a regional level. Planning for an increased supply of housing which maintains the character of existing towns, minimises impacts on natural environments and responds to bushfire risk is an ongoing challenge for our region. This challenge is likely to intensify over time as population growth and development pressures increase. The proportion of households with one or two people will continue to increase and may stimulate demand for smaller dwelling units.

Forward planning for projected population and economic growth requires new investment in energy and waste infrastructure. Actions proposed focus on planning for regional approaches to waste reduction and recycling and assessing alternative energy sources. Additional investment to progress and service industrial land will also be essential to meet industry demand.

Priority Actions:		Horizon	(years)
Prior	nty Actions:	1-5	>5
1.1	Establish a Regional Settlement Framework that respects the amenity, functionality and connectedness of existing cities and towns, and accommodates growth accordingly.	1	

Kon		Horizor	n (years)
ĸey	Initiatives:	1-5	>5
1.2	Support population stability and interventions to encourage growth in areas where population has stabilised or fallen (e.g. Loddon and Central Goldfields Shires).	1	
1.3	Undertake strategic work and implement appropriate rural zones across the region to manage land use and support existing and emerging rural based activities.	1	
1.4	Link planning with natural resource protection and water demand and provision.	1	
1.5	Fund a pilot project to showcase higher density, mixed use, sustainable development on Government or private land within Bendigo which includes affordable housing.	1	
1.6	Develop targeted aged, emergency and social housing across the region.	1	
1.7	Implement relevant findings of the Bushfire Royal Commission and support Integrated Fire Management Planning through the development of the Regional Strategic and 10 Municipal Fire Management Plans.	1	
1.8	Implement the Calder Regional Waste Management Plan with a focus on increasing community education about waste issues including waste reduction and recycling.	1	

STRATEGIC DIRECTION 2

Strengthen our communities, especially in our small towns

Our objectives:

We will improve social equity and strengthen communities' resilience to change by:

- Improving access to social services and community infrastructure.
- Building capacity, with a focus on vulnerable communities.
- Building community connectedness and reducing areas of social disadvantage.
- Providing a regional health care centre of excellence in Bendigo.
- Improving community safety, health and wellbeing.
- Ensuring high quality health care services are accessible across the region.
- Attracting and retain high calibre health care professionals.
- Enhancing our thriving arts culture.
- Improving participation in cultural and recreational activities.



Basis for action:

Our region has many small towns each with their distinct identity, and varying levels of community infrastructure. Residents of these towns access the larger settlements for a range of services including employment health and education. It is important that those in small towns have access to services by retaining existing infrastructure in towns, bringing visiting services in to towns, or providing appropriate transport services so that residents can access larger towns. Without this intervention, levels of socioeconomic disadvantage will increase and result in poorer health and well-being, lack of access to employment and reduced community vitality and viability. The community planning process develops local solutions that account for different communities' resources, demographics, interests and needs.

Supporting our small towns

Improving social equity across the region and addressing social disadvantage is a big challenge for our region. Population growth in more advantaged parts of the region will only exacerbate existing differences in socio-economic prosperity, particularly in small towns across the region. Structural adjustment in agriculture (a key sector in Loddon Shire) and the continued loss of young adults as they move to larger centres or cities within or beyond the region also threaten to widen the gap between advantaged and disadvantaged communities.

The VCEC A State of Liveability: An Inquiry into Enhancing Victoria's Liveability (2009) report suggests that two factors which detract from liveability in provincial Victoria are a lack of access to services and infrastructure and indifferent communication technology. This characterises rural areas and some of our smaller towns who are experiencing declining levels of service and increasing per capita costs of service provision. Other groups, including culturally and linguistically diverse (CALD) communities, Aboriginal and Torres Strait Islander people, the elderly, disabled or youth experience these challenges in accessing services, even in some of the larger population centres.

The process of identifying priorities for service provision must engage the relevant communities. Sharing experiences in community engagement and service planning at a regional level will enable successful examples to be applied to other communities.

One initiative currently being implemented is the new representative arrangement for Aboriginal and Torres Strait Islander Victorians - this includes representation at both the community (Local Indigenous Networks) and the regional level (Regional Indigenous Council). As these mechanisms involve planning by Aboriginal and Torres Strait Islander people they can become an important link for Aboriginal and Torres Strait Islander communities to participate in place-based community planning.

Leadership

Building the capacity of community leaders and volunteer organisations is fundamental in empowering and building community strength and resilience.

Facilitating increased community inclusion is important to foster a more tolerant and welcoming society in the face of change. Actions aim to develop the capacity of the community, strengthen networks and ensure that as new migrant groups arrive in the region, they are welcomed and their contribution to the community and economy optimised to increase the overall social capital of the community.

Our health and wellbeing

Bendigo is home to a depth of health infrastructure, such as Bendigo hospital, which provides high quality care and a diversity of services offering an alternative to Melbourne for health care. Other towns such as Castlemaine and Kyneton have existing health infrastructure which service the surrounds with opportunity to establish a strong interconnected health sector in our region.

Health status varies across our region due to socio-economic and environmental factors, including income, educational and employment opportunities, and access to services. Health typically deteriorates with distance from metropolitan areas. Smaller and more remote communities and disadvantaged groups with limited access to transport tend to experience poorer health outcomes.

The Bendigo Loddon Primary Care Partnership (including the Greater Bendigo and Loddon local government areas) and the Central Victorian Health Alliance (including the Central Goldfields, Macedon Ranges and Mt Alexander local government areas) provide a network of community service, health organisations and local government agencies across the region. These PCPs work collaboratively to improve health and wellbeing of people in the region and to reduce unnecessary use of hospital, medical and residential services.

Infrastructure and critical services in smaller regional hospitals must be maintained to ensure access in smaller communities and by disadvantaged groups, particularly those without access to transport. These services must also connect with the regional centre of excellence in Bendigo, including via 'virtual' services accessed via broadband technology.

Access to services

Our region is renowned for high quality health care which assists in attracting and retaining residents. Bendigo Hospital is our major regional public provider, with smaller-scale hospitals and health care practitioners providing services in smaller communities. The first stage of a \$55 million upgrade the Bendigo Hospital is in progress. A further \$473 million in funding to construct a new hospital, including additional inpatient beds, a refurbished ambulatory centre and additional radiotherapy and oncology services was announced in the 2010 Victorian state budget. Continued investment in infrastructure is needed to ensure Bendigo Hospital continues to develop as a regional health care centre of excellence, provides high quality hospital services for the regional community and continues to build linkages with health education and research.

In keeping with its regional charter, further investment is also needed to provide accommodation and support services to patients and their families from elsewhere in the region (and beyond). Investment in other health facilities around the region will also be required and creative initiatives are needed to attract and retain local practitioners to our region.

Our ageing population

Demand for hospital services is expected to rise significantly over the next ten years as a result of population ageing, the rising levels of preventable chronic disease and disadvantage. The greatest increase in resident demand for hospital services will come from older people who need them more often and for longer periods.

Continued investment in infrastructure and services is needed to ensure hospital and other health care facilities in our regional centres and smaller towns provide an appropriate level of service, particularly to meet the needs of our ageing communities. Current access to services varies across the region, with people located in smaller towns that are distant from major population centres or with mobility issues particularly challenged. Reduced access to health care services contributes to our region's poorer health outcomes.

Our Aboriginal and Torres Strait Islander population

There is a comparatively low proportion of Aboriginal and Torres Strait Islander people in our region (0.9%) compared to the Northern Loddon Mallee (2.5%) and they have special health needs including the availability of culturally appropriate health services.

On average, life expectancy is estimated at 60 years for men and 65 years for women, which is approximately 18 years less than respective Victorian rates. This is influenced by a number of factors, including rates of morbidity and access to appropriate services.

Aboriginal and Torres Strait Islander people have generally poorer health than non-Aboriginal and Torres Strait Islander people and are more likely to be hospitalised. Diabetes, renal failure, cardiovascular diseases and respiratory diseases are the most prevalent chronic conditions in Aboriginal and Torres Strait Islander people and among the most common causes of death. Aboriginal and Torres Strait Islander people are admitted to hospital for chronic diseases and diabetes-related illnesses more frequently, and at younger ages, than non-Aboriginal and Torres Strait Islander people and the rate of admissions for renal dialysis for Aboriginal and Torres Strait Islander women aged 45-64 is ten times the non-Aboriginal and Torres Strait Islander rate.

Our farmers

Our farmers are experiencing high levels of stress. They are working harder, longer and experiencing reduced terms of trade, increased regulatory requirements and high input prices.

Farmers have higher death and morbidity compared with the average Australian population and are over represented in injuries and level of socio-economic disadvantage. Male farmers have a 40% increase in age standardised deaths relative to the average Australian male (Fragar and Franklin 2000). This is a result of higher rates of cancer, cardiovascular disease, farm injury and suicide.

The degree of change resulting from rural adjustment and climate change is likely to increase levels of stress and exacerbate existing health problems amongst this community. Research is also suggesting that during periods of great stress and change, decisions to change are postponed. This has multiple impacts on not only individuals and their families, but also on employees and communities.

These pressures also create complex land use planning challenges, from the desire to reduce agricultural land holding sizes or redevelop for housing, to the protection of agricultural land and encouraging housing in urban areas where access to services is ensured. Planning tools and approaches also must provide adaptability of agricultural/horticultural opportunities and allow for emerging rural activities.

Arts & culture

Providing access to high calibre arts, cultural and recreational facilities and programs is vital to retaining and improving the liveability of the region for existing and new residents and in attracting visitors. Arts and culture make a vital contribution to the health and wellbeing of communities, by providing opportunities for creative expression, celebrating the cultural diversity of the region and fostering social connection and communication.

The richness and value of Aboriginal and Torres Strait Islander culture and heritage is an example of this diversity that could contribute substantially to the region. They may also provide substantial economic benefit, by fostering innovation and skills development and in attracting visitors and new residents. Arts programs are also effective tools for engaging hard to reach populations, particularly youth, ethnic and other socioeconomically disadvantaged groups.

Participation in arts and culture is strong across the region, with rates of participation exceeding the Victorian average in all municipalities except Central Goldfields. The region is also the host of many events, from produce, farmers and artists markets, to annual festivals such as the Castlemaine State Festival, Maryborough Highland Games, the Harcourt Applefest and the Bendigo Easter Festival. Bendigo provides regional arts and cultural infrastructure including the Bendigo Art Gallery and Capital Theatre. Between them the two facilities attract approximately 170,000 visitors or audiences annually. Many of the region's smaller towns have art galleries and local theatres. Towns along the Calder corridor are typically better serviced with arts and cultural infrastructure than other parts of the region.

Recreation and events

The region has a proud sporting legacy and has experienced high levels of participation in sport and recreational pursuits. Sport and recreation clubs and associations define the character of our communities and bring people together effectively to plan and shape their futures. A key feature of our region is the presence of strong clubs and associations that are backed by active volunteer networks. As a result, participation rates in leisure activities are healthy.

Rural communities, regardless of how small or dispersed, invariably have facilities to cater for a range of traditional sports such as Australian rules football, netball, and tennis amongst others. Regional cities have a larger variety of sporting facilities and services, have the capacity to host major sporting events and are actively accommodating growth sports. Our climate, geographic diversity and network of tracks and trails denote our region as a renowned walking and cycling destination.

While the region boasts a diverse range of sport and recreation opportunities, many codes are compromised by limited planning capacities, aged infrastructure and stretched support services. As our communities grow and our leisure preferences expand, there is a need to support the planning and development of sustainable facilities and services that can serve a multiplicity of needs and ensure our communities can enjoy healthy, active lifestyles.

STRENGTHEN OUR COMMUNITIES, ESPECIALLY IN OUR SMALL TOWNS

Duio	 2.1 renewal (including community hubs, recreation facilities and streetscape enhancement) to improve the liveab of small towns and their ability to manage change. Continue to invest in major infrastructure in Bendigo as the Regional Centre including the redevelopment of t Bendigo Hospital, arts, cultural and recreational precincts and facilities, Convention Centre and the Bendigo Ai 	Horizon	ı (years)
Prio	nty Actions:	1-5	>5
2.1	improving transport connections, encouraging joined up government service delivery and investing in urban renewal (including community hubs, recreation facilities and streetscape enhancement) to improve the liveability	1	
2.2	Continue to invest in major infrastructure in Bendigo as the Regional Centre including the redevelopment of the Bendigo Hospital, arts, cultural and recreational precincts and facilities, Convention Centre and the Bendigo Airport to boost liveability to support and encourage further growth in the region.	1	
2.3	Maximise the benefits of the upgrades to Bendigo Hospital by strengthening its links with supporting primary health services and local hospitals in smaller communities to relieve pressure on the Regional Health Service.	1	

Varia		Horizor	n (years)
key	Initiatives:	1-5	>5
2.4	Strengthen community leadership models to ensure there are effective regional programs to identify and train community leaders and develop increased capacity for effective participation in community groups and community life.		1
2.5	Develop a program to foster youth leadership and direct engagement of youth in projects and community programs.	1	
2.6	Develop community hubs in schools, CFA sheds, libraries or other accessible locations to increase participation in community life.		1
2.7	 Support community organisations to: Deliver programs to develop a regional education/community awareness campaign to promote community benefits of migration and increase awareness of cultural mix of their region. Establish 'Welcoming Committees' to provide social support, business mentoring and information for new residents. Organise multi-cultural activities or events to foster communication, networking and increased understanding across different cultural groups, including youth. 	1	
2.8	Implement key initiatives of the Victorian Government's Volunteering Strategy (2009).	\checkmark	
2.9	Collaborate regionally to collect and analyse health, education, community and employment data to better target and inform service and infrastructure investment decision making.		1
2.10	Build additional accommodation and support facilities for patients and family travelling to Bendigo Hospital to receive services.	✓	
2.11	Increase access to primary health care facilities and preventative programs through targeted initiatives, especially on the treatment of and prevention of chronic diseases, such as diabetes, heart disease and asthma.	✓	
2.12	Attract, educate and retain increasing numbers of health professionals to the region, including to funded positions in small towns.	1	
2.13	Implement the Closing the Gap Plan by targeting the causes of poor health outcomes for Aboriginal and Torres Strait Islander people and improving their access to culturally appropriate health services.	✓	
2.14	Develop and implement models of mental health prevention and early intervention for people in rural and regional areas (such as the Live4Life Schools Program, Macedon Ranges Shire).	1	
2.15	Develop and implement projects that use broadband connectivity to enhance access to health care services and provide improved professional development opportunities, particularly for towns outside of Bendigo.	✓	
2.16	Continue to develop the Bendigo Art Gallery and Capital Theatre as regional arts and culture hubs in accordance with the adopted Master Plan. Develop a Performing Arts Centre in Bendigo.	1	
2.17	Explore the establishment of multi-purpose hubs which may include Aboriginal and Torres Strait Islander culture, history and preservation activities and other community uses.	✓	
2.18	Support local arts, culture and recreation programs in towns across the region and assist towns to develop unique, complementary arts and cultural offerings.	1	
2.19	Develop an outreach program which delivers arts, cultural and recreational programs to smaller towns across the region.	1	
2.20	Support existing Walking and Cycling Strategies including priority capital works for inter-Regional trail networks.	\checkmark	
2.21	Continue to invest in regional recreational infrastructure and programs to boost liveability and community connectedness.	1	
2.22	Develop and implement innovative whole of community approaches towards combating community violence, youth binge drinking, mental health issues, road safety/road trauma issues and safety perception issues. Engage broad range of community networks to provide input as appropriate including Primary Care Partnerships, Regional Youth Affairs Network, community safety groups and the Victorian Community Road Safety partnership.	1	

STRATEGIC DIRECTION 3

Strengthen and diversify our economy

Our objectives:

We will strengthen and diversify our economy to ensure wealth and industry mix spread across the whole region. We will do this by:

- Ensuring our infrastructure supports the growth of our current and emerging industries.
- Maintaining prosperous and sustainable agriculture.
- Supporting and developing emerging and potential growth sectors such as tourism and 'green' industries.
- Leveraging greater employment and investment outcomes from growth sectors including health, education and professional services.
- Building a skilled and adaptable workforce.







Basis for action:

Overall, the region has a strong economy and a relatively high rate of employment. However there remains significant variability in socio-economic conditions and employment across the region. There is a high degree of commuting outside of the region, from locations including the Macedon Ranges Shire, due to a lack of local jobs and a mismatch between available jobs and available skilled labour. Stimulating local employment and providing local jobs is a high priority. Leveraging from and expanding our health, education and professional services sectors and further developing our tourism sector will contribute to more employment options.

Our region has several key strengths that contribute to its relatively diverse and buoyant economy. Our urban and rural residential environments offer an appealing lifestyle to people looking to relocate from Melbourne. Bendigo and the other major towns along the Calder corridor including Castlemaine, Kyneton, Woodend and Gisborne are also readily accessible to Melbourne via rail and road transport links, which enables daily or regular commuting to Melbourne for employment or business.

Greater Bendigo has developed as a significant provincial centre, offering a wide range of residential, community and commercial services and employment opportunities. It has strong and increasingly linked health and education sectors, which offer professional employment at metropolitan income levels, as well as providing capital city level services. From this strong base in Bendigo, a wide range of social and commercial services are provided to our region.

It is essential that job creation improves the distribution of employment amongst all our cultural groups and keeps pace with projected population growth. Both economic and population growth needs to be sustained through investment in renewal or development of water, energy, transport and telecommunications infrastructure.

Industry Employment Shares Victoria and Loddon Mallee - South

Providing more local employment opportunities

Levels of commuting to Melbourne or Bendigo are particularly high in Mount Alexander and Macedon Ranges, with over 20% of Mount Alexander and Macedon Ranges residents commuting to work beyond their municipal boundaries. A significant proportion of workers in Macedon Ranges and Mount Alexander (60 and 35% respectively) reside in other municipalities and travel to or within the region for work. The level of commuting reflects our strength in proximity to Melbourne and is likely to increase further as our population grows. However, this can also contribute to leakage from the regional economy and may detract from community life and personal well-being. Development of further employment opportunities within the region, improving interregional connectivity and more effective use of telecommunications may help to offset the commuting trend. This is particularly important in the Central Goldfields and Loddon Shires, where there are limited opportunities beyond the traditional manufacturing and agriculture sectors.

The region is experiencing growth across most sectors, concentrated around Bendigo and in townships in proximity to the Calder Highway between Bendigo and Melbourne. Opportunities for employment in the construction, food processing and transport and logistics sectors exist through out the region, with opportunities in the health, education, business services and retail more concentrated around Bendigo.

With improved transport connections, a diverse range of employment opportunities exists for the whole region. The availability of serviced industrial land is also critical to sustaining growth.



Population-driven economic opportunities

Significant growth is now being recorded in sectors that are driven by increasing population demands. Health and community services, education, finance, construction, transport, government administration and defence are all rapidly growing economic sectors for the Southern Loddon Mallee. They are all expected to continue growing as our anticipated population growth occurs. Inter-regional transport connections and the availability of office space including serviced offices are critical to the growth capacity of our professional services sector.

Our health and education sectors in particular are projected to grow consistently, which may assist in developing other economic sectors. Provision of high quality medical and educational services helps to attract or retain residents and may assist in improving the capacity to offer higher quality services across the region. A key challenge is in providing the professional environment and professional development opportunities, including research infrastructure, to ensure high calibre staff are retained.

Our financial sector strength centres around names like Bendigo and Adelaide Bank, mecu, Sandhurst Trustees, Rural Finance and professional accounting firms. They have helped our finance and insurance sector achieve a 35 per cent increase in output from \$522.7 million to \$705.2 million in the past two and half years. In the same period the finance sector has increased its value added contribution by 29 per cent, and its regional exports by 30 per cent. Bendigo and Adelaide Bank headquarters employs more than 1000 people in our region and has 1.3 million retail customers, assets under management of more than \$48 billion and market capitalisation of around \$3 billion.

Growth opportunities in other professional services such as information technology and law will be strengthened by the expansion of the health and education sectors, particularly in respect to delivery of e-services in these sectors. Continuing investment in supporting infrastructure is critical to facilitate the growth in these areas and create more opportunities for our region's professionals to work from home or 'tele-commute', rather than travelling to Melbourne.

Bendigo attracts a variety of conferences and conventions, reflecting its economic strengths and leadership in a wide range of fields. Its capacity to attract large conferences and conventions is constrained by venue limitations. A new convention centre would generate direct employment, support the creation and growth of local businesses and encourage more people to return to our region for longer visits.

Heritage tourism

Continuous improvement in tourism infrastructure and services helps to maintain liveability and sustain population and broader economic growth.

The Victorian Goldfields has a world class heritage and significance. The richness and excitement of the Goldfields travel offerings is based on the diversity provided by the gold cities and larger tourism developed regional centres on one hand, and the smaller towns and villages, on the other. Further investment in the tourism industry is required to take full advantage of our rich goldfields heritage.

Tourism provides an opportunity for us to support business growth in our small towns and villages. Leadership development, collaboration programs and more readily available customer satisfaction programs must be provided to assist small tourism operators in fulfilling their economic potential.

There is a need for major added infrastructure to ensure the connecting touring routes and trails across the Goldfields meet visitor needs. Directional and interpretative signage to tell the rich stories of the Goldfields, streetscapes in the Goldfields villages including underground power, and infrastructure to conserve and protect heritage sites are required to support the development of this important sector. Investment is needed to develop quality product and produce strategic and collaborative marketing campaigns to encourage more and longer stays.

High value agriculture and added value processing

Our region boasts good soils, efficient flexible farming systems and vast tracks of land that deliver high value agriculture production and added value processing. However demand for urban and rural residential development is increasing, particularly near major settlements and the Calder Highway Corridor. With a projected population growth of 33% by 2026, pressures to provide land for urban and rural residential development will continue to escalate.

Financial pressure on the agricultural sector and permanent trade of water share are accelerating the consolidation of smaller irrigation and dryland farms in the north and west of our region into larger landholdings. High land prices in the south make it difficult to expand holdings to maintain a commercially viable scale. Support for the development of intensive and high value agriculture related industries, added value processing and efficient resource use is required to ensure that agriculture remains a significant contributor to our economy and way of life.

Innovative manufacturing

The manufacturing sector continues to be one of the key economic strengths of our region, with metals and engineering, building products, food processing, transport manufacturing and textiles and clothing all contributing to increases in output, exports, value adding and employment. Increasing the stock of serviced industrial land and investment in renewal or development of physical infrastructure and support services is critical to supporting economic growth and job creation in existing and emerging manufacturing enterprises across the region.

Successful industry clusters for poultry, the equine industry and information technology have been developed in our region. Our region's capability in engineering and design may provide for collaboration opportunities around large national and international investments occurring in defence and mining.

There are a range of defence related companies in our region. Our capability around defence vehicle design and manufacture is set to increase with a \$40 million expansion of proving ground at Monegeetta currently underway. Its completion will increase and improve our competitive position in securing lucrative national and international defence contracts.

Reducing our carbon footprint

Innovative initiatives to reduce our greenhouse emissions through improved efficiency practices, waste energy projects, carbon offsets and sustainable housing initiatives have proven to be environmentally and economically successful. Further innovation in this sector will lead to opportunities in supplying new technologies, products and services, particularly in the construction sector. Good opportunities already exist in waste to energy and solar energy technologies, and there is strong community support for the development of industries that reduce the carbon footprint of our region.

Workforce capacity

The region's overall level of unemployment is similar to averages for the state and for regional Victoria. Unemployment is typically much greater in Central Goldfields than in other municipalities, while in the Macedon Ranges it is about half of the state and regional averages.

Key skill gaps in our region include:

- Professionals including building and engineering professionals, teachers, registered nurses, allied health professionals and accountants;
- Trades people including structural construction, metal fitters and machinists, plumbers, motor mechanics, electricians and structural steel and welding tradespeople;
- Skilled labourers including farm hands and truck drivers.

STRENGTHEN AND DIVERSIFY OUR ECONOMY

These shortages reflect to some extent the significant and continuing construction activity in our region and also the strong development of our health and education sectors. Population growth and the ageing of our population will push the skill needs in health, education, construction, transport and financial / professional services even further.

We must work in partnership with education and training providers to address these skills shortages, in order to facilitate the necessary diversification of our economy. Ensuring that regional economic development improves business and employment opportunities for all of our community groups in every part of our region is fundamental to the health of our economy, our communities and the future of our region.

Priority Actions:		Horizon (years)	
Prio			>5
3.1	Implement initiatives that stimulate local employment opportunities including increasing the stock of serviced industrial land, serviced office opportunities, regionally-based government positions and inter-regional transport connections where employment opportunities exist.	1	
3.2	Attract investment in high value agriculture production and added value processing, including in intensive agriculture related industries leveraging off the regions strengths of good soils, efficient flexible farming systems and vast tracks of land to deliver new jobs and encourage efficient resource use.	1	
3.3	Establish Australia's first heritage region, linked to the goldfields heritage, as an iconic destination to value our natural heritage and promote tourism within the region.	1	

Var		Horizo	n (years)
ĸey	Initiatives:	1-5	>5
3.4	Develop and implement initiatives to create local employment opportunities for those who have to commute to work particularly for Macedon Ranges and Mount Alexander Shires.	1	
3.5	Initiate and support investment in public infrastructure for natural, cultural and other tourism assets, such as lconic trails and trails in the Loddon Mallee Regionally Significant Trails Strategy and National Parks to drive tourism.	1	
3.6	Facilitate the development of a convention centre in Bendigo through site identification and approvals processes to boost regional tourism and economic development.	1	
3.7	Facilitate new investment and employment outcomes in 'green related industries' and the renewable energy sector to diversify the economy.	1	
3.8	Advocate for relocation of appropriate government agencies to the region to support regional programs, employment diversity and support economic growth.	1	
3.9	Collaborate with appropriate umbrella organisations and The Ministerial Taskforce on Aboriginal Affairs to establish regional business mentoring and job placement programs for Aboriginal and Torres Strait Islander communities.	1	
3.10	Attract investment and new employment in 3-5 new industry sectors through targeted investment attraction strategies. (e.g. Intensive / high value agriculture, equine, manufacturing and construction).	1	
3.11	Ensure adequate supply of well located and serviced industrial and business land across the region.	1	
3.12	Address skill shortage issues through implementation of Workforce Industry Development Strategies with the private sector.	1	
3.13	Undertake initiatives to leveraging off planned investment and growth in health, education, manufacturing sub sectors (defence, engineering) and mining.	1	
3.14	Implement initiatives to strengthen the regions innovation and sustainability culture based on collaboration of ideas and practice between industry, government and education and research institutions.	1	
3.15	Work with the services industry and education providers to boost regional skills capacity to support growth in demand and secure local employment outcomes.	1	
3.16	Leverage the Victorian Aboriginal Economic Development Agenda, including its partnership with key business stakeholders, to ensure a coordinated approach to establishing a regional business mentoring program to provide Aboriginal and Torres Strait Islander communities with access to business leaders. Establish a regional business mentoring program to provide business groups from small towns and CALD communities with access to business leaders.	1	
3.17	Seek to participate in the development of a 10 year Aboriginal Tourism Plan through Tourism Victoria and Aboriginal Tourism providers and build the capacity of Aboriginal businesses through leveraging the business supports as outlined in the Victorian Aboriginal Economic Development Agenda.	1	

STRATEGIC DIRECTION 4

Improve our infrastructure

Our objectives:

We will plan and develop infrastructure to support and manage our region's projected economic and population growth by:

- Developing infrastructure and services that facilitate continued growth in our regional economy.
- Maintaining liveability in towns and regional centres through proactive infrastructure provision.
- Improving road, rail and public transport access to Melbourne through continued investment and development in highways, local roads and rail infrastructure.
- Ensuring water quality and flows remain suitable for environmental and consumptive uses of water.
- Increasing coverage and capacity of telecommunications infrastructure and services within the region.
- Increasing use of telecommunications infrastructure to improve access to services, health care, education and employment, as well as to strengthen social connection and support economic growth.



Basis for action:

As our population grows, our transport infrastructure and services must be improved so that people and goods can continue to move efficiently, and access to social networks and community services is maintained. This will require better coordination of our public transport system and the exploration of innovative transport alternatives.

On-going investment in water infrastructure and management of water resources is required to enhance security and efficiency of water supply to irrigators, farm and urban users. This is particularly important in light of our expected population growth, projected water supply reductions due to climate change and changes in water allocation policy.

There are significant gaps in our telecommunications infrastructure. Region-wide mobile phone coverage and high speed broadband access are critical to providing access to a wide range of services, including health care, education, finance, training and retail services. It is also required for business growth and as a key means of maintaining social connections and reducing social disadvantage.

Our roads

Continued planning and infrastructure investment in highways, local roads and rail infrastructure is required to ensure passenger and freight demand can be met. Focus is also required on how transport infrastructure and services can be developed in ways that support population growth in smaller towns and facilitate access to community and commercial services.

The four lane Calder Freeway connects Bendigo and the main towns to its south to Melbourne by road. Completion of this link has meant that smaller towns have been bypassed, improving safety and reducing through traffic for local communities. However, on-going upgrades are needed to maintain high level access between Bendigo and Melbourne and to reduce travel times and improve road safety. The Calder Highway Improvement Committee has identified the Calder Alternative Highway intersection at Ravenswood as its highest priority for urgent development works although funding has not yet been obtained to construct this interchange.

Bendigo's position as a major transport hub for northern and northwestern Victoria means that transport planning and infrastructure development should also take account of movements of freight and people throughout the entire Loddon Mallee region. Such planning would consider future road and rail transport needs for the southern region and respond to the many pressing issues, particularly for freight movement, in the northern region.

Public transport

V/Line operates 17 weekday train services from Bendigo to Melbourne and 18 services in the opposite direction. Two services continue to Swan Hill and two to Echuca. There are also five daily connecting bus services to Maryborough. From 2010, a V/Line train will run between Ballarat and Maryborough 14 times each week.

V/Line, private and community buses also offer transport between smaller towns and regional centres or stations along the

Melbourne-Bendigo corridor. Those in the south of the region mainly focus on commuters transport and run at times coinciding with train timetables. Local government and community based services also provide transport, with a focus on connecting residents of smaller settlements with important community services. The region's proximity to Melbourne means that most freight movements are also by road.



While fewer than 1% of people in the region reported travelling to work by public transport, the Bendigo rail line has experienced rapid growth in passengers from 2005-2009, reflecting increasing fuel prices and major upgrades to infrastructure and services by the Victorian Government.

The Transport Connections Program currently being delivered by Department of Planning and Community Development (DPCD) in collaboration with local government aims to improve access to larger population centres for people living in areas with limited public transport. Community buses now run from Axedale, Redesdale, Mia Mia, Daisy Hill, Talbot, Bealiba, Timor, Carisbrook and Red Lion. The B-line project initiated by the City of Greater Bendigo and Loddon Shire is trialling several bus services, including Bendigo-Boort, Tarrnagulla-Inglewood and Tarrnagulla-Maryborough.

A variety of other initiatives are currently underway to improve accessibility to larger population centres and reduce reliance on private transport.



Air services

While there are several airports and airfields, there are currently no scheduled commercial passenger services currently operating from our region. Our proximity to Melbourne has limited investment in airport facilities and commercial passenger operations. A major renewal of the Bendigo airport is proposed by the City of Greater Bendigo, in order to continue use by emergency services and explore opportunities for expansion of services. Coordinated regional planning is required to prioritise investment in airport infrastructure, accounting for the various uses and facilities required at smaller airfields.

Water

Our urban and irrigation water supplies are supplemented by water diverted from the Goulburn River system. Water supplies for towns located south of the Great Dividing Range are drawn from local catchments and Melbourne Water storages.

Considerable investment has recently been made to modernise and upgrade ageing irrigation infrastructure in northern Victoria to reduce water losses and ensure that northern Victorian irrigators remain internationally competitive through NVIRP. Coliban Water and Central Highlands Water, in partnership with the Commonwealth and Victorian Governments, have also invested in the construction of the Goldfields Superpipe which has capacity to deliver up to 20 GL of water purchased from the Goulburn system irrigators to Bendigo (and Ballarat) each year. Additional investments in infrastructure to improve supply and/or quality of water have also been made for Maryborough and some smaller towns around Bendigo. Given projected reductions in catchment inflows due to climate change, increasing demand and service expectations from the region's growing population and economy, continued investment is required to provide water for urban and industrial uses. With new technologies and approaches to managing water such as the water GRID, it is timely to review and renew long term water supply and demand strategies with updated climate and population information for all towns in our region. There are now many more possibilities for growing our high value water industries.

Managing water quality, flows and levels in rivers, streams and groundwater and water catchments, particularly in light of the dry climate of the last decade, is critical to ensure that water resources remain suitable for environmental and consumptive uses. The upper and middle reaches of the Campaspe, Coliban and Loddon Rivers are particularly important catchment areas and provide water for our urban populations, our riverine and wetland habitats and for dryland and irrigated agriculture.

Awareness of the need to provide appropriate water regimes to wetlands and riverine environments has grown over the last two decades. There is now a strong policy support for environmental water provision, with environmental water recovery targets set for both of our major river systems.

Introduction of the Murray-Darling Basin Plan's new Sustainable Diversion Limits may result in a substantial realignment in water allocation between environmental and consumptive uses, which will further increase competition in water markets and most likely accelerate the current exit of irrigators from their industry in Pyramid-Boort and other parts of the Goulburn-Murray Irrigation District. This would add to the economic and social challenge facing irrigation communities in the Loddon Shire who will need to be supported with upgrades of on-farm infrastructure and a more strategic approach to environmental water buyback and water trade.

Energy

Regional electricity and gas transmission networks connect our region to the national electricity grid and gas produced from the Bass Strait fields. Bendigo, Castlemaine, Gisborne, Kyneton, Maryborough and Woodend have access to natural gas.

An assessment of the renewable energy generation potential for Victoria has shown that with the exception of the Loddon Shire, our region has significantly less renewable energy potential than northern and western areas of the state. However, significant energy gains have been made through innovative efficiency practices, waste energy projects, carbon offsets and sustainable housing initiatives. Ongoing innovation to reduce the energy costs and carbon footprint of our successful manufacturing sector has resulted in the delivery of a number of notable 'green' projects and a culture of continuous improvement in energy efficiency and innovation. A strategic analysis of regional energy needs and renewable energy options must be undertaken to inform business cases for future infrastructure development and encourage further innovation in efficient energy use.

Telecommunications

The Victorian Competition and Efficiency Commission has concluded that the primary factor detracting from liveability in many regional areas is poor access to services and infrastructure particularly health, education, transport and information communication technology.

The National Broadband Network will bring improved fixed line broadband coverage and increased broadband speed to major towns within our region but is not proposed to increase speed or improve coverage to small towns and rural areas remote from the Calder Highway except schools, TAFE and some medical facilities, which have or are developing their own links. Broadband and mobile phone access is critical for the effective delivery of business, health care, education and training services, particularly for small towns of under 1000.

In 2006 access to metropolitan equivalent broadband services was available to about three quarters of businesses and dwellings in our region, representing the second lowest regional coverage in Victoria. Access to broadband services was lowest in rural municipalities and areas set back from the main road transport routes. Mobile phone services are widespread, although the service is limited in rural areas in particular and is further impacted by limits in competition due to topography and lack of infrastructure.

Mobile phone coverage and broadband connectivity support business operation, assist with social connection and improve access to services ranging from banking to education to counselling.



Irrigation and water supply infrastructure renewal

Northern Victoria Irrigation Renewal Project (NVIRP)

In partnership with the Commonwealth and local irrigators, the Victorian Government is investing in a \$2 billion program of works to modernise and upgrade aging irrigation infrastructure in northern Victoria. Modernisation will provide the Goulburn-Murray Irrigation District with a world class irrigation delivery system that will reduce water losses and ensure northern Victorian irrigators remain internationally competitive. The NVIRP aims to increase irrigation delivery efficiency from approximately 70% to at least 85%, which would capture at least half the current system water losses.

Goldfields Superpipe

The \$278 million Goldfields Superpipe was constructed by Coliban Water and Central Highlands Water, in partnership with the Commonwealth and Victorian Governments. The 46.5 km Bendigo (Coliban Water) leg of the Superpipe allows water to be diverted from the Waranga Western Channel near Colbinabbin to Lake Eppalock, and then to Bendigo's Sandhurst Reservoir. The 87 km Ballarat leg (Central Highlands Water) runs from near Sandhurst Reservoir to the White Swan Reservoir. The Goldfields Superpipe has the capacity to deliver up to 18 GL of water to Ballarat and up to 20 GL to Bendigo each year. Water to supplement local supplies for Ballarat and Bendigo has been purchased from Goulburn system irrigators.

Small town water supplies

Coliban Water is also constructing additional pipelines to improve the reliability and quality of water supplied to small towns around Bendigo. A pipeline to Axedale has been connected and pipelines to Raywood and Sebastian are planned.

STRATEGIC DIRECTION 4

Priority Actions:		Horizor	n (years)
Prio			>5
4.1	Further upgrade the Calder Freeway to improve access to Melbourne as outlined in the 2009 State submission to Infrastructure Australia. Identify and support intraregional rail and bus public transport improvements and coordination, and public transport access to Melbourne, to support employment and education.	1	
4.2	Support Coliban Water in the review and renewal of long term supply and demand strategies to meet future settlement planning needs as identified by the Regional Settlement Framework (Priority Action 1.1).	✓	
4.3	Improve broadband access, take up and telecommunications infrastructure across the region to improve accessibility, reduce social disadvantage and achieve competitiveness as a place for business, in particular by facilitating the development of the National Broadband Network in our towns and across our region.	1	
4.4	Undertake a strategic analysis of regional energy needs and develop an energy demand management action plan to inform business cases for future infrastructure development and encourage efficient energy use.	1	

Kou		Horizor	n (years)
rey	Initiatives:	1-5	>5
4.5	Complete an audit of time and spatial coverage of all regional public transport modes to identify gaps, overlaps and efficiency opportunities.	1	
4.6	Coordinate public transport timetables and establish transport hubs to improve travel times and increase patronage – seek funding to trial more regional bus services to improve connectivity between small towns and regional transport hubs.	1	
4.7	Obtain funding for the upgrade of Bendigo airport for the continuation of emergency services usage and to support commercial air service operations.	1	
4.8	Resource the Transport Connections across the region to increase access and mobility within and between communities in order to increase access for residents of small towns to community services, health, employment and education in larger centres - through more efficient use of current non-public transport and community resources and development of innovative new non-public transport and non-transport solutions that facilitate transport use.	1	
4.9	Construct the Calder highway / Calder Alternate Highway interchange.	1	
4.10	Investigate the need and possible location of an intermodal logistics hub and Business Park within the Loddon Mallee region.	1	
4.11	Improve mobile coverage in the region, including the provision of mobile phone and wireless broadband services on Bendigo-Melbourne train services.	1	
4.12	Use broadband connectivity to enhance access to services and address labour shortages/skill gaps with a focus on the health and education sectors.	1	
4.13	Advocate to the National Broadband Network to broaden regional connections across the region, including the Calder and Loddon Valley Highway corridors, particularly to support towns with populations of under 1000.	1	
4.14	Secure the next stage of investment in NVIRP for water efficiency for the agricultural industry.	1	
4.15	Advocate for reconfiguration and/or modernisation of Coliban Water's rural channel system to achieve better water efficiency.	1	
4.16	Invest in infrastructure that improves water quality to towns and settlements whose supplies do not currently meet Australian drinking water quality standards.	✓	
4.17	Develop agreed criteria with irrigation communities for future environmental water buy-back initiatives and coordinate them with irrigation infrastructure upgrades and community adjustment initiatives that recognise potential social impacts on communities.	1	
4.18	Develop initiatives to support on-farm water infrastructure upgrades on properties connecting to upgraded irrigation supply systems.	1	
4.19	Identify water requirements and approaches for efficient environmental water provision of priority water dependent ecosystems.	1	
4.20	Develop a small towns sewerage plan to accelerate the implementation of small towns sewerage solutions, which will be informed by the regional settlement framework planning.	1	
4.21	Encourage initiatives that deliver water savings and use of recycled water in the region to reduce pressures on potable water supplies.	1	
4.22	Support innovation in renewable energy, improvements in energy efficiency and energy offset initiatives to reduce the carbon footprint of our manufacturing sector.	1	
4.23	Undertake review of time and spatial coverage of school, community, town, bus and inter-town bus services at transport hubs in the region, to identity opportunities to increase transport connections across different transport modes and improve travel times.	1	



STRATEGIC DIRECTION 5

Improve education and training outcomes

Our objectives:

We will improve our education and training standards by:

- Improving school completion rates and participation in post-secondary education or vocational training.
- Ensuring access to high quality education and training opportunities which provide pathways to employment.
- Establishing Bendigo as a centre of excellence for post-secondary education.
- Building a skilled and adaptable workforce.
- Exceeding the Victorian higher education targets (40% of 24-35 year olds have a bachelor degree or equivalent by 2025, and 20% of higher education enrolments are students from low socio-economic backgrounds by 2020).



Basis for action:

Tertiary education facilities such as La Trobe and Monash Universities in Bendigo offer an alternative to studying in Melbourne. Increasing tertiary enrolments will contribute to the region's economy, as well as attract new people and potentially retain a skilled workforce and younger people to settle in the region. A current inhibitor to increasing tertiary participation is the lack of student accommodation in Bendigo, the establishment of which is a key priority. Beyond this, further development and investment in university programs and facilities will be required to drive provision, participation and growth in tertiary education in the region, particularly with deregulation in 2012.

Education and training opportunities

Whole of life education and training is critical to overall health and well-being. It also creates opportunity through increased access to employment for individuals and helps to address regional skill shortages and assists in strengthening and diversifying the economy.

The process begins with quality early childhood education and care, which improves school readiness and provides longer term benefits for health and quality of life, particularly among disadvantaged children. Our region has an extensive network of schools and kindergartens which provide quality education and forms a key part of our social infrastructure. The low population density and dispersed pattern of settlement in the north-west of the region provides challenges for the provision of education. However, even quite small towns and farming districts are served by local primary schools and, in many cases, by secondary colleges. In smaller towns with both facilities, there is a growing trend for schools to combine into a single Prep - Year 12 campus. The region has an extensive network of schools and kindergartens which provide quality education to its young people and form key parts of the region's social infrastructure. The region is served by three major post-secondary education providers, La Trobe University, Monash University and the Bendigo Regional Institute of TAFE (BRiT). La Trobe University's second largest campus is in Bendigo, from which the university faculties serve over 4,000 local and international students across a broad range of course and subjects areas. Monash University's School of Rural Health also operates in Bendigo and works with Bendigo Health and other regional healthcare providers to offer clinical training opportunities. BRiT has campuses in Castlemaine, Kyneton, Maryborough and Echuca.

Retention rates

Reported rate of school retention within the whole (northern and southern) Loddon Mallee region is 72% for Year 7-12 students compared to the metropolitan average of 86%. This gap in school retention rates exists for all regional areas. Similarly, fewer Year 12 completers enter tertiary education or training in all nonmetropolitan regions than in Melbourne. A higher proportion of students undertaking tertiary studies in the Loddon Mallee region attend university than in some metropolitan and non-metropolitan regions, although the rate is lower than in Grampians and Barwon-South West.

	Metropolitan			Non-metropolitan						
	Eastern	Northern	Southern	Western	Barwon- South West	Gippsland	Grampians	Hume	Loddon Mallee	Victoria
University	77.1	65.1	73.6	67.1	74.3	63.4	74.8	65.0	69.3	71.7
VET IV+	19.4	28.8	21.0	26.4	18.0	24.2	17.4	23.0	19.2	22.4
VET Entry level	3.6	6.2	5.4	6.5	7.7	12.4	7.5	12.0	11.5	6.0
% Y12 in tertiary study¹	73.6	69.1	67.9	73.8	45.4	44.2	45.8	37.9	45.6	64.0

Rates of university participation and other education across Victoria

1. % of Year 12 completers in classroom based tertiary study. Source: DEECD 2009

Our region has high quality education and training infrastructure, partly as a result of recent investment by the Commonwealth and State Governments. The former Australian Technical College (now part of BRiT) and several new secondary colleges and primary schools provide strong school, post-secondary education and vocational training, which are critical to our region's success in attracting and retaining young people.

On-going investment is required to ensure that facilities remain relevant to the needs of growing communities, regional industry, as well as adapting to changing technology for delivery of education and training. Significant opportunities exist to better target our skills shortages and employment needs, particularly through vocational training.

The growth of La Trobe and Monash Universities, as well as BRiT and other post-secondary education providers should be strongly supported. Provision of addition student housing is also fundamental to attracting and retaining students to our region. School completion contributes to broader opportunities later in life and enables people to take advantage of future workforce trends including the increasing number of jobs requiring post secondary qualifications. As well, it is important to develop education models that enable educators to build a positive, culturally appropriate learning environment for Aboriginal and Torres Strait Islander students.

Increased investment is needed to provide a strengthened presence of the tertiary education sector which closely responds to regional skills shortages. Achieving higher school completion rates and encouraging increased participation in post-secondary education or vocational training are critical to increasing workforce participation and improving standards of living, particularly for disadvantaged groups. It is also essential if the region is to address its skills shortages and take advantage of economic development opportunities.

Workforce development

Working Victoria, the Victorian Government's Workforce Participation Strategy, identifies that workforce development is an important tool to support improved industry performance and improved skills, training and employment outcomes for workers. A key action of this Plan is to provide training and skills recognition for the farming and other related communities to assist transition from agriculture to alternative employment, increase workforce skills and reduce skills gaps in our region.

Workforce skill gaps in key economic growth areas including construction, education, transport and logistics and health, suggest that we must better integrate school and post-secondary education with regional economic development. On-going training is also required to ensure workers' skills continue to meet the changing needs of industry and that they can participate in any emerging industry opportunities.

Skilled workers may also need to be attracted to the region from elsewhere in Australia or internationally. Workforce planning is also required to provide continuity of employment across our many seasonal industries.

Improving education participation and outcomes

School completion rates right across our region fall well short of levels for regional Victoria and metropolitan areas. This limits employment opportunities and contributes to on-going socioeconomic disadvantage reported in parts of our region.

Many of our region's young people pursue post-secondary education in metropolitan campuses. The cost of away-from-home living, perceived limited professional employment opportunities and decisions not to return after post-secondary education contribute to the region having a relatively low level of postsecondary qualification (30%, compared with the Victorian average of 44%).

We aim to meet and exceed the Victorian higher education targets of 40% of all people aged 24-35 have attained a bachelor degree or equivalent by 2025 and 20% of higher education enrolments to be students from low socio economic backgrounds by 2020.

Increased investment is needed to provide a strengthened presence of the tertiary education sector which closely responds to our region's skills shortages. Achieving higher school completion rates and encouraging increased participation in post-secondary education or vocational training are critical to increasing workforce participation and improving standards of living, particularly for disadvantaged groups. It is also essential if the region is to address its skills shortages and take advantage of economic development opportunities.

Duio	Priority Actions:		Horizon (years)	
Prio			>5	
5.1	Increase tertiary education participation in the region and grow the region's skilled workforce by increasing provision of student accommodation in Bendigo, and expanding university teaching, cultural and recreational facilities and services.	1		

		Horizor	n (years)
ĸey	Initiatives:	1-5	>5
5.2	Provide student accommodation for secondary and post secondary students in Bendigo to support increased enrolments.	1	
5.3	Increase early education participation through programs such as the roll out of the Early Childhood Education National Partnership Program.	1	
5.4	Support regional Universities campuses, BRiT and other training provider expansion plans and support initiatives to encourage greater provision of, and participation in, higher education.	1	
5.5	Increase co-operation and links between regional universities, TAFE colleges and other training providers to build a more skilled and adaptable workforce.	✓	
5.6	Explore opportunities to leverage the Victorian Aboriginal Economic Development Agenda to develop and implement an appropriate model to integrate the learnings of local level and Aboriginal and Torres Strait Islander education professionals which may include the establishment of Aboriginal and Torres Strait Islander learning hubs.	1	
5.7	Expand the Rural Skills Cadetship Program and explore new initiatives to attract young adults and young families to settle in the region and work.	✓	
5.8	Undertake collaborative initiatives to grow the regions international student presence.	\checkmark	
5.9	Implement relevant elements of the Blueprint for Education and Early Childhood Development.	1	
5.10	Improve and develop VET and VCAL program opportunities with a focus on engaging young people not in mainstream education or training.	✓	
5.11	Link to Victorian Aboriginal Economic Development Agenda and Kareeta Yirramboi (the Victorian Aboriginal public sector employment and career development action plan 2010-2015) to ensure a coordinated approach to regional Aboriginal and Torres Strait Islander employment to increase public and private sector employment of Aboriginal and Torres Strait Islander people.	1	
5.12	Support the implementation of the Victorian Aboriginal Economic Development Agenda recommendations which aim to increase the retention of Aboriginal and Torres Strait Islander students and strengthen pathways from schools to employment and further study at university and TAFE.	1	

STRATEGIC DIRECTION 6

Protect and enhance our natural and built environment

Our objectives:

We will improve the resilience of the region's natural environment and the agricultural production systems that depend upon them by:

- Connecting the forests of the Goldfields to the Murray River.
- Improving the condition of our region's important environmental assets such as the Box-Ironbark Forests.
- Increasing community involvement in natural resource management.
- Protecting our region's cultural heritage.
- Protecting visually important landscapes.
- Strengthening the culture of sustainability within business and the community to drive efficiency and reduce greenhouse emissions.



Basis for action:

Our region's natural ecosystems, rural landscapes and water catchments are critical to its attractiveness, liveability and economy and are a unique part of its cultural heritage. Our settlements are surrounded by forest, with Box-Ironbark Forests and National Parks creating our unique greenbelts. Forest and valued rural landscapes are both in public and private land and their protection and enhancement will also contribute to our tourism attraction. Pressures from climate change, land use, fire and its management, pests and management neglect pose a threat to these values and may lead to a decline in environmental condition. Investment and management intervention are required to ensure natural environments and farming systems remain resilient.

Our natural environments are among the more disturbed in the state. Most of our remaining areas of native vegetation have experienced multiple cycles of disturbance from historical land uses, such as mining, livestock grazing, timber and firewood production. Introduction and spread of pest plants and animals has added to the disturbance.

Despite this history of clearing, settlement and land use, some native vegetation remains to support our diverse populations of native flora and fauna. The largest and most intact natural environments are generally located in our National Parks and other conservation reserves. However, vegetation along road reserves, in drainage lines and scattered across private landholdings provide connectivity between theses and make an important contribution to the region's biodiversity and visual amenity.

Our region includes parts of the upper and middle reaches of the Campaspe, Coliban and Loddon Rivers. These are important catchment areas and help to provide water for our urban populations, our riverine and wetland habitats and for dryland and irrigated agriculture. Our landscapes and soils support various forms of primary production, including agriculture, horticulture and forestry. They and the vegetation they support are important sinks for atmospheric carbon dioxide.

The greatest risks to sustaining our natural environment are climate change, population growth, fire and its management and rural land use change. Several important influences may at least partly reduce risks associated with these hazards. These include a greater appreciation and understanding of natural environments and the services they provide, including through the landcare movement; investment into regional natural resource management initiatives; controls on vegetation clearing; improved operation of water markets; modernisation of irrigation infrastructure and investment in environmental water provision.

Built heritage

In addition to providing tourism opportunities, the built heritage from the goldfields is a defining characteristic of the Region: from the grand architecture of Pall Mall in Bendigo, or more simple pieces of infrastructure like the Malmsbury Reservoir water-race and humble miners cottages. This built heritage enhances quality of life and should be conserved for present and future residents to enjoy.

Bushfire

Following the Black Saturday bushfires of 2009, issues of human safety in forested urban fringe areas have come to the fore. There is strong pressure to manage bushfire risk in these areas. A challenge in doing so and implementing recommendations from the 2009 Bushfires Royal Commission will be to manage threats in a way that does not compromise the ecological values associated with these important areas. A collaborative approach between the CFA, DSE and landowners will be required.

Biolinks

Our region retains many important natural ecosystems with high conservation and amenity value including riverine and wetland ecosystems along the major rivers and their floodplains; Box-Ironbark and Stringybark Forests through the Goldfields and along the Great Dividing Range; and grassy woodlands of the Loddon and Campaspe Plains. We host some of Victoria's priority biodiversity conservation zones, including parts of the Goldfields 'flagship area' (one of 14 such areas in the State) and the regional biolink connecting major segments of the Goldfields flagship area with each other and the Murray River flagship area.

One of the key means of improving the resilience of natural environments and maintaining ecological function is to improve their connectivity of landscapes. Establishment of such 'biolinks' is one of the three main platforms of the Victorian Government's white paper for land and biodiversity at a time of climate change and forms part of our region's aspiration for the future. Action is required to identify priority areas for improving landscape connectivity, including by better understanding ecological and Aboriginal and Torres Strait Islander cultural heritage values associated with remnant vegetation areas. A regionally coordinated program of planning and implementation is needed to protect and manage priority remnants and restore landscape connectivity where it is currently deficient. The program is also required to more strong engage communities in management and restoration of natural environments and would be implemented on both public and private land.

Environmental markets are one of the tools favoured by the Victorian Government to mobilise the capital and resources required to enhance natural environments. These markets create value for landholders from activities that protect or enhance land, water and/or biodiversity. Markets for carbon sequestered by trees established for such purposes represent one of the most promising environmental market opportunities.

This will require strong support from landholders and the broader community and significant capital and labour resources. Environmental markets, which generate value for landowners from improved environmental management outcome, provide the opportunity for private landholders to actively participate and derive benefit from the protection of native vegetation and ecosystems. Programs such as 'Bushtender' that promote the benefits of protecting the natural environment that so strongly characterises this region should be strongly supported. Our region also has active Landcare groups who continue to work with rural landholders and the community, promoting good natural resource management.

Climate change

Climate change projections for our region are similar to those for elsewhere in northern Victoria. The climate is projected to become warmer and drier and as a consequence, streamflows are projected to fall, droughts are projected to become more intense and bushfire danger is projected to increase.

STRATEGIC DIRECTION 5 PROTECT AND ENHANCE OUR NATURAL AND BUILT ENVIRONMENT

Climate change projections for Bendigo

2030:

- More hot days (52 days over 30°C per year) and fewer frosts (26 per year).
- > Average temperatures to increase by 0.9°C.
- > Fewer rainy days (5%) with decrease in average rainfall (4%) but increase in rainfall intensity.
- Increase in potential evaporation (2%), with slight increases and reductions in solar radiation and humidity, respectively (<1% change).

2070:

- More hot days (59-75 days over 30°C) and fewer frosts (11 to 20 per year).
- > Average temperatures to increase by 1.4 to 2.8°C.
- Fewer rainy days (8 to -16%) with decrease in average rainfall (6 to 11%). Extreme rainfall events more intense.
- > Increase in potential evaporation (4 to 8%), increase in solar radiation (up to 2.2%), decrease in humidity (by up to 2.3%).

Climate change is likely to lead to a redistribution or contraction in aquatic and terrestrial habitat and changes in species composition. It may contribute to reduced agricultural production and may increase exposure of soils to wind and/or water erosion.

Water resource availability for consumptive uses and environmental flows is likely to decline. Algal blooms and some other water incidents may increase in frequency. Climatic change may also allow new pest plants or animals to become established or entrenched in the region. As a consequence of these changes, the ecosystem services generated by our region's natural environments may be diminished.

While it is understood that climate change may have far-reaching implications for natural environments, their nature is often not well understood. This reflects uncertainty in climate change projections and an inadequate understanding of the sensitivity of many natural systems to changes in climate.

Synergies exist between some measures to mitigate or offset greenhouse gas emissions and climate change adaptation. For example, building carbon stocks in agricultural soils also improves soil biological activity, which helps to improve water storage and enhances crop growth in dry environments.

Our region is home to active sustainability groups who seek to promote awareness regarding climate change, adaptation and mitigation programs. These groups work with various levels of government and the community playing a key role in creating sustainable, climate-aware communities and profitable, climatefriendly economies in our region. The work of these groups is supported.

Priority Actions:		Horizon (years)	
		1-5	>5
6.1	6.1 Engage our communities in actions such as the BushTender program and Landcare activities to protect rural land and improve connectivity of native vegetation along major corridors, ultimately linking to the Murray River.		

Key Initiatives:			Horizon (years)	
			>5	
6.2	Provide land and natural environment management training directed towards non-farming landholders in rural areas.	1		
6.3	Develop cultural heritage and other sensitive tourism opportunities around our natural heritage such as a Box-Ironbark interpretation program.	1		
6.4	Supporting assessment of Aboriginal and Torres Strait Islander cultural significance in biolinks.	\checkmark		
6.5	Develop and implement a regional model for voluntary environment condition reporting by vendors of agricultural and lifestyle properties, building on examples such as Macedon Ranges Voluntary Environmental Resource Inventory.	1		
6.6	Encourage opportunities in emerging carbon markets.	1		
6.7	Identify areas of private land that can be reconnected with public land conservation reserves and are suitable for inclusion in biodiversity offset markets and programs (e.g. Bush Broker) and develop market awareness campaign with landholders.	1		
6.8	Continue to use offset markets to purchase high priority natural areas that can be reconnected with public land conservation reserves.	1		
6.9	Assess risks to the region's natural environments and agricultural systems from climatic change to identify priorities to maintain or build resilience of natural and rural environments ecosystems and dryland and irrigation farming systems.	1		
6.10	Build on existing structures to keep community informed of planning tools to effectively manage rural areas.	\checkmark		

WORKING TOGETHER TO IMPLEMENT THE PLAN

The Regional Strategic Plan provides a framework to guide future directions of the Southern Loddon Mallee and represents the first step of a continuous process of regionally based and focused planning and implementation.

Leadership and commitment are important elements underpinning the success of the Plan. Collaborative effort will enable the delivery of positive outcomes for the region and sub-regions. The following two regional groups have been integral to the development of the Plan and will have an equally important role in its implementation:

- The **Regional Development Australia Committee** is a volunteer committee of key local government, business, industry and community representatives providing advice and advocating for regional priorities to the three tiers of Government across the Loddon Mallee Region.
- The **Regional Management Forum** is made up of the ten Chief Executive Officers of the Loddon Mallee Councils, together with Directors and Regional Managers of the Victorian Government, and provides a mechanism for a whole of government approach to regional issues.

Both groups have committed to promote and champion the Plan, assist in the implementation of actions to deliver priority outcomes and also assist the Leadership Group with the monitoring and facilitation of priorities in the Plan. Individual members have also stated their intention to lead the implementation of some actions within the Plan and to leverage resources to achieve the Plan vision.



Loddon Mallee RSP Leadership Group

Implementation processes

The Leadership Group will oversee the delivery of a twelve month implementation plan for the Regional Strategic Plan that will include:

- Development of project prioritisation criteria.
- Identifying appropriate lead agencies and stakeholders to implement projects.
- The completion of a communication plan to promote priorities, engagement and outcomes.
- A six monthly and annual report on the progress of implementation, including indicators and performance measures relevant to objectives, regional aspirations and implementation.
- Review and revision recommendations of the Plan's priorities.

Stakeholders

Key stakeholders of the Plan will be involved in the development and implementation of projects, sometimes as a lead agency. Key stakeholders include:

- Southern Loddon Mallee industry and community organisations.
- Southern Loddon Mallee regional organisations.
- Local Government.
- Regional Development Australia Committee.
- Regional Management Forum.
- State Government agencies.
- Commonwealth Government agencies.

The Leadership Group

Representatives from the Regional Management Forum and the Regional Development Australia Committee have formed a Leadership Group to monitor and facilitate the implementation of the Plan, through its stakeholders. This is an important achievement as it demonstrates ongoing multi-stakeholder commitment to this new way of working together.

The Leadership Group will actively participate in governance and operational structures that promote the Regional Strategic Plan and foster an environment that enables all stakeholders to contribute to its implementation. They will develop leadership capacity across the region by supporting community leadership programs and other skill strengthening strategies and will gather and share information and resources to support projects that address the strategies presented in the Plan.

The Leadership Group recognises the importance of strengthening existing and building new partnerships to achieve shared goals and will engage with programs, advisory bodies and policy networks both within and outside the region to source additional expertise and capacity.

Executive Support

Executive support will be provided by Regional Development Victoria for Leadership Group functions including administrative support, provision of resources to assist with the monitoring of the implementation of the Plan, preparation of quarterly reports, and facilitation of meetings with potential lead agencies to develop and implement priority projects.

	Horizon	(years)	
Strategic Actions:	1-5	>5	
Confirm support for this governance model or another variation from stakeholders of the Plan, particularly the RMF, Councils and the RDA Committee.	1		
Confirm initial membership of the Leadership Group.	1		
Prepare and confirm Terms of Reference for the Leadership Group.	1		
Leadership Group to prepare 12 month implementation plan and have it endorsed by the RMF and RDA.	1		

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Project Control Group

Craig Niemann (Chair) (COGB), Angela Verde (DPCD), Olivia Reid (DPCD), Nadia Reid (RDV), Terry Fitzgerald (RDV), Dennis Hovenden (Swan Hill Rural City Council), Rosanne Kava (Gannawarra Shire Council), Vic Gordon (Department of Human Services (DHS)) and Richard Milne (RDV).

Project Managers

Fiona Cotter and Leonie Burrows on behalf of RDV.

Loddon Mallee Regional Management Forum Loddon Mallee Regional Development Australia Committee

Theme Working Groups (February and April 2010)

Strategic Leaders Groups (February 2010 and April 2010)

City of Greater Bendigo

Mount Alexander Shire Council

Central Goldfields Shire Council

Macedon Ranges Shire Council

Loddon Shire Council

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Glossary

ABS	Australian Bureau of Statistics.			
Biolinks	Areas identified for targeted action to increase ecological function and connectivity, improving the potential of plants and animals to disperse, recolonise, evolve and adapt naturally.			
BRiT	Bendigo Regional Institute of TAFE.			
CALD communities	Culturally and linguistically diverse communities.			
CFA	Country Fire Authority.			
CMA	Catchment Management Authority.			
COGB	City of Greater Bendigo.			
DEECD	Department of Education and Early Childhood Development.			
DPCD	Department of Planning and Community Development.			
DSE	Department of Sustainability and Environment.			
Flagship areas	Areas identified as needing focused attention due to their important environmental, social and economic values.			
GL	Gigalitres, one billion litres.			
GMID	Goulburn Murray Irrigation District, which covers all irrigated land in the Campaspe, Gannawarra local government areas and those south and east from Swan Hill in the Swan Hill LGA.			
HPV	High productivity vehicles for freight transport.			
ICT	Information and communications technologies.			
MDBA	Murray-Darling Basin Authority.			
Northern Loddon Mallee region	Buloke, Campaspe, Gannawarra, Mildura and Swan Hill local government areas.			
NVIRP	Northern Victorian Irrigation Renewal Program. Irrigation infrastructure modernisation and reconfiguration project being undertaken in parts of the GMID.			
PCPs	Primary Care Partnerships.			
PJ	Petajoules, a measure of energy. One million, billion joules.			
RDA	Regional Development Australia.			
RDV	Regional Development Victoria.			
RMF	Regional Management Forum.			
SDL	Sustainable Diversion Limit.			
SEIFA index	Index of relative socio-economic advantage/disadvantages, covering unemployment, education and income.			
SKM	Sinclair Knight Merz			
SMP	Sunraysia Modernisation Project. Irrigation infrastructure modernisation and reconfiguration project proposed for parts of the Sunraysia Irrigation Region.			
Southern Loddon Mallee region	Central Goldfields, Greater Bendigo, Loddon, Macedon Ranges and Mount Alexander local government areas.			
SWS	Sustainable Water Strategy.			
SuniTAFE	Sunraysia Institute of TAFE.			
Sunraysia Irrigation Region	Irrigation areas along the Murray River, from Nyah to the South Australian border.			
TRAMS	Torrumbarry Reconfiguration and Modernisation Strategy. An Irrigation infrastructure modernisation and reconfiguration project being undertaken in the Torrumbarry irrigation district.			

References

Australian Bureau of Statistics:

- 1996, 2001, 2006 Census.
- 2006 Agricultural Census.
- Rental properties.
- SEIFA index of socio-economic disadvantage.
- Regional population growth, Australia (March 2010).

Bureau of Meteorology:

Climate data.

Bureau of Rural Sciences:

Land use mapping.

Community Indicators Victoria:

 Wellbeing reports. (www.communityindicators.net.au/lga_profiles)

Department of Education and Early Childhood Development:

 Location of schools, kindergartens and maternal and child health sectors.
 (www.education.vic.gov.au/findaservice/Home.aspx)

Planisphere 2009:

· Regional mapping project final report.

Victoria in Future [VIF] 2008 (www.dse.vic.gov.au/ victoriainfuture):

• Population and demographic projections, 2006-2026.

References:

Preparation of the Regional Strategic Plan has taken account of the objectives and strategies of a wide range of State Government policies that influence regional Victoria, including:

- Ready for Tomorrow A blueprint for Regional and Rural Victoria 2010.
- A Fairer Victoria a whole of Government social policy action plan to address disadvantage and promote inclusion and participation.
- Blueprint for Education and Early Childhood Development the Victorian Government's key policy document for education from the early and middle years of schooling to the transition from youth.
- Future Farming Strategy which sets policy directions for sustainable management and increased production from Victoria's farming areas.
- Jobs for the Future Economy. Victoria's Action Plan for Green Jobs – which describes how the Victorian government will generate employment and economic development opportunities through society's responses to climate change.
- Moving Forward Making Provincial Victoria the Best Place to Live, Work and Invest and Moving Forward Update 2008 - which focuses on promoting and managing growth within regional Victoria and initiated a targeted program of investment and support.
- Our Water Our Future which sets the broad policy framework for water resource management. The policy framework for water management is implemented and updated through regionally-specific Sustainable Water Strategies (SWS), two of which apply to the northern Loddon Mallee region.

- Victorian Transport Plan the Victorian Government's plan for developing the State's rail and road network and improving public transport services and accessibility.
- Securing our Natural Future which describes the Victoria government's policy framework for land and biodiversity at a time of climate change.
- Rural Directions for a stronger and healthier Victoria a strategy to protect and enhance the health and well-being of Victorians living in rural areas.
- Victorian Integrated Housing Strategy the Victorian Government's strategy to ensure Victorians have access to affordable and sustainable housing.
- Scoping statement for the Loddon Mallee Subregions (Phase 1) RMCG.
- Loddon Mallee Strategic Planning: Phase 2 Background Paper - RMCG.
- SKM Draft Loddon Mallee Regional Strategic Plan.

The Plan has also taken into account the strategies and actions highlighted within each municipality's Council Plan and Planning Scheme.

Additional references:

ACIL Tasman 2004. Economic impacts of broadband adoption in Victoria. Final report. Prepared for Multimedia Victoria.

Department of Education and Early Childhood Development 2008. Blueprint for Education and Early Childhood Development. Department of Education and Early Childhood Development.

Department of Sustainability and Environment 2009. Securing our natural future. A white paper for land and biodiversity at a time of climate change. Department of Sustainability and Environment.

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Southern Mallee Primary Care Partnership 2009. Strategic Plan 2009-2012. Southern Mallee Primary Care Partnership.

Victorian Aboriginal Economic Development Group 2010. Moonda Wurrin Gree – Pathways to a better economic future. Department of Planning and Community Development.





