



# South East Transport Strategy

South East Integrated Transport Group

Final Transport Strategy

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## South East Transport Strategy

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## Foreword

The South East region is one of Victoria's major growth areas, one of Australia's largest manufacturing and industrial locations, and has some of the State's most visited tourism areas. It is also resource rich including fertile agricultural areas and large deposits of sand and stone helping support the growth of the State.

The eight municipalities contributing to this strategy are home to over 1.2 million people with rapid growth predicted to continue, particularly in the designated growth areas of Casey and Cardinia.

This strategy provides a focused view on the transport needs of the region as seen by local government. Through it we are continuing to better understand the strengths and weaknesses of the south east region to ensure the best opportunities for our residents and businesses. We have undertaken this work consistent with existing Victorian government policy and investment decisions.

The region is excited to see investment by the State government in major transport infrastructure upgrades that can help address some existing shortfalls and future needs. Projects such as the Cranbourne-Packham rail line upgrade, grade separations and connections to Melbourne Metro are positive steps forward. Widening the Monash Freeway, construction of the Mordialloc bypass, the north east link and upgrades of arterial roads in growth areas and the region generally are all welcome.

However, more investment is needed and this strategy points to some of the regionally focussed projects that can support its needs.

We hope that you will support the strategy as a way towards a strong and powerful future for the region.

Ken McNamara  
Executive Officer - SEMITG

# 1. Introduction

## 1.1 Purpose of the strategy

The South East Transport Strategy is a plan for the region's transport network over the next 10 years. It sets new key directions to support strong growth in the region. It takes into account the significant changes in transport policy and new infrastructure commitments since the previous 2010 transport strategy<sup>1</sup>, to advocate the region's position on transport and related land use policy to the Victorian Government. It will also help to facilitate alignment between the region and State and Federal Governments' investments in transport infrastructure, service improvements, and programs.

## 1.2 Strategy background

The strategy was commissioned by the South East Melbourne Integrated Transport Group (SEMITG), which represents the Councils of Bass Coast, Cardinia, Casey, Frankston, Greater Dandenong, Kingston, Mornington Peninsula and Yarra Ranges on strategic transport related matters. The objectives of SEMITG are:

- To work in partnership with the influential organisations in regional transport planning including industry, State and Federal Government and transport user groups.
- To recognise the economic, social and environmental benefits that arise from improved transport links can make to the region.
- To support Federal and Victorian Government planning strategies and Transport Policy.

SEMITG has been committed to producing a Regional Transport Strategy, and more recently a Regional Freight Strategy<sup>2</sup>, to identify priorities for infrastructure projects to drive the regional economy and to help guide the South East's region infrastructure planning.

The 2010 South Eastern Transport Strategy was the second regional transport strategy prepared by SEMITG. The strategy focused on forming a collective plan to improve freight and transport network efficiency, grow and facilitate productivity, and better connect the region's businesses with their markets. Since its release, the Strategy has contributed to several transport achievements/developments within the region, including but not limited to upgrades to principal freight routes as well as arterials, e.g. Monash Freeway; construction of the Dingley Bypass; business case development for the North East Link; redevelopment of Frankston Station precinct; level crossing removals and completing missing links in existing recreational trails.

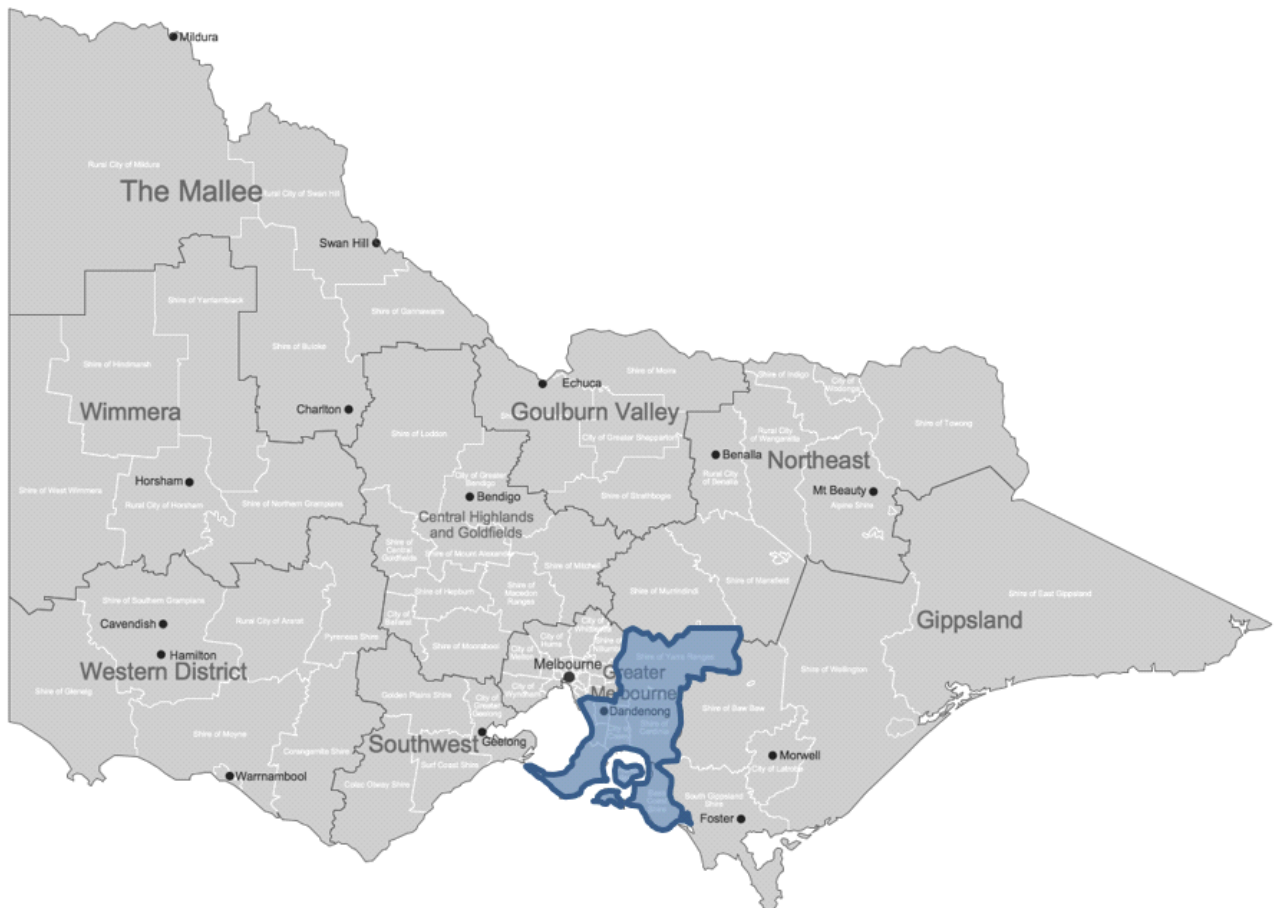
In 2018 the aspirations of the previous strategy and its strategic actions remain relevant. However, in the eight years since its preparation there have been significant developments in transport in the South East. This has included stronger than expected growth, increasing costs of congestion on both road and public transport, several new metropolitan policy and infrastructure documents, and significant investment in major new transport infrastructure.

This update of the South East region's transport strategy is a response to these new transport developments. It identifies where investment, education and regulation are required to create an integrated transport system; enabling the region and individual Council's to develop policy and advocacy documents with a united vision and purpose.

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<sup>1</sup> Aecom, 2010. South Eastern Transport Strategy. South Eastern Integrated Transport Group.

<sup>2</sup> GHD, 2017. SE Metropolitan Integrated Transport Group, The Melbourne South East Region Freight Strategy.



**SEMITG**

The South East Integrated Transport Group is a regional grouping of local government transport officers representing the municipalities of Bass Coast, Cardinia, Casey, Frankston, Greater Dandenong, Kingston, Mornington Peninsula and Yarra Ranges. SEMITG is focused on identifying regional issues and bringing together a collective voice on these matters.

## 2. The South East Region

### 2.1 Regional context and strengths

The South East region is one of the state's most socially and environmentally diverse, economically significant and rapidly growing regions. As shown in Figure 2.1, the region extends from the forests of the Dandenong Ranges and the vineyards of the Yarra Valley in the north-east, through the south east growth corridor and the regional hubs of Frankston and Dandenong to the southern tips of the Mornington Peninsula and Bass Coast coastlines.

The 6,098km<sup>2</sup> area in the east of metropolitan Melbourne consists of a mix of established, urban-rural interface and regional councils. It accommodates residential growth areas, focal points for industry, employment and tourism, as well as large areas of highly significant natural heritage.

The South East is home to over 1.2 million people, approximately one fifth of Victoria's population and over a quarter of the metropolitan areas population. This is expected to continue to grow rapidly to over 1.5 million by 2031, with further growth anticipated beyond this. The majority of the region's growth is forecast to occur within Casey and Cardinia, reflective of the south-east growth corridor designation.

The region is a major contributor to the Victorian economy, with well-established industry sectors in manufacturing, agriculture, and tourism, and growing health and professional services sectors. These industry sectors bring with them a large workforce and range of skills, which places less reliance on jobs in inner Melbourne than other regions. The most recent census information indicates high levels of self-containment, with 56% of residents in the South East working within the region (compared to 46% of residents work within the Metro West Region, and a metropolitan Melbourne average of 50%).

Dandenong, Frankston and Fountain Gate-Narre Warren form key metropolitan activity centres, serving as major hubs for jobs and industry, as well as the local community, benefiting from good access to freeway and high capacity rail networks, and proximity to business clusters. Dandenong in particular is a designated National Employment and Innovation Cluster (NEIC), and Dandenong South a State Significant Industrial Precinct (SSIP), with strengths in advanced manufacturing, warehousing and logistics. The region is also home to the State significant Officer-Pakenham Industrial Precinct, Port of Hastings Industrial Precinct, and the Frankston Hospital and Monash University Peninsula Campus. All of these precincts are forecast to grow with State and local plans for industrial and residential urban growth.

The South East region has a rich natural environment, which also forms a focus for tourism. Key areas include Phillip Island and the coastal reserves of Bass Coast, the Dandenong Ranges and Yarra Valley, the Mornington Peninsula and Western Port. The region also includes significant green wedges and peri-urban areas in Kingston, Yarra Valley, Western Port and the Mornington Peninsula, which support a wide range of non-urban land uses and activities, including major extractive industries supporting the development industry.

The Monash Freeway (M1) and the Frankston and Cranbourne-Pakenham train lines form major transport spines in the region, providing important radial links in to Melbourne central business district (CBD), the inner metropolitan suburbs, and between key employment and education precincts. The Cranbourne-Pakenham line is one of Melbourne's busiest rail corridors, and the freeway carries over 200,000 vehicle trips per day. The Monash Upgrade and Cranbourne-Pakenham Line Upgrade projects are currently underway to increase capacity and efficiency to meet the growing travel demand from the south-east.

The region is also served by the Belgrave and Lilydale train lines which provide strong, high capacity public transport linkages to the CBD, EastLink, Mornington Peninsula Freeway, Princes Freeway, South Gippsland Highway and Bass Highway also provide key road linkages for those in the south-east.

The South East is also home to a number of major transport gateways. Moorabbin Airport is a general aviation airport for light aircraft located in the south-eastern suburbs and is Australia's third busiest airport by aircraft movement. The Port of Hastings is one of four major commercial trading ports operating in Victoria, serving major international and domestic shipping movements as well as handling general cargo and other operations. The future of the Port is uncertain, and remains a potential development game changer.



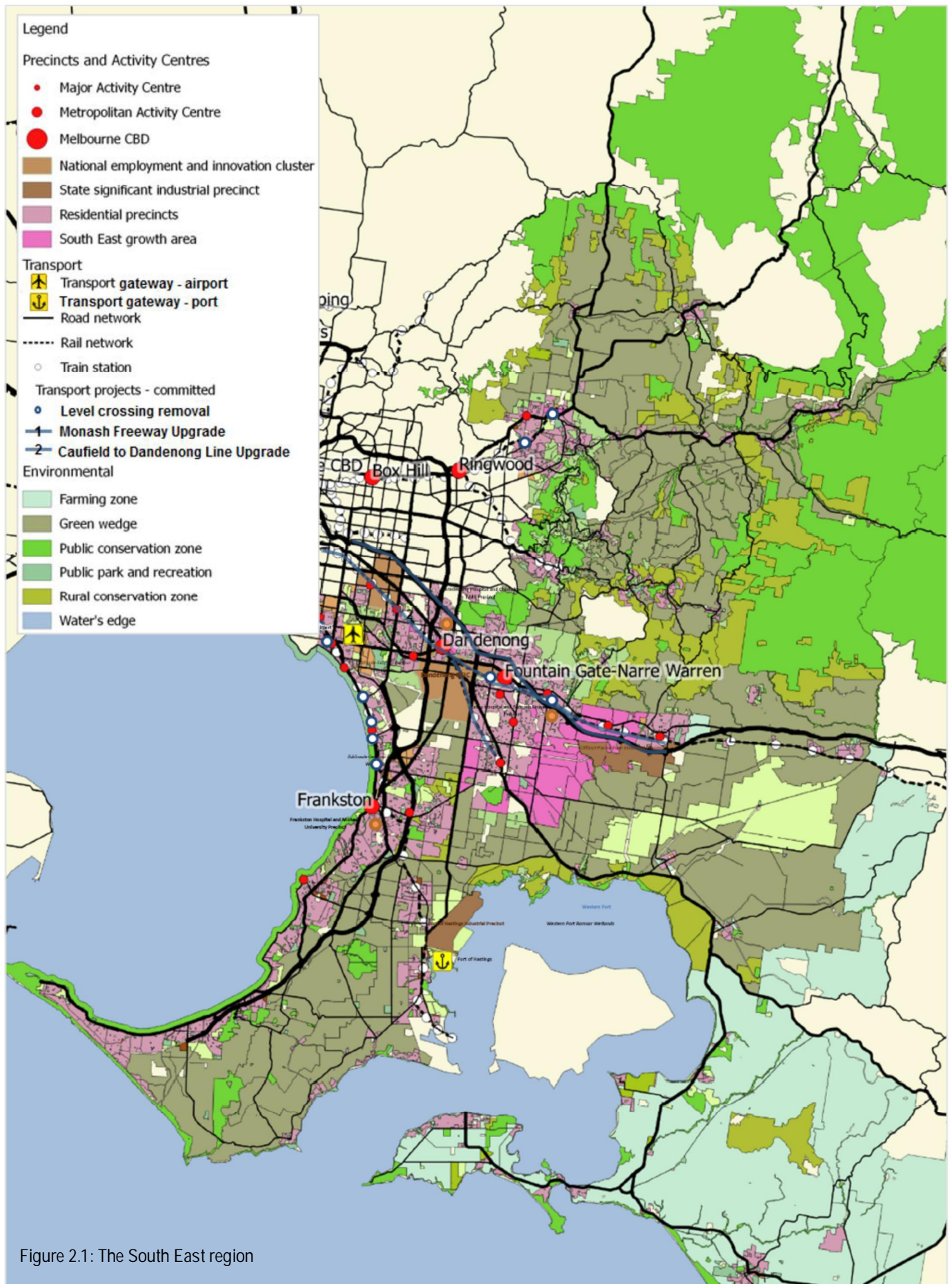
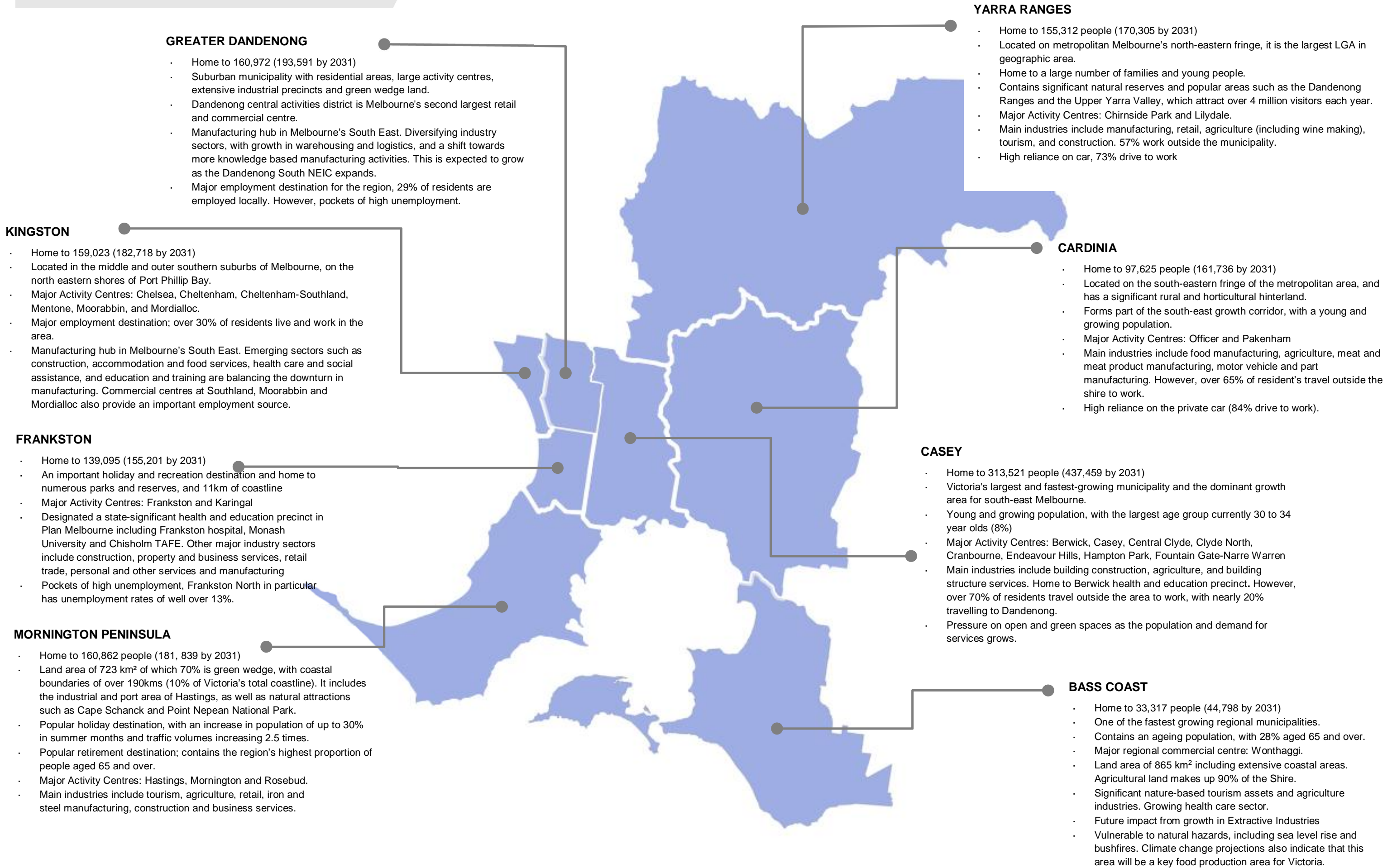


Figure 2.1: The South East region



**GREATER DANDENONG**

- Home to 160,972 (193,591 by 2031)
- Suburban municipality with residential areas, large activity centres, extensive industrial precincts and green wedge land.
- Dandenong central activities district is Melbourne's second largest retail and commercial centre.
- Manufacturing hub in Melbourne's South East. Diversifying industry sectors, with growth in warehousing and logistics, and a shift towards more knowledge based manufacturing activities. This is expected to grow as the Dandenong South NEIC expands.
- Major employment destination for the region, 29% of residents are employed locally. However, pockets of high unemployment.

**YARRA RANGES**

- Home to 155,312 people (170,305 by 2031)
- Located on metropolitan Melbourne's north-eastern fringe, it is the largest LGA in geographic area.
- Home to a large number of families and young people.
- Contains significant natural reserves and popular areas such as the Dandenong Ranges and the Upper Yarra Valley, which attract over 4 million visitors each year.
- Major Activity Centres: Chirnside Park and Lilydale.
- Main industries include manufacturing, retail, agriculture (including wine making), tourism, and construction. 57% work outside the municipality.
- High reliance on car, 73% drive to work

**KINGSTON**

- Home to 159,023 (182,718 by 2031)
- Located in the middle and outer southern suburbs of Melbourne, on the north eastern shores of Port Phillip Bay.
- Major Activity Centres: Chelsea, Cheltenham, Cheltenham-Southland, Mentone, Moorabbin, and Mordialloc.
- Major employment destination; over 30% of residents live and work in the area.
- Manufacturing hub in Melbourne's South East. Emerging sectors such as construction, accommodation and food services, health care and social assistance, and education and training are balancing the downturn in manufacturing. Commercial centres at Southland, Moorabbin and Mordialloc also provide an important employment source.

**CARDINIA**

- Home to 97,625 people (161,736 by 2031)
- Located on the south-eastern fringe of the metropolitan area, and has a significant rural and horticultural hinterland.
- Forms part of the south-east growth corridor, with a young and growing population.
- Major Activity Centres: Officer and Pakenham
- Main industries include food manufacturing, agriculture, meat and meat product manufacturing, motor vehicle and part manufacturing. However, over 65% of resident's travel outside the shire to work.
- High reliance on the private car (84% drive to work).

**FRANKSTON**

- Home to 139,095 (155,201 by 2031)
- An important holiday and recreation destination and home to numerous parks and reserves, and 11km of coastline
- Major Activity Centres: Frankston and Karingal
- Designated a state-significant health and education precinct in Plan Melbourne including Frankston hospital, Monash University and Chisholm TAFE. Other major industry sectors include construction, property and business services, retail trade, personal and other services and manufacturing
- Pockets of high unemployment, Frankston North in particular has unemployment rates of well over 13%.

**CASEY**

- Home to 313,521 people (437,459 by 2031)
- Victoria's largest and fastest-growing municipality and the dominant growth area for south-east Melbourne.
- Young and growing population, with the largest age group currently 30 to 34 year olds (8%)
- Major Activity Centres: Berwick, Casey, Central Clyde, Clyde North, Cranbourne, Endeavour Hills, Hampton Park, Fountain Gate-Narre Warren
- Main industries include building construction, agriculture, and building structure services. Home to Berwick health and education precinct. However, over 70% of residents travel outside the area to work, with nearly 20% travelling to Dandenong.
- Pressure on open and green spaces as the population and demand for services grows.

**MORNINGTON PENINSULA**

- Home to 160,862 people (181, 839 by 2031)
- Land area of 723 km<sup>2</sup> of which 70% is green wedge, with coastal boundaries of over 190kms (10% of Victoria's total coastline). It includes the industrial and port area of Hastings, as well as natural attractions such as Cape Schanck and Point Nepean National Park.
- Popular holiday destination, with an increase in population of up to 30% in summer months and traffic volumes increasing 2.5 times.
- Popular retirement destination; contains the region's highest proportion of people aged 65 and over.
- Major Activity Centres: Hastings, Mornington and Rosebud.
- Main industries include tourism, agriculture, retail, iron and steel manufacturing, construction and business services.

**BASS COAST**

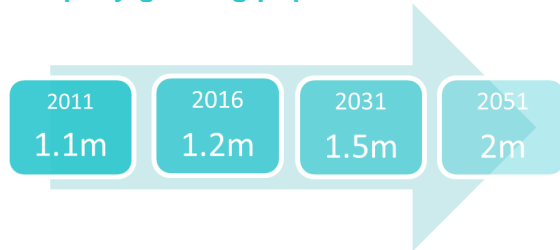
- Home to 33,317 people (44,798 by 2031)
- One of the fastest growing regional municipalities.
- Contains an ageing population, with 28% aged 65 and over.
- Major regional commercial centre: Wonthaggi.
- Land area of 865 km<sup>2</sup> including extensive coastal areas. Agricultural land makes up 90% of the Shire.
- Significant nature-based tourism assets and agriculture industries. Growing health care sector.
- Future impact from growth in Extractive Industries
- Vulnerable to natural hazards, including sea level rise and bushfires. Climate change projections also indicate that this area will be a key food production area for Victoria.

## 2.2 Key challenges and opportunities

The South East is unlike other regions. The large and growing population, significant industry base, vibrant tourism industry, and multiple centres make transport challenges and opportunities exceptional. Keeping pace and responding to these proactively is necessary in delivering a transport network that protects liveability and supports the economy, thereby driving the need for an integrated approach through the development of the transport strategy.

### 2.2.1 A growing and multi-centred region

#### A rapidly growing population



The South East has grown rapidly with the suburban expansion of Melbourne. With an increase in population of over 100,000 since 2011, the region is now home to over 1.2 million people. Such rapid growth, however, has resulted in a dispersed regional structure.

Dandenong, Frankston and Kingston are well-established employment hubs. The Dandenong NEIC in particular has the second highest concentration of jobs outside Melbourne CBD, and with the designation of Metropolitan Activity Centre in Plan Melbourne, supports a long term focus to transform Melbourne into a polycentric city. Emerging hubs in the Pakenham South Employment Precinct and Narre-Warren Fountain Gate Metropolitan Activity Centre (MAC)

are also providing significant employment opportunities. Outside of these areas, however, jobs are not keeping pace with population growth, particularly in the designated growth areas, which can heavily impact journeys to work and mode choice.

The demographic changes still facing the South East are significant. Between 2016 and 2031 the region's population is projected to grow to 1.5 million, with further growth anticipated beyond this. A population increase of that magnitude will require a significant increase in dwellings and jobs. While this could place increased pressure on the outer-urban growth areas, it also provides an opportunity for the region to become more liveable, sustainable and prosperous.

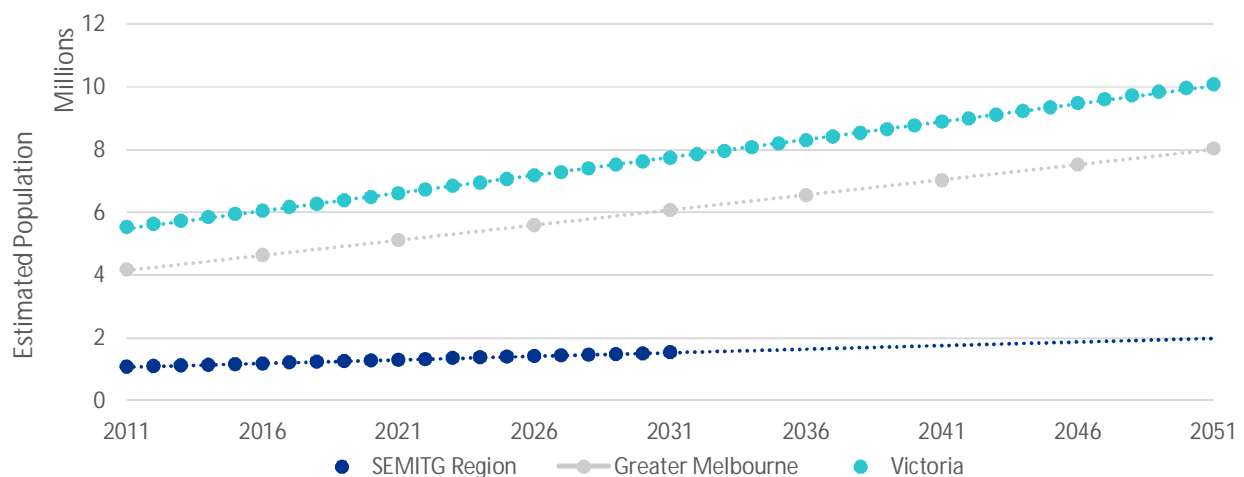
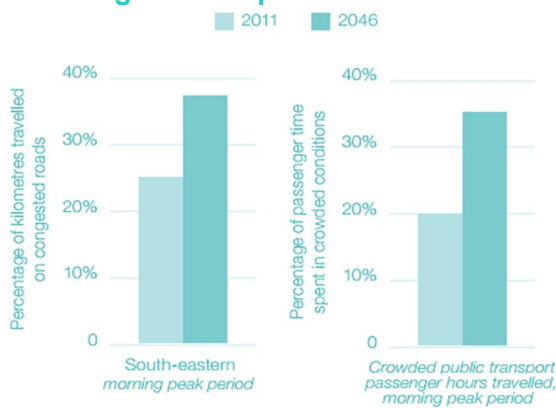


Figure 2.2: Estimated resident population (2011-2051) (Source: Victoria in Future, 2016)

The region will not only have to cater for population growth, but also for an ageing population. By 2051, over one fifth of Victoria’s population will be aged over 65. As popular retirement destinations, the populations of Bass Coast, Mornington Peninsula and Yarra Ranges have the largest proportions of over 65’s within the region, and this is forecast to increase. This will present significant challenges for community services and infrastructure. The transport system will need to adapt, and become increasingly more accessible to meet the needs of less mobile members of the community.

### 2.2.2 Network capacity and congestion

#### Declining network performance



Source: Infrastructure Victoria

The region’s transport system is coming under increased pressure from growth. Congestion and overcrowding is already an issue on parts of the network, particularly at peak times and during peak tourist seasons.

The region’s primary routes are widely cited as suffering from high traffic demands (providing for a mix of local, intra-regional and inter-regional traffic) and routine congestion. Impacts are often felt across the wider road network through the redistribution of traffic.

Congested conditions can also impact the performance and attractiveness of alternative modes; buses suffer from similar delays where there is no dedicated infrastructure, and cyclists and pedestrians can face safety and amenity issues. This can also lead to wider associated economic, social and environmental impacts.

Significant metropolitan growth in train patronage in the last 30 years has resulted in overcrowding on parts of the network. Lines that have experienced the most rapid growth include the region’s Cranbourne-Pakenham lines. Issues are also emerging with at-grade crossings, and the ability of the surface rail system to operate at higher service frequencies without constraining the road system.

Major infrastructure projects such as the Metro Tunnel, level crossing removal programme, Mordialloc Bypass and Monash upgrade will increase capacity, but further investment is needed to make existing infrastructure smarter and more efficient, and address regional hotspots. As shown by Infrastructure Victoria, as the population of Melbourne increases over the next 30 years, congestion and crowding is projected to become more intense, widespread and frequent<sup>3</sup>.

### 2.2.3 Car dependency

Commuters in the region are heavy users of the private car. Over 95% of residents have access to at least one vehicle and over 86% drive to work (as car driver or passenger), well above the metropolitan and State average. The relative size and geography of the South East contribute to considerable travel distances to access services, and the accessibility and attractiveness of the

**The South East is a car dependent region; over 95% have access to at least one motor vehicle and over 86% drive to work**



<sup>3</sup> Infrastructure Victoria, 2016. The Road Ahead <http://www.infrastructurevictoria.com.au/sites/default/files/images/The%20road%20ahead%20final%20web.pdf>

public transport network are often seen as barriers to the use of more sustainable modes.

Delays in the delivery of jobs, social infrastructure and public transport in the growth areas has further entrenched car-dependent travel patterns. Combined with forecast population growth, this has implications for traffic and congestion in the region, as well as residents' quality of life.

Transport is one of the biggest household expenses in Victoria, representing 16% of total household expenses. Due to limited alternatives, socio-economic concerns around 'forced' car ownership, the personal cost of transport and vulnerability to transport change are increasing. People who are unable to access a car could find their transport choices limited.

Land use and transport that supports and encourages convenient trip options is highly desirable so that residents can meet needs locally and reduce the reliance on private vehicles.

#### 2.2.4 Network resilience

Despite the region's strategic connections, accessibility and route choice for travellers presents a significant constraint, compounded by:

- Limited east-west connectivity.
- Restricted access to the Monash Freeway.
- The primary means of road access, the Monash Freeway, serves both local and longer distance through traffic.
- A growing disconnect with other parts of Melbourne and critical infrastructure such as the Port of Melbourne and airports.
- Limited connectivity to the north of Melbourne without travelling via inner Melbourne.
- Lack of public transport options, and
- 'Missing links' in the current bike path network.

The region has become increasingly reliant on a number of key transport spines (including the Monash Freeway, Dandenong and Frankston Rail lines, Bass Highway/Philip Island Road). These routes provide for a mix of public transport, freight and private transport access. Without provision of suitable alternative routes, population growth and associated increasing traffic demands will further reduce network resilience to long- and short-term disruption.

**By 2050 it is forecast that the use of shipping containers will grow fourfold, the general freight task will increase three times and heavy freight vehicle trips will double<sup>4</sup>.**



#### 2.2.5 The region's growing freight task

The movement of goods and services to, from and within the region is critically important for the South East and the state's economy.

As detailed in the South East Freight Strategy, the region's freight has a number of significant current and future issues impacting its operation and efficiency. The South East Melbourne businesses face congestion and infrastructure gaps in getting goods to market.

<sup>4</sup> Transport for Victoria, 2017. Victoria's freight advantage <https://transport.vic.gov.au/ways-to-travel/ports-and-freight/>

The future freight task for the region will continue to grow at a minimum of forecast population. As more industrial land is opened up in Greater Dandenong, Frankston and Cardinia and more activity is centred on logistics and warehousing, freight volumes in the South East are expected to grow disproportionately. In the short term this freight growth will be taken up on road. Direct and efficient access to the arterial network will be vital. Longer term, rail capacity will need to be developed.

This strategy identifies the need to develop more efficient solutions to reduce the overall cost of the growing freight task and reduce its impact on the roads, environment and general amenity.

### 2.2.6 A thriving tourism industry

**The region already attracts over 10 million visitors each year which can place a significant strain on the transport system**

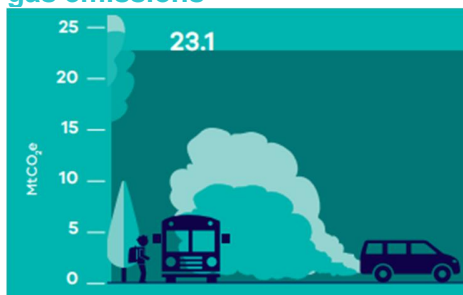
Rural parts of the region are recognised as ‘Melbourne’s Playground’, with particular strengths in trail-based tourism, car touring, food and wine, events and nature-based tourism. Tourism is a key driver of the local economy.

The region already attracts over 10 million visitors each year, and during peak seasons this can place significant demand on the transport system. Transport infrastructure is required to accommodate large numbers of temporary residents and visitors that largely rely on private modes of transport. Such travel patterns can negatively impact the region’s natural attractions.

The key challenge for the region is how to balance increasing the economic contribution of tourism while protecting and preserving the natural environment. The region needs appropriate transport infrastructure and services to support tourism in a sustainable way.

### 2.2.7 Energy, oil and climate change

**Transport is one of Victoria’s largest contributors of greenhouse gas emissions**



Source: DELWP

Climate change has economic, social, environmental and public health implications. Climate modelling indicates that Victoria is facing more periods of extreme heat, reductions in annual rainfall and increases in intense rainfall events, and an increased risk of extreme weather events such as flood and bushfire. For the region, this could affect the resilience of both the natural and built environment. With 400km of coastline the South East is particularly susceptible to the impacts of climate change.

Australians are among the highest emitters of greenhouse gases, per capita, in the developed world. As such, the Victorian Government has set a target of net zero emissions by 2050<sup>5</sup>. The initiative provides an opportunity to create a low-carbon economy, generate new jobs, drive innovation, and improve liveability. Protecting the region’s biodiversity and natural assets will be essential for remaining a productive and healthy area.

In future, energy from all sources is likely to become more expensive. Large residential areas of the region are dependent on car access and are therefore vulnerable to oil price rises. This strategy supports the increase the

<sup>5</sup> The State of Victoria Department of Environment, Land, Water and Planning, 2016. Victoria’s Climate Change Framework [https://www.climatechange.vic.gov.au/\\_data/assets/pdf\\_file/0021/55254/DELWPClimateChange\\_Framework.pdf](https://www.climatechange.vic.gov.au/_data/assets/pdf_file/0021/55254/DELWPClimateChange_Framework.pdf)

provision of urban development that is efficiently serviced by good public transport, and will reduce vulnerability to transport energy cost changes.

### 2.3 Regional policy context

Since the 2010 South East Transport Strategy, a number of major metropolitan and regional policy and infrastructure documents have been released, including the revised Plan Melbourne<sup>6</sup>, which defines the future shape and sustainability of a growing Melbourne, and a proposed infrastructure plan<sup>7</sup> by Infrastructure Victoria which sets out a pipeline of initiatives to be delivered over the next three decades. The formation of the new statutory authority, Transport for Victoria (TFV), has also brought with it a number of key guidance documents, including their Strategic Approach to Network Development<sup>8</sup>.

A summary of the key documents is presented in Figure 2.3 and some of these are discussed further below.

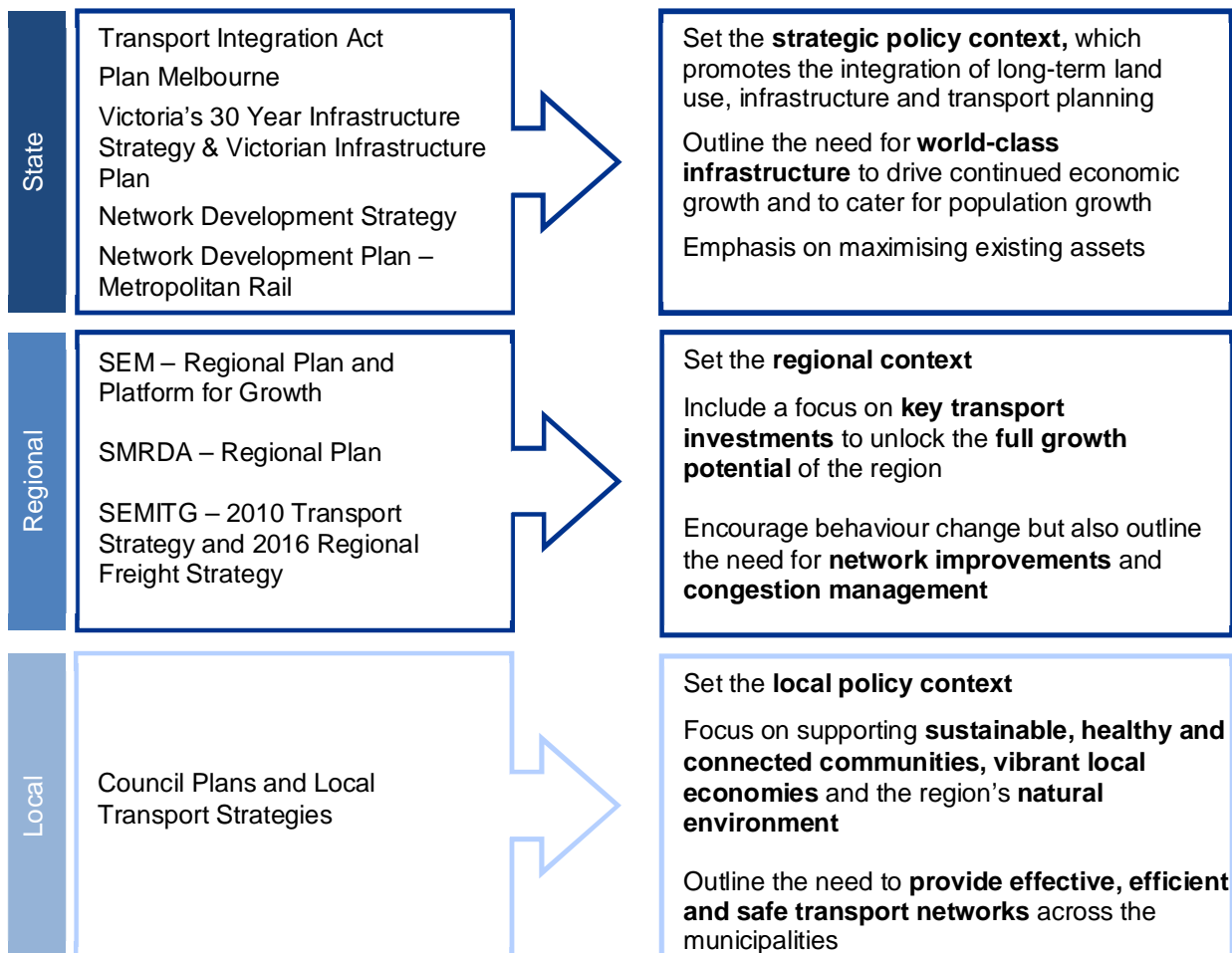


Figure 2.3: Key Policy and Strategy Documents

<sup>6</sup> Victoria State Government, 2017. Plan Melbourne 2017-2050: <http://www.planmelbourne.vic.gov.au/>

<sup>7</sup> Infrastructure Victoria, 2016. Victoria's 30-year Infrastructure Strategy: <http://www.infrastructurevictoria.com.au/>

<sup>8</sup> Transport for Victoria, 2017. Strategic Approach to Network Development Summary guide - February 2017

### 2.3.1 Plan Melbourne

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**Plan Melbourne Vision**

Melbourne will continue to be a global city of opportunity and choice.

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Plan Melbourne is the Victorian Government's metropolitan planning strategy. Updated in 2017, it guides the future shape of the city and state to 2050. It integrates long-term land use, infrastructure and transport planning in order to support jobs and growth, while building on Melbourne's legacy of distinctiveness, liveability and sustainability.

Of particular importance for the South East is the designation of, and recognition to support, the following places of state significance:

- Dandenong National Employment and Innovation Cluster
- Dandenong, Frankston and Fountain Gate–Narre Warren Metropolitan Activity Centres
- Dandenong Hospital and Chisholm TAFE Precinct, Frankston Hospital and Monash University Health and Education Precinct and Berwick Health and Education Precinct
- Three state significant industrial precincts (Southern Industrial Precinct, Officer–Pakenham Industrial Precinct and Port of Hastings Industrial Precinct)
- Major transport gateways including Port of Hastings, Moorabbin Airport and a possible South-East Airport

Changing land use strategies, improved arterial road and rail connections, and infrastructure in such locations will position the region for accelerated investment and growth.

The Plan also sets out aspirations for an integrated transport system that connects people to jobs and services and goods to market. This includes, in particular, a focus on improving transport in Melbourne's outer suburbs, both arterial roads and public transport services, providing local travel options to support 20-minute neighbourhoods and improving freight efficiency.

### 2.3.2 Infrastructure Victoria's 30-year infrastructure strategy and the Victorian Infrastructure Plan

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**IV Vision**

By 2046, we see a thriving, connected and sustainable Victoria where everyone can access good jobs, education and services.

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Infrastructure Victoria's 30-year infrastructure strategy was released in December 2016. The strategy sets out 137 recommendations to be delivered over the next three decades to help create the best possible future for all Victorians.

The strategy encourages a behavioural shift with regards to infrastructure use and travel. It recommends making better use of existing assets and identifies policy reforms to maximise the benefits of new infrastructure. It advocates not just for construction but for maintenance too.



The Victorian Infrastructure Plan<sup>9</sup> is a review document of Infrastructure Victoria's 30-year strategy released by the Victorian Government, in which 134 of the 137 recommendations were accepted in full, in part or in principle. The Plan also outlines the government's investment and policy priorities over the next five years (and beyond) and responds to each of the recommendations made by Infrastructure Victoria.

In order to accommodate a forecast 10.1 million population, the Plan's priorities for transport involve establishing an integrated and multi-modal transport system and investing in future transport technologies to meet the needs of Victorian commuters. There is a focus on: making the most of existing assets; building for the future; connecting regional Victoria; and developing smarter transport solutions. Key projects and reforms (including some previous year investments) in the South East include, amongst others:

- \$375 million to build the Mordialloc Bypass.
- \$20.2 million for a pipeline of road improvement projects to respond to key network priorities, from minor intersection upgrades to significant arterial road duplications.
- \$5 million (including \$2.5 million Commonwealth funding) to develop a business case for further upgrades to the Monash Freeway and surrounding road network.
- Ongoing investment in trains, better bus services, new connections and station upgrades across the State.
- \$6.9 billion to remove Victoria's 50 most dangerous and congested level crossings including delivering the Caulfield to Dandenong project.
- \$187.4 million to shift train stabling from Carrum to a new yard in Kananook.
- \$84.8 million towards the Network Transition Program, which will prepare the network to realise the full potential of the Metro Tunnel and the rollout of High Capacity Metro Trains.
- \$100 million Safer Cyclists and Pedestrians Fund to invest in infrastructure that keeps cyclists and pedestrians safe.

### 2.3.3 2018 Victorian and Federal budgets

In addition to the above projects, the Victorian government and Federal government have made substantial additional allocations for a number of projects that will either directly or indirectly support the south-east, including:

- \$2.2 billion to upgrade 13 arterial roads across the north and south-east, including Healesville-Koo Wee Rup Road duplication in Pakenham, Lathams Road duplication in Carrum Downs, Narre Warren-Cranbourne Road duplication in Cranbourne and duplication and new bridge along Remington Drive and Pound Road West in Dandenong South.
- Upgraded car parking at stations including Belgrave and Sandown Park.
- \$1.75 billion towards the North East Link.

<sup>9</sup> State of Victoria 2017 (Department of Premier and Cabinet). Victorian Infrastructure Plan: [https://www.premier.vic.gov.au/wp-content/uploads/2017/10/2017\\_Victorian\\_Infrastructure\\_Plan.pdf](https://www.premier.vic.gov.au/wp-content/uploads/2017/10/2017_Victorian_Infrastructure_Plan.pdf)

- \$225 million to duplicate and electrify the Frankston rail line to Baxter.
- \$5 billion towards a rail link from Melbourne Airport to the CBD.
- The Victorian Government will provide \$3 million for design and planning works to begin on a new tram route to connect Caulfield and Rowville.
- The Federal Government will provide \$475 million for a rail link to Monash University's Clayton campus (this will require capacity upgrades on the Dandenong line).
- \$140 million towards urban road congestion projects (yet to be determined).

### 2.3.4 Regional plans and studies

Key recent, regional documentation also includes, amongst others:

- South East Melbourne's Regional Plan (2015) – sets out how the seven SEM Councils will work together to address and respond to issues, including transport issues.
- South East Melbourne's Platform for Growth plan (2016) – includes relevant transport projects.
- SEMITG's regional Freight Strategy (2016) – outlines proposed freight-related directions and initiatives to ensure that the Region's economy and freight activities remain competitive and efficient.
- Southern Melbourne Regional Development Agency Regional Plan (2016-2019) – provides a framework for collaborative action to enhance the performance of the region.
- Eastern Transport Coalition (ETC) Transport Priorities – part of the South East region overlaps the Eastern region. The ETC, which consists of seven councils, advocates for integrated transport services to reduce the level of car dependency so as to secure the economic, social and environmental well-being of the region. Priorities that tend to overlap those in the South East include:
  - Development of the Rowville rail line
  - A regional south east corridor dedicated rail track
  - Removal of additional level crossings
  - Increased train frequency
  - Improved bus services and frequency and increased SmartBus provision
  - Bus routes to key employment areas
  - Intelligent transport systems for trip reliability
  - Westall road extension
  - Glasscocks Road construction Dandenong South east west access upgrades
  - Upgrade of bicycle infrastructure
  - Additional bike parking at stations

## **3. A Vision for a Connected South East**

### **3.1 Vision**

In the future, Melbourne's South East will have a world class inter-connected transport system that supports long-term and smart growth, a healthy and sustainable environment, and access to opportunity for all.

### **3.2 Strategy directions**

The next decade offers the opportunity for the South East to further strengthen the region's economy and improve the quality of life for people living in, working in and visiting the region. Transport plays a critical role in delivering the changes needed. The challenge for the strategy is to identify where future investment should be targeted to ensure maximum impact towards achieving economic, social and environmental aspirations.

The following four key directions provide a focus for transport investment in the South East over the next 10 years and beyond, to achieve the above vision:

- Growing a thriving and diverse economy
- Making the South East accessible to all
- Enhancing liveability and sustainability
- Evolving the network to strengthen communities

These directions build on the strategic actions of the 2010 Strategy, as well as incorporating the SEMITG Freight Strategy objectives, to meet the transport challenges ahead. They also align with the objectives of the Transport Integration Act (TIA) and Plan Melbourne directions.

To reach these directions, a number of indicators have been set, as outlined overleaf. Each of the recommendations in this strategy aim to help meet one or more of these indicators, which in turn contribute to the achievement of the strategy's directions and, ultimately, the vision for the region. Further narrative around the strategy directions and the transport indicators is provided within the sections 4 to 7.



Directions	Growing a thriving and diverse economy	Making the South East accessible to all	Enhancing liveability and sustainability	Evolving the network to strengthen communities
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<b>Description</b>	<p>The South East is a thriving place to live, visit and do business.</p> <p>The transport system will stimulate an innovative, diverse, flexible and competitive economy, underpinned by the region's strengths in manufacturing, logistics, agriculture and tourism, extractive industries and growing health and professional services sectors.</p> <p>It will support the efficient movement of residents, visitors and goods to, from and within the region, to grow the region's economy in line with Plan Melbourne, Regional Development Plans and local economic strategies.</p>	<p>People and places are connected across the region.</p> <p>The South East's transport networks will be expanded to provide more travel choices to keep the region moving as the population grows.</p> <p>Integrated transport networks will promote social and economic participation, increase access to a range of jobs, services and activities, and help to reduce social disadvantage.</p>	<p>The South East is a liveable place where people want to be.</p> <p>The rich natural environment and vibrant neighbourhoods remain key factors that influence people's choice to live and visit the South East.</p> <p>The transport system will support a sustainable, liveable and attractive region, enhancing health, safety and security, while lessening the impact on the natural environment and minimising the use of resources.</p>	<p>The region enjoys smart growth, with aligned and integrated transport networks and land use development.</p> <p>The transport system will support well-designed urban development, improving the amenity of communities, and minimising impacts of the transport system on adjacent land uses.</p> <p>Innovative approaches, new technology and smart solutions are adopted to optimise the use of the region's networks, and maximise community benefits from the substantial existing infrastructure commitments.</p>
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- |                   |  |   |   |   |
|-------------------|--|---|---|---|
| <b>Indicators</b> | <ul style="list-style-type: none"> <li>• Sustained business and industry growth – local job growth matches population growth</li> <li>• Efficient and reliable freight movement – improved and dependable journey times on freight corridors and improved last mile access, longer term rail capacity increases and mode shift</li> <li>• Convenient commuting - more reliable journey times to places of employment and increased use of public and active transport for commuter travel</li> <li>• Sustainable tourist and visitor travel – improved access to key visitor attractions to increase visitor spending in line with the Victorian Visitor Economy Strategy</li> </ul> | <ul style="list-style-type: none"> <li>• Effective and integrated regional connections – increased accessibility and use of public transport, to access residences, employment, markets, services and recreation. Fast and convenient interchanging, with reduced walking times between services.</li> <li>• Improved local links – successful application of 20-minute neighbourhoods, with an increased number of essential services accessible within a 20-minute walk, cycle or local public transport trip</li> <li>• Accessible transport systems for all - compliance with the DDA and associated standards across the network</li> <li>• Equitable and affordable access - reduced average household cost of transportation through more affordable transport options, including public transport and personalised transport options, and greater coverage and flexibility</li> </ul> | <ul style="list-style-type: none"> <li>• A safe transport system – contribute towards the Transport Accident Commission's (TAC) Towards Zero strategy to reduce the number of annual fatalities on Victoria's roads to fewer than 200 by 2020</li> <li>• Improved journey experience – increased customer satisfaction through easy, legible, comfortable and secure travel opportunities</li> <li>• A sustainable, low-emission region – uptake of low-emission vehicles, electric vehicles and technology that contribute to the Victorian Government's objective of net-zero emissions by 2050</li> <li>• Improved health and wellbeing – increase in the number, frequency and diversity of the region cycling and walking for transport</li> </ul> | <ul style="list-style-type: none"> <li>• Well designed and managed networks – introduction of new technology to manage demand, measurable increase in capacity to support intensified urban development and regeneration</li> <li>• Well planned networks – coordinated planning and delivery of transport infrastructure and services in new growth areas and areas of intensified activity that supports sustainable travel behaviour</li> <li>• Reduced future demands – smart growth changes how business and residents approach travel, reducing vehicle ownership and use</li> <li>• Harnessing technology – reduces travel demand</li> </ul> |
|-------------------|--|---|---|---|

### 3.3 Key considerations

Collectively, the recommendations in this strategy will help to achieve the overarching vision and directions for the region. All of the recommendations are important, but it is recognised that not everything can, or needs to, happen all at once. Informing the recommendations, it is therefore important to also consider the following to ensure the strategy remains ambitious, but balanced.

#### 3.3.1 Smart infrastructure investment

The South East benefits from a number of key transport spines. Making the most of these existing networks, ensuring they perform their desired function and are safe and resilient, whilst also harnessing the benefits of current investments is important.

High-performing networks are cost-effective and financially sustainable. Building more infrastructure will not always be the best way to meet infrastructure needs. Innovative approaches to optimise the use of existing infrastructure and manage demands on the network, in combination with strategic provision of new infrastructure, need to be considered to ensure networks continue to meet the region's transport needs. The relationships between such approaches and options, including how they might enable, complement or inhibit one another also need to be considered.

Major projects will continue to be an important part of the infrastructure planning landscape, but, wherever possible, it will be important to look at alternative, smart, non-build solutions first.

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#### Examples in the South East

The South East is already making progress in this area.

The *Dandenong to Warrigal Road Initiative* in particular has introduced real-time technologies and extra on-road services to more effectively manage the increasing demands along the Dandenong to Warrigal Road corridor. In high tourism areas such as Mornington Peninsula, technology trials are also being run during peak tourism periods to assist motorists in making more informed travel choices. The *Mornington Peninsula Travel Time Demo* for example, uses Bluetooth technology and variable message signs to provide live traffic information so that users of the network are better equipped to manage their journeys.

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#### 3.3.2 Embracing uncertainties

Despite current trends, forecasts and evidence, the future is uncertain. Factors such as technological advances, changing political cycles, global economic shifts and climate change, amongst others, are likely to impact the shape of the South East region in the coming decades. They are also the greatest unknowns in terms of infrastructure planning.

Recognising that it is impossible to predict the future with any degree of certainty, it is important to be open to the possibilities of change. For infrastructure, this could mean adapting existing assets, building flexibility into planning processes and responding to or adopting new technologies. This strategy recognises the need for ongoing collaboration into the future and will be updated as circumstances change to allow the strategic directions and actions to remain relevant.

#### 3.3.3 Funding and financing

The actions resulting from this strategy will have budgetary implications. In an environment where there is increasing pressure on governments to deliver sustained and significant transport infrastructure investment

programs, it will be important to consider project whole of life costs, non-build/cost-effective solutions and all funding and financing options available. Melbourne's population growth continues to outstrip other major cities and is seeing a change in investment strategies, in particular with more involvement from the private sector. Broadening the range of options that can support the funding of key projects, as well as their early delivery, is paramount.

## 4. Direction 1 – Growing a thriving and diverse economy

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### **The South East is a thriving place to live, visit and do business.**

The transport system will stimulate an innovative, diverse, flexible and competitive economy, underpinned by the region's strengths in manufacturing, logistics agriculture and tourism, and growing health and professional services sectors.

It will support the efficient movement of residents, visitors and goods to, from and within the region, to grow the region's economy in line with Plan Melbourne, Regional Development Plans and local economic strategies.

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### 4.1 Description

Melbourne's South East region is a major contributor to Victoria's economy.

The manufacturing sector has been, and continues to be, one of the region's core economic drivers, producing over 30% of the region's economic output. Greater Dandenong forms the primary hub of manufacturing activity in Melbourne's South East, contributing nearly 50% of total South East manufacturing Gross Regional Product (GRP)<sup>10</sup>. Kingston follows, contributing just over 34%. Despite the down-turn in car manufacturing and in contrast to national trends, manufacturing employment has increased recently in Greater Dandenong and Kingston. The region is adapting through growth in warehousing and logistics, and a shift towards more knowledge based manufacturing activities. This is expected to grow as the Dandenong NEIC develops and expands. To support such growth, however, the NEIC will need high levels of amenity to attract businesses and workers—including public transport, and walking and cycling paths. The cluster needs to be investment-ready for knowledge-intensive firms and jobs.

Health and professional services are upcoming growth sectors in the region. Dandenong, Frankston and Berwick in particular have become regional health hubs servicing the South East region, and as such has been designated health and education precincts. Service oriented industries are anticipated to provide the next wave of employment opportunities in the South East over the coming 10 years<sup>11</sup>. Employment in the sector is closely aligned with growth in income and population growth, and is predicted to grow due to an ageing population and the increased demand for health services. Planning for the growth of these precincts will need to focus on improving access—particularly via public transport—and diversifying job choices.

In the region's non-urban areas, rich soils and conducive weather conditions have facilitated strong commercial agricultural production. Food production, wineries, dairy and agriculture continue to be strong components of the local economies of Casey, Cardinia, Mornington Peninsula and Bass Coast. Urban encroachment, escalating land prices and the influx of peri-urban lifestyles, however, place pressure on the sector. With innovations in technology and smart and sustainable farming practices, however, a diversification in agricultural output across the region can be seen. Other innovations such as agri- and eco-tourism are also emerging.

A developing issue for the region is the impact of an increasing demand for extractive resources. It is anticipated that demand will nearly double over the 2015-2050 period and lead to an increase in the need for transport

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<sup>10</sup> Committee for Dandenong Strategic Agenda 2016-2019

<sup>11</sup> Southern Melbourne RDA, 2016. Regional Plan 2016-2019 [https://www.rdv.vic.gov.au/\\_data/assets/pdf\\_file/0004/1151545/Southern-Melbourne-RDA-Regional-Plan-2016-2019.pdf](https://www.rdv.vic.gov.au/_data/assets/pdf_file/0004/1151545/Southern-Melbourne-RDA-Regional-Plan-2016-2019.pdf)

infrastructure<sup>12</sup>. The majority of this demand is expected in central and fringe areas of Metropolitan Melbourne such as Casey, driven by strong population growth projections. South Gippsland and Cardinia form two of the top five strategic resource locations. The implications are that many of these resources will need to be transported from, through and to the region resulting in more heavily laden trucks on our roads together with additional rail freight. There is a potential for both arterial and local roads to be put under strain and some local towns affected by heavy traffic. In addition, there will be planning and amenity issues surrounding the location of batching plants for concrete and asphalt and the impact of quarries on local residents.

Tourism is a key economic driver, with the region being home to some of the State's prime and growing tourist destinations. These include Bass Coast and Phillip Island, the Dandenong Ranges and Yarra Valley, the Mornington Peninsula and Western Port. Nature-based tourism visitors represented 70% of all international overnight visitors to the State in 2013–14. Domestic nature-based visitors had approximately 4.3 million day trips to and within Victoria. With new investment in infrastructure and improvements to marketing, product development and the visitor experience, there are huge opportunities for the region to increase its share of the tourism market.

To remain prosperous, the region must remain attractive to investment. National employment and innovation clusters will be a focus for knowledge based and high-productivity jobs, together with key industrial precincts, transport gateways, health and education precincts and metropolitan activity centres. Smart investments in infrastructure projects that accelerate local investment and job creation in these clusters, and continue to stimulate economic growth, are critical to the region.

Priorities for transport in the region therefore include:

- Facilitating the development of national employment and innovation clusters
- Supporting the significant employment and servicing role of health and education precincts
- Supporting major transport gateways as important locations for employment and economic activity
- Planning for industrial land in the right locations to support employment and investment opportunities
- Supporting the extractive resource industry
- Supporting sustainable tourism as a key economic driver

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#### Indicators of success:

- Sustained business and industry growth – local job growth matches population growth
  - Efficient and reliable freight movement – improved and dependable journey times on freight corridors and improved last mile access, longer term rail capacity increases and mode shift
  - Convenient commuting – more reliable journey times to places of employment and increased use of public and active transport for commuter travel
  - Sustainable tourist and visitor travel – improved access to key visitor attractions to increase visitor spending in line with the Victorian Visitor Economy Strategy
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<sup>12</sup> PWC, 2016. Extractive Resources in Victoria: Demand and Supply Study 2015-2050. <http://earthresources.vic.gov.au/earth-resources/industry-and-investment/minerals-development-victoria/helping-victoria-grow-extractive-resources-in-victoria.-demand-and-supply-2015-2050>



## 4.2 Commitments

Table 4.1: Major infrastructure investments

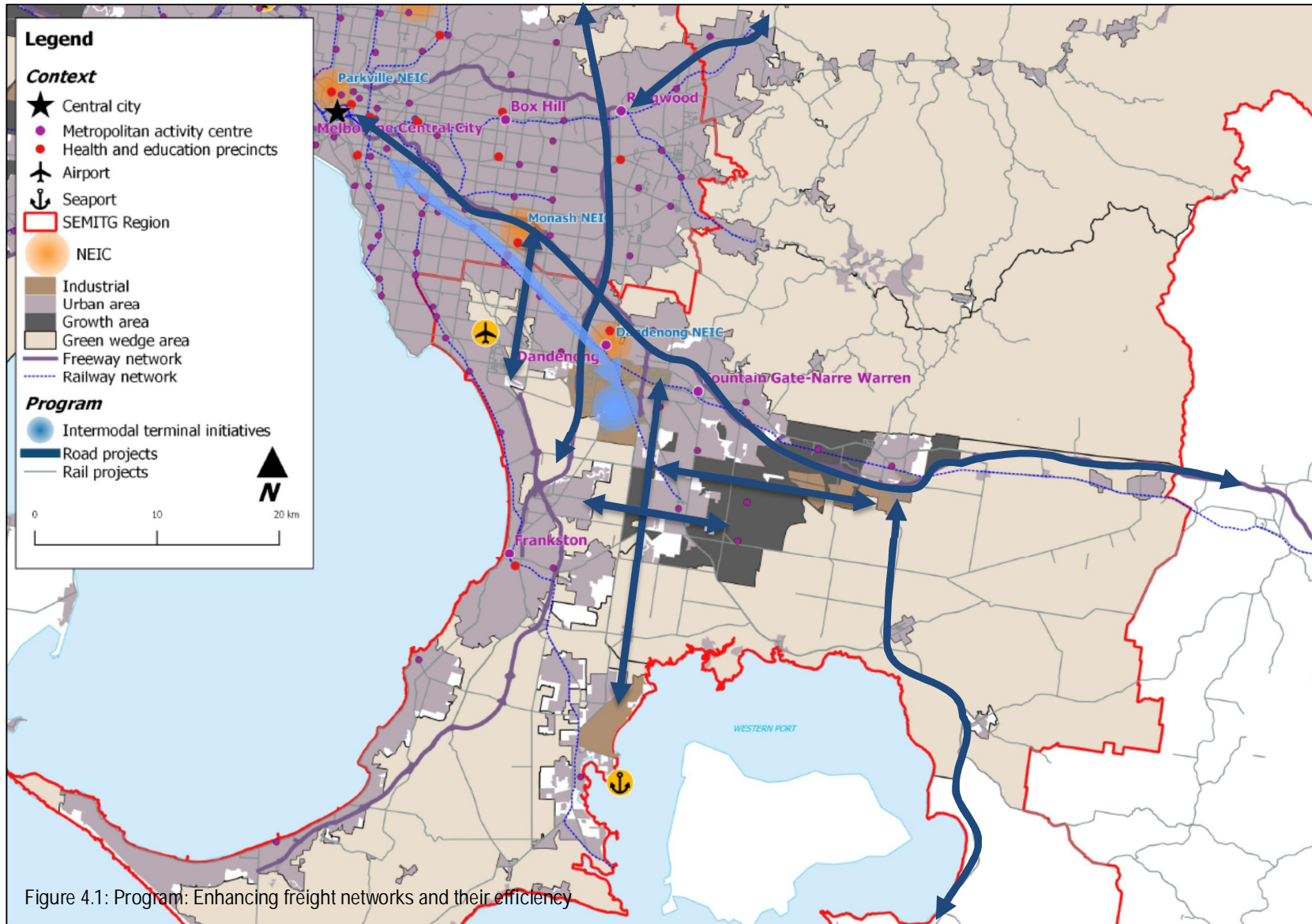
Description	Estimated Delivery						
	2018	2019	2020	2021	2022	2023	2024
\$100 million for the planning and preconstruction of the <b>North East Link</b>							
The <b>Monash Freeway Upgrade (Stage 1)</b> and <b>Monash Freeway Upgrade Stage 2</b> .							
\$1.6 billion for the <b>Caulfield to Dandenong Rail Project</b> .							
<b>Level Crossing Removals</b> to remove 19 of the most dangerous and congested level crossings in the South East.							
\$375 million to build the <b>Mordialloc Bypass</b> , a new 9km arterial between Mornington Peninsula Freeway and Dingley Bypass.							
\$175 million for the <b>Thompsons Road Upgrade</b> , duplicating 10.7km to improve connectivity.							
\$38.4 million for the <b>Hallam Road Upgrade</b> between Ormond Road and South Gippsland Highway.							
<b>South Road Traffic Study</b> to understand the current and future road needs of South Road in Moorabbin.							
\$3.2 million for <b>Phillip Island Road Infrastructure Corridor Planning</b> , to plan for future improvements on Phillip Island Road including San Remo and Cowes. \$9.7 million for the <b>Phillip Island Road - Back Beach Road roundabout</b> at Sunderland Bay. \$6.7 million for a roundabout at the intersection of <b>Woolamai Beach Road – Phillip Island Road</b> .							
Joint Australian and Victorian Government \$58 million project to take trucks off local roads and connect the Port of Melbourne to major freight hubs using the existing rail network through <b>port-rail shuttles</b> e.g. Dandenong South.							
\$2.2 billion to upgrade 13 key arterial routes across the northern and south-eastern suburbs, including: <ul style="list-style-type: none"> <li>duplicating <b>Healesville-Koo Wee Rup Road</b> in Pakenham</li> <li>duplicating <b>Narre Warren-Cranbourne Road</b> in Cranbourne</li> <li>duplicating <b>Lathams Road</b> in Seaford</li> <li>widening <b>Pound Road West/Remington Drive</b> in Dandenong South</li> <li>duplicating <b>Hallam North Road</b></li> <li>intersection and road safety upgrades on <b>Golf Links Road</b> in Langwarrin South and</li> <li>upgrading two intersections with traffic lights on <b>Thompsons Road</b> in Cranbourne</li> </ul>							
\$20 million for the <b>Canterbury Road upgrade</b> from Dorset Road in Bayswater North to Mount Dandenong Tourist Road in Montrose.							

### 4.3 Strategic Actions

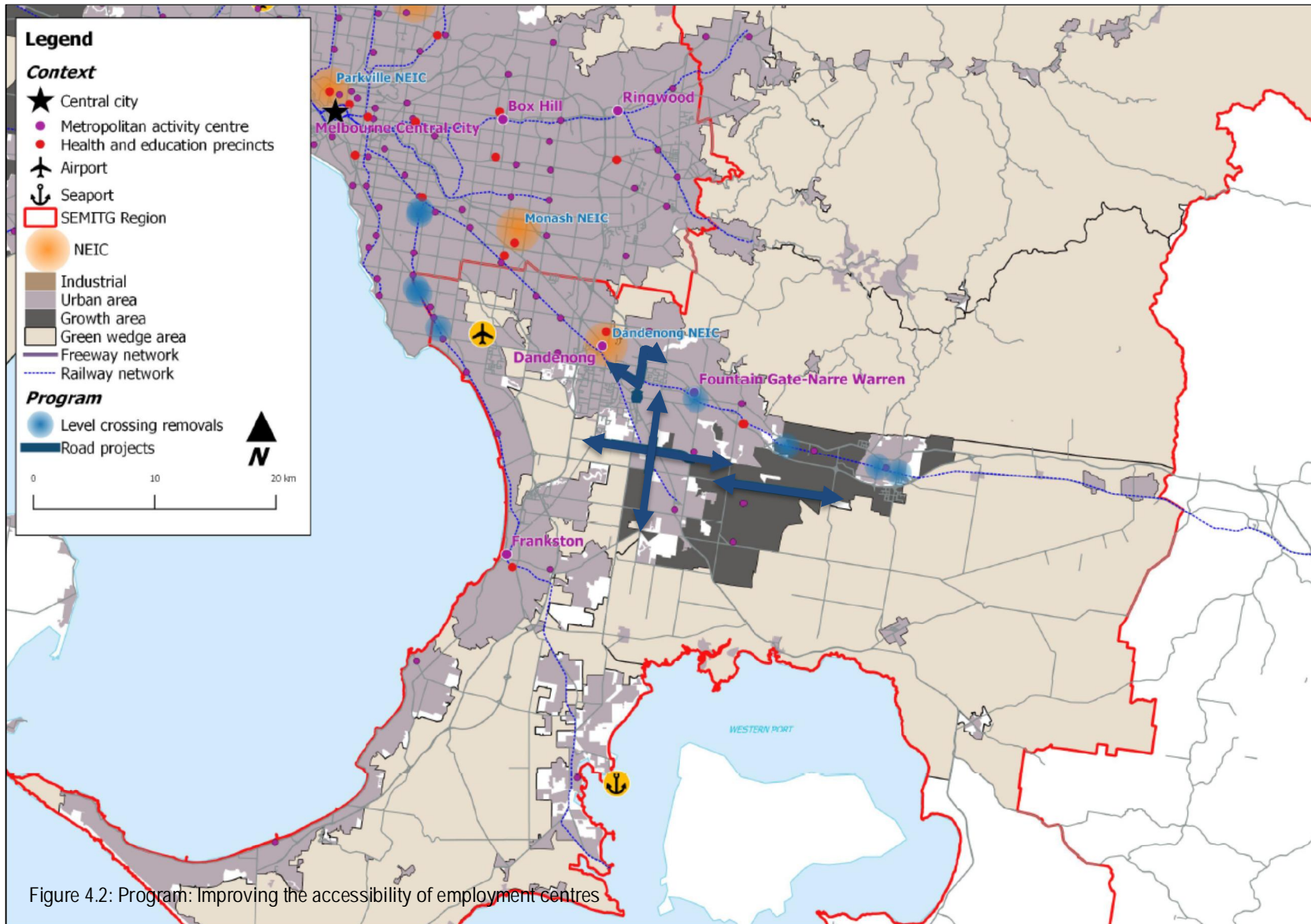
The recommendations below cover a range of initiatives to support the development of employment centres, industrial precincts and the tourism industry in the South East. These include improving access to jobs and services, enhancing cross-town freight and tourist travel and upgrading first and last-mile connections.

While some of the recommendations that appear under other directions, such as increasing the share of walking and cycling as a transport mode and preparing for the arrival of driverless vehicles, have not been identified specifically under this direction, there is clearly potential for these actions to help improve access to employment centres and visitor destinations across the region as well. All recommendations, including their primary and supporting directions, are summarised in Table 8.1.

Program	Enhancing freight networks and their efficiency
Description	<p>Freight volumes across the South East are expected to increase over the coming decades. While demand will be influenced by a number of factors, including technological advances and the shift in growth from goods to services, this program recognises the need to plan ahead to address pressures across the freight network to improve transport efficiency, productivity and environmental impact. There is a need for key network connections and upgrades (to key routes and terminals) for local and inter-state freight movements, to support the creation of a safe and secure, efficient, reliable and integrated freight system in the South East. This will require capacity planning and utilisation of new technology to meet peak demand to the benefit of the region, other metropolitan councils, and through traffic to/from Gippsland.</p> <p>Key freight movements and corridors that form a focus for the region are highlighted in Figure 4.1.</p> <p>There are still a number of strategic decisions to be made at the state level, including the location of a potential second container port and the role of rail in supporting the freight task, which will have a significant impact on freight movements in the South East. Planning for an efficient freight network will therefore require partnerships between all levels of government and industry, and an integrated approach to land use planning.</p>
Key projects	<ul style="list-style-type: none"> <li>· Western Port Highway corridor upgrade</li> <li>· Port Rail Shuttle: Port of Melbourne to proposed Lyndhurst intermodal terminal</li> <li>· First- and last- mile connections</li> <li>· Westall Road extension - Monash Freeway to Princes Highway</li> <li>· North East Link</li> <li>· Bass Highway and South Gippsland Highway upgrades</li> <li>· Governor Road duplication (Springvale Road to Boundary Road) including replacing the Governor / Boundary Road roundabout with traffic signals.</li> </ul>

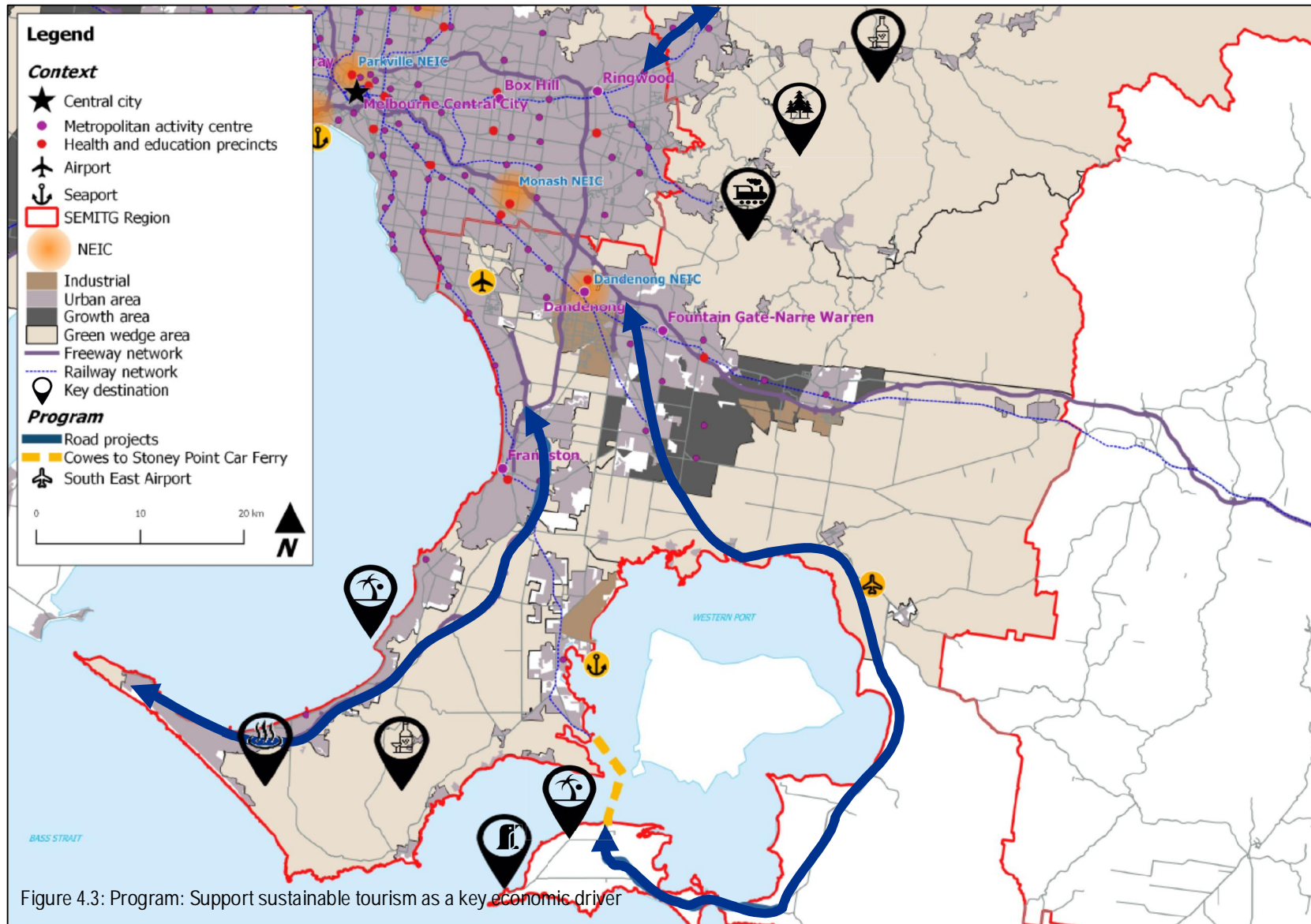


Program	Improving the accessibility of employment centres
Description	<p>Employment centres in the South East will be critical to the state's economy over the long term. They form important employment destinations for residents, but access to them needs strengthening. This program advocates for targeted network upgrades surrounding major employment centres and connecting to existing heavy rail lines, to support intense development and business interaction by improving access and removing bottlenecks. Feasibility and planning of the networks, integrated with broader land use and transport planning, needs to be undertaken and a range of transport technologies considered. Design prioritisation should be given to upgrades that support mode choice, such as road upgrades that also support the creation mass transit bus networks.</p> <p>Key centres across the South East that should be considered as part of this program include the designated NEICs (Dandenong and nearby Monash), health and education precincts, major transport gateways and major activity centres. Key road and rail corridors between these centres are highlighted in the figure below.</p>
Key projects	<ul style="list-style-type: none"> <li>· Glasscocks Road construction - Frankston-Dandenong Road to Cranbourne North, including grade separation of the Cranbourne railway line</li> <li>· Thompsons Road extension - Clyde Road to Cardinia Road</li> <li>· Dandenong Bypass extension - South Gippsland Highway to South Gippsland Freeway</li> <li>· South Gippsland Freeway / M1 Monash Freeway south to east connection</li> <li>· Level crossing removals beyond current commitments. The following are considered a priority for the region:             <ul style="list-style-type: none"> <li>· Racecourse Road level crossing</li> <li>· McGregor Road level crossing</li> <li>· Brunt Road level crossing removal</li> <li>· Webb Street Narre Warren level crossing</li> </ul> </li> </ul>



Program	<b>Supporting the logistics of the extractive industry</b>
Description	<p>Demand for extractive resources are predicted to double over the 2015-2050 period and lead to an increase in the need for transport infrastructure. Demand will be driven by central and fringe areas of Melbourne. South Gippsland and Cardinia are two of the top five strategic resource locations.</p> <p>While the offsite effects of extractive industries, their processing and the transport of related products can sometimes be challenging, extractive resources form an essential component of our environment that underpin our economy and lifestyle.</p> <p>This demand will impact on transport routes including arterial and local roads.</p>
Key projects	<p>Establish a coordinated program between State and local governments and industry to safeguard extractive resources, plan for batching and processing locations and ensure that appropriate transport routes are planned for and protected.</p>

Program	<b>Support sustainable tourism as a key economic driver</b>
Description	<p>Tourism is a significant industry for the South East, with opportunities for growth. Greater connectivity through upgraded transport networks and quality telecommunications will help the South East to maximise and sustain economic value from its natural advantages as a key tourist destination.</p> <p>This program will involve identifying and developing initiatives that support regional economic growth and investment, driven by higher levels of visitation, longer stays and higher expenditure. It will require advocating to the Victorian Government for key network connections and upgrades, supported locally through the development of a program of innovative Council-led initiatives targeted at improving access to key tourist destinations across the region.</p> <p>Projects will need to balance access in line with environmental sustainability of natural assets.</p>
Key projects	<ul style="list-style-type: none"> <li>· Mornington Peninsula Freeway duplication (Jetty Road to Boneo Road) and Southern Peninsula congestion management</li> <li>· Widening Peninsula Link between Eastlink and Frankston-Flinders Road</li> <li>· Cowes to Stoney Point Car Ferry</li> <li>· Phillip Island Road upgrades</li> <li>· Victoria's Strategic Cycling Corridors and trails</li> <li>· South East Airport</li> </ul>



## 5. Direction 2 – Making the South East accessible to all

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People and places are connected across the region.

The South East's transport networks will be expanded to provide more travel choices to keep the region moving as the population grows.

Integrated transport networks promote social and economic participation, increase access to a range of jobs, services and activities, and help to reduce social disadvantage.

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### 5.1 Description

The South East is known as the population centre of Melbourne.

The region has grown rapidly over the past few decades and is now home to over 1.2 million people. Growth is forecast to continue; by 2031, 1.5 million people are expected to call the South East home, with further growth anticipated beyond this.

Surging population growth in the South East, however, is outstripping jobs growth, transport infrastructure and service investments. Together with the relative size and geography of the South East, this can contribute to considerable travel distances for residents to get to places of employment, access services and participate in activities. As such, the region is heavily dependent on the private car, with some of the highest rates of car ownership in Australia. While high capacity rail services are improving, public transport networks have largely failed to adapt to new land use patterns and irregular working hours. Much of the South East suffers from low levels of public transport accessibility, meaning those that rely on them have less opportunity to access key activities and amenities.

The changing age structure of the region means that the accessibility problems are likely to get worse over time. By 2031, nearly one fifth of the region's population will be aged over 65. This will present increasing challenges for those wishing to access community services and infrastructure. Those who are unable to access a car could find their transport choices limited.

The transport system needs to adapt. High-quality road and rail networks are needed, that offer a range of sustainable, efficient, accessible and affordable transport options that readily connect neighbourhoods, workplaces, community facilities, services and enable people to participate in community life.



The efficiency, simplicity of the transport network and the quality of connections between modes can make a major difference to people's willingness to use public transport and expand the range of jobs and services they can access.

Improving public transport connections to the NEICs and key employment zones throughout the South East would increase employee opportunities and work-choice location. Progressive upgrades to the local bus network, with a focus on increased frequency, priority and reliability, would help to support local travel, particularly to service, recreational and social activities, as well as personal business and education. Provision of more real-time information would also enable better trip planning and improve user confidence, choice and satisfaction with the service.

As the population centre of Melbourne, access to services within the South East is critical to increasing opportunities for the growing population and business. Priorities for transport in the region therefore include:

- Providing high-quality public transport access to job-rich areas
- Improving local travel options to support 20-minute neighbourhoods
- Providing safe, sustainable, affordable and legible transport options for travel in the region
- Planning, designing and operating public transport infrastructure in accordance with accessibility principles and provisions of the Disability Discrimination Act (DDA)
- Supporting the provision of accessible, affordable, personalised and on-demand transport options to connect with and complement public transport to achieve greater coverage and flexibility

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### Indicators of success:

- Effective and integrated regional connections – increased accessibility and use of public transport, to access residences, employment, markets, services and recreation. Fast and convenient interchanging, with reduced walking times between services.
  - Improved local links – successful application of 20-minute neighbourhoods, with an increased number of essential services accessible within a 20-minute walk, cycle or local public transport trip
  - Accessible transport systems for all – compliance with the DDA and associated standards across the network
  - Equitable and affordable access – reduced average household cost of transportation through more affordable transport options, including public transport and personalised transport options, and greater coverage and flexibility
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## 5.2 Commitments

The Melbourne Metro<sup>13</sup> is the next major rail infrastructure project designed to significantly increase the capacity of the Victorian rail network. This project will include twin 9km tunnels and five new underground stations at North Melbourne, Parkville, State Library, Town Hall and Anzac, with construction anticipated between 2018 and 2025. Melbourne Metro will create 45% more capacity on the Cranbourne and Pakenham lines and 15% more capacity on the Frankston line during peak periods, which will enable more trains, less crowding and a more comfortable journey on these lines.

Table 5.1: Major infrastructure investments

Description	Estimated Delivery							
	2018	2019	2020	2021	2022	2023	2024	2025
<b>Melbourne Metro</b> , including 9km twin rail tunnels and five new underground stations								
\$2.3 billion in 65 next-generation <b>High Capacity Metro Trains (HCMT)</b> for the metropolitan network								
\$187.4 million for <b>train stabling at Kananook</b>								
\$63 million for the <b>Frankston Station Precinct Redevelopment</b>								
\$62.5 million commitment for more <b>train, tram and bus services</b>								
\$193.2 million to maintain the <b>public transport Night Network</b>								
\$572 million to upgrade the <b>Cranbourne and Pakenham line</b>	→							

## 5.3 Strategic Actions

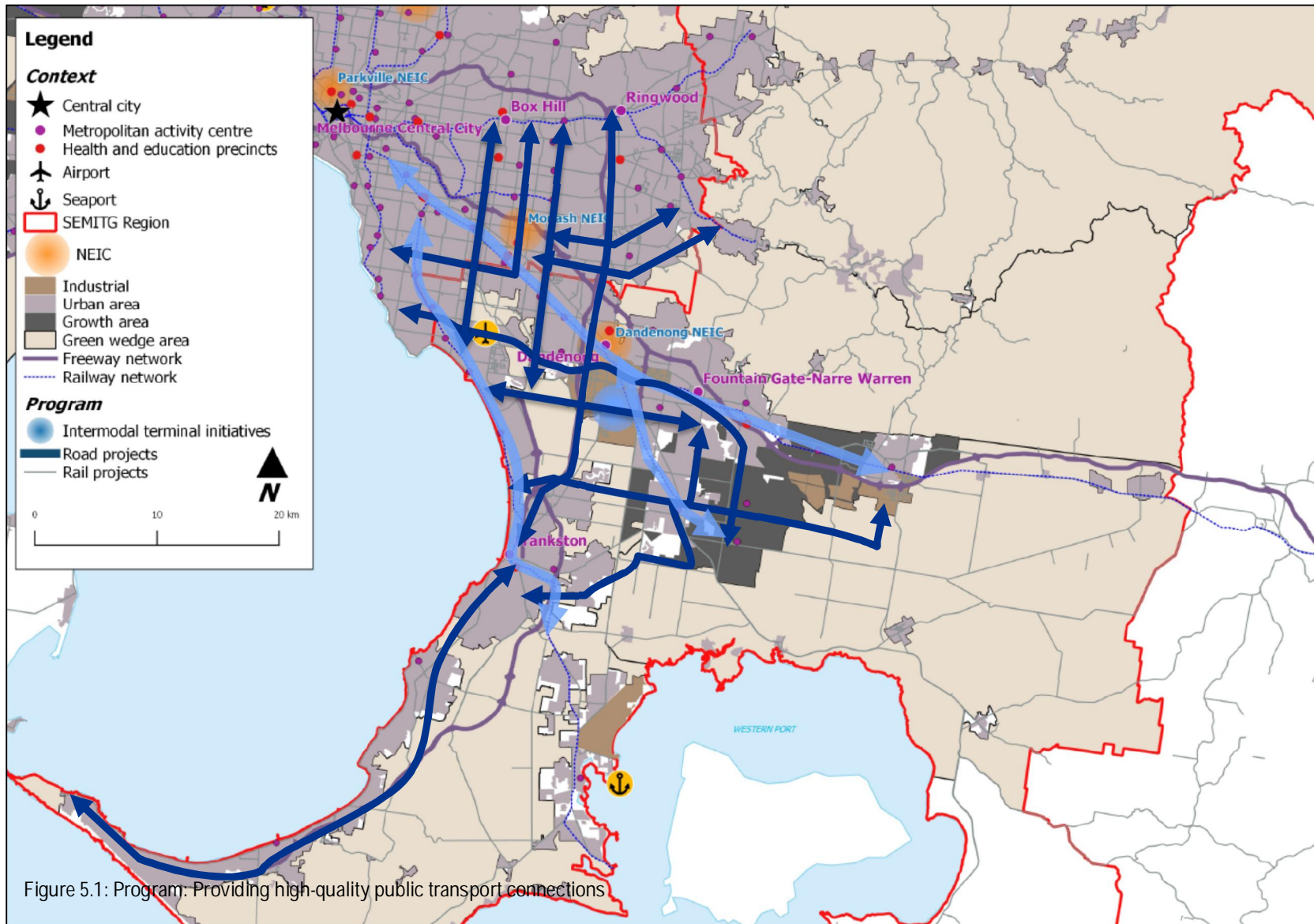
The recommendations under this strategic direction focus on increasing transport choice to reduce barriers to mobility, as well as making built infrastructure more accessible for people with mobility challenges. Infrastructure can be an enabler for inclusive communities, but in many cases it is currently a barrier.

In particular, the recommendations recognise that a range of sustainable, efficient, accessible and affordable transport options that readily connect neighbourhoods, workplaces, community facilities and services across the South East, are critical.

TFV is the lead agency with overall responsibility for planning and providing bus and rail services. The region's role is to inform and work with TFV and relevant departments in the development, expansion and upgrade of public transport services and infrastructure throughout the region.

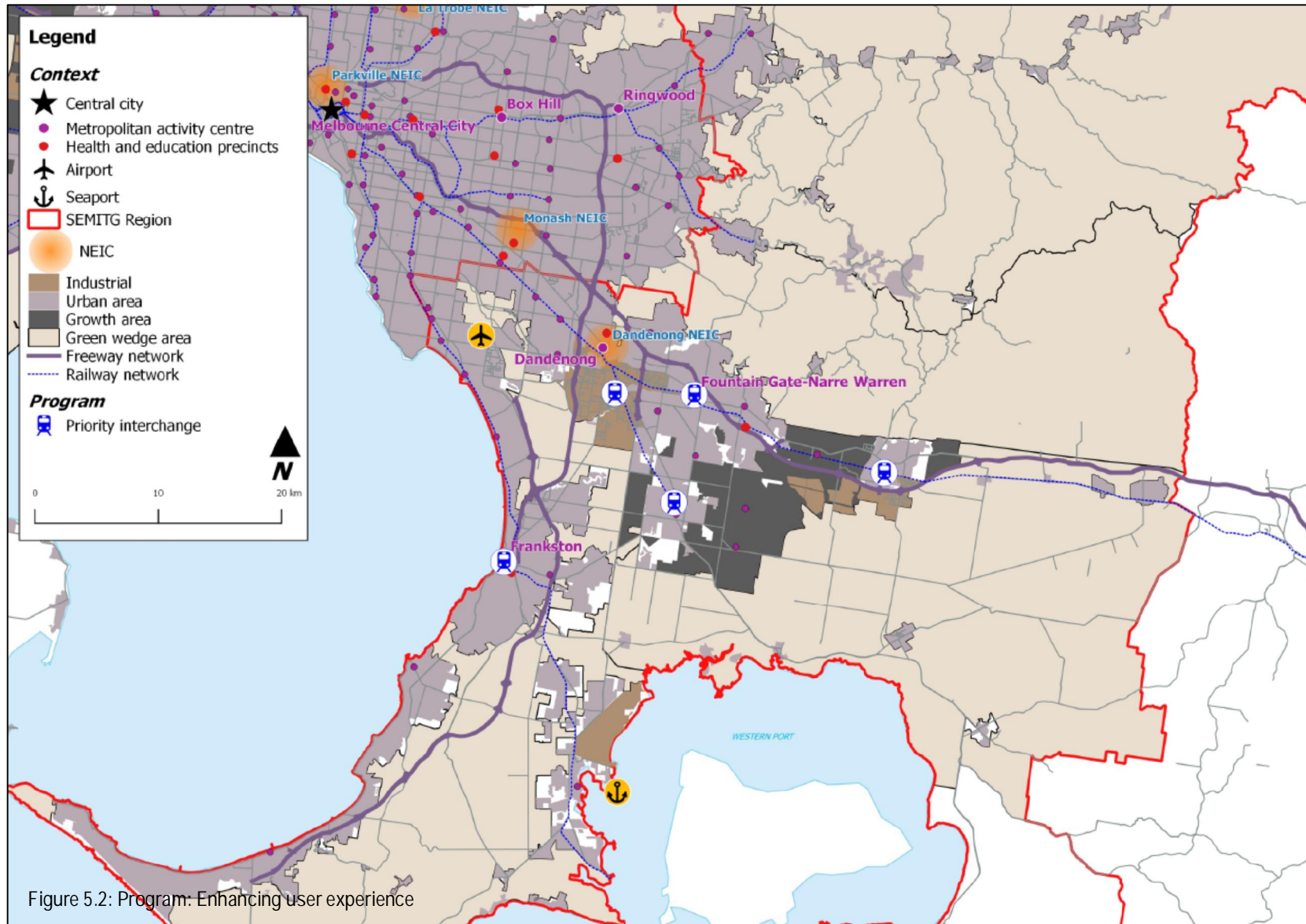
<sup>13</sup> State Government of Victoria, 2017. Metro Tunnel <http://metrotunnel.vic.gov.au/>

Program	<b>Providing high-quality public transport connections</b>
<p>Description</p>	<p>Strategic investment into the road and public transport network will play a key role in making the network more efficient and reliable. This program advocates for network upgrades and enhancements required to meet future demand for public transport links in the South East. It also seeks to remove physical and operational constraints on the region's bus and rail networks to maximise the use of the existing assets, increase the reliability of passenger services, reduce ongoing maintenance costs and support the delivery of additional services.</p> <p>The first step will require a review of the existing public transport routes and services. Focusing on major employment centres and connections to existing heavy rail lines, this review will identify and advocate for the progressive delivery of more targeted services and the creation of mass transit bus networks. While there has been an increased commitment to funding heavy rail in the metropolitan area, bus services continue to be under funded as a transport mode. Bus services are the principal mode for 70% of metropolitan Melbourne. Where appropriate, upgrades should include bus priority measures to ensure bus trips are fast, frequent and reliable. Feasibility and planning of the networks will need to be undertaken. Priorities will be identified to support land use plans.</p> <p>This program also supports the duplication of the Cranbourne rail line and its extension from Cranbourne to Clyde, to better connect growth precincts with Dandenong and Melbourne CBD. Providing early train station certainty at Cranbourne East and Clyde would enable a desirable integrated land use and infrastructure outcome with higher density housing and commercial activity in close proximity to the new stations and along the rail corridor.</p> <p>Key public transport movements are highlighted in the figure below. Rail and bus network improvements to cater for such movements will provide residents with viable alternative transport options to the private car, reducing congestion and create a more efficient and reliable transport network for residents.</p>
<p>Key projects</p>	<ul style="list-style-type: none"> <li>· Bus network review (including consideration of bus contracts) and investment in revised routes and improved service levels</li> <li>· Employment centre mass transit (BRT) network and SmartBus expansion</li> <li>· Clyde Rail extension and line capacity improvements through to Dandenong</li> <li>· Duplication of Lilydale and Belgrave lines (including new Cavehill station)</li> <li>· Extend the electrification of the rail line from Frankston to Baxter</li> <li>· Advocate for the delivery of a rail line to Melbourne Airport, linking with both central Melbourne and the south east</li> </ul>



<b>Program</b>	<b>Increasing mode choice, coverage and flexibility</b>
<b>Description</b>	<p>To improve connections for more residents, this program supports the provision of accessible, affordable, personalised and on-demand transport options to increase mode choice and achieve greater coverage and flexibility of transport services.</p> <p>It encourages investment in walking, cycling and local public transport options that connect with essential services and complement primary public transport routes, particularly in areas where people have fewer travel options, to reduce car dependence, improve local links and maintain adequate transport connectivity across the region.</p> <p>A key element of this program will be to support the redeployment of local community transport and taxis (or similar) to provide on-demand services in more rural areas of the region, including for people who experience mobility challenges. This initiative may require ongoing subsidies and regulatory changes. Demand-responsive transport can improve transport access and provide a cost effective alternative to conventional public transport services, particularly in lower density areas.</p>
<b>Key projects</b>	<ul style="list-style-type: none"> <li>On-demand transport services - redeployment and expansion of local community transport and taxis (or similar) and exploration of rideshare pick up locations in activity centres</li> </ul>

<b>Program</b>	<b>Enhancing user experience</b>
<b>Description</b>	<p>This program seeks to address legacy issues with existing infrastructure and support new ways to improve accessibility. It advocates for the upgrade of existing infrastructure and the better design of new infrastructure to improve accessibility of the public transport network, reduce barriers to mobility and enhance the user experience. It will focus on identifying and supporting upgrades at key transport interchanges that facilitate faster and easier passenger access and transfers, including for people with mobility challenges, and create an accessible multi-modal network. In particular, upgrades to meet requirements under the Commonwealth Disability Discrimination Act 1992 are critical. Key upgrades include:</p> <ul style="list-style-type: none"> <li>Additional access points where possible both into/out of high demand rail stations.</li> <li>Improved passenger amenity including real-time information, clear wayfinding, better ramps, more sheltered areas, hearing loops, accessible toilets and assistance call buttons etc.</li> <li>Improved cycle access to mass transit stations.</li> <li>Outfit of both existing and new rolling stock with wheelchair lifts, allocated spaces, hearing loops and assistance buttons.</li> </ul> <p>Priority interchanges for upgrade include those that serve the Dandenong NEIC and Major Activity Centres, but consideration should also be given to high volume or end of line stations. Providing fast, attractive and accessible interchanges between different transport modes encourages public transport usage and facilitates safer and more enjoyable public transport journeys.</p>
<b>Key projects</b>	<ul style="list-style-type: none"> <li>Enhance intermodal transfers and public transport accessibility at key interchanges</li> </ul>



## 6. Direction 3 – Enhancing liveability and sustainability

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### The South East is a liveable place where people want to be

The rich natural environment and vibrant neighbourhoods remain key factors that influence people's choice to live and visit the South East.

The transport system supports a sustainable, liveable and attractive region, enhancing health, safety and security, while lessening the impact on the natural environment.

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### 6.1 Description

*Liveability reflects the wellbeing of a community and comprises the many characteristics that make a location a place where people want to live now and in the future (Victorian Competition and Efficiency Commission).*

The rich natural environment and vibrant neighbourhoods remain key factors that influence people's choice to live and visit the South East. The open space, natural heritage, transport networks and prosperous economy, help to bring people and businesses to the South East, and contribute to making Melbourne the world's most liveable city.

There are concerns, however, about growing disparities within central Melbourne and across the wider metropolitan area. Growth areas are a key concern, particularly new low-density outer suburban growth areas. Such areas are experiencing such rapid population growth that it is difficult for essential services and infrastructure provision, as well as employment, to keep pace. Without adequate planning around these, Melbourne could become less liveable—risking social cohesion and economic growth.

Transport plays a key role. Melbourne's transport networks link people to jobs and businesses to markets—making the city productive and liveable. In the South East, however, a high reliance on private vehicle travel and the related issues of congestion and air and noise pollution impact on amenity and the environment. Air quality, road safety, access to green spaces, levels of physical activity and opportunities for social interaction, also impact on the health and wellbeing of residents. Attracting more trips to sustainable modes of transport and reducing congestion on the road network are key strategies for managing the amenity and environmental impacts of transport infrastructure and operations to protect and enhance liveability in the region.

Growth in the region, in combination with climate change, is also testing the resilience of the natural and built environment. In the future, the region will need to be more sustainable and resilient. To respond to the challenge of climate change and ensure the region becomes more sustainable as it grows, a green economy needs to emerge—built around renewable energy, environmentally sustainable development and resource recovery. Victoria has committed to reduce its greenhouse gas emissions to net zero emissions by 2050, to help achieve this the region must reduce energy demand, improve energy efficiency and increase the share of renewable energy.

## Final Transport Strategy

The South East is a region of growth, and with that comes the opportunity to grow more liveable, more sustainable and more prosperous. Priorities for transport in the region therefore include:

- Planning and delivering high quality and accessible walking and cycling pathways and infrastructure to encourage more active lifestyle choices and reduce emissions.
- Promoting and facilitating the uptake of low-emission vehicles, alternative energies and new technology to improve vehicle efficiency.
- Designing and operating transport networks to improve amenity, road safety and reduce impacts on the natural environment.

### Indicators of success:

- A safe transport system – contribute towards TAC’s Towards Zero strategy to reduce the number of annual fatalities on Victoria’s roads to fewer than 200 by 2020
- Improved journey experience – increased customer satisfaction through easy, legible, comfortable and secure travel opportunities
- A sustainable, low-emission region – uptake of low-emission vehicles, electric vehicles and technology that contribute to the Victorian Government's objective of net-zero emissions by 2050
- Improved health and wellbeing – increase in the number, frequency and diversity of the people cycling and walking for transport

## 6.2 Commitments

Table 6.1: Major infrastructure investments

Description	Estimated Delivery						
	2018	2019	2020	2021	2022	2023	2024
\$100 million Safe Cyclists and Pedestrians Fund, which will deliver the <b>Dandenong central pedestrian project</b> and three <b>Strategic Cycling Corridors</b> in the region.							
\$7.4 million for the <b>Carrum to Warburton trail, Bayswater to Lilydale shared path link</b> .							
\$10 million for <b>Mount Dandenong Tourist Road</b> widening and safety improvements							
Upgrade of the <b>Mornington Peninsula Freeway</b> to include the installation of more than 80km of continuous flexible safety barriers.							



Description	Estimated Delivery						
	2018	2019	2020	2021	2022	2023	2024
<p>A number of <b>intersection improvement projects</b>, to address ongoing safety concerns, including:</p> <ul style="list-style-type: none"> <li>Western Port Highway and Robinsons Road, Langwarrin intersection upgrade</li> <li>Bass Highway intersection traffic signals and raised safety platform</li> <li>Phillip Island Road intersection upgrades with the construction of two major roundabouts</li> <li>Narre Warren North Road intersection upgrades, Narre Warren North</li> </ul>							

### 6.3 Strategic Actions

The South East's natural environments are essential assets for the region and state. The recommendations below seek to ensure that impacts of the transport system on these assets are lessened, health, safety and security are enhanced, and that Melbourne's 'liveability' is shared by all.

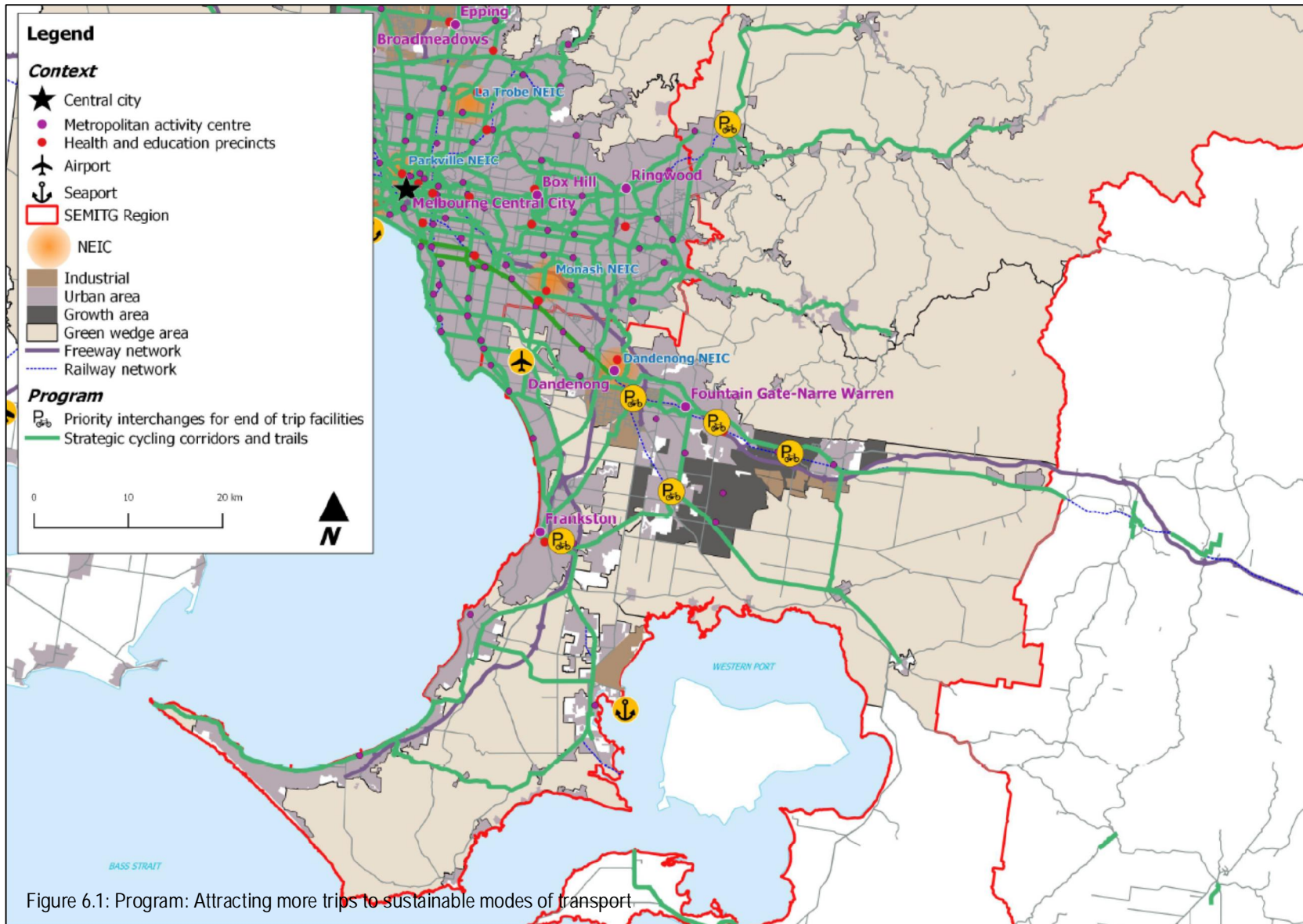
There is great opportunity for increased investment in walking and cycling infrastructure across the South East to help increase its share as a transport mode. In addition to expected health benefits, such an investment would help to reduce congestion and the negative environmental impacts of transport. As such, it forms a key focus in the recommendations.

Initiatives under other directions in this strategy, such as Enhancing User Experience, could also encourage and enable the uptake of more sustainable modes of travel.

Program	<b>Moving Towards Zero</b>
Description	<p>Towards Zero<sup>14</sup> is a vision for a future free of deaths and serious injuries on Victorian roads. This program seeks to support that vision and the creation of a safer road system in the South East. It will involve working with the TAC and VicRoads, to develop and implement a program to tackle road user safety across the region, focusing on accident blackspots, vulnerable road users and emerging best practices and technology.</p> <p>Considerable work has been undertaken in this space by Mornington Peninsula Shire in establishing their Towards Zero Municipality Initiative. Consideration should be given to how this approach can be adopted and expanded across the South East region.</p>
Key projects	<ul style="list-style-type: none"> <li>Address accident blackspots using existing programs</li> <li>Build on the initial roll out of the Safer Cycling and Pedestrians Initiative, with a focus on wider expansion to major centres and corridors in the region.</li> </ul>

<sup>14</sup> TAC, n.d. Towards Zero <https://www.towardszero.vic.gov.au/>

Program	<b>Attracting more trips to sustainable modes of transport</b>
Description	<p>The strategy seeks to increase the region’s share of walking and cycling trips. To achieve this will require collaboration between SEMITG and other tiers of government to deliver quality walking and cycling environments across the region. It will also take willingness from individuals to change the way they travel in the South East.</p> <p>This program will involve planning and supporting the delivery of high quality and accessible walking and cycling pathways and infrastructure to encourage more active lifestyle choices and improve the health and wellbeing of residents. Through engaging with Active Transport Victoria (ATV), VicRoads and other relevant bodies, it will seek to accelerate investment in the roll-out of Victoria’s Strategic Cycling Corridors and trails, and increased provision of end-of-trip cycling facilities. Priorities will focus on providing ‘local links’ that give direct access from residential areas to major destinations such as schools, universities, public transport nodes and key centres for employment and local services.</p> <p>Investment in high-quality, direct active transport infrastructure will help to provide viable alternative modes of transport for both recreational and work-based travel, improving amenity, road safety and helping to reduce impacts on the natural environment.</p>
Key projects	<ul style="list-style-type: none"> <li>· Victoria’s Strategic Cycling Corridors and trails</li> <li>· End-of-trip cycling facilities</li> </ul>



Program	<b>Reducing the environmental impacts of transport infrastructure</b>
Description	<p>In common with other areas, there is a need in the South East to minimise the negative effects of travel on the environment.</p> <p>This program will advocate for the management of the transport system in such a way that actively contributes to environmental sustainability. This will include supporting and implementing a range of measures to minimise transport-related emissions and noise, promote less harmful forms of transport and improve the environmental performance and energy efficiency of all transport modes. It will be important to leverage the benefits of new and emerging technologies to maximise environmental outcomes.</p> <p>A key element of this program will include targeted network upgrades to support a reduction of through traffic and heavy vehicles through regional centres, including the completion of missing links and town bypasses. Work in this area would reduce the number of vehicles in areas of significant place value, improving liveability, road safety and the local environment. Priority locations should be confirmed in line with the TFV Movement and Place framework and SEMITG Freight Strategy.</p>
Key projects	<ul style="list-style-type: none"> <li>· Constructing town bypasses</li> <li>· Traffic calming where major roads pass through town centres and major activity precincts</li> </ul>

Program	<b>Improving transport infrastructure resilience</b>
Description	<p>There is a need for the region's critical infrastructure to be more resilient and adaptable in the face of growing challenges, particularly climate change, and unexpected disruptions. This program will advocate for improved modelling, network planning and upgrades to address critical infrastructure issues, including building the resilience of information and communications technology (ICT), public transport and transport contingency planning.</p>
Key initiatives	<ul style="list-style-type: none"> <li>· Support the implementation of Victoria's Critical Infrastructure Resilience Strategy and TFVs Network Impact Management Plan</li> </ul>

## 7. Direction 4 – Evolving the network to strengthen communities

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### The region enjoys smart growth, with aligned and integrated transport networks and land use development

The transport system will support well-designed urban development, improving the amenity of communities, and minimising impacts of the transport system on adjacent land uses.

Innovative approaches and smart solutions are adopted to optimise the use of the region's networks, and maximise benefits from the substantial existing infrastructure commitments.

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### 7.1 Description

The South East remains one of the fastest-growing regions in the State, with total population expected to reach 1.5 million by 2031 and further growth beyond. Casey is forecast to accommodate much of this growth and is one of the State's largest-growing local government agencies (LGA)<sup>15</sup>. Cardinia is also forecast to experience significant growth and is one of the State's fastest-growing LGAs.

The way development occurs has a fundamental impact on how, where, why and when people travel. Rapid population growth and urban expansion has placed an increased pressure on existing infrastructure and services in the region. Managing this growth and reducing the strain on the key transport spines requires the effective integration of land use and transport. This will involve increasing the density of development, (particularly around transport nodes, activity centres and employment precincts) to create the critical mass to make a range of services viable. Providing suitable connections within and between transport modes to meet demands for safe, efficient and connected end-to-end journeys is also essential.

Land use and transport delivery also needs to be coordinated to ensure high levels of accessibility as development occurs. Delays in the delivery of transport services in the growth areas, for example, has further entrenched car-dependent travel patterns across the region and reduced the accessibility of new developments.

Building more infrastructure will not always be the best way to meet infrastructure needs. Making the most of existing networks and infrastructure commitments, improving the attractiveness of sustainable transport options and ensuring networks perform their desired function will be increasingly important. Innovative approaches to optimise the use of existing infrastructure and manage demands on the network need to be considered, in conjunction with the strategic provision of new infrastructure where necessary, to ensure transport networks continue to meet the region's transport needs.

Transport systems are not static; networks, operating systems, maintenance solutions, vehicles, communication and information technologies are continuing to evolve at a rapid rate. The digital age is advancing, and is likely to disrupt today's services and infrastructure. As such, there will be an increasing need for adaptability and flexibility in the transport system.

Design innovations can assist in achieving better transport outcomes. 'Smart' technology, such as that being introduced on the Monash Freeway, will provide faster, safer and more reliable journeys, using real-time data to

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<sup>15</sup> Victoria State Government, 2017. Victoria in Future 2016 [https://www.planning.vic.gov.au/\\_data/assets/pdf\\_file/0014/14036/Victoria-in-Future-2016-FINAL-web.pdf](https://www.planning.vic.gov.au/_data/assets/pdf_file/0014/14036/Victoria-in-Future-2016-FINAL-web.pdf)

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manage the network and help road users avoid disruptions. The development of automated vehicles over the coming years is also anticipated to open up a variety of opportunities for road users, and has the potential to increase safety and reduce congestion and environmental impacts. Regularly reviewing, trialling and adopting innovative solutions to meet the needs of the South East will ensure the transport network remains responsive and accessible.

An integrated approach to land-use and transport planning will be important to ensure infrastructure and essential services are managed efficiently to meet future needs. Priorities for transport in the region therefore include:

- Planning and delivering transport that is consistent with and supports the intents of land use development plans.
- Maximising the utility of existing infrastructure assets and consider strategies to influence behaviour changes, to reduce the demand for new infrastructure.
- Maximising benefits from innovations in transport technology, infrastructure and service provision to deliver a more efficient and sustainable transport network.
- Facilitating the collection and sharing of data to support transport planning and decision making.
- Considering the adaptability of infrastructure and its potential shared use when preparing infrastructure strategies and plans.

### Indicators of success:

- Well designed and managed networks – introduction of new technology to manage demand, measurable increase in capacity to support intensified urban development and regeneration
- Well planned networks – coordinated planning and delivery of transport infrastructure and services in new growth areas and areas of intensified activity that supports sustainable travel behaviour
- Changing travel patterns – smart growth changes how business and residents approach travel, reducing vehicle ownership and use
- Greater mobility and choice – transport services will be convenient and responsive. New forms of mobility will be harnessed for the benefit of communities.

## 7.2 Commitments

Table 7.1: Major infrastructure investments

Description	Estimated Delivery						
	2018	2019	2020	2021	2022	2023	2024
The <b>Monash Freeway Upgrade</b> and <b>Monash Freeway Upgrade Stage 2</b> .							

Description	Estimated Delivery						
	2018	2019	2020	2021	2022	2023	2024
<b>Dandenong to Warrigal Road Initiative</b> introduces smarter, real-time changes to help manage the increasing demands along the Dandenong to Warrigal Road corridor.							
<b>Mornington Peninsula Travel Time Demo.</b> Technology trial provides drivers with real-time travel information to make informed decisions when travelling on the southern peninsula.							

### 7.3 Strategic Actions

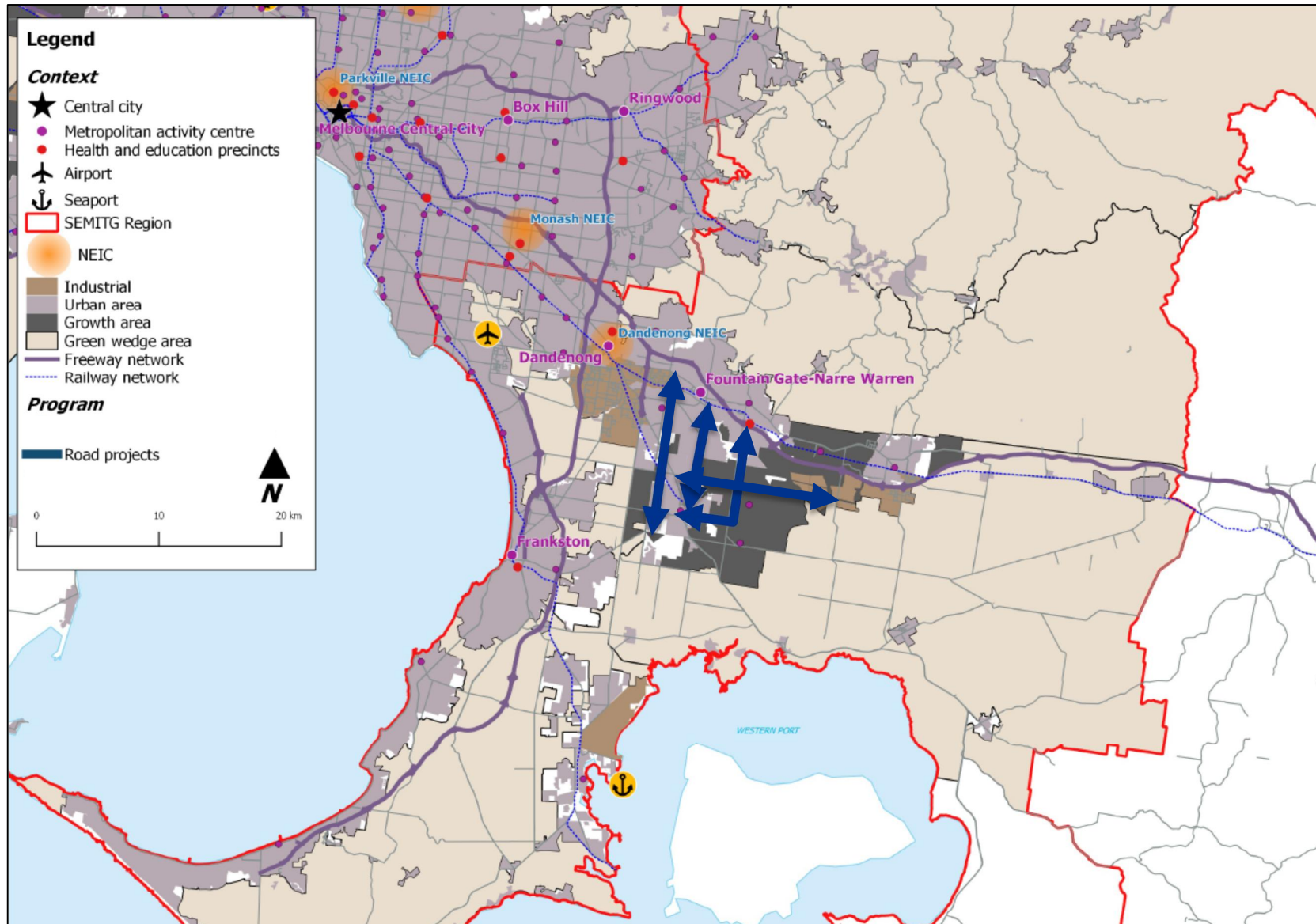
The recommendations under this direction seek to support the better management of the spatial and infrastructure needs of communities across the region.

Providing new infrastructure in areas where there are gaps will be a key initiative. The growth areas in particular have a need for strategic infrastructure to improve access to jobs and services for those that reside there now and who will in the future. However, there is also opportunity for land use planning controls and demand management measures to further support sustainable, long term growth. They are also likely to save infrastructure costs.

Whether providing for growth in new areas or encouraging growth in established areas, it will be critical to maximise the use of transport infrastructure to ensure efficiency, and to improve coordination of land use, infrastructure and service planning across all levels of government.

Further initiatives to support communities in the region are embedded throughout the four directions of this strategy.

Program	<b>Expanded strategic road network to support growth</b>
Description	<p>The transport strategy advocates for expansion of the road network where necessary.</p> <p>This program seeks the roll out of targeted upgrades to the network, focusing on improving accessibility and the capacity of critical links to support growth. Works should include completing missing links, widening and duplication of existing roads, grade separations, connections to the freeway/highway network and provision of bus lanes to improve safety and local access for people and goods.</p> <p>There is regional support for the South Eastern Roads Upgrade announced as part of the <i>Victorian Budget 2018/19</i>. Additional key routes are highlighted below. It is noted that this will depend on the completion of planning and business case development, as well as funding.</p>
Key projects	<ul style="list-style-type: none"> <li>South Eastern Roads Upgrade package, and additional key routes</li> </ul>





Program	<b>Managing demands on the network</b>
Description	<p>Using the road network wisely is vital to the success of the overall transport system and the economic, environmental and social wellbeing of the South East.</p> <p>This program will involve collaborating with the Victorian Government to develop and implement options to improve road network efficiency, including advanced traffic management systems and demand management measures as part of long-term integrated transport planning. It is noted that the Victorian Government will not introduce new tolls to existing roads.</p> <p>There is little benefit in providing new infrastructure if asset management and ongoing maintenance are not carried out properly. The region consider greater support for road maintenance and upgrades is required, including increased funding for both state and local roads, following further scoping of works and monitoring of outcomes of currently committed investment programs. This will support improved access to jobs and services, improved travel times and road safety, and help to meet the needs of first and last-mile freight connections.</p>
Key initiatives	<ul style="list-style-type: none"> <li>· Behavioural change programs</li> <li>· Demand management measures</li> <li>· Expanded traffic management systems on key routes</li> <li>· Asset management and maintenance</li> </ul>

Program	<b>Embracing innovations in transport technology</b>
Description	<p>New technologies are already being used to improve the function of the transport system, including road and rail. VicRoads Managed Motorways program has shown the ability to improve traffic flows on the state's most important roads, and transport users across the network are benefitting from better access to information, as shown through the Dandenong to Warrigal Road initiative and Mornington Peninsula travel time demo. As technology continues to advance, the challenge, particularly for government, will be how to best support their deployment as they become available, minimising barriers and ensuring their value to the community is maximised.</p> <p>This program will involve working with Victorian Government, advocating for regulatory changes to enable the testing and deployment of advanced technologies (such as driverless vehicles) and alternative energies to improve traffic flow, increase the operational efficiency of public transport, expand the range of available transport options and potentially improve the carrying capacity, safety and environmental performance of transport networks. Regularly reviewing, trialling and adopting innovative solutions to meet the needs of the South East will ensure the transport network remains responsive and accessible.</p>
Key initiatives	<ul style="list-style-type: none"> <li>· Engage with TFV with regards to the testing and deployment of advanced technologies</li> </ul>

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Program	<b>Improving transport planning and decision making tools</b>
Description	<p>Advocate for improved transport modelling tools, and the wider collection and sharing of data to better assist long-term strategic transport planning and decision making.</p> <p>Transport models and assessment tools are crucial in helping decision-makers to understand existing transport usage and to predict the impact of policy interventions. There are a range of transport models available. SEMITG encourages the ongoing review and development of strategic transport models to ensure that they provide accurate assistance in future planning.</p> <p>Open data and open source software, in conjunction with new crowd sourced data and developments in cloud computing, are providing the materials to revolutionise analytical transport planning and to potentially reduce its costs. Although some headway has been made, this is still a relatively new and rapidly evolving area. The region supports developments in big data and open innovation. Partnerships with Government and Universities will be one way of delivering this, along with other collaborations including with the private sector and third parties.</p>
Key initiatives	<ul style="list-style-type: none"> <li>· Investment in improved transport modelling tools</li> <li>· Support relevant government bodies (TFV, VicRoads, ATV), Universities and the private sector to improve and standardise data capture and analysis</li> </ul>

## 8. Implementing the strategy

### 8.1 Implementation

The South East Transport Strategy is a plan for the region's transport network over the next 10 years. It sets new key directions and strategic actions to support strong growth in the region. It takes into account the significant changes in transport policy and new infrastructure commitments since the previous strategy, to advocate the region's position on transport and related land use policy to Victorian Government. It also intends to aid alignment between the region and Victorian Government investment in transport infrastructure, service improvements, and programs.

The success of the strategy will depend on how well the strategic actions are implemented, monitored and reviewed over the coming years and decades. The region itself will have a limited role in implementation; all programs and projects will require a high degree of support and action from other levels of government and the private sector, who will be largely responsible for achieving them. As custodians of the strategy, the region and its member Council's will contribute through further developing initiatives, producing advocacy documents, as a key stakeholder, partner and facilitator, and by proactively working with other levels of government and the private sector to ensure initiatives delivered by others provide positive outcomes for the region.

It will be the region and its member Council's responsibility to:

- Promote and coordinate activities that relate to implementing the strategy outcomes
- Encourage involvement of all government levels, industry, the private sector and community in achieving the South East's future transport needs
- Actively support those State and Federal initiatives that underpin this strategy
- Develop innovative Council-led initiatives to support the region's transport system
- Monitor and track progress towards achieving the outcomes of the strategy

Action is critical to realising the strategy, and ultimately supporting the lifestyle, environment and economy of the South East.

It is anticipated that implementation will evolve through the delivery of integrated land use and transport plans, as innovative solutions and new ways to manage demands on the networks arise.

### 8.2 Partnerships and engagement

Achieving the strategic directions will be reliant on strong partnerships and engagement across all levels of government, private industry and the community.

The region will continue to explore and develop strategic partnerships with business, government and non-government agencies, and community groups in order to develop and manage the region's transport system. Collaborations with universities and research institutions should be explored, to improve knowledge and access to the latest research, advancements and developments in relevant fields. Similarly, partnerships with industry sectors and others should continue to be strengthened to support the development of smart, innovative and creative solutions.

Private industry is becoming increasingly responsible for the delivery of transport innovations and alternative solutions, particularly in the area of new technologies. Expanding opportunities to embrace and work with private industry will provide a competitive edge in managing future transport demands for the region.

Education and awareness campaigns should be used to engage stakeholders and establish support in the delivery of strategy outcomes. Engagement activities should offer the opportunity for all community members to be involved in the evolution of the region's transport network. Education and awareness of the true cost of car dependence, travel behaviour change initiatives and improved access to active and public transport options across the region will influence these decisions in delivering a more sustainable transport network for the South East.

### **8.3 Review**

The pace of growth and change in Melbourne and the South East requires ongoing monitoring and assessment, as a lot can happen in the space of a few years. This may also change some of the assumptions inherent in this strategy.

While it is anticipated that many of the messages delivered in this strategy will remain relevant, over the longer term priorities may change. This could be as a consequence of changing State and local policy and technological advancements.

SEMITG will continue to monitor the outcomes from this strategy and determine at a future time what changes or upgrades may be required for it to remain relevant.

Table 8.1: Strategy Programs

Ref	Program	Description	Major Contributors	Core Direction	Supporting Directions
1.1	Enhancing freight networks and their efficiency	<p>Advocate for key network connections and upgrades (to key routes and terminals) for local and inter-state freight movements, to support the creation of a safe and secure, efficient, reliable and integrated freight system. Note the projects and proposals in the region’s 2016 Freight Strategy. This includes:</p> <ul style="list-style-type: none"> <li>Western Port Highway corridor upgrade</li> <li>Port Rail Shuttle: Port of Melbourne to proposed Lyndhurst intermodal terminal</li> <li>First- and last- mile connections to industry</li> <li>Westall Road extension - Monash Freeway to Princes Highway</li> <li>North East Link</li> <li>Bass Highway and South Gippsland Highway upgrades</li> <li>Governor Road duplication (Springvale Road to Boundary Road) including replacing the Governor / Boundary Road roundabout with traffic signals</li> </ul> <p>This will require identifying trigger points for upgrades, capacity planning and utilisation of new technology to meet peak demand to the benefit of the region, other metropolitan councils, and through traffic to/from Gippsland.</p>	Victorian Government VicRoads Private Sector		
1.2	Improving the accessibility of employment centres	<p>Advocate for targeted road network upgrades surrounding major employment centres (including the Dandenong and nearby Monash NEICs, health and education precincts, major transport gateways and major activity centres) and connecting to existing heavy rail lines, to support intense development and business interaction by improving access and removing bottlenecks. This includes:</p> <ul style="list-style-type: none"> <li>Glasscocks Road construction - Frankston-Dandenong Road to Cranbourne North, including grade separation of the Cranbourne railway line</li> <li>Thompsons Road extension - Clyde Road to Cardinia Road</li> <li>Dandenong Bypass extension - South Gippsland Highway to South Gippsland Freeway</li> <li>South Gippsland Freeway / M1 Monash Freeway south to east connection</li> <li>Level crossing removals beyond current commitments (priorities for the region include: Racecourse Road, McGregor Road, Brunt Road and Webb Street)</li> </ul>	Victorian Government PTV LXRA VicRoads		

Ref	Program	Description	Major Contributors	Core Direction	Supporting Directions
		Feasibility and planning of the networks, integrated with broader land use and transport planning, would need to be undertaken and a range of transport technologies considered. Design prioritisation should be given to the creation mass transit bus networks and high-quality transport services within job-rich locations such as activity centres.			
1.3	Supporting the logistics of the extractive industry	Establish a coordinated program between State and local governments and industry to safeguard extractive resources, plan for batching and processing locations and ensure that appropriate transport routes are planned for and protected.	Victorian Government VicRoads LGAs Other relevant bodies		
1.4	Support sustainable tourism as a key economic driver	<p>Advocate for key network connections and upgrades that support regional economic growth and investment, driven by higher levels of visitation, longer stays and higher expenditure. This includes:</p> <ul style="list-style-type: none"> <li>· Mornington Peninsula Freeway duplication (Jetty Rd to Boneo Rd) and Southern Peninsula congestion management</li> <li>· Widening Peninsula Link between Eastlink and Frankston-Flinders Road</li> <li>· Cowes to Stoney Point Car Ferry</li> <li>· Phillip Island Road upgrades</li> <li>· Strategic cycling corridors and bicycle trails</li> <li>· Advocating for the development of an airport in the South East in collaboration with regional stakeholders, including supporting and encouraging legislation to preserve land for a general aviation airport and ensuring urban development does not infringe on possible sites, buffer zones or flight paths.</li> </ul> <p>Support this locally through the development of a program of innovative Council-led initiatives targeted at improving access to key tourist destinations across the region.</p> <p>Projects will need to balance access in line with environmental sustainability.</p>	Victorian Government VicRoads LGAs Other relevant bodies		

Ref	Program	Description	Major Contributors	Core Direction	Supporting Directions
2.1	Providing high-quality public transport connections	<p>Advocate for network upgrades and enhancements required to meet future demand for high capacity public transport links in the South East. The first step will require a review of the existing public transport routes and services, to identify priority routes for the delivery of more targeted services and the creation of mass transit bus networks. Priorities should be identified to support land use plans. This includes:</p> <ul style="list-style-type: none"> <li>• Bus network review (including consideration of bus contracts) and investment in revised routes and improved service levels</li> <li>• Employment centre mass transit (BRT) network and SmartBus expansion</li> <li>• Clyde Rail extension and line capacity improvements through to Dandenong</li> <li>• Extend the electrification of the rail line from Frankston to Baxter</li> <li>• Duplication of Lilydale and Belgrave lines (including new Cavehill Station)</li> <li>• Advocate for the delivery of a rail line to Melbourne Airport, linking with both central Melbourne and the south east.</li> </ul>	Victorian Government TFV VicRoads		  
2.2	Increasing mode choice, coverage and flexibility	<p>Support the provision of accessible, affordable, personalised and on-demand transport options to increase mode choice and achieve greater coverage and flexibility of transport services. Encourage investment in walking, cycling and local public transport options that connect with essential services and complement primary public transport routes, particularly in areas where people have fewer travel options, to reduce car dependence, improve local links and maintain adequate transport connectivity across the region. This includes:</p> <ul style="list-style-type: none"> <li>• On-demand transport services - redeployment and expansion of local community transport and taxis (or similar) and exploration of rideshare pick up locations in activity centres</li> </ul>	Victorian Government TFV VicRoads		 
2.3	Enhancing user experience	<p>Advocate for the upgrade of existing infrastructure and the better design of new infrastructure to improve accessibility of the public transport network, reduce barriers to mobility and enhance the user experience. It will focus on identifying and supporting upgrades at key transport interchanges that facilitate faster and easier passenger access and transfers, including for people with mobility challenges, and create an</p>	Victorian Government TFV VicRoads		

Ref	Program	Description	Major Contributors	Core Direction	Supporting Directions
		accessible multi-modal network. In particular, upgrades to meet requirements under the Commonwealth Disability Discrimination Act 1992 are critical.			
3.1	Moving <i>Towards Zero</i>	<p>In collaboration with the TAC, VicRoads and Victoria Police:</p> <ul style="list-style-type: none"> <li>Continue to implement a program to tackle road user safety at accident blackspots across the region; and</li> <li>Build on the initial roll out of the Safer Cycling and Pedestrians Initiative, with a focus on wider expansion to major centres and corridors in the region.</li> </ul> <p>The program could adopt the approach undertaken to date by Mornington Peninsula Shire in establishing their Towards Zero Municipality Initiative, and expand this across the South East region.</p>	TAC VicRoads LGAs		
3.2	Attracting more trips to sustainable modes of transport	<p>Plan and support the delivery of high quality and accessible walking and cycling pathways and infrastructure to encourage more active lifestyle choices and improve the health and wellbeing of residents. Continue working with ATV, VicRoads and other relevant bodies to identify priority routes and key destinations for improvement. Advocate for:</p> <ul style="list-style-type: none"> <li>Accelerated investment in the roll-out of Victoria's Strategic Cycling Corridors and trails; and</li> <li>Increased provision of end-of-trip cycling facilities.</li> </ul>	Victorian Government VicRoads ATV LGAs		
3.3	Reducing the environmental impacts of transport infrastructure	<p>Support measures to minimise transport-related emissions and noise, promoting less harmful forms of transport and improve the environmental performance and energy efficiency of all transport modes.</p> <p>In line with the SEMITG Freight Strategy, advocate for targeted network upgrades, subject to a transparent prioritisation framework, to support a reduction of through traffic and heavy vehicles through regional centres, including the completion of missing links and town bypasses, and traffic calming where appropriate.</p>	Victorian Government TFV VicRoads		



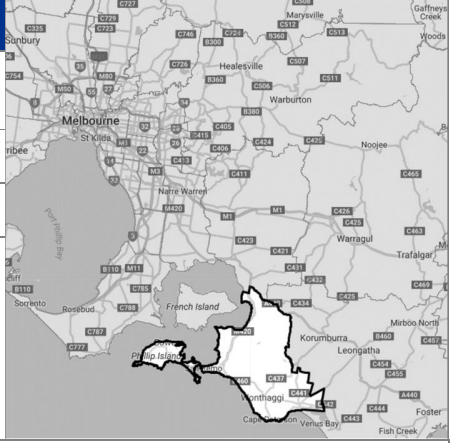




Ref	Program	Description	Major Contributors	Core Direction	Supporting Directions
3.4	Improving transport infrastructure resilience	<p>Advocate to the Victorian Government for improved modelling, network planning and upgrades to address critical infrastructure issues, including building the resilience of ICT, public transport and transport contingency planning. Key initiatives:</p> <ul style="list-style-type: none"> <li>Support the implementation of Victoria's Critical Infrastructure Resilience Strategy and TFVs Network Impact Management Plan.</li> </ul>	Victorian Government TFV VicRoads		
4.1	Expanded strategic road network to support growth	<p>Advocate to the Victorian Government for the roll out of targeted upgrades to the road network, through the development of:</p> <ul style="list-style-type: none"> <li>The South Eastern Roads Upgrade package, and additional key routes.</li> </ul> <p>Works should include completing missing links, widening and duplication of existing roads, grade separations, connections to the freeway/highway network and provision of bus lanes to improve safety and local access for people and goods. It is noted that this will depend on the completion of planning and business case development, as well as funding.</p>	Victorian Government TFV VicRoads		
4.2	Managing demands on the network	<p>Work with the Victorian Government to develop and implement options to improve road network efficiency, including advanced traffic management systems, demand management measures, bus priority lanes, car-pooling, proactive asset management and ongoing maintenance regimes as part of long-term integrated transport planning. These should be supported by innovative behaviour change programs. Key initiatives:</p> <ul style="list-style-type: none"> <li>Behavioural change programs</li> <li>Demand management measures</li> <li>Expanded traffic management systems on key routes</li> <li>Asset management and maintenance</li> </ul>	Victorian Government / Private / LGAs		

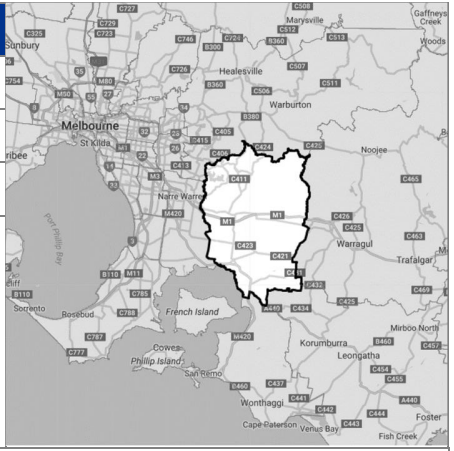




Ref	Program	Description	Major Contributors	Core Direction	Supporting Directions
4.3	Embracing innovations in transport technology	<p>Advocate for regulatory changes to enable the testing and deployment of advanced technologies (such as driverless vehicles) and alternative energies to improve traffic flow, increase the operational efficiency of public transport, expand the range of available transport options and potentially improve the carrying capacity, safety and environmental performance of transport networks. Regularly reviewing, trialling and adopting innovative solutions to meet the needs of the South East will ensure the transport network remains responsive and accessible. This includes:</p> <ul style="list-style-type: none"> <li>Engage with TFV with regards to the testing and deployment of advanced technologies</li> </ul>	<p>Victorian Government Private LGAs</p>		
4.4	Improving transport planning and decision making tools	<p>Advocate for improved transport modelling tools, and the wider collection and sharing of data to support transport planning and decision making. This includes:</p> <ul style="list-style-type: none"> <li>Investment in improved transport modelling tools</li> <li>Support government bodies (TFV, VicRoads, ATV), Universities and the private sector to improve and standardise data capture and analysis</li> </ul>	<p>Victorian Government TFV VicRoads</p>		




## Appendix A. Glossary

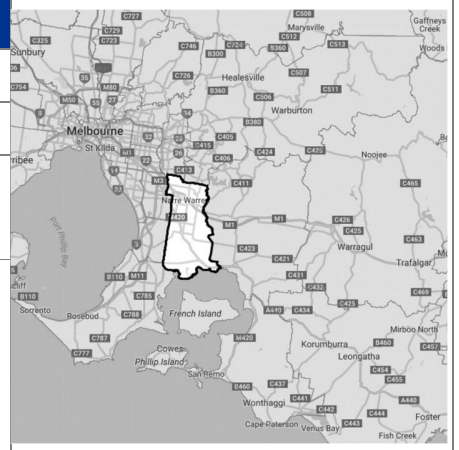
Abbreviation	Description
ATV	Active Transport Victoria
BRT	Bus Rapid Transit
CBD	Central Business District
DDA	Commonwealth Disability Discrimination Act 1992
ETC	Eastern Transport Coalition
GRP	Gross Regional Product
HCMT	High Capacity Metro Trains
ICT	Information and communications technology
IV	Infrastructure Victoria
LGA	Local Government Authority
LXRA	Level Crossing Removal Authority
M1	Monash Freeway
MAC	Metropolitan Activity Centre
NEIC	National Employment and Innovation Cluster
OSAR	Outer Suburban Arterial Roads
PPP	Public Private Partnership
PTV	Public Transport Victoria
SEMITG	South East Melbourne Integrated Transport Group
SSIP	State Significant Industrial Precinct
TAC	Transport Accident Commission
TFV	Transport for Victoria
TIA	Transport Integration Act


## Appendix B. Summary by LGA






<b>Bass Coast</b>		
Land area <small>(id, 2016)</small>	864km <sup>2</sup> including extensive coastal areas. Agricultural land makes up 90% of the Shire.	
Population <small>(ABS, 2016)</small>	33,317 (44,798 by 2031)	
Major centres	Wonthaggi	
Major transport infrastructure	<ul style="list-style-type: none"> <li>• South Gippsland Highway</li> <li>• Bass Highway</li> <li>• Phillip Island Road</li> <li>• Bass Coast Rail Trail</li> </ul>	
What the strategy means for the LGA	<ul style="list-style-type: none"> <li>• Support for one of the fastest growing regional municipalities.</li> <li>• Providing for an ageing population, 28% currently aged 65 and over.</li> <li>• Improving access to significant nature-based tourism assets.</li> <li>• Improving efficiency, productivity and environmental impact of freight movements.</li> <li>• Respond to predicted impact from growth in extractive industries.</li> <li>• Designing and operating transport networks to improve amenity, road safety and reduce impacts on the natural environment.</li> <li>• Provide integrated transport solutions which plan for and connect the growing region</li> </ul>	
Key Programs, Projects and Initiatives		<ul style="list-style-type: none"> <li>• <b>Enhancing freight networks and their efficiency:</b> First- and last-mile connections, Bass Highway and South Gippsland Highway upgrades</li> <li>• <b>Support sustainable tourism as a key economic driver:</b> Bicycle trails; Phillip Island Road upgrades through the implementation of Phillip Island Integrated Transport Strategy, Cowes to Stoney Point Car Ferry</li> </ul>
		<ul style="list-style-type: none"> <li>• <b>Providing high-quality public transport connections:</b> Development of an integrated South-West Gippsland Transport Strategy</li> <li>• <b>Increasing mode choice, coverage and flexibility:</b> On-demand transport services</li> </ul>
		<ul style="list-style-type: none"> <li>• <b>Moving Towards Zero:</b> Address accident blackspots</li> <li>• <b>Attracting more trips to sustainable modes of transport:</b> Victoria's Strategic Cycling Corridors and trails</li> <li>• <b>Reducing the environmental impacts of transport infrastructure:</b> Town bypasses such as Wonthaggi Bypass (Bass Highway through Wonthaggi township)</li> <li>• <b>Improving transport infrastructure resilience</b></li> </ul>
		<ul style="list-style-type: none"> <li>• <b>Managing demands on the network:</b> Behavioural change programs; Demand management; Traffic management systems; Asset management and maintenance</li> <li>• <b>Embracing innovations in transport technology</b></li> <li>• <b>Improving transport planning and decision making tools</b></li> </ul>

<b>Cardinia</b>		
Land area (id, 2016)	1,281km <sup>2</sup>	
Population (ABS, 2016)	97,625 (161,736 by 2031)	
Major centres	Officer and Pakenham	
Major transport infrastructure	<ul style="list-style-type: none"> <li>Princes Highway</li> <li>Pakenham Bypass</li> <li>Pakenham railway line</li> <li>Traralgon railway line (V/Line)</li> </ul>	
What the strategy means for the LGA	<ul style="list-style-type: none"> <li>Support for one of Victoria's fastest-growing municipalities.</li> <li>Providing for a young and growing population.</li> <li>Improving efficiency, productivity and environmental impact of freight movements.</li> <li>Coordinating planning and delivery of transport infrastructure and services in new growth areas (over 65% of residents travel outside the Shire to work)</li> <li>Support sustainable travel behaviour and reduce reliance on the private car (84% drive to work).</li> </ul>	
Key Programs, Projects and Initiatives		<ul style="list-style-type: none"> <li><b>Enhancing freight networks and their efficiency:</b> First- and last-mile connections</li> <li><b>Improving the accessibility of employment centres:</b> Thompsons Road extension - Clyde Road to Cardinia Road; Glasscocks Road construction; Level crossing removals beyond current commitments (i.e. Racecourse Road, McGregor Road, Brunt Road)</li> <li><b>Support sustainable tourism as a key economic driver:</b> South East Airport</li> </ul>
		<ul style="list-style-type: none"> <li><b>Providing high-quality public transport connections:</b> Employment centre mass transit (BRT) network and SmartBus expansion</li> <li><b>Enhancing user experience:</b> Enhance intermodal transfers and public transport accessibility at key interchanges</li> </ul>
		<ul style="list-style-type: none"> <li><b>Moving Towards Zero:</b> Address accident blackspots; Build on the Safer Cycling and Pedestrians Initiative</li> <li><b>Attracting more trips to sustainable modes of transport:</b> Victoria's Strategic Cycling Corridors and trails</li> <li><b>Reducing the environmental impacts of transport infrastructure:</b> Town bypasses such as Lang Lang Bypass (McDonalds Track to Westernport Rd).</li> <li><b>Improving transport infrastructure resilience</b></li> </ul>
		<ul style="list-style-type: none"> <li><b>Strategic infrastructure to support growth:</b> South Eastern Roads Upgrade package, and additional key routes</li> <li><b>Managing demands on the network:</b> Behavioural change programs; Demand management; Traffic management systems; Asset management and maintenance</li> <li><b>Embracing innovations in transport technology</b></li> <li><b>Improving transport planning and decision making tools</b></li> </ul>





Casey	
Land area <small>(id, 2016)</small>	409km2
Population <small>(ABS, 2016)</small>	313,521 people (437,459 by 2031)
Major centres	Berwick, Casey, Central Clyde, Clyde North, Cranbourne, Endeavour Hills, Hampton Park, Fountain Gate-Narre Warren
Major transport infrastructure	<ul style="list-style-type: none"> <li>• Monash Freeway</li> <li>• Princes Highway</li> <li>• South Gippsland Highway</li> <li>• Western Port Highway</li> <li>• Cranbourne railway line</li> </ul>
What the strategy means for the LGA	<ul style="list-style-type: none"> <li>• Support for Victoria's largest and fastest-growing municipality and the dominant growth area for south-east Melbourne.</li> <li>• Providing for a young and growing population, with the largest age group currently 30 to 34 year olds (8%)</li> <li>• Improving efficiency, productivity and environmental impact of freight movements.</li> <li>• Supporting growth of Fountain Gate-Narre Warren metropolitan activity centre</li> <li>• Supporting the growth of Berwick health and education precinct.</li> <li>• Coordinating planning and delivery of transport infrastructure and services in new growth areas (over 70% of residents travel outside the area to work, with nearly 20% travelling to Dandenong)</li> <li>• Support sustainable travel behaviour and reduce reliance on the private car.</li> </ul>
Key Programs, Projects and Initiatives	 <ul style="list-style-type: none"> <li>• <b>Enhancing freight networks and their efficiency:</b> Western Port Highway corridor upgrade; First- and last- mile connections</li> <li>• <b>Improving the accessibility of employment centres:</b> Thompsons Road extension - Clyde Road to Cardinia Road; Glasscocks Road duplication and extension; Dandenong Bypass extension - South Gippsland Highway to South Gippsland Freeway; South Gippsland Freeway / M1 Monash Freeway south to east connection; level crossing removals beyond current commitments (i.e. Webb Street, Narre Warren)</li> </ul>
	 <ul style="list-style-type: none"> <li>• <b>Providing high-quality public transport connections:</b> Employment centre mass transit (BRT) network and SmartBus expansion; Clyde Rail extension</li> <li>• <b>Enhancing user experience:</b> Enhance intermodal transfers and public transport accessibility at key interchanges</li> </ul>
	 <ul style="list-style-type: none"> <li>• <b>Moving Towards Zero:</b> Address accident blackspots; Build on the Safer Cycling and Pedestrians Initiative</li> <li>• <b>Attracting more trips to sustainable modes of transport:</b> Victoria's Strategic Cycling Corridors and trails</li> <li>• <b>Reducing the environmental impacts of transport infrastructure:</b> Town bypasses such as Cranbourne bypass (South Gippsland Highway to Linsell Boulevard), Shives Road-Fullard Road realignment</li> <li>• <b>Improving transport infrastructure resilience</b></li> </ul>

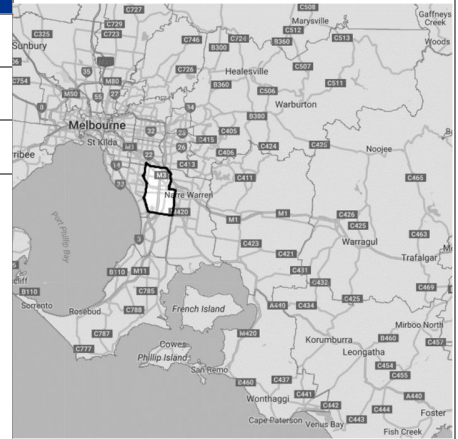


		<ul style="list-style-type: none"><li>• <b>Strategic infrastructure to support growth</b> South Eastern Roads Upgrade package, and additional key routes such as Hallam Road duplication and level crossing removal, Berwick Cranbourne Road duplication and interchange upgrades on north south and east west routes</li><li>• <b>Managing demands on the network:</b> Behavioural change programs; Demand management; Traffic management systems; Asset management and maintenance</li><li>• <b>Embracing innovations in transport technology</b></li><li>• <b>Improving transport planning and decision making tools</b></li></ul>
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<b>Frankston</b>		
Land area (id, 2016)	131km <sup>2</sup>	
Population (ABS, 2016)	139,095 (155,201 by 2031)	
Major centres	Frankston and Karingal	
Major transport infrastructure	<ul style="list-style-type: none"> <li>• Mornington Peninsula Freeway</li> <li>• EastLink</li> <li>• Nepean Highway</li> <li>• Western Port Highway</li> <li>• Frankston and Stoney point railway lines</li> </ul>	
What the strategy means for the LGA	<ul style="list-style-type: none"> <li>• Improving access to foreshore, beach and regional recreation and sports destinations.</li> <li>• Improving efficiency, productivity and environmental impact of freight movements.</li> <li>• Supporting the growth of Frankston health and education precinct and metropolitan activity centre</li> <li>• Addressing social disadvantage and improving accessibility (pockets of high unemployment, Frankston North in particular has unemployment rates of well over 13%).</li> </ul>	
Key Programs, Projects and Initiatives		<ul style="list-style-type: none"> <li>• <b>Enhancing freight networks and their efficiency:</b> First- and last-mile connections</li> <li>• <b>Improving the accessibility of employment centres:</b> Level crossing removals beyond current commitments (i.e. remaining crossings on the Frankston line over time)</li> <li>• <b>Support sustainable tourism as a key economic driver:</b> Widening Peninsula Link; Bicycle trails</li> </ul>
		<ul style="list-style-type: none"> <li>• <b>Providing high-quality public transport connections:</b> Employment centre mass transit (BRT) network and SmartBus expansion, and extend the electrification of the rail line from Frankston to Baxter</li> <li>• <b>Enhancing user experience:</b> Enhance intermodal transfers and public transport accessibility at key interchanges</li> </ul>
		<ul style="list-style-type: none"> <li>• <b>Moving Towards Zero:</b> Address accident blackspots; Build on the Safer Cycling and Pedestrians Initiative</li> <li>• <b>Attracting more trips to sustainable modes of transport:</b> Victoria's Strategic Cycling Corridors and trails</li> <li>• <b>Reducing the environmental impacts of transport infrastructure:</b> Town bypasses</li> <li>• <b>Improving transport infrastructure resilience</b></li> </ul>
		<ul style="list-style-type: none"> <li>• <b>Managing demands on the network:</b> Behavioural change programs; Demand management; Traffic management systems; Asset management and maintenance (key location: congestion at the Eastlink and Mornington Peninsula Freeway interchange)</li> <li>• <b>Embracing innovations in transport technology</b></li> <li>• <b>Improving transport planning and decision making tools</b></li> </ul>






Greater Dandenong	
Land area (id, 2016)	129km <sup>2</sup>
Population (ABS, 2016)	160,972 (193,591 by 2031)
Major centres	Dandenong, Springvale, Keysborough
Major transport infrastructure	<ul style="list-style-type: none"> <li>• Monash Freeway</li> <li>• Princes Highway</li> <li>• Mornington Peninsula Freeway</li> <li>• EastLink</li> <li>• Dandenong Bypass</li> <li>• Western Port Highway</li> <li>• Dandenong, Pakenham and Cranbourne railway lines and grade separations</li> </ul>
What the strategy means for the LGA	<ul style="list-style-type: none"> <li>• Support growth and accessibility of Dandenong NEIC and metropolitan activity centre</li> <li>• Improving efficiency, productivity and environmental impact of freight movements.</li> <li>• Designing and operating transport networks to improve amenity, road safety and reduce impacts on the natural environment.</li> <li>• Support sustainable travel behaviour and reduce reliance on the private car.</li> </ul>
Key Programs, Projects and Initiatives	 <ul style="list-style-type: none"> <li>• <b>Enhancing freight networks and their efficiency:</b> Western Port Highway corridor upgrade; Port Rail Shuttle: Port of Melbourne to proposed Lyndhurst intermodal terminal; First- and last-mile connections; Westall Road extension - Monash Freeway to Princes Highway</li> <li>• <b>Improving the accessibility of employment centres:</b> Glasscocks Road construction; Dandenong Bypass extension - South Gippsland Highway to South Gippsland Freeway; South Gippsland Freeway / M1 Monash Freeway south to east connection; Bangholme Road upgrade including interchange with EastLink</li> </ul>
	 <ul style="list-style-type: none"> <li>• <b>Providing high-quality public transport connections:</b> Employment centre mass transit (BRT) network and SmartBus expansion</li> <li>• <b>Enhancing user experience:</b> Enhance intermodal transfers and public transport accessibility at key interchanges e.g. Dandenong</li> </ul>
	 <ul style="list-style-type: none"> <li>• <b>Moving Towards Zero:</b> Address accident blackspots; Build on the Safer Cycling and Pedestrians Initiative</li> <li>• <b>Attracting more trips to sustainable modes of transport:</b> Victoria's Strategic Cycling Corridors and trails including between Yarraman and Dandenong stations</li> <li>• <b>Improving transport infrastructure resilience</b></li> </ul>
	 <ul style="list-style-type: none"> <li>• <b>Managing demands on the network:</b> Behavioural change programs; Demand management; Traffic management systems; Asset management and maintenance</li> <li>• <b>Embracing innovations in transport technology</b></li> </ul>

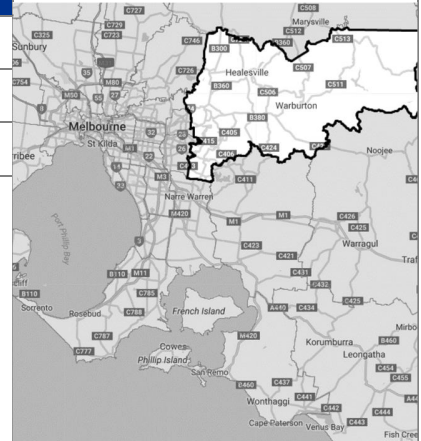


		<ul style="list-style-type: none"> <li>Improving transport planning and decision making tools</li> </ul>
<b>Kingston</b>		
Land area (id, 2016)	91km <sup>2</sup>	
Population (ABS, 2016)	159,023 (182,718 by 2031)	
Major centres	Chelsea, Cheltenham, Cheltenham-Southland, Mentone, Moorabbin, and Mordialloc	
Major transport infrastructure	<ul style="list-style-type: none"> <li>Nepean Highway</li> <li>Dingley Bypass</li> <li>Frankston railway line</li> <li>Pakenham and Cranbourne railway lines</li> <li>Moorabbin Airport</li> </ul>	
What the strategy means for the LGA	<ul style="list-style-type: none"> <li>Supporting a major employment destination</li> <li>Improving efficiency, productivity and environmental impact of freight movements.</li> <li>Supporting major transport gateways: Moorabbin Airport</li> <li>Designing and operating transport networks to improve amenity, road safety and reduce impacts on the natural environment.</li> <li>Support sustainable travel behaviour.</li> </ul>	
Key Programs, Projects and Initiatives		<ul style="list-style-type: none"> <li><b>Enhancing freight networks and their efficiency:</b> First- and last-mile connections; Westall Road extension - Monash Freeway to Princes Highway; Governor Road duplication</li> <li><b>Improving the accessibility of employment centres:</b> Level crossing removals beyond current commitments</li> </ul>
		<ul style="list-style-type: none"> <li><b>Providing high-quality public transport connections:</b> Employment centre mass transit (BRT) network and SmartBus expansion</li> <li><b>Enhancing user experience:</b> Enhance intermodal transfers and public transport accessibility at key interchanges</li> </ul>
		<ul style="list-style-type: none"> <li><b>Moving Towards Zero:</b> Address accident blackspots; Build on the Safer Cycling and Pedestrians Initiative</li> <li><b>Attracting more trips to sustainable modes of transport:</b> Victoria's Strategic Cycling Corridors and trails</li> <li><b>Improving transport infrastructure resilience</b></li> </ul>
		<ul style="list-style-type: none"> <li><b>Managing demands on the network:</b> Behavioural change programs; Demand management; Traffic management systems; Asset management and maintenance</li> <li><b>Embracing innovations in transport technology</b></li> <li><b>Improving transport planning and decision making tools</b></li> </ul>

Mornington Peninsula	
Land area <small>(id, 2016)</small>	723km <sup>2</sup> of which 70% is green wedge, with coastal boundaries of over 190kms (10% of Victoria's total coastline)
Population <small>(ABS, 2016)</small>	160,862 (181, 839 by 2031)
Major centres	Hastings, Mornington and Rosebud
Major transport infrastructure	<ul style="list-style-type: none"> <li>• Nepean Highway/Point Nepean Road</li> <li>• Mornington Peninsula Freeway</li> <li>• Western Port Highway</li> <li>• Frankston railway line</li> <li>• Stony Point railway line</li> <li>• Port of Hastings</li> <li>• Bay Trail</li> </ul>
What the strategy means for the LGA	<ul style="list-style-type: none"> <li>• Providing for an ageing population, contains the region's highest proportion of people aged 65 and over.</li> <li>• Improving access to significant nature-based tourism assets.</li> <li>• Catering for seasonal traffic (increase in population of up to 30% in summer months and 2.5 times increase in arterial road traffic).</li> <li>• Improving efficiency, productivity and environmental impact of freight movements, particularly to the industrial and port area of Hastings.</li> <li>• Designing and operating transport networks to improve amenity, road safety and reduce impacts on the natural environment.</li> </ul>
Key Programs, Projects and Initiatives	 <ul style="list-style-type: none"> <li>• <b>Enhancing freight networks and their efficiency:</b> First- and last-mile connections</li> <li>• <b>Support sustainable tourism as a key economic driver:</b> Bicycle trails; Mornington Peninsula Freeway duplication (Jetty Road to Boneo Road) and Southern Peninsula congestion management</li> </ul>
	 <ul style="list-style-type: none"> <li>• <b>Providing high-quality public transport connections:</b> Bus network review (including consideration of bus contracts) and investment in revised routes and improved service levels</li> <li>• <b>Increasing mode choice, coverage and flexibility:</b> On-demand transport services</li> </ul>
	 <ul style="list-style-type: none"> <li>• <b>Moving Towards Zero:</b> Address accident blackspots; Build on the Safer Cycling and Pedestrians Initiative</li> <li>• <b>Attracting more trips to sustainable modes of transport:</b> Victoria's Strategic Cycling Corridors and trails</li> <li>• <b>Improving transport infrastructure resilience</b></li> </ul>
	 <ul style="list-style-type: none"> <li>• <b>Managing demands on the network:</b> Behavioural change programs; Demand management; Traffic management systems; Asset management and maintenance</li> <li>• <b>Embracing innovations in transport technology</b></li> <li>• <b>Improving transport planning and decision making tools</b></li> </ul>



Yarra Ranges	
Land area (id, 2016)	2,470km <sup>2</sup>
Population (ABS, 2016)	155,312 (170,305 by 2031)
Major centres	Chirnside Park and Lilydale
Major transport infrastructure	<ul style="list-style-type: none"> <li>• Maroondah Highway</li> <li>• Melba Highway</li> <li>• Warburton Highway</li> <li>• Canterbury Road</li> <li>• Lilydale railway line</li> <li>• Belgrave railway line</li> <li>• Lilydale to Warburton and Carrum to Warburton rail trails</li> </ul>
What the strategy means for the LGA	<ul style="list-style-type: none"> <li>• Support for Victoria's largest LGA.</li> <li>• Improving accessibility for a large number of families and young people.</li> <li>• Improving access to significant nature-based tourism assets, such as the Dandenong Ranges and the Upper Yarra Valley, which attract over 4 million visitors each year.</li> <li>• Improving efficiency, productivity and environmental impact of freight movements.</li> <li>• Improving accessibility to employment destinations (57% work outside the municipality)</li> <li>• Designing and operating transport networks to improve amenity, road safety and reduce impacts on the natural environment.</li> </ul>
Key Programs, Projects and Initiatives	 <ul style="list-style-type: none"> <li>• <b>Enhancing freight networks and their efficiency:</b> First- and last- mile connections</li> <li>• <b>Support sustainable tourism as a key economic driver:</b> Bicycle trails</li> </ul>
	 <ul style="list-style-type: none"> <li>• <b>Providing high-quality public transport connections:</b> Bus network review (including consideration of bus contracts) and investment in revised routes and improved service levels; duplication of Lilydale and Belgrave lines</li> <li>• <b>Increasing mode choice, coverage and flexibility:</b> On-demand transport services</li> </ul>
	 <ul style="list-style-type: none"> <li>• <b>Moving Towards Zero:</b> Address accident blackspots; Build on the Safer Cycling and Pedestrians Initiative</li> <li>• <b>Attracting more trips to sustainable modes of transport:</b> Victoria's Strategic Cycling Corridors and trails</li> <li>• <b>Reducing the environmental impacts of transport infrastructure:</b> Town bypasses such as Lilydale Bypass (Maroondah Hwy to Anderson St) and Belgrave Bypass - Deviation of Main Street</li> <li>• <b>Improving transport infrastructure resilience</b></li> </ul>



## Final Transport Strategy



- **Managing demands on the network:** Behavioural change programs; Demand management; Traffic management systems; Asset management and maintenance
- **Embracing innovations in transport technology**
- **Improving transport planning and decision making tools**