SOUTH EAST QUEENSLAND

NORTH COAST · METROPOLITAN · SOUTH COAST

DRAFT REGIONAL TRANSPORT PLANS 2018







Travelling by Gilimbaa

We acknowledge the Traditional Owners and Custodians of the land to which this plan applies and pay our respects to their Elders both past and present.

The Department of Transport and Main Roads wishes to acknowledge the valuable input and contribution from our local government partners to develop this plan:

- Brisbane City Council
- City of Gold Coast
- Ipswich City Council
- Logan City Council
- Moreton Bay Regional Council
- Noosa Shire Council
- Redland City Council
- Scenic Rim Regional Council
- Somerset Regional Council
- Sunshine Coast Council.

© State of Queensland (Department of Transport and Main Roads) 2018.

http://creativecommons.org.licences/by/4.0/



This work is licensed under a Creative Commons Attribution 4.0 Licence. You are free to copy, communicate and adapt the work, as long as you attribute the authors.

The Queensland Government supports and encourages the dissemination and exchange of information. However, copyright protects this publication. The State of Queensland has no objection to this material being reproduced, made available online or electronically but only if it's recognised as the owner of the copyright and this material remains unaltered.



The Queensland Government is committed to providing accessible services to Queenslanders of all cultural and linguistic backgrounds.

If you have difficulty understanding this publication and need a translator, please call the Translating and Interpreting Service (TIS National) on 13 14 50 and ask them to telephone the Queensland Department of Transport and Main Roads on 13 74 68.

Disclaimer: While every care has been taken in preparing this publication, the State of Queensland accepts no responsibility for decisions or actions taken as a result of any data, information, statement or advice, expressed or implied, contained within. To the best of our knowledge, the content was correct at the time of publishing.

Cover images: Traffic on the M1 and South East Busway; Noosa Beach; Brisbane River; Cyclists in the Gold Coast.

CONTENTS

1. Intro	oduction	4
1.1	A shared direction	6
1.2	What is a Regional Transport Plan	6
1.3	Strategic alignment	8
1.4	Alignment with the State Infrastructure Plan	8
1.5	Alignment with the Transport Coordination Plan	10
1.6	Alignment with the State Planning Policy	10
1.7	Alignment with regional planning	11
1.7.1	South East Queensland Regional Plan 2017 (ShapingSEQ)	11
1.8	Australian Government City Deals Program	12
1.9	Achievements to date	13
1.10	Developing Regional Transport Plans	14
1.10.1	Planning principles	14
1.10.2	Process	15
1.10.3	Customer-first approach	15
1.10.4	One network	16
1.10.5	Structure	16
2. Sou	th East Queensland	18
2 1	South Fast Queensland overview	20
2.1	South East Queensland transport network	24
2.2.1	Active transport	24
2.2.2	Public transport	24
2.2.2	Freight	24
2.2.4	Roads	25
2.2.5	Air	25
2.3	Challenges and opportunities for SEQ's transport network	26
3. Sou	th East Queensland's goals, priorities and objectives	30
31	South Fast Queensland goals priorities and objectives	32
3.2	Future network	72 76
3.3	Measures of success	40
رىر		47
4. Nor	th Coast Regional Transport Plan	52
4.1	Regional overview	54
4.1.1	Projected population and employment growth	60
4.1.2	Regional economic and growth areas	62
4.1.3	Region shaping projects	63
4.2	Regional transport network	64
4.2.1	Current regional transport network	64
4.2.2	Transport challenges in the North Coast region	66
4.3	What do the priorities and objectives mean for the North Coast region?	70
4.3.1	Priority 1: Grow – A transport system that supports a consolidated and sustainable urban structure	71
4.3.2	Priority 2: Prosper – A transport system that supports the economic competitiveness of the region	7/-
4.3.3	Priority 3: Sustain – A transport system that contributes to the environmental sustainability and resilience	/4
	OF THE REGION	77
4.3.4	and liveable communities for everyone	79

5. Met	ropolitan Regional Transport Plan	82
5.1	Regional overview	84
5.1.1	Projected population and employment growth	89
5.1.2	Regional economic and growth areas	91
5.1.3	Region shaping projects	92
5.2	Regional transport network	92
5.2.1	Current regional transport network	92
5.2.2	Transport challenges in the Metropolitan region	95
5.3	What do the priorities and objectives mean for the Metropolitan region?	102
5.3.1	Priority 1: Grow – A transport system that supports a consolidated and sustainable urban structure	103
5.3.2	Priority 2: Prosper – A transport system that supports the economic competitiveness of the region	107
5.3.3	Priority 3: Sustain – A transport system that contributes to the environmental sustainability and resilience of the region	110
5.3.4	Priority 4: Live – A transport system that supports safe and liveable communities for everyone	112
6. Sou	th Coast Regional Transport Plan	118
6.1	Regional overview	120
6.1.1	Projected population and employment growth	125
6.1.2	Regional economic and growth areas	127
6.1.3	Region shaping projects	128
6.2	Regional transport network	129
6.2.1	Current regional transport network	129
6.2.2	Transport challenges in the South Coast region	130
6.3	What do the priorities and objectives mean for the South Coast region?	136
6.3.1	Priority 1: Grow – A transport system that supports a consolidated and sustainable urban structure	137
6.3.2	Priority 2: Prosper – A transport system that supports the economic competitiveness of the region	140
6.3.3	Priority 3: Sustain – A transport system that contributes to the environmental sustainability and resilience of the region	143
6.3.4	Priority 4: Live – A transport system that supports safe and liveable communities for everyone	145
7. Imp	lementation	148
7.1	Taking action	150
7.2	Delivering in partnership	151
7.3	Monitoring and review	152





1.1 A shared direction

This suite of Regional Transport Plans (the Plans) for South East Queensland (SEQ) includes the North Coast, Metropolitan and South Coast regions. Together, these Plans outline a shared direction for the transport system within these three regions and the wider SEQ area over the next 15 years.

The Plans were developed in consultation with local government and SEQ stakeholders, with input from customers and industry. The Department of Transport and Main Roads will continue to work in partnership with all levels of government, the community and industry to implement the Plans and achieve the shared goals for each region and SEQ.

The Plans cover all modes of transport with a focus on the networks and services in the region and acknowledgement of the inter-regional, interstate and international connections that are vital to social and economic prosperity within these regions and the wider SEQ.

SEQ is home to more than 3.5 million people and includes 12 local government areas: Brisbane, Gold Coast, Ipswich, Lockyer Valley, Logan, Moreton Bay, Noosa, Redland, Scenic Rim, Somerset, Sunshine Coast and Toowoomba (urban extent).

1.2 What is a Regional Transport Plan

The purpose of each Regional Transport Plan is to set out regional transport priorities and actions for developing the transport system in a way that supports regional goals for the community, economy and environment.

The Plans have been developed in accordance with the *Transport Planning and Coordination Act 1994* and meet the department's legislative responsibility to develop integrated Regional Transport Plans that complement land use planning and support the goals and objectives of regional plans.

Regional Transport Plans are a fundamental component in the hierarchy of integrated system planning. They have an essential role in defining local responses to wider community goals, system objectives, problems and priorities, through the development of policy choices and transport system strategies at a regional level.

The approach to developing Regional Transport Plans is aligned with the *Australian Transport Assessment and Planning Guidelines* for best practice transport assessment and planning (Figure 1).

The regional policy choices and system strategies expressed are used to:

- inform more detailed planning or investigations at a network, area, corridor, route or link level
- guide development, assessment and selection of specific investment solutions.



Figure 1: Examples of how Queensland responds to the Australian Transport Assessment and Planning hierarchy

These Plans support the department's vision of 'creating a single integrated transport network accessible to everyone' through:

- guiding and coordinating effort towards common transport priorities
- communicating the long-term planning intent for the regions and SEQ
- defining the transport system's role and priorities to achieve regional goals

- recognising collaboration with local governments as critical to 'one network' transport planning
- guiding future planning and investment in partnership with others.

The Plans will be used by Transport and Main Roads to inform investment decisions to develop the regional transport network.





Port of Brisbane

1.3 Strategic alignment

These Plans have been developed in the context of policies, strategies, plans and investment frameworks across all levels of government (see Table 2). These policy and planning documents are reflected in the objectives, challenges, opportunities and priorities identified in the Plans.

The Regional Transport Plans align with:

- State Infrastructure Plan
- State Planning Policy
- South East Queensland Regional Plan (ShapingSEQ)
- Connecting Brisbane
- local government land use and transport plans and strategies
- economic development strategies
- the Australian Government's City Deals program and Australian Infrastructure Plan (prepared by Infrastructure Australia).

The Plans respond to customer needs, as well as the goals and directions of the community, industry and all levels of government.

Transport and Main Roads also produces statewide strategies and plans that guide coordinated outcomes for transport networks and services across Queensland. These high-level plans set the broader framework for taking action at the regional and local level. Key planning documents include:

- Transport Coordination Plan 2017–2027
- 'Queensland Transport Strategy' (draft)
- Transport and Main Roads Strategic Plan 2016–2020
- 'Queensland Freight Strategy' (draft)
- Moving People Connecting Communities
- Safer Roads, Safer Queensland: Queensland's Road Safety Strategy 2015–2021
- Queensland Cycling Strategy 2017–2027 and SEQ Principal Cycle Network Plan
- 'Heavy Vehicle Network Plan' (draft)
- Bruce Highway Action Plan.

Priorities and actions identified in the Plans align with current statewide transport policies and objectives. The department regularly reviews and updates statewide strategies and plans. Future updates to these Regional Transport Plans will reflect any additional or amended statewide plans and strategies.

1.4 Alignment with the State Infrastructure Plan

The *State Infrastructure Plan* outlines the Queensland Government's strategic direction for the planning, investment and delivery of infrastructure throughout Queensland. These Regional Transport Plans apply the transport investment policy objectives of the *State Infrastructure Plan* at a regional level.

The Queensland Government's strategic direction for transport infrastructure is expressed by the *State Infrastructure Plan* responses (Table 1). Accordingly, many of the planning actions in the Plans respond to these with a particular focus on improving supply chains, safer connections between regional centres and better use of data and technology.

TRANSPORT					
Focus on maintenance and rehabilitation of existing infrastructure to reduce the long-term cost of repair and improve network resilience.	Unlock the potential of critical supply chains by identifying and improving the freight network.	Seek innovation and technology solutions to create a better performing and lower emissions transport system.	Seek public transport solutions including demand management to address the strong growth of SEQ.	Digitally connected smart infrastructure to improve capacity, safety and security.	Connect regional communities with access to essential services and opportunities.

Table 1: State Infrastructure Plan responses (Part A, p52)

Metropolitan

Table 2: The strategic fit of Regional Transport Plans

FRAMEWORK ELEMENT	DIRECTION SETTING	STRATEGIC PLANNING	PROGRAMMING (including investment)	DELIVERING
	Establish broad, high- level strategic intent or policy positions	Develop plans or strategies to focus on key themes or areas	ldentify, evaluate, prioritise and program initiatives including addressing funding/investment requirements, competing needs and timeframes	Provide services and infrastructure such as public transport, bridges and tunnels, maintenance, regulation and compliance/ monitoring activities
National	 Australian Infrastructure Plan Regional Development Australia A More Innovative and Agile Australia Framework for a National Strategy on Climate, Health and Wellbeing Smart Cities Plan 	 Australian Transport and Assessment Planning Guidelines Infrastructure Australia's Infrastructure Priority List National Land Freight Strategy Infrastructure Australia's Urban Transport Strategy Australia's 2030 Climate Change Target 	 Infrastructure Investment Program National Land Transport Network investment strategies Building Better Regions Fund Roads to Recovery Program National Rail Program City Deals 	 Gateway Upgrade North 'Fix the Bruce' – Bruce Highway upgrades Mount Lindesay Highway upgrade
Queensland Government	 Objectives for the community Advance Queensland State Planning Policy Smarter Infrastructure for Queensland Digital 1st Strategy 	 ShapingSEQ: South East Queensland Regional Plan 2017 State Infrastructure Plan, Part A Building Queensland's Infrastructure Pipeline Connecting Brisbane Queensland Cycling Strategy 2017-2027 	 Project Assessment Framework State Infrastructure Plan, Part B Building Queensland Business Case Assessment Bruce Highway Action Plan 	 Bridges renewal Program Cross River Rail
Departmental	 Transport Coordination Plan 2017-2027 'Queensland Transport Strategy' (draft) Transport and Main Roads Strategic Plan 2016-2020 	 Regional Transport Plans System strategies and plans (e.g. rail, ports, freight, passenger, road safety) Area and corridor transport strategies Route and link plans Principal cycle network plans 	 10-year transport infrastructure portfolio investment planning Queensland Transport and Roads Investment Program (QTRIP) Highway investment strategies Transport System Planning Program Beerburrum to Nambour Rail upgrade planning 	 Transport service contracts Transport Infrastructure Development Scheme Safer Roads Sooner Service delivery statements Logan Motorway upgrades New generation six-car trains Gold Coast Light Rail
Local	 Vision statements Strategic/corporate plans 	 Planning schemes Local area plans Local transport plans 	 Local government infrastructure plans Local government investment and works programs 	 Local roads, bikeway and footpath projects Active school travel programs Council cabs Ferry services

1.5 Alignment with the Transport Coordination Plan

The *Transport Coordination Plan 2017–2027* (TCP) provides a strategic framework for the planning and management of transport resources in Queensland over a 10-year timeframe. The plan was developed in accordance with the requirements of the *Transport Planning and Coordination Act 1994* and identifies the high-level objectives for transport in Queensland, across five key areas:

- Customer experience and affordability transport meets the needs of all Queenslanders, now and into the future.
- Community connectivity transport connects communities to employment and vital services.
- Efficiency and productivity transport facilitates the efficient movement of people and freight to grow Queensland's economy.
- Safety and security transport is safe and secure for customers and goods.
- Environment and sustainability transport contributes to a cleaner, healthier and more liveable environment and is resilient to Queensland's weather extremes.

The TCP provides a suite of transport key performance indicators (KPIs) to measure progress towards these objectives and also includes clear criteria for prioritising spending on transport that align with the *State Infrastructure Plan's* options assessment approach.

The TCP is the overarching medium-term strategic document that provides guidance and direction for more detailed transport strategies and plans produced by Transport and Main Roads, such as Regional Transport Plans and modal strategies. The plan is consistent with the Queensland Government's overall strategic planning for Queensland, including the government's objectives for the community and the *State Infrastructure Plan*.

The system-wide transport objectives articulated in the TCP have informed the Plans' priorities and corresponding transport objectives, actions and measures of success. The TCP transport KPIs provided a means to measure the impact the Regional Transport Plan has on the region's transport system – and what this means for customers, the community, the economy and the environment.

1.6 Alignment with the State Planning Policy

The *State Planning Policy* outlines the Queensland Government's interests in land use planning and development for Queensland. It identifies and seeks to protect, through the planning framework, three state transport interests: state transport infrastructure; strategic airports and aviation facilities; and strategic ports.

Within the North Coast, Metropolitan and South Coast regions, the *State Planning Policy* identifies the following:

- State transport infrastructure these include state-controlled roads, railways and other public transport infrastructure.
- Strategic airports Archerfield, Brisbane, Gold Coast (Coolangatta), RAAF Base Amberley and Sunshine Coast.
- Strategic ports Port of Brisbane.



Brisbane Airport

1.7 Alignment with regional planning

The Queensland Government produces statutory regional plans to provide strategic direction and policies to deliver regional outcomes which align with the state's interests in land use planning and development. They aim to ensure that a consistent framework is operating across all of Queensland, integrating federal, state and local government planning agendas and linking infrastructure and service provision.

1.7.1 South East Queensland Regional Plan 2017 (*ShapingSEQ*)

In August 2017, the then Department of Infrastructure, Local Government and Planning (DILGP) released the *South East Queensland Regional Plan (ShapingSEQ)* which was developed with extensive community, industry and local government collaboration. *ShapingSEQ* sets a 50-year vision and 25-year statutory planning framework for SEQ.

Regional planning and regional transport planning in SEQ are comparatively mature. *ShapingSEQ* is the third statutory regional plan developed for SEQ. These Regional Transport Plans for SEQ (also in their third iteration) replace the previous regional transport plan, *Connecting SEQ 2031*.

The alignment between *ShapingSEQ* and the Regional Transport Plans for SEQ is shown in Figure 2.

The North Coast, Metropolitan and South Coast Regional Transport Plans, as part of the South East Queensland Regional Transport Plans, provide a transport planning response to support the *ShapingSEQ* goals of grow, prosper, connect, sustain and live. Connect—moving people and products efficiently—has been adopted as the overarching mandate for the *SEQ Regional Transport Plans*. The Transport and Main Roads regions in SEQ differ from those within *ShapingSEQ* as outlined in Figure 3 (on page 12). The Regional Transport Plans (Chapters 4 to 6) are structured in line with Transport and Main Roads regions to facilitate effective delivery of actions.

While the strategic context (Chapters 2 and 3) of this document considers the whole of SEQ as defined in *ShapingSEQ*. The western extent (Toowoomba and Lockyer Valley) within the *ShapingSEQ* western sub-region is dealt with in detail as part of the *Darling Downs Regional Transport Plan*.

These Regional Transport Plans align and integrate with *ShapingSEQ* by:

- leveraging the same community engagement inputs
- reflecting the same goals and regional intents
- using the same sources of population and employment data
- using the same activity centres, Regional Economic Clusters, major enterprise and industrial areas to inform connectivity in the trunk passenger transport network
- aligning the planned strategic passenger transport system with the connect goal
- aligning the strategic road and freight system
- favouring active transport for a range of trips
- considering the sub-regional outcomes as part of actions and opportunities.



Figure 2: Alignment of ShapingSEQ and Regional Transport Plans





Figure 3: Relationship of local government areas – Regional Transport Plan region boundaries and ShapingSEQ sub-region boundaries

1.8 Australian Government City Deals Program

The *Smart Cities Plan* sets out the Australian Government's vision for cities and aims to maximise their potential. It includes three pillars: smart investment; smart policy; smart technology. To deliver the *Smart Cities Plan*, the Australian Government will invite state and territory governments to partner on City Deals. City Deals seek to bring together the three levels of government to adopt a shared vision for growth, reform and investment in cities.

In the 2017 Federal Budget, the Australian Government committed to working with the Queensland Government and SEQ Council of Mayors to develop an SEQ City Deals strategy – which the Queensland Government sees as the first step to a comprehensive City Deal for SEQ. Development of an SEQ City Deal is at an early stage. Ongoing development and refinement of the City Deal will respond to the clear economic narrative and investment priorities identified within *ShapingSEQ*, these Regional Transport Plans, the *State Infrastructure Plan*, annual budget processes and the wider priorities of all three tiers of government. Transport projects identified for investment or investigation under the City Deal will be considered in the priorities and objectives of these Regional Transport Plans.

1.9 Achievements to date

Transport and Main Roads have reflected on the transport principles outlined in previous *SEQ Regional Transport Plans*, along with other strategic direction setting documents and delivered the following transport network improvements in the region.

Cycling

- SEQ Principal Cycle Network Plan.
- V1 (Veloway Brisbane City to Gateway).
- North Brisbane Bikeway.
- A bicycle bridge at the Moggill Road Interchange.

Passenger Transport

- *Connecting Brisbane*, a roadmap for the future of Brisbane's public transport system.
- Extension of the South East Busway south of Eight Mile Plains.
- Eastern Busway, connecting the South East Busway at Buranda to Main Avenue at Coorparoo.
- Northern Busway extension from Royal Children's Hospital from Windsor and Lutwyche to Kedron.
- Springfield Passenger rail line, running 14 kilometres from Darra to Springfield including three new stations.
- Redcliffe Peninsula rail line, including 12.6 kilometres of new rail line, six new stations and one upgraded station and a shared pedestrian cycle path along full extent of track.
- Gold Coast Rapid Transit (G:Link light rail), Stage 1— Griffith University, Southport to Broadbeach, and Stage 2—connecting existing light rail at Southport to heavy rail at Helensvale.
- Duplication of the Gold Coast line, between Coomera and Helensvale.

Bruce Highway

- Cooroy to Curra, upgrade to four-lane divided.
- Caloundra Road to Sunshine Motorway, upgrade to six-lane divided, interchange upgrades and new service road.
- Interchange upgrades at Boundary, Pumicestone and Bribie Island Roads.

Pacific Motorway

- Tugun upgrade and bypass, connecting to NSW Pacific Highway upgrade.
- Coomera Interchange (Exit 54) upgrade.
- Springwood South to Daisy Hill, reconstruction of a 3.3 kilometre section, including the signalisation of the Loganlea Road intersection and development of the Slacks Creek park 'n' ride.
- Nerang to Varsity Lakes, additional lanes and interchange upgrades.

Ipswich Motorway

- Eight kilometre upgrade Dinmore to Goodna, including cycleway.
- Upgrade, Wacol to Darra, including the Centenary Motorway and Ipswich Motorway Interchange.
- Ipswich Motorway/Logan Motorway Interchange upgrade.

Other road links

- Gateway Motorway upgrade, Pacific Motorway to Nudgee Road, including Sir Leo Hielscher Bridge duplication.
- Logan Motorway upgrade, Ipswich Motorway to Pacific Motorway.
- Port of Brisbane Motorway, Lindum Street to Pritchard Street.
- Centenary Highway duplication, Ipswich Motorway to Logan Motorway.
- Centenary Highway duplication, Springfield to Logan Motorway.
- Smith Street Motorway, Pacific Motorway to Olsen Avenue, additional lanes.
- Airport Link
- East West Arterial upgrade from Sandgate Road to Airport Drive, including a new interchange at Southern Cross Way.
- Legacy Way.

1.10 Developing Regional Transport Plans

1.10.1 Planning principles

All levels of government routinely face increasing pressure to fund more public services and infrastructure in order to meet community expectations. Funding is limited, so competing priorities must be continually balanced.

Regional Transport Plans will help to achieve this in several ways:

- by identifying the region-centric planning required to inform good investment decisions – a focus at this level helps to ensure that funds are prioritised to meet regional needs and customer expectations
- by promoting consideration of non-infrastructure solutions which are often more cost-effective than building new infrastructure
- by helping to identify and align cross-agency priorities and actions to promote efficient and coordinated planning and investment.

Regional Transport Plans are being developed with the view that solutions to transport challenges and customer needs and requirements are not always about building or expanding existing infrastructure, but include identifying new and innovative ways to do more with less. The best outcome may not be a new road or other type of transport facility. Instead, it may be modification of an existing asset, for example, reconfiguring a road to accommodate bicycle or bus lanes.

Consideration of lower cost and non-infrastructure solutions within planning and investment decisionmaking processes ensures we are getting the most from our existing assets and using infrastructure smarter and more efficiently than before. Identifying shared goals and partnership opportunities across government and the private sector positions the region to achieve more with available funding. Transport and Main Road's approach to identifying, prioritising and investing in transport system solutions aligns to the *State Infrastructure Plan*'s options assessment approach as shown in Figure 4.



The State Infrastructure Plan options assessment approach to infrastructure investment



Figure 4: Alignment between the departmental and government approaches to infrastructure investment

1.10.2 Process

The North Coast, Metropolitan and South Coast Regional Transport Plans were developed with a 'customer-first' and 'one network' approach. Early engagement with customers, stakeholders and partners was vital to identify and understand the region's issues, challenges, opportunities, goals and priorities for taking action. Key stages in the development process are set out in Figure 5.

1.10.3 Customer-first approach

A 'customer-first' approach is about being conscious of how customers experience the transport system and being willing to change the way we do things to improve that experience. It also means viewing the transport system as customers do: as 'one network', with little perceivable difference between the various parts provided or managed by the different levels of government.

Transport and Main Roads' customer-first approach is central to the way it does business. The approach is about shaping deliverables and services with customers in mind, co-designing solutions that embrace the future and communicating effectively and meaningfully.

Early engagement with partners, stakeholders and customers through meetings and workshops to understand regional goals, challenges and opportunities Review of relevant strategies, plans and policies to establish a holistic understanding of transport objectives and desired regional transport outcomes

Figure 5: Key stages of Regional Transport Plan development

Analysis of economic and population trends to understand key drivers underpinning future transport needs

Collaborative development of priorities and actions to set a framework for future planning and delivery partnerships



Customers connecting from ferry to bus at Toondah Harbour, Cleveland

1.10.4 One network

Regional Transport Plans are developed on the basis that the transport system operates as 'one network'.

Working and collaborating with all relevant transport system stakeholders to develop this document ensures planning priorities for the regional transport system are considered as a whole.

Transport and Main Roads will continue to partner with local governments and transport operators to continuously improve the transport system and the experiences of our customers.

1.10.5 Structure

The document comprises seven chapters, including:

- **Chapter 1** introduces the purpose, scope and strategic alignment of a Regional Transport Plan.
- **Chapter 2** outlines the SEQ context, including the inter- and intra-regional connections. It also outlines projects with SEQ-wide significance, the SEQ transport network and the common transport challenges and opportunities facing SEQ.
- Chapter 3 details the alignment with ShapingSEQ and the goals, priorities, objectives and measures of transport in addressing challenges, supporting opportunities and meeting ShapingSEQ themes of grow, prosper, connect, sustain and live.
- Chapters 4–6 contain the Regional Transport Plan for each of the three regions within SEQ: North Coast (Chapter 4), Metropolitan (Chapter 5) and South Coast (Chapter 6). Each Plan outlines the respective region's actions and response to the priorities.
- Chapter 7 outlines the Plans implementation and review process.

Engaging with our customers

To achieve a 'one network' approach, Transport and Main Roads involved customer representatives early in the development of all Regional Transport Plans and engaged and developed content in partnership with local government.

To inform the development of the plans, representatives were selected from different locations in the region, covering a range of sectors and interests, including agriculture, mining, health, tourism and small business.

To gain stakeholder input, Transport and Main Roads hosted workshops and facilitated a number of meetings and one-on-one discussions.

Some of the key issues that emerged from this engagement included:

- freight connections and conflicts with passenger transport
- public transport affordability, convenience and reliability
- public transport accessibility (particularly outer areas and for disadvantaged groups)
- congestion (including economic impacts particularly for freight)
- connectivity to and between modes and centres
- parking management
- safety (including cycling and personal safety)
- coordination of development and infrastructure.

This input from customers has informed the priorities, actions and opportunities in this document.



Cyclist riding through the Sunshine Coast hinterland

Table 3: Structure of the SEQ Regional Transport Plans





2. South East Queensland

.



and a

2.1 South East Queensland overview

In Chapters 2 and 3 of this document, descriptions of SEQ are based on the *ShapingSEQ* boundaries comprising 12 local government areas as shown in Figure 6.

In Chapters 4–6, descriptions of SEQ are based on the Transport and Main Roads' boundaries for the North Coast, Metropolitan and South Coast regions (Figure 6).

Figure 6 also shows the Lockyer Valley local government area and the urban extent of Toowoomba, which are detailed in the *Darling Downs Regional Transport Plan*.





Figure 6: The regions and local government areas within SEQ

SEQ COVERS APPROXIMATELY 22,900 KM ²	POPULATION GROWTH 2016-2041 2016 2041 2041 2041 3.5 MILLION 5.3 MILLION PEOPLE	SEQ CONTRIBUTES \$208.9B OR 67% TO GROSS STATE PRODUCT			
71% OF QUEENSLAND'S POPULATION LIVES IN SEQ	1.65 MILLION JOBS IN SEQ	PORT OF BRISBANE HANDLES OVER \$50B OF FREIGHT			
GATEWAY TO QUEENSLAND: MORE THAN 30 MILLION AIR PASSENGER MOVEMENTS	\$14B TOURISM INDUSTRY APPROXIMATELY PER ANNUM	AROUND 6,000 FLORA SPECIES AND 2,400 NATIVE FAUNA SPECIES			
SEQ HAS NINE UNIVERSITIES WITH MULTIPLE CAMPUSES	SEQ POPULATION AGED 65 YEARS AND OVER IN 2016 14.4% BY 2036 19.5%	1 MILLION PEOPLE LIVE WITHIN 800m OF A HIGH FREQUENCY PUBLIC TRANSPORT SYSTEM			
TOP EMPLOYMENT INDUSTRIES					
HEALTH CARE AND SOCIAL ASSISTANCE	CTION RETAIL TRADE MANUE	ACTURING EDUCATION AND TRAINING			

Source:

Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ). Queensland Government Statistician's Office. Data table: Projected population (medium series), by five-year age groupand sex, by local government

area, Queensland, 2011 to 2036. www.qgso.qld.gov.au.

2.1.1 SEQ context

Covering almost 23,000 km², SEQ represents only 1 per cent of the state's land area, but is currently home to around 71 per cent of the state's population.

The Queensland Government is committed to delivering integrated land use and infrastructure planning which is a key principle of the State Infrastructure Plan and is evident in the key land use outcomes in *ShapingSEQ*.

With 1.65 million jobs, SEQ contributes more than \$208.9 billion to the Gross State Product per annum, representing 67 per cent of the state's economic activity.¹ It has a diverse economic profile. Key industries include health and social assistance, manufacturing and education and training while the professional, scientific and technical services sectors will continue to grow. By 2041, SEQ is expected to have 2.6 million jobs,² which will be 74 per cent of all employment in Queensland.

2.1.2 Inter-regional connections

SEQ has good road, rail and maritime connections, critical to maintaining economic links with neighbouring regions and national and international markets as illustrated in Figure 7.

The Port of Brisbane is one of Australia's fastest growing ports. It handles \$50 billion in trade annually and provides access to the international markets of Asia, the Pacific and beyond.

SEQ is also well-connected to the global aviation route network. Brisbane, Gold Coast and Sunshine Coast airports are important for connecting the region with domestic and international markets.

Maintaining and enhancing inter-regional and international connections will be essential to achieving the goals for SEQ.

2.1.3 SEQ shaping projects

Projects specific to the North Coast, Metropolitan and South Coast regions are detailed in Chapters 4-6. The following major projects will shape the future of SEQ.



Figure 7: Inter-regional connections Source: ShapingSEQ

Cross River Rail

Cross River Rail is the Queensland Government's highest priority public transport infrastructure project, linking southern and northern rail networks, via Dutton Park to Bowen Hills as illustrated in Figure 8.

Cross River Rail will unlock a bottleneck at the core of SEQ's passenger rail network, allowing more trains to run more often. There will be four new underground stations and two upgraded stations. The Queensland Government has committed to fully fund Cross River Rail.

The project will have broader economic and social benefits for SEQ. It will increase network capacity and reliability, improve congestion and increase access to jobs and opportunities. Cross River Rail is forecast to take up to 18,500 car journeys off major arterial roads everyday and transport 90,000 people to work in morning peak hours each day, by 2036.³



Figure 8: Cross River Rail proposed alignment map

2 Ibid.

¹ National Institute of Economic and Industry Research. (2015–16). Gross Regional Product and Local Jobs.

³ Department of Infrastructure, Local Government and Planning. (2017). Cross River Rail.

Beerburrum to Nambour (B2N) Rail Upgrade

Beerburrum to Nambour (B2N) was listed as a near term 'Priority Project' on the March 2018 Infrastructure Australia 'Infrastructure Priority List'. As part of the 2018-19 State budget, the project received \$160.8 million in Queensland Government funding to enable detailed design and delivery planning to commence while funding negotiations continue with the Australian Government. The Beerburrum to Nambour Rail Upgrade project will:

- enable more passenger and freight services
- improve transport network integration and access
- increase track capacity and reliability
- reduce competition between passenger and freight services and enable vital public transport links to the rapidly growing Sunshine Coast area.

The business case identified the project's benefits, the issues to be addressed and the most appropriate way to achieve the desired outcomes. Gazettal of the land requirements for the project occurred in June 2018. Detailed design and delivery planning is due to commence in the second half of 2018, which will confirm the final project details and construction timelines. Once detailed design is underway, construction is expected to be complete within 5 years.

European Train Control System for Brisbane suburban network

The Queensland Government is investing \$634 million over the next eight years to fund the introduction of the European Train Control System (ETCS), laying the foundation for the delivery of the Cross River Rail project and improving capacity and safety of the Brisbane inner city rail network. The initial ETCS rollout will cover the area between Northgate and Milton stations. It will increase capacity on the northern and western main lines – an area that encompasses the key part of the network through which the majority of suburban trains pass. ETCS will support increased capacity on the rail network, resulting in more trains, more often.

Next generation ticketing

The Queensland Government is modernising public transport ticketing systems across the state and has committed \$371 million to roll out a new solution that will include contactless debit or credit cards, smart phones and wearable devices as payment options in addition to go card and paper tickets.

The roll out over four years will cover all SEQ and regional urban public transport networks and will include new readers, fare gates and system equipment, an updated mobile app, and improved real-time network information.

Eastern and Northern Transitways

The Queensland Government is investing in bus priority aimed at improving reliability and bus travel times to assist in managing congestion on key corridors. This includes \$53 million to deliver the Northern Transitway and \$22 million for the Eastern Transitway.

The Northern Transitway will provide a high quality public transport corridor along Gympie Road, from Kedron to Chermside. The Northern Transitway will deliver targeted bus priority and support high frequency on-road bus services improving operational safety, efficiency and reliability of this important link in Brisbane's northern transport network.

The Eastern Transitway project will deliver cost effective bus priority improvements between Coorparoo and Carindale. The \$22m investment is the next step in providing a high quality public transport corridor on Old Cleveland Road. As Old Cleveland Road is a Brisbane City Council road, Transport and Main Roads will be working closely with council during the design and delivery phases of this project.

Brisbane Metro

A Brisbane City Council project to upgrade the existing busway with upgraded stations and a new fleet of metro vehicles.

Major developments

Several Priority Development Areas (PDAs) and State Development Areas (SDAs) will influence the location of development in SEQ. These areas have been designated by the Department of State Development, Manufacturing, Infrastructure and Planning for economic and community development. There are currently 16 PDAs and two SDAs in SEQ. These PDAs and SDAs are detailed for each region in Chapters 4–6.

There are a number of other major expansion areas, Regional Economic Clusters and knowledge and technology precincts identified in *ShapingSEQ*. Master planning offers a comprehensive approach to planning for land use and infrastructure needs.

2.2 South East Queensland transport network

SEQ is supported by a comprehensive multi-modal transport network, including rail, roads, ferries and air services, to move both people and goods.

2.2.1 Active transport

Walking forms part of every trip for most people and the mode share for cycling continues to increase.

SEQ has a maturing network of dedicated bikeways, shared paths and other active transport facilities that connect activity centres and hubs and encourage cycling and walking as a mode of travel.

The Queensland Cycling Strategy 2017–2027 sets the statewide direction to achieve the vision of 'more cycling, more often'. The Queensland Government provides support to local governments' investment in active transport infrastructure through the Cycle Network Local Government Grant funding program.

Transport and Main Roads has also prepared the South East Queensland Principal Cycle Network Plan. It identifies the main routes that will form the basis of a connected and cohesive cycle network across SEQ.

While investment has increased, further pedestrian and cycling enhancements by all levels of government will encourage more people to walk and cycle. With the increasing popularity of app-based purchasing, delivery of light goods and food by bicycle is also increasing.

2.2.2 Public transport

Within SEQ, scheduled public transport services are managed by TransLink, a division of Transport and Main Roads. All TransLink services can be accessed using the *go* card, which is part of a single integrated smart card ticketing system. The public transport network consists of heavy rail, buses, light rail and ferries.

Passenger rail

SEQ is served by a rail network comprised of both heavy and light rail.

Heavy rail is best suited to moving large volumes of people over longer distances and providing reliable links within congested inner city areas.

Light rail provides highly visible, moderate capacity links along highly developed urban corridors.

There are approximately 650 kilometres of heavy rail and 20 kilometres of light rail in SEQ. Together these modes provide nearly 58.8 million passenger trips per year.

The heavy rail network is a radial network made up of 12 lines which converge in the Brisbane city centre. These lines serve both interurban and suburban destinations. The heavy rail network services both passenger and freight movements throughout SEQ.

On the Gold Coast light rail provides a frequent northsouth connection between Helensvale and Broadbeach, via Southport and Surfers Paradise.

Bus

Buses provide shorter local trips and longer intersuburban trips, as well as feeder connections to mass transit hubs along rail or busway corridors. There are approximately 450 bus routes in SEQ. Where supported by infrastructure such as the busways, bus lanes or other priority transit forms, buses can also provide longer haul, higher capacity services from the urban edges.

Long-distance coach

Transport and Main Roads subsidises a number of longdistance commercial coach services connecting SEQ to other parts of Queensland. These services operate on higher demand routes providing vital connections often where there are no links to other public transport such as rail and where it is not economical to fly.

Passenger ferry

Passenger ferry services in SEQ are predominantly along the Brisbane River and within Moreton Bay. Overall, ferry services in SEQ accounted for nearly seven million trips in 2015–16.

Brisbane is also a port of call for passenger cruise ships. A new cruise ship terminal has been approved and is scheduled to open in 2020. This new terminal at the Port of Brisbane will increase the number of passengers arriving to SEQ by sea.

On-demand services

Most urban parts of SEQ are serviced by on-demand services which are common in large metropolitan areas, such as taxis, ride-share services and booked hire services.

2.2.3 Freight

The movement of goods throughout and outside of SEQ is vital to the Queensland economy. Freight is moved in, out and through SEQ by an extensive network of roads, rail, marine and air services. Maintaining and expanding these networks will be vital to SEQ's continued economic growth.

Metropolitan

Road freight

The main road freight corridors in SEQ are primarily the motorway network. The Bruce Highway provides road freight connections to northern Queensland while the Pacific Motorway provides southbound connections to the NSW border. In the western direction, the Warrego and Cunningham highways connect to Darling Downs and the South West.

The regulation of all vehicles over 4.5 tonnes gross vehicle mass (GVM) is through the National Heavy Vehicle Regulator (www.nhvr.gov.au). This includes processing of permit applications seeking access to Queensland's road network.

Marine freight

A number of marine freight routes converge in SEQ at the Port of Brisbane, which has 30 operating berths.

The Port of Brisbane, is one of Australia's fastest growing container ports and Queensland's largest multi-cargo port.

Air freight

The majority of air freight travelling to and from the region is via the Brisbane Airport. The Gold Coast and Sunshine Coast airports also import and export some goods. The Toowoomba Wellcamp Airport continues to grow as a key resource export hub, particularly for agricultural product grown in south-western Queensland.

Rail freight

The main rail freight network in SEQ is primarily shared with the passenger rail network. The North Coast line provides connections to the north via Noosa and south via Scenic Rim. Rail freight services also operate from Brisbane to Beenleigh. The Western Rail line connects from west of Toowoomba through to the Port of Brisbane, with a significant amount of rail freight transported to the Port of Brisbane. Rail freight also intersects with road freight at intermodal terminals at Acacia Ridge and Moolabin.

2.2.4 Roads

Roads are an important asset for facilitating mobility of people and goods. They enable public transport and freight networks to operate and provide private vehicle access.

There are many different types of road, each performing a range of functions. Both state and local governments operate and maintain the road network, with support from the federal government for national highways and other targeted investments.

The major inter-regional road corridors within SEQ are the Pacific Motorway and the Bruce, Warrego and Cunningham highways. From a customer perspective, ownership of roads is irrelevant; they experience it as one integrated network. A 'one network' approach is essential to road network planning and investment, and maintenance is essential.

2.2.5 Air

Brisbane, Gold Coast and Sunshine Coast airports service more than 30 million passengers per year. These airports provide connections to both domestic and international visitors. The addition of a second runway at Brisbane Airport and planned expansion of the Sunshine Coast Airport will significantly enhance the role of air travel in SEQ now and into the future.

Cooperative project delivery

Leveraging resources from across all levels of government is key to delivering transport improvements throughout SEQ. Transport and Main Roads accomplishes this through strategic partnerships with the Australian and local governments, including:

- the Roads and Transport Alliance A cooperative governance arrangement between Transport and Main Roads, the Local Government Association of Queensland and local governments to invest in and regionally manage the state's transport network. The aim of this alliance is to address challenges and to deliver improved value from all available resources.
- Regional Roads and Transport Groups (RRTG) These groups are a component of the Roads and Transport Alliance and work collaboratively to regionally plan for and prioritise transport investments.
- Transport Infrastructure Development Scheme
 This provides a funding mechanism for Transport
 and Main Roads to deliver RRTG investment
 priorities. Investments funded through this
 scheme are local projects which support
 Queensland Government objectives.

2.3 Challenges and opportunities for SEQ's transport network

2.3.1 Challenges

The following are some of the key challenges facing SEQ. While the list is not exhaustive, these represent a summary of the challenges raised by customers and stakeholders. They impact the region's transport system and equally, the transport system has a role to play in helping to address them.

Population growth

Approximately 75,000 new residents are projected to call SEQ home each year over the next 25 years as the population grows from 3.5 million to 5.3 million.⁵

Meeting this additional demand will present a challenge as many transport corridors and facilities are already reaching capacity, especially during peak periods of travel. Expanding capacity to meet demand is costly, usually only provides a short-term solution and is not sustainable. Providing additional capacity on public transport networks can more efficiently respond to growth, however this also requires costly investments.

A broad and strategically selected range of travel behaviour changes and infrastructure investments will be required to support ongoing mobility for all customers throughout SEQ.

Congestion

Excessive congestion on all modes has negative impacts ranging from lost productivity to increased emissions.

Congestion occurs when demand for transport corridor capacity is greater than the supply. Balancing supply and demand presents a significant challenge, as new capacity is expensive and often does not provide a longterm solution. Identifying ways to get greater benefit out of the existing system can help address congestion and ensure transport tasks are addressed in the most efficient manner.

Congestion has high financial costs on the economy. In 2015–16, Transport and Main Roads estimated congestion cost the SEQ economy more than \$807.5 million through infrastructure bottlenecks and disruptions such as incidents, weather and roadworks.

Coordinating land use change and transport

SEQ has historically been characterised by a dispersed, low-density settlement pattern to separate residential and industrial land.⁶

This growth pattern has increased the distance between residential communities, places of employment and key services. It has increased the cost of connecting communities with essential services and infrastructure, increased reliance on private vehicles and provided fewer opportunities for walking, cycling and public transport.

Land use and transport planning needs to be well integrated to maintain and improve liveability. This includes improving transport services and infrastructure in central areas, extending the reach of the transport network to new growth areas, along with ensuring passenger and active transport connectivity is at the centre of all major land use planning and development decisions.

Fiscal constraints impacting the delivery of infrastructure and services

The delivery of new infrastructure and services in a constrained fiscal environment is a key challenge for all governments. Continued growth in SEQ and across Queensland, will require ongoing infrastructure investment and services.

Maintaining, operating and servicing transport infrastructure is a significant cost for government. Costs such as labour and land costs increase over time and often increase faster than the funding base. As a result, a larger portion of the budget must be allocated to cover these costs, leaving fewer resources for new infrastructure and limiting opportunities to improve services.

Transport investments compete with other priorities for public funding which can lead to delays in project delivery. These delays can result in higher project costs over time. New ways to streamline project delivery and identify innovative funding solutions, through partnerships for example, will help advance transport improvements.

⁵ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

⁶ Ibid.

Attracting skilled workers and supporting sustainable growth

Evidence suggests skilled migrants and innovative businesses are attracted to quality urban environments supported by multi-modal transport systems.⁷

Integrated land use and transport planning should enable business and industry to be located in accessible and well-connected areas. This ensures workers have sustainable, suitable access by the most appropriate mode and products and services can be efficiently dispatched.

Without this integration there will be further pressure on the transport network. In parts of SEQ there are not enough local jobs for the population base. Therefore many people leave their local area to access jobs, for example, in Logan 43 per cent of people work in Brisbane.⁸

This creates significant travel demand on both the road and rail networks. Commuter traffic reduces the capacity for freight and business vehicles on these networks. Additionally, there are significant environmental impacts from emissions.

Supporting equitable access

Low-income earners, the unemployed, the elderly and people with a disability tend to have fewer transport options. Limited mobility, accessibility and flexibility can have detrimental outcomes for these vulnerable people.

An equitable and accessible network requires integrated services which consider a range of abilities across all locations including outlying areas. This may require investment or modification of services, vehicles and infrastructure to meet the needs of all users.

Improving transport access and options for people in disadvantaged communities is necessary to facilitate participation in, and contribution to society, achieve social equity and to provide access to employment, education, health and community services.

Providing for an ageing population while having an under representation of working age residents

SEQ has a greater proportion of people aged over 65 years and a lower proportion of people aged between 15 and 64 years, compared with the Queensland average.⁹ These demographics present challenges in tailoring infrastructure and services. While an ageing population is a nationwide trend,¹⁰ its pronounced effect in SEQ will require a focus on how the area grows to meet the needs of residents and deliver customised services. This must be balanced with meeting the economic and social needs of younger people to enhance productivity and grow the economy by attracting and retaining skilled workers.

Climate change

Queensland has long experienced the impacts of extreme weather including tropical cyclones, floods, droughts and bushfires. Around the world, ecosystems are under pressure from the effects of climate change and these pressures are expected to increase.¹¹ Extreme weather events can damage infrastructure and interrupt transport networks. It is vital that our transport networks are resilient to these impacts.

One of the most significant contributors to climate change is the rise in greenhouse gas emissions and transport is a major contributor of these emissions. Mitigation strategies as outlined in the *Queensland Climate Transition Strategy* must be considered in future planning.

Remaining resilient to these impacts is vital to the liveability and continuing economic competitiveness of SEQ.

Improving safety and amenity for all modes

The Queensland Government has committed to a vision of zero road deaths and serious injuries in its *Safer Roads*, *Safer Queensland: Queensland's Road Safety Strategy* 2015–2021. This strategy aims to reduce the annual fatalities and hospitalisations caused by road accidents.

The safety of passengers utilising the public transport network is essential. Principles such as Crime Prevention through Environmental Design should be adopted to ensure people can safely utilise facilities.

New development and upgrades should incorporate design principles such as 'complete streets', where the needs of all users are considered, improving accessibility, amenity and interaction with existing land uses. Priority will be given to pedestrians in key centres to enable economic prosperity and reduce conflicts with vehicles.

⁷ Simmons E., Kay M., Ingles A., Khurana M., Sulmont M., Lyons W. (2015). *Evaluating the Economic Benefits of Nonmotorized Transportation*. *Washington, DC: Federal Highway Administration*.

⁸ Queensland Treasury. (2016). *Regional Employment Projections*.

⁹ Queensland Government Statistician's Office. (2016). *Queensland Regional Profiles–custom region*.

¹⁰ Australian Government Productivity Commission. (2013). An Ageing Australia: Preparing for the Future, Productivity Commission Research Paper.

¹¹ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

2.3.2 Opportunities

In response to the key challenges identified above, the following are some of the key opportunities within SEQ. While the list is also not exhaustive, these represent a summary of the opportunities raised by customers and stakeholders. Each of them directly relates to one or more of the challenges and can be supported as a means to address them. Further, each opportunity can be both harnessed by the region's transport system and the transport system has a role to play in supporting them.

Harnessing new technology

The development of technologies such as autonomous, connected and electric vehicles, affordable renewable energy and complete digital connectivity will change how people live and present significant opportunities to better manage travel requirements, including reducing the need to travel.

By supporting and investing in the digital economy, SEQ will be well placed to take advantage of these changes.

As an example, the delivery of real-time transport information has resulted in more informed decisionmaking for operators and commuters. Integration with connected vehicle and infrastructure technologies will improve travel throughout SEQ.

Leading the way for growth in sustainability and environmentally friendly ventures

SEQ aims to become carbon neutral and have zero net waste while providing flexible, reliable and secure sources of food, water and energy.¹² Delivering programs that balance economic development, environmental protection and provide essential social services for the community are key to achieving this desired outcome.

Through commitment to sustainable transport, Transport and Main Roads is well placed to lead the way in protecting and enhancing the natural environment and responding and adapting to climate change.

Enabling active and healthy lifestyles to reduce obesity and chronic disease

Empowering people to use active transport modes can increase physical activity, have a positive impact on people's health and contribute to a reduction in health care costs. Lack of physical activity is a key contributor to obesity and associated chronic diseases. Obesity is the secondhighest burden of disease in Australia. Queensland has the highest rate of adult obesity in Australia at 30.4 per cent, compared with 27.4 per cent nationally.¹³

Physical inactivity can cause diseases such as cardiovascular disease and type 2 diabetes, which are two of the biggest burdens on the state's health system. The overall impact on productivity in Queensland can amount to \$1.1 billion per year.¹⁴

Leveraging the region's access to the global marketplace

Major land, air and marine freight routes converge in SEQ and allow for high capacity movement of goods through the Brisbane Airport and Port of Brisbane. These facilities support the Australia TradeCoast Region, one of the country's fastest-growing trade regions.

SEQ's proximity to international trade partners provides opportunities for exports of local produce, manufactured goods and other commodities. Further growth of exportorientated industries will support a globalised economy.

The areas surrounding key freight routes form corridors and clusters of economic activity that support SEQ's economy. These can be further leveraged through integrated transport planning and coordination.

Supporting economic growth through trade and industrial expansion

Efficient connections between major enterprise areas and supply chains can support growth in national and global trade.

The protection of connections to strategic road and freight networks will allow these areas to intensify and expand and improve their capacity and functionality. Connecting these areas to services, amenities and facilities will benefit workers and increase economic activity.

If appropriately planned, growth in industrial sectors and trade can increase SEQ's prosperity without compromising its urban amenity.

Leveraging major developments

SEQ has many major developments with the potential to shape the area's future at various stages of assessment, procurement or delivery.

¹² Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

¹³ Queensland Government. (2017). *Media Release: High rate of obesity in rural Queensland*.

¹⁴ Queensland Government. (2016). Media Release: Palaszczuk Government cements commitment to help 10,000 Queenslanders tackle chronic disease.

These developments include improved freight and passenger connections, employment generating opportunities and attractors of tourism growth. They will further position SEQ as a world-renowned location, attracting growth that can finance infrastructure.

These projects can be leveraged to improve sustainable SEQ-wide accessibility, expand the economy and directly enhance amenity and liveability.

Enabling a globally competitive tourism industry

SEQ is a key tourism destination and the gateway to Queensland. Transport is an integral part of the visitor experience. Currently, close to 20 million visitor nights per year are spent in Queensland, with visitors accounting for 70 per cent of domestic overnight trips, 65 per cent of domestic day trips and 80 per cent of international visitors.¹⁵

The SEQ tourism industry contributes \$14 billion to the state economy per year and employs 131,000 people.¹⁶ Tourists, particularly international visitors, are often captive users of passenger transport. A high performing transport system will support continued investment and tourism growth to and within SEQ.

Leveraging SEQ's renowned education sector

SEQ has a strong education sector and is home to some of Australia's top universities. Areas around these educational institutions have evolved into knowledge and technology precincts. These locations attract a large number of people and are ideal for sustainable transport options such as walking, cycling and public transport. Travel choices adopted during university can become lifelong behaviours. This can lead the way in a shift to more sustainable transport.

Exploring policy and efficiency solutions to address infrastructure challenges

There are many cost-effective and innovative solutions that can deliver infrastructure to keep pace with growth. It is Queensland Government policy to first seek reform or better use of existing infrastructure before upgrading or constructing new infrastructure.¹⁷ This can be achieved through policy reform and efficiency solutions.

These solutions can also provide innovative funding and financing options such as value sharing, market-led proposals and public-private partnerships to procure new infrastructure and deliver greater value for money. Through more consolidated urban growth there is an opportunity to address infrastructure challenges that result from dispersed settlement. For example, increasing density close to high-frequency public transport allows more people to easily connect to services and employment via existing infrastructure corridors.

Global trends impacting transport

The transport system is shaped by broader global trends. Disruption to business models and the networks that enable economic prosperity and community connections, are challenging how customers will use today's infrastructure to meet tomorrow's needs. Key forces driving disruption include technology, globalisation and changing demographics.

Some major trends driving change within the transport system include:

- customers expecting tailored and more personalised services
- digitally enabled infrastructure
- digital connectivity between service providers, customers and infrastructure
- changing working patterns and behaviours
- climate change impacting on transport system resilience
- the sharing economy and a shift to access over ownership
- energy efficiency and renewables are constantly advancing.

¹⁵ Tourism and Events Queensland. (2014). *DestinationQ*.

¹⁶ Queensland Government: Business Queensland. (2015). *Tourism market profile*.

¹⁷ Department of Infrastructure, Local Government and Planning. (2016). State Infrastructure Plan.



3. South East Queensland's goals, priorities and objectives



3.1 South East Queensland goals, priorities and objectives

To integrate SEQ's transport planning with SEQ's land use planning, the goals, priorities and objectives within the *SEQ Regional Transport Plans* have been drawn from *ShapingSEQ*.

ShapingSEQ includes a 'connect' goal, which focuses on moving people, products and information efficiently. The Regional Transport Plans provide the specific detail for how this will be achieved and articulate the key roles the region's transport system will play in support of *ShapingSEQ*'s other four goals. The relationship between the *ShapingSEQ* goals and the *SEQ Regional Transport Plans*' priorities is shown in Figure 9.

For the *SEQ Regional Transport Plans*, 'connect' is the enabler to achieving the remaining goals of grow, prosper, sustain and live.

As part of this, the *SEQ Regional Transport Plans* embrace integrated land use and transport planning, deliberately prioritises active and public transport for the movement of people and supports supply chain optimisation for freight. To support the vision and sustainable growth for the region, best practice transport planning principles have been adopted. The future system will seek to:

- help facilitate and reinforce the critical role land use planning plays in transport planning
- achieve the best utilisation of space in support of a growing population and highly urbanised region
- maximise value for money where possible, particularly in support of productivity
- support and create high-quality living environments
- provide personalised customer travel experiences that balance the needs of a growing population
- enable economic, social and environmental sustainability.

The priorities, objectives and actions outlined in the *SEQ Regional Transport Plans* have been developed to achieve the vision and desired future transport network outlined in *ShapingSEQ*.

⁴⁴The best transport plan needs a great land use plan₉₉

– ShapingSEQ



Figure 9: The relationship between ShapingSEQ goals and the priorities in the SEQ Regional Transport Plans

3.1.1 Goals

The SEQ Regional Transport Plans adopt the goals of ShapingSEQ, which are:

Grow	SEQ has a consolidated urban structure of well-planned and more complete communities. There is housing choice and sufficient land to accommodate the projected population and employment growth in an affordable and sustainable way to meet the community's changing lifestyle needs.
Prosper	SEQ has a globally competitive economy focused on high-value economic activities supported by population- serving jobs. Regional Economic Clusters will leverage traditional strengths and competitive advantages to advance the economy, strengthen our global and national relationships and embrace emerging technology and new opportunities.
Connect	SEQ is a region of more complete and interconnected communities supported by a multi-modal and integrated regional transport system. This system is frequent and reliable and prioritises public and active transport for people and freight networks for goods. Infrastructure networks and services enable efficient and sustainable development, economic growth and social benefits throughout the region.
Sustain	SEQ's biodiversity, natural assets and regional landscapes are protected and nurtured to sustain our region's strong and diverse communities. These communities are safe, fair, sustainable, resilient and prepared for climate change. Together, our environment and communities will ensure future generations enjoy a high-quality of life and affordable living options.
Live	SEQ is a region of great places that respond to our outstanding climate based on good design that creates an urban form delivering year-round outdoor and energy-efficient living in a leafy, subtropical landscape.

3.1.2 Transport priorities and objectives

The SEQ Regional Transport Plans' priorities seek to direct the region's strategic transport planning to achieve the 'connect' goal by facilitating transport's role in support of growth, prosperity, sustainability and liveability. The priorities for the SEQ Regional Transport Plans are outlined in Figure 10. These priorities inform both SEQ-wide actions and the locally-specific actions reflected in the North Coast, Metropolitan and South Coast Regional Transport Plans.

Table 4 provides a summary of the priorities, objectives and the role of transport for SEQ. The priorities and objectives are further detailed in this section.



Figure 10: SEQ Regional Transport Plans' priorities





Priority 1: Grow

A transport system that supports a consolidated and sustainable urban structure.

Population growth will increase demand on the transport network. It will become increasingly important to efficiently use existing infrastructure, provide more and varied mobility options and minimise reliance on private vehicles.

A key outcome of *ShapingSEQ* is the development of more compact communities through consolidation, which offers benefits of living closer to work, essential services and social, educational and recreational opportunities.

Compact communities can also help protect green space and rural areas by reducing the impact of urban sprawl. More compact urban form can support a more integrated, multi-modal transport system with a wider mix of transport options including public and active transport. Access to such a system will be critical and will be improved through the provision of appropriate transport options connecting compact and lower density communities.

Objective 1.1: Current and future transport networks shape sustainable growth and development of communities.

Development along existing and future transport corridors will be encouraged to provide improved connectivity through sustainable multi-modal travel options, but also to support high levels of urban amenity. New transport infrastructure or improvements to existing infrastructure will incorporate high-quality urban design principles that promote desirable streetscapes and interaction between streets and their adjoining land uses.

Active transport infrastructure will continue to improve and the network will continue to grow to encourage end-to-end journeys and integrate with convenient and competitive public transport. This will include public and private transport options that are affordable, reliable and frequent, in terms of travel times and convenience, comparable to other options.

Well coordinated and timed development will be linked to a transport network and travel options that support a consolidated urban form.

Objective 1.2: Communities in growth (expansion) areas have access to reliable, efficient and sustainable travel options.

The *Moving Australia 2030* plan states that 'the most important factor in maximising the benefit of a denser population is ensuring that new residential and commercial precincts are developed around major transport hubs and nodes. To accommodate the projected population growth, development of public and active transport accessible land must be made comparatively more attractive'.

Bureau of Infrastructure, Transport and Regional Economics. (2013). *Moving Australia 2030*.

Priority 1 aligns with:

- The Transport Coordination Plan's objective of connecting communities to employment and vital services.
- The State Infrastructure Plan's focus on public transport solutions including demand management to address the strong growth of SEQ.
- ShapingSEQ goal to sustainably accommodate a growing population.

By providing a range of travel options, people can make a choice to use more sustainable travel modes. To be competitive these modes must be reliable and efficient. Passengers value journey travel-time reliability almost as much as travel-time itself.

Reliability includes consistency in service level, wait times and travel times. This can be improved by physically separating public and active transport modes from vehicle traffic, but importantly, in areas of expansion or existing low-density areas, it can be improved by providing customers with convenient options for how they move, other than their own private vehicles. This means considering all options, including active and public transport, ride sharing, demandresponsive transit and car-pooling. It also means providing suitable options that allow customers living in these areas to connect easily to the trunk public transport network.

Objective 1.3: People and goods move safely and efficiently in rural communities.

People living in rural and semi-rural areas rely heavily on private vehicles which are often the only available option. Options that allow safe access to employment and services, as well as the transport of goods to market, is paramount. Sealing of dirt roads, improving flood immunity, safety barriers, wide centrelines, passing lanes, road shoulders, better delineation, more frequent rest areas and educational campaigns can achieve notable safety improvements on rural roads.

In rural areas, appropriate transport alternatives to private vehicles will be supported for customers where there is unequal access, for example, school and community transport options.

Technology can also support rural customers with the provision of information. With fewer routes and travel options available, prior knowledge of delays or blockages, road works or accidents can allow customers to make informed travel choices. SEQ-wide actions for Priority 1 are detailed below. These are actions that cross regional boundaries or are significant throughout SEQ.

Table 5: Priority 1 actions for SEQ

Priority 1: Grow A transport system that supports a consolidated and sustainable urban structure.			Objectives	
Objective 1.1: Current and future transport networks shape sustainable growth and development of communities.				
Objective 1.2: Communities in growth (expansion) areas have access to reliable, efficient and sustainable travel options.			1.2	
Objective 1.3: People and goods move safely and efficiently in rural communities.				1.3
Actions – short-term				
A1.01	Public transport network and interchange strategy Develop a SEQ public transport network and interchange strategy, supporting delivery of a connected and frequent public transport network as detailed in Figure 11 and in <i>Connecting Brisbane</i> .	٠	•	
A1.02	SEQ-wide multi-modal network planning Undertake SEQ-wide multi-modal network planning to further develop the preferred multi-modal strategic transport networks identified in the SEQ Regional Transport Plans and <i>ShapingSEQ</i> . This planning will be a critical input for the next review of the SEQ Regional Plan and Regional Transport Plans.	٠	•	•



Bruce Highway, Cooroy to Curra
Priority 2: Prosper

A transport system that supports the economic competitiveness of the region.

Efficient and reliable movement of people and goods is critical to economic growth and prosperity. Supporting this includes:

- facilitating fast and reliable movement of goods along supply chains
- enabling connectivity between customers and goods and services (market connectivity)
- connecting people and employment.

ShapingSEQ's vision is for SEQ to be Australia's eastern gateway to international markets and to attract trade, investment and high-value economic activities, thereby improving the region's economic competitive advantage. The role of transport in delivering this advantage includes integrated and reliable connections between, and to, major economic areas, shipping ports, airports and freight networks. These connections will need to provide efficiency and reliability in the movement of both people and goods.

The efficient movement of people can be greatly improved by prioritising a fast, reliable and frequent public transport network supported by safe and convenient active transport options. An attractive and efficient public transport network is critical to support the economic capacity of the region by providing appropriate access to jobs. Likewise, the efficient movement of goods can be provided via a number of mechanisms that focus on endto-end supply chain optimisation.

Objective 2.1: Goods and services move efficiently and reliably along supply chains to and between Regional Economic Clusters and markets.

Supply chains can be optimised through:

- infrastructure strategies such as freight lanes and new freight routes
- operational strategies such as prioritising freight movement in off-peak periods
- innovative delivery models such as carrier sharing, flexible container locations, warehouse sharing and variable access rights to reduce time and costs
- technology and data integration such as real-time information provision and automated routing.

Efficiency gains can be realised through the optimisation of vehicles moving goods along freight routes and encouraging a multi-modal approach to planning for freight movement. Locating key freight generators with good access to freight corridors can provide efficient access for freight movement. Removal of level rail crossings in priority freight routes can also improve freight efficiency and safety.

Priority 2 aligns with:

- The Transport Coordination Plan's objective to facilitate the efficient movement of people and freight to grow Queensland's economy.
- The State Infrastructure Plan's focus on transport infrastructure that unlocks the potential of critical supply chains by identifying and improving the freight network.
- *ShapingSEQ* goal to become a globally competitive economic powerhouse.

Using appropriate types of vehicles, maximising capacities and using accurate and real-time data are equally important to realising efficiencies and reliability.

Objective 2.2: Activity centres are connected by a reliable and high-frequency public transport network.

Efficient connections to and between activity centres is key to economic productivity and can be realised through a reliable and frequent public transport network. This allows people to reach employment, education and essential services as efficiently as possible, but it also supports the sustainable growth of the region by encouraging urban consolidation, reducing emissions and reducing the amount of space required to provide transport. This will be realised through a high-frequency public transport network that connects all of the region's activity centres – a minimum 15-minute frequency zam to 7pm, 7 days a week – with lower frequency services operating outside these times.

A reliable public transport service must ensure customers can confidently expect a consistent level of service throughout the day and across the week. High capacity transit stations will connect with local pedestrian, cycle and street networks and be located as close as possible to the most active areas of commercial or residential land use.

Objective 2.3: Transport planning and investment is informed by current and accurate information.

Advancements in technology and the increasing availability of high-quality data will revolutionise how transport improvements are planned for and implemented. Innovative approaches to data generation and analysis, performance tracking and review, will result in better planning and outcomes for SEQ. New ways of generating, collecting, sharing and analysing data can help determine where investments are most required and how to better utilise existing infrastructure assets.

A commitment to analysis, evidence-based planning, embracing appropriate technologies and business models and continuous performance monitoring and review will ensure that we make the best-informed decisions possible. SEQ-wide actions for Priority 2 are detailed below. These are actions that cross regional boundaries or are significant throughout SEQ. These are identified as both short-term and medium/long-term actions.

Table 6: Priority 2 actions for SEQ

Priority 2: Prosper A transport system that supports the economic competitiveness of the region			ojectiv	es
Objecti to and	ve 2.1: Goods and services move efficiently and reliably along supply chains between Regional Economic Clusters and markets.	2.1		
Objecti transpo	ve 2.2: Activity centres are connected by a reliable and high-frequency public ort network.		2.2	
Objecti	Objective 2.3: Transport planning and investment is informed by current and accurate information.			
Actions	s – short-term			
A1.03	Commercial goods and services urban travel survey and model development Undertake surveys to gather data regarding the movement of freight and business services in urban areas of SEQ and develop a model to allow forecasts of future commercial demands.	•		•
A1.04	Data collection Investigate potential for customer data collection approaches that leverage digital channels such as mobile phone, third party data opportunities, web surveys and connected infrastructure within a digitally dense SEQ.			•
A1.05	 Disruptive technologies planning Assess the implications of emerging disruptive and transformative technologies for the management and provision of transport infrastructure and services within SEQ. These technologies and issues may include: autonomous vehicles drones shared mobility and changing business models big data analytics. 	•		•
A1.06	European Train Control System Undertake planning to develop options and inform investment decisions associated with broader deployment of the European Train Control System on the SEQ rail network.	•	•	
A1.07	Freight data collection and demand model Improve freight data collection in SEQ to support development of a Queensland Freight Model for predicting future major freight movements.	•		•
A1.08	High productivity vehicle (HPV) access Develop strategies for increased HPV access to key road freight corridors across SEQ to reduce road freight transport costs for communities and industries across SEQ.	•		
A1.09	Journey reliability and congestion management Coordinate a strategic, multi-modal approach to improving journey reliability and addressing excessive congestion in SEQ. This is to be overseen by the Journey Reliability Committee and applied across Transport and Main Road's relevant policy, land use planning, investment and operational programs.	•	•	
A1.10	Network optimisation Apply a Planning for Operations approach to develop a functional modal hierarchy for SEQ that is varied to reflect local contexts, and develop a network operations plan, which is focussed on safety and transport efficiency improvements, and which helps to inform subsequent multi-modal planning.		•	

South Coast

Priority 2: Prosper A transport system that supports the economic competitiveness of the region				es
Objecti to and	ve 2.1: Goods and services move efficiently and reliably along supply chains between Regional Economic Clusters and markets.	2.1		
Objecti networ	ve 2.2: Activity centres are connected by a reliable and high-frequency public transport k.		2.2	
Objecti	Objective 2.3: Transport planning and investment is informed by current and accurate information.			
Actions	– short-term			
A1.11	Oversized, overmass (OSOM) strategy Develop strategies to facilitate the movement of OSOM loads within SEQ to reduce transport costs for industry and reduce the impact on other road users.	•		
A1.12	Rail freight axle loads and height clearances Develop strategies to increase allowable axle loads and height clearances on the rail freight system within SEQ. This planning will extend to informing investment decisions for specific upgrade projects.	•		
A1.13	Rail freight opportunities Evaluate opportunities to support the attractiveness and competitiveness of rail freight. Opportunities may include establishing collaborative loading/freight aggregation facilities and coordinated scheduling.	•		
A1.14	Rail network strategy Develop the Rail Network Strategy to assess the current and future demand, future timetables, operational requirements and network growth projects. The strategy will plan for the delivery of new and upgraded high quality passenger rail connections between growth corridors and economic clusters in SEQ. These corridors could include Springfield to Ipswich, Salisbury to Beaudesert, Varsity Lakes to Coolangatta, Beerwah to Caloundra South/Maroochydore, and the north west transport corridor.	•	•	
A1.15	Real-time data Facilitate improved and more integrated communication of real-time travel data to empower customers to make the best decisions in using the transport system. This might include development of new data feeds and alternative channels, for example, congestion/excessive congestion and parking information.	•	•	•
A1.16	SEQ strategic transport model Improve predictive capacity to better inform future transport decisions through development of transport models for the Greater Brisbane area. Models will also be made available for use by relevant local governments to improve accuracy and consistency between agencies.			•
A1.17	SEQ travel survey Undertake an SEQ travel survey to gather travel behaviour and demographic information as the basis for transport model development and other transport analysis.			•
A1.18	Tourism and transport strategy Implement the <i>Queensland Tourism and Transport Strategy</i> actions within SEQ. Undertake analysis and engagement to inform consideration of tourism in transport planning within SEQ.		•	
A1.19	Train stabling and passing loops Identify locations and confirm footprints for future train stabling and passing loops within SEQ's passenger rail network to improve rail service efficiency.		•	

Continued over page

Priority 2: Prosper A transport system that supports the economic competitiveness of the region)bjective	S
Objective 2.1: Goods and services move efficiently and reliably along supply chains to and between Regional Economic Clusters and markets.				
Objectiv network	/e 2.2: Activity centres are connected by a reliable and high-frequency public transport		2.2	
Objectiv informa	Objective 2.3: Transport planning and investment is informed by current and accurate information.			
Actions	– short-term			
A1.20	Transport coordination centre Investigate the potential to improve coordination of transport operations in SEQ through the development of a fully connected, multi-modal transport coordination centre. Such a centre may operate across Queensland and coordinate multi-agency, multi-modal operational management of the transport system around the state.	٠		
A1.21	Urban freight distribution hub planning Investigate and quantify the impact of online retailing on the SEQ urban freight task, and in particular, the role of freight distribution centres for online retail.	•		•
A1.22	Warrego Highway (Dinmore to Toowoomba Second Range Crossing) upgrade planning Undertake planning for corridor protection and the staged upgrade of the Warrego Highway from Dinmore to the Toowoomba Second Range Crossing, from a highway standard road to a motorway standard road.	•		
Actions	– medium/long-term			
A1.23	Multi-modal freight terminal strategy Collaborate with industry and stakeholders to develop an agreed multi-modal freight terminal strategy for SEQ and Toowoomba.	•		



Freight travelling Crestmead Industrial Estate, Logan

Priority 3: Sustain

A transport system that contributes to the environmental sustainability and resilience of the region.

A sustainable transport system involves the provision of infrastructure and services that:

- minimise environmental impacts
- are resilient to external events or incidents
- improve safety.

Transport activity is the second largest contributor of greenhouse gas emissions in Queensland and in 2014 accounted for 14.3 per cent of all emissions.¹⁸ The Queensland Government has a target of zero net carbon emissions by 2050. For transport, this means increasing efficiencies of, and within, the existing transport system while also transitioning to more sustainable travel options, such as active and public transport, electric vehicles and reduced car dependency. To enable this shift, sustainable options must be easily accessible, convenient and safe.

Transport infrastructure must be built to be resilient to weather events and traffic incidents to ensure the safety and efficiency of the network and efficient movement of people and goods. Travel demand management will be improved by utilising current information including realtime data and through new technologies. This will have benefits for rapid emergency management response.

Objective 3.1: The transport system is safe, resilient and connected during and after extreme weather, events and incidents.

A multi-faceted approach to managing and mitigating potential disruptions and incidents will be adopted. Improving the resilience of the transport system during

Sustainability assessments

Transport and Main Roads is implementing Government policy by obtaining formal Infrastructure Sustainability ratings through the Infrastructure Sustainability Council of Australia for TMR projects with a business case estimate of \$100 million or over, or undertaking sustainability assessments on projects between \$50-100 million. Transport and Main Roads' approach complements Building Queensland business case frameworks, policies of other state agencies and addresses the sustainability action point of the *Queensland State Infrastructure Plan 2016*.

Priority 3 aligns with:

- The Transport Coordination Plan's objective that transport contributes to a cleaner, healthier and more liveable environment and is resilient to Queensland's weather extremes.
- The State Infrastructure Plan's focus on creating a better performing and lower emissions transport system and on maintenance and rehabilitation of existing infrastructure to reduce the long-term cost of repair and improve network resilience.
- ShapingSEQ goals for promoting ecological and social sustainability.

and after extreme weather, events and incidents will require infrastructure upgrades where appropriate, along with management of the incidents themselves. This includes dynamic alerts and response to disruptions. Technology will be deployed to enhance communications with customers, both about incidents as they occur and about which routes or services to use.

Objective 3.2: Walking, cycling and other sustainable travel options are accessible, convenient and safe.

Safe, sustainable and healthy communities have balanced transport systems, with a mix of cleaner and more energy efficient vehicle use, public transport, walking and cycling. Increasing the mode share of active and public transport services, particularly in major urban centres, will not only reduce the negative impacts of congestion but may also cut carbon emissions contributing to a cleaner environment.

Walking and cycling can improve health and lead to a reduction in health costs. The uptake of cycling, walking and other sustainable travel options are influenced by their availability, accessibility and safety.

Objective 3.3: The transport system is sustainable and supports the region's environmental and lifestyle values.

The transport system impacts the environment in a variety of ways. This can include through greenhouse gas and air pollutant emissions as well as habitat and biodiversity loss.

These environmental pressures can be minimised through efficient resource use and development that is both sustainable and sensitive to the natural environment. New technologies will help, including reducing greenhouse gas emissions and the use of non-renewable energy sources. Adoption of these technologies, combined with greater use of walking, cycling and public transport will assist in minimising transport's impacts on the region's environment and liveability.

18 Queensland Government. (2017). State of the Environment – Total annual greenhouse gas emissions.

SEQ-wide actions for Priority 3 are detailed below. These are actions that cross regional boundaries or are significant throughout SEQ. These are identified as both short-term and medium/long-term actions.

Table 7: Priority 3 actions for SEQ

Priority 3: Sustain A transport system that contributes to the environmental sustainability and resilience of the region		C)bjective	S
Objectiv weather,	e 3.1: The transport system is safe, resilient and connected during and after extreme events and incidents.	3.1		
Objectiv and safe	Objective 3.2: Walking, cycling and other sustainable travel options are accessible, convenient and safe.			
Objectiv and lifes	Objective 3.3: The transport system is sustainable and supports the region's environmental and lifestyle values.			3.3
Actions -	- short-term			
A1.24	Autonomous vehicles planning Assess the implications of autonomous vehicles for the management and provision of transport infrastructure and services within SEQ by undertaking scenario modelling to better understand the potential impacts of autonomous vehicles on the transport network and travel behaviour.	٠	٠	•
A1.25	Cooperative intelligent transport systems (C-ITS) As part of the Cooperative and Automated Vehicle Initiative, undertake a C-ITS pilot on roads in and around Ipswich. The on-road pilot will validate the impacts and safety benefits of C-ITS and user perceptions, demonstrate technologies and build public awareness and uptake, grow government's technical and organisational readiness, and encourage partnerships and build capacity in private and public sectors.	•	•	٠
A1.26	Electric vehicle strategy Identify and prioritise investments required to support delivery of <i>The Future is</i> <i>Electric: Queensland's Electric Vehicle Strategy</i> within SEQ.		•	•
A1.27	Greenhouse gas emissions reduction Undertake investigations to inform the development of policy and strategies including a zero net emissions transport roadmap to significantly reduce greenhouse gas emissions from the transport sector in SEQ.		•	•
A1.28	Priority principal cycle route maps In collaboration with local government, review and update priority route maps, an addendum to the South East Queensland Principal Cycle Network Plan, every two years.		•	•
A1.29	Public transport modal access analysis Identify barriers to access at key public transport interchanges and destinations within SEQ and develop options to encourage more people to walk, cycle and use feeder public transport services to access areas of high trip generation and attraction. Key locations include principal regional activity centres and major universities and hospitals.		•	•

Priority 3: Sustain A transport system that contributes to the environmental sustainability and resilience of the region			Objectives		
Objective 3.1: The transport system is safe, resilient and connected during and after extreme weather, events and incidents.					
Objective 3.2: Walking, cycling and other sustainable travel options are accessible, convenient and safe.			3.2		
Objective 3.3: The transport system is sustainable and supports the region's environmental and lifestyle values.				3.3	
Actions -	- medium/long-term				
A1.30	Accessibility to public transport Investigate opportunities to improve connections between active and public transport modes to increase accessibility and promote patronage growth.		•	٠	
A1.31	Principal cycle network plan Review and update the <i>South East Queensland Principal Cycle Network Plan</i> every five years in collaboration with local government.		•	•	
A1.32	Travel demand management Investigate opportunities for progressing travel demand management strategies. This is likely to involve integrated strategies focused on particular locations, time periods or user groups aimed at increasing the proportion of travel undertaken on more efficient/sustainable modes, reducing the number of trips or changing the timing of trips to reduce peak demands.			•	



Cycle infrastructure at Kippa-Ring station

Priority 4: Live

A transport system that supports safe and liveable communities for everyone.

ShapingSEQ's vision is for a highly liveable region for people to live, work and enjoy which will be achieved through great design and quality streets, buildings and spaces.

Fair and equitable access to a range of travel options can enhance quality-of-life and connect communities. This can increase people's employment, education and recreational opportunities and provide access to essential services.

A well-designed transport system enables place-making by creating opportunities for people to co-locate and access a range of places, events and activities. The availability of quality public and active transport to access places and facilities is key to creating improved liveability. The physical design of the transport system also contributes to vibrancy and amenity through the attractive and functional design of stations, streets and corridors.

Safety is a key aspect of liveability. All customers expect a safe network, regardless of the mode. The transport network does this through transport and land use integration that places people at the centre. Consideration of high-quality design that focuses on walkability and pedestrian safety is central to this integration. Designing the system for the most vulnerable – children, elderly and people with disabilities – ensures safety for all customers across all modes.

Objective 4.1: Communities and public places are walkable and well-connected by integrated and sustainable transport options.

Liveability is enhanced with places that are designed for people, with mixed-use neighbourhoods and walkable streets where people of all ages and levels of fitness can move around easily. Places for people foster a sense of belonging. Liveable neighbourhoods are pedestrian friendly and include most daily activities and destinations including public transport links within comfortable walking and cycling distances.

The physical design of the transport system contributes positively to the region's amenity and vibrancy. Transport planning will focus on people, not modes, with a deliberate consideration of walkability in accessing all new stations, stops and public places to provide a truly integrated network.

Priority 4 aligns with:

- The Transport Coordination Plan's objective that transport is safe and secure for customers and goods and transport meets the needs of all Queenslanders, now and into the future.
- The State Infrastructure Plan's focus on improving transport safety and security and on connecting regional communities with access to essential services and opportunities.
- *ShapingSEQ* goal for SEQ's residents to live in better designed communities.

Objective 4.2: The transport system provides safe, fair and equitable travel options.

Customers have a right to be safe, regardless of their mode of transport. Addressing safety requires a multilayered approach including the vehicles and modes used, infrastructure upgrades, education, technology and system design.

Road incidents are a significant challenge across SEQ with a number of locations identified as high risk crash points. The proportion of serious cycle injuries and fatalities is also an issue.

A fair and equitable transport system is one which provides all customers with convenient and affordable options for how they choose to move. Age, health, income and location should not be a barrier to mobility. Improving access to passenger transport for disadvantaged groups will facilitate participation in society and access to services and provide significant economic and social benefits through providing greater employment and social participation. Matching options to need will be assisted by government and industry working in partnership to provide the right types of services for diverse customers. Options including active transport, community transport, personalised mobility, demand-responsive transport and public transport will all be explored to determine suitable solutions. SEQ-wide actions for Priority 4 are detailed below. These are actions that cross regional boundaries or are significant throughout SEQ. These are identified as both short-term and medium/long-term actions.

Table 8: Priority 4 actions for SEQ

Priority . A transp	4: Live Fort system that supports safe and liveable communities for everyone.	Objectives	
Objectiv and sust	Objective 4.1: Communities and public places are walkable and well-connected by integrated and sustainable transport options.		
Objectiv	Objective 4.2: The transport system provides safe, fair and equitable travel options.		
Actions -	- short-term		
A1.33	Next generation ticketing (public transport) Develop and implement a next generation ticketing solution for Queensland that enhances the customer experience, is cost-effective and able to adapt to future growth and technology.		•
A1.34	Park 'n' ride demand management Develop options for managing park 'n' ride demand across SEQ. This will include identification and application of strategic park 'n' ride sites.	٠	•
A1.35	Personalised transport planning Following completion of the Demand Responsive Transport (DRT) trial in Logan, apply the learnings and develop a DRT strategy that identifies appropriate zones and configurations for DRT to support local mobility and the high-frequency public transport network.		٠
Actions -	- medium/long-term		
A1.36	Personalised journey planning Investigate opportunities to support efforts to develop customer interfaces that integrate all transport modes to offer a personalised, seamless transport experience.	•	•
A1.37	Real-time data (public transport) Investigate the feasibility and merits of enhancing the existing real-time information system to provide a broader range of information to service providers and the general public, including providing capacity information, bookings, modal travel time comparisons, times, roadworks, accidents and weather disruptions.	٠	٠

3.2 Future network

The planned future network for SEQ seeks to support a region of more complete and interconnected communities through a multi-modal and integrated regional transport system. It will prioritise frequent and reliable public and active transport for people and efficient freight networks for goods.

Figure 11 presents the indicative future frequent public transport network for SEQ. This builds on the network and region shaping projects presented in *ShapingSEQ* and the *Connecting Brisbane* strategy.

By identifying the core, high-frequency parts of the future public transport network, we can provide a consistent longer term template for public transport planning and how it will be integrated with other types of services, modes and land uses. This planned future public transport network will support the efficient movement of people and high-quality, sustainable and liveable communities. The network will be key to achieving the desired outcomes within *ShapingSEQ* and Transport and Main Roads' vision of a single integrated network accessible to everyone.

It builds on a maturing transport system and seeks to support sustainable growth in SEQ. It also provides the framework for identification and delivery of region shaping infrastructure as high-frequency public transport corridors develop and intensify.

The indicative network shown in Figure 11 will be supported by a robust and safe active transport network that will connect to activity centres and transit stations across the region. In particular, this will be facilitated through a well-connected cycle network as outlined in the Principal Cycle Network Plans that have been prepared for the regions.

Figure 12 (on page 48) outlines the planned future road and freight network within SEQ. It highlights the existing key freight routes as well as planned road and rail corridors to also be delivered over the next 25 years. These parts of the future network support regional connectivity, productivity and prosperity. They are key to supporting the efficient movement of goods across SEQ and the freight system's role in contributing to SEQ's globally competitive economy.

Connecting Brisbane

Connecting Brisbane presents a shared vision and an integrated strategy of the Queensland Government and Brisbane City Council for the future of Brisbane's public transport system and connections to neighbouring local government areas.

Connecting Brisbane brings together strategic infrastructure, land use and transport planning at all three levels of government and focuses on the public transport component of passenger transport, including heavy rail, bus, metro and ferry.

It outlines how the Cross River Rail and Brisbane Metro projects will improve the customer experience, which represent the next step in proactively transforming the Brisbane public transport network and services for the future by unlocking the capacity of the existing system. Further, addressing the capacity and constraint issues in the core will facilitate the extension and improvement of the public transport system throughout SEQ.

This Regional Transport Plan directly responds to the challenges and opportunities presented in *Connecting Brisbane*, through identifying priorities and actions across the South Coast, Metropolitan and North Coast regions.



Buses in Brisbane City



Figure 11: SEQ Indicative Frequent Network 2041



Figure 12: Planned Future Road and Freight System 2041 Source: ShapingSEQ

3.3 Measures of success

The implementation of actions will result in real and measurable outcomes that indicate progress towards achieving the goals, priorities and objectives for SEQ. Monitoring will be undertaken to ensure the actions are prioritised in planning programs and progressed. As the Plans mature and planning is complete, actual outcomes will be reviewed against those originally intended. Regional Transport Plans outline a path to continue the delivery of an integrated transport system.

The measures of success are aligned with the objectives and transport KPIs for Queensland's transport system as set out in the *Transport Coordination Plan 2017–2027* (Table 9). The alignment of measures of success with the priorities and objectives is shown in Table 10.



Victoria Point Jetty bus stop

Table 9: Measures of success

Measure of success	Indicator	Source
Public transport access to services	Proportion of population with good accessibility to a range of essential services by walking or using public transport	Transport and Main Roads
Public transport mode share	Proportion of public transport mode share for all trips	Transport and Main Roads
Public transport patronage (per capita)	Public transport initial boardings per capita per year	Transport and Main Roads
Public transport travel time	Average travel time for peak and off-peak periods	Transport and Main Roads
Public transport customer satisfaction	Customer satisfaction ratings of public transport by service type: for example, bus, rail, ferry	Transport and Main Roads
Bus service on-time running	On-time running for peak and off-peak periods	Transport and Main Roads
Bus service travel time reliability	Variation in average travel time for a bus service for peak and off- peak periods	Transport and Main Roads
Active transport access to services	Proportion of population with good accessibility to a range of essential services for pedestrians and bicycles	Transport and Main Roads
Active transport mode share	Proportion of cycling and pedestrian mode share for all trips	Transport and Main Roads
Average commute time	Average commute time (work and education trips) for all modes of transport	Transport and Main Roads
Average travel time	Average travel time for peak and off-peak periods	Transport and Main Roads
Average travel distance	Average travel distance all trips	Transport and Main Roads
Road network productivity	Proportion of the road network with good productivity: peak and off-peak periods	Transport and Main Roads
Road network travel time reliability	Proportion of the road network with reliable travel times: peak and off-peak periods	Transport and Main Roads
Cost of excessive congestion	Total cost of excessive congestion for peak periods	Transport and Main Roads
Freight route reliability	Reliability of strategic freight routes	Transport and Main Roads
Greenhouse gas emissions from transport	Estimate of greenhouse gas emissions from motor vehicles (includes passenger vehicles, motorcycles, light commercial vehicles, rigid trucks, articulated trucks, buses and other trucks)	Centre for Transport, Energy and Environment
Security incidents on transport network	Number of security incidents on the transport network	Transport and Main Roads
Road fatalities	Road fatalities per 100,000 population	Transport and Main Roads
Road injuries	Hospitalised road casualties per 100,000 population	Transport and Main Roads
Frequency and duration of unplanned road closures	Total frequency and duration of unplanned closures on the transport network	Transport and Main Roads

North Coast	Metropolitan	South Coast	Implementation
HOILII COUSE	metropotitan	South coust	Inplementation

Table 10: Alignment of measures, priorities and objectives

	Prie	ority 1: G	row	Prio	Priority 2: Prosper		Priority 3: Sustain			Priority 4: Live	
Measures of Success	1.1	1.2	1.3	2.1	2.2	2.3	3.1	3.2	3.3	4.1	4.2
Public transport access to services	•	•			•					•	•
Public transport mode share	•	•			•				•		
Public transport patronage (per capita)	•	•			•				•		
Public transport travel time	•	•			•					•	
Public transport customer satisfaction	•	•			•					•	•
Bus service on-time running	•	•			•		•				
Bus service travel time reliability	•	•			•		•				
Active transport access to services	•	•						٠	٠	•	
Active transport mode share	•	•						•	•	•	•
Average commute time	•	•	•		•					•	
Average travel time	•	•	•	•	•			•			
Average travel distance		•									
Road network productivity				•		•					
Road network travel time reliability		•	•	•		•	•				
Cost of excessive congestion	•	•		•	•						
Freight route reliability				•		•					
Greenhouse gas emissions from transport	•	•						•	•	•	
Security incidents on transport network							•				
Road fatalities			•				•				
Road injuries			•				•				
Frequency and duration of unplanned road closures		•					•				



4. North Coast Regional Transport Plan

Moreton Bay · Noosa · Somerset · Sunshine Coast



4.1 Regional overview

The North Coast region (Figure 13) is the northernmost part of South East Queensland (SEQ) and includes Moreton Bay, Noosa, Somerset and Sunshine Coast local government areas.



Sources:

Queensland Government Statistician's Office. (2016). *Queensland Regional Profiles–custom region*. Department of Infrastructure, Local Government and Planning. (2017). *South East Queensland Regional Plan (ShapingSEQ)*. National Institute of Economic and Industry research. (2015/16). *Gross Regional Product and local jobs*. Sunshine Coast Regional Council. (2016). Media release: Sunshine Coast Airport expansion project receives Federal Government loan. Australia Bureau of Statistics. (2016). *Census counting employed persons*.



MORETON BAY

2016 ESTIMATED POPULATION: 438,300¹⁹ 2041 PROJECTED POPULATION: 656,000²⁰ **+1.6% GROWTH RATE**²¹

Economy:

The Moreton Bay local government area produced \$14.54 billion of Gross Regional Product and had 121,861 jobs and 25,140 businesses in 2015–16.^{22,23} Manufacturing, retail and construction activity have been supported by robust population growth to deliver strong and sustained economic growth for the area.²⁴ Further growth is expected in the tertiary education, logistics, hi-tech manufacturing and IT, and professional services sectors.²⁵

As of 2016, the health care and social assistance industry provided 14.9 per cent of all jobs within Moreton Bay, followed by retail trade (14.1 per cent), education and training (10.9 per cent) and construction (10.0 per cent).²⁶

Employment:

In 2016, the main industries in which Moreton Bay residents were employed included health care and social assistance (13.4 per cent), retail trade (10.9 per cent), construction (10.8 per cent) and education and training (8.1 per cent).²⁷

Growth:

Moreton Bay is expecting growth of 217,700 people by 2041. This growth is anticipated to require 88,300 additional dwellings, with 55 per cent of those dwellings expected to be provided through consolidated development.²⁸

Education:

The University of the Sunshine Coast will open a campus in Moreton Bay in 2020 which will cater for up to 10,000 students by 2030. The campus will be situated in a 460 hectare Priority Development Area within the suburbs of Petrie, Kallangur and Lawnton.²⁹

Recreation:

Moreton Bay's coastal locality provides significant outdoor precincts and environments for recreational enjoyment including boating and fishing, camping, water sports, bushwalking and hiking. The area is also home to the Bribie Island National Park, as well as the D'Aguilar National Park on the Somerset local government area border. It also benefits from the recreational opportunities in neighbouring regions of Sunshine Coast in the north and Brisbane in the south.

21 Queensland Government Statistician's Office. (2015). Queensland Government Population Projections, 2015 edition (medium series).

¹⁹ Australian Bureau of Statistics. (2017). Regional Population Growth, Australia (Catalogue No. 3218.0).

²⁰ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

²² National Institute of Economic and Industry Research (2015–16). Gross Regional Product and local jobs.

²³ Australian Bureau of Statistics. (2017). Counts of Australian Businesses, including Entries and Exits, June 2012 to June 2016.

²⁴ Moreton Bay Region. (2015). *Industry and Tourism*.

²⁵ Moreton Bay Regional Council. (2016). *Business section, www.moretonbay.qld.gov.au*.

²⁶ Queensland Government Statistician's Office. (2018). Queensland Regional Profiles: Workforce Profile for Moreton Bay (R) Local Government Area.

²⁷ Queensland Government Statistician's Office. (2018). Queensland Regional Profiles: Resident Profile for Moreton Bay (R) Local Government Area.

²⁸ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

²⁹ Moreton Bay Regional Council. (2016). www.moretonbay.qld.gov.au.

NOOSA

2016 ESTIMATED POPULATION: 54,000³⁰ 2041 PROJECTED POPULATION: 63,000³¹ **+0.6% GROWTH RATE**³²

Economy:

The Noosa local government area produced \$2.6 billion of Gross Regional Product and had 23,541 jobs and 7,085 businesses in 2015–16.^{33,34} Noosa's economy relies significantly on the tourism, retail and construction sectors and is positioned for growth in fields including health care, environmental industries, rural enterprise, creative industries and professional services.³⁵

As of 2016, the accommodation and food services industry provided 15.1 per cent of all jobs within Noosa, followed by retail trade (14.4 per cent), health care and social assistance (13.2 per cent) and construction (8.4 per cent).³⁶

Employment:

In 2016, the main industries in which Noosa residents were employed included health care and social assistance (13.1 per cent), accommodation and food services (12.2 per cent), retail trade (11.6 per cent) and construction (10.7 per cent).³⁷

Growth:

Noosa is expecting growth of 9,000 people by 2041. This growth is anticipated to require 6,400 additional dwellings, with 75 per cent of those dwellings expected to be provided through consolidated development.³⁸

Education:

Central Queensland University has a satellite campus in Noosa. The campus has recently been expanded to accommodate 1,200 students.³⁹

Recreation:

The area features many pristine beaches that stretch the coastline, the surrounding hinterland and national parkland. Noosa is home to the Noosa Biosphere Reserve and Ramsar Wetlands. These tourism drawcards also provide residents with world-class spaces for recreation. This is coupled with natural and environmental areas and community spaces and facilities.

³⁰ Australian Bureau of Statistics. (2017). Regional Population Growth, Australia (Catalogue No. 3218.0).

³¹ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

³² Queensland Government Statistician's Office. (2015). Queensland Government Population Projections, 2015 edition (medium series).

³³ National Institute of Economic and Industry Research. (2015–16). Gross Regional Product and local jobs.

³⁴ Australian Bureau of Statistics. (2017). Counts of Australian Businesses, including Entries and Exits, June 2012 to June 2016.

³⁵ Noosa Shire Council. (2016). *Local Economic Plan*.

³⁶ Queensland Government Statistician's Office. (2018). Queensland Regional Profiles: Workforce Profile for Noosa (R) Local Government Area.

³⁷ Queensland Government Statistician's Office. (2018). *Queensland Regional Profiles: Resident Profile for Noosa (R) Local Government Area.*

³⁸ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

³⁹ Central Queensland University. (2016).

SOMERSET

2016 ESTIMATED POPULATION: 25,200⁴⁰ 2041 PROJECTED POPULATION: 38,000⁴¹ **+1.7% GROWTH RATE**⁴²

Economy:

The Somerset local government area produced \$856 million of Gross Regional Product and had 7144 jobs and 1962 businesses in 2015–16.^{43.44} While manufacturing, agriculture and construction will remain strong contributors to Somerset's economy in the future, there will also be strong growth in transport, retail trade and education and training sectors.⁴⁵

As of 2016, the manufacturing industry provided 17.8 per cent of all jobs within Somerset, followed by agriculture, forestry and fishing (13.2 per cent), education and training (11.0 per cent) and retail trade (9.3 per cent).⁴⁶

Employment:

In 2016, the main industries in which Somerset residents were employed included manufacturing (12.4 per cent) and health care and social assistance (10.1 per cent), while both the agriculture, forestry and fishing sector and the construction industry accounted for 9.2 per cent each.⁴⁷

Growth:

Somerset is expecting growth of 12,800 people by 2041. This growth is anticipated to require 6200 additional dwellings, with all of those dwellings expected to be provided through expansion development.⁴⁸

Education:

Universities in adjoining areas including Toowoomba, Ipswich, Brisbane and Sunshine Coast provide educational opportunities for the Somerset area.

Recreation:

Somerset features rural and natural landscapes which provide recreational opportunities for both residents and visitors. Rural villages and towns are also a drawcard for the area. The Somerset and Wivenhoe dams provide a range of outdoor recreational options such as boating and fishing. The D'Aguilar National Park also runs along the border with Moreton Bay local government area.

⁴⁰ Australian Bureau of Statistics. (2017). *Regional Population Growth, Australia (Catalogue No. 3218.0)*.

⁴¹ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

⁴² Queensland Government Statistician's Office. (2015). Queensland Government Population Projections, 2015 edition (medium series).

⁴³ National Institute of Economic and Industry Research. (2015–16). Gross Regional Product and local jobs.

⁴⁴ Australian Bureau of Statistics. (2017). Counts of Australian Businesses, including Entries and Exits, June 2012 to June 2016.

⁴⁵ Somerset Regional Council. (2016). *Somerset Economic Development Plan 2015–2020*.

⁴⁶ Queensland Government Statistician's Office. (2018). Queensland Regional Profiles: Workforce Profile for Somerset (R) Local Government Area.

⁴⁷ Queensland Government Statistician's Office. (2018). Queensland Regional Profiles: Resident Profile for Somerset (R) Local Government Area.

⁴⁸ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).



Economy:

The Sunshine Coast local government area produced \$14 billion of Gross Regional Product and had 122,124 jobs and 28,917 businesses in 2015–16.^{52,53} The construction, retail and tourism sectors and the health, education and professional services sectors are the primary industries in the region and are increasingly growing their contribution to the area's economic output.⁵⁴

As of 2016, the health care and social assistance industry provided 16.4 per cent of all jobs within the Sunshine Coast, followed by retail trade (11.9 per cent), education and training (9.6 per cent) and construction (9.4 per cent).⁵⁵

Employment:

In 2016, the main industries in which Sunshine Coast residents were employed included health care and social assistance (15.0 per cent), construction (12.2 per cent), retail trade (10.9 per cent) and education and training (9.0 per cent).⁵⁶

Growth:

Sunshine Coast is expecting an additional 191,600 people to reside in the region by 2041. This growth is anticipated to require 87,000 additional dwellings, with 62 per cent of those dwellings expected to be provided through consolidated development.⁵⁷

Education:

The University of the Sunshine Coast has more than 11,500 students. The university is a foundation partner of the Sunshine Coast University Hospital which opened in 2017. It is the first tertiary teaching hospital to open nationally in the last 20 years and will be a significant employment hub for the area.⁵⁸

Recreation:

The Sunshine Coast is renowned for its world-class beaches. It also features a wide variety of community facilities and precincts, outdoor spaces, as well as natural and hinterland areas. The unique Glass House Mountains also attracts visitors and are a defining landscape feature of the North Coast region.

51 Queensland Government Statistician's Office. (2015). Queensland Government Population Projections, 2015 edition (medium series).

⁴⁹ Australian Bureau of Statistics. (2017). *Regional Population Growth, Australia (Catalogue No. 3218.0)*.

⁵⁰ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

⁵² National Institute of Economic and Industry Research. (2015–16). Gross Regional Product and local jobs.

⁵³ Australian Bureau of Statistics. (2017). Counts of Australian Businesses, including Entries and Exits, June 2012 to June 2016.

⁵⁴ Sunshine Coast Council. (2013). Sunshine Coast The Natural Advantage Regional Economic Development Strategy 2013–2033.

⁵⁵ Queensland Government Statistician's Office. (2018). *Queensland Regional Profiles: Workforce Profile for Sunshine Coast (R) Local Government Area.*

⁵⁶ Queensland Government Statistician's Office. (2018). Queensland Regional Profiles: Resident Profile for Sunshine Coast (R) Local Government Area.

⁵⁷ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

⁵⁸ University of the Sunshine Coast. (2016). Sunshine Coast University Hospital.

4.1.1 Projected population and employment growth

Between 2016 and 2031, Moreton Bay and Sunshine Coast both expect significant population growth. Figure 14 shows the expected total population change by mappable areas across the region from 2011 to 2031. Much of this growth is anticipated to be infill, which provides opportunities for urban consolidation and trunk public transport services. Nevertheless, there will also be greenfield development, for which appropriate servicing options need to be considered for lower density areas. Noosa and Somerset will continue to be low growth areas.



Figure 14: Projected population growth by area between 2011–2031 for the North Coast region **Source:** Queensland Government Statisticians Office. (2011). *Queensland Government Population Projections by Statistical Area, 2011–2031*.

The larger land sizes of the mapped areas in the south and north depict medium-low population growth. It is noted this change is over the total land area and subsequently the intensity of change is anticipated to be lower. Figure 15 shows where employment growth is expected in the North Coast region, with highest levels forecast in Maroochydore and Caboolture.



Figure 15: Projected employment growth between 2011–2031 for the North Coast region **Source:** Queensland Government Statisticians Office. (2011). *Queensland Government Population Projections by Statistical Area, 2011–2031*.

4.1.2 Regional economic and growth areas

A range of regional economic and growth areas will have an impact on the current and future regional transport network. These areas include State Development Areas, Priority Development Areas, Regional Economic Clusters, knowledge and technology precincts and major expansion areas. These areas are highlighted in Figure 16 and are detailed further in *ShapingSEQ*.



62 Draft Regional Transport Plans | South East Queensland | 2018

4.1.3 Region shaping projects

A number of major large-scale projects in public transport, road transport and urban development will help shape the North Coast region. These projects are detailed below.

Maroochydore City Centre

The development of the Maroochydore City Centre represents a once in a lifetime opportunity to establish a new capital city for the Sunshine Coast. The project will be instrumental in building and strengthening the region, providing a mix of residential, commercial, retail, civic and community uses to create a vibrant business and city centre. Key to its development will be the establishment of an efficient and effective multi-modal public transport system and connections to the existing road network.

Beerburrum to Nambour (B2N) rail upgrade

Detailed design and delivery planning for the Beerburrum to Nambour Rail Upgrade project will commence in the second half of 2018. The project scope includes duplication of the rail track on an improved alignment between Beerburrum and Glasshouse Mountains, duplication of the rail track primarily on the existing alignment between Glasshouse Mountains and Landsborough, as well as station upgrades and passing loop extensions between Landsborough and Nambour. It will investigate a range of other upgrades including enabling road works. Construction is expected to take five years.

Sunshine Coast Airport expansion

The expansion includes delivery of a new runway (expected by 2020). The Airport Expansion project will also facilitate tourism growth with potential to attract up to two million more passengers annually by 2040 and create significant additional economic benefits for the region.



Rail construction, Redcliffe Peninsula line

Kawana Waters Town Centre

The Sunshine Coast Council is facilitating a master planned community at Kawana including an urban village and retail facility comprising of a mix of commercial, entertainment and residential uses. Sunshine Coast Council is seeking to achieve increased residential yields to support a transit oriented development and high quality public transport links. To support these land use planning objectives and grow economic opportunities, it is necessary to invest in state transport infrastructure and services. Transport and Main Roads will work with Sunshine Coast Council and proponents to support this objective (such as planning for upgrades to the Mooloolah River Interchange, Kawana Arterial and Sunshine Motorway).

Sunshine Coast University Hospital and health precinct

The precinct is located in Kawana and will create employment in a concentrated area and attract further business outside the region's traditional sectors of tourism, retail and construction.

Beerwah to Maroochydore high-frequency public transport corridor

A passenger transport trunk corridor from Maroochydore to Caloundra and on to Beerwah has been identified in *ShapingSEQ*. Further investigation will be undertaken which will feed into the feasibility and business case for the high-frequency and high-capacity public transport project.

Bruce Highway upgrades

A number of key upgrades are planned across the Bruce Highway to help improve efficiencies. These upgrades will support both freight and passenger transport.

Rail station upgrades

A number of rail stations will be upgraded as part of the continuing Station Accessibility Upgrade program enabling customers to independently access station platforms and trains. Works have commenced at Morayfield and Strathpine stations, with Dakabin Station currently in design stage. Station Upgrades vary depending on the requirements at each station, but will include new lifts or escalators, new platforms, and access improvements to meet disability standards.

Priority Development Areas

Priority Development Areas (PDA) have been identified for specific accelerated development, with a focus on economic growth. In addition to Maroochydore City Centre, locations within the North Coast region are:

- Caloundra South PDA
- The Mill at Moreton Bay PDA.⁵⁹

59 Department of State Development, Manufacturing, Infrastructure and Planning. (2018). *Priority Development Areas*.

4.2 **Regional transport** network

4.2.1 Current regional transport network

The region's transport network is characterised by road and rail connections which also provide inter-regional connections to Gympie in the north and Brisbane in the south. The region includes a maturing road network and growing public and active transport networks.

Active transport

Transport and Main Roads and local governments recognise the important role active transport can play in the way people move. Currently less than 3 per cent of commuters across the region walk or cycle to work.⁶⁰

Well designed and connected streets and activity centres which encourage walking as the preferred method of travel present a range of social and economic benefits. This will be particularly important in activity centres where pedestrians and cyclists will be prioritised over vehicle movement.

Key cycle infrastructure projects underway or recently completed in the North Coast region include:

- planning for a cycle route from Maroochydore to Alexandra Headland, parallel to Aerodrome Road and Alexandra Parade
- Mooloolaba to Minyama Separated Bikeway, the first separated bikeway within an urban/business area on the Sunshine Coast
- completion of missing links on the Eenie Creek Road Pathway, between Sunrise Beach and Tewantin
- completion of 9.2 kilometres of cycle lane along Tanawha Tourist Drive, improving cycle connections between Tanawha and Sippy Downs
- construction of cycling facilities along David Low Way.

Public transport

The North Coast region is served by rail and bus services which are part of the integrated public transport system in SEQ managed by TransLink, with the exception of Somerset which currently lies outside the SEQ integrated ticketing boundaries.

The region's bus network connects with heavy rail to facilitate trips to wider destinations across SEQ. The rail network is connected to the overall SEQ passenger rail network. The region is served by the Sunshine Coast line and the Redcliffe Peninsula line.

The bus network in the region has different characteristics depending on the service area. In the Sunshine Coast and Noosa, the bus network is focussed on meeting customer demand in the coastal corridor from Tewantin and Noosa in the north and from Maroochydore to Caloundra in the south. Scheduled bus services also serve two major inland activity centres of Nambour and the University of the Sunshine Coast at Sippy Downs.These provide connections with the Queensland Rail Citytrain network to Brisbane and beyond and long distance Traveltrain passenger rail services.

The Moreton Bay local government area is within commuting distance of Brisbane City in the south. With major movements to northern Brisbane and Brisbane City, the bus network is focussed on meeting customer demand between Caboolture, Morayfield, Redcliffe, North Lakes and Strathpine. There is also commuter traffic which travels from the southern Sunshine Coast and southern Somerset areas to Brisbane.

In Somerset, an urban public transport bus service is provided from Kilcoy to Caboolture as part of the *qconnect* regional public transport service scheme.

Rail freight

Rail freight moves through the region on the North Coast line which shares track with passenger services. As with the rest of SEQ, passenger rail services are given priority and rail freight movements are restricted to off-peak commuter periods.

⁶⁰ Australian Bureau of Statistics. (2016). Census of Population and Housing – Method of Travel to Work 2016.

South Coast

Roads

The road network includes the Bruce Highway that runs through the region in a north-south direction.

The main coastal activity centres of Maroochydore, Mooloolaba and Caloundra are connected by Nicklin Way, a major arterial road providing intra-regional access to these three communities. The Sunshine Motorway provides connections from Sippy Downs and along the coast from Maroochydore, the airport and Noosa.

The Brisbane Valley Highway and the D'Aguilar Highway are the major roads serving Somerset.

Several roads are approved to handle 'B-double' long multi-combination freight vehicles, including the Bruce Highway and D'Aguilar Highway. The road network is shown in Figure 16 (on page 62).

Air

The Sunshine Coast Airport is a strategic airport offering services domestically to and from Sydney, Melbourne and Adelaide as well as seasonal services to Auckland. It is located to the north of the Sunshine Coast's major activity centre, Maroochydore. It is connected to the regional transport network via the Sunshine Motorway. An urban bus service is also provided for passenger and employee connectivity to the airport. In 2015–16, the airport served 964,362 passengers.⁶¹ The Brisbane Airport in the south is also a key gateway for the region, in particular for southern areas such as Moreton Bay.

Marine

Private operators provide public timetabled ferry services for access to Tewantin, Noosaville and Noosa Heads. Across the region, Transport and Main Roads manages boating infrastructure in conjunction with local government, port authorities and private developers.



Maroochy River Bridge, Sunshine Motorway

⁶¹ Sunshine Coast Council. (2016). Media release: A record-breaking year for Sunshine Coast Airport, 2 August 2016.

4.2.2 Transport challenges in the North Coast region

In partnership with stakeholders the following challenges for the North Coast region have been identified.

Travel preferences and mode competitiveness

The North Coast region has high reliance on private vehicles. The proportion of public transport and active travel such as walking and cycling have either declined or remained stable at small mode shares over time. Figure 17 provides a breakdown of method of travel to work in 2016.⁶²

Employment travel patterns

In the North Coast region, many people travel outside of their local government area for work each day. Figure 18 shows the extent of such movement. For example, in 2015–16, 49 per cent from Moreton Bay and 45 per cent from Somerset who are employed worked outside their local government area. By 2031 this is projected to increase to 50 per cent.

Travelling longer commuting distances has tended to increase the reliance on private vehicles across the North Coast region, with resulting congestion, potential environmental degradation and capacity constraints in peak periods. Current employment patterns also reinforce the importance of strong inter-regional passenger transport connections and enhancing capacity on the rail network during the peaks for people who travel into the Metropolitan region for work.

While there is a regional planning focus on future employment growth along key passenger transport corridors and in areas with better access to public transport, transport planning must acknowledge and respond to residents' choice to access employment opportunities across the wider SEQ.



Figure 17: North Coast region mode share for journeys to work

Source: Australian Bureau of Statistics. (2017). *2016 census* – *Travel to work*

⁶² Australian Bureau of Statistics. (2017). 2016 Census – Travel to work.

Proportion of population that travel outside of their local government area for work in 2015–16



Projected proportion of people that travel outside of their local government area for work in 2030–31



Total proportion of population working outside their local government area
 Proportion of population travelling to other local government areas for work

Figure 18: Proportion of people who travel outside their local government area for work 2015–16 and 2030–31 **Source:** Queensland Treasury. (2016). *Regional Employment Projections.*

Road congestion

Customers and stakeholders highlighted road congestion as a key issue across the region, with many delays being experienced both during and outside the peak periods. Some of the key corridors include, but are not limited to, the Bruce Highway, Sunshine Motorway, Nicklin Way, Morayfield Road, Caloundra Road and Beckmans Road.

Natural barriers such as rivers, wetlands, protected areas and mountain ranges often limit route options and lead to an unavoidable channeling of traffic along key corridors.

Road congestion has a negative impact on the economy. Figure 19 illustrates that in 2015-2016 excessive congestion on state-controlled roads in the North Coast region cost \$108 million in lost economic activity. It also illustrates that the majority of congestion experienced across the network is recurring congestion, and reductions can potentially occur through improved resilience, management of weather events, and decreasing the frequency and impact of incidents.



Figure 19: The cost of excessive congestion in the North Coast region in 2015–16 **Source:** Department of Transport and Main Roads. (2017).

Reliance on the private vehicle

There is a heavy reliance on private vehicles to access activity centres from low density and rural areas across the North Coast region.

Public transport options are concentrated in the more densely settled locations such as the urban areas of Moreton Bay, Sunshine Coast and Noosa. Bus journey times are generally not comparable to private vehicles. Figures 20 and 21 shows the accessibility by car and public transport to the closest key centres. By comparing travel times, this shows that it is significantly easier to access most of the urbanised parts of the North Coast region by private vehicles than public transport. This includes growth areas such as: North Lakes/Mango Hill, Caboolture West, Beerwah East, Caloundra South and Palmview.

Challenges for freight traffic

The Bruce Highway is the major route for transporting agricultural products from production regions to export markets and beyond via the Brisbane Airport and Port of Brisbane. It also plays a major role in transporting large and oversized freight to support mining operations in northern areas of the state. In the North Coast region, there are more than three movements of oversized freight vehicles per day.⁶³

Freight by rail is carried on the North Coast line. Regional stakeholders have identified capacity issues and vulnerability to flooding which impacts the reliability and efficiency of freight haulage. The opportunity for growth in rail freight and a shift of regional freight movements from road to rail is constrained. Without upgrade and rail duplication, as proposed under the Beerburrum to Nambour upgrade, increasing passenger rail demands are likely to constrain rail freight growth opportunities further.



Figure 20: Car accessibility to the closest key centres in the North Coast region

Source: Department of Transport and Main Roads. (2017). *Output from the LUPTAI software, 2016.*



Figure 21: Public transport accessibility to the closest key centres in the North Coast region

Source: Department of Transport and Main Roads. (2017). *Output from the LUPTAI software, 2016.*

⁶³ Department of Transport and Main Roads. (2013). Moving Freight.

Safety of road users

Safety of road users is a universal challenge. Overall, road fatalities have increased slightly in the region with a peak in 2013. Passenger vehicles are the most likely mode to be involved in fatal crashes followed by motorcycles. Improving safety across all modes of travel is important across the North Coast region as well as SEQ.

Dispersed settlements

The region is characterised by dispersed settlement patterns with a number of low-density hinterland and rural communities.

This dispersed settlement pattern impacts greatly on the affordability of providing transport infrastructure and services in the region. It can mean that traditional scheduled public transport services are costly to operate leading to low service frequencies. Transport choices are more limited within these areas.

Stakeholders have raised the issue that rural residential housing is considered to be an important form of housing in the region and supports growth of hinterland townships. Providing accessibility to these residents will continue to be challenging.

ShapingSEQ identifies the importance of retaining the Moreton Bay–Sunshine Coast (northern) inter-urban break. Protecting such biodiversity corridors can present challenges to transport infrastructure planning and delivery.

Mobility and accessibility for an ageing population

Compared to the rest of Queensland, the North Coast region has a greater proportion of people aged over 65 years (17 per cent compared with 15 per cent state average).

Noosa and the Sunshine Coast have higher proportions of seniors than the other North Coast councils at 23 per cent and 20 per cent respectively.⁶⁴

Senior residents can be transport disadvantaged as they may be less inclined, or able, to drive or have mobility limitations. They are particularly at risk of social isolation as a result of constrained transport options.⁶⁵

Given the median age of the region's population is expected to increase further, the number of people requiring either special transport assistance, or more convenient transport opportunities, is also expected to increase.



Esk township, Somerset

⁶⁴ Queensland Government Statistician's Office. (2017). Queensland Regional Profiles.

⁶⁵ Rosier. K. and McDonald M. (2011). The relationship between transport and disadvantage in Australia.

4.3 What do the priorities and objectives mean for the North Coast region?

TRANSPORT SYSTEM

The safety of all transport system customers is our primary priority as we create a single integrated transport network accessible to everyone.

Priority 1: Grow	Priority 2: Prosper	Priority 3: Sustain	Priority 4: Live
	Transport	objectives	
 Shape sustainable growth in consolidation areas. Reliable, efficient and sustainable travel options in expansion areas. Safe and efficient movement in rural communities. 	 2.1 Efficient and reliable movement of goods and services. 2.2 A reliable and high- frequency public transport network. 2.3 Accurate and informed transport decision-making. 	 3.1 Transport system resilience. 3.2 Safe, accessible and convenient active transport options. 3.3 A sustainable transport system. 	 4.1 Walkable communities and activity centres connected by sustainable transport. 4.2 Safe, fair and equitable travel options for all.
	What it means for th	e North Coast region	
 Urban consolidation and high-quality design, particularly in and around activity centres and along existing and planned public transport corridors. Connecting expansion areas such as Palmview, Caloundra South, Beerwah East, Caboolture West, North Lakes–Mango Hill and Warner to public transport. Improving safety and key connections in rural areas. 	 Improved freight routes, such as the Bruce Highway, D'Aguilar Highway and North Coast Rail line. Increased public transport connecting activity centres and regional economic clusters (e.g. Noosa, Nambour, Maroochydore, Kawana, Mooloolaba, Caloundra, Caloundra South, Beerwah, Caboolture, Redcliffe, North Lakes, Morayfield and Strathpine). Improving data accuracy and usage through smart infrastructure, real-time data and artificial intelligence. 	 Infrastructure is improved and built to minimise the impacts of flooding and incidents, such as on the Bruce Highway, Gympie Road, Sunshine Motorway and North Coast Rail line. Network and incident management is improved to minimise impacts of closures and disruptions. Prioritisation of active transport. Provision of electric vehicle infrastructure. Infrastructure and services that minimise impacts on scenic landscapes and ecological areas. 	 Safe walking and cycling is prioritised within local neighbourhoods and activity centres. Transport choice is improved via options appropriate for the demand and land-use, including community and school transport. Personalised transport such as ride share.
	Measures	of success	
 Public transport access and competitiveness measures. Commute/travel time and travel distance. Road network reliability. 	 Public transport competitiveness measures. Commute/travel time. Road network productivity, travel time. Freight route reliability. 	 Active and public transport mode share. Frequency and duration of unplanned closures. Greenhouse gas emissions from transport. Road network reliability. Security incidents, fatalities and injuries. 	 Public transport customer satisfaction and competitiveness. Active transport mode share. Average commute time.

The priorities and objectives for SEQ are outlined in Chapter 3. This section outlines how the priorities and objectives will be achieved in the North Coast region.

4.3.1 Priority 1: Grow – A transport system that supports a consolidated and sustainable urban structure

What does this mean for the North Coast region?

Objective 1.1: Current and future transport networks shape sustainable growth and development of communities.

The North Coast region's population is dispersed across the region at different densities and in different types of communities. Increased densities and high-quality living environments are planned in principal activity centres at Caboolture and Maroochydore and major activity centres at Strathpine, North Lakes, Redcliffe, Caboolture West, Beerwah, Caloundra South, Caloundra, Kawana, Sippy Downs, Nambour and Noosa. In addition, urban consolidation is planned to cater for the majority of population growth in the region. A variety of housing types and proximity to essential services will be provided across the region in support of expected population growth.

This objective will support and enable sustainable growth through:

- providing a variety of active, public and private transport options that fit the purpose of existing and growing communities
- enabling urban consolidation and increased densities through access to mass transit and active transport
- incorporating high-quality urban design into transport projects and supporting urban amenity along active streetscapes
- improving the integration of land use and transport planning in strategic and statutory planning instruments and decision-making.

Objective 1.2: Communities in growth (expansion) areas have access to reliable, efficient and sustainable travel options.

While urban consolidation is planned to cater for the majority of growth, urban expansion is also planned to occur. Like consolidated growth, expansion will provide a mix of densities and housing types. However, expansion is expected to provide more lower density and detached housing stock.

Across the region, significant expansion is planned to occur in Warner, North Lakes–Mango Hill, Caboolture West, Caloundra South, Palmview and Beerwah East. This objective will be achieved for the North Coast region through:

- providing residents with an appropriate range of transport options to meet their travel needs
- enabling residents to connect to mass transit
- encouraging innovative service delivery models, such as ride sharing and peer-to-peer mobility
- transit services and connections that evolve to meet the needs of new and established communities as they grow
- encouraging neighbourhoods that support walking and cycling

Objective 1.3: People and goods move safely and efficiently in rural communities

Many rural communities exist across the region. The majority of land in the region is made up of rural or biodiverse areas. Nearly all freight and inter-town travel is by road and, given the dispersed settlement patterns of the rural areas, will continue to remain so for the foreseeable future. This means road corridor availability and safety is of critical importance to rural communities.

This objective can be achieved for the North Coast region through:

- planning to minimise transport disadvantage in rural settlements
- safe access to essential services, local employment, social support and social interaction
- improving the road network and reducing conflicts between modes and road network users.

Table 11: Priority 1 actions for the North Coast region

Priority A trans	/ 1: Grow port system that supports a consolidated and sustainable urban structure	C)bjective	!S
Objectiv develop	/e 1.1: Current and future transport networks shape sustainable growth and oment of communities.	1.1		
Objectiv and sus	/e 1.2: Communities in growth (expansion) areas have access to reliable, efficient tainable travel options.		1.2	
Objectiv	Objective 1.3: People and goods move safely and efficiently in rural communities.			1.3
Actions	– short-term			
A2.01	Bus station and stop upgrade planning Undertake planning for bus station and stop upgrades in the region to improve network performance and connectivity at activity centres and interchange locations. Early priorities include Mooloolaba bus station upgrade, Strathpine shopping centre bus facility upgrade, Currimundi bus stop upgrade and Maroochydore City Centre bus station.	•		
A2.02	Caboolture public transport planning Progress planning to investigate provision of frequent public transport services to the planned major expansion growth area in Caboolture West and assess options for upgrading of bus and rail interchanges at Caboolture rail station including current and future parking demand at the station.	٠	٠	
A2.03	Infrastructure coordination plans Collaborate with the Department of State Development, Manufacturing, Infrastructure and Planning, other state government agencies and local governments on infrastructure coordination plans within the region to improve the alignment of infrastructure planning with local and regional priorities and coordination within and between state and local government.	٠		
A2.04	Maroochydore to Beerwah public transport planning Undertake strategic planning for the southern Sunshine Coast's public transport network to determine the most appropriate public transport modes, alignments and ancillary infrastructure. Identify an ultimate preferred network, staging and delivery strategy.	٠	•	
A2.05	Moreton Bay – Southern Sunshine Coast north-south urban arterial corridor planning Undertake planning for north-south arterial links parallel to the Bruce Highway between the Pine River and Caloundra Road to provide alternative parallel arterial roads for shorter trips and preserve the Bruce Highway's strategic route role.	٠	٠	
A2.06	Park 'n' ride capacity expansion planning Undertake strategic planning to identify locations suitable for major park 'n' ride capacity expansion at key locations on the North Coast region public transport network.	٠	٠	•
Metropolitan

South Coast

Priority 1: Grow A transport system that supports a consolidated and sustainable urban structure		Objectives		S
Objectiv develop	/e 1.1: Current and future transport networks shape sustainable growth and ment of communities.	1.1		
Objective 1.2: Communities in growth (expansion) areas have access to reliable, efficient and sustainable travel options.			1.2	
Objectiv	re 1.3: People and goods move safely and efficiently in rural communities.			1.3
Actions	– short-term			
A2.07	Planning for major developments Undertake planning required to inform Transport and Main Roads input into future transport networks serving major development areas such as Beerwah East, Caboolture West, Caloundra South, Maroochydore City Centre, the Mill at Moreton Bay and Palmview. Participate in master planning activities and development of infrastructure agreements, in partnership with the Department of State Development, Manufacturing, Infrastructure and Planning, local government and the private sector to ensure state transport interests are protected and to maximise benefits from a 'one network' approach.	•	•	
A2.08	Rail station accessibility and capacity upgrades Identify areas of most need, prioritise and progressively undertake the detailed planning investigations required to guide investment decisions for rail station upgrades to improve accessibility and capacity in the North Coast region.	٠	•	
A2.09	Rural and hinterland road corridor planning Undertake planning to establish a reliable, safe and flood immune state road network for the rural and hinterland areas of the Sunshine Coast, Noosa and Somerset areas.			•
A2.10	Safety and amenity impacts for rural townships Work with local governments to mitigate safety and amenity issues caused by traffic volumes and heavy vehicles where relevant for rural townships and subject to statewide priorities. Priorities include towns along the Brisbane Valley Highway, D'Aguilar Highway, Steve Irwin Way and Cooroy Noosa Road.			•

4.3.2 Priority 2: Prosper – A transport system that supports the economic competitiveness of the region

What does this mean for the North Coast region?

Objective 2.1: Goods and services move efficiently and reliably along supply chains to and between Regional Economic Clusters and markets.

The region is a net receiver of freight, with the Bruce Highway operating as a key freight corridor. The Brisbane Valley Highway, D'Aguilar Highway, Coolum-Yandina Road and North Coast line are also important to the region, providing access to markets for local produce and transporting produce through the region.

The region contains a number of Regional Economic Clusters located on, or nearby to, the key freight corridors. These are located at Maroochydore, Kawana, North Lakes–Mango Hill and Strathpine–Brendale. In addition, major enterprise and industrial areas exist or are planned at Coolum, Yandina East, Caloundra, Elimbah East and Morayfield. Enabling the efficient movement of people and goods to and between these precincts will assist in strengthening the economic competitiveness of the region.

This objective can be achieved for the North Coast region through:

- infrastructure upgrades
- working with industry to prioritise freight movement in off-peak periods
- improvements through mechanisms such as vehicle types, connective vehicle technologies, route optimisation and data sharing
- minimising conflicts of freight and passenger vehicles on highways and in inter-town connections
- improving the reliability and efficiency of key freight routes.

Objective 2.2: Activity centres are connected by a reliable and high-frequency public transport network.

Reliable and high-frequency public transport will be needed to support population and economic growth across the region. Connecting key activity centres with the high frequency network is essential to forming the core spines of the network. This includes services to existing and emerging knowledge and technology precincts.

The network will connect activity centres and knowledge precincts at Noosa, Nambour, Maroochydore, Sippy Downs, Kawana, Caloundra, Caloundra South, Beerwah, Caboolture, Redcliffe, North Lakes and Strathpine. **Objective 2.3: Transport planning and investment is informed by current and accurate information.**

Technological advancements have increased the availability of high-quality data about the transport system and its users. This data can inform transport improvements and how they are planned for and implemented. Equally, this data can be used by customers to inform their journey planning and use of the network.

This objective can be achieved for the North Coast region by:

- collaborating within government and with industry to enable shared data capability
- using accurate, real-time data to understand both current and future customer mobility opportunities
- connecting and engaging with customers in two-way communication
- collecting and using real-time infrastructure data for appropriate infrastructure upgrades.

"If the prosperity that comes from knowledge-intensive activity is to be widely shared, governments need to enable more people to live closer to these areas and to improve road and public transport networks so that they better connect employers and workers".

Source: Grattan Institute. (2014). *Mapping Australia's Economy p.1*.



Sunshine Coast University Hospital

Table 12: Priority 2 actions for the North Coast region

Priority 2: Prosper A transport system that supports the economic competitiveness of the region		Objectives		S
Objecti betwee	/e 2.1: Goods and services move efficiently and reliably along supply chains to and n Regional Economic Clusters and markets.	2.1		
Objectiv network	/e 2.2: Activity centres are connected by a reliable and high-frequency public transport		2.2	
Objecti v informa	/e 2.3: Transport planning and investment is informed by current and accurate tion.			2.3
Actions	– short-term			
A2.11	Bruce Highway upgrade planning Undertake planning for staged upgrades of Bruce Highway interchanges and links between the Pine River and Cooroy to achieve desired capacity, safety and flood immunity standards.	•		
A2.12	Caloundra road access planning Undertake planning for staged implementation of intersection upgrades and road widening projects to establish a good level of service for road access to and from Caloundra city centre.	٠		
A2.13	D'Aguilar Highway upgrade planning Undertake planning for capacity, safety and flood immunity upgrades along the D'Aguilar Highway including assessment of freight traffic issues in Kilcoy and planning of capacity upgrades to accommodate increased traffic generated by growth in Caboolture West.	•		
A2.14	Intersection upgrades Undertake planning to inform options to upgrade intersections across the region to reduce congestion and improve safety.	•		
A2.15	Maroochydore City Centre road corridor planning Undertake planning in partnership with Sunshine Coast Council to establish reliable and safe arterial road connections to and from Maroochydore City Centre, through cost-effective and staged intersection and link capacity upgrades to ensure that development of the principal regional activity centre, and resulting economic growth and employment opportunities, is not constrained.	٠	•	
A2.16	 Moreton Bay road corridor planning Undertake planning to establish a reliable, safe and flood resilient state road network for the Moreton Bay region through cost-effective, staged road network upgrades. This will support: traffic generated by the Mill Priority Development Area and significant residential developments to the west and north the developing areas of Mango Hill and Griffin the planned future residential developments of Caboolture West, Morayfield South and Pine Valley the transition between urban, rural and industrial areas and their associated land uses and traffic generating activities. 	•		

(continued next page)

Priority A trans	7 2: Prosper port system that supports the economic competitiveness of the region	C)bjective	S
Objecti betwee	/e 2.1: Goods and services move efficiently and reliably along supply chains to and n Regional Economic Clusters and markets.	2.1		
Objectiv network	/e 2.2: Activity centres are connected by a reliable and high-frequency public transport		2.2	
Objecti v informa	/e 2.3: Transport planning and investment is informed by current and accurate tion.			2.3
Actions	– short-term			
A2.17	North Brisbane/Southern Moreton Bay public transport planning Undertake investigations and planning to inform subsequent options for public transport connections for the North Brisbane/Southern Moreton Bay area.		•	
A2.18	SEQ North intermodal freight terminal planning Undertake planning to identify and protect a future intermodal freight terminal north of Brisbane.	٠		
A2.19	Sunshine Coast north road corridor planning Undertake planning to establish a reliable, safe and flood immune state road network for the northern Sunshine Coast area (Coolum, Bli Bli, Cooroy and Noosa) east of the Bruce Highway, including planning for future upgrades of David Low Way and east-west connections to the Bruce Highway.	٠		
A2.20	Sunshine Motorway upgrade planning Undertake planning for staged upgrades of the Sunshine Motorway and extension across the Mooloolah River to the Roys Road Interchange on the Bruce Highway, including planning for the Kawana Arterial and Bells Creek Arterial, to achieve a reliable and safe primary road spine for the Sunshine Coast.	٠	•	
Actions	– medium/long-term			
A2.21	Nambour to Maroochydore public transport planning Undertake planning to investigate extending a high-frequency public transport connection from Nambour to Maroochydore and onward connections.		•	
A2.22	Noosa to Maroochydore public transport planning Undertake planning to investigate providing a high-frequency public transport connection from Noosa to Maroochydore.		•	

4.3.3 Priority 3: Sustain – A transport system that contributes to the environmental sustainability and resilience of the region

What does this mean for the North Coast region?

Objective 3.1: The transport system is safe, resilient and connected during and after extreme weather, events and incidents.

There are many corridors throughout the region that are prone to flash flooding, creek and river flooding as well as storm tide inundation which cause disruption to the transport network. Traffic incidents and events also disrupt the movement of people and goods.

Safety, resilience and connectivity will be supported through appropriate infrastructure upgrades, and through providing customers with the information they need to keep them safe and moving in real-time, as events or incidents are responded to and resolved. Through the use of real-time data and information, infrastructure upgrades can be focused on the links where they are most needed.

This objective can be achieved for the North Coast region through:

- management plans that minimise the impacts of known closures and disruptions to the transport network
- effective and reliable communication, such as early warning systems and real-time information
- innovative incident management and response systems
- targeted infrastructure upgrades.

Objective 3.2: Walking, cycling and other sustainable travel options are accessible, convenient and safe.

Active transport options generate positive benefits for the region's communities, particularly as the region grows. They provide options for a range of trips while supporting positive health and exercise outcomes. Walking and cycling encourage place making and can increase economic activity, particularly for retail and dining. They also positively impact the environment by reducing emissions generated from mobility.

Active transport will play a critical role in the region's transport network. In the urban context, cycling and walking infrastructure will provide options for customers to commute, access local mass transit stops and for a variety of recreational activities. Where possible, these options will be separated from vehicle traffic to increase safety.

In rural communities, due to distances, road safety and speed, active transport is mostly relevant to short distance trips within the local townships and neighbourhoods. This objective can be achieved for the North Coast region through:

- provision of accessible, convenient and safe walking and cycling infrastructure for a range of trips
- policies and interventions to prioritise the needs of pedestrians and cyclists.

Objective 3.3: The transport system is sustainable and supports the region's environmental and lifestyle values

The North Coast region has embraced environmental protection and sustainability to maintain long-term liveability and underpin economic and social development. The communities of the Sunshine Coast and Noosa have a strong commitment to reducing their ecological footprint and greenhouse gas emissions. The Moreton Bay, Noosa and Sunshine Coast councils all have programs to encourage residents to be more sustainable and reduce their environmental footprint.

Somerset has the largest land area in the region and it is important that its extensive rural and environmental areas are protected and preserved. Somerset Dam and Lake Wivenhoe provide most of the drinking water in South East Queensland, therefore development in the area must be sustainable and protective of environmental values.

This objective can be achieved for the North Coast region through:

- minimising impacts on existing habitats and areas of biodiversity
- reducing dependency on private motor vehicles, which is a significant contributor to the region's emissions
- providing sustainable transport options and infrastructure for visitors, including those who arrive by car
- planning for the integration of electric vehicles.



Pedestrian prioritisation at Redcliffe

Table 13: Priority 3 actions for the North Coast region

Priority 3: Sustain A transport system that contributes to the environmental sustainability and resilience of the region		Objectives		S
Objectiv weather	/e 3.1: The transport system is safe, resilient and connected during and after extreme <i>r</i> , events and incidents.	3.1		
Objectiv conveni	/e 3.2: Walking, cycling and other sustainable travel options are accessible, ent and safe.		3.2	
Objectiv and life:	/e 3.3: The transport system is sustainable and supports the region's environmental style values.			3.3
Actions	– short-term			
A2.23	Flood immunity upgrades Undertake planning to identify and prioritise flood immunity upgrades to the transport network in North Coast region.	٠		
A2.24	Priority principal cycle network routes Undertake options analysis and business case development for highest priority routes on the principal cycle network in the North Coast region.		•	•
Actions	– medium/long-term			
A2.25	Bus layover planning Progress planning for optimal use of layover and other operations to improve efficient service operations and prepare for a move towards a connected network.		•	
A2.26	Green bridge and link planning Work with local governments to undertake planning to identify and review the need for green bridge/link opportunities to connect strategic active or public transport links.		•	



Shopping in Noosa

4.3.4 Priority 4: Live – A transport system that supports safe and liveable communities for everyone

What does this mean for the North Coast region?

Objective 4.1: Communities and public places are walkable and well-connected by integrated and sustainable transport options.

Walkability has a direct correlation to amenity, safety and overall quality of life. Walkable communities and public places promote social interaction, sustainable access to goods and services and equitable environments. Walkable urban areas attract activity and environments where people want to be.

Walkability plays a significant role in amenity and moving people. For the North Coast, the dispersed settlement patterns of rural hinterland and urban coastal and bayside living means walking is often limited to local neighbourhoods and within activity centres.

Transport planning will support the retention of this varied and distinct North Coast lifestyle. This includes planning for walkable neighbourhoods in existing and planned growth areas and providing connections to the passenger transport network.

This objective can be achieved for the North Coast region through:

- prioritising pedestrian movement within activity centres across the region
- providing fit for purpose infrastructure to ensure safe and pleasant movement of pedestrians, cyclists and public transport users within and between activity centres
- providing for safe and connected pedestrian environments
- integrating walking and cycling as part of the passenger transport system
- applying transit oriented development principles to urban regeneration and development of new communities.

Objective 4.2: The transport system provides safe, fair and equitable travel options.

People need to be able to move around the region in a way that encourages an active lifestyle, enables community interaction and provides access to facilities. Of particular relevance to the North Coast region, the transport system also needs to support the emerging trend for active ageing where people live longer and have healthier lifestyles.

This objective can be achieved for the North Coast region through:

- transport that enables social inclusion and diverse lifestyles
- transport options for people across all demographics, including the elderly, children and those with disabilities
- a transport system that provides the connections that allow residents to choose to live in rural and hinterland areas as well as mobility options that enable people to move around the region
- innovative approaches which address accessibility gaps in an affordable way, including through diverse transport options, active transport, personalised mobility and demand-responsive transport
- continued rollout of varied safety initiatives to reduce serious accidents and fatalities.

"communities with high car-dependency, generally, experience four times as many casualty rates as transit-oriented communities".⁶⁶

⁶⁶ Queensland Government Department of Infrastructure and Planning (2010). Transit oriented development guide.

Table 14: Priority 4 actions for the North Coast region

Priority A trans	/ 4: Live port system that supports safe and liveable communities for everyone	Obje	ctives
Objectiv and sus	ve 4.1: Communities and public places are walkable and well-connected by integrated tainable transport options.	4.1	
Objectiv	ve 4.2: The transport system provides safe, fair and equitable travel options.		4.2
Actions	– short-term		
A2.27	Boating infrastructure Prioritise investment in boating infrastructure across the North Coast region based on an assessment of demand and input from the community and stakeholders including through tools such as the Recreational Boating Facilities Demand Forecasting Study.		٠
A2.28	Public transport wayfinding signage Identify opportunities to improve wayfinding signage for public transport facilities in the North Coast region. This may include, for example, increasing the geographic extent of wayfinding signage.	٠	
A2.29	Rest areas in North Coast region Determine investment priorities for new or upgraded rest areas in the region to address driver fatigue risks, encourage safe travel and to provide sufficient capacity and amenities in line with existing guidelines.		٠
A2.30	Road safety projects As part of the High Risk Roads process, undertake planning to inform options for safety related improvements across the North Coast region.		٠
A2.31	Transit oriented developments Identify opportunities to develop and encourage transit oriented developments within the North Coast region. Collaborate with local governments, infrastructure project teams and other state agencies to support increased public transport mode share, residential and employment density at appropriate transport hubs. In particular, investigate opportunities associated with rail and bus nodes at, for example, Mango Hill in the short-term and Kallangur and other key stations on the Caboolture rail line in the medium/long-term.	•	
Actions	– medium/long-term		
A2.32	Cycle parking at activity centres and public transport nodes Work with local governments in North Coast region to assess the feasibility and options to help facilitate progressive provision of increased bike parking at activity centres and public transport nodes.	٠	٠
A2.33	Iconic cycle routes Work with local government and other state government agencies to identify and undertake planning to progress delivery of rail trails and iconic cycle routes to support cycling tourism in the North Coast region.	•	
A2.34	Separated cycle infrastructure planning Support local government to undertake planning of physically separated cycle lanes to and within urban activity centres within the North Coast region.	•	٠





5. Metropolitan Regional Transport Plan

Brisbane · Ipswich · Redland



5.1 Regional overview

The Metropolitan region (Figure 23) is the central region in South East Queensland (SEQ) and includes the Brisbane, Ipswich and Redland local government areas.



Sources:

Queensland Government Statistician's Office. (2017). Queensland Regional Profiles-Custom region.

Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

National Institute of Economic and Industry Research (NIEIR). (2015–16).

Port of Brisbane. (2017). About the Port.

Brisbane Airport Corporation. (2015). Annual Report 2015.

Brisbane Airport Corporation. (2018). Passenger statistics.

Department of Infrastructure, Local Government and Planning. (2010). South East Queensland Growth Management Program.



Legend

- National roads
- State-controlled roads
- Local roads of regional significance
- ---- Ferry route

- + Strategic airport
- ----- Port
 - HHH Rail line
 - Local government boundary

Regional activity centres

- O Capital city centre
- Principal
- Major

Figure 23: The Metropolitan region



Economy:

The Brisbane local government area produced \$118.19 billion of Gross Regional Product and had 862,648 jobs and 118,692 businesses in 2015–16.^{70,71} As the centre of Queensland's economy, the area has growing national and international importance, along with significant potential to lead in the fields of professional services and niche manufacturing.⁷²

As of 2016, the health care and social assistance industry provided 13.2 per cent of all jobs within Brisbane, followed by professional, scientific and technical services (9.8 per cent), education and training (8.9 per cent) and public administration and safety (8.4 per cent).⁷³

Employment:

In 2016, the main industries in which Brisbane residents were employed included health care and social assistance (13.6 per cent), professional, scientific and technical services (10.5 per cent), education and training (10.2 per cent) and retail trade (8.6 per cent).⁷⁴

Growth:

Brisbane is expecting growth of 386,800 people by 2041. This growth is anticipated to require 188,200 additional dwellings, with 94 per cent of those dwellings expected to be provided through consolidated development.⁷⁵

Education:

Queensland University of Technology and University of Queensland are two of the state's largest universities which are both based in Brisbane. Griffith University also has three campuses in Brisbane. There are other universities with branch campuses in Brisbane including the Australian Catholic University and Central Queensland University.

Recreation:

Brisbane has an extensive range of parkland, cultural, retail and entertainment precincts and community spaces. This includes many of SEQ's most iconic destinations such as South Bank Parklands, the Cultural Centre precinct, Mount Coot-tha and Fortitude Valley. In addition, Brisbane's proximity to Moreton Bay, Ipswich, the Redlands and links to the Gold and Sunshine coasts and hinterland areas provides residents and visitors with significant outdoor and active recreational opportunities.

⁶⁷ Australian Bureau of Statistics. (2017). *Regional Population Growth, Australia (Catalogue No. 3218.0).*

⁶⁸ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

⁶⁹ Queensland Government Statistician's Office. (2015). Queensland Government Population Projections, 2015 edition (medium series).

⁷⁰ National Institute of Economic and Industry Research. (2015–16). Gross Regional Product and local jobs.

⁷¹ Australian Bureau of Statistics. (June 2012 to June 2016). *Counts of Australian Businesses, including Entries and Exits.*

⁷² Brisbane City Council. (2012). Brisbane Economic Development Plan 2012–203.1

⁷³ Queensland Government Statistician's Office. (2018). Queensland Regional Profiles: Workforce Profile for Brisbane (R) Local Government Area.

⁷⁴ Queensland Government Statistician's Office. (2018). *Queensland Regional Profiles: Resident Profile for Brisbane (R) Local Government Area.*

⁷⁵ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).



Economy:

The Ipswich local government area produced \$8.96 billion of Gross Regional Product and had 70,604 jobs and 8444 businesses in $2015-16.^{79.80}$ Strong growth has spurred these figures with Ipswich experiencing population growth of 3.5 per cent between 2006 and 2016, compared with the state population growth of 1.9 per cent.⁸¹

The area has a diverse economy underpinned by an industrial and manufacturing base that includes the building industry, metal product manufacturing and logistics, aviation and defence as well as warehouse distribution.⁸²

As of 2016, the health care and social assistance industry provided 14.4 per cent of all jobs within Ipswich, followed by manufacturing (12.0 per cent), retail trade (11.3 per cent) and education and training (11.0 per cent).⁸³

Employment:

In 2016, the main industries in which Ipswich residents were employed included health care and social assistance (13.2 per cent), retail trade (10.5 per cent), manufacturing (10.0 per cent) and public administration and safety (9.1 per cent).⁸⁴

Growth:

Ipswich is expecting growth of 319,900 people by 2041. This growth is anticipated to require 111,700 additional dwellings, with 75 per cent of those dwellings expected to be provided through expansion development.⁸⁵

Education:

The University of Southern Queensland has two campuses one in Ipswich city centre and one within a 15-minute walk of Springfield Central Station with over 1,000 and 2,300 students respectively.⁸⁶

Recreation:

Ipswich has a wide range of community spaces, facilities, parks and gardens and has a number of areas of natural and heritage significance which provide opportunities for recreation. The Ipswich Motorsport Precinct and Queensland Railway Museum are among a range of signature recreation facilities in the city. Ipswich is also a gateway to the rural and natural regional landscapes to the west in Lockyer Valley, Scenic Rim and Somerset.

⁷⁶ Australian Bureau of Statistics. (2017). *Regional Population Growth, Australia (Catalogue No. 3218.0).*

⁷⁷ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

⁷⁸ Queensland Government Statistician's Office. (2015). Queensland Government Population Projections, 2015 edition (medium series).

⁷⁹ National Institute of Economic and Industry Research . (2015–16). *Gross Regional Product and local jobs*.

⁸⁰ Australian Bureau of Statistics. (June 2012 to June 2016). Counts of Australian Businesses, including Entries and Exits.

⁸¹ Queensland Government Statistician's Office. (2017). Queensland Regional Profiles–Ipswich region.

⁸² Ipswich City Council. (2017). Business in Ipswich.

⁸³ Queensland Government Statistician's Office. (2018). Queensland Regional Profiles: Workforce Profile for Ipswich (R) Local Government Area.

⁸⁴ Queensland Government Statistician's Office. (2018). Queensland Regional Profiles: Resident Profile for Ipswich (R) Local Government Area.

⁸⁵ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

⁸⁶ University of Southern Queensland. (2016). *Ipswich campus*.



Economy:

The Redland local government area produced \$5.66 billion of Gross Regional Product and had 45,495 jobs and 11,029 businesses in 2015–16.^{90,91} With the area connecting the Moreton Bay islands, Brisbane, Gold Coast and the Port of Brisbane, it has substantial opportunities in export orientated and value-add industries as well as existing strengths in professional, scientific and technical services, financial and insurance services, health care and social assistance and food services.⁹²

As of 2016, the health care and social assistance industry provided 15.4 per cent of all jobs within Redlands, followed by retail trade (13.6 per cent), education and training (9.9 per cent) and construction (9.8 per cent).⁹³

Employment:

In 2016, the main industries in which Redlands residents were employed included health care and social assistance (12.6 per cent), construction (11.9 per cent), retail trade (10.3 per cent) and education and training (8.3 per cent).⁹⁴

Growth:

Redlands is expecting growth of 36,000 people by 2041. This growth is anticipated to require 17,200 additional dwellings, with 73 per cent of those dwellings expected to be provided through consolidated development.⁹⁵

Education:

In addition to the Alexandra Hills TAFE located in the Redlands, a number of higher education facilities in surrounding local government areas are accessible. This includes universities in Brisbane, Logan, Ipswich and the Gold Coast.

Recreation:

Moreton Bay, its islands and coastal areas of the region are significant recreational drawcards for the area. It is home to Stradbroke Island, the world's second-largest sand island and is a significant tourism attraction for the area and the state. Many natural and environmental areas, as well as community parks and spaces, also provide spaces for recreational activity.

⁸⁷ Australian Bureau of Statistics. (2017). *Regional Population Growth, Australia (Catalogue No. 3218.0).*

⁸⁸ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

⁸⁹ Queensland Government Statistician's Office. (2015). Queensland Government Population Projections, 2015 edition (medium series).

⁹⁰ National Institute of Economic and Industry Research (2015–16). Gross Regional Product and local jobs.

⁹¹ Australian Bureau of Statistics. (June 2012 to June 2016). Counts of Australian Businesses, including Entries and Exits.

⁹² Redland City Council. (2014). *Redland City Economic Development Framework 2014–2041*.

⁹³ Queensland Government Statistician's Office. (2018). Queensland Regional Profiles: Workforce Profile for Redland (R) Local Government Area.

⁹⁴ Queensland Government Statistician's Office. (2018). Queensland Regional Profiles: Resident Profile for Redland (R) Local Government Area.

⁹⁵ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

5.1.1 Projected population and employment growth

Between 2016 and 2031 the largest population growth is expected on the outer suburbs and edges of the Metropolitan region, in areas such as Ripley Valley, Springfield, Forest Lake–Oxley and Rochedale–Burbank. Population growth is expected in the inner city Priority Development Areas of Bowen Hills and Herston Quarter.

Figures 24 (below) and 25 (on page 90) shows the expected total population and employment change across the region from 2011 to 2031. The larger land sizes of the zones around Rosewood depict medium population growth. As this change is over the total land area the intensity of change is anticipated to be lower than suggested by the colour tone.

Employment growth in the Brisbane CBD is set to grow substantially by 2031. Outside of Brisbane City, modest employment growth is also expected at the Brisbane Airport, Acacia Ridge (the location of SEQ's major intermodal rail terminal) and in the Priority Development Area of Northshore Hamilton.

The concentration of employment in the Brisbane CBD outweighs employment growth in all the other regional centres in the Metropolitan region. Figure 25 (on page 90) shows where employment growth is expected in the Metropolitan region.

The combination of projected population growth in dispersed areas in the south of the region as well as to the north in the North Coast region, along with projected employment growth centred in the Brisbane CBD will continue to place pressure on the region's transport system.



Figure 24: Projected population growth by area between 2011–2031 for the Metropolitan region **Source:** Queensland Government Statisticians Office. (2011). *Queensland Government Population Projections by Statistical Area, 2011–2031*.



Figure 25: Projected employment growth between 2011–2031 for the Metropolitan region **Source:** Queensland Government Statisticians Office. (2011). *Queensland Government Population Projections by Statistical Area, 2011–2031.*



Aerial view of Cleveland

South Coast

5.1.2 Regional economic and growth areas

A range of regional economic and growth areas will have an impact on the current and future regional transport network. These areas include State Development Areas, Priority Development Areas, Regional Economic Clusters, knowledge and technology precincts and major expansion areas. These areas are highlighted in Figure 26 and are detailed further in *ShapingSEQ*.



Figure 26: Regional economic and growth areas for the Metropolitan region

5.1.3 Region shaping projects

A number of major large-scale projects in public transport, road transport and urban development will help shape the Metropolitan region.

Cross River Rail

A project to increase capacity and connectivity in the rail network by providing a direct connection between the southern and northern rail networks, via a tunnel through Brisbane City and across the Brisbane River from Dutton Park to Bowen Hills.⁹⁶ Cross River Rail is the Queensland Government's highest priority infrastructure project.

European Train Control System

A project to modernise the signalling system on the SEQ rail network to unlock additional capacity on existing rail infrastructure by allowing trains to operate more closely to each other. The system will be initially installed from Northgate to Milton and is expected to increase capacity by 20 per cent.⁹⁷

Next generation ticketing

The Queensland Government is modernising public transport ticketing systems across the state and has committed \$371 million to roll out a new solution that will include contactless debit or credit cards, smart phones and wearable devices as payment options in addition to *go* card and paper tickets. The roll out over four years will cover all SEQ and regional urban public transport networks and will include new readers, fare gates and system equipment, an updated mobile app, and improved real-time network information.

Rail station upgrades

A number of rail stations will be upgraded as part of the continuing Station Accessibility Upgrade program enabling customers to independently access station platforms and trains. Works have commenced at Boondall Station. Albion, Buranda, Cannon Hill, East Ipswich, Fairfield and Southbank stations are currently in design stage. In addition, Central station is undergoing an upgrade program to modernise the station and improve accessibility and functionality throughout.

Northern Transitway

The Northern Transitway will provide a high quality public transport corridor along Gympie Road, from Kedron to Chermside. The \$53 million investment will deliver targeted bus priority and support high frequency on-road bus services improving operational safety, efficiency and reliability of this important link in Brisbane's northern transport network.

Eastern Transitway

The Eastern Transitway project will deliver cost effective bus priority improvements between Coorparoo and Carindale. The \$22m investment is the next step in providing a high quality public transport corridor on Old Cleveland Road. As Old Cleveland Road is a Brisbane City Council road, Transport and Main Roads will be working closely with council during the design and delivery phases of this project.

Brisbane Metro

A Brisbane City Council project to upgrade the existing busway with upgraded stations and a new fleet of metro vehicles.⁹⁸

Ipswich Motorway – Rocklea to Darra

To upgrade three kilometres of the Ipswich Motorway between Granard Road and Oxley Road from four lanes to six lanes.

Gateway Motorway North

To widen the motorway from four lanes to six lanes from Nudgee to Bracken Ridge.

Brisbane Airport's new and parallel runway

A new 3,300 metre long parallel runway that will allow the airport to have sufficient capacity to meet forecast future demand.⁹⁹

Queen's Wharf Brisbane

An integrated resort development that will deliver a new tourism, leisure and entertainment precinct in the heart of Brisbane CBD.¹⁰⁰

Priority Development Areas

Priority Development Areas (PDA) have been identified for specific accelerated development, with a focus on economic growth. The locations within the Metropolitan region are:

- Bowen Hills PDA
- Fitzgibbon PDA
- Herston Quarter PDA
- Northshore Hamilton PDA
- Queen's Wharf PDA
- Ripley Valley PDA
- Toondah Harbour PDA
- Weinam Creek PDA
- Woolloongabba PDA.¹⁰¹

⁹⁶ Department of State Development, Manufacturing, Infrastructure and Planning. (2017). Cross River Rail.

⁹⁷ Queensland Government. (2016). World class signalling system on track to boost SEQs train capacity.

⁹⁸ Brisbane City Council. (2017). Brisbane Metro.

⁹⁹ Brisbane Airport Corporation. (2017). Brisbane's new runway.

¹⁰⁰ Department of State Development, Manufacturing, Infrastructure and Planning. (2017). Queens Wharf overview.

¹⁰¹ Department of State Development, Manufacturing, Infrastructure and Planning. (2017). Priority Development Areas.

5.2 Regional transport network

5.2.1 Current regional transport network

The region's transport network consists of a maturing road network and growing public and active transport networks, the state's major international airport, as well as major freight facilities such as the Port of Brisbane and the Acacia Ridge Rail Terminal.

Active transport

Transport and Main Roads and local governments recognise the important role active transport can play in the way people move.

Well designed and connected streets and activity centres which encourage walking as the preferred method of travel present a range of social and economic benefits. This is particularly important in activity centres where pedestrians and cyclists will be prioritised over vehicle movement.

Recent cycleway infrastructure upgrades in the Metropolitan region include:

- the North Brisbane Bikeway which connects Brisbane's northern suburbs to Brisbane City. Further stages will be constructed to complete the 4.3 kilometre cycleway
- the Bicentennial Bikeway which connects Brisbane City to Toowong and carries an estimated 6,500 pedestrians and cyclists per day¹⁰²
- Brassall Bikeway which is a 4.8 kilometre off-road cycle facility linking the Ipswich City Centre with Brassall and connecting major destinations along its route
- reconstruction of the Riverwalk between New Farm and Howard Smith Wharves by Brisbane City Council (BCC) costing \$72 million and co-funded by BCC along with the Queensland and Australian governments.

Public transport

The public transport network in the Metropolitan region consists of rail, bus and ferry services. All services operate under an integrated fare and ticketing system. In 2016, public transport accounted for 62 per cent of all journeys during the morning peak period to Brisbane CBD.¹⁰³ The bus network currently caters for the majority of public transport trips.

The core rail and bus network is largely radial and is designed to provide fast and reliable commuting to and

from Brisbane City. The network also provides accessibility to major destinations such as hospitals, activity centres and universities.

There are three main busways in the Metropolitan region:

- the South East Busway
- the Northern Busway
- the Eastern Busway.

These busways converge in the Brisbane CBD.

There are 12 rail lines in the region. All of the rail lines converge in the Brisbane CBD between Bowen Hills and Roma Street. Frequency of services is limited by rail capacity through the central lines and across the Brisbane River. The rail network also accommodates passenger trips and freight, which can lead to competition for running slots.

Connectivity of the rail network with other modes such as walking and cycling, feeder bus services and park 'n' ride helps maximise the utility of the rail network. The Queensland Government is working with local governments to progressively improve station accessibility through bus interchange, park 'n' ride, and local pedestrian and cycle network upgrades.



Commuter at Springfield Central Station

¹⁰² Department of Transport and Main Roads. (2016). South East Queensland Principal Cycle Network Plan.

¹⁰³ Department of Infrastructure, Local Government and Planning. (2017). *Connecting Brisbane*.

The Citycat ferry service operates along the Brisbane River between the University of Queensland at Saint Lucia in the west and Hamilton in the east. Ferries also provide access to the southern Moreton Bay islands from Redland Bay and to Stradbroke Island from Cleveland.

Rail freight

The Metropolitan region's rail freight network is operated by several rail operators. It provides access to key intermodal rail terminals such as Acacia Ridge Rail Terminal, as well as the Port of Brisbane. It also connects to and from the rest of the regional freight network including the North Coast Line and the West Moreton, Western and South Western Lines. Freight products include general freight, industrial products, rural commodities and coal.

The rail network is mainly shared between passenger rail and freight services. Passenger rail has priority over freight services limiting freight movement to the off-peak commuter periods.

Roads

The majority of journeys for passengers and freight are by road. The road network, shown in Figure 23 (on page 85), is characterised by radial roads and motorways where the main focus is on accessing the Brisbane CBD.

The Brisbane River divides the region from north to south and is a natural challenge to transport connectivity. River crossings are located around Brisbane City resulting in much of the north-south inner city traffic demand flowing through the Brisbane CBD.

Major motorways in the region include the Pacific Motorway, Gateway Motorway, Port of Brisbane Motorway, Clem7 tunnel, Airport Link, Ipswich Motorway, Logan Motorway, Centenary Highway and Legacy Way. The Inner City Bypass provides connectivity between major motorways and key arterials.

Significant freight movements flow to other ports and airports via the region's motorways and highways toward the north and south.

Major roads approved to handle 'B-double' multicombination freight vehicles include the Gateway Motorway, Port of Brisbane Motorway and local roads around the port area including Lytton Road.

Air

Brisbane Airport is the key strategic passenger and freight airport in Queensland. Brisbane Airport had 22.9 million passenger movements in 2016–17. Other strategic airports include the Archerfield Airport and Amberley RAAF Base Airport near Ipswich. The Port of Brisbane, located at the mouth of the Brisbane River, is the main container port for Queensland's exports and imported freight. The port handles 95 per cent of Queensland's international container trade and approximately 50 per cent of its agricultural exports. In 2015–16, the commodities that made up most of the freight passing through the port included coal, crude and refined oils, iron and steel, processed meat products and cereal. The port is connected to the road network via the Port of Brisbane Motorway and is connected to the intrastate and interstate rail network.¹⁰⁴



Gateway Motorway

Marine

¹⁰⁴ Port of Brisbane. (2016). Business Review.

5.2.2 Transport challenges in the Metropolitan region

In partnership with stakeholders the following challenges for the Metropolitan region have been identified.

Employment travel patterns

In Ipswich and Redlands, around half of all residents travel outside their local government area for work. Figure 27 shows the proportion of the working population that travel outside their local government area for work including 45 per cent from Moreton Bay, 43 per cent from Logan, 40 per cent from Ipswich and 42 per cent from Redland that travel to Brisbane. This is in addition to the 89 per cent of people already travelling within the Brisbane local government area for employment. As Figure 27 also shows, these trends are expected to continue for at least the next 15 years and planning needs to continue to facilitate the efficient movement of the region's residents to employment centres.

Travel preferences and mode competitiveness

In SEQ, private vehicle mode share has gradually increased over time and remains the highest mode share for all trips. Public transport declined through the 1980s and 1990s, before beginning to increase in the early 2000s. Active travel such as walking and cycling has either declined or maintained a very small mode share over time. Figure 28 (on page 96) provides a breakdown of method of travel to work in 2016.¹⁰⁵

Proportion of population that travel outside of their local government area for work in 2015–16







Figure 27: Proportion of people who travel outside their local government area for work in 2015–16 and forecast for 2030–31 **Source:** Queensland Treasury. (2016). *Regional Employment Projections.*

105 Australian Bureau of Statistics. (2017). 2016 Census – Travel to work.

Road congestion

High levels of reliance on travel by private vehicles has created challenges for the reliability and efficiency of the road network. The region's road network is operating at, or close to, capacity in most of the key commuter corridors to the Brisbane CBD during peak periods. This results in congestion for all road users, including buses and freight vehicles.

Road congestion has a negative impact on the economy. In 2015–16, it was estimated that excessive congestion cost the Metropolitan region \$366 million in lost economic activity (Figure 29). With 80 per cent of excessive congestion caused by recurring congestion, better use of available road space is needed to encourage the shift of traffic demand to different time periods (peak spreading). Encouraging increased use of public and active transport can also help in reducing recurring congestion.

Transport modelling was used to understand the current traffic situation during the morning peak hour from 7am to 9am in 2016 along with estimated traffic in 2031 (Figures 30 and 31). Congested roads where demand exceeds capacity are shown in red. The 2016 plot shows that excessive congestion is already a problem on most roads in the region. Without further improvements in road transport and public transport, the economic competitiveness of the region will be affected due to increased travel times.



Figure 28: Metropolitan region mode share for journeys to work **Source:** Australian Bureau of Statistics. (2017). *2016 Census – Travel to work*.



Figure 29: The cost of excessive congestion in the Metropolitan region in 2015–16

Source: Department of Transport and Main Roads. (2017).



Figure 30: Road congestion in the AM peak hour on roads in the Metropolitan region in 2016



Figure 31: Forecast road congestion in the AM peak hour on roads in the Metropolitan region in 2031

Bus congestion

Bus congestion, particularly in inner city Brisbane, is a challenge, with limited physical road space for additional bus stops and operations with mixed traffic resulting in unreliable bus travel times and frequencies.

Approximately two-thirds of all buses heading to inner city Brisbane utilise one or all of the three busways.

The South East Busway is the most heavily used busway. Sections of it in the inner city are operating at or above vehicle capacity which results in bus bunching and delays. In 2012, during the morning peak hour, the Victoria Bridge was operating at 125 per cent capacity and the South East Busway between Woolloongabba junction and Allen Street was operating at 126 per cent capacity.¹⁰⁶ To relieve congestion across the Victoria Bridge and the underground bus stations at Queens Street and King George Square, many express (Rocket) services travel into the Brisbane CBD across the Capitan Cook Bridge.

Buses are also operating at capacity on other key routes during the morning peak hour. Many other bus routes heading to Brisbane City, and major suburban destinations such as Toowong, Chermside and the University of Queensland, are operating at capacity.

Capacity constraints on the rail network

Rail demand is expected to double between 2015 to 2026 and triple by 2036, with patronage on trains forecast to exceed capacity sometime between 2021 and 2026.¹⁰⁷

Most of the capacity constraints are within the inner Brisbane area on lines entering Brisbane City as shown in Figure 32. The Merivale Bridge, the main rail crossing over the Brisbane River for trains heading to the Gold Coast, Beenleigh, Cleveland and the Port of Brisbane, is expected to approach capacity by 2021. The network has several locations where trains must merge onto single tracks at rail junctions causing operational conflicts. As demand continues to increase, these conflicts will erode service reliability and cause increasing delays to rail users.

On an average weekday, rail users make up 35 per cent of all public transport trips. Unreliability and delays in rail trips to the city centre due to rail capacity constraints will have a negative impact on the economic competitiveness of south-east Queensland.

Freight trains operate on the same network as passenger services, limiting the number of passenger trains and the times that freight trains can be operated. As regional and intercity freight grows, and passenger demand increases, there will be greater pressure on the entire rail network.



Figure 32: Passenger loading on the rail network during the morning peak hour in 2015

¹⁰⁶ Department of Transport and Main Roads. (2014). *BaT Project, Environmental Impact Statement*. 107 Building Queensland. (2017). *Cross River Rail Business Case*.

Resilience of the road network

The topography of the Metropolitan region along with the historical pattern of development along the Brisbane River impacts on the resilience of the road network. There are a limited number of bridges and tunnels, as a result, traffic incidents on major connectors within inner-city Brisbane can cause severe congestion which flows on to impact the rest of the inner-city network. This lack of cross-river connections also results in indirect access to the Brisbane CBD from inner and outer suburbs as well as from areas on either side of the river despite short physical distances separating the areas. The limited number of river crossings over the Brisbane and Bremer rivers is also an issue for Ipswich where the rail line severs communities from the lpswich CBD. Rather than the rivers, resilience of the road network in the Redland area is impacted by a limited number of intra- and inter-local government road connections, especially to Brisbane. The Redland area also suffers network reliability issues due to concentration of traffic through Capalaba and Cleveland and around key access points to the bay and island ferries.

Barriers to active transport

Currently, the proportion of commuters who cycle to work in the Metropolitan region ranges from 0.4 to 1.9 per cent. In comparison, Vancouver, which like Brisbane also developed rapidly in the age of motorisation in the second half of the 20th century has a cycling mode share of 10 per cent.

The modest proportion of commuters who cycle to work is often attributed to a number of barriers. These include SEQ's sub-tropical climate and topography, as well as the perceived danger of cycling on the road with mixed traffic. Another barrier that is often raised by bicycle user groups as restraining people from cycling and walking in the metropolitan region, is the disconnectedness of the cycle and shared path networks. In particular, many women, children and older people are put off by discontinuous provision of safe cycling and pedestrian corridors along major movement routes and the lack of safe and prioritised road crossings at key locations. In recent years, there has been significant investment in cycling infrastructure and the network of bike paths physically separated from mixed traffic continues to grow and develop.



Cycling in South Bank

Public transport accessibility and connectivity

Private vehicle access is often more time competitive than public transport as shown in Figures 33 and 34, which make it a less attractive option for commuters.

In the outer suburbs, land use is primarily residential, which requires residents to commute to areas of employment. In addition, a lot of residential growth is expected in expansion areas at the northern, southern and western fringes of the region where there are fewer public transport connections compared to the inner suburbs, resulting in higher reliance on private vehicles.

In inner-city Brisbane and Ipswich, public transport stations and stops can be accessed by comprehensive footpath networks. However, in outer suburbs of Brisbane, Ipswich and Redlands, footpath networks can often be incomplete, absent or substandard, reducing their effective walk-up catchments.Public transport stations with limited residential catchments are often used as good locations for park 'n' ride facilities. However, where demand for park 'n' ride exceeds supply people will often choose to either park in local streets or use their private vehicles for their entire trip. Public transport frequencies are often lower in outer and emerging suburbs which can also contribute to a greater reliance on private vehicles.



Figure 33: Travel times of public transport vs. car for access to the Brisbane CBD **Source:** Department of Transport and Main Roads. (2017). *Output from the LUPTAI software, 2016.*



Figure 34: Travel times of public transport vs car to key centres in the Metropolitan region **Source:** Department of Transport and Main Roads. (2017). *Output from the LUPTAI software, 2016.*

Capacity constraints in rail and road freight networks

The rail network in the Metropolitan region provides access to intermodal rail terminals and the Port of Brisbane for freight from the north, south and west of Queensland. Freight from the North Coast and West Moreton rail lines converge in the region. The North Coast line supports general rail freight movement in the state. The West Moreton line, links to the Western and South Western lines, primarily supporting the movement of agricultural and mining products from Darling Downs and the South West to the Port of Brisbane.

Growth in rail freight demand is expected to have an impact on existing freight terminal capacity. The Acacia Ridge Rail Terminal is the state's largest freight terminal. It handles the majority of interstate freight and a large volume of intrastate freight. Opportunities exist to improve and redevelop the site to provide greater capacity and better efficiency. Freight trains run on the majority of the rail network excepting the purely passenger suburban lines such as those to Sandgate, Ferny Grove and Airport. On lines where passenger rail service are given priority access, the times which freight trains can operate are constrained.

Most of the container trade in Queensland passes through the Port of Brisbane and about 94 per cent¹⁰⁸ of all container movements to and from the port are moved by road. Container trade forecast to grow significantly creating further pressure.

There are also growing issues with light, urban freight due to the popularity of electronic commerce which causes an increasing numbers of courier vehicles to share the road system with other users.

¹⁰⁸ Department of Transport and Main Roads. (2016). Moving Freight.

5.3 What do the priorities and objectives mean for the Metropolitan region?

TRANSPORT SYSTEM

The safety of all transport system customers is our primary priority as we create a single integrated transport network accessible to everyone.

Priority 1: Grow	Priority 2: Prosper	Priority 3: Sustain	Priority 4: Live					
Transport objectives								
 1.1 Shape sustainable growth in consolidation areas. 1.2 Reliable, efficient and sustainable travel options in expansion areas. 1.3 Safe and efficient movement in rural communities. 	 2.1 Efficient and reliable movement of goods and services. 2.2 A reliable and high- frequency public transport network. 2.3 Accurate and informed transport decision- making. 	 3.1 Transport system resilience. 3.2 Safe, accessible and convenient active transport options. 3.3 A sustainable transport system. 	 4.1 Walkable communities and activity centres connected by sustainable transport. 4.2 Safe, fair and equitable travel options for all. 					
	What it means for the	e Metropolitan region						
 Urban consolidation and integrated design, particularly in and around activity centres and along existing and planned public transport corridors. Connecting expansion areas such as Southern Redland Bay, Park Ridge, Ripley, Springfield, Redbank Plains, Bellbird Park, Collingwood Park and western areas of Ipswich to the public transport network. Improving safety and key connections and to rural areas. 	 Increased efficiencies for freight and service delivery. Improved freight routes (e.g. to the Port of Brisbane, Brisbane Airport, Acacia Ridge and South West Industrial Corridor). Increased public transport connecting activity centres and regional economic clusters. Improving data accuracy and usage through smart infrastructure, real- time data and artificial intelligence. 	 Infrastructure is improved and built to minimise the impacts of weather and other disruptive incidents. Network and incident management is improved to minimise impacts of closures and disruptions. Prioritisation of active transport. Provision of electric vehicle infrastructure. Infrastructure and services that minimise impacts on scenic landscapes and significant ecological areas. 	 Safe walking and cycling is prioritised within local neighbourhoods and activity centres. Transport choice is improved via options appropriate for the demand and land use, including community and school transport Personalised transport such as demand- responsive transit and ride share. 					
	Measures	of success						
 Public transport access and competitiveness measures. Commute/travel time and travel distance. Road network reliability. 	 Public transport competitiveness measures. Commute/travel time. Road network productivity, travel time. Freight route reliability. 	 Active and public transport mode share. Frequency and duration of unplanned closures. Greenhouse gas emissions from transport. Road network reliability. Security incidents, fatalities and injuries. 	 Public transport customer satisfaction and competitiveness. Active transport mode share. Average commute time. 					

The priorities and objectives for SEQ are outlined in Chapter 3. This section outlines how the priorities and objectives will be achieved in the Metropolitan region.

5.3.1 Priority 1: Grow – A transport system that supports a consolidated and sustainable urban structure

What does this mean for the Metropolitan region?

Objective 1.1: Current and future transport networks shape sustainable growth and development of communities.

Across Brisbane and Redlands, growth is predominantly planned in existing urban areas through consolidation, whereas in Ipswich it will be facilitated mostly through expansion.

This planning reflects the contextual differences within the three local government areas and supports diverse housing types together with diverse transport options. To support and enable this, the region's transport system will provide sustainable transport options that fit the context of existing and planned growth areas. Additionally, highquality design outcomes will become inherent in all new transport planning.

This objective can be achieved for the Metropolitan region through:

- prioritising mass transit on major urban development corridors
- supporting private and public land use development options that prioritise active and public transport
- incorporating high-quality urban design into transport projects and supporting urban amenity along active streetscapes.

CASE STUDY: Upper Mount Gravatt

The adjoining land use along this corridor was previously low-density residential. Rezoning opened up the possibility of large suburban blocks being developed into multi-story apartment buildings or small block subdivisions. This has allowed for the provision of improved high-frequency bus and active travel options such as the South East Busway and Veloway 1, to link with retail, commercial and educational uses. Objective 1.2: Communities in growth (expansion) areas have access to reliable, efficient and sustainable travel options.

Expansion is expected in outer areas of the region including Southern Redland Bay, Park Ridge, Ripley, Springfield, Redbank Plains, Bellbird Park, Collingwood Park and western areas of Ipswich. In these communities, public transport may not always be available from the outset and may only be available for part of the journey, or at limited times of the day or week. To support and enable sustainable growth, such communities as well as existing lower density areas, will be provided with diverse transport options that suit their context.

This objective can be achieved for the Metropolitan region through:

- providing for mass transit services in areas as demand warrants are met
- providing a blend of alternate service delivery models, including peer-to-peer transport, ride sharing and demand-responsive transit for shorter trips and 'last mile' connections to mass transit
- providing private vehicle access where it's appropriate.

Objective 1.3: People and goods move safely and efficiently in rural communities.

While the Metropolitan region is predominately urban in nature, parts of Redlands and areas in southern and western Ipswich are rural. In these areas, private vehicles provide the most appropriate mobility option and rural customers still need to be able to move safely and access the urban network appropriately.

This objective can be achieved for the Metropolitan region through:

- transport options for people to access key centres from outlying areas
- planning to ensure transport disadvantage of rural settlements is minimised
- safe access to essential services, local employment and social support and interaction to enhance amenity
- improving the road network, managing speeds and reducing potential conflicts between modes and users of the road network.

Table 15: Priority 1 actions for the Metropolitan region

Priority 1: Grow A transport system that supports a consolidated and sustainable urban structure		Objectives		S
Objectiv develop	/e 1.1: Current and future transport networks shape sustainable growth and ment of communities.	1.1		
Objectiv and sus	/e 1.2: Communities in growth (expansion) areas have access to reliable, efficient tainable travel options.		1.2	
Objectiv	re 1.3: People and goods move safely and efficiently in rural communities.			1.3
Actions	– short-term			
A3.01	Beenleigh and Gold Coast rail line (Kuraby to Beenleigh) planning Undertake planning to develop and assess options for improving commuter capacity on the Gold Coast and Beenleigh line between Kuraby and Beenleigh.	•	•	
A3.02	Beenleigh rail line (Dutton Park to Salisbury) rail corridor planning Undertake planning for the Dutton Park to Salisbury rail corridor to determine and preserve corridor requirements for future upgrades.	•		
A3.03	Brisbane bus network service planning Undertake a bus network review to ensure route structures are meeting current and future needs in readiness for the introduction of Cross River Rail and Brisbane Metro.	•	•	
A3.04	Brisbane inner city mass transit planning Investigate the need for mass transit solutions for the inner city to complement and build upon Cross River Rail and Brisbane Metro and the strategic direction outlined in <i>Connecting Brisbane</i> .	٠	٠	
A3.05	Browns Plains to South East Busway bus priority planning Undertake planning to develop options for providing public transport priority on the Mains Road corridor.	•		
A3.06	Bus station and stop upgrade planning Undertake planning for bus station and stop upgrades for the Metropolitan region to improve network performance and connectivity at activity centres and interchange locations. Early priorities include Capalaba bus interchange upgrade, Chermside bus station upgrade, Indooroopilly bus interchange upgrade and South Bank bus station platform upgrade.	•		
A3.07	Eight Mile Plains to Springwood bus priority planning Undertake planning to inform investment decisions on timing and configuration of the extension of bus priority from the South East Busway at Eight Mile Plains to Springwood, including new bus station and park 'n' ride opportunities.	•		
A3.08	Infrastructure coordination plans Collaborate with the Department of State Development, Manufacturing, Infrastructure and Planning, other state government agencies and local governments on infrastructure coordination plans within the Metropolitan region to improve the alignment of infrastructure planning with local and regional priorities and coordination within and between state and local government.	٠		

South Coast

Priority 1: Grow A transport system that supports a consolidated and sustainable urban structure		C)bjective	S
Objectiv develop	ve 1.1: Current and future transport networks shape sustainable growth and oment of communities.	1.1		
Objecti sustaina	ve 1.2: Communities in growth (expansion) areas have access to reliable, efficient and able travel options.		1.2	
Objectiv	ve 1.3: People and goods move safely and efficiently in rural communities.			1.3
Actions	– short-term			
A3.09	Inner Brisbane bus priority planning Investigate opportunities to provide bus priority on key corridors connecting to the Brisbane CBD, consistent with the high-frequency network identified in Figure 11 (on page 47).	٠		
A3.10	Ipswich to Springfield rail corridor planning Undertake planning for the Ipswich to Springfield rail corridor to determine and preserve corridor land.	•	•	
A3.11	Park 'n' ride capacity expansion planning Undertake strategic planning to identify locations suitable for major park 'n' ride capacity expansion at key locations in the Metropolitan region public transport network.	•	•	•
A3.12	Planning for major developments Undertake planning required to inform Transport and Main Roads' input into future transport networks serving major development areas such as Ripley, Southern Redland Bay, and Springfield. Participate in master planning activities and development of infrastructure agreements, in partnership with the Department of State Development, Manufacturing, Infrastructure and Planning, local government and the private sector, to maximise benefits from a 'one network' approach.	٠	•	
A3.13	Rail station accessibility and capacity upgrades Identify areas of most need, prioritise and progressively undertake the detailed planning investigations required to guide investment decisions for rail station upgrades to improve accessibility and capacity within the Metropolitan region.	٠	•	
A3.14	Safety and amenity impacts for rural townships Work with local governments to mitigate safety and amenity issues caused by traffic volumes and heavy vehicles, where relevant, for rural townships and subject to statewide priorities.			•
A3.15	Salisbury to Beaudesert rail corridor planning Undertake planning for the Salisbury to Beaudesert rail corridor to determine and preserve corridor land.	•	•	•
A3.16	Toowong (Benson Street to Sir Fred Schonell Drive) public transport planning Undertake planning to inform a funding decision for priority bus treatments at Toowong from Benson Street to Sir Fred Schonell Drive.	٠		
A3.17	Yarrabilba public transport planning Progress planning to investigate provision of frequent public transport services to planned major expansion growth areas including Yarrabilba.	•	•	

Priority 1: Grow A transport system that supports a consolidated and sustainable urban structure		Objectives		S
Objectiv develop	/e 1.1: Current and future transport networks shape sustainable growth and ment of communities.	1.1		
Objectiv sustaina	/e 1.2: Communities in growth (expansion) areas have access to reliable, efficient and able travel options.		1.2	
Objectiv	re 1.3: People and goods move safely and efficiently in rural communities.			1.3
Actions	– medium/long-term			
A3.18	Brassall and Yamanto to Ipswich bus priority planning Undertake planning to provide bus priority between Brassall and Yamanto via the Ipswich central business district.	•	•	
A3.19	Brisbane inner city multi-modal area transport strategy Brisbane City Council and Transport and Main Roads to develop a multi-modal area transport strategy for the Brisbane central business district and adjacent areas to support development occurring in and around the inner city.	•		
A3.20	Capalaba to Redland Bay public transport planning Investigate public transport priority options from Capalaba to Redland Bay.	•	•	
A3.21	Cleveland rail line upgrade planning Undertake planning to develop and assess options to upgrade the rail corridor between Park Road and Cleveland to provide for additional future frequency.	٠		
A3.22	Ipswich CBD public transport planning Undertake planning with Ipswich City Council to jointly investigate current and future public transport travel demands and infrastructure requirements within the Ipswich City Centre, including the role of the Ipswich Transit Centre, Bell Street bus stops and Riverlink bus facility.	٠		
A3.23	Kenmore to Brisbane bus priority planning Undertake investigations to improve public transport access along the Moggill Road corridor, including through Kenmore.	•		
A3.24	Redlands multi-modal area transport strategy Collaborate with Redland City Council to develop a multi-modal area transport strategy for Redland City.	•	•	
A3.25	Salisbury to Flagstone rail planning Progress planning to inform investment decisions for the staged delivery of passenger rail from Salisbury to Flagstone.	٠	٠	
A3.26	Transport connectivity to the island communities Work with Redland City Council to develop a strategy to improve transport connectivity and accessibility to and within North Stradbroke and the southern bay islands.	٠		•

5.3.2 Priority 2: Prosper – A transport system that supports the economic competitiveness of the region

What does this mean for the Metropolitan region?

Objective 2.1: Goods and services move efficiently and reliably along supply chains to and between Regional Economic Clusters and markets.

The region experiences significant freight movement particularly from other regions transporting products to export through the Port of Brisbane and Brisbane Airport by road, rail and air along key freight corridors such as the Pacific Motorway, Logan Motorway, Warrego Highway, Cunningham Highway, Gateway Motorway, Western Rail Line and North Coast Line. Freight is also moved and distributed within the region, typically via the region's industrial precincts, the most significant of which are located within the Regional Economic Clusters and major enterprise and industrial areas.

The region contains a number of Regional Economic Clusters located on or nearby to key freight corridors. These are located at Australia TradeCoast, the Capital City Centre, the South West Industrial Corridor Ipswich, Springfield and Pacific Motorway. In addition, major enterprise and industrial areas exist or are planned at Crestmead/Berrinba and Heathwood/Larapinta.

Enabling the efficient movement of people and goods to and between these precincts will assist in strengthening the economic competitiveness of the region. In addition, a connected freight network will need to accommodate growth in volumes in a way that maintains the amenity of growing inner city environments.

This objective can be achieved for the Metropolitan region through:

- optimising supply chains through interventions and infrastructure upgrades, such as freight lanes where appropriate and prioritising freight movement in offpeak periods
- optimising capacity on road and rail corridors and providing new freight corridors
- working with the industry to shift freight movement in to commuter off-peak periods
- improvements to vehicle types, connective vehicle technologies, route optimisation and data sharing
- supporting road access controls to ensure the efficient movement of freight while maintaining urban amenity.

Objective 2.2: Activity centres are connected by a reliable and high-frequency public transport network.

In support of both population and economic growth, reliable and high-frequency public transport will be needed to connect all activity centres across the region. This includes services to existing and emerging knowledge and technology precincts.

The network will connect activity centres and knowledge and technology precincts at Chermside, Mitchelton, Toombul, Wynnum Central, Brisbane City, Toowong, Indooroopilly, Carindale, Capalaba, Cleveland, Upper Mount Gravatt, Goodna, Springfield, Ripley and Ipswich.

Objective 2.3: Transport planning and investment is informed by current and accurate information.

Technological advancements have increased the availability of high-quality data about the transport system and its users. This data can inform transport improvements and how they are planned for and implemented. This data can be used by customers to inform their journey planning and use of the network.

In the Metropolitan region, technology advancements and accurate real-time data provide opportunities for better informed decision-making by network managers and customers. This can also inform effective management of transport assets and enable positive customer experiences.

This objective can be achieved for the Metropolitan region by:

- collaborating with local government and industry to enable shared data capability and supporting technology advancements
- using accurate, real-time data to understand both current and future customer mobility demands and opportunities
- connecting and engaging with customers in two-way communication
- collecting and analysing real-time infrastructure usage and performance data to inform infrastructure upgrades.

Table 16: Priority 2 actions for the Metropolitan region

Priority 2: Prosper A transport system that supports the economic competitiveness of the region		Objectives		S
Objectiv between	ve 2.1: Goods and services move efficiently and reliably along supply chains to and n Regional Economic Clusters and markets.	2.1		
Objectiv network	ve 2.2: Activity centres are connected by a reliable and high-frequency public transport 		2.2	
Objecti v informa	ve 2.3: Transport planning and investment is informed by current and accurate tion.			2.3
Actions	– short-term			
A3.27	Brisbane Metro planning Brisbane City Council to undertake planning and investigations necessary to advance delivery of the Brisbane Metro proposal such that optimum transport, public realm and community outcomes are achieved for Brisbane and the region.		•	
A3.28	 Centenary Motorway upgrade and extension planning Progress planning to inform investment decisions for the staged upgrade of the Centenary Motorway consistent with a master planned investment strategy, including: Toowong to Ellen Grove – upgrade to six lanes Carole Park to Willowbank – upgrade for a road and rail corridor catering for freight and passenger transport Yamanto to Amberley – extension planning including corridor identification and preservation. 	•	•	
A3.29	Eastern Transitway Progress planning for staged delivery of bus priority on the Eastern Transitway from Coorparoo to Carindale along Old Cleveland Road to meet multi-modal transport needs including short and longer-term high-frequency bus connections.		•	
A3.30	Cunningham Highway transport planning Progress planning to inform investment decisions for the improvement of the Cunningham Highway between Ripley and Willowbank, including interchanges, consistent with a master planned strategy that meets multi-modal transport needs.	•		
A3.31	Dutton Park to Indooroopilly public transport planning Investigate opportunities for a trunk public transport connection from Dutton Park, connecting through the University of Queensland to Indooroopilly.		•	
A3.32	Gateway Motorway corridor planning Undertake planning studies to inform corridor protection and investment decisions regarding the development of the Gateway Motorway corridor to suit the transport system.	•		
A3.33	Gympie Road corridor planning Progress planning to inform investment decisions for the improvement of the Gympie Road corridor consistent with a master planned strategy that meets multi-modal transport needs, with a particular focus on provision of staged delivery of priority for high-frequency bus services and integration with land use outcomes for northern Brisbane.	٠	٠	
Priority A trans	2: Prosper port system that supports the economic competitiveness of the region	Objectives		es
----------------------------	--	------------	-----	-----
Objectiv Regiona	/e 2.1: Goods and services move efficiently and reliably along supply chains to and between I Economic Clusters and markets.	2.1		
Objectiv network	re 2.2: Activity centres are connected by a reliable and high-frequency public transport		2.2	
Objectiv	re 2.3: Transport planning and investment is informed by current and accurate information.			2.3
Actions	– short-term			
A3.34	Intersection upgrades Undertake planning to inform options to upgrade intersections across the Metropolitan region to reduce congestion and improve safety. Priority intersections include intersections on Gympie Road, Beaudesert Road, Stafford Road, Sandgate Road, Old Northern Road, Logan Road, Western Arterial Road, Centenary Highway, Samford Road, Old Cleveland Road and Cleveland Redland Bay Road.	•		
A3.35	Ipswich (Marsden parade) intersection planning Ipswich City Council to progress planning for the realignment of Marsden Parade to connect to the intersection of Brisbane Street and Gordon Street to improve traffic flow and facilitate inner city revitalisation in Ipswich.	•		
A3.36	Ipswich Motorway (Rocklea to Darra) upgrade planning Progress planning to inform future investment decisions for the improvement of the Ipswich Motorway corridor between Rocklea and Darra consistent with a master planned strategy that meets multi-modal transport needs.	•		
A3.37	Kedron to Chermside and Bracken Ridge bus priority planning (Northern Transitway) Undertake planning to review service requirements, protect corridor and define form, cost and timing for the long-term extension of bus priority on the Northern Transitway from Kedron to Chermside and Bracken Ridge.		•	
A3.38	Level crossing review Review level crossings and develop a prioritised investment strategy in conjunction with Brisbane City Council to upgrade level crossings under local road network funding arrangements.	•		
A3.39	Logan Motorway/Centenary Highway interchange planning Progress planning to inform investment decisions for the upgrade of the Logan Motorway/ Centenary Highway interchange consistent with a master planned strategy.	•		
A3.40	Mount Lindesay Arterial Road (Beaudesert Road) upgrade planning Progress planning to inform investment decisions for the improvement of the Mount Lindesay Arterial Road (Beaudesert Road) corridor consistent with a master planned strategy that meets multi-modal transport needs.	•		
A3.41	North Brisbane north-west transport corridor planning Progress development of the north-west transport corridor master plan to inform decisions for preservation and future investment strategies consistent with the development of the transport system in relation to active, freight, passenger and general traffic.	•	•	

(continued next page)

Priority A trans	2: Prosper port system that supports the economic competi	tiveness of the region	Oł	ojectiv	es
Objectiv Regiona	re 2.1: Goods and services move efficiently and re I Economic Clusters and markets.	eliably along supply chains to and between	2.1		
Objectiv network	/e 2.2: Activity centres are connected by a reliabl 	e and high-frequency public transport		2.2	
Objectiv	/e 2.3: Transport planning and investment is info	rmed by current and accurate information.			2.3
Actions	– short-term				
A3.42	Pacific Motorway upgrade planning Progress planning to inform investment decisio reduce congestion and improve safety outcome Motorway at Eight Mile Plains to Logan Motorwa	ns for the upgrade of the Pacific Motorway to s, including capacity upgrades from Gateway ay at Loganholme.	•		
A3.43	Port of Brisbane rail planning Undertake planning with the Australian Govern Port of Brisbane.	ment to investigate rail freight needs for the	•		
A3.44	A3.44 Review of planning and access declarations Review planning and access declarations on state-controlled roads within the Metropolitan region to inform decisions for the improvement of safety, congestion and access to the transport system.		•		
A3.45	 Road corridor planning Undertake strategic interventions for urban arteroad corridors include: Brisbane urban corridor (including Granard, Riawena, Kessels, and Mount Gravatt Capalaba roads) Capalaba–Cleveland Road (including Old Cleveland and Finucane roads) Cleveland Redland Bay Road Linkfield Road 	 erial roads in the Metropolitan region. Priority Logan Road Old Northern Road Redland Sub-Arterial/Redland Bay Road (including Mount Cotton, Duncan and Boundary roads) Samford Road Stafford Road. 	•	•	
A3.46	Sandgate Road corridor planning Progress planning to inform investment decisio Road corridor consistent with a planned strateg	ons for the improvement of the Sandgate gy that meets multi-modal transport needs.	•	•	
A3.47	Warrego Highway planning Progress planning to inform investment decision Ipswich City Council consistent with a planned sa to <i>Darling Downs Regional Transport Plan</i> for fur	s for the safety of the Warrego Highway within fety strategy that meets transport needs. Refer ther actions for the Warrego Highway.	•		
A3.48	Warrego Highway to Cunningham Highway plan Progress planning of the Warrego Highway to C master plan to inform decisions for preservation the development of the transport system.	nning unningham Highway Connection Corridor n and investment strategies consistent with	•		
A3.49	Western Brisbane connectivity planning Investigate improvements to arterials in wester connectivity, optimise traffic flow and increase communities between Toowong to Everton Park	n Brisbane to improve transport public transport accessibility for local c.	•	•	

Priority A trans	/ 2: Prosper port system that supports the economic competitiveness of the region	C)bjective	S
Objectiv betweet	ve 2.1: Goods and services move efficiently and reliably along supply chains to and n Regional Economic Clusters and markets.	2.1		
Objectiv network	Ve 2.2: Activity centres are connected by a reliable and high-frequency public transport		2.2	
Objectiv informa	/e 2.3: Transport planning and investment is informed by current and accurate tion.			2.3
Actions	- medium/long-term			
A3.50	Bayley Road extension planning Ipswich City Council to undertake planning to inform options for the extension of Bayley Road between Pine Mountain Road and the Brisbane Valley Highway to provide an arterial alternative to the Warrego Highway.	٠		
A3.51	Moggill Pocket sub-arterial corridor planning Progress planning of the Moggill Pocket sub-arterial corridor to inform preservation and investment decisions consistent with the development of the western Brisbane transport network in relation to active, passenger and freight traffic.	٠		
A3.52	Regional activity centre transport planning Undertake transport network reviews to develop local transport network strategies, including modal priority consistent with <i>ShapingSEQ</i> to best support the objectives of principal regional activity centres and other regional economic clusters.	٠	•	
A3.53	Segregation investigation for passenger and freight rail Assess opportunities to segregate the passenger and freight network in the Metropolitan network where feasible.	٠		
A3.54	Warrego Highway and Haigslea Amberley Road intersection upgrade planning Undertake planning for the safety upgrade of the Warrego Highway/Haigslea Amberley Road intersection.	٠		

5.3.3 Priority 3: Sustain– A transport system that contributes to the environmental sustainability and resilience of the region

What does this mean for the Metropolitan region?

Objective 3.1: The transport system is safe, resilient and connected during and after extreme weather, events and incidents.

There are many corridors throughout the region that are prone to flash flooding, creek and river flooding as well as storm-tide inundation, which cause disruption to the transport network. Traffic incidents and events also disrupt the movement of people and goods.

Safety, resilience and connectivity will be supported through appropriate infrastructure upgrades, and also through providing customers with the information they need to keep them safe and moving, as events or incidents occur. Through the use of real-time data and information, infrastructure upgrades can be focused on the key links where they are most needed.

This objective can be achieved for the Metropolitan region through:

- management plans that minimise impacts of known closures and disruptions to the transport network
- effective and reliable communication, such as the coverage of early warning systems and real-time information
- innovation in traffic incident management and response across all modes
- targeted infrastructure upgrades.

Objective 3.2: Walking, cycling and other sustainable travel options are accessible, convenient and safe.

Active transport will play a critical role in the region's transport network. In the urban context, cycling and walking infrastructure will provide options for customers to commute, access local mass transit stops and essential services and for a variety of recreational activities. Where possible, these options will be separated from vehicle traffic to increase safety.

In rural areas, due to distances and road safety and speeds, active transport will mostly be relevant for short distance trips within the local neighbourhood. This objective can be achieved for the Metropolitan region through:

- providing a safe, convenient and connected active transport network that enables access to all of the regions activity centres
- incorporating safe and connected walking and cycling options along the regions existing roads where appropriate
- policies and interventions to prioritise the needs of people walking and cycling.

Objective 3.3: The transport system is sustainable and supports the region's environmental and lifestyle values.

The Metropolitan region is known for its diverse lifestyle opportunities which blend dense urban areas, low-density housing and rural living areas. These opportunities are afforded by the desirable sub-tropical climate, diverse natural landscapes, parklands and open spaces. Brisbane also has a high diversity of native plants and wildlife compared with other capital cities.

The Brisbane and Bremer Rivers are intrinsic and highly valued features of the region's landscape and lifestyle, as is Moreton Bay and the southern Moreton Bay islands. These features are vital to the lifestyle and tourism opportunities available in the region. Supporting the regions diverse lifestyle opportunities and environmental values requires deliberate consideration of sustainable transport approaches.

This objective can be achieved for the Metropolitan region through:

- planning for the integration of electric vehicles
- minimising transport emissions and noise and the associated impact on amenity in urban environments
- the use of more renewable sources of energy and providing more sustainable transport options for people
- minimising impacts on existing habitats and areas of biodiversity.

South Coast

Table 17: Priority 3 actions for the Metropolitan region

Priority A trans of the r	7 3: Sustain port system that contributes to the environmental sustainability and resilience egion	C)bjective	S
Objectiv weather	/e 3.1: The transport system is safe, resilient and connected during and after extreme <i>r</i> , events and incidents.	3.1		
Objectiv conveni	/e 3.2: Walking, cycling and other sustainable travel options are accessible, ent and safe.		3.2	
Objectiv and life	/e 3.3: The transport system is sustainable and supports the region's environmental style values.			3.3
Actions	- short-term			
A3.55	Centenary cycleway upgrade planning Develop a cycleway upgrade strategy for the Centenary Motorway between Frederick Street, Toowong and Springfield to inform future investment strategies. The strategy will address ways to increase the attractiveness of the route to increase patronage.		•	•
A3.56	Flood immunity upgrades Undertake planning to identify and prioritise flood immunity upgrades to the transport network in Metropolitan region.	٠		
A3.57	Priority principal cycle network routes Undertake options analysis and business case development for highest priority routes on the principal cycle network in the Metropolitan region.		•	•
Actions	– medium/long-term			
A3.58	Bus layover planning Progress planning for optimal use of layover and other bus operations to improve service efficiency and prepare for a move towards a connected network.		•	
A3.59	Green bridge and link planning Work with local governments to undertake planning to identify and review the need for green bridge/link opportunities across the Brisbane and Bremer rivers to connect strategic active or public transport links.		•	•

5.3.4 Priority 4: Live – A transport system that supports safe and liveable communities for everyone

What does this mean for the Metropolitan region?

Objective 4.1: Communities and public places are walkable and well-connected by integrated and sustainable transport options.

Walkable communities and public places promote social interaction, sustainable access to goods and services and equitable environments for people. Walkable urban areas also attract activity and provide environments that people want to experience.

Walkability plays a significant role in both amenity and people movement. It is an important active travel mode in the Metropolitan region within local neighbourhoods, activity centres and the central business district.

Transport planning will support the retention of walkable neighbourhoods in both existing and planned growth areas and also provide connections to the passenger transport network.

This objective can be achieved for the Metropolitan region through:

- prioritising the movement of people within all activity centres across the region
- high-quality design in walkable spaces that leverages the region's subtropical character
- public transport stops and stations that are well designed and support good pedestrian accessibility
- enabling walking and cycling as primary modes, particularly within activity centres
- enhanced wayfinding as well as more door-to-door and integrated end-to-end services.

Objective 4.2: The transport system provides safe, fair and equitable travel options.

Across the region, the further a person lives from an activity centre, typically the more challenging their accessibility becomes. Equally, the further a person lives from their place of employment, the more their daily commute costs. While proximity to local employment is encouraged and supported through this plan, so too is providing equal opportunity for all people to move, regardless of their circumstances. This objective can be achieved for the Metropolitan region through:

- mobility solutions that provide greater personalisation and accessibility for everyone
- transport that enables social inclusion and supports diverse lifestyles
- transport options for people across all demographics, including the elderly, children and those with disabilities
- innovative approaches which address accessibility gaps in an affordable way, including through diverse transport options, active transport, personalised mobility and demand-responsive transport
- provision of safe mobility options where the safety of both pedestrians and people travelling on all modes is facilitated
- continued rollout of varied safety initiatives to reduce serious accidents and fatalities.

CASE STUDY: CAVI – Ipswich trial

The Queensland Government is in the planning stages of Australia's largest trial of cooperative intelligent transport systems technologies as part of its Connected and Automated Vehicle Initiative (CAVI). About 500 Ipswich residents will be recruited and their vehicles retrofitted with cooperative intelligent transport systems (C-ITS) technology for on road testing in 2019.

A small number of automated vehicles will also be tested on public and private roads.

C-ITS devices use traffic and road infrastructure data to provide safety warnings about a range of conditions, for example, a pedestrian crossing at a signalised intersection, a red light runner or a queue ahead.

These rapidly developing cooperative and automated vehicle technologies could significantly reduce crashes and congestion and reduce vehicle emissions and fuel use.

The CAVI project is co-funded by the Motor Accident Insurance Commission and will be delivered with support from Ipswich City Council and other organisations.

South Coast

Table 18: Priority 4 actions for the Metropolitan region

Priorit y A trans	/ 4: Live port system that supports safe and liveable communities for everyone	Obje	ctives
Objecti and sus	ve 4.1: Communities and public places are walkable and well-connected by integrated stainable transport options.	4.1	
Objecti	ve 4.2: The transport system provides safe, fair and equitable travel options.		4.2
Actions	– short-term		
A3.60	Boating infrastructure Prioritise investment in boating infrastructure across the Metropolitan region based on an assessment of demand and input from the community and stakeholders including through tools such as the <i>Recreational Boating Facilities Demand</i> <i>Forecasting Study.</i>		٠
A3.61	Bremer River crossing planning Ipswich City Council to undertake planning to inform options for a new crossing of the Bremer River to address congestion, cross river connectivity and network resilience in the Ipswich City Centre.	•	
A3.62	 Busway operational planning Undertake detailed planning and develop business cases to progress initiatives to improve the capacity, operational performance and customer experience of existing busways. These include: more efficient passenger loading increased service coordination and information technology systems platform management and associated ticketing reforms improved bus priority and optimisation at shared intersections. 	٠	٠
A3.63	Public transport wayfinding signage Identify opportunities to improve wayfinding signage for public transport facilities in the Metropolitan region. This may include, for example, increasing the geographic extent of wayfinding signage.	•	
A3.64	Road safety projects As part of the High Risk Roads process, undertake planning to inform options for safety related improvements across the Metropolitan region.		٠
A3.65	 Transit oriented developments Identify opportunities to develop and encourage transit oriented developments within the Metropolitan region. Collaborate with local governments, infrastructure project teams and other state agencies to support increased public transport mode share, residential and employment density at appropriate transport hubs. In particular investigate opportunities associated with rail and bus nodes at, for example: in the short term at Albion, Buranda, Cleveland, Coorparoo Junction, Ferny Grove, Fortitude Valley and redevelopment opportunities as a result of Cross River Rail in the medium/long term at Cannon Hill, Coorparoo, Corinda, Darra and Eight Mile Plains. 	•	

(continued next page)

Priority 4: Live A transport system that supports safe and liveable communities for everyone		Objectives	
Objectiv and sus	/e 4.1: Communities and public places are walkable and well-connected by integrated tainable transport options.	4.1	
Objectiv	/e 4.2: The transport system provides safe, fair and equitable travel options.		4.2
Actions	– medium/long-term		
A3.66	Cycle parking at activity centres and public transport nodes Work with local governments in Metropolitan region to assess the feasibility and options to help facilitate progressive provision of increased bike parking at activity centres and public transport nodes.	•	•
A3.67	Iconic cycle routes Work with local government and other state agencies to identify and undertake planning to progress delivery of rail trails and iconic cycle routes to support cycling tourism in the Metropolitan region.	٠	
A3.68	Separated cycle infrastructure planning Support local government to undertake planning of physically separated cycle lanes to and within urban activity centres within the Metropolitan region.	٠	•



Entertainment precinct, Brisbane



Actions

Figure 35: Actions for the Metropolitan region

Draft Regional Transport Plans | South East Queensland | 2018 117



6. South Coast Regional Transport Plan

Gold Coast · Logan · Scenic Rim







6.1 Regional overview

The South Coast region (Figure 36) is the second largest urban area in South East Queensland (SEQ) and includes the Gold Coast, Logan and Scenic Rim local government areas.



Sources:

Queensland Government Statistician's Office. (2017). *Queensland Regional Profiles—custom region*. Department of Infrastructure, Local Government and Planning. (2017). *South East Queensland Regional Plan (ShapingSEQ)*. National Institute of Economic and Industry research *(NIEIR)*. (2015–16). Gold Coast Airport Corporation. (2017).



Figure 36: The South Coast region



Beenleigh Town Square

GOLD COAST

2016 ESTIMATED POPULATION: 576,900¹⁰⁹ 2041 PROJECTED POPULATION: 919,000¹¹⁰ **+1.9% GROWTH RATE**¹¹¹

Economy:

The Gold Coast local government area produced \$31.56 billion of Gross Regional Product and had 262,271 jobs and 61,271 businesses in 2015–16.^{112,113} The property, tourism and retail sectors traditionally dominate the composition of the area's economy. While the economy continues to rely on these strengths, growing industries including health, education, professional services and financial services are increasingly driving the area's economic growth.¹¹⁴ The Gold Coast is renowned as one of Australia's premier tourism destinations with over 10.5 million overnight and day visitors each year.¹¹⁵

As of 2016, the health care and social assistance industry provided 13 per cent of all jobs within the Gold Coast, followed by retail trade (11.7 per cent), accommodation and food services (10.6 per cent) and construction $(9.3 \text{ per cent})^{116}$.

Employment:

In 2016, the main industries in which the Gold Coast residents were employed included health care and social assistance (12.4 per cent), construction (11.5 per cent), retail trade (11.2 per cent) and accommodation and food services (9.7 per cent).¹¹⁷

Growth:

Gold Coast is expecting to grow by 351,100 people by 2041. This growth is anticipated to require 158,900 additional dwellings, with 80% of those dwellings expected to be provided through consolidated development.¹¹⁸

Education:

There are three universities in the Gold Coast. Bond University is a private institution with more than 5,800 students. Griffith University has a major campus at Southport with more than 18,000 students. Southern Cross University has a campus at Coolangatta adjacent to the Gold Coast Airport.

Recreation:

Significant recreational opportunities exist for residents and visitors from world-class beaches and natural hinterland to community precincts, theme parks and major events.

¹⁰⁹ Australian Bureau of Statistics. (2017). Regional Population Growth, Australia (Catalogue No. 3218.0).

¹¹⁰ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

¹¹¹ Queensland Government Statistician's Office. (2015). Queensland Government Population Projections, 2015 edition (medium series).

¹¹² National Institute of Economic and Industry Research. (2015). Gross Regional Product and local jobs columns, source 1.

¹¹³ Australian Bureau of Statistics. (2017). Counts of Australian Businesses, including Entries and Exits, June 2012 to June 2016.

¹¹⁴ City of Gold Coast. (2013). *Economic development Strategy 2013–2023*.

¹¹⁵ Gold Coast Tourism Corporation. (2017). Destination Gold Coast: places to see.

¹¹⁶ Queensland Government Statistician's Office. (2018). Queensland Regional Profiles: Workforce Profile for Gold Coast (R) Local Government Area.

¹¹⁷ Queensland Government Statistician's Office. (2018). Queensland Regional Profiles: Resident Profile for Gold Coast (R) Local Government Area.

¹¹⁸ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

LOGAN

2016 ESTIMATED POPULATION: 313,800¹¹⁹ 2041 PROJECTED POPULATION: 586,000¹²⁰ **+2.5% GROWTH RATE**¹²¹

Economy:

The Logan local government area produced \$10.73 billion of Gross Regional Product and had 95,559 jobs and 20,393 businesses in 2015–16.^{122,123} The area has an established economy characterised by the manufacturing, rental hiring and real estate services, construction, retail and wholesale trade sectors. Emerging industries include transport and logistics, food manufacturing and processing, health care, education and training.¹²⁴

As of 2016, the health care and social assistance industry provided 13.5 per cent of all jobs within Logan, as did retail trade (also 13.5 per cent), followed by both the construction industry and the education and training sector (10.5 per cent each).¹²⁵

Employment:

In 2016, the main industries in which Logan residents were employed included construction (12.0 per cent), health care and social assistance (11.5 per cent), retail trade (10.5 per cent) and manufacturing (9.7 per cent).¹²⁶

Growth:

Logan is expecting to grow by 272,200 people by 2041. This growth is anticipated to require 89,900 additional dwellings, with 78 per cent of those dwellings expected to be provided through expansion development.¹²⁷

Education:

Griffith University has a satellite campus in Logan with almost 2,500 students.¹²⁸ TAFE Queensland also has a campus in Loganlea.

Recreation:

Logan is a predominately urban area featuring community precincts, parks and spaces. Logan is conveniently located between Brisbane and the Gold Coast and benefits from the recreational opportunities that comes with being one of Queensland's largest and fastest growing cities.

- 121 Queensland Government Statistician's Office. (2015). Queensland Government Population Projections, 2015 edition (medium series).
- 122 National Institute of Economic and Industry Research. (2015–16). *Gross Regional Product and local jobs columns, source 1.*

126 Queensland Government Statistician's Office. (2018). *Queensland Regional Profiles: Resident Profile for Logan (R) Local Government Area.*

¹¹⁹ Australian Bureau of Statistics. (2017). *Regional Population Growth, Australia (Catalogue No. 3218.0)*.

¹²⁰ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

¹²³ Australian Bureau of Statistics. (2017). Counts of Australian Businesses, including Entries and Exits, June 2012 to June 2016.

¹²⁴ Logan City Council. (2017). *City of Logan Investment Snapshot*.

¹²⁵ Queensland Government Statistician's Office. (2018). Queensland Regional Profiles: Workforce Profile for Logan (R) Local Government Area.

¹²⁷ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

¹²⁸ Griffith University. (2016). *About Griffith: campuses and facilities: Logan*.

SCENIC RIM

2016 ESTIMATED POPULATION: 41,000¹²⁹ 2041 PROJECTED POPULATION: 62,000¹³⁰ **+1.7% GROWTH RATE**¹³¹

Economy:

The Scenic Rim local government area produced \$1.74 billion of Gross Regional Product and had 13,945 jobs and 4281 businesses in 2015–16.^{132,133} The area's fertile land and proximity to SEQ markets provides a comparative advantage for the agriculture, forestry and fishing sector. Construction, rental hiring and real estate services and scientific and professional services sectors also contribute to a thriving regional economy.¹³⁴ Given the relatively small size of the area's economy, the development of the Bromelton State Development Area will have a significant impact on its scale and composition.¹³⁵

As of 2016, the agriculture, forestry and fishing industry provided 12.7 per cent of all jobs within the Scenic Rim, followed by health care and social assistance (10.9 per cent), education and training (10.5 per cent) and accommodation and food services (10.3 per cent).¹³⁶

Employment:

In 2016, the main industries in which Scenic Rim residents were employed included construction (10.7 per cent), health care and social assistance (10.5 per cent, education and training (9.4 per cent), and agriculture, forestry and fishing (8.8 per cent).¹³⁷

Growth:

Scenic Rim is expecting to grow by 21,000 people by 2041. This growth is anticipated to require 10,000 additional dwellings, with all of those dwellings expected to be provided through expansion development.¹³⁸

Education:

Institutions in neighbouring local government areas provide education opportunities to the region including Logan and the Gold Coast.

Recreation:

The Scenic Rim features vast natural and rural landscapes and hinterland which offer a range of outdoor recreational experiences. It includes the World Heritage listed Gondwana Rainforest. Scenic Rim is also in close proximity to key centres and coastal areas which provide a range of additional opportunities for recreation and entertainment.

137 Queensland Government Statistician's Office. (2018). Queensland Regional Profiles: Resident Profile for Scenic Rim (R) Local Government Area.

¹²⁹ Australian Bureau of Statistics. (2017). *Regional Population Growth, Australia (Catalogue No. 3218.0).*

¹³⁰ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

¹³¹ Queensland Government Statistician's Office. (2015). Queensland Government Population Projections, 2015 edition (medium series).

¹³² Department of Infrastructure Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

¹³³ Australian Bureau of Statistics. (2017). Counts of Australian Businesses, including Entries and Exits, June 2012 to June 2016.

¹³⁴ Australian Bureau of Statistics. (2014). *Scenic Rim LGA statistical data*.

¹³⁵ Department of State Development. (2017). Bromelton State Development Area.

¹³⁶ Queensland Government Statistician's Office. (2018). Queensland Regional Profiles: Workforce Profile for Scenic Rim (R) Local Government Area.

¹³⁸ Department of Infrastructure, Local Government and Planning. (2017). South East Queensland Regional Plan (ShapingSEQ).

6.1.1 Projected population and employment growth

Between 2016 and 2031 the areas with the largest expected population growth are Flagstone, Yarrabilba and Park Ridge in Logan, and Pimpama and Southport in the Gold Coast. This is followed by less intensive levels of growth in Coomera and Surfers Paradise in the Gold Coast.

Figure 37 shows the expected total population change by mappable areas across the region from 2011 to 2031. The larger land sizes of the mapped areas in the southwest depict medium-low and medium population growth. Similarly, Figure 38 (on page 126) depicts medium employment change in the southwest. It is noted this change is over the total land area and subsequently the intensity of change is anticipated to be lower.

The majority of employment growth will occur in the Gold Coast at centres including Ormeau, Southport and Robina (Figure 38).



Figure 37: Projected population growth by area between 2011–2031 for the South Coast **Source:** Queensland Government Statisticians Office. (2011). *Queensland Government Population Projections by Statistical Area, 2011–2031*.



Figure 38: Projected employment growth between 2011–2031 for the South Coast **Source:** Queensland Government Statisticians Office. (2011). *Queensland Government Population Projections by Statistical Area, 2011–2031*.



Buses on the Gold Coast

6.1.2 Regional economic and growth areas

A range of regional economic and growth areas will have an impact on the current and future regional transport network. These areas include State Development Areas, Priority Development Areas, Regional Economic Clusters, knowledge and technology precincts and major expansion areas. These areas are highlighted in Figure 39 and are detailed further in *ShapingSEQ*.



Figure 39: Regional economic and growth areas for the South Coast region

6.1.3 Region shaping projects

A number of major large-scale projects in public transport, road transport and urban development will help shape the South Coast region. These projects are detailed below.

New Gold Coast rail stations

The Queensland Government will provide additional funding of \$120 million to build three new train stations at Pimpama, Helensvale North and Worongary-Merrimac. The three new stations will allow more Gold Coast residents to benefit from the 3,150 extra peak-hour seats being provided by increased rail services on the Gold Coast rail line, which will help take pressure off the M1 motorway. Planning work for these stations will be progressed in 2018-19 at an estimated cost of \$3 million. Project delivery is anticipated to occur from 2020.

Gold Coast Light Rail

Stage 2 of the Gold Coast light rail from Helensvale to Broadbeach opened in December 2017. The project created a 7.3 kilometre extension to the existing light rail network adding three new stations and two park 'n' ride facilities with 1,400 commuter parking spaces. The extension means commuters and visitors can now travel by light rail from Broadbeach to Helensvale station to connect with heavy rail services to Brisbane and the wider SEQ network. Planning for further light rail expansion to Coolangatta has commenced in response to *ShapingSEQ* regional directions.

Pacific Motorway upgrade

The upgrade will involve investment planning to meet current and future traffic demands by increasing motorway capacity through Logan and Varsity Lakes to Tugun.

Gold Coast Airport Expansion Plans

Gold Coast Airport is a significant economic and aviation gateway to the region. An economic impact assessment commissioned as part of the 2017 Master Plan process projects the airport's direct operations contribution to the region will be \$818 million, growing to \$2.3 billion by 2037.¹³⁹ The Master Plan includes continued development and expansion of the airport precinct as a major commercial and educational hub.

Coomera connector

A footprint has been declared for a future state-controlled north-south Intra Regional Transport Corridor on the northern Gold Coast east of the Pacific Motorway (M1).

The corridor will improve transport capacity and connections in the northern Gold Coast area and reduce trips on the M1. It will also offer more efficient connections between the M1 and the main east-west roads.

Bromelton State Development Area

The State Development Area comprises 15,610 hectares, located within the Scenic Rim, approximately six kilometres west of Beaudesert and 75 kilometres south of Brisbane. The land is suitable for medium to large-scale industrial activities of regional and national significance. It provides access to the rail network along the Sydney– Brisbane rail corridor, servicing freight and logistics operations for industries. The new intermodal freight terminal at Bromelton has opened with trains arriving on a regular basis delivering freight to the logistics hub for ongoing distribution by road and rail to other locations.

Rail station upgrades

Loganlea rail station will be upgraded as part of the continuing Station Accessibility Upgrade program enabling customers to independently access station platforms and trains. Station Upgrades vary depending on the requirements at each station, but will include new lifts or escalators, new platforms, and access improvements to meet disability standards.

Priority Development Areas

Priority Development Areas (PDA) have been identified for specific accelerated development, with a focus on economic growth. The locations within the South Coast region are:

- Greater Flagstone PDA
- Parklands PDA
- Southport PDA
- Yarrabilba PDA.¹⁴⁰

Brisbane – Gold Coast Transport Investment Strategy

Transport and Main Roads has developed a draft 10-year Brisbane–Gold Coast Transport Investment Strategy that identifies the priorities to address deficiencies along the road, rail, bus and cycling corridors between Brisbane and Tugun. This includes investment strategies for the Pacific Motorway, the Gold Coast and Beenleigh rail lines, the South East Busway and the Veloway 1 (V1) cycleway.

The investment strategy identifies initiatives to address existing operational, capacity and safety issues in the corridor, including impediments to using public and active transport, and maximising the benefits realised from existing assets. The draft investment strategy has been submitted to Infrastructure Australia to support the assessment of nationally-significant projects in the corridor, which include upgrades to the M1 Pacific Motorway

¹³⁹ Gold Coast Airport. (2017). *Media Release: Preliminary draft master plan*.

¹⁴⁰ Department of State Development, Manufacturing, Infrastructure and Planning. (2018). Priority Development Areas.

6.2 Regional transport network

6.2.1 Current regional transport network

Transport services and infrastructure in the South Coast region vary depending on the context and development history of the different areas. The region includes a maturing road network and growing public and active transport networks. Each of these enables people and goods to move throughout and beyond the region.

Active transport

Transport and Main Roads and local governments recognise the important role active transport can play in the way people move.

Well designed and connected streets and activity centres that encourage walking as the preferred method of travel present a range of social and economic benefits. This is particularly important in pedestrian heavy centres such as Gold Coast coastal and tourist areas where walking should be prioritised over vehicle movements.

Key cycle infrastructure in the South Coast region includes:

- Veloway 1 adjacent to the Pacific Motorway, progressively connecting the region and Brisbane
- Logan City Cycleways such as links to Logan Central, Springwood, Slacks Creek, Shailer Park and Crestmead
- On and off-road facilities along key corridors on the Gold Coast such as along the Gold Coast Oceanway, Nerang-Broadbeach Road, Bermuda Street, and at Surfers Paradise, Robina and Nerang

- Cycling and pedestrian bridges such as the Nerang River, Scrubby Creek, Lake Intrepid and Lake Heron cycle and pedestrian bridges
- Other cycling attractors such as the Gold Coast Cycle Centre (Velodrome), world class mountain biking trails and BMX facilities.

Transport and Main Roads is delivering the next stages of the Veloway cycleway from Brisbane city to the Gateway Motorway off-ramp at Eight Mile Plains. A dedicated three metre wide cycleway will provide a safe route for commuting cyclists. The cycleway follows adjacent to the M3 and M1 motorways between Brisbane and the Gold Coast.

Public transport

The South Coast region's public transport system includes heavy rail, light rail and bus networks. The region is served by a heavy rail line that runs from Varsity Lakes to Brisbane City. The Gold Coast's light rail, G:Link, is a 20 kilometre line with 19 stations spanning from Broadbeach to Helensvale where it connects with heavy rail services to Brisbane and the broader SEQ rail network. Nine all day high-frequency bus routes provide connections with the heavy and light rail trunk corridors.

There is also a network of bus services that provide important connections throughout the region and to neighbouring regions. Frequent links are provided from Logan to Brisbane.

During 2017–2018, TransLink is partnering with Yellow Cabs to deliver a 12-month trial of Demand Responsive Transport (DRT) services in selected Logan suburbs. DRT is a pre-booked service that adapts to its users by changing routes, vehicles and destinations to suit the number of passengers.



Varsity Lakes Station

Rail

The NSW TrainLink interstate service travels through the region, however, there are no stations within South Coast.

Inland Rail is proposed to link with the interstate line at Kagaru offering significant opportunities for intermodal freight from terminals such as the new Bromelton intermodal freight terminal.

Roads

The region's road network is shown in Figure 39 (on page 127). Major roads in the South Coast region include the Pacific Motorway, the Cunningham Highway, the Mount Lindesay Highway and the Logan Motorway. Generally, the road network is characterised by a large number of north-south routes with fewer east-west connections.

Air

The South Coast region is serviced by the Gold Coast Airport. The Gold Coast Airport has more than 6.4 million passengers annually. It is Australia's sixth busiest international airport.¹⁴¹

Marine

With an abundance of waterways, the Gold Coast attracts recreational boating, water sports and fishing. Currently the Gold Coast has 26,992 registered boats. The navigation channel network links together the Broadwater, Moreton Bay, Gold Coast Seaway and Gold Coast Marine Precincts (Coomera and Steiglitz).

The Queensland Government established the Gold Coast Waterways Authority in December 2012 to promote and manage the sustainable use of the Gold Coast waterways for marine industries, tourism and recreation. The *Gold Coast Waterways Authority Act 2012* requires the authority to prepare a 10-year waterways management strategy and an annual waterways management program that provides a rolling investment plan.

6.2.2 Transport challenges in the South Coast region

In partnership with stakeholders the following challenges for the South Coast region have been identified.

Employment travel patterns

In Logan, more than half of all residents travel outside their local government area for work with a large proportion travelling to Brisbane, as shown in Figure 40. Gold Coast and Scenic Rim have a lower proportion of residents travelling outside their local government area for work at 18 per cent and 39 per cent respectively. Of these commuters, one in 10 travel to Brisbane. These trends are expected to continue for at least the next 15 years and planning needs to continue to facilitate the efficient movement of the region's residents to Brisbane, Logan and Ipswich for employment purposes.

Travel preferences and mode competitiveness

The South Coast region has high reliance on private vehicles. This is largely due to the dispersed development pattern throughout much of the region. The proportion of trips made by public transport and active travel such as walking and cycling have either declined or have remained stable at small mode shares over time. Figure 41 provides a breakdown of method of travel to work in 2016.¹⁴²

Projected population growth presents a need to mature the transport network, both to support planned infill development and to better service existing and future lower density areas and encourage more sustainable travel options.



Commuters travelling by rail

141 Gold Coast Airport. (2017). *Goldcoastairport.com*.au. 142 Australian Bureau of Statistics. (2017). *2016 Census – Travel to work*.





Projected proportion of people that travel outside of their local government area for work in 2030-31



Figure 40: Proportion of people who travel outside their local government area for work in 2015–16 and forecast for 2030–31 **Source:** Queensland Treasury. (2016). *Regional Employment Projections*.



Figure 41: South Coast region mode share for journeys to work **Source:** Australian Bureau of Statistics. (2017). *2016 Census – Travel to work*.

Road congestion

Private vehicles are the dominant way in which people move around the region. The linear nature of the Gold Coast has meant historically, urban development has not been concentrated around public transport corridors. Therefore, residential, employment and major activity centres are dispersed on a north-south axis that spreads from the urban fringes of Logan to the border with NSW.

In Logan, major roads such as the Mount Lindesay Highway, Logan Motorway, and Pacific Motorway are all impacted by congestion due to commuting patterns.

Congestion in the morning peak hour is already excessive on the Pacific Motorway at Springwood. There is high congestion on roads leading to new expansion developments such as Park Ridge and Yarrabilba. In the Gold Coast, there is high congestion on the Pacific Motorway and on major east-west roads that link the activity centres of the Gold Coast to the motorway. Traffic is forecast to become more congested by 2031, based on current trends.

In the past, additional capacity would have been added to the road network to help address congestion issues. However, roads cannot be expanded indefinitely. Physical constraints, limited financial resources and sustainability of travel mean alternative approaches are needed. Expanding public and active transport options, coupled with behavioural changes, such as shifting to off-peak periods or carpooling, will be required to manage congestion. In 2015–16, it was estimated that excessive congestion cost the South Coast region \$333 million in lost economic activity (Figure 42). Much of the congestion experienced across the network could be managed with network improvements, reallocation of demand, safety interventions, or through improved resilience and management of weather events and incident management.



Figure 42: The cost of excessive congestion on state-controlled roads in the South Coast region **Source:** Department of Transport and Main Roads. (2017).



Smith Street and Olsen Avenue interchange

Public transport challenges

Due to the dispersed urban development and employment patterns in the South Coast region it is sometimes challenging for public transport travel time to be competitive with private vehicles.

Figures 43 and 44 (on page 134) shows the accessibility by car and public transport to the closest key centres in the South Coast region. In most of the urbanised areas of Logan and the Gold Coast, private vehicle travel to key centres such as Springwood, Beenleigh, Southport and Robina can take just 30 minutes, while journeys by public transport are only comparable in travel times if the journeys start near these key centres. For residents living in expansion developments in outer suburban areas, similar journeys by public transport can take more than one hour.

Park 'n' ride facilities are an important part of the public transport system. When located in the right places, they can extend catchments and provide an important connection point for people that might not otherwise have access to public transport.

In SEQ, many park 'n' ride facilities are at or near capacity, and adding capacity presents several challenges.

Park 'n' ride facilities are expensive to construct and maintain. Likewise, park 'n' ride facilities often occupy land that could be put to higher value and better use.

The identification of appropriate locations for additional park 'n' ride capacity needs to be considered. Managing the demand and use of existing facilities also needs to be explored. Funding facilities, either through user charges or alternative funding mechanisms could be considered.

Connectivity to and from new urban expansion areas

Greater Flagstone and Yarrabilba are two Priority Development Areas for residential growth.

The existing road network will require upgrades to accommodate future planned growth.

Current public transport services from Beaudesert and Yarrabilba mostly serve weekday peak hour commuting trips to Brisbane City and take more than 1.5 hours. As a result, there is a high dependence on private vehicles.

Developing these and other expansion areas with reliable and frequent public transport, active transport connections, and improved roadways will be essential to create high-quality, liveable communities.



Figure 43: Car accessibility to closest key centre in the South Coast region **Source:** Department of Transport and Main Roads. (2017). *Output from the LUPTAI software, 2016.*



Figure 44: Public transport accessibility to the closest key centre in the South Coast region **Source:** Department of Transport and Main Roads. (2017). *Output from the LUPTAI software, 2016*.

Cross-border transport issues

The Gold Coast continues to grow in a linear manner along the coast and across the border into the Tweed Shire in NSW. Tweed Shire is forecast to grow from a population of 88,450 in 2011 to 115,350 in 2020.¹⁴³ This will create further transport challenges due to challenging geography and differences in regulatory environments between Queensland and NSW.

The Queensland and NSW governments have agreed on key areas of focus for cross-border collaboration. These include regional economic development, aligning services and sharing information, local transport and issues of national significance. For transport, a specific aim is that 'public transport for people living in cross-border regions should be seamless' with priority areas to include greater efficiencies in delivering flexible border transport solutions, integrated border bus services and alignment of priority border road projects.¹⁴⁵ There are inherent challenges to cross-border service integration with differing fare structures, policies, ticketing systems and taxi travel.¹⁴⁴ The NSW Northern Rivers Regional Transport Plan has acknowledged the challenges of cross-border connectivity and the potential to improve cross-border connections.

Southern Gold Coast and airport access

Access along the narrow southern Gold Coast urban area, between Burleigh Heads and the NSW border, is currently constrained to the Pacific Highway (M1) and Gold Coast Highway corridors. This area contains a string of small to major activity centres, including Coolangatta and the Gold Coast Airport.

The M1 is the primary gateway for road-based connections into Queensland from NSW, carrying regional, interstate and national freight and passenger trips to the Gold Coast, Brisbane and further north.

¹⁴³ City of Gold Coast. (2013). *Gold Coast City Transport Strategy 2031: Technical Report.*

¹⁴⁴ NSW Department of Planning and Environment. (2016). 2016 NSW population and Household Projections

¹⁴⁵ Queensland and NSW government. (2016). Statement of Principles and Priorities for Cross-border Collaboration 2016–2019.

South Coast

Coolangatta and the string of beachside settlements provide a more relaxed destination for domestic and international tourists, with regular influxes of surfers and day-trippers using the Gold Coast Highway to access world renowned beaches and holiday spots.

Gold Coast Airport is Australia's fastest growing airport and forecast passenger growth is expected to continue to exceed average growth rates of major Australian airports. Passenger growth will require improvements to airport access. The Gold Coast Airport Master Plan 2017 also seeks to expand the airport's role as an economic generator, complementing the airport's primary aviation function with high-quality business, education and lifestyle offerings. Quality transport connections for employees, staff and recreational visitors to the precinct are critical.

Better road connections to the Pacific Motorway and Gold Coast Highway as well as additional parking facilities will be necessary considerations by both government and Queensland Airports Limited, the owner and operator of the Gold Coast airport precinct. Three quarters of all passengers arriving at Gold Coast Airport are tourists.¹⁴⁶ Tourists often rely heavily on public transport, so good public transport options from the airport to major tourist destinations in the Gold Coast, SEQ and northern New South Wales are essential to ensure the continued competitiveness of the airport.

As planning progresses for extension of the light rail to Coolangatta, upgrades to the Pacific Motorway, the ongoing operation of the Gold Coast Highway and the eventual extension of the heavy rail line to the Gold Coast Airport, it is important to understand the individual roles and interdependencies of these corridors. Investment in the transport network will need to be carefully sequenced to minimise disruption and maximise the utility of each corridor.

Meeting the needs of freight and business traffic

In the 30 years to 2031, freight on the Gold Coast is projected to triple.¹⁴⁷ The mode type for freight movement in Queensland in 2010–11 is shown in Figure 45. The major freight generating areas are Yatala, Nerang, Molendinar and Southport in the northern area of the Gold Coast and Burleigh Heads and Tweed Heads (NSW) to the south. The most likely route for freight movements between these two areas is the Pacific Motorway. The Pacific Motorway is an important road corridor between Brisbane and Sydney with 11 per cent of the daily traffic on this motorway is made up of heavy vehicles. It is estimated that approximately 7,000 (7.7 per cent) of the 90,000 vehicles travelling on the Mudgereeba to Varsity section of the Pacific Motorway every day are carrying freight. Since there are no rail freight facilities in the Gold Coast, there will be continued pressure on the Pacific Motorway for freight movements.¹⁴⁸

In Logan and the Scenic Rim, the major north-south road corridors are the Cunningham Highway and the Mount Lindesay Highway, connecting through to the new intermodal freight facility at Bromelton near Beaudesert. Freight movement is mainly between Logan and the industrial precincts in south-west Brisbane and the Australia Trade Coast/Port of Brisbane as well as freight transit through Logan.

The key interstate rail corridor which connects Brisbane with Sydney runs through Logan and Scenic Rim. The track is shared with passenger and freight services and the planned Inland Rail freight project is proposed to connect with the existing line in Kagaru.¹⁴⁹

Urban freight and goods delivery within the region also requires adequate physical space for loading and deliveries. With the increasing movement and delivery of small goods due to electronic commerce, there will continue to be challenges in handling freight and goods in physically constrained urban spaces without affecting the operation of traffic, public transport, pedestrians and cyclists.

Delays in freight movement along the strategic freight corridors of the Pacific Motorway, Mount Lindesay Highway and to a lesser extent the Cunningham Highway could impact on the region and the state.



Figure 45: Queensland freight movement by mode 2010-2011

¹⁴⁶ Gold Coast Airport. (2017). Master Plan.

¹⁴⁷ City of Gold Coast. (2013). Gold Coast City Transport Strategy 2031: Technical Report.

¹⁴⁸ Department of Transport and Main Roads. (2018). M1 Pacific Motorway – Mudgeeraba to Varsity Lakes widening from four to six lanes: Project Business Case Evaluation (2016). www.infrastructureaustralia.gov.au/projects/files/Final_M1_Mudgeeraba_to_Varsity_Lakes_Project_Evaluation_ Summary.pdf.

¹⁴⁹ Australian Rail Track Corporation. (2017). Inland Rail Alignment 2017.

6.3 What do the priorities and objectives mean for the South Coast region?

TRANSPORT SYSTEM

The safety of all transport system customers is our primary priority as we create a single integrated transport network accessible to everyone.

Priority 1: Grow	Priority 2: Prosper	Priority 3: Sustain	Priority 4: Live
	Transport	objectives	
 Shape sustainable growth in consolidation areas. Reliable, efficient and sustainable travel options in expansion areas. Safe and efficient movement in rural communities. 	 2.1 Efficient and reliable movement of goods and services. 2.2 A reliable and high- frequency public transport network. 2.3 Accurate and informed transport decision- making. 	 3.1 Transport system resilience. 3.2 Safe, accessible and convenient active transport options. 3.3 A sustainable transport system. 	 4.1 Walkable communities and activity centres connected by sustainable transport. 4.2 Safe, fair and equitable travel options for all.
	What it means for th	e South Coast region	
 Urban consolidation and integrated design, particularly in and around activity centres and along existing and planned public transport corridors. Connecting expansion areas such as Flagstone, Yarrabilba, Park Ridge, Flinders, Bahrs Scrub, Coomera, Pimpama and Upper Coomera to the public transport network. Improving safety and key connections in and to rural areas. 	 Improved freight routes, such as to the Bromelton State Development Area, Pacific Motorway, Logan Motorway and interstate rail line. Increased public transport connecting activity centres (e.g. Springwood, Beenleigh, Southport, Robina, Beaudesert and regional economic clusters). Improving data accuracy and usage through smart infrastructure, real-time data and artificial intelligence. 	 Infrastructure is improved and built to minimise the impacts of weather and other disruptive incidents, including on the Pacific Motorway, Mount Lindesay Highway and Gold Coast rail line. Network and incident management is improved to minimise impacts of closures and disruptions. Prioritisation of active transport. Provision of electric vehicle infrastructure. Infrastructure and services that minimise impacts on scenic landscapes, and significant ecological areas. 	 Safe walking and cycling is prioritised within local neighbourhoods and activity centres. Transport choice is improved via options appropriate for the demand and land use, including community and school transport. Personalised transport such as demand-responsive transit and ride share.
	Measures	of success	
 Public transport access and competitiveness measures. Commute/travel time and travel distance. Road network reliability. 	 Public transport competitiveness measures. Commute/travel time. Road network productivity, travel time. Freight route reliability. 	 Active and public transport mode share. Frequency and duration of unplanned closures. Greenhouse gas emissions from transport. Road network reliability. Security incidents, fatalities and injuries. 	 Public transport customer satisfaction and competitiveness. Active transport mode share. Average commute time.

The priorities and objectives for SEQ are outlined in Chapter 3. This section outlines how the priorities and objectives will be achieved in the South Coast region.

6.3.1 Priority 1: Grow – A transport system that supports a consolidated and sustainable urban structure

What does this mean for the South Coast region?

Objective 1.1: Current and future transport networks shape sustainable growth and development of communities.

Sustainable transport plays a role in the sustainable growth and development of communities. In particular, providing mass transit together with active transport options is critical in enabling urban consolidation and increased densities. Increased density in mixeduse principal activity centres is forecast at Beenleigh, Southport and Robina and major activity centres at Logan Central, Logan Hyperdome, Yarrabilba, Flagstone, Coomera, Helensvale, Nerang, Bundall, Surfers Paradise, Broadbeach and Coolangatta. In addition, urban consolidation is planned across the region's urban footprint, with a particular focus on the Gold Coast.

This objective will support and enable sustainable growth through:

- providing a variety of active, public and private transport options that fit the purpose of existing and growing communities
- enabling urban consolidation and increased densities through access to mass transit and active transport
- incorporating high-quality urban design into all transport projects and supporting urban amenity along active streetscapes
- integrating land use planning as part of all strategic transport planning.

Objective 1.2: Communities in growth (expansion) areas have access to reliable, efficient and sustainable travel options

While urban consolidation is planned to cater for the majority of growth in the Gold Coast, urban expansion is planned to provide for the majority of growth in Logan and Scenic Rim. Like consolidated growth, expansion will provide a mix of densities and housing types. However, expansion is expected to provide more lower density and detached housing stock, which means fit-for-purpose transport options need to be provided.

Across the region, significant expansion is planned to occur in Park Ridge, Flagstone, Yarrabilba, Coomera and around Beaudesert. Reliable, efficient and sustainable travel options will be provided in the South Coast through:

- providing residents with transport options, including mass transit where appropriate, rather than private cars for a range of trips
- enabling residents to connect to existing and planned mass transit
- encouraging innovative service delivery models, such as ride sharing, peer-to-peer mobility and demandresponsive transit
- transit services and connections that meet the needs of new and established communities as they grow
- encouraging cycling and walkability in existing and growing neighbourhoods.

Objective 1.3: People and goods move safely and efficiently in rural communities

Rural communities have a higher reliance on private vehicle use and also experience high volumes of freight movement. This means road corridor management and safety is paramount. However, it is also important to enable rural customers to connect appropriately to the urban transport network when needed.

This objective can be achieved for the South Coast region through:

- transport options that match the regions' varied land use patterns and complex trip patterns, including longer or indirect trips
- planning to ensure transport disadvantage of rural settlements is minimised
- safe access to essential services, local employment, social support and interaction to enhance amenity
- improving the road network, managing speeds, and reducing potential conflicts between modes and users of the road network, particularly along key routes in Scenic Rim such as the Mount Lindesay Highway.

Table 19: Priority 1 actions for the South Coast region

Priority A transp	1: Grow port system that supports a consolidated and sustainable urban structure	0	bjective	
Objectiv developi	e 1.1: Current and future transport networks shape sustainable growth and nent of communities.	1.1		
Objectiv sustaina	e 1.2: Communities in growth (expansion) areas have access to reliable, efficient and ble travel options.		1.2	
Objectiv	e 1.3: People and goods move safely and efficiently in rural communities.			1.3
Actions -	- short-term			
A4.01	Browns Plains to South East Busway bus priority planning Undertake planning to develop options for providing public transport priority on the Mains Road corridor.	•	•	
A4.02	Bus station and stop upgrade planning Undertake planning for bus station and stop upgrades to achieve improved network performance and connectivity at activity centres and interchange locations. Early priorities include Beenleigh bus station upgrade, Robina Town Centre bus facility upgrade and bus stop locations on the Gold Coast Highway south to Tweed Heads.	•	•	
A4.03	Cross-border passenger transport connectivity In partnership with Transport for NSW investigate opportunites for improved cross-border passenger transport connectivity.	•	٠	
A4.04	Eight Mile Plains to Springwood bus priority planning Undertake planning to inform investment decisions on timing and configuration of the extension of bus priority from the South East Busway to Springwood.	•		
A4.05	Gold Coast and Beenleigh rail line (Kuraby to Beenleigh) planning Undertake planning to develop and assess options for improving commuter capacity on the Gold Coast and Beenleigh line between Kuraby and Beenleigh.	•	•	
A4.06	Gold Coast rail line (Beenleigh to Varsity Lakes) station planning Undertake planning for infill stations on the existing rail network from Beenleigh to Varsity Lakes.	•	•	
A4.07	Infrastructure coordination plans Collaborate with the Department of State Development, Manufacturing, Infrastructure and Planning, other state government agencies and local governments on infrastructure coordination plans within the South Coast region to improve the alignment of infrastructure planning with local and regional priorities and coordination within and between state and local government.		٠	
A4.08	Logan (south-west) and Scenic Rim (north-east) transport strategy Review the Mount Lindesay Beaudesert Strategic Transport Network Investigation and other strategic planning to ensure the transport strategy meets the needs of south-west Logan, Bromelton and Beaudesert areas.	•	•	•
A4.09	Northern Gold Coast strategic transport planning Undertake strategic network planning in the northern Gold Coast area to provide direction for future development of the transport system. The plan will also identify likely sequencing needs to guide future investment decisions.	•	٠	

Metropolitan

South Coast

Implementation

Priority A transp	1: Grow Fort system that supports a consolidated and sustainable urban structure	О	Objectives	
Objectiv developi	e 1.1: Current and future transport networks shape sustainable growth and nent of communities.	1.1		
Objectiv sustaina	e 1.2: Communities in growth (expansion) areas have access to reliable, efficient and ble travel options.		1.2	
Objectiv	e 1.3: People and goods move safely and efficiently in rural communities.			1.3
Actions -	- short-term			
A4.10	Park 'n' ride capacity expansion planning Undertake strategic planning to identify locations suitable for major park 'n' ride capacity expansion at key locations on the South Coast region public transport network.	•	•	
A4.11	Planning for major developments Undertake planning required to inform Transport and Main Roads' input into future transport networks serving major development areas such as Coomera, Ormeau, Flagstone/Flinders, Park Ridge and Yarrabilba. Participate in master planning activities and development of infrastructure agreements, in partnership with the Department of State Development, Manufacturing, Infrastructure and Planning, local government and the private sector, to ensure that state transport interests are protected and to maximise benefits from a 'one network' approach.	•	•	
A4.12	Rail station accessibility and capacity upgrades Identify areas of most need, prioritise and progressively undertake the detailed planning investigations required to guide investment decisions for rail station upgrades to improve accessibility and capacity within the South Coast region.	٠	•	
A4.13	Safety and amenity impacts for rural townships Work with local governments to mitigate safety and amenity issues caused by traffic volumes and heavy vehicles, where relevant, for rural townships and subject to statewide priorities.			•
A4.14	Salisbury to Beaudesert rail corridor planning Undertake planning for the Salisbury to Beaudesert rail corridor to determine and preserve corridor land.	٠	•	•
A4.15	Yarrabilba public transport planning Progress planning to investigate provision of frequent public transport services to planned major expansion growth areas including Yarrabilba.	٠	•	
Actions -	- medium/long-term			
A4.16	Gateway Motorway southern extension planning Review and update planning for road corridor options extending from the Gateway Motorway to Park Ridge.		•	
A4.17	Gold Coast rail line (Varsity Lakes to Brisbane) service planning Undertake planning to provide high-frequency rail services from Varsity Lakes to Brisbane and consider opportunities to reduce travel times.	•	•	
A4.18	Salisbury to Flagstone rail corridor Progress planning to inform investment decisions for the staged delivery of passenger rail from Salisbury to Flagstone.	•	•	

6.3.2 Priority 2: Prosper – A transport system that supports the economic competitiveness of the region

What does this mean for the South Coast region?

Objective 2.1: Goods and services move efficiently and reliably along supply chains to and between Regional Economic Clusters and markets

Key to the economic competitiveness of the region is the ability for freight to be transported as efficiently as possible. This means distributing goods produced within the region, but also allowing for goods to move efficiently through and to the region. The Pacific Motorway, Mount Lindesay Highway, Logan Motorway and interstate rail line are all current key freight corridors that enable this movement. Additional road corridors, which will support efficient freight movement, are planned to bypass Beaudesert, Yarrabilba to Logan Central and Molendinar to Beenleigh.

These connections support holistic freight movement, but also supply chain efficiencies from the region's major distribution areas such as in Meadowbrook-Loganholme, Yatala-Stapylton-Beenleigh, Creastmead/Berrinba, Park Ridge, North Maclean and Bromelton.

This objective can be achieved for the South Coast region through:

- infrastructure upgrades on existing freight routes and working with the industry to prioritise freight movement in off-peak periods
- providing new road and rail freight connections
- improvements through mechanisms such as vehicle types, connective vehicle technologies, route optimisation and data sharing
- minimising conflicts of freight and passenger vehicles on highways and in inter-town connections.

Objective 2.2: Activity centres are connected by a reliable and high-frequency public transport network.

In support of both population and economic growth, reliable and high-frequency public transport will be needed to connect all activity centres across the region. This includes services to existing and emerging knowledge and technology precincts.

The network will connect activity centres and knowledge and technology precincts at Springwood, Logan Central, Browns Plains, Logan Hyperdome, Beenleigh, Flagstone, Yarrabilba, Coomera, Helensvale, Nerang, Southport, Bundall, Broadbeach, Robina and Coolangatta. Objective 2.3: Transport planning and investment is informed by current and accurate information

Technological advancements have increased the availability of high-quality data about the transport system and its users. This data can inform transport improvements and how they are planned for and implemented. This data can be used by customers to inform their journey planning and use of the network.

This objective can be achieved for the South Coast region by:

- collaborating with industry to enable shared data capability
- using accurate, real-time data to understand both current and future customer mobility opportunities
- connecting and engaging with customers in two-way communication
- collecting and using real-time infrastructure data for appropriate infrastructure upgrades.



Industrial estate, Crestmead

Table 20 Priority 2 actions for the South Coast region

Priority A trans	/ 2: Prosper port system that supports the economic competitiveness of the region		bjective	
Objecti betwee	/e 2.1: Goods and services move efficiently and reliably along supply chains to and n Regional Economic Clusters and markets.	2.1		
Objecti transpo	/e 2.2: Activity centres are connected by a reliable and high-frequency public rt network.		2.2	
Objecti v informa	/e 2.3: Transport planning and investment is informed by current and accurate tion.			2.3
A4.19	Brisbane-Beenleigh Road upgrade planning Undertake planning to develop and assess options for the long-term upgrade of Brisbane-Beenleigh Road between Underwood Road and Waterford-Tamborine Road.	•		
A4.20	Broadbeach to Coolangatta light rail planning Undertake planning to determine a preferred alignment, feasibility and potential timing for staged extension of light rail from Broadbeach to Coolangatta.		•	
A4.21	Broadbeach to Robina bus priority planning Undertake planning to support bus priority from Broadbeach to Robina via Bond University.		•	
A4.22	Cross-border planning Continue to work with Transport for NSW to prioritise planning for cross-border connections.	•		
A4.23	Intersection upgrades Undertake planning to inform options to upgrade intersections across the region to reduce congestion and improve safety on the state-controlled road network. Priority intersections include Brisbane-Beenleigh Road, Beenleigh Connection Road, Gold Coast Highway (Helensvale to Labrador), Hope Island Road, Southport-Burleigh Road (Clear Island Waters – West Burleigh), Southport-Nerang Road.	•		
A4.24	Mount Lindesay Highway (Park Ridge South to Jimboomba) upgrade planning Undertake planning to inform options for upgrading the Mount Lindesay Highway between Park Ridge South and Jimboomba.	•	٠	
A4.25	Northern Gold Coast intra-regional transport corridor planning Undertake investigations and planning to inform subsequent investment decisions of the intra-regional transport corridor to provide additional north-south multi-modal capacity east of the Pacific Motorway.	•	٠	
A4.26	Pacific Motorway managed motorways planning Undertake planning to inform investment decisions for upgrading the managed motorways system on the Pacific Motorway between Beenleigh and Mudgeeraba to reduce congestion and improve safety.	•		

Priority A trans	/ 2: Prosper port system that supports the economic competitiveness of the region)bjective	
Objecti betwee	ve 2.1: Goods and services move efficiently and reliably along supply chains to and n Regional Economic Clusters and markets.	2.1		
Objecti transpo	/e 2.2: Activity centres are connected by a reliable and high-frequency public rt network.		2.2	
Objecti informa	re 2.3: Transport planning and investment is informed by current and accurate tion.			2.3
A4.27	 Pacific Motorway upgrade planning Continue planning to inform investment decisions for the upgrade of the Pacific Motorway to reduce congestion and improve safety outcomes including: Gateway Motorway at Eight Mile Plains to Logan Motorway at Loganholme capacity upgrade Beenleigh to Nerang interchanges upgrade planning Varsity Lakes to Tugun capacity upgrades. 	•	•	
A4.28	Springwood to Browns Plains bus priority planning Undertake planning to provide bus priority from Springwood to Browns Plains.		•	
A4.29	Varsity Lakes to Gold Coast Airport public transport planning Continue to undertake planning for the Varsity Lakes to Gold Coast Airport public transport corridor to determine and preserve corridor land.		•	
A4.30	Bromelton State Development Area access planning Undertake planning for a freight access road connecting the Bromelton State Development Area to the Mount Lindesay Highway at Woodhill.	•		
A4.31	Greater Flagstone and Yarrabilba corridor planning Undertake planning to identify and preserve road corridors that connect Greater Flagstone and Yarrabilba Priority Development Areas to the regional road network.	•	•	
A4.32	Logan River crossing capacity planning Undertake planning to increase Logan River crossing capacity between Carbrook and Waterford.	•		
A4.33	Nerang to Broadbeach public transport planning Progress area planning for improved public transport between Nerang and Broadbeach.		•	
A4.34	Pacific Motorway (Worongary to Mudgeeraba) interchanges upgrade planning Undertake planning to inform options for upgrading Pacific Motorway interchanges at Worongary and Mudgeeraba to address safety issues and improve traffic flow.	•		

6.3.3 Priority 3: Sustain – A transport system that contributes to the environmental sustainability and resilience of the region

What does this mean for the South Coast region?

Objective 3.1: The transport system is safe, resilient and connected during and after extreme weather, events and incidents.

Areas of the South Coast region are susceptible to flooding during extreme rain events, particularly the Logan and Albert river catchments. Hinterland roads are also highly susceptible to slips impacting on accessibility to many hinterland townships. These weather events, as well as traffic incidents and events, cause disruption to the transport network.

Safety, resilience and connectivity will be supported through infrastructure upgrades as appropriate, but also through providing customers with the information they need to keep them safe and moving in real-time, as events or incidents occur. Through the use of real-time data and real-time information, infrastructure upgrades can be focused on the key links where they are most needed.

This objective can be achieved for the South Coast region through:

- management plans that minimise the impacts of known closures and disruptions to the transport network
- effective and reliable communication, such as the coverage of early warning systems and real-time information
- innovation in traffic incident management and response across all modes
- physical upgrades such as flood and weather resilient roads, bridges, rail lines and public transport infrastructure.



Children cycling along Berrinba bikeway

Objective 3.2: Walking, cycling and other sustainable travel options are accessible, convenient and safe.

Transitioning our transport system to reduce car dependence and encourage the greater use of more sustainable mobility options, such as walking, cycling, and electric vehicles will significantly improve the safety, quality of life, environmental health and resource needs of future generations.

Active transport will play a critical role in the region's transport network. In the urban context, cycling and walking infrastructure will provide options for customers to commute, access local mass transit stops and a variety of recreational activities. Where possible, these options will be separated from vehicle traffic to increase safety.

In rural areas, due to distances, road safety and speeds, active transport will be mostly relevant to short distance trips within the local neighbourhood.

This objective can be achieved for the South Coast region through:

- provision of accessible, convenient and safe walking and cycling infrastructure for a range of trips across the region
- policies and interventions to prioritise the needs of people walking and cycling.

Objective 3.3: The transport system is sustainable and supports the region's environmental and lifestyle values.

The South Coast region is one of the most biodiverse in Australia with several national parks, Southern Moreton Bay islands and wetlands and coastal and hinterland environments. Not only do these areas support highquality lifestyle options, but they support the overall liveability and attractiveness of the region. These environmental values need to be protected, enhanced and leveraged through a sustainable transport system for both locals and visitors.

This objective can be achieved for the South Coast region through:

- transport investments implemented in a manner that supports a range of lifestyles from urban to hinterland
- planning for the integration of electric vehicles
- minimising impacts on existing habitats and areas of biodiversity
- reducing dependency on private motor vehicles, which is a significant contributor to the region's emissions
- providing sustainable transport options for visitors, including those who arrive by car.

Table 21: Priority 3 actions for the South Coast region

Priority A trans of the r	/ 3: Sustain port system that contributes to the environmental sustainability and resilience egion)bjective	
Objectiv weather	/e 3.1: The transport system is safe, resilient and connected during and after extreme r, events and incidents.	3.1		
Objecti conveni	/e 3.2: Walking, cycling and other sustainable travel options are accessible, ent and safe.		3.2	
Objecti and life	/e 3.3: The transport system is sustainable and supports the region's environmental style values.			3.3
Actions	– short-term			
A4.35	Beaudesert-Boonah Road flood immunity planning Investigate improving the flood immunity of the Beaudesert-Boonah Road at Coulson.	•		
A4.36	Helensvale to Southport cycle route planning Undertake planning to inform options for an improved priority cycle route between Helensvale rail station and Gold Coast health and knowledge precinct.		•	•
A4.37	Priority principal cycle network routes Undertake options analysis and business case development for highest priority routes on the principal cycle network in the South Coast region.		•	•
A4.38	Southport, Parklands and Griffith University cycle route planning Undertake planning to inform options for priority cycle routes linking the Southport and Parklands Priority Development Areas and Griffith University.		•	•
Actions	– medium/long-term			
A4.39	Bus layover planning Progress planning for optimal use of layover and other operations to improve efficient service operations and prepare for a move towards a connected network.		•	
A4.40	Flood immunity upgrades Undertake planning to identify and prioritise flood immunity upgrades to the transport network in South Coast region.	•		
A4.41	Green bridge and link planning Work with local governments to undertake planning to identify and review the need for green bridge/link opportunities to connect strategic active or public transport links.		•	٠
6.3.4 Priority 4: Live – A transport system that supports safe and liveable communities for everyone

What does this mean for the South Coast region?

Objective 4.1: Communities and public places are walkable and well-connected by integrated and sustainable transport options.

Walkability plays a significant role in both amenity and people movement. For the South Coast, the dispersed settlement patterns of rural hinterland and urban coastal and bayside living means walking is limited to the local neighbourhood and within activity centres.

Transport planning will support the retention of this varied and distinct South Coast lifestyle. This includes providing walkable neighbourhoods in both existing and planned growth areas, but also providing connections to the passenger transport network.

This objective can be achieved for the South Coast region through:

- prioritising the movement of people within activity centres across the region
- prioritising pedestrians, cyclists and public transport users over private vehicles, where moving people is the primary aim
- providing safe and connected pedestrian environments
- integrating walking and cycling as part of the passenger transport system.



TransLink ticket station, Logan

Objective 4.2: The transport system provides safe, fair and equitable travel options.

The South Coast requires diverse transport options that cater for a range of rural, semi-rural and urban lifestyle choices. Safe and fair mobility options need to be provided for everyone, including the most vulnerable. This means providing a variety of transport options as well as relevant upgrades that increase and support safety.

This objective can be achieved for the South Coast region through:

- transport that encourages social inclusion and supports diverse lifestyles
- transport options for people across all demographics, including the elderly, children and those with disabilities
- a transport system that provides the connections that allow residents to choose to live in rural and hinterland areas as well as mobility options that enable people to move around the region
- targeted infrastructure upgrades to improve safety
- continued rollout of varied safety initiatives to reduce serious accidents and fatalities.

Safer Roads Sooner

Transport and Main Roads' has committed \$117 million from 2015–2017 to the Safer Roads Sooner program. The Safer Roads Sooner program is a capital works program. It aims to improve the safety of the state-controlled road network through the implementation of high benefit cost-effective road engineering treatments targeting crash sites with high severity risk (fatalities and serious injuries).

The program has been a significant component of the Queensland Government's commitment to addressing the road toll and reducing the number of people who sustain serious injuries on the statecontrolled road network. The program is primarily funded from the Camera Detected Offence Program consisting of red light and speed camera fines.

Table 22: Priority 4 actions for the South Coast region

Priority 4: Live A transport system that supports safe and liveable communities for everyone		Objectives	
Objective 4.1: Communities and public places are walkable and well-connected by integrated and sustainable transport options.		4.1	
Objective 4.2: The transport system provides safe, fair and equitable travel options.			4.2
Actions – short-term			
A4.42	Boating infrastructure In consultation with the Gold Coast Waterways Authority, prioritise investment in boating infrastructure across the South Coast region based on an assessment of demand and input from the community and stakeholders including through tools such as the <i>Recreational Boating Facilities Demand Forecasting Study</i> .		٠
A4.43	Iconic cycle routes Work with local government and other state government agencies to identify and undertake planning to progress delivery of rail trails and iconic cycle routes to support cycling tourism in the South Coast region. A key corridor in South Coast is the Brisbane to Gold Coast connection.	٠	
A4.44	Public transport wayfinding signage Identify opportunities to improve wayfinding signage for public transport facilities in the South Coast region. This may include, for example, increasing the geographic extent of wayfinding signage.	•	
A4.45	Rest areas in South Coast region Determine investment priorities for new or upgraded rest areas in the region to address driver fatigue risks, encourage safe travel and to provide sufficient capacity and amenities in line with existing guidelines.		٠
A4.46	Road safety projects As part of the High Risk Roads process, undertake planning to inform options for safety related improvements across the South Coast region.		٠
A4.47	Transit oriented developments Identify opportunities to develop and encourage transit oriented developments within the South Coast region. Collaborate with local governments, infrastructure project teams and other state agencies to support increased public transport mode share, residential and employment density at appropriate transport hubs. In particular investigate opportunities associated with rail and bus nodes at, for example, Varsity Lakes in the short-term and Coomera and Helensvale in the medium/long-term.	•	
Actions – medium/long-term			
A4.48	Cycle parking at activity centres and public transport nodes Work with local governments in South Coast region to assess the feasibility and options to help facilitate progressive provision of increased bike parking at activity centres and public transport nodes.	٠	٠
A4.49	Separated cycle infrastructure planning Support local government to undertake planning of physically separated cycle lanes to and within urban activity centres within the South Coast region.	•	•



Figure 46: Actions for the South Coast region







7.1 **Taking action**

Delivering the *South East Queensland Regional Transport Plans* will require:

- further integration with the strategic direction of the region's local governments
- continued engagement with our stakeholders and customers
- collaborative and considered decision-making
- a drive from all partners to deliver a safer, more efficient, reliable and integrated transport network.

The Regional Transport Plans will be used to inform transport planning priorities and investment decisionmaking for the region. The Plans will ensure that future investments address priorities that matter to customers, stakeholders and the community.

Figure 47 shows the importance of the Regional Transport Plans in the Transport and Main Roads investment life cycle.

Opportunities will be provided for customers to provide input into planning actions outlined in the Plans via the department's website. Information on our projects including planning, studies and construction projects can be found at: www.tmr.qld.gov.au/projects.

Transport and Main Roads and its planning partners are responsible for ensuring the priorities and actions in this Plan are realised. They will be delivered by:

 Informing the Queensland Transport and Roads Investment Program (QTRIP)

QTRIP is released annually. It is a funded program of work that will be delivered over the upcoming four years. Projects are listed on QTRIP after having gone through an investment prioritisation process that will be informed by the Regional Transport Plans.

- Aligning with the State Infrastructure Plan Regional Transport Plans will inform the program of work within the State Infrastructure Plan. QTRIP informs the State Infrastructure Plan's construction pipeline. Regional Transport Plans align planning and investment frameworks with the region's challenges and opportunities.
- Being considered in local and federal government investment decisions and plans
 These Plans have been prepared in consultation with other levels of government and considers their strategic planning and policy documents.



Figure 47: Regional Transport Plans are a critical step in Transport and Main Roads investment lifecycle

7.2 Delivering in partnership

More can be achieved when partnering with stakeholders to deliver shared goals using collective expertise and resources. Throughout the development of the South East Queensland Regional Transport Plans, Transport and Main Roads has built relationships with stakeholders from all levels of government, business and industry. These relationships will be maintained and built on to deliver the actions outlined in the Plans. Opportunities for partnering include:

- co-development of knowledge by working closely with researchers, universities and education providers
- inviting project development support from individuals or organisations with an interest in the implementation of an initiative or action
- establishing funding partnerships to accelerate action delivery and realise economic or commercial benefits, for example, through market-led proposals or publicprivate partnerships
- providing resource support such as human resources, equipment or material.

Cooperative transport planning is the foundation for delivery of Regional Transport Plans. Each Plan will be delivered with a focus on cooperation, coordination and collaboration. This approach builds on the framework for inter-agency cooperation established within the Roads and Transport Alliance (RTA). The RTA is a partnership between Transport and Main Roads and the Local Government Association of Queensland, on behalf of local governments, for the stewardship of Queensland's regional road and transport network.

Local governments together with Transport and Main Roads form Regional Roads and Transport Groups (RRTGs) who work collaboratively to prioritise investment on road and transport infrastructure and should evolve further to influence the strategic planning and management of regional transport networks.

The priorities and actions outlined in the Regional Transport Plans will help focus the RRTG in their approach to strategic transport planning and local transport infrastructure investments.

7.3 Monitoring and review

These Plans will be monitored, periodically reviewed and updated to ensure it remains current and relevant.

In the short term, monitoring will focus on ensuring that the actions put forward are prioritised and progressed through departmental and local planning programs. As the Plans mature and planning and delivery is completed, monitoring will focus on tracking progress against objectives and measures of success (Figure 48).

It is intended that a review of the Plans will be carried out every three to five years to maintain its alignment with other government and non-government plans, programs and initiatives. This review will also consider changes to land use, the region's economy, environmental considerations, demography, technological innovations, the progress of significant infrastructure projects and any other factors which may require a shift in the priorities or objectives for the region. Overall, the effectiveness of these Plans will be measured against the measures of success outlined for each priority. These align to Transport and Main Roads' *Transport Coordination Plan 2017–2027* and *ShapingSEQ* and will allow the department to track if Regional Transport Plans are meeting transport system objectives.

It is important to note that some of the measures of success may be updated as required to ensure they continue to provide an effective measurement of success.



Figure 48: Monitoring, reporting and review as the Plans mature

Further information:

TMR_Regional_Transport_Plans@tmr.qld.gov.au for further details on this or other Regional Transport Plans.

PHOTO CREDITS

Cover, Noosa Beach, Tourism and Events Queensland. Page 7, Port of Brisbane, Port of Brisbane. Page 10, Brisbane Airport, Brisbane Airport Corporation. Page 15, Toondah, Redland City Council. Page 53, Somerset, Tourism and Events Queensland. Page 53, Hasting Street, Noosa, Tourism and Events

Page 53, Sunshine Coast, Tourism and Events Queensland. Page 56, Moreton Bay, Tourism and Events Queensland.

Page 57, Noosa, Tourism and Events Queensland.

Page 58, Somerset, Tourism and Events Queensland.

Page 59, Sunshine Coast, Tourism and Events Queensland.

Page 78, Shopping in Noosa, Tourism and Events Queensland.

Page 83, Brisbane, Tourism and Events Queensland.

Page 83, Cleveland lighthouse, Tourism and Events Queensland.

Page 86, Brisbane City, Tourism and Events Queensland. Page 99, Cycling in South Bank, Tourism and Events Queensland.

Page 116, Entertainment precinct, Brisbane, Tourism and Events Queensland.

Page 118, Surfers Paradise, Tourism and Events Queensland.

Page 119, Gold Coast hinterland, Tourism and Events Queensland.

Page 119, Scenic Rim, Scenic Rim Regional Council.

Page 122, Gold Coast, Tourism and Events Queensland.

Page 123, Logan, Logan City Council.

Page 124, Scenic Rim, Tourism and Events Queensland.

The rights to all images not listed are owned by the Department of Transport and Main Roads.

13 QGOV (13 74 68) www.tmr.qld.gov.au | www.qld.gov.au