

# WIDE BAY BURNETT

## REGIONAL TRANSPORT PLAN

2019



© State of Queensland (Department of Transport and Main Roads) 2019.



<http://creativecommons.org/licenses/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 its 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.

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. Aboriginal and Torres Strait Islander readers are warned, images in this document may contain or represent deceased persons which may cause sadness or distress.

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

- Bundaberg Regional Council
- Cherbourg Aboriginal Shire Council
- Fraser Coast Regional Council
- Gympie Regional Council
- North Burnett Regional Council
- South Burnett Regional Council.

*Cover images: Port of Bundaberg (background); long distance rail service at Maryborough West train station (inset, left); Wide Bay regional bus service (inset, centre); Old Monto Shire Hall (inset, right).*

*Inside cover image: Lake McKenzie, Fraser Island*

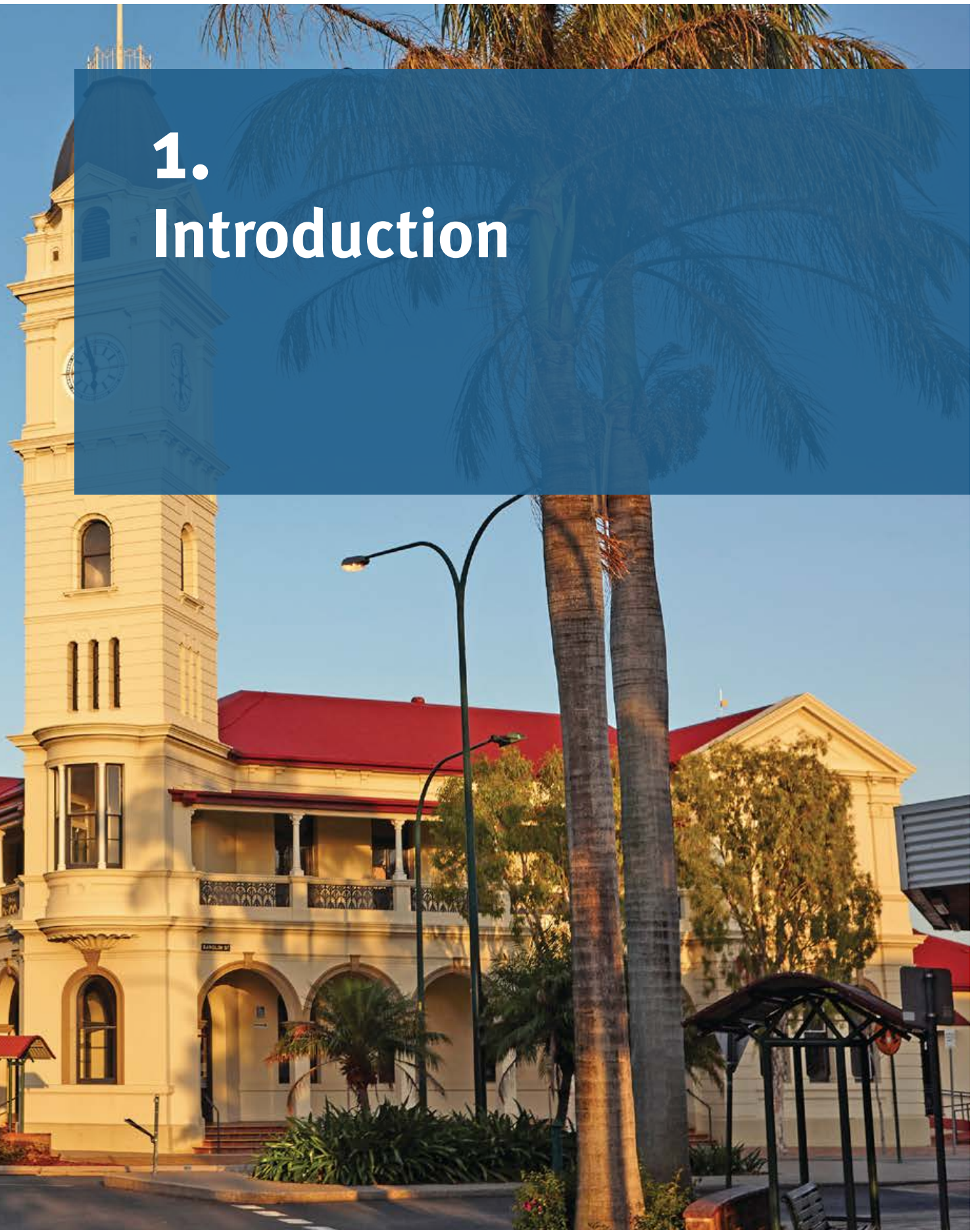
# CONTENTS

<b>1. Introduction</b>	<b>5</b>
1.1 A shared direction for transport	6
1.2 What is a Regional Transport Plan	6
1.3 Strategic alignment	7
1.4 Alignment with the <i>State Infrastructure Plan</i>	9
1.5 Alignment with the <i>Transport Coordination Plan</i>	9
1.6 Alignment with the <i>State Planning Policy</i>	9
1.7 Alignment with regional planning	10
1.8 Achievements to date	11
1.9 Developing Regional Transport Plans	13
<b>2. The Wide Bay Burnett region</b>	<b>19</b>
2.1 Region overview	20
2.2 Transport network	24
<b>3. Goals, challenges and opportunities</b>	<b>33</b>
3.1 Goals	34
3.2 Challenges	35
3.3 Opportunities	40
<b>4. Priorities and actions</b>	<b>49</b>
4.1 Priority 1: Community	52
4.2 Priority 2: Economic development	58
4.3 Priority 3: Safety	64
4.4 Priority 4: Sustainability and resilience	70
<b>5. Implementation</b>	<b>77</b>
5.1 Taking action	78
5.2 Delivering in partnership	79
5.3 Measuring success	80
5.4 Monitoring and review	82



*Bundaberg Post Office*

# 1. Introduction



## 1.1 A shared direction for transport

The *Wide Bay Burnett Regional Transport Plan* (the Plan) outlines a shared direction for shaping the region's transport system over the next 15 years.

The Plan was developed in consultation with local government and key 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 Plan and achieve shared goals for the region.

The Plan covers all modes of transport with a focus on the networks and services in the region and the inter-regional and international connections that are vital to the region's social and economic prosperity.

The Wide Bay Burnett region is home to over 296,000 people and includes the local government areas of Bundaberg, Cherbourg, Fraser Coast, Gympie, North Burnett and South Burnett.<sup>1</sup>

## 1.2 What is a Regional Transport Plan

The purpose of the *Wide Bay Burnett 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 Plan has been developed in accordance with the *Transport Planning and Coordination Act 1994* and meets 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.

Regional Transport Plans have a clearly defined role in the Transport and Main Roads' planning process. They are not intended to specify new infrastructure solutions or funding commitments, as that is the role of the *Queensland Transport and Roads Investment Program* (QTRIP).

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).

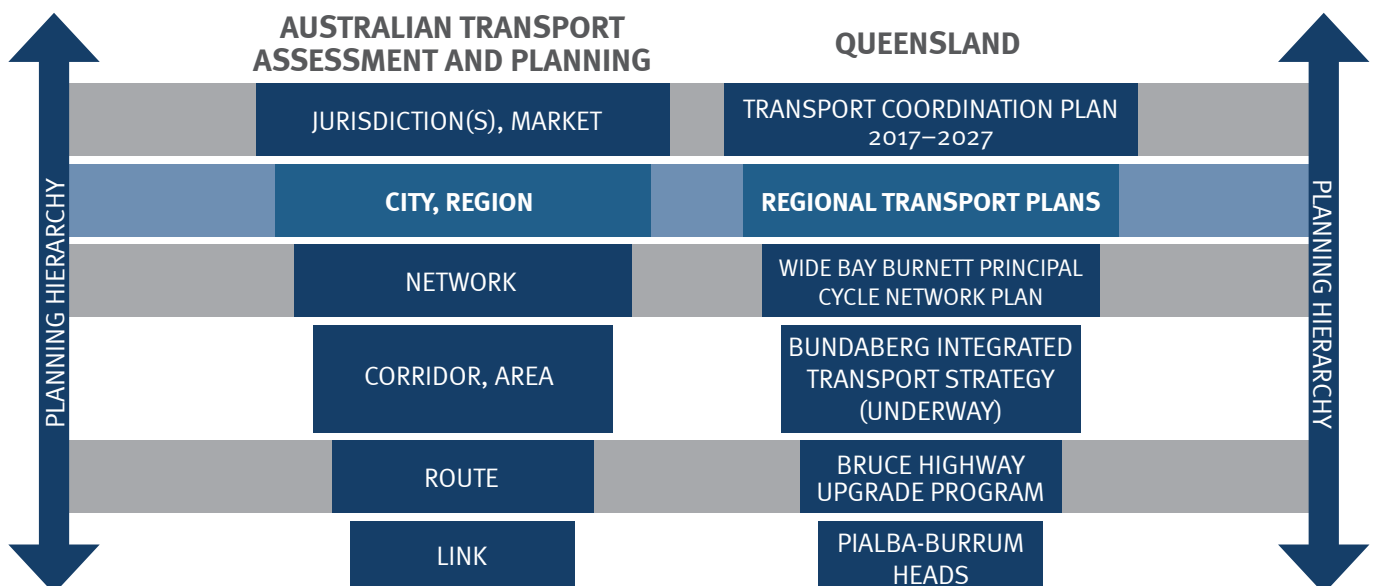


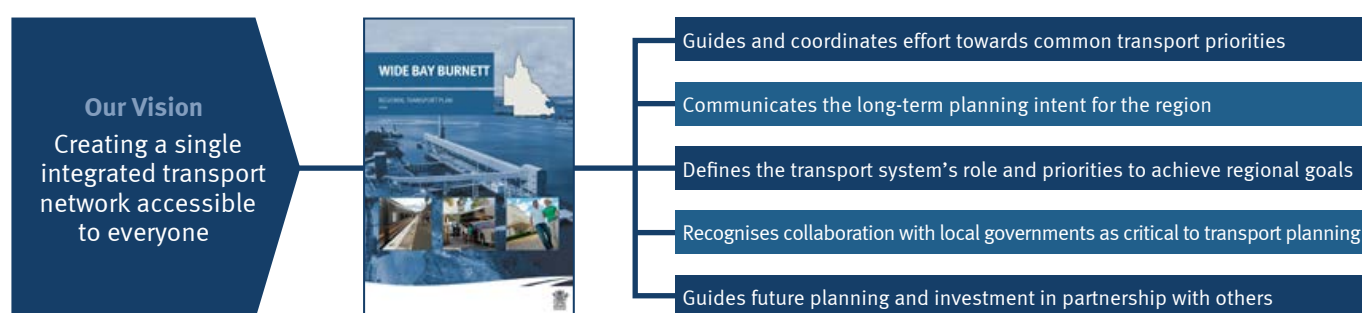
Figure 1: Examples of how Queensland responds to the Australian Transport Assessment and Planning hierarchy

<sup>1</sup> Australian Bureau of Statistics. (2019). *Regional Population Growth, Australia 2017-18* (Catalogue No. 3218.0).

The regional policy choices and system strategies expressed in this Plan 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.
- The Plan supports 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 region
  - 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 Plan will be used by Transport and Main Roads to inform investment decisions to develop the regional transport network.



## 1.3 Strategic alignment

The Regional Transport Plan has been developed in the context of relevant policies, strategies, plans and investment frameworks across all levels of government. These policy and planning documents are reflected in the objectives, challenges, opportunities and priorities identified in the Plan.

The Plan aligns with:

- *State Infrastructure Plan*
- *State Planning Policy*
- *Wide Bay Burnett Regional Plan 2011*
- local government land use, transport plans and strategies
- the *Bundaberg State Development Area Development Scheme*
- economic development strategies
- the *Australian Government's Australian Infrastructure Plan* (prepared by Infrastructure Australia).

The Plan responds 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 2019–2023*
- 'Queensland Transport Strategy' (draft)
- *Transport and Main Roads Strategic Plan 2019–2023*
- *Safer Roads, Safer Queensland: Queensland's Road Safety Strategy 2015–2021*
- *Queensland Cycling Strategy 2017–2027*
- *Bruce Highway Action Plan*
- *Queensland Freight Strategy*
- *Queensland Walking Strategy 2019–2029*
- *Queensland Tourism and Transport Strategy*.

Priorities and actions identified in the Plan align with current statewide transport policies and objectives. The department regularly reviews and updates statewide strategies and plans and future updates to the Plan will reflect these outcomes.

# The future of transport

## Queensland Transport Strategy (draft)

The draft Queensland Transport Strategy (QTS) provides a 30-year vision for Queensland's transport system that is designed to respond to, and maximise the benefits from, current and emerging trends and technologies for Queensland households, businesses and the wider community.

The draft QTS identifies five high-level customer-focused outcomes for the future transport system:

1. Accessible, convenient transport
2. Safe journeys for all
3. Seamless, personalised journeys
4. Efficient, reliable and productive transport for people and goods
5. Sustainable, resilient and liveable communities.

The draft QTS sets a high-level policy platform for the Department of Transport and Main Roads (TMR) to realise its vision of creating a single integrated transport network accessible to everyone. It complements other strategic planning documents by setting longer-term outcomes and directions for TMR which are directly aligned to the short-term priorities in the *TMR Strategic Plan 2019–2023* and the medium-term objectives of the *Transport Coordination Plan 2017–2027*.

Regional Transport Plans are consistent with and support the draft QTS and will play a key role in achieving its outcomes by setting regional priorities and identifying and coordinating key actions to develop our future transport system.

## The future of mobility

The popularity of new transport services, such as on-demand transport and car sharing, is increasing globally. Enabling the introduction of new mobility providers and technology and prioritising investment in shared transport services are two directions from the draft QTS in which Mobility-as-a-Service (MaaS) will play a key role.

**Transport and Main Roads** is exploring the concept of MaaS which embodies a shift away from personally owned modes of transportation and towards aggregated mobility solutions that are consumed as a service.

MaaS is a combination of public and private transport services accessed digitally to provide personalised journey planning, booking and payment, and offers choice and dynamic travel options to influence behaviour and better optimise the network.

MaaS will not be a 'one-size fits all' approach and will look different across the state, based on community needs, availability of transport options and infrastructure.

In rural and regional Queensland, MaaS could be used to increase travel opportunities connecting rural communities to health, education and other social services to maintain an appropriate level of service and improve transport accessibility. Specific transport solutions for rural communities could involve long haul transport services, low technology options and the repurposing of under-utilised assets in the community.

## Climate change and a low emissions future

In Queensland, the transport system has recently been impacted by extreme weather events such as cyclones, floods, severe and prolonged drought and fires - and climate change may exacerbate existing conditions, leading to even greater impact in future. Building a more resilient transport system is a priority in all Regional Transport Plans for Queensland.

A key part of taking action in response to climate change is the journey to zero net emissions. *The Pathways to a clean growth economy: Queensland Climate Transition Strategy* outlines how the Queensland Government proposes to prepare for the transition to a clean growth economy and a zero net emissions future.

The transport sector will play a significant role in this transition, including:

- enabling low carbon transport options using emerging alternative fuel technologies, to ensure Queensland is in the best position to capture the benefits and opportunities these vehicles will bring. The Queensland Government has developed *The Future is Electric: Queensland's Electric Vehicle Strategy* and is also exploring potential uses of hydrogen fuel cell vehicles.
- reflecting zero net emissions goals in infrastructure planning
- supporting low-carbon construction, infrastructure and transport systems
- improving passenger transport systems to be low emission, well-maintained, affordable, reliable, frequent and integrated.

Regional Transport Plans recognise opportunities for increased use of low carbon technology across the transport system in a way that responds to the local context and provides a pathway for an increased mode shift to sustainable transport options such as walking, cycling and passenger transport.



## 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. This Regional Transport Plan applies the transport 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 this Plan respond to these with a particular focus on improving supply chains, safer connections between regional centres and better use of data and technology.

Table 1: *State Infrastructure Plan* responses (Part A, p 52)

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.	Digitally connected smart infrastructure to improve capacity, safety and security.	Connect regional communities with access to essential services and opportunities.

## 1.5 Alignment with the *Transport Coordination Plan 2017–2027*

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 TCP 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 TCP 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 Wide Bay Burnett region's priorities and corresponding transport objectives, actions and measures of success. The TCP's transport KPIs have provided a means to measure the impact the Regional Transport Plan has on the region's transport system – and what this will mean 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 transport interests: state transport infrastructure; strategic airports and aviation facilities; and strategic ports.

The *State Planning Policy* identifies two strategic airports in the region – Bundaberg and Hervey Bay Airports – and the Port of Bundaberg as the only strategic port.

## 1.7 Alignment with regional planning

The Queensland Government produces statutory regional plans throughout the state to provide strategic direction and policies for delivering regional outcomes which align with the state's interests in land use planning and development. Regional planning allows government, community and industry to maximise opportunities arising from population change and economic growth, and for all levels of government and the private sector to inform the forward planning, prioritisation and future delivery of infrastructure and services.

### *Wide Bay Burnett Regional Plan*

The *Wide Bay Burnett Regional Plan* (the regional plan) outlines strategic directions, regional settlement patterns and characteristics. The regional plan was published in 2011 and includes the same local government areas as the *Wide Bay Burnett Regional Transport Plan*.

The regional plan addresses a range of issues relating to cultivating a strong, healthy and sustainable future for the Wide Bay Burnett region such as climate change and natural hazards, environment and natural resource management, economy, community, managing growth and infrastructure.

The vision for the Wide Bay Burnett region identified in the regional plan defines the community's long-term aspirations through:

- a balanced lifestyle with diverse housing, employment and recreation opportunities
- a distinct character and sense of community based on its people and their culture
- the retention of the regionally unique built and natural environments

- a robust economy built on the foundations of its natural and human resources that takes opportunities to build diversity and resilience to change
- infrastructure and services that meet the region's need to support the economy, accessibility and healthy active communities.

Alignment with the regional plan has been considered in the context of emerging trends in the region and more recent planning such as the Bundaberg State Development Area and Port of Bundaberg, changes to agribusiness activities (including the transition away from sugar towards intensive horticulture), as well as the activation of the region's mineral province. Since the development of the regional plan in 2011, there has been a shift in population trends and settlement patterns within the region, including slower than anticipated population growth. Transport and Main Roads has used updated population forecasts to inform its transport planning activities. Although some regional planning has evolved and population projections outlined in the regional plan are no longer current, the broad goals and intent are still relevant and have informed the development of the Regional Transport Plan.

The regional plan takes precedence over all local government planning instruments and provides the context for local planning. It recognises the need for an integrated transport network throughout the region to enable communities to become better connected and more accessible. The need to plan for the region's road, rail and air networks is a key theme to ensure high quality transport infrastructure and efficient supply chains including improved resilience, best use of existing infrastructure and managing growth in transport network demand.



*Sea turtles at Lady Elliot Island*



Bruce Highway Upgrade, Cooroy to Curra – Section C

## 1.8 Achievements to date

Transport and Main Roads has reflected on the objectives outlined in the *Wide Bay Burnett Regional Plan*, along with other strategic direction setting documents. The following transport network improvements have been delivered to support the objectives set out in the *Wide Bay Burnett Regional Plan* and other strategic directions.

### Bruce Highway upgrades

The Bruce Highway, under the Bruce Highway Upgrade Program, has been a focus for road network investment in the region in recent years. Planning and construction works delivered include:

- safety improvements, comprising the provision of wide centre line treatments, pavement widening, intersection improvements and safer roadsides through safety barriers, clear zones, flatter slopes, rest areas and stopping places
- flood immunity improvements, including raised embankments, culverts and bridges
- capacity improvements, including provision of additional lanes, grade separation and intersection upgrades.

Within the Wide Bay Burnett region, recent construction projects include upgrades to the Pialba-Burrum Heads Road intersections with Scrub Hill Road and Wide Bay Drive, Bruce Highway upgrades between Carmans Road and Langbeckers Nursery, north of Gin Gin, as well as between Hebbards Road and Kevin Livingston Drive/ North South Road, west of Apple Tree Creek and various other overtaking lanes, wide centre line treatments and

intersection upgrades. Cooroy to Curra Section D between Woondum and Curra is fully funded with construction commencing in mid-2020. Planning has commenced for upgrades to the Bundaberg-Port Road, the Saltwater Creek and Tiaro Flood Immunity Upgrade and the Wide Bay Highway Intersection Upgrade. The development of a Bundaberg Integrated Transport Strategy has also commenced, which will identify the strategic needs of Bundaberg's transport system, as well as planning for upgrades of the state road network to support extractive and agricultural industries in the North Burnett region.

### Active transport

The *Wide Bay Burnett Principal Cycle Network Plan* (WBBPCNP) and priority route maps were developed collaboratively by local governments and Transport and Main Roads. The WBBPCNP identifies the regional cycle network and is used to guide coordinated delivery of a connected cycle network in the region. Local governments in the region are able to apply for funding through the Cycling Infrastructure Program to deliver projects under the WBBPCNP. Since 2016, the Cycling Infrastructure Program has committed money to accelerate delivery of the principal cycle network on the local and state road networks in the region.

The opening of the Kilkivan to Kingaroy Rail Trail was a joint initiative of the Queensland Government and the South Burnett and Gympie regional councils. The rail trail is part of the delivery of a network of longer distance and inter-centre routes across the region that will attract recreational and touring cyclists, drawing both tourists and local residents to the area.

### **Monto–Mount Perry Road – bridge replacement and approaches**

In 2015, the flooding associated with Tropical Cyclone Marcia washed away the single-lane timber bridge crossing the Burnett River. This restricted east–west access from North Burnett to the adjacent local government areas of Bundaberg and Fraser Coast. A new two-lane concrete bridge and the realignment of bridge approach roads was completed in May 2017. The new bridge provides greater flood immunity and improved safety.

### **Burrum Heads recreational boating facilities**

Burrum Heads is a seaside town in Fraser Coast Regional Council located 30 minutes from Hervey Bay. To meet demand and improve safety, the construction of the Burrum Heads Lions Park boat ramp and floating walkway was jointly funded by the Queensland Government and Fraser Coast Regional Council and completed in 2017. Benefits of the project include:

- improved safety and access to surrounding waterways with the construction of a two-lane all-tide boat ramp
- reduced congestion with the installation of a floating walkway to assist with boat launching and retrieval activities
- adequate parking facilities at Lions Park to support the local village, particularly during busy periods
- improved water quality upstream of Lions Park with the realignment of the stormwater pipe outlet.

### **Roads to Recovery**

Projects completed under the Roads to Recovery Program include:

- reconstruction of around two kilometres of pavement on Woods Road, Nikenbah (Fraser Coast Regional Council) to address poor vertical geometry and inundation issues
- seal on Winfield Road, Winfield (Bundaberg Regional Council) widened to six metres to improve safety concerns for tourism and residential users
- widened and sealed Old Maryborough Road, Chatsworth (Gympie Regional Council) to 8.6 metres to address safety issues associated with narrow seal width and high traffic volumes
- removal of old bitumen and sealing on Mount Stanley Road, East Nanango (South Burnett Regional Council) to address the road's continued deterioration
- completed seal of Sandersons Road, Mundubbera (North Burnett Regional Council) to eliminate corrugations and to suppress dust that can encourage dust mites, which is an issue in high value agricultural areas.

### **Safety – Black spots**

Safety initiatives across the region that have been recently completed or are underway include intersection upgrades, road widening, overtaking lanes and additional rest and parking areas for heavy vehicles. Several local projects have been delivered in Bundaberg, Maryborough, Hervey Bay, Gympie and Kingaroy including: realigning the intersection at Burnett Heads Road–Mittleheusers Road in Burnett Heads to a staggered T-junction; installing right turn lanes and widening the pavement, sealing shoulders, line marking and signage to improve safety at Bauple Drive, Bauple; intersection upgrade at Apple Tree Creek on the Bruce Highway and intersection works on Urraween Road and Maryborough–Hervey Bay road to improve road safety.

### **Heavy vehicle safety and productivity**

The construction of the missing link between Kay McDuff Drive and the Bundaberg Ring Road provides a major heavy vehicle traffic corridor to and from the Bundaberg Ring Road with direct access to the Bundaberg Food Park industrial development. This project was required to improve freight connectivity between the Bundaberg Ring Road, Kensington industrial areas and Bundaberg Airport. The new link offers significant cost savings and road network efficiencies for the businesses established in this industrial area and for freight companies as heavy vehicles no longer need to break down their loads to access the area's businesses. The project has also improved residential amenity, removing heavy vehicle movements accessing the industrial estate through residential areas.

### **Transport Infrastructure Development Scheme**

The Transport Infrastructure Development Scheme (TIDS) is a critical funding program for local governments to assist with transport related initiatives which support state government objectives. TIDS helps to promote regional development and provides an avenue for local government projects. Numerous local projects are being delivered under TIDS including pedestrian crossings and facilities on Burnett Heads Road (Powers Street - Adams Street), new footpaths to facilitate better access to Gunalda State School on Miva Road, and reshaping and sealing of Maidenwell - Bunya Mountains Road to name a few.



*Burrum Heads recreational boating facility*

# 1.9 Developing Regional Transport Plans

## 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 establishing the region-centric planning that leads to 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 for regional priorities, 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.

In the context of constrained funding, Regional Transport Plans are being developed with the view that solutions to

transport challenges and customer needs are not always about building new 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 lanes or using technology to communicate real-time information to road users.

Consideration of lower cost and non-infrastructure solutions within planning and investment decision-making 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 with the private sector positions the region to leverage collective expertise and resources to achieve more with available funding. The department’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 2.

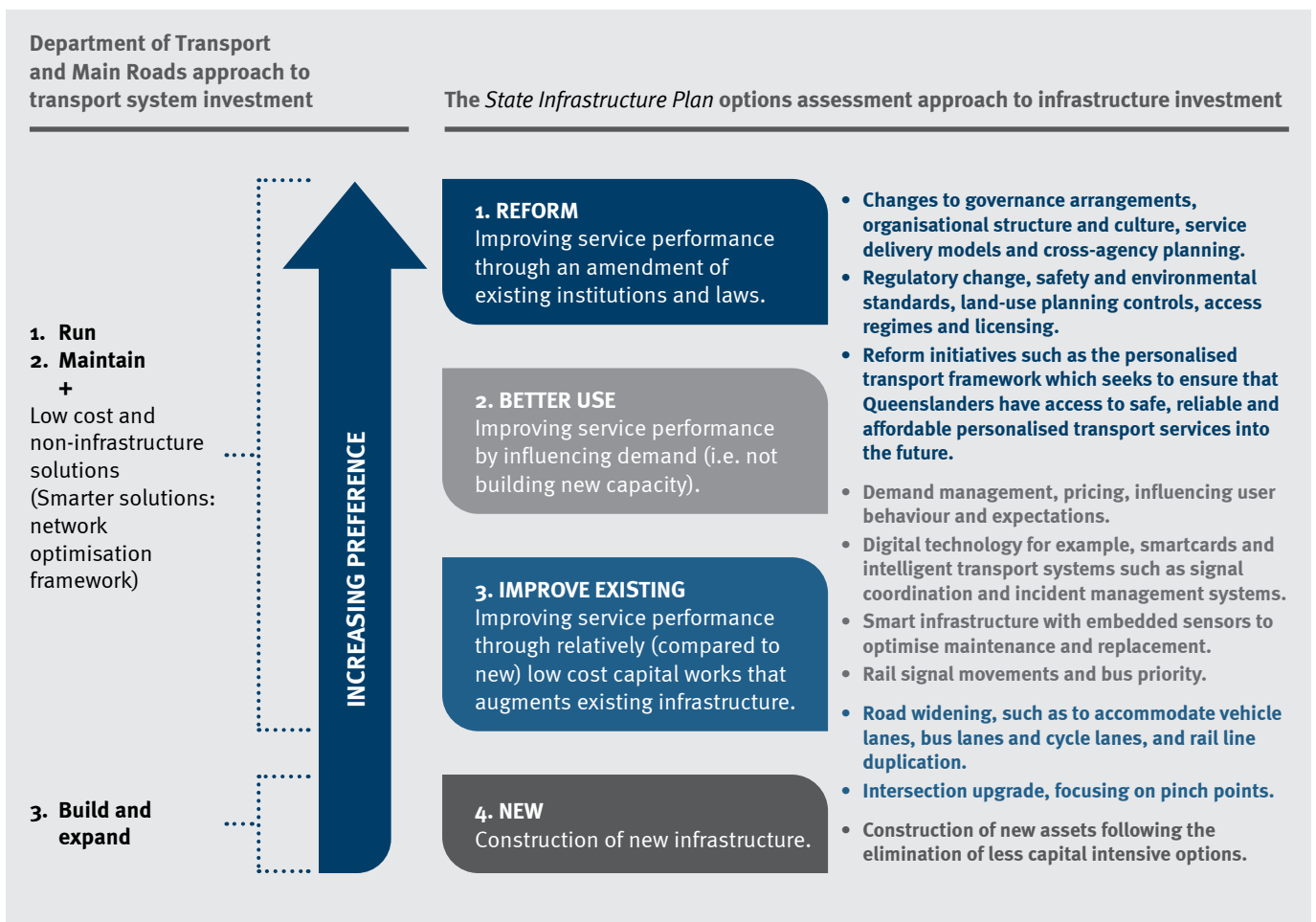
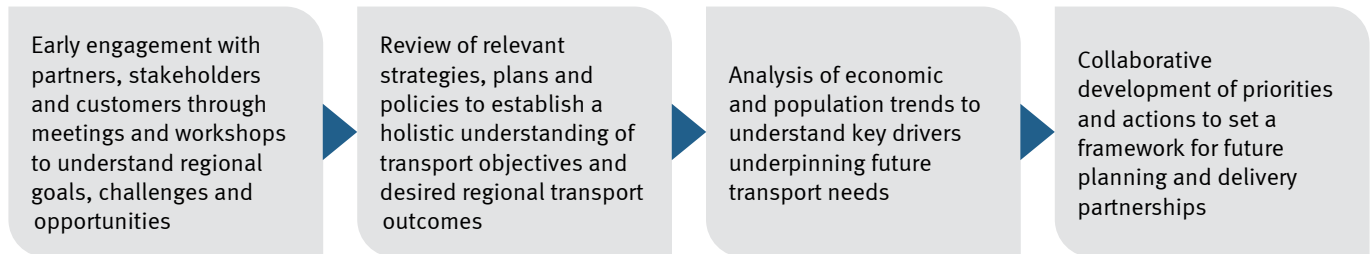


Figure 2: Alignment between the departmental and government approaches to infrastructure investment

## Process

The *Wide Bay Burnett Regional Transport Plan* was 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 below.



*Tilt Train on the North Coast line*

## 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-centric 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.

## 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 Plan 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 experience of our customers.

### Engaging with our customers

To achieve a 'one network' approach, the department involved customer representatives early in the creation of all Regional Transport Plans and engaged and developed content in partnership with local government and other government agencies. To inform the development of this Plan, representatives were selected from different locations in the region, covering a range of sectors and interests, including government, community and industry. To gain customer input, the department hosted workshops and facilitated a number of one-on-one interviews. Some of the key issues that emerged from this engagement included:

- Poor network resilience resulting in isolation and damage to transport assets impacting accessibility, reliability and efficiency.
- Supply chain inefficiencies across the region associated with heavy vehicle restrictions, throughput capacity in the region's port and the need for more consolidated logistics operations for industry.
- Attracting and retaining funding for the upgrade and maintenance of the transport network.
- The resilience and reliability of the communication network with poor coverage and access to real time data in remote areas.
- Mobility disadvantage for both older and younger people, the disabled and the socially disadvantaged, due to limited public or community transport services and inadequate accessible pathways and infrastructure.
- Road safety due to competing demands on the road between commuter traffic and freight, poor road conditions, limited overtaking opportunities and extreme weather events.

The input from customers has informed the priorities and actions identified in this Plan.

## Structure

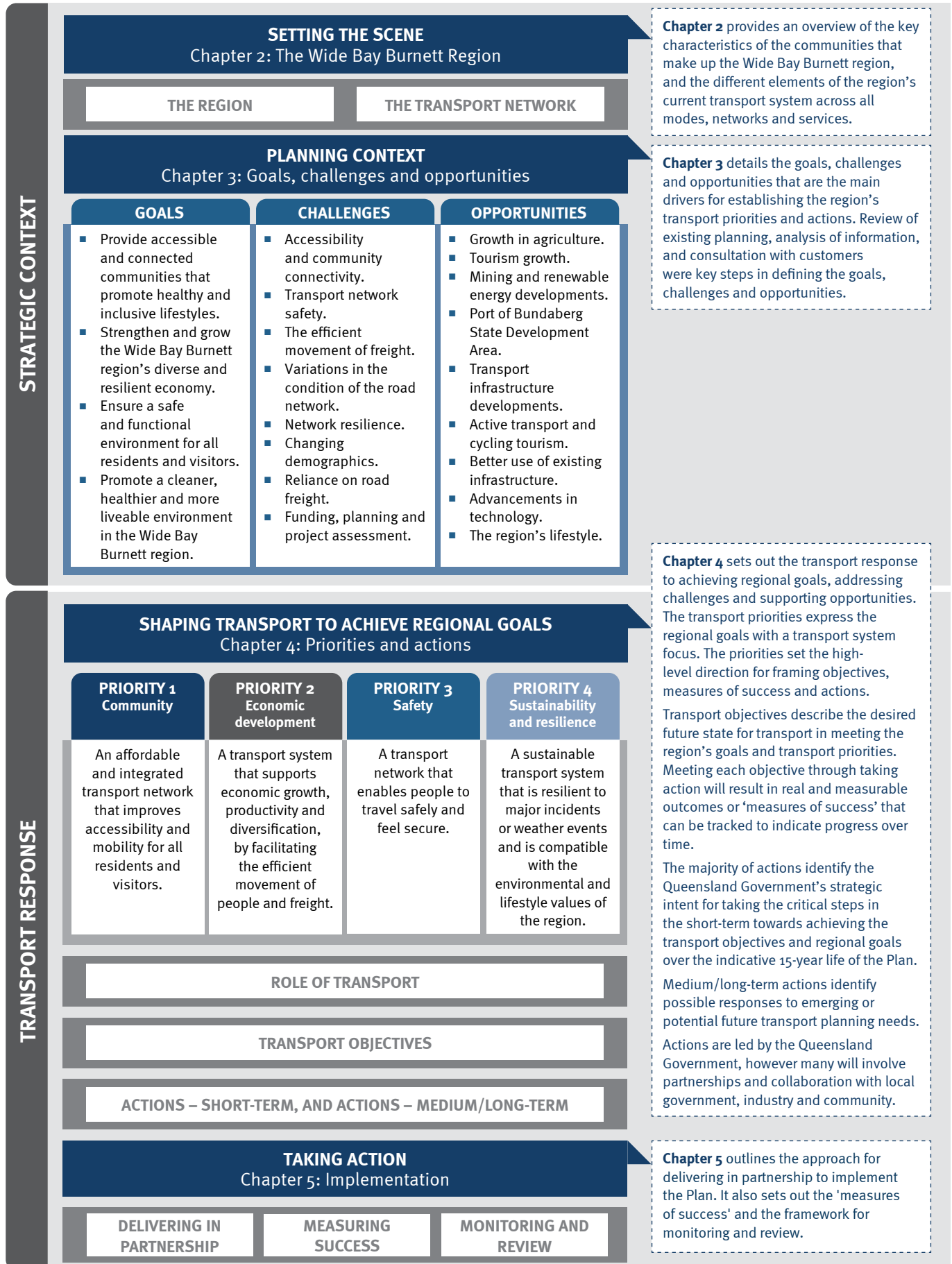
The document comprises five chapters covering an introduction, setting the scene, planning context, transport response, and implementation. The sequence and content of chapters reflects the development and implementation stages for the Plan.

- **Chapter 1** introduces the purpose, scope and strategic alignment of the Regional Transport Plan.
- **Chapter 2** provides an overview of the region's community, economy and transport system.

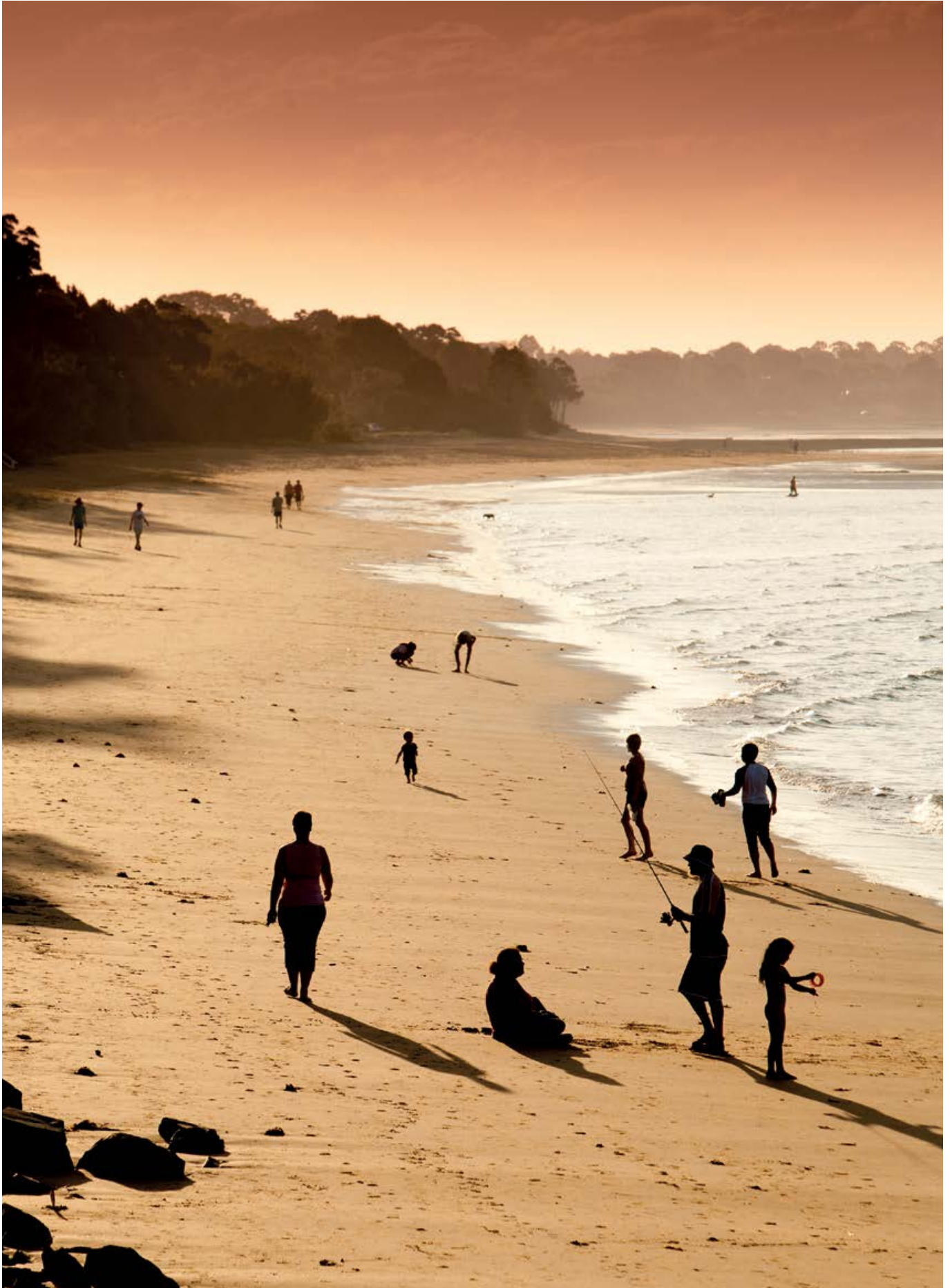
- **Chapter 3** describes the region's goals, challenges and opportunities and their relationship to transport.
- **Chapter 4** sets out the priorities, objectives and actions for shaping the transport system over the next 15 years.
- **Chapter 5** outlines the Plan's implementation and review process.

Table 2 outlines the key components of the Regional Transport Plan.

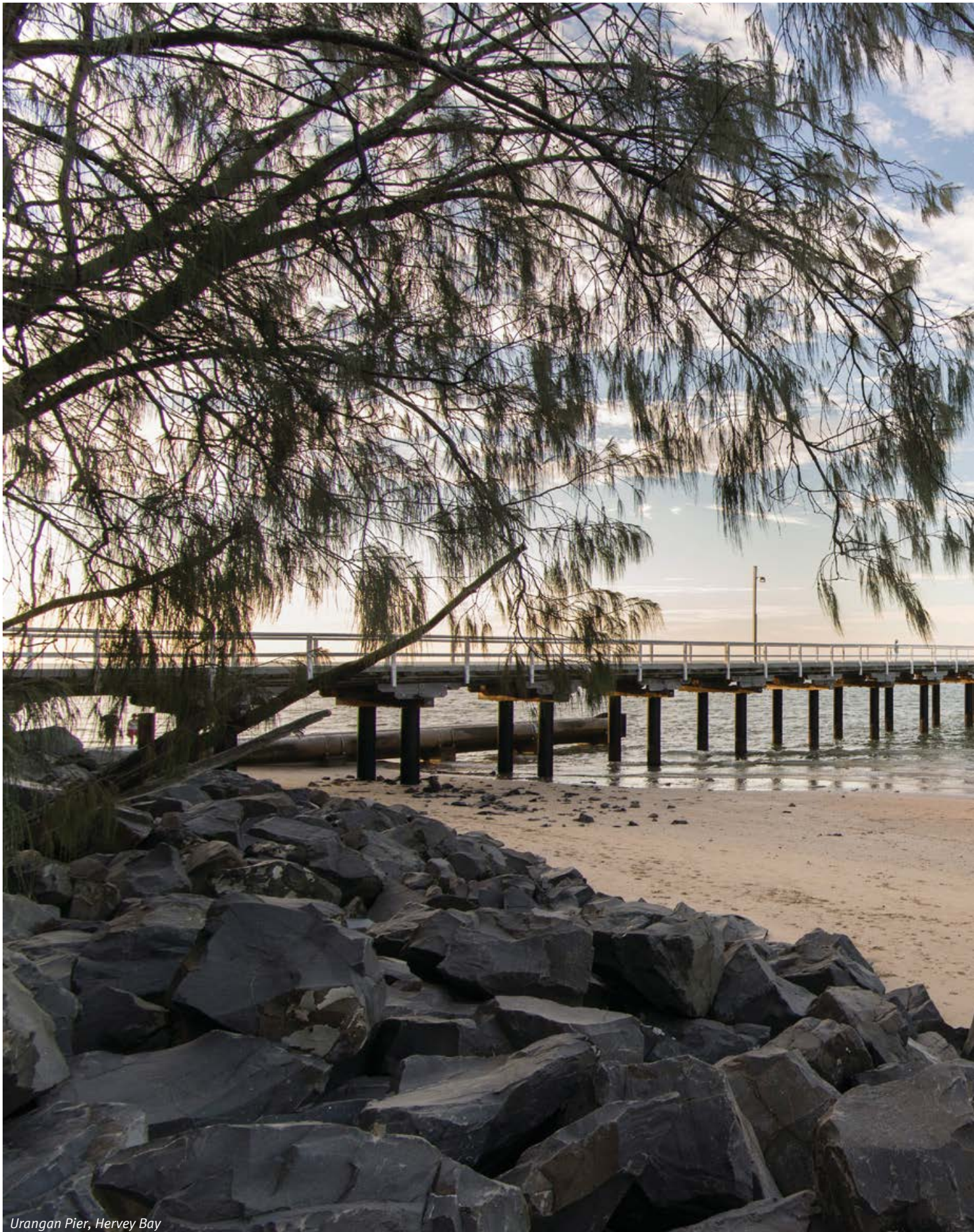
Table 2: Structure of the Wide Bay Burnett Regional Transport Plan







*Activity on beach in the early evening, Hervey Bay*



*Urangan Pier, Hervey Bay*

# 2. The Wide Bay Burnett Region



## 2.1 Region overview

WIDE BAY BURNETT REGION  
COVERS AN AREA OF

**48,503 KM<sup>2</sup>** OR **2.8%**  
OF QUEENSLAND'S LAND AREA<sup>2</sup>



LOCAL GOVERNMENT  
AREAS INCLUDE:

- 1 BUNDABERG REGIONAL COUNCIL
- 2 CHERBOURG ABORIGINAL SHIRE COUNCIL
- 3 FRASER COAST REGIONAL COUNCIL
- 4 GYMPIE REGIONAL COUNCIL
- 5 NORTH BURNETT REGIONAL COUNCIL
- 6 SOUTH BURNETT REGIONAL COUNCIL

POPULATION GROWTH<sup>3</sup>

**2018**  
**296,800**  
(6% OF QLD POPULATION)



**2036**  
**347,800**

**110,767**

JOBS IN THE REGION  
WITH A GRP IN 2017-18 OF

**\$ 12.44**

**BILLION<sup>4</sup>**

WIDE BAY BURNETT REGION'S  
AGRICULTURAL INDUSTRY  
ATTRACTS A  
**LARGE SEASONAL WORKFORCE**



FRASER ISLAND IS A SIGNIFICANT  
ASSET OF THE REGION AS A  
**WORLD HERITAGE AREA**  
AND THE WORLD'S LARGEST SAND  
ISLAND<sup>5</sup>



BUNDABERG (**23.1%**), FRASER  
COAST (**26.3%**), GYMPIE (**22.4%**),  
NORTH BURNETT (**23.5%**) AND  
SOUTH BURNETT (**22.8%**) HAVE  
HIGHER PROPORTION OF POPULATION  
OVER 65 THAN QUEENSLAND'S

**15.0%<sup>3</sup>**

### KEY FEATURES OF THE REGIONAL ECONOMY



Health care and social assistance  
(**16.3%**), retail (**12.1%**), education  
and training (**9.9%**) and agriculture  
(**8.9%**) are the region's top  
employing industries<sup>6</sup>



In 2017–2018, the gross value of total  
agricultural commodities produced  
in the Wide Bay Burnett region was  
**\$1.461 billion<sup>7</sup>**



The **manufacturing industry** has  
strengths in agriculture and transport  
manufacturing including sugar,  
aviation and rail equipment



In 2017, regional tourism  
expenditure totalled  
**\$1.09 billion<sup>8</sup>**



**80%** of visitors in the  
2017–18 financial year were  
domestic visitors<sup>8</sup>

2 Queensland Government Statistician's Office. (2019). *Queensland Regional Workforce Profile for Wide Bay Burnett*.

3 Australian Bureau of Statistics. (2019). *Regional Population by Age and Sex, Australia, 2018 (Catalogue No. 3235.0)*.

Queensland Government Statistician's Office. (2018). *Projected population (medium series), 2018 edition*.

4 National Institute of Economic and Industry Research. (2019). *National Economic Indicators Series*.

5 Kingfisher Bay Resort Group. (2019). *Fraser Island—World Heritage Listed*. Retrieved from <https://www.fraserisland.net/world-heritage>.

6 Queensland Government Statistician's Office. (2019). *Queensland Regional Workforce Profile for Wide Bay Burnett Region*.

7 Australian Bureau of Statistics. (2019). *Value of Agricultural Commodities Produced, Australia, 2017–18 (Catalogue No. 7503.0)*.

8 Tourism Research Australia. (2019). *Local Government Area Profiles*. <https://www.tra.gov.au/Regional/local-government-area-profiles>

## Local government areas

### Local government areas and population centres\*

2018  
estimated resident  
population

2036  
projected  
population

#### BUNDABERG REGIONAL COUNCIL – Bundaberg (principal regional activity centre), Bargara, Childers and Gin Gin

2018 Pop'n  
95,300

2036 Pop'n  
115,400



#### Employment and economy

Major employing sectors are health care and social assistance (16.3 per cent), retail trade (11.4 per cent) and agriculture, forestry and fishing (9.8 per cent).

Bundaberg is well known for its sugar industry and associated products.

#### Access

The Bruce Highway is the main north-south route through the Bundaberg Regional Council area. The Bruce Highway

bypasses the major activity centre of Bundaberg. To the north, Gin Gin Road connects Bundaberg to the Bruce Highway and Gin Gin, and both Childers and Goodwood Roads connect Bundaberg to the Bruce Highway and Childers to the south. The region supports an airport offering daily flights. The Port of Bundaberg is a bulk port handling sugar and molasses. The North Coast Rail line passes through Bundaberg and is serviced by the Spirit of Queensland, the Spirit of the Outback and Tilt Train.

#### CHERBOURG ABORIGINAL SHIRE COUNCIL – Cherbourg

2018 Pop'n  
1300

2036 Pop'n  
1400



#### Employment and economy

Major employing industries are public administration and safety (31.5 per cent), health care and social assistance (22.8 per cent), and education and training (22.8 per cent).

Education and training initiatives in Cherbourg include skill development in timber joinery and the cattle industry that contribute to council enterprises. Council also operates a Materials Recycling Facility (MRF) and Container Return Point which between both facilities employs approximately 12 full time staff from Cherbourg.

#### Access

The Cherbourg Aboriginal Shire Council sits within South Burnett Regional Council, bordering the Wondai forest and Lake Barambah to the south. Access to the shire is via Cherbourg Road connecting north to the Bunya Highway via Murgon. There is access to the Shire through a dedicated helicopter landing pad, otherwise the regions closest airstrip is Kingaroy.

\* Population statistics for 2018 are based on Australian Bureau of Statistics. (2019). *Regional Population Growth, Australia (Catalogue No. 3218.0, various editions)*. Population statistics for 2036 are based on Queensland Government Statistician's Office. (2018). *Projected population (medium series), by local government area, Queensland, 2016 to 2041, 2018 edition*. Employment statistics are based on Australian Bureau of Statistics. (2017). *Census of Population and Housing, Australia, 2016 – Working Population Profile – Wo9 (place of work)*. Employment industries are categorised as per the employment divisions of Australian Bureau of Statistics. (2013). *Australian and New Zealand Standard Industrial Classification 2006 (Revision 2.0) (Catalogue No. 1292.0)*.

Local government areas and population centres*	2018 estimated resident population	2036 projected population
<b>FRASER COAST REGIONAL COUNCIL</b> – Hervey Bay (principal regional activity centre), Maryborough (principal regional activity centre), Howard and Tiaro	2018 Pop'n <b>105,500</b>	2036 Pop'n <b>125,600</b>

### Employment and economy

Major employing industries are health care and social assistance (17.8 per cent), retail trade (12.3 per cent) and education and training (9.7 per cent).

The area is a popular retirement destination which is reflected by over a quarter of the population aged over 65, compared to Queensland's 14.7 per cent. Tourism is also important to the economy with attractions including Hervey Bay with its whale watching tours and Fraser Island.

### Access

The Bruce Highway traverses the Fraser Coast Council area, passing the western outskirts of Maryborough. The major network converges at Maryborough with the Maryborough–Biggenden Road connecting to Biggenden to the west and the Maryborough–Hervey Bay Road connecting to Hervey Bay to the east. Hervey Bay Airport has commercial services to Brisbane, Sydney and Lady Elliot Island. The Maryborough Airport serves a small but important function for freight transport. Air services (freight and tourism) are available from Maryborough Airport. Fraser Coast is on the North Coast Rail line serviced by the Spirit of Queensland, Spirit of the Outback and Tilt Train rail services at Maryborough West Station and the Tilt Train at Howard Station.

<b>GYMPIE REGIONAL COUNCIL –</b> Gympie (major regional activity centre), Goomeri, Cooloola Cove, Rainbow Beach and Tin Can Bay	2018 Pop'n <b>51,600</b>	2036 Pop'n <b>58,500</b>
--	-----------------------------	-----------------------------

### Employment and economy

Major employing industries are health care and social assistance (11.5 per cent), retail trade (11.4 per cent), and manufacturing (9.3 per cent).

### Access

Gympie Regional Council is serviced by three major highways, the Bruce Highway and Burnett Highway traversing north to south and the Wide Bay Highway, from east to west. The Bruce Highway will bypass the urban

centre of Gympie through the delivery of Cooroy to Curra Section D, with construction expected to commence in mid-2020. The local government area also provides the only access to Tin Can Bay and Rainbow Beach and the Cooloola State Forest, via Tin Can Bay Road. Fraser Island is accessible from Inskip Point (just north of Rainbow Beach) via barge. Queensland Rail Travel and Citytrain offer services through the Gympie North Rail Station. Air services (freight and tourism) are available from Gympie aerodrome.

\* Population statistics for 2018 are based on Australian Bureau of Statistics. (2019). *Regional Population Growth, Australia (Catalogue No. 3218.0, various editions)*. Population statistics for 2036 are based on Queensland Government Statistician's Office. (2018). *Projected population (medium series), by local government area, Queensland, 2016 to 2041, 2018 edition*. Employment statistics are based on Australian Bureau of Statistics. (2017). *Census of Population and Housing, Australia, 2016 – Working Population Profile – W09 (place of work)*. Employment industries are categorised as per the employment divisions of Australian Bureau of Statistics. (2013). *Australian and New Zealand Standard Industrial Classification 2006 (Revision 2.0) (Catalogue No. 1292.0)*.

Local government areas and population centres\*

2018  
estimated resident  
population

2036  
projected  
population

**NORTH BURNETT REGIONAL COUNCIL**

– Biggenden, Gayndah, Eidsvold, Monto, Mount Perry and Mundubbera



2018 Pop'n  
10,600

2036 Pop'n  
10,600



**Employment and economy**

Major employing industries are agriculture, forestry and fishing (31.9 per cent) health care and social assistance (11.5 per cent) and education and training (9.7 per cent).

Agriculture is the most significant industry in the area producing a diverse range of produce including citrus, blueberries, table grapes, beef, fodder crops such as lucerne, small crops, pork, broad acre crops, mining, timber and milk. The area experiences population fluctuations during harvesting season.

**Access**

The main connector within the region is the Burnett Highway. Other roads connecting to the Burnett Highway include Mundubbera–Dulong Road and Monto–Mount Perry Road from the south, Eidsvold–Theodore Road from the west and Gladstone–Monto Road from the east. There are a number of aerodromes in the North Burnett, which have a minor access function for tourism and freight. Gayndah, Mundubbera and Monto all have sealed airstrips however these do not support scheduled flights. There is also an unsealed gravel strip at Eidsvold and grassed strips at Biggenden and Mt Perry. The Isis Highway provides an east–west link between the Bruce Highway at Childers and the Burnett Highway at Ban Ban Springs.

**SOUTH BURNETT REGIONAL COUNCIL** – Kingaroy (major regional activity centre), Murgon, Nanango and Wondai

2018 Pop'n  
32,600

2036 Pop'n  
36,300



**Employment and economy**

Major employing industries are health care and social assistance (13.2 per cent), agriculture, forestry and fishing (11.6 per cent) and retail trade (10.6 per cent). Manufacturing is also a large employer, employing 9.4 per cent of workers. Kingaroy is well known for peanuts and meat processing (pork).

**Access**

South Burnett Regional Council can be accessed via three major highways, the D’Aguilar Highway, connecting Nanango and Kingaroy to South East Queensland, the Burnett Highway, traversing from north to south and the Bunya Highway navigating from the south-west to north-west. Other connectors include the Chinchilla–Wondai Road, Murgon–Gayndah Road and Mundubbera–Dulong Road. There are a number of aerodromes in the South Burnett, including at Kingaroy, Nanango and Wondai, which have a minor access function for tourism and freight.

**WIDE BAY BURNETT REGION TOTAL**

296,800

347,800

\* Population statistics for 2018 are based on Australian Bureau of Statistics. (2019). *Regional Population Growth, Australia (Catalogue No. 3218.0, various editions)*. Population statistics for 2036 are based on Queensland Government Statistician's Office. (2018). *Projected population (medium series), by local government area, Queensland, 2016 to 2041, 2018 edition*. Employment statistics are based on Australian Bureau of Statistics. (2017). *Census of Population and Housing, Australia, 2016 – Working Population Profile – W09 (place of work)*. Employment industries are categorised as per the employment divisions of Australian Bureau of Statistics. (2013). *Australian and New Zealand Standard Industrial Classification 2006 (Revision 2.0) (Catalogue No. 1292.0)*.

## 2.2 Transport network

The region’s transport network includes road, rail, marine, air, active transport and public transport infrastructure and services. An overview of the region’s transport network is shown in Figure 3.



Figure 3: Overview of Wide Bay Burnett region transport network



**272 KM**  
NATIONAL LAND TRANSPORT NETWORK<sup>9</sup>  
**2,689 KM**  
STATE-CONTROLLED ROADS  
**15,479 KM**  
LOCAL GOVERNMENT MANAGED ROADS<sup>10</sup>



**148** FATALITIES AND  
**1942** CRASHES REQUIRING  
HOSPITALISATION OCCURRED BETWEEN  
2014 TO 2018<sup>11</sup>



TOTAL THROUGHPUT FOR PORT OF BUNDABERG IN  
THE YEAR 2018–2019 WAS  
**548,278 TONNES**<sup>12</sup>



IN THE 2018–2019 FINANCIAL YEAR  
**156,309 PASSENGERS**  
PASSED THROUGH BUNDABERG AIRPORT<sup>13</sup>



HERVEY BAY AND BUNDABERG AIRPORTS PROVIDE  
**PASSENGER AIR SERVICES**



**GYMPIE NORTH  
STATION**

IS THE NORTHERN MOST  
STATION ON SOUTH EAST  
QUEENSLAND'S CITYTRAIN  
NETWORK CONNECTING  
THROUGH BRISBANE TO  
IPSWICH AND THE GOLD COAST



**URBAN BUS SERVICES**

ARE AVAILABLE IN BUNDABERG, GYMPIE, HERVEY  
BAY AND MARYBOROUGH



**FRASER ISLAND**

IS CONNECTED BY BARGES, FERRY AND WATER  
TAXI SERVICES FROM HERVEY BAY AND BARGE  
FROM INSKIP POINT (RAINBOW BEACH)



9 Department of Transport and Main Roads. (2018). *Annual Report*.

10 Department of Local Government, Racing and Multicultural Affairs. (2019). *Queensland Local Government Comparative Information 2017–18*.

11 Queensland Government. (2019). *Crash data from Queensland roads*. <https://data.qld.gov.au/dataset/crash-data-from-queensland-roads>.

12 Gladstone Ports Corporation. (2019). *Origin & Destination of Cargoes Totals for Financial Year 2019 (Bundaberg)*. <https://www.gpcl.com.au/Pages/Trade-Statistics.aspx>.

13 The Bureau of Infrastructure, Transport and Regional Economics (BITRE). (2018). *Airport Traffic Data*. [https://bitre.gov.au/publications/ongoing/airport\\_traffic\\_data.aspx](https://bitre.gov.au/publications/ongoing/airport_traffic_data.aspx).

## Roads

The road network is the primary transport network across the region for freight, commuter and passenger movements. The Bruce Highway is part of the National Land Transport Network connecting Brisbane to Cairns, passing through Gympie, Tiaro, Maryborough, Childers and Gin Gin. The State Network includes a number of town to town links including: the Burnett, Isis, Bunya, D'Aguilar and Wide Bay Highways; Bundaberg Ring Road; Tin Can Bay Road, Maryborough–Cooloola Road, Mundubbera–Dulong Road, Murgon–Gayndah Road and Maryborough–Hervey Bay Road. Local roads support access to urban areas, tourism attractions, industries, mining and farm gates. Links to the Port of Bundaberg include the Bundaberg Port Road, Bundaberg Ring Road and Isis Highway connecting to the Bruce Highway to the south and Bundaberg–Bargara Road and Bundaberg Gin Gin Road connection to the Bruce Highway to the north.

Most of the key state-controlled roads in the Wide Bay Burnett region are approved routes for B-doubles (23-metre and 25-metre) with the exception of a small section of Chinchilla-Wondai Road which is designated for Type 1 road trains.

Average annual daily traffic (AADT) varies significantly across the region with the Bruce Highway south of Gympie attracting the highest inter-regional demand at over 26,000 vehicles per day. The Burnett Highway is an important north–south connection for heavy vehicles particularly around Gayndah where they contribute up to 20 per cent of AADT.<sup>14</sup>

The urban arterial roads in Bundaberg and Hervey Bay attract the highest traffic volumes in the region with 28,121 vehicles per day on Bundaberg–Bargara Road and 21,773 vehicles per day on Maryborough–Hervey Bay Road.<sup>14</sup>

The Wide Bay Burnett region includes two tourism routes that are identified by the *Queensland Tourism and Transport Strategy*, they are the Bruce and Burnett highways, providing north-south links.

Private vehicles are the predominant mode of transport across the region. Only 5.9 per cent of dwellings do not own a private vehicle, which is similar to Queensland's average of 6 per cent.<sup>15</sup>

### The Roads and Transport Alliance and Regional Roads and Transport Groups

The Roads and Transport Alliance is a cooperative governance arrangement between the Department of Transport and Main Roads, the Local Government Association of Queensland (LGAQ) and local governments to invest in and regionally manage the Queensland transport network. Its objectives are to:

- maximise the economic, social and environmental benefits of joint investments
- achieve maximum efficiencies through collaboration and innovation in network planning, program development and delivery
- improve technical skills through training, technology and knowledge transfer
- optimise safety
- maximise investment on the Queensland transport network.

The Alliance includes Regional Roads and Transport Groups where Transport and Main Roads and local government representatives within the region work collaboratively to plan and prioritise investment on road and transport infrastructure. This includes allocating funding to the highest priority projects and identifying opportunities for financial efficiencies.

## Rail

The North Coast line runs north–south through the Wide Bay Burnett region, connecting Brisbane to Cairns and coastal centres in between. The system caters to rail freight including container, maintenance and cattle trains and passenger rail including high speed tilt trains and commuter services between Gympie and Brisbane. The trip from Gympie North Station to Brisbane's Central Station takes just under three hours with two services provided daily Monday to Saturday and one service on Sundays.

Most North Coast line freight commodities pass through the region to destinations further north or south to Brisbane. In 2016–2017, the North Coast line carried 6.7 billion gross tonne kilometres (GTKs) of freight by operators Pacific National and Aurizon including railing containerised and general freight, industrial products, sugar and molasses, which is approximately a third of the total amount of rail freight transported in Queensland.<sup>16</sup>

14 Queensland Government. (2019). *2018 traffic census data*. <https://www.data.qld.gov.au/dataset/traffic-census-for-the-queensland-state-declared-road-network/resource/4b1011ec-61f1-4818-b44c-edfe15828a4e>.

15 Queensland Government's Statistician's Office. (2019). *Queensland Regional Profiles: Resident Profile for Wide Bay Burnett region*. Retrieved from [www.statistics.qgso.qld.gov.au/qld-regional-profiles](http://www.statistics.qgso.qld.gov.au/qld-regional-profiles).

16 Queensland Rail (2017). *2016/17 Annual Performance Report*.

Five passenger rail services operate on the North Coast line:

- Spirit of Queensland connecting Brisbane and Cairns with five return services per week
- Tilt Train connecting Brisbane and Bundaberg with a four-hour and 30-minute journey and six return services per week
- Tilt Train connecting Brisbane and Rockhampton with a seven-hour and 30-minute journey and six return services per week
- Spirit of the Outback connecting Brisbane to Longreach with two return services per week
- Sunshine Coast line connecting Gympie North to Brisbane with two services per day Monday to Saturday and one service per day on Sundays. This service has a two-hour and 56-minute journey time.

Four services stop within the region at Bundaberg Station, Howard Station (with exception of both the Spirit of Queensland and the Spirit of the Outback), Maryborough West Station and Gympie North Station. Five services stop at Gympie North Station because it is the northern extent connecting to Brisbane, Ipswich and the Gold Coast.

Rail connection buses operated by Queensland Rail are available between Hervey Bay and Maryborough West Station and between Gympie and Gympie North Station.

Rail also supports the sugar cane industry through cane rail networks connecting farms to the sugar mills in the vicinity of Bundaberg.

## CASE STUDY: Rail industry in Maryborough

The Downer rail manufacturing plant in Maryborough plays a key role in manufacturing and servicing Queensland's rail industry assets. With advanced production lines and equipment, and employing more than 250 skilled workers, the rail plant is undergoing an upgrade to expand and strengthen its capability to service the state's future rail needs.

In 2018, the Queensland Government invested \$10 million toward upgrading the plant's infrastructure and facilities to better accommodate six car trains. The works will enable a range of capability improvements for the delivery of accessibility upgrades to the New Generation Rollingstock rail fleet and will play a key role in ensuring the longevity of rail manufacturing in Maryborough.

The works being undertaken at the plant include:

- upgrades to overhead power lines to support six-car static testing
- installation of a new section of track to support weighing, levelling and water egress testing
- installation of a new run-around road and an additional spur to ease shunting restrictions and improve stabling capacity
- additional cranes
- general infrastructure upgrades to support the rectification work.



*New Generation Rollingstock train being delivered to Downer's Maryborough Service Delivery Centre to begin accessibility upgrades*

## Bus and coach

A range of bus and coach services operate within the region. These include public passenger transport services, school bus services, community transport services, rail connection buses and long distance coach services. Bundaberg, Gympie, Hervey Bay and Maryborough are all serviced by urban bus routes that connect suburban areas and nearby settlements to shopping areas, hospitals and education. For example, Hervey Bay and Maryborough are connected by urban bus services, as is Bundaberg to Bargara and Elliott Heads and Gympie to the seaside settlements of Rainbow Beach and Tin Can Bay. Frequencies range across the region and between routes from hourly services to running only once or twice a day.

Under the School Transport Assistance Scheme, school transport assistance is offered to eligible students in the more rural and remote parts of the region providing affordable options for travel to the nearest school. School transport services are monitored and reviewed regularly, as part of a state-wide program, to ensure that school transport services meet the needs of school students in the Wide Bay Burnett region.

Intra-regional services provide connectivity between towns and larger centres in the region allowing residents to access essential goods and services. The North Burnett Transport Service includes a number of routes which each run two to three times per week to connect North Burnett towns to Bundaberg and Maryborough and is subsidised by the Queensland Government under a Transport Services Contract.

Both Cherbourg Aboriginal Council and Fraser Coast Regional Council offer a community bus service to provide transport to access basic goods and services.

Long-distance coach services operate along the Bruce Highway between Brisbane and Cairns, stopping at towns along the route. Greyhound Australia operate a north-south route that connects Hervey Bay with Byron Bay in northern New South Wales. Coaches also run daily from the South Burnett to Brisbane (Caboolture).



Urban bus services, Bundaberg

## Marine

### Ports

The Port of Bundaberg is located approximately 185 kilometres south of Gladstone and 365 kilometres north of Brisbane, 19.3 kilometres downstream from the City of Bundaberg and 4.8 kilometres from the mouth of the Burnett River. The Port of Bundaberg is managed and operated by Gladstone Ports Corporation. It is serviced by Sir Thomas Hiley Wharf which handles bulk wood pellets. Knauf gypsum, silica sand and sugar exports and John T. Fisher Wharf which handles molasses imports. In 2018-19, Sir Thomas Hiley Wharf exported 278,000 tonnes of sugar and John T. Fisher Wharf imported 32,002 tonnes of molasses.<sup>17</sup>

Port service providers are available twenty-four hours per day, seven days per week. The port limits ship size to 190m length and 32 metre beam for berthing<sup>18</sup>. In 2018-19, the Port of Bundaberg has handled 27 vessels per year and is consequently at a berth utilisation of around twelve percent, leaving considerable scope for additional vessel calls.<sup>19</sup>

Most road connections to the port are at arterial road standard and pass through residential, commercial and developed agricultural land. The Bundaberg Ring Road provides a single carriageway connection from the Isis Highway south of Bundaberg to the Bundaberg Port Road. There is no rail connection to the Port of Bundaberg from the main North Coast line.

In February 2017, the Queensland Government declared a 6076 hectare State Development Area for the Port of Bundaberg. The State Development Area was developed in response to demand surrounding growing industrial activities and could help to facilitate economic growth in the region and may lead to port expansion.<sup>20</sup>

### Other marine infrastructure

Marine facilities across the region support a range of commuter, tourism and recreation opportunities including river cruises, whale watching tours, diving expeditions,

fishing charters and Great Barrier Reef tours.<sup>21,22</sup> Three primary barge and ferry services provide access to Fraser Island, departing from River Heads, Urangan Boat Harbour and Rainbow Beach:

- Fraser Venture Barge runs six barges and ferry services daily which depart River Heads (20 minutes south of Hervey Bay) and land at Wanggollba Creek on Fraser Island.<sup>23</sup>
- The Kingfisher Bay Ferry has ten barges and ferry services which depart River Heads and land at Kingfisher Bay Resort on the western side of Fraser Island.<sup>23</sup>
- Manta Ray Barge operates continuous services between 6.00am and 5.15pm daily with two barges operating from Inskip Point Rainbow Beach to Hook Point on Fraser Island with a barge departing every 30 minutes.<sup>24</sup>

Additional barges operate during peak holiday periods providing increased frequency. In addition, water taxi services departing from Urangan to Fraser Island commenced in 2017.<sup>25</sup>

Ferries and reef cruises from Bundaberg provide day trips exploring the Southern Barrier Reef and Lady Musgrave Island.<sup>26</sup>

Marine infrastructure, such as boat ramps with trailer parking, jetties and marinas are available to support recreational boating for residents and visitors to the region. Recreational boating and marine activities are an important aspect of the region's identity and lifestyle, with 11 per cent of Queensland's boats being registered to persons within the Wide Bay Burnett region.<sup>27</sup> The Boat Club Marina, located in Urangan Harbour Hervey Bay, provides berthing facilities for yachting holiday makers to the Great Sandy Straits and Fraser Island. The Marina comprises four arms of 98 berths which can accommodate vessels up to 25 metres long.<sup>28</sup> Maryborough's Mary River Marina is used exclusively for tourism and recreation. Bundaberg Port and Tin Can Bay are other significant marina facilities in the region.

17 Gladstone Ports Corporation. (2019). *Origin & Destination of Cargoes Totals for Financial Year 2019 (Bundaberg)*. <https://www.gpcl.com.au/Pages/Trade-Statistics.aspx>.

18 State of Queensland (Department of Transport and Main Roads). (2018). *Port Procedures and Information for Shipping—Port of Bundaberg*. <https://www.msq.qld.gov.au/Shipping/Port-procedures/Port-procedures-bundaberg#exmenu>.

19 Gladstone Ports Corporation. (2019). *Origin & Destination of Cargoes Totals for Financial Year 2019 (Bundaberg)*. <https://www.gpcl.com.au/Pages/Trade-Statistics.aspx>.

20 Department of State Development, Manufacturing, Infrastructure and Planning. (2017). *Bundaberg State Development Area*. Retrieved from <http://www.statedevelopment.qld.gov.au/coordinator-general/state-development-areas/current/bundaberg-state-development-area.html>.

21 TripAdvisor. (2019). *Cruises, Sailing & Water Tours in Hervey Bay*. [https://www.tripadvisor.com.au/Attraction\\_Products-g255404-zfg11865-Hervey\\_Bay\\_Fraser\\_Coast\\_Queensland.html](https://www.tripadvisor.com.au/Attraction_Products-g255404-zfg11865-Hervey_Bay_Fraser_Coast_Queensland.html).

22 TripAdvisor. (2019). *Boat tours in Bundaberg*. [www.tripadvisor.com.au/Attractions-g255334-Activities-c61-t167-Bundaberg\\_Queensland.html](http://www.tripadvisor.com.au/Attractions-g255334-Activities-c61-t167-Bundaberg_Queensland.html).

23 Fraser Island Ferry. (2017). *Fraser Island Barge*. [www.fraserislandferry.com.au/barges.html](http://www.fraserislandferry.com.au/barges.html).

24 Manta Ray. (2019). *Manta Ray Fraser Island Barge*. [www.mantarayfraserislandbarge.com.au/](http://www.mantarayfraserislandbarge.com.au/).

25 Perets A. (2017, Mar 23). *Water taxi service from Urangan to Fraser Island is starting*. *Fraser Coast Chronicle*. Retrieved from <https://www.frasercoastchronicle.com.au/news/water-taxi-service-urangan-fraser-island-starting/3158027/>.

26 Department of Environment and Science. (2019). *About Capricornia Cays*. Retrieved from <https://parks.des.qld.gov.au/parks/capricornia-cays/about.html>.

27 Queensland Government. (2018). *Vessel Registration*. <https://data.qld.gov.au/dataset/vessel-registrations>.

28 Hervey Bay Boat Club Inc. (2019). *The Marina*. [www.boatclub.com.au/venues/marina/](http://www.boatclub.com.au/venues/marina/).

## Active transport

Active transport refers to non-motorised travel such as walking and cycling. Active transport infrastructure, including footpaths and on and off road cycle infrastructure, is provided in urban areas across the region. These vary in terms of their connectivity and quality.

The Wide Bay Burnett region's journey to work data illustrates that 4.4 per cent of workers walked or cycled to work, similar to the average across Queensland (4.3 per cent).<sup>29</sup> The Wide Bay Burnett Principal Cycle Network Plan (WBBPCNP), outlines the principal cycle network for towns and cities across the region. It aims to develop the cycle network by guiding future state and local government investment in detailed planning and construction.

A total of 25 principal cycle network maps across the region identify core routes designed to be bicycle friendly and easy to use as an everyday form of transport, with an opportunity to expand into other townships with a high active transport mode share.<sup>30</sup>

Bundaberg and Fraser Coast Regional Councils have both invested in high quality pathways and promotional material to encourage residents and tourists walking and cycling to enjoy the natural attributes in many of their coastal towns.<sup>31,32</sup> Hervey Bay is an example, the active transport network takes advantage of the relatively flat topography and high scenic amenity. A network of cycle paths connecting the foreshore and a dedicated cycling / walking mobility corridor has been developed, with additional links planned for implementation over the next 20 years.<sup>33</sup> South Burnett and Gympie regional councils—with funding from the Queensland Government—completed the Kilkivan to Kingaroy Rail Trail (89 kilometres) in 2017. The rail trail provides a recreational facility for residents, and a cycling destination, attracting day trippers and tourists to the region. People can visit points of interest along the way, contributing to the local economy.<sup>34</sup> Other rail trails in Wide Bay Burnett include: Mary to the Bay Rail Trail (7.5 kilometres) in Hervey Bay; Watawa Recreation Trail (3.4 kilometres) near Gin Gin and the Boolboonda Rail Trail and Tunnel (3 kilometres) between Boolboonda and Wonbah.<sup>35</sup>



Cyclist on Bourbong Street, Bundaberg

### Queensland Walking Strategy

The *Queensland Walking Strategy 2019–2029* provides a framework for promoting walking as an accessible, active transport mode across Queensland, delivering health benefits for Queenslanders and access to important destinations such as schools, shops, and public transport.

The strategy sets out the vision for the next 10 years and directly contributes to the vision for a single integrated transport network accessible to everyone. The strategy is accompanied by an action plan that identifies areas for further investment over the next two years.

- 29 Queensland Government Statistician's Office. (2019). *Queensland Regional Profiles: Workforce Profile for Wide Bay Burnett region*. Retrieved from [www.statistics.qgso.qld.gov.au/qld-regional-profiles](http://www.statistics.qgso.qld.gov.au/qld-regional-profiles).
- 30 Department of Transport and Main Roads. (2016). *Principal Cycle Network Plan - Wide Bay Burnett*. Retrieved from <https://www.tmr.qld.gov.au/Travel-and-transport/Cycling/Principal-Cycle-Network-Plans>.
- 31 Fraser Coast Regional Council. (2017). *Our Fraser Coast*. Retrieved from [www.ourfrasercoast.com.au](http://www.ourfrasercoast.com.au).
- 32 Bundaberg Regional Council. (2017). *Walk and cycle*. Retrieved from [www.bundaberg.qld.gov.au/discover/local-visitor-attractions/walking\\_trails/walk\\_and\\_cycle](http://www.bundaberg.qld.gov.au/discover/local-visitor-attractions/walking_trails/walk_and_cycle).
- 33 Fraser Coast Regional Council. (2015). *Walk and Cycle Strategy*.
- 34 Elder K. (2016). Trail launch leads to tracks towards new possibilities. *South Burnett Times*. [www.southburnettimes.com.au/news/trail-launch-on-track/3054475/](http://www.southburnettimes.com.au/news/trail-launch-on-track/3054475/).
- 35 Trail Hiking Australia. (2019). *Never stop exploring*. Retrieved from <https://www.trailhiking.com.au/>.

## Air

Hervey Bay Airport and Bundaberg Airport support the region's scheduled passenger services. There are also a number of other airports and aerodromes throughout the region which are used predominately for recreational purposes, training and maintenance. Some aerodromes also have a small but important freight function, such as those in Maryborough, Gympie, North Burnett and South Burnett.

Bundaberg Regional Airport is owned and operated by Bundaberg Regional Council. QantasLink and Alliance Airlines operate approximately 35 domestic services to Brisbane per week.<sup>36,37</sup> In 2018–2019, 156,309 passengers travelled through Bundaberg Airport. Although this is a decrease on the previous financial year, the long term growth trend is on the rise.<sup>38</sup>

Hervey Bay (Fraser Coast) Airport and Maryborough Airport are owned and operated by Fraser Coast Regional Council. Passenger services connecting Hervey Bay to Brisbane and to Sydney are provided by QantasLink. Virgin Australia also provides a daily return service to Sydney. Hervey Bay Airport is the gateway for flights to World Heritage listed Fraser Island and Lady Elliot Island on the Southern Barrier Reef.<sup>36, 37</sup> The long term growth trend for passenger volumes through the Hervey Bay Airport is on the rise.<sup>38</sup>

Qantas Freight is available at Bundaberg Airport and Hervey Bay Airport and Virgin Australia Cargo Services are available at Hervey Bay Airport. Access to these airports are via the Isis Highway (Bundaberg to Childers); Bundaberg ring roads and Booral, Hervey Bay Maryborough and Torbanlea Pialba Roads respectively.

## Mobility and community transport services

Convenient and affordable transport options for access to employment, education, social and community services are essential for supporting liveable and prosperous communities.

Travel subsidies and special transport services are available to people with a transport disadvantage, including the elderly, sick and people with a disability who require travel assistance to access essential health and community service needs. The range of transport services available in the region include subsidised taxi travel, community bus services and patient transport services delivered by the Queensland Ambulance Service. There will also be aeromedical services through a joint Royal Flying Doctors Service and Care Flight facility at Bundaberg Airport, due for completion early 2020.

Taxi services are available in Bundaberg, Childers, Hervey Bay, Maryborough, Gympie, Monto, Gayndah, Nanango, Wondai, Rainbow Beach, Tin Can Bay, Murgon and Kingaroy. Other personalised transport services such as booked hire now also play a role in the region's transport system. This trend towards more diverse transport options offers customers improved choice about how they travel.



Sunset overlooking bay, Hervey Bay

36 Qantas Airways Limited. (2019). *Timetables*. Retrieved from <https://www.qantas.com/au/en/qantas-experience/timetables.html>.

37 Virgin Australia Airlines Pty Ltd. (2019). *Flight timetables*. Retrieved from <https://www.virginaustralia.com/au/en/plan/timetables-route-maps/flight-timetables/>.

38 Department of Infrastructure, Transport, Cities and Regional Development. (2019). *Airport traffic data*. Retrieved from [https://www.bitre.gov.au/publications/ongoing/airport\\_traffic\\_data.aspx](https://www.bitre.gov.au/publications/ongoing/airport_traffic_data.aspx).



*Campervan on unsealed road near Gayndah*



# 3. Goals, challenges and opportunities



## 3.1 Goals

Goals describe the region's desired economic, social and environmental outcomes that set the direction for all planning activities and initiatives in the region, not just for transport. Transport and Main Roads has engaged with the region's local governments, industry representatives and other state agencies to understand the high level goals for the region's future development.

Goals were developed for the *Wide Bay Burnett Regional Transport Plan* based on a review of local, regional, state and national planning documents and directions set by stakeholders. Goals help frame the priorities and actions for transport towards achieving regionally specific outcomes for the community, economy and environment.

The Plan's goals are as follows:

- Provide accessible and connected communities that promote healthy and inclusive lifestyles.
- Strengthen and grow the Wide Bay Burnett region's diverse and resilient economy.
- Ensure a safe and functional environment for all residents and visitors.
- Promote a cleaner, healthier and more liveable environment in the Wide Bay Burnett region.

The relationship between goals and priorities is presented in Figure 4. Priorities are the transport response to the region's goals in the context of addressing challenges and supporting the opportunities that present.

### WIDE BAY BURNETT REGIONAL TRANSPORT PLAN GOALS



### PLANNING CONTEXT

## Challenges & Opportunities

### TRANSPORT PRIORITIES

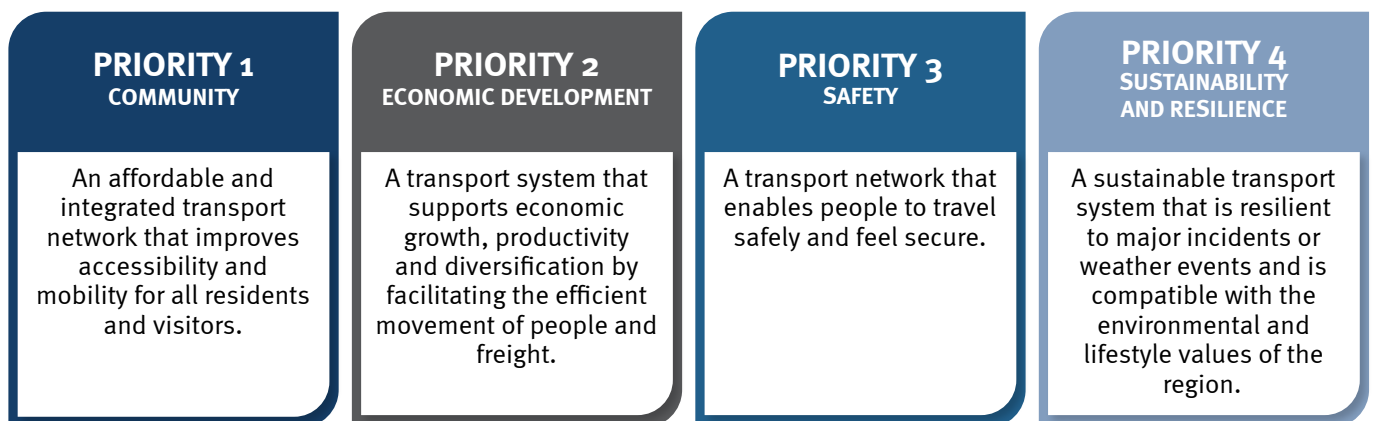


Figure 4: Regional goals and relationship to transport priorities

## 3.2 Challenges

### Accessibility and community connectivity

The Wide Bay Burnett region covers an area of about 48,503 km<sup>2</sup>, or around 2.8 per cent of Queensland's land area and is home to six per cent of the population. Bundaberg, Maryborough and Hervey Bay are principal regional activity centres offering a diverse range of urban activities and accommodating a significant proportion of the region's residents, services and community facilities.

The region has developed over time to accommodate a dispersed population across its principal regional activity centres and smaller urban centres, rural and coastal towns and rural residential areas. Some of the region's towns are closer to principal regional activity centres outside the region, such as Maroochydore for Gympie and Toowoomba for Kingaroy. This has seen the development of a network of east-west and north-south connections that provide access to principal regional activity centres. Stakeholder consultation indicates that variable road conditions on particular links within the region can limit accessibility and connectivity between some towns. Gravel unsealed roads to more remote communities and a lack of all-weather access were highlighted, with Cherbourg an example where flooding completely isolates the town.

Within the region, approximately 5.9 per cent of households do not own a motor vehicle which is comparable to Queensland's average of six per cent. However, this is not the case for Cherbourg Aboriginal Shire Council, where almost half (45.6 per cent) of all households do not have access to a motor vehicle. The median weekly personal income for persons aged 15 years or over for Cherbourg is \$315 per week, less than half of the Queensland and Australian's average of \$660<sup>39</sup> and \$662.<sup>40</sup> This may illustrate a link between the difficulties in accessing employment opportunities and transport accessibility in the area.

The Wide Bay Burnett region is serviced by inter-regional long distance coach and intra-regional bus services. Urban bus services operate in Hervey Bay, Maryborough, Gympie and Bundaberg. Inter-regional services connect inland towns and centres to east coast centres and towns. Long distance inter-regional bus services service coastal towns in the region on the Bruce Highway with final destinations to the north and south such as Cairns and Brisbane. Bus and coach services between inland towns are limited. In areas such as North and South Burnett, for example, this is a particular concern for older or less abled bodied people in the community, who are traveling to Brisbane for medical appointments or to visit friends or relatives.

The cost and infrequent nature of inter-regional services means that they are not intended for accessing regular employment opportunities. The North Burnett Bus Service provides an important community service, connecting towns to the principal regional activity centre of Bundaberg and Maryborough, but is limited in supporting regular access to these centres for employment. For example, the bus service between Mundubbera and Gayndah only operates three times per week at a cost of \$19.20 per return journey.

Some North Burnett Bus Service routes connect to the Tilt Train, and Queensland Rail provide rail bus connection services to long distance rail at Gympie North and Maryborough West stations (from locations such as Gympie, Maryborough and Hervey Bay). Bundaberg, Howard, Maryborough West and Gympie North stations provide access to long-distance rail which could be serviced by improved bus connections. Stakeholders have indicated further opportunity to improve linkages to long distance passenger rail in the region from other smaller communities.

The coordination of bus and rail timetables and the location of bus stops relative to rail stations are key in providing access to long distance rail. An example of poor coordination between bus and rail services is illustrated by rail access from Rainbow Beach. Travellers are required to catch a daily bus service to Gympie and transfer to a rail bus connection service from Gympie to Gympie North station to access rail services.

Active transport infrastructure is important to support a reduction in motor vehicle movement and increase active transport mode choice for short local trips. Many regional towns and centres have invested in footpaths and cycle infrastructure to provide local connectivity and further planning and investment across the region will see the continued development of the principal cycle network.

Active transport connections between Cherbourg and Murgon are important for access to employment and goods and services for the Cherbourg community. Stakeholders indicate poor and limited formal pedestrian footpaths support this route, with residents required to walk on the road and sometimes within table drains.

39 Queensland Government Statistician's Office. (2019). *Queensland Regional Profiles: Resident Profile*. Retrieved from [www.statistics.qgso.qld.gov.au/qld-regional-profiles](http://www.statistics.qgso.qld.gov.au/qld-regional-profiles).

40 Australian Bureau of Statistics. (2017). *2016 Census QuickStats*. [https://quickstats.censusdata.abs.gov.au/census\\_services/getproduct/census/2016/quickstat/036](https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/036).

## Transport network safety

In the Wide Bay Burnett region, there were 148 fatalities and 1942 crashes requiring hospitalisation between 2014 and 2018. Alcohol, fatigue and speed, as well as road geometry and driver behaviour were contributing factors to these crashes. Due to the high speed and remote nature of many of the region's state controlled roads, 48 per cent of crashes occurred at a posted speed limit of 80–110km/h. Hitting objects, angle and rear end crashes are the major crash types which accounted for nearly 70 per cent of the total crashes over the five-year period.<sup>41</sup> Disruptions, damage, hospitalisations and fatalities due to crashes come at a high cost to the community.

With increasing demands on the road freight task across the region, commuter traffic and heavy vehicles will be required to share the road more often. This is a particular challenge on high speed routes or on traditional heavy vehicle routes which now have competing commuter functions. In Bundaberg for example, heavy vehicles coming from the northern side of Bundaberg to Bundaberg Port are required to traverse the CBD via Bargara Road. Bundaberg Regional Council are promoting urban renewal, tourism and land use changes in the CBD, however the road network in the CBD contains as of right b-double routes. To maintain road safety, and to balance the competing goals of freight access and urban renewal, a holistic review of the road network and its functionality is required.

Marine safety is also a key consideration with 27,196 registered boats in the region.<sup>42</sup> TMR's annual maritime safety reports documented that between 2014 and 2018 there were 1679 marine incidents that involved at least one Queensland regulated ship. Of the incidents reported, 471 people reported being injured, including 153 hospital admissions and 38 deaths. The most commonly reported incident was a collision between ships, accounting for 450 (27 per cent) of the 1679 incidents. There were also 190 collisions with objects and 250 groundings that together with the collisions between ships, account for 53 per cent of the 1679 incidents.<sup>43</sup>

## The efficient movement of freight

The region is heavily reliant on the freight industry and the transport network to connect key production areas to market, transport inputs to industry and in supplying

the community with essential goods. The quality and efficiency of these connections influences the cost of living for residents, the productivity and profitability of industry and is a factor in the region's attractiveness for new investment. Network resilience and the consistency and condition of the transport network are also challenges for freight efficiency.

B-Doubles are the highest classification of heavy vehicle acceptable for use on heavy vehicle routes with the exception of a small section of Chinchilla–Wondai Road near the western boundary of the region, where Type 1 Road Trains access is provided. High productivity vehicles (HPV) may be used on heavy vehicle routes and other areas of the road network through application and approval of a permit. The National Heavy Vehicle Regulator coordinates a range of access applications liaising directly with Transport and Main Roads and relevant local governments.<sup>44</sup>

Heavy vehicle access is limited to major routes across the region. As identified by the Wide Bay Burnett Regional Organisation of Councils, improving connections to these routes is crucial for the overall efficiency of supply chains. Improvements are required on first and last mile connection roads (typically local government roads but also lower order state controlled roads) to enable complete origin to destination freight journeys in the desired heavy vehicle class.<sup>45</sup> Facilities that support the freight industry, such as decoupling facilities can benefit operations and the efficiency of the freight network. The provision of decoupling bays allows improved utilisation of HPV's by providing suitable locations for vehicle reconfiguration. By providing these facilities on the outskirts of major freight generating urban areas, incompatible heavy vehicles are removed from the local road network.<sup>46</sup>

There are opportunities to improve supply chain efficiency in the region. Supply chain coordination includes the implementation and control of the efficient and effective flow and storage of goods, services and information between origin and destination.<sup>47</sup> Currently, a lack of coordination and integration of the supply chain between individual producers in the region reduces the efficiency of freight movements to other parts of the state.<sup>48</sup>

Improved freight transfer opportunities between road and rail in Bundaberg, Maryborough and Gympie may also improve the efficiency of the total supply chain.

41 Queensland Government. (2019). *Crash data from Queensland roads*. Retrieved from <https://www.data.qld.gov.au/dataset/crash-data-from-queensland-roads>.

42 Queensland Government. (2018). *Vessel Registration*. <https://data.qld.gov.au/dataset/vessel-registrations>.

43 Department of Transport and Main Roads. (Multiple: 2014–2018). *Maritime Safety Queensland*. Retrieved from <https://www.msq.qld.gov.au/About-us/Marine-incident-annual-reports>.

44 National Heavy Vehicle Regulator. (2019). *About access management*. <https://www.nhvr.gov.au/road-access/access-management/about>.

45 Wide Bay Burnett Regional Organisation of Councils. (2016). *Positioning the Wide Bay Burnett Region for Future Growth: A Plan to Deliver Economic Prosperity*.

46 Australian Trucking Association. (2009). *Consultation Submission re Heavy Vehicle Safety and Productivity Program*.

47 M. Hall and J. Frew. (2016). *Supply Chain Coordination in Queensland's Agricultural Sector, Paper for the Australasian Transport Research Forum 2016*.

48 Wide Bay Burnett region Regional Transport Plan Stakeholder Workshop 2017.

## Variations in the condition of the road network

The Wide Bay Burnett region has a large and diverse transport network that caters for the needs of residents, visitors and commercial users. Stakeholders indicate variability in the condition and age of the transport network presents a challenge in supporting future economic growth in the region.<sup>49</sup> Variability in road conditions in the Wide Bay Burnett region include a combination of unsealed and sealed roads with varying seal widths and bridge load limits. The B-Double heavy vehicle route connecting Bundaberg to Toowoomba through Booyal, Biggenden and Nanango is a good example of the variability in road conditions. This route includes sections of substandard seal widths, timber bridges, load limited and narrow bridges and roughness deficiencies.

Road condition is a contributing factor to road safety. Limited overtaking opportunities, pavement failure risks, narrow seals and unsealed roads all affect the safety of the road network. During and following weather events, flooded roads and river crossings also present safety risks. The resilience of the road network to weather events also affects the reliability of access to and within the region

for industry and the community. Stakeholders report that even during weather events there is a strong reliance on major routes where the alternative routes are unsealed or of a lesser standard.<sup>50</sup>

Variability in road conditions also impact the efficiency of freight to and from the region. Freight efficiency is dependent on the weakest link in the transport connection between production and market. These weakest links are often the 'first and last mile' that provide a connection for industry to the highway network, but also can be associated with narrow seals and bridge load limits on higher order roads. These issues restrict the size of vehicles that can be used to transport freight and limits the use of HPVs. HPVs deliver greatest benefit if they can be used for the entire door to door journey as the costs of breaking down and assembling vehicles can easily exceed line haul savings if HPVs cannot be used for the whole journey.

The upgrade of roads, outside of minor works and maintenance, requires adherence to modern design standards applicable at a state-wide level.<sup>51</sup> To meet current design standards, projects such as widening and strengthening works can have a high cost such that sourcing funds to carry out improvement works can be challenging.



Wide Bay Creek bridge before replacement under the Regional Bridge Replacement Program

<sup>49</sup> M. Hall and J. Frew. (2016). *Supply Chain Coordination in Queensland's Agricultural Sector, Paper for the Australasian Transport Research Forum 2016*.

<sup>50</sup> Wide Bay Burnett Region Regional Transport Plan Stakeholder Workshop 2017.

<sup>51</sup> Austroads Ltd. (2015). *Guide to Road Design*.

## Network resilience

Transport network resilience was a key issue raised at the *Wide Bay Burnett Regional Transport Plan* stakeholder workshop.<sup>52</sup> Resilience is the ability of the transport system to retain performance during a disaster, or return to a normal state of operation (or a desired level of functioning) quickly following a disaster. Poor resilience prolongs disruptions for transport network users impacting reliability, accessibility, travel time and the efficient movement of freight. Where damage to the transport network occurs due to a weather event, these impacts continue as network restrictions are in place while road works are carried out to address damage.

Stakeholders identify that during some weather events, many routes across the transport network close or are affected by flooded waterways requiring road users to seek out alternative routes. The ability to access and move around the Bundaberg area is significantly impacted by flooding due to large rainfall events, as experienced in 2013 and 2017. The Bundaberg 10 Year Flood Action Plan was developed by the state government in collaboration with

### Transport and Climate Change

The *Queensland Climate Transition Strategy* outlines how the state propose to prepare for the transition to zero emissions industries of the future. Much of what Queenslanders said in the strategy about the future relates to transport:

- the future should be powered by clean and renewable energy and technology
- we need low-carbon construction, infrastructure and transport systems
- key opportunities are in renewable energy, battery and power storage, cleaner technologies and electric vehicle industries
- improve public transport systems to be low-emission, well-maintained, affordable, reliable, frequent and integrated.

Action 2.5 of the Strategy identifies that the Government will develop a Zero Net Emissions Transport Roadmap. This will consider better integration of transport policy with land use planning to reduce travel demand and optimise public and active transport infrastructure and services. It will also look at ways to reduce emissions from private, passenger and freight transport, such as through improved vehicle and fuel efficiency, technology and innovation, and fuel shift.

Bundaberg Regional Council in response to these events. Cherbourg can also be isolated during weather events with no alternative routes around flood affected areas. Delayed or non-existent signage on closed or flooded roads was also indicated as an issue that can contribute to road users making poor route choice decisions.

Several district and local network roads in the region such as Tin Can Bay Road – Cooloola Coast Road and Wide Bay Highway – Baulpe Woolooga Road, provide alternative routes for when the Bruce Highway is closed due to a weather event or crash. Although this provides some resilience to the network by moving traffic past the blockage, these routes are not designed for high traffic volumes and heavy vehicle movements.

Closures can also affect the rail network. On several occasions, the North Coast line has been closed due to flooding. For example, Cyclone Oswald in 2013 resulted in the closure of the North Coast line within the Wide Bay Burnett Region.<sup>53</sup> Closures along the North Coast line in other regions also affect rail operations in the Wide Bay Burnett region.

Transport network resilience is particularly important for providing safe emergency response access immediately after a disaster event to allow first responders to address damage and community impacts. Routes with higher flood immunity, alternative routes and other transport modes (such as air) provide options for disaster management planning and response.

### Changing demographics

Australia's aging population presents several challenges to productivity and economic growth and is placing increasing demand on health and welfare services. Regional and rural populations are especially impacted by an aging population due in large to the geographic dispersion and supply of essential services such as health care. Travel distances can also be significant for residents requiring specialist treatment. Currently, the region's proportion of residents aged over 65 comprises 25 per cent of the population, much higher than the Queensland average (15 per cent). Hervey Bay has a higher concentration of people over 65 with 28.1 per cent<sup>54</sup> which aligns to its status as a popular retirement destination. Current projections indicate by 2036 the proportion of the region's population over 65 will increase to over 30 per cent.<sup>55</sup>

2017–2018, data indicates that Bundaberg (23.1 per cent), Fraser Coast (26.3 per cent), Gympie (22.4 per cent), North Burnett (23.5 per cent) and South Burnett (22.8 per cent) have a higher proportion of population over 65 than Queensland's 15 per cent average.<sup>54</sup>

52 Wide Bay Burnett region Regional Transport Plan Stakeholder Workshop 2017.

53 Queensland Rail. (2013). *Annual and financial report 2012-13*. [https://www.queenslandrail.com.au/about%20us/Documents/FY12\\_13%20Annual%20Report\\_5413T4192\\_Parliamentary%20tabled%20version.pdf](https://www.queenslandrail.com.au/about%20us/Documents/FY12_13%20Annual%20Report_5413T4192_Parliamentary%20tabled%20version.pdf).

54 Australian Bureau of Statistics. (2019). *Regional Population by Age and Sex, Australia, 2018 (Catalogue No. 3235.0)*.

55 Australian Bureau of Statistics. (2019). Projected population (Medium series), by five-year age group, Wide Bay Statistical Areas Level 4, 2016(a) and 2041. Retrieved from <http://www.qgso.qld.gov.au/subjects/demography/population-projections/tables/proj-pop-age-group-sex-sa4-qld/index.php>.

The provision of suitable transport services for the increasing number of aged persons in the region is essential. Health, physical ability and willingness can be barriers to an aged persons' mobility.<sup>56</sup> Accordingly, affordable transport to access essential services within and external to the region is a key consideration in providing for an aging population. An absence of public or community transport services and inadequate accessible pathways and infrastructure can create a mobility disadvantage for older people that can lead to increasing social isolation and negative physical and mental health impacts.<sup>57</sup>

## Reliance on road freight

The region relies on the road network for the transport of essential goods to communities and for the efficient movement of freight to market within and external to the region. Due to the proximity of the region to South East Queensland and the relative flexibility and cost of road freight, the movement of freight by rail is largely focussed on movements through the region rather than from within.

The preference of road over rail to meet freight movement needs is a statewide trend. The continued preference of road over rail impacts the region with high volumes of road freight passing through the region where rail is a

potential alternative. Factors contributing to the decline in rail freight include innovation in the road transport industry which has resulted in road freight becoming more competitive, reliable, flexible and responsive than rail.<sup>58</sup> Continued preference of road-based transport may accelerate pavement damage, increase road safety risks and increase road maintenance costs for state and local government.

For the Bundaberg area, the fragmentation and diminishing use of the cane rail network is resulting in an increase in road transport to move sugar cane from farms to mill. This is due to the changing nature of agriculture in the region and a shift away from sugar cane farming to other agricultural production particularly small crops.

The proposed extension of the cane railway by Isis Mill is opposing this trend. The proposed extension involves three stages of development which plans to utilise existing rail corridor from Cordalba to Booyal and Booyal to Gayndah.<sup>59</sup>

Challenges for the agricultural sector in the efficient allocation of freight to rail services include a lack of coordination amongst key stakeholders, suitability of the current agricultural rail network for freight services (such as the cane rail network), seasonal nature of products and comparative costs of rail and road freight.<sup>60</sup>



Heavy vehicle on roundabout connecting Queen Street and Fairymead Road, North Bundaberg

- 56 Currie E., Stanley J. and Stanley J. (Eds.). (2007). *No Way to Go: Transport and Social Disadvantage in Australian Communities*. Monash University Publishing.
- 57 Council of the Aging, NSW. (2016). *Inquiry into access to transport for seniors and disadvantaged people in rural and regional NSW*. COTA NSW Submission for the Legislative Assembly Committee on Community Services.
- 58 Transport, Housing and Local Government Committee. (2014). *Rail Freight Use by the Agriculture and Livestock Industries*. Queensland Parliament.
- 59 Bundaberg Regional Council. (2017, June 7). *Council Considers Mill Request for Extension of Cane Tramline [Media release]*. Retrieved from <https://www.bundaberg.qld.gov.au/news/2017/06/07/council-considers-mill-request-extension-cane-tramline>.
- 60 Hall, M and Frew J. (2016). *Supply Chain Coordination in Queensland's Agriculture Sector*. Australasian Transport Research Forum 2016, Melbourne, 16-18 November 2016.

## Funding, planning and project assessment

The region's transport network is a combination of national, state and local government owned and managed infrastructure.

The development, upgrade and maintenance of the region's transport network is essential in delivering regional transport priorities. Attracting investment can be a challenge, particularly when comparing traffic volumes on rural and remote roads to that of urban roads. Alternative investment decision making tools could be utilised to augment traditional cost-benefit analysis techniques where economic return is often difficult to ascertain. In this regard, CSIRO has developed a Network Strategic Investment Tool (TraNSIT) to analyse transport and logistic options for agriculture to identify potential cost savings and Austroads have also released a tool designed to identify and support investment in 'Life Line' freight routes.<sup>61,62</sup>

Another challenge for the transport network in the Wide Bay Burnett region relates to submissions and assessment of the Australian Government's National Disaster Program. Following a disaster event, such as a cyclone or major flood, Commonwealth assistance is provided through Natural Disaster Program to reconstruct the affected network to pre-disaster standards through permitted design standards. Selected betterment projects prioritised and funded through Natural Disaster Program could improve the resilience of the network.

Local government transport infrastructure is vital to the connectivity of the region. For the Wide Bay Burnett region, local governments own and manage airports and manage approximately 15,479 kilometres of road or 84 per cent of the region's road network.<sup>63,64</sup> Regional and rural local governments, particularly those without major populations such as North Burnett, Cherbourg and South Burnett, have a limited rates base to fund essential services, including the management of the transport network. Queensland and Australian Government programs are essential in assisting local governments in the delivery of services.

The Wide Bay Burnett Regional Roads and Transport Group, under the Road and Transport Alliance, provides a forum in which local government and Transport and Main Roads can work together to decide transport priorities and allocate Transport Infrastructure Development Scheme (TIDS) funding taking a 'one network' approach.

## 3.3 Opportunities

### Growth in agriculture

The Wide Bay Burnett region has highly productive agricultural land, with agricultural production across the region accounting for 11 per cent of Queensland's total.<sup>65</sup> The region has a diverse agricultural base including sugarcane, fruit and nuts, vegetables, pork, feedlots, beef and timber industries. Pig livestock and products are one of the region's largest agricultural commodities with Kingaroy the only dedicated pig processing facility in the state. Sugarcane is a dominant crop in the Wide Bay Burnett region, with an established sugarcane supply chain which includes dedicated transport infrastructure and processing facilities. Sugar is the primary commodity exported through the Port of Bundaberg.<sup>66</sup> Future opportunities to expand the sugar industry in the region exist through proposals such as the Gayndah Regional Irrigation (GRID) program, including plans to invest in sugarcane railway infrastructure. The Wide Bay Burnett region accounts for the production of 27 per cent of Queensland's total fruit and vegetable production (excluding grapes).<sup>65</sup> Fresh produce grown in the region targets both domestic and international markets, as well as supplying food processing and value adding operations.<sup>67</sup>

There are five areas across the region (as shown in Figure 5) that are identified as important agricultural areas due to their strategic significance to the region or state — Northern and Inland Burnett, Bundaberg and Childers, Gayndah and Mundubbera as well as the Mary Valley, the Fraser Coast and South Burnett.<sup>68</sup>

The *Wide Bay Burnett Agricultural Land Audit* identified opportunities for the Wide Bay Burnett region's agricultural sector. The diversity and capacity for agricultural production, coupled with the region's proximity to high growth domestic and international markets will enable the region to respond to increased demand for fresh fruit and vegetables as domestic markets and export opportunities increase. There are also opportunities to expand local value-adding to products (for example, ready-to-cook packaging of fresh vegetables and nut products) and the further processing of crops (for example, sweet potatoes processed into potato chips).<sup>68</sup> The efficient movement of produce from farm to processing facilities and markets underpin these opportunities.

61 CSIRO. (2016). *Transport Network Strategic Investment Tool (TraNSIT)*.

62 Austroads. (2016, Aug 12). *Supporting 'Life Line' freight routes [Media release]*. <https://austroads.com.au/latest-news/supporting-life-line-freight-routes>.

63 Department of Transport and Main Roads. (2018). *Annual Report*.

64 Department of Local Government, Racing and Multicultural Affairs. (2019). *Queensland Local Government Comparative Information 2017–18*.

65 Australian Bureau of Statistics. (2019). *Value of Agricultural Commodities Produced, Australia, 2017-18 (Catalogue No. 7503.0)*.

66 Gladstone Ports Corporation. (2019). *Origin & Destination of Cargoes Totals for Financial Year 2019 (Bundaberg)*. Retrieved from <http://contents.gpcl.com.au/viewcontent/CargoComparisonsSelection/CargoComparisonsSelection.aspx>.

67 Trade and Investment Queensland. (2016). *Wide Bay Burnett, Queensland, Australia Queensland's food bowl*. [https://www.daf.qld.gov.au/\\_\\_data/assets/pdf\\_file/0007/1383928/State-of-Agriculture-Report.pdf](https://www.daf.qld.gov.au/__data/assets/pdf_file/0007/1383928/State-of-Agriculture-Report.pdf).

68 State of Queensland. (2013). *Queensland Agricultural Land Audit*.



The export of time sensitive produce from the region is an opportunity with access to national and international air freight services. Toowoomba’s Wellcamp Airport is in close proximity to the inland areas of the region and offers weekly international freight flights to Asia and links to southern centres.<sup>69</sup> Bundaberg and Hervey Bay airports also have potential to offer domestic air-freight services to support goods with a time imperative for delivery, such as cut flowers and fresh seafood.<sup>70</sup> The Port of Bundaberg may also offer improved efficiency in the transfer of time sensitive agricultural products to market with alternative road/rail linkages to the port. North and South Burnett Regional Council areas are particularly well situated to inter regional, interstate and international markets via Inland Rail and the Wellcamp Airport. Efficient and reliable connections to these areas for freight will be essential into the future for these opportunities to be fully realised.<sup>71</sup>

According to the *Wide Bay Burnett Agricultural Land Audit*, there is significant potential for increased forestry production in the region. Growth in the industry is supported by potential access to existing timber processing facilities, domestic markets and port facilities (Port of Bundaberg); ensuring the transport network is reliable and resilient, with good accessibility and connectivity, will be crucial for the long-term future growth of the region’s timber and forestry industry.<sup>72</sup> A key example of potential growth in agricultural, extractive industries (gravel) and forestry production is in the Mary Valley agricultural area. Better freight access along minor state controlled roads such as the Mary Vally Road, may help facilitate growth in this area and could reduce any conflicts between freight and commuter traffic on the Bruce Highway.

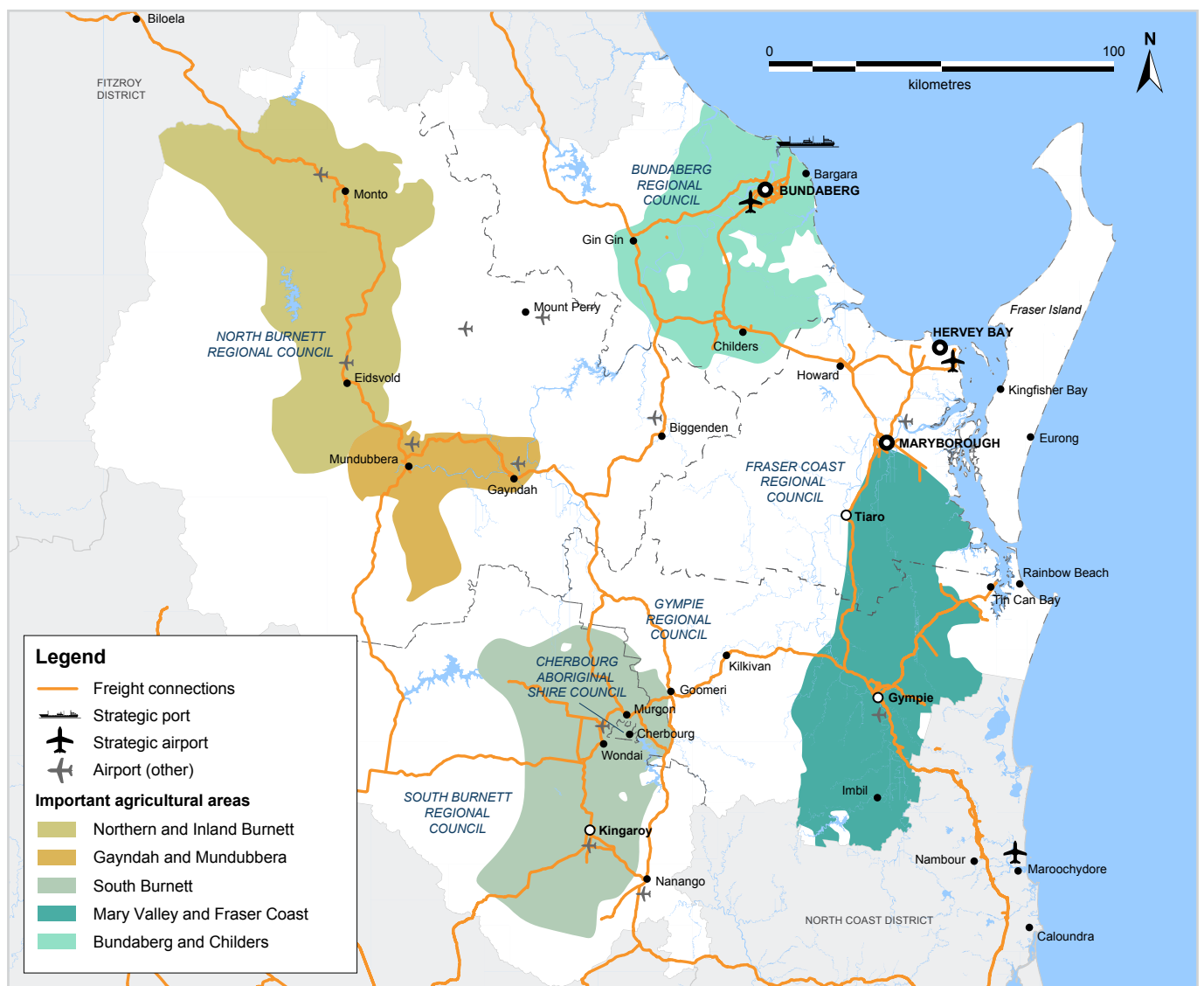


Figure 5: Important agricultural areas in the Wide Bay Burnett region<sup>64</sup>

69 Toowoomba Wellcamp Airport. (2019). *I fly Toowoomba*. <https://www.wellcamp.com.au/passengers/fly/i-fly-toowoomba/>.

70 Wide Bay Burnett Regional Organisation of Councils. (2016). *Regional Infrastructure and Investment Strategy*.

71 Department of Local Government and Planning. (2011). *Wide Bay Burnett Regional Plan*.

72 Department of Agriculture and Fisheries. (2016). *Queensland Agricultural Land Audit*.

## Tourism growth

The Wide Bay Burnett region is recognised as the gateway to the Southern Great Barrier Reef, is home to the Fraser Island World Heritage Area and a range of heritage, coastal, hinterland and rural towns.<sup>73</sup> Destinations include coastal settlements such as Bundaberg City and Hervey Bay and small coastal towns including Mon Repos, Woodgate, Elliott Heads, Bargara, Tin Can Bay, Rainbow Beach and Burrum Heads. The western hinterland area extending from Monto through Eidsvold, Mundubbera, Gayndah, Biggenden and Childers offers recreational activity around gorges, dams, lakes and rivers, farms and heritage towns. In the South Burnett, key tourism attractions include the Bunya Mountains, Kingaroy, Boondooma and Bjelke Peterson Dams. Maryborough attracts visitors for its historic buildings and extensive rail heritage.<sup>74</sup> Tourism in the region is largely driven by domestic visitation, with inter and intra-state visitors accounting for around 90 per cent of all visitors.<sup>75</sup>

Self-drive tourism is on the rise, with increasing numbers of 'grey nomads', caravans and recreational vehicles frequenting the region.<sup>76</sup> The region's tourism sector is targeted at the driving holiday market and nature-based and rural-themed tourist experiences. The self-drive tourism market encompasses those that travel long distances by road from other regions in Australia and those that fly into the region and then hire a vehicle to explore the area.

The Queensland Government, through the Business Queensland website, identifies the significant benefits self-drive tourism offers to business and communities in regional and rural areas. Tourists purchase local tourism



*Mystery Craters, South Kolan*

products and services as well as basic travel necessities such as food, fuel and other supplies, contributing to a range of benefits to local economies including:

- increased profits
- job growth
- opportunities for new business start-up
- opportunities for business collaboration
- addressing skills shortages by tapping into the skills of temporary visitors.<sup>77</sup>

Although a significant opportunity for the region, growth in self-drive tourism is also a challenge, particularly for the road network in catering for increased demand and conflicting network users. Heavy vehicle routes and tourist routes utilise common roads. High volumes of private vehicles (with many towing caravans) can interfere with the efficient movement of freight, particularly where limited overtaking lanes are available. Variable road conditions and high traffic volumes can result in travel time delays and safety risks. Tourist destinations such as Fraser Island and Hervey Bay experience a significant influx of visitors during holiday periods resulting in reduced travel time reliability in some isolated sections of the road network.<sup>74</sup>

Fraser Island attracts thousands of tourists driving four wheel drive vehicles each year including both domestic and international visitors. Between 2014 and 2018, 33 crashes were reported with one of these fatal. Of these, 67 per cent of these were single vehicle accidents.<sup>78</sup> Tourist skill and awareness of the unique driving conditions associated with beach and off road driving is important to the safety of visitors to Fraser Island.

Safety and condition of the road network, tourism signage and the provision of rest stops (separate from rest stops for freight vehicles) and scenic stops are important aspects in the ongoing development of the self-drive tourism sector and is especially important to smaller communities seeking to encourage tourism. These factors contribute to a positive experience as does improved mobile network coverage for safety, navigation and to access transport network real time information. Tourist education in driving to the unique conditions of regional roads and interacting with freight vehicles (including oversize overmass vehicles) is an opportunity to improve safety for self-drive tourists.

<sup>73</sup> Department of Local Government and Planning. (2011). *Wide Bay Burnett Regional Plan*.

<sup>74</sup> Trade and Investment Queensland. (2009). *Bundaberg-Fraser Coast Tourism Opportunity Plan 2009–2019*.

<sup>75</sup> Tourism Research Australia (2017). *Local Government Area Profiles Wide Bay Burnett*. [www.tra.gov.au/Regional/local-government-area-profiles](http://www.tra.gov.au/Regional/local-government-area-profiles).

<sup>76</sup> Grey nomads refer to retired people who travel independently for an extended period in a caravan or motor home. Heather J. Gibson, Jerome F. Singleton. (2012). *Leisure and Aging: Theory and Practice*.

<sup>77</sup> Business Queensland. (2019). *Drive tourism in Queensland*. [www.business.qld.gov.au/industries/hospitality-tourism-sport/tourism/qld/drive/qld](http://www.business.qld.gov.au/industries/hospitality-tourism-sport/tourism/qld/drive/qld).

<sup>78</sup> Queensland Government. (2019). *Crash data from Queensland roads*. Retrieved from <https://www.data.qld.gov.au/dataset/crash-data-from-queensland-roads>.

## Other industries

### Mining

Current mineral production and identified resources within the Wide Bay Burnett region include bauxite, gold, silver, colbalt, kaolin, limestone, coal, ilmenite, apatite, scandium, feldspar, siltstone, silica sand, black granite and clay, with quarrying and sand extraction activities key components of the region's mining activity.<sup>79</sup>

Significant mineral exploration activity is occurring, particularly in North Burnett (Biggenden, Gayndah, Mundubbera and Monto), while coal resource exploration is occurring in Tiaro, Monto and North of Bundaberg. The Surat Basin Rail corridor aims to enable coal mining in the Surat basin and represents a key economic opportunity for the region, particularly in North Burnett.<sup>80</sup> A deposit of thermal coal exists south of Kingaroy which has been the subject of investigations to establish a coal mine. The emergence of the liquefied natural gas exporting industry through the Curtis Island facilities at Gladstone have also resulted in growing industry interest in exploration for coal seam gas in the Surat Basin and within the Wide Bay Burnett region, as industry looks to ensure a sufficient supply of gas to meet demand.

Tarong Power Station and mine supply a high percentage of the State's energy needs and is a significant contributor to the region's economy. Transport networks will play an important role in supporting future development of mineral and coal resources in the region. Investigations and approval processes for any future mineral or coal extraction activities will need to consider transport networks to ensure impacts on the transport system are managed, and new or upgraded infrastructure is provided to support these activities.<sup>81</sup>

### Renewable energy

The Queensland Government is committed to growing the state's renewable energy sector and has stated its intention to achieve 50 per cent renewable energy generation in Queensland by 2030.<sup>82</sup> The Coopers Gap wind farm is under construction. The \$850 million wind farm within the South Burnett and Western Downs local government areas could generate up to 453 Mega Watts (MW) of electricity and could potentially power more than 264,000 homes by as early as 2020.<sup>83,84</sup> Now under construction, the wind farm will require the transport of components of the wind turbines, with the most challenging being the 70 metre blades from the Port of Brisbane. A route analysis study has identified a route from Port of Brisbane via Warrego Highway through Toowoomba and Dalby and then up the Bunya Highway to Niagara Road where the project site is located. For the Bunya Highway, the pavement strength and width will be an important consideration in understanding what is required to support the movement of oversize overmass freight during construction and operations.<sup>85</sup>

Gympie Regional Council has recently approved a solar farm and battery storage facility at Lower Wonga, approximately 30 kilometres north-west of Gympie adjacent to the Powerlink Woolooga Substation. The \$2 billion facility will become Australia's largest solar farm that will aim to supply 15 per cent of South East Queensland's power and bring with it 450 jobs during construction.<sup>86</sup>



*The Surat Basin Infrastructure Corridor, once built, will offer many economic opportunities for the region*

79 Department of Natural Resources and Mines. (2018). *Queensland's mineral, coal and petroleum operations and resources, 18th Edition*.

80 Wide Bay Burnett Regional Organisation of Councils (WBBROC). (2016). *Positioning the Wide Bay Burnett for Future Growth: A Plan to Deliver Economic Prosperity*.

81 MRV Tarong Basin Coal. (2016). *South Burnett Coal Project Initial Advice Statement*.

82 Department of Energy and Water Supply. (2017). *Powering Queensland Plan*.

83 Department of State Development. (2018). Cooper Gap Wind Farm - Project Overview. Retrieved 2018, December 4 from [www.statedevelopment.qld.gov.au/assessments-and-approvals/coopers-gap-wind-farm.html](http://www.statedevelopment.qld.gov.au/assessments-and-approvals/coopers-gap-wind-farm.html).

84 AGL Group. (2018). Cooper Gap Wind Farm. Retrieved 2018, December 4 from [www.agl.com.au/about-agl/how-we-source-energy/coopers-gap-wind-farm](http://www.agl.com.au/about-agl/how-we-source-energy/coopers-gap-wind-farm).

85 AECOM. (2017). *Coopers Gap Wind Farm TCO1-D Route Analysis*.

86 Atkinson B. (2017, April 19). *Queensland company lodges plan to build Australia's biggest solar farm near Gympie*. ABC NEWS. <https://www.abc.net.au/news/2017-04-19/mega-solar-farm-planned-for-gympie-qld/8451774>.

## Port of Bundaberg State Development Area

Increasing regional exports is a primary focus for the region. As detailed in the *Wide Bay Burnett Economic Development Strategy*, improvements in the capacity, cohesion and cost effectiveness of the supporting transport network, including the potential expansion of the Port of Bundaberg, could support increased demand for agricultural production and improve total supply chain efficiency.<sup>87</sup> In the short term, trade volume increases could come from raw sugar and related products.<sup>88</sup> In the long term, opportunities may arise at the Port of Bundaberg as capacity is reached at the Port of Gladstone. There is potential for major minerals exploration in the North Burnett area and some of these minerals could ultimately be exported through the Port of Bundaberg.

In February 2017, the Department of State Development declared a 6076 hectare State Development Area for the Port of Bundaberg. The site includes land proposed for port related industrial uses and sugar cane cultivation and rural landholdings. The State Development Area was developed in response to a demand for growing industrial activities that could help to facilitate economic growth in the region.<sup>89</sup>

While the Bundaberg region is currently an agricultural centre, its further growth as a major regional servicing centre will be assisted by the potential development of mineral deposits within the Wide Bay Burnett region and export opportunities through the Port of Bundaberg.<sup>90</sup>

Independent modelling for the Port of Bundaberg suggests that productivity could increase from a base of 0.5 million tonnes per annum (mtpa) to over 1mtpa in the medium term with the opportunity to expand into bulk commodities in the future on the northern bank. The development also provides opportunities to develop and diversify the industry base within Bundaberg. This may include, support services for the agricultural industry, machinery and equipment management, specialised manufacturing and metal product manufacturing and fabrication.<sup>91</sup>

The Bundaberg Port Gas Pipeline project was commissioned in February 2017.<sup>92</sup> The project will significantly enhance the distribution and gas capacity for the Port of Bundaberg attracting businesses to the developing hub and supports the new Knauf plasterboard facility.<sup>93,94</sup>



Bundaberg State Development Area

87 Department of Local Government and Planning. (2011). *Wide Bay Burnett Regional Plan*.

88 Buningham and Associates for the Port of Bundaberg. (2014). *Port of Bundaberg – A review of potential trade and port development opportunities*.

89 Department of State Development. (2017). *Bundaberg State Development Area*. [www.statedevelopment.qld.gov.au/coordinator-general/bundaberg-state-development-area.html](http://www.statedevelopment.qld.gov.au/coordinator-general/bundaberg-state-development-area.html).

90 Department of State Development. (2016). *Investigation into the potential for a State Development Area around the Port of Bundaberg*.

91 The Queensland Government Coordinator General. (2016). *Investigation into the potential for a State Development Area around the Port of Bundaberg*.

92 Fabri E. (2017, Feb 3). Bundaberg gas pipeline: reaching milestones. *The Australian Oil & Gas Review*. [www.australianenergyreview.com.au/bundaberg-gas-pipeline-reaching-milestones/](http://www.australianenergyreview.com.au/bundaberg-gas-pipeline-reaching-milestones/).

93 The Office of the Coordinator General. (2017). *Wide Bay Burnett Factsheet*.

94 Department of the Premier and Cabinet. (2016, Mar 15). *Construction set to begin on Bundaberg gas pipeline*. [Media release]. <http://statements.qld.gov.au/Statement/2016/3/15/construction-set-to-begin-on-bundaberg-gas-pipeline>.

## Transport infrastructure developments

There are a number of recent and potential major transport and supply chain infrastructure developments occurring around Toowoomba and the Darling Downs that offer new opportunities for the Wide Bay Burnett region.

The opening of Wellcamp Airport has provided improved access to domestic and international air freight capabilities for the inland areas of the region. The airport also offers passenger services to Townsville, Cairns, Sydney and Melbourne providing improved accessibility for the Wide Bay Burnett region.<sup>95</sup>

Connecting supply chains to Inland Rail is also a potential opportunity. Inland Rail is the largest freight rail infrastructure project in Australia. The new 1700km line will complete the inland freight rail connection between Melbourne and Brisbane via regional Victoria, New South Wales and Queensland.<sup>96</sup> By connecting the road freight network to Inland Rail, access to efficient movement of goods to Melbourne and Brisbane markets could be achieved. The region also benefits from the Sunshine Coast Airport and the Port of Brisbane, which is a major distribution hub for the State.

### Inter-regional opportunities

The Toowoomba Trade Gateway includes the Charlton Logistics Park & Witmack Industry Park, Wellcamp Airport, Wellcamp Business Park and InterLinkSQ.

Its strategic location at the gateway to the west and at the intersection of two national highways coupled with long-term investments such as the Melbourne to Brisbane Inland Rail, will further strengthen this regional hub as a significant inland port.

## Active transport and cycling tourism

Many trips for work, shopping, education, recreation and business in the region which are currently taken by car could be walked or cycled. Opportunities exist to provide more accessible active transport infrastructure that supports the mobility needs of the region's aging population. Fraser Coast Regional Council for example, has received a \$66,000 grant from the Department of Transport and Main Roads to conduct a feasibility study of the Mary to the Bay Rail Trail which uses a former railway alignment to provide dedicated infrastructure suitable for use by mobility scooters, or for active transport.<sup>97,98</sup> Active transport infrastructure also provides opportunities for younger residents to travel independently or for those without access to a car to access education and employment. There is an opportunity to provide a better connection between Cherbourg and Murgon to provide improved access to employment and educational opportunities for the residents of Cherbourg.

Disused rail corridors provide an opportunity for the region as recreational active transport links. Potential future links could include Bundaberg to Gin Gin and Mount Perry, Bundaberg to Bargara, the old Bruce Highway (Sunshine Coast/Gympie), the Gayndah Heritage Rail Trail and extending existing rail trails such as the Mary to the Bay Rail Trail.

Cycling tourism, although still attracting a small market share, is an emerging trend with more domestic and international travellers looking for experiences that involve adventure and help maintain a healthy lifestyle.<sup>99</sup> Continued investment in Wide Bay Burnett region's active transport networks and providing information targeted at tourists on suggested routes and itineraries, may assist in attracting cycling tourism to the region.

Kingaroy, Gayndah, Tin Can Bay/Cooloolo, Bundaberg and Bundaberg Rural have a higher than average number of residents completing trips by walking and cycling than the average for Queensland.<sup>100</sup> While many townships have provided local level infrastructure to facilitate active transport within the community, there is the opportunity to expand on this to further encourage the high active transport mode share across the region.

95 Toowoomba Wellcamp Airport. (2019). *Flight status*. <https://www.wellcamp.com.au/passengers/fly/flight-status/>.

96 Australian Rail Track Corporation (ARTC). (2019). *Inland Rail*. <https://inlandrail.artc.com.au/>.

97 Fraser Coast Regional Council (2018, Nov 29). *Mary to the Bay Rail Trail Feasibility Study*. [Media release]. [https://www.frasercoast.qld.gov.au/home/-/journal\\_content/56/4362881/45647996?p\\_p\\_auth=3MsPgW1Q&\\_56\\_showArticleTitleInPortlet=true](https://www.frasercoast.qld.gov.au/home/-/journal_content/56/4362881/45647996?p_p_auth=3MsPgW1Q&_56_showArticleTitleInPortlet=true).

98 Fraser Coast Regional Council. (2019, Jun 26). *Mary to Bay Rail Trail Development Plan adopted*. [Media release].

99 Tourism Research Australia. (2015). *Growing Cycling Tourism in Victoria- Summary*.

100 Department of Transport and Main Roads. (2012). *Queensland Travel Survey*. Retrieved from <https://www.publications.qld.gov.au/dataset/queensland-travel-survey>.

## Better use of existing infrastructure

Through integration, coordination and targeted infrastructure upgrades there are opportunities to achieve improved outcomes through existing infrastructure. This is in line with the *State Infrastructure Plan* where there is a clear direction to consider non infrastructure solutions to 'better use' and 'improve existing' infrastructure to effectively delay the need for new infrastructure.<sup>101</sup> These include:

- improved collaboration and coordination between producers to achieve efficiencies in the movement of freight through establishing a regional or council led freight coordination initiative. This is likely to provide transport operators with better visibility of commercial opportunities arising from availability of a larger freight task originating from fewer locations.
- where possible utilise existing infrastructure when planning to progress delivery of rail trails and iconic cycle routes that support cycling tourism in the region.
- improving service performance by influencing demand—demand management in urban areas, parking restrictions during peak periods to maximise existing lane capacities, use of digital technologies such as Intelligent Transportation Systems (ITS) to improve signal coordination in alignment with peak demands, use of high occupancy vehicle lanes (T<sub>3</sub> lanes - cars can only drive in these lanes where there are 3 or more people in the car).

## Advancements in technology

Advancements in telecommunications and other technologies provide an opportunity to improve connectivity for communities in the region. Although mobile networks in the region do not provide complete coverage, communications technology can deliver a range of benefits to the transport system and its users.

Technology offers an opportunity for improved user experiences through the provision of real-time information, which reduces information asymmetries and improves the reliability and convenience of travel. Real-time information could provide road condition, road work and incident information to road users in advance of travel. This would allow users, including the freight industry, tourists and the local community, to retime their journey or select an alternative route, reducing delays and improving the efficiency of travel.

Cooperative Intelligent Transport Systems (C-ITS) are an emerging area that can be applied to motor vehicles and roadside infrastructure to enable direct two-way communication between them.<sup>102</sup> The integration of infrastructure and vehicles can be applied to improve safety outcomes at traffic lights and level crossings by alerting users to potential emerging safety issues. Dedicated Short Range Communication (DSRC) is an example of a C-ITS which has been piloted by LaTrobe University by providing vehicles and drivers a 360-degree level of awareness of the surrounding traffic situation.



Fraser Venture barge unloading at Wanggoolba Creek, Fraser Island

<sup>101</sup> Department of Infrastructure, Local Government and Planning. (2016). *State Infrastructure Plan Part A: Strategy*.

<sup>102</sup> Austroads, (2017). (C-ITS). *Cooperative ITS Strategic Plan*. <https://austroads.com.au/publications/registration-and-licensing/ap-r413-12>.

Wireless communication between trains approaching a level crossing and vehicles approaching the crossing can notify drivers of a collision and provide a warning message to the driver's vehicle.<sup>103</sup>

A recent study on the Bruce Highway between Pine Rivers, on the northern outskirts of Brisbane and Cairns, considered current gaps and opportunities for C-ITS investment to improve road safety and travel reliability.<sup>104</sup> The study identified the benefits of additional C-ITS infrastructure that could monitor flood prone areas and provide improved fore warning of incidents on the highway.

Technological advancements have the potential to change the way freight and people move and the type of vehicles travelling on the network. Low and zero emission vehicles, and cooperative and automated vehicles (AV) are examples of technologies that are currently undergoing rapid advancement. In Wide Bay Burnett, opportunities exist to extend the availability of charging stations for low and zero emission vehicles in important coastal tourist destinations such as Bargara, and inland townships such as Kingaroy and Gayndah. Potential benefits of using AV in freight transport services include lower costs for vehicles requiring no driver and reduction in fuel cost and increased safety, in terms of a reduction in driver error and greater opportunity for time shifting.<sup>105</sup>

For regional areas, a significant challenge to the deployment of AVs is the provision of supporting infrastructure which could include requirements for physical infrastructure such as signage and road marking and digital infrastructure such as mapping data and communications infrastructure.<sup>106</sup> Drones, otherwise known as unmanned aerial vehicles (UAV) have been used as an emerging technology in supply chain operations. UAV's have the potential to make some tasks that were previously either very time-consuming or labour intensive more efficient and less expensive, while significantly improving worker safety when deployed. However, use of drones in transportation requires proper tools for reliable, safe and efficient operation.<sup>107</sup>

Technology has also allowed for improved and automated data collection and vehicle tracking tools, providing the opportunity to more accurately and cost effectively understand and plan for freight movements and travel demand.

## The region's lifestyle

With advancements in technology and the knowledge economy, it is becoming increasingly possible to work from anywhere. This technology allows individuals to work, access distance education, seek healthcare and socialise with others regardless of location.<sup>108</sup> Housing affordability, amenity and natural values can be important factors in choosing where to settle, as can access to retail and entertainment options. The region's natural landscape and location, close to South East Queensland as well as their key centres such as Maryborough, Hervey Bay, Bundaberg, Kingaroy and Gympie, offers residents an idyllic lifestyle providing the opportunity for the region to attract a more diverse population.

The region's outdoor lifestyle including recreational boating, is a significant draw card for residents, tourists, people living in neighbouring regions as well as people considering a sea change. There are approximately 59 boat launching facilities across the region, with more than 100 boat launch lanes, all with variable standards. With the increasing demand to use these facilities, there is an opportunity to improve current boating facilities to ensure future community demands can be adequately supported.



Boat on shore at Elliott Heads

103 LaTrobe University. (2013). Improving safety at level crossings. [www.latrobe.edu.au/technology-infusion/innovation/transport/improving-safety-at-level-crossings](http://www.latrobe.edu.au/technology-infusion/innovation/transport/improving-safety-at-level-crossings).

104 Aurecon. (2017). *Bruce Highway Road Operational Improvement Project Concept of Operations*.

105 Browne M. (2016, Oct 27). *Freight Transport Services and Autonomous Vehicles*. Autonomous transport systems – the good, the bad and the unknown. University of Gothenburg.

106 Commonwealth of Australia. (2017). *Social issues relating to land-based automated vehicles in Australia*. [https://parlinfo.aph.gov.au/parlInfo/download/committees/reportrep/024056/toc\\_pdf/Socialissuesrelatingtoland-basedautomatedvehiclesinAustralia.pdf;fileType=application%2Fpdf](https://parlinfo.aph.gov.au/parlInfo/download/committees/reportrep/024056/toc_pdf/Socialissuesrelatingtoland-basedautomatedvehiclesinAustralia.pdf;fileType=application%2Fpdf).

107 Dempsey J. (2017). *Rise of Drone Use in Transportation and Logistics Requires Proper Tools for Reliable, Safe and Efficient Operation*. <https://na.panasonic.com/us/trends/rise-drone-use-transportation-and-logistics-requires-proper-tools-reliable-safe-and>.

108 National Broadband Network. (2016). *Super Connected Lifestyle Locations*.



*Rural road, Gayndah*





# 4. Priorities and actions

Priorities set the direction for the region's transport network over the next 15 years. The four priorities established through the *Wide Bay Burnett Regional Transport Plan* development process are:

- **Priority 1:** An affordable and integrated transport network that improves accessibility and mobility for all residents and visitors.
- **Priority 2:** A transport system that supports economic growth, productivity and diversification, by facilitating the efficient movement of people and freight.
- **Priority 3:** A transport network that enables people to travel safely and feel secure.
- **Priority 4:** A sustainable transport system that is resilient to major incidents or weather events and is compatible with the environmental and lifestyle values of the region.

Actions are identified under each of the priorities. These are grouped into short-term and medium/long-term. Short-term actions identify the first steps needed to achieve the transport objectives and regional goals over the indicative 15-year life of the Plan. Medium/long-term actions identify possible responses to emerging or potential future transport planning needs.

Actions will be reviewed and updated periodically as part of the implementation, monitoring and review process described in Chapter 5.

Actions are primarily planning and partnership initiatives to be further scoped, defined and programmed in collaboration with partners and stakeholders. Transport and Main Roads through its planning, investment, management, operations and maintenance of the transport network gives priority to improving safety for our customers.

Actions and the subsequent project recommendations that follow, will inform future updates of investment plans and programs such as the *State Infrastructure Plan, Queensland Transport and Roads Investment Program* (QTRIP) and other relevant service and infrastructure investment strategies across all levels of government and transport service providers.

Each action under the four priorities are linked to transport objectives and measures of success. Transport objectives are key drivers for taking action. Measures of success have been selected where data to track performance is readily available. Base line data and performance metrics will be developed and used to indicate progress towards meeting the goals set out in this Plan.

Table 3 shows the relationship linking priorities, objectives and measures of success.



*Four wheel drive on beach, Seventy Five Mile Beach, Fraser Island*

Table 3: Relationship between priorities, transport objectives and measures of success

TRANSPORT SYSTEM				
The safety of all transport system customers is our primary priority as we create a single integrated transport network accessible to everyone.				
RTP PRIORITIES	PRIORITY 1 Community	PRIORITY 2 Economic development	PRIORITY 3 Safety	PRIORITY 4 Sustainability and resilience
	An affordable and integrated transport network that improves accessibility and mobility for all residents and visitors.	A transport system that supports economic growth, productivity and diversification, by facilitating the efficient movement of people and freight.	A transport network that enables people to travel safely and feel secure.	A sustainable transport system that is resilient to major incidents or weather events and is compatible with the environmental and lifestyle values of the region.
ROLE OF TRANSPORT	<p><b>Responding to the challenges of:</b></p> <ul style="list-style-type: none"> <li>accessibility and community connectivity</li> <li>changing demographics.</li> </ul> <p><b>And opportunities for:</b></p> <ul style="list-style-type: none"> <li>better use of existing infrastructure</li> <li>advances in technology</li> <li>the region's lifestyle.</li> </ul> <p><b>By taking action to:</b></p> <ul style="list-style-type: none"> <li>provide accessible and connected communities that promote healthy and inclusive lifestyles.</li> </ul>	<p><b>Responding to the challenges of:</b></p> <ul style="list-style-type: none"> <li>freight efficiency</li> <li>network condition impacts on tourism and freight</li> <li>reliance on road freight.</li> </ul> <p><b>And opportunities for:</b></p> <ul style="list-style-type: none"> <li>growth in tourism and agriculture</li> <li>accessing new transport infrastructure</li> <li>mining and renewable energy developments</li> <li>better use of existing infrastructure</li> <li>advances in technology.</li> </ul> <p><b>By taking action to:</b></p> <ul style="list-style-type: none"> <li>strengthen and grow the region's diverse and resilient economy.</li> </ul>	<p><b>Responding to the challenges of:</b></p> <ul style="list-style-type: none"> <li>transport network safety</li> <li>variability in network condition impacting on safety.</li> </ul> <p><b>And opportunities for:</b></p> <ul style="list-style-type: none"> <li>growth in key industries- tourism and agriculture</li> <li>advances in technology.</li> </ul> <p><b>By taking action to:</b></p> <ul style="list-style-type: none"> <li>promote a safe environment for all residents and visitors.</li> </ul>	<p><b>Responding to the challenges of:</b></p> <ul style="list-style-type: none"> <li>geographically dispersed population</li> <li>variability in network condition and environmental impacts on the transport network</li> <li>network resilience.</li> </ul> <p><b>And opportunities for:</b></p> <ul style="list-style-type: none"> <li>advances in technology</li> <li>active transport and cycle tourism.</li> </ul> <p><b>By taking action to:</b></p> <ul style="list-style-type: none"> <li>promote a cleaner, healthier and more liveable environment in the Wide Bay Burnett region.</li> </ul>
TRANSPORT OBJECTIVES	<p><b>1.1</b> A transport network that provides reliable access to employment, education, recreational opportunities and goods and services.</p> <p><b>1.2</b> An accessible multi-modal transport system that caters for the needs of all residents and visitors.</p>	<p><b>2.1</b> A transport system that optimises supply chain productivity through efficient links to industries and markets, within and external to the region.</p> <p><b>2.2</b> A transport system that promotes multi-modal access to key tourist destinations.</p> <p><b>2.3</b> Integrated land use and transport planning that optimises regional growth and interconnectivity between all transport modes.</p> <p><b>2.4</b> A transport network that supports the region's economic development through smart infrastructure solutions and technological advances.</p>	<p><b>3.1</b> A transport network that addresses safety deficiencies and facilitates safer interactions between all users.</p> <p><b>3.2</b> Promote awareness of safe travel behaviours for all transport network users.</p>	<p><b>4.1</b> Transport infrastructure that is resilient and reliable during incidents and weather events.</p> <p><b>4.2</b> Create a more sustainable transport system by reducing people's reliance on private vehicles and supporting more trips by walking, cycling and public transport.</p> <p><b>4.3</b> Develop a sustainable transport system that supports the environmental and lifestyle values of the region.</p>
MEASURES OF SUCCESS	<ul style="list-style-type: none"> <li>Level of transport disadvantage decreases.</li> <li>Greater access and connectivity to places, services and information.</li> </ul>	<ul style="list-style-type: none"> <li>Freight productivity improves.</li> <li>Transport supports the region's tourism economy.</li> </ul>	<ul style="list-style-type: none"> <li>Reduction in transport-related incidents, crashes, injuries and fatalities.</li> </ul>	<ul style="list-style-type: none"> <li>Reduced frequency and duration of unplanned closures.</li> <li>Proportion of people choosing to walk, cycle and take public transport increases.</li> </ul>

## 4.1 Priority 1: Community

**An affordable and integrated transport network that improves accessibility and mobility for all residents and visitors.**

### Priority 1 supports:

- the Transport Coordination Plan's objectives for community connectivity, environment and sustainability, and customer experience and affordability
- the *State Infrastructure Plan's* focus on transport infrastructure that improves prosperity and liveability by connecting regional communities with access to essential services and opportunities
- the *Wide Bay Burnett Regional Plan's* intent for the region to have vibrant, inclusive, safe, active and healthy communities, where a range of social services are accessible by all and where unique cultural heritage and diversity is acknowledged, valued and celebrated.

The liveability of communities is shaped by a combination of factors, such as the amenity of the natural and built environments, economic prosperity, social stability and equity, accessibility and educational opportunity, as well as cultural, entertainment and recreational possibilities. Transport systems play an essential role in the mobility of communities by facilitating access to employment, education, goods and services, especially health services, as well as social and entertainment opportunities.

Providing affordable, convenient and accessible connections to where people want to go is a key objective for building and operating the transport system. Different communities and customers have diverse access needs and challenges. Regardless of age, ability or income all people should have reasonable access to basic goods and services.

Private vehicle travel is the predominant mode of transport across much of the region, particularly in areas where public transport is unavailable. For the region's residents, public and active transport can improve urban amenity, provide greater travel choice, affordability and independence. Transport accessibility and choice can be improved through a range of solutions incorporating the provision of infrastructure, transport services and funding schemes.



North Burnett Transport Service bus

## Transport objectives

**Objective 1.1: A transport network that provides reliable access to employment, education, recreational opportunities and goods and services.**

Liveability and lifestyle opportunities significantly impact on where individuals choose to reside. Improving access to employment, education, areas of recreation and essential goods and services, especially health services, will strengthen the region's sense of community and liveability.

**Objective 1.2: An accessible multi-modal transport system that caters for the needs of all residents and visitors.**

The Wide Bay Burnett region is home to a diverse range of people with various transport needs. Developing, maintaining and enhancing transport infrastructure and services assists all members of the community, regardless of age, ability or personal circumstances, safely traverse the network. Mobility for residents and visitors is heavily dependent on the availability and affordability of the transport network and services, especially when travelling for long distances.

### CASE STUDY: Bike friendly Barossa<sup>109</sup>

In 2015, Barossa Council developed a cycle hub and a behaviour change initiative, encouraging increased uptake of cycling for transport and leisure for local residents and visitors to the area. These initiatives take advantage of the areas long-term commitment to bike and pedestrian-friendly town centres supported by appropriate on and off-road cycle infrastructure and connected by an increasing network of long distance sealed pedestrian and cycle shared trails.

The cycle hub is located in the town of Tanunda on the Jack Bobridge Track and Barossa Trail (previously a railway) and offers access to bicycle repair, hire and storage services, change rooms, water and local information. Shade, seating and community meeting areas complement the facility.

To encourage more trips by active transport, by both residents and tourists, Barossa Council signed up 30 bike-friendly businesses to encourage active transport.

Businesses were made aware of how cycle travel and tourism could enhance their activities and keep spending local. Bike-friendly businesses have provided free water and discounts on products or services as well as bicycle parking. Council has also developed four Cycle Friendly Workplaces through facilitation of cycle safety workshops supporting the Motor Accident Commission 'Be Safe, Be Seen' initiative with bicycle health checks and safety skills workshops.

A 'Barossa by Bike' map was produced to encourage and promote cycle tourism and enable self-directed cycling around the region, highlighting tourist attractions, a food trail and bike hire services.

Outcomes identified through these initiatives include increased participation in cycling for residents in accessing employment and services and further development of the Barossa area as a cycle tourism destination.



Mandarin farm, Gayndah

109 Heart Foundation. (2017). *Bike Friendly Barossa*. <http://www.healthyactivebydesign.com.au/case-studies/bike-friendly-barossa>.

## Actions

### PRIORITY 1: COMMUNITY

### OBJECTIVES

**Objective 1.1: A transport network that provides reliable access to employment, education, recreational opportunities and goods and services.**

**Objective 1.2: An accessible multi-modal transport system that caters for the needs of all residents and visitors.**

#### Actions – short-term

1.1

1.2

##### A1.01 Access for people with disabilities

Improve the end-to-end journey for people with a disability by working in collaboration with key stakeholders to achieve the objectives of the *Disability Action Plan 2018–2022*. Key locations include Bundaberg, Hervey Bay, Maryborough, Gympie and Kingaroy, Murgon, Nanango, Gayndah, Monto and Cherbourg.

✓

##### A1.02 Community-based transport

Support local government in identifying opportunities to improve access to transport services suited to their communities, particularly in areas with higher than average aging populations such as Hervey Bay, Bundaberg, Murgon, Nanango, Gayndah, Monto, Gympie and Cherbourg. This may include investigating new and existing shared transport services and community-based transport options, and how these may be supported through technology and tools that allow coordination between transport providers as well as the integration of end-to-end journey planning, booking and payment options.

✓

✓

##### A1.03 Public transport plan

Partner with local governments to develop a public transport plan for key activity centres in the region (such as Bundaberg, Gympie, Hervey Bay and Maryborough), with a focus on investigating opportunities to:

- improve connectivity, efficiency and service frequency between residential areas, principal regional activity centres, major regional activity centres and key employment and education nodes
- improve connections between active and public transport modes (bus and rail) to increase accessibility and promote patronage growth
- investigate alternative service models that meet different or changing customer needs
- improve passenger transport infrastructure.

✓

✓

##### A1.04 Pedestrian Access and Mobility Plan

Work with local government to develop a Pedestrian Access and Mobility Plan for key activity centres, towns and routes (such as Bundaberg, Hervey Bay, Gympie and Cherbourg to Murgon) to encourage more people to walk and ride to work, educational establishments and to access goods and services. The plan should consider opportunities to improve local amenity, and safety and access requirements for motorised mobility scooters and other mobility aids.

✓

✓

##### A1.05 Connectivity from Cherbourg

Work with local government to investigate opportunities to improve pedestrian and cycling connectivity along Cherbourg Road to facilitate safe accessibility from Cherbourg to Murgon.

✓

✓

##### A1.06 Public Passenger Transport facilities

Work with local government to identify opportunities to improve passenger transport facilities in major centres including facilities to better support personalised transport services (taxis and ride-share) and school travel.

✓

✓

**PRIORITY 1: COMMUNITY (cont.)****OBJECTIVES**

**Objective 1.1: A transport network that provides reliable access to employment, education, recreational opportunities and goods and services.**

**Objective 1.2: An accessible multi-modal transport system that caters for the needs of all residents and visitors.**

<b>Actions – short-term (cont.)</b>	<b>1.1</b>	<b>1.2</b>
<p><b>A1.07 Network and area studies</b> Undertake and update multimodal network and area studies to plan for anticipated future transport demands, including those relating to population, employment and economic changes and growth. Priority areas include Bundaberg, Gympie, Maryborough and Hervey Bay.</p>	✓	✓
<p><b>A1.08 Efficiency and reliability of urban arterial roads</b> Continue to investigate options to improve the safety and efficiency of urban arterial roads, especially major intersections, in key regional activity centres including Bundaberg, Maryborough, Gympie, Hervey Bay, Kingaroy and Mundubbera/Gayndah.</p>	✓	✓
<p><b>A1.09 Principal cycle network planning</b> In collaboration with local governments, update the <i>Wide Bay Burnett Principal Cycle Network Plan</i> every five years and accompanying Priority Route Maps every two years. Consider as part of review of the principal cycle network an expanded geographic scope to include additional townships across the region.</p>	✓	✓
<b>Actions – medium/long-term</b>	<b>1.1</b>	<b>1.2</b>
<p><b>A1.10 Travel behaviour data</b> Collect and evaluate region specific travel behaviour information in the Wide Bay Burnett region to inform integrated transport and land use planning and investment decision-making. Key focus areas are Bundaberg and Hervey Bay.</p>	✓	✓
<p><b>A1.11 Technology</b> Partner with local government through the Wide Bay Burnett Regional Roads and Transport Group to identify facilitation requirements, responsibilities, network impacts and potential benefits of electric and cooperative and automated vehicles in the Wide Bay Burnett region and to inform statewide strategic policy and planning. An example includes responding to <i>The Future is Electric: Queensland's Electric Vehicle Strategy</i>.</p>	✓	✓
<p><b>A1.12 Principal cycle network plan implementation</b> Undertake planning to deliver the principal cycle network to support more cycling, more often on safe, direct and connected routes via:</p> <ul style="list-style-type: none"> <li>■ standalone options analysis and business case development for cycling infrastructure on highest priority route such as along Bundaberg – Bargara Road, Goodwood Road and Booral Road (Wondunna); and</li> <li>■ explicit provision for cycling infrastructure as part of planning for other TMR funded projects on all principal routes, in accordance with the department's Cycle Infrastructure Policy.</li> </ul>	✓	✓
<p><b>A1.13 Long distance passenger transport services</b> Investigate improving long distance passenger services, including additional routes, in particular the feasibility of developing long-distance bus routes throughout the region to provide an affordable option for the community to access key centres outside of the region such as Caboolture and Brisbane.</p>	✓	✓

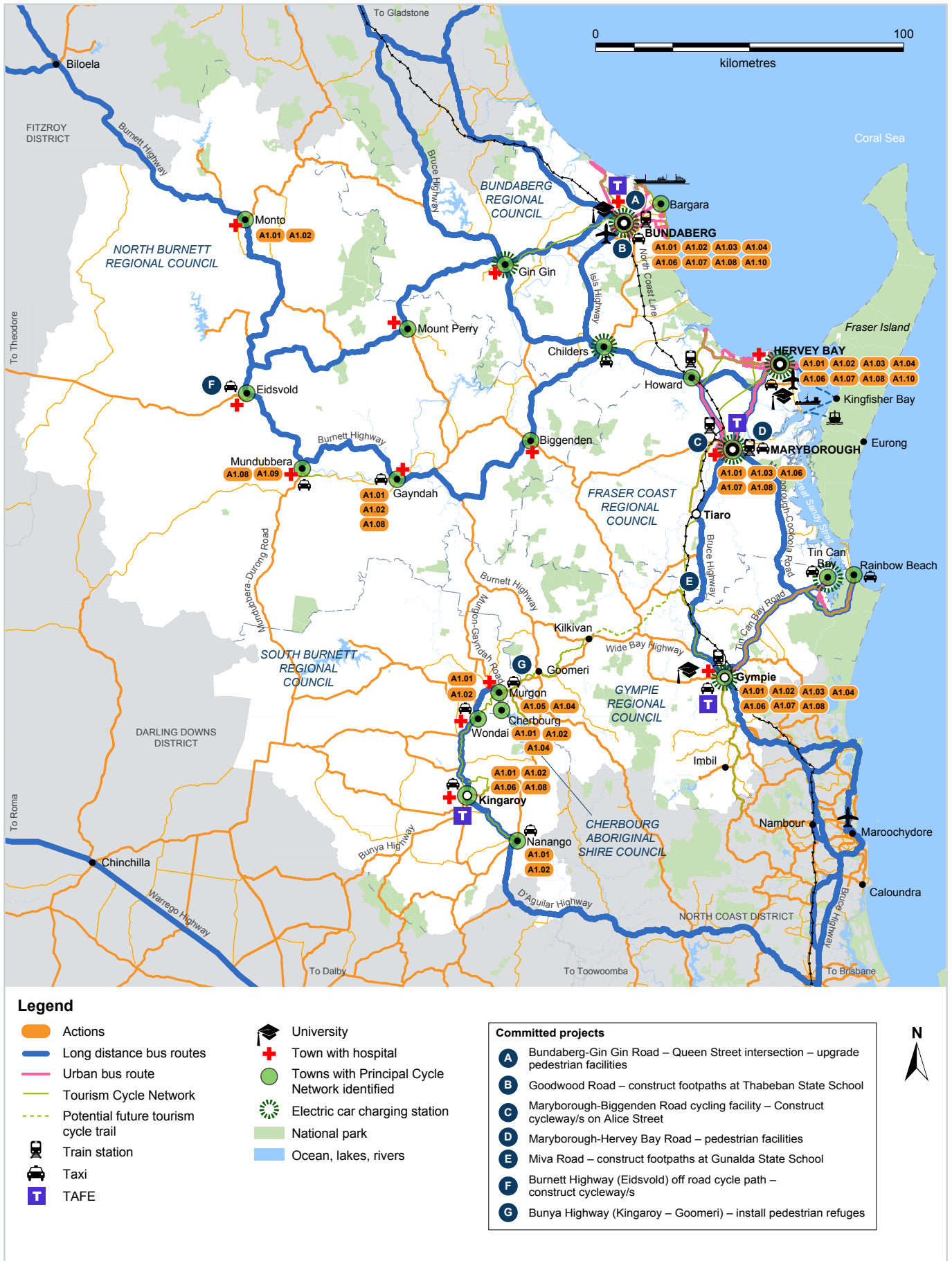


Figure 6: Priority 1 region map

This map is indicative to illustrate proposed strategies for the region and is not intended to be accurate in terms of exact geographic extent.



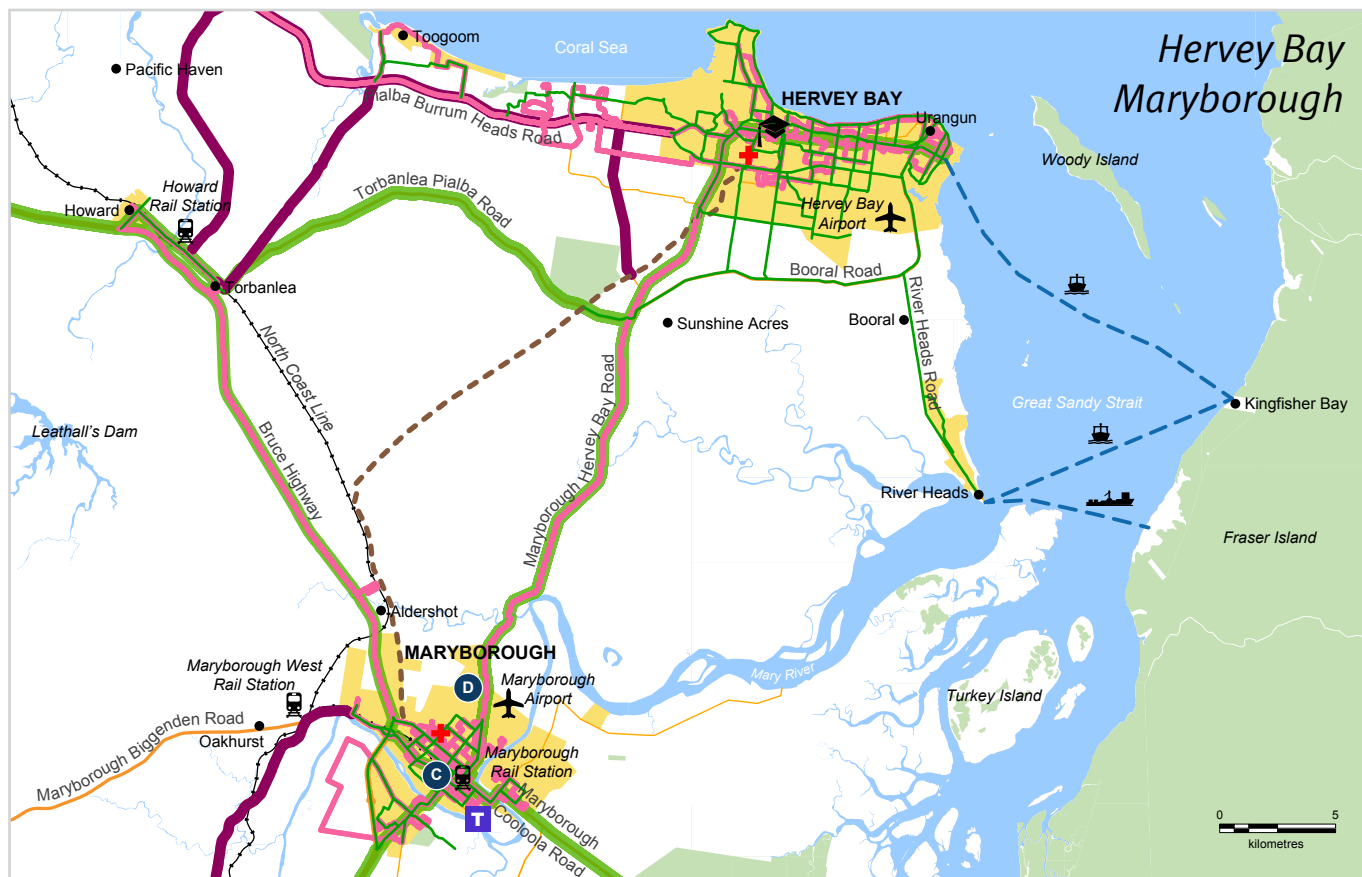
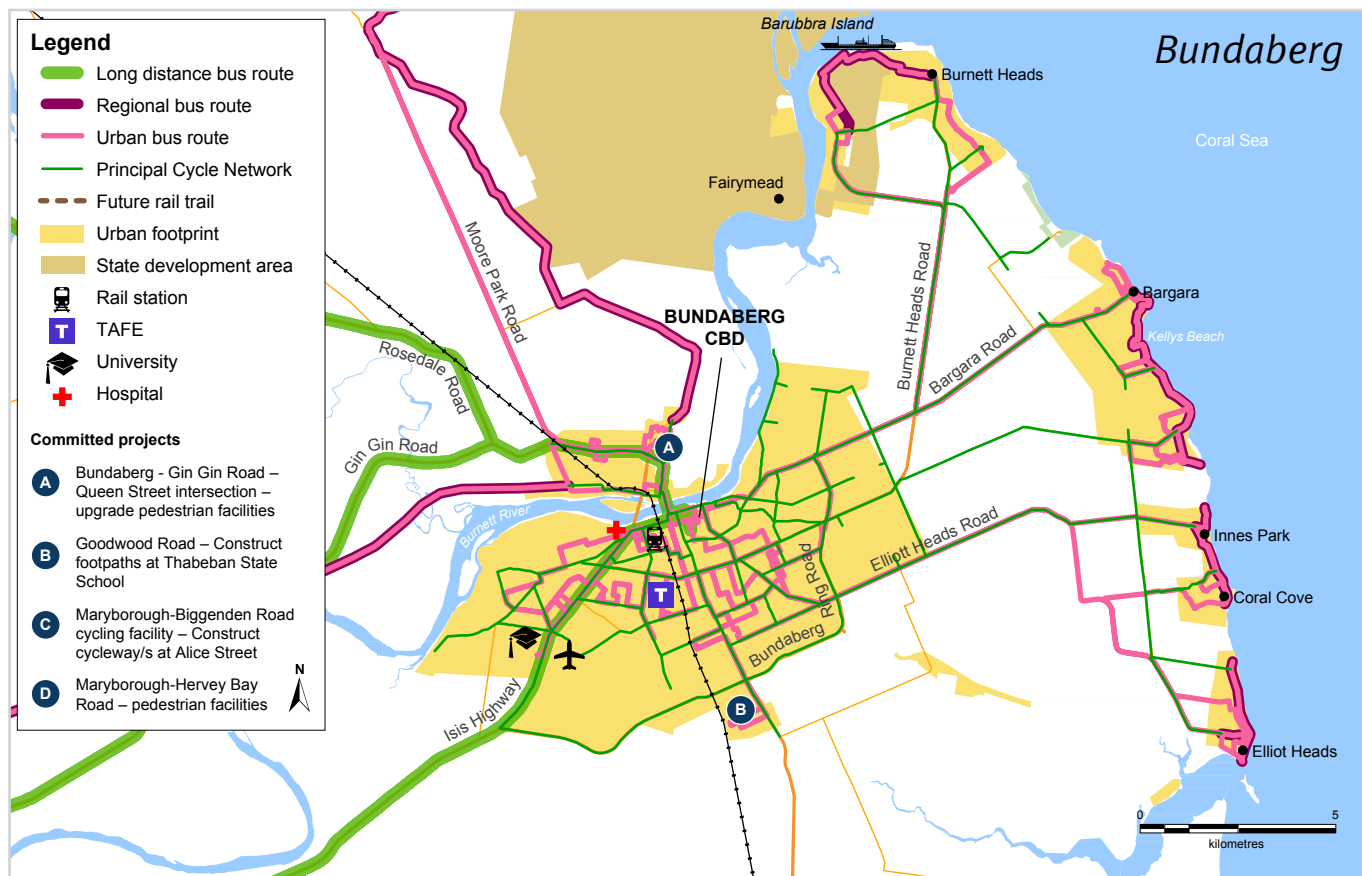


Figure 7: Priority 1 Bundaberg, Hervey Bay and Maryborough maps

This map is indicative to illustrate proposed strategies for the region and is not intended to be accurate in terms of exact geographic extent.

## 4.2 Priority 2: Economic development

**A transport system that supports economic growth, productivity and diversification by facilitating the efficient movement of people and freight.**

### Priority 2 supports:

- the Transport Coordination Plan's objective for efficiency and productivity
- the *State Infrastructure Plan's* focus on integrated transport infrastructure that improves the efficiency of freight and unlocks the potential of critical supply chains
- the *Wide Bay Burnett Regional Plan's* intent for a thriving regional economy that is sustainable, resilient and robust and advances the prosperity and liveability of communities within the region.

A transport system that supports economic development and diversification will help position the region for a strong economic future. A sustainable and robust economy will support growth in jobs, enable businesses to expand and will support the development of new economic opportunities for the region's residents.

For freight, this is the efficient movement from origin, such as the farm gate for the agricultural industry, to port or market. Reliable and efficient supply chains are crucial in managing the freight task for the Wide Bay Burnett region. Productive supply chains, which can meet current and future demand, help attract business, investment and improve profitability for industry.

For tourism, the transport network needs to allow people to easily move around the region and conveniently reach key attractions and destinations. Efficient intermodal connectivity between air, rail, road or sea, as well as good levels of service by transport providers, is essential to grow tourism. Ensuring the transport network supports a safe and positive experience for tourists is important in maintaining tourism demand and encouraging longer stays. Tourism, particularly self-drive tourism, benefits regional businesses through expenditure on leisure activities and attractions, overnight stopovers and basic travel necessities (such as fuel and food). This market is expected to experience growth due to Australia's ageing population and a corresponding increase in retirees who travel around Australia. For the region to share in this growth, the transport network must meet the needs of visitors.



*Harvesting at a farm, Cordalba, Bundaberg Regional Council*

## Transport objectives

**Objective 2.1: A transport system that optimises supply chain productivity through efficient links to industries and markets, within and external to the region.**

The efficient movement of people and goods throughout the network—both within and external to the region—contributes to economic growth and productivity. The supply chain between economic producers, manufacturers and customers should be enhanced to create a fully connected and efficient network. Broadly, the freight network must be developed and managed to optimise key routes and incorporate all modes of freight. An optimised supply chain will minimise unnecessary load transfers, splitting or handling allowing direct connections between producers and receivers; and will minimise transportation costs for producers, transporters, distributors and consumers.

**Objective 2.2: A transport system that promotes multi-modal access to key tourist destinations.**

An integrated and managed transport network can aid the tourism industry by ensuring that the region is easily accessible to all visitors, whether they are traveling via bus, coach, rail, air or sea. In addition to accessibility, regions which have obvious route choices and clear

wayfinding signage are more attractive to self-drive tourists and improve the overall driver experience. Road users also value facilities such as rest stops and scenic lookouts which can enhance the safety and amenity of long-distance travel.

**Objective 2.3: Integrated land use and transport planning that optimises regional growth and interconnectivity between all transport modes.**

Integrated and effective land use and transport planning ensures that the network can adapt and support demand as the economy of the region develops. Transport network planning should consider future industry and mining development and multi-modal supply chain objectives to optimise the region's long-term economic viability. This includes the provision of reliable and direct access to transport hubs such as air and sea ports.

**Objective 2.4: A transport network that supports the region's economic development through smart infrastructure solutions and technological advances.**

Smart infrastructure solutions and innovative technology should be utilised to further enhance the efficiency and resilience of the region's transport network in the long term. Early preparation for advancing technology allows the region to remain sophisticated and current.

## CASE STUDY: Hunter Valley Coal Chain Coordinator

The Hunter Valley coal supply chain is the largest coal export operation in the world. Originally, planning and operating activities were undertaken by firms individually, leading to sub-optimal scheduling, issues with coordination of planned maintenance activities and a high rate of service cancellations.

A memorandum of understanding in mid-2005 outlining the implementation of a centralised planning model was agreed between all organisations responsible for the transport of coal from Hunter Valley mines to the port and onto ships for export. The formation of the Hunter Valley Coal Chain Logistics Team (HVCCLT) resulted, that is now the independent Hunter Valley Coal Chain Coordinator.<sup>110</sup>

With a mix of federal, state and privately owned organisations operating individual components of the Coal Chain, the HVCCLT provided a single point of coordination for all planning decisions. The HVCCLT has proven that by planning the coal chain as a single system, increased throughput and coordinated investment can be achieved. This includes:

- **Day to day planning and scheduling:** maximised coal export volumes each and every day and coordinated planning for the provision of future coal chain infrastructure through coordinated vessel berthing, stockpile layouts and train sequencing to fulfil orders in the shortest possible timeframe.
- **Long-term capacity planning:** using simulation and optimisation modelling tools to assess the adequacy of the existing coal chain infrastructure to fulfil future export demand. By identifying future coal chain constraints and working to develop an integrated capital investment plan, members can optimise their investment decisions and focus capital expenditure on infrastructure required to meet future coal export growth.

A regional freight plan for Wide Bay Burnett would potentially explore supply chain coordination models such as this to improve the efficiency of the region's freight network.

<sup>110</sup> Hunter Valley Coal Chain Coordinator. (2017). *Welcome to HVCC*. [www.hvccc.com.au/Pages/welcome.aspx](http://www.hvccc.com.au/Pages/welcome.aspx).

## Actions

### PRIORITY 2: ECONOMIC DEVELOPMENT

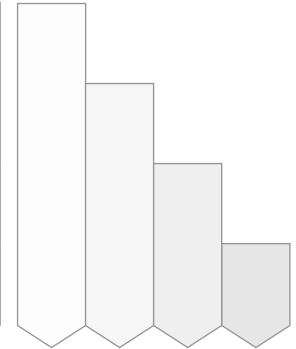
### OBJECTIVES

**Objective 2.1: A transport system that optimises supply chain productivity through efficient links to industries and markets, within and external to the region.**

**Objective 2.2: A transport system that promotes multi-modal access to key tourist destinations.**

**Objective 2.3: Integrated land use and transport planning that optimises regional growth and interconnectivity between all transport modes.**

**Objective 2.4: A transport network that supports the region's economic development through smart infrastructure solutions and technological advances.**



Actions – short-term	2.1	2.2	2.3	2.4
<p><b>A2.01 Tourism</b> In partnership with state and local tourism agencies, undertake a regional transport needs analysis to identify the travel needs of tourists and visitors traveling to the region's key tourism destinations including Southern Great Barrier Reef, the Great Sandy Strait, Bundaberg, the Bunya Mountains National Park, Cania Gorge National Park, Cherbourg, Fraser Island, Gayndah, Hervey Bay, Kingaroy, Lady Elliot Island, Maryborough, Tiaro, Mon Repos Conservation Park, Rainbow Beach and Gympie.</p>	✓	✓		
<p><b>A2.02 Port and airport access</b> Work with industry to identify current and future transport access requirements to key sea and air ports within and external to the region, including the Port of Bundaberg and Toowoomba Wellcamp Airport.</p>	✓	✓		
<p><b>A2.03 Port of Bundaberg State Development Area</b> Identify the transport network planning required to support and enable the growth of the Port of Bundaberg State Development Area and other key industrial precincts.</p>			✓	
<p><b>A2.04 Corridor, route and link planning</b> Update corridor, route and link planning for the State Strategic and State Regional road network for:</p> <ul style="list-style-type: none"> <li>■ high priority inter-regional links such as the Bruce, D'Aguilar, Burnett and Bunya Highways, Mundubbera–Durong and Chinchilla–Wondai Road</li> <li>■ key routes connecting the Bruce Highway to the coast such as Maryborough–Hervey Bay Road, Bundaberg–Gin Gin Road and Tin Can Bay Road</li> <li>■ important intra-regional links such as the Isis and Wide Bay Highways.</li> </ul>	✓	✓		
<p><b>A2.05 Bridges and structures</b> Continue planning for necessary bridge replacements or structural enhancements across the state-controlled road network for high priority structures in the region to improve economic productivity, and to address load limits, dimensional deficiencies, resilience and safety issues.</p> <p>Priorities in the immediate term include narrow bridge replacements along the Bruce Highway. Other examples include upgrades to Boyne River bridge on Mundubbera - Durong Road, Duff's Gully, Lambing Creek and Covert Creek on Chinchilla - Wondai Road, and the Biggenden Road overpass at Gin Gin on the Isis Highway.</p>	✓			

## PRIORITY 2: ECONOMIC DEVELOPMENT (cont.)

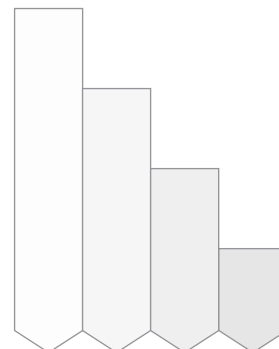
## OBJECTIVES

**Objective 2.1: A transport system that optimises supply chain productivity through efficient links to industries and markets, within and external to the region.**

**Objective 2.2: A transport system that promotes multi-modal access to key tourist destinations.**

**Objective 2.3: Integrated land use and transport planning that optimises regional growth and interconnectivity between all transport modes.**

**Objective 2.4: A transport network that supports the region's economic development through smart infrastructure solutions and technological advances.**



### Actions – short-term (cont.)

2.1 2.2 2.3 2.4

#### A2.06 Active tourism

Provide advice to local government, other state government agencies and tourism bodies to support planning, design and construction of rail trails and tourism routes in the region to support active transport tourism. This includes projects throughout the region such as Kilkivan to Kingaroy Rail Trail, Mary to the Bay Rail Trail and the Boolboonda Rail Trail and Tunnel.

2.1	2.2	2.3	2.4
	✓		

#### A2.07 Regional freight plan

Develop an integrated multi-modal freight plan to identify and prioritise freight network improvements to support supply chain efficiency across the region. The plan will consider current and emerging freight demands; access and movement requirements for oversize over-mass and high productivity vehicles; first and last mile links; supply chain coordination models (particularly in agriculture, mining and agriculture), and the role of the Port of Bundaberg, the region's airports, rail terminals, and key freight routes.

2.1	2.2	2.3	2.4
✓			✓

### Actions – medium/long-term

2.1 2.2 2.3 2.4

#### A2.08 Marine facilities

Continue to prioritise investment in boating infrastructure across the region based on an assessment of demand and input from the community and stakeholders, using tools such as the Recreational Boating Facilities Demand Forecasting Study.

2.1	2.2	2.3	2.4
	✓		

#### A2.09 North Coast Rail line

Develop a North Coast Line Action Plan to prioritise planning that will support rail freight and passenger efficiency improvements. This may include opportunities to reduce the number of level crossings, increase the length of passing loops, improve flood resilience and re-align low speed sections of the North Coast line. For the Bruce Highway and the North Coast Line, planning by the Department of Transport and Main Roads will consider if efficiencies can be gained through the co-location and construction of road, rail and other works arising from major deviations.

2.1	2.2	2.3	2.4
✓	✓		

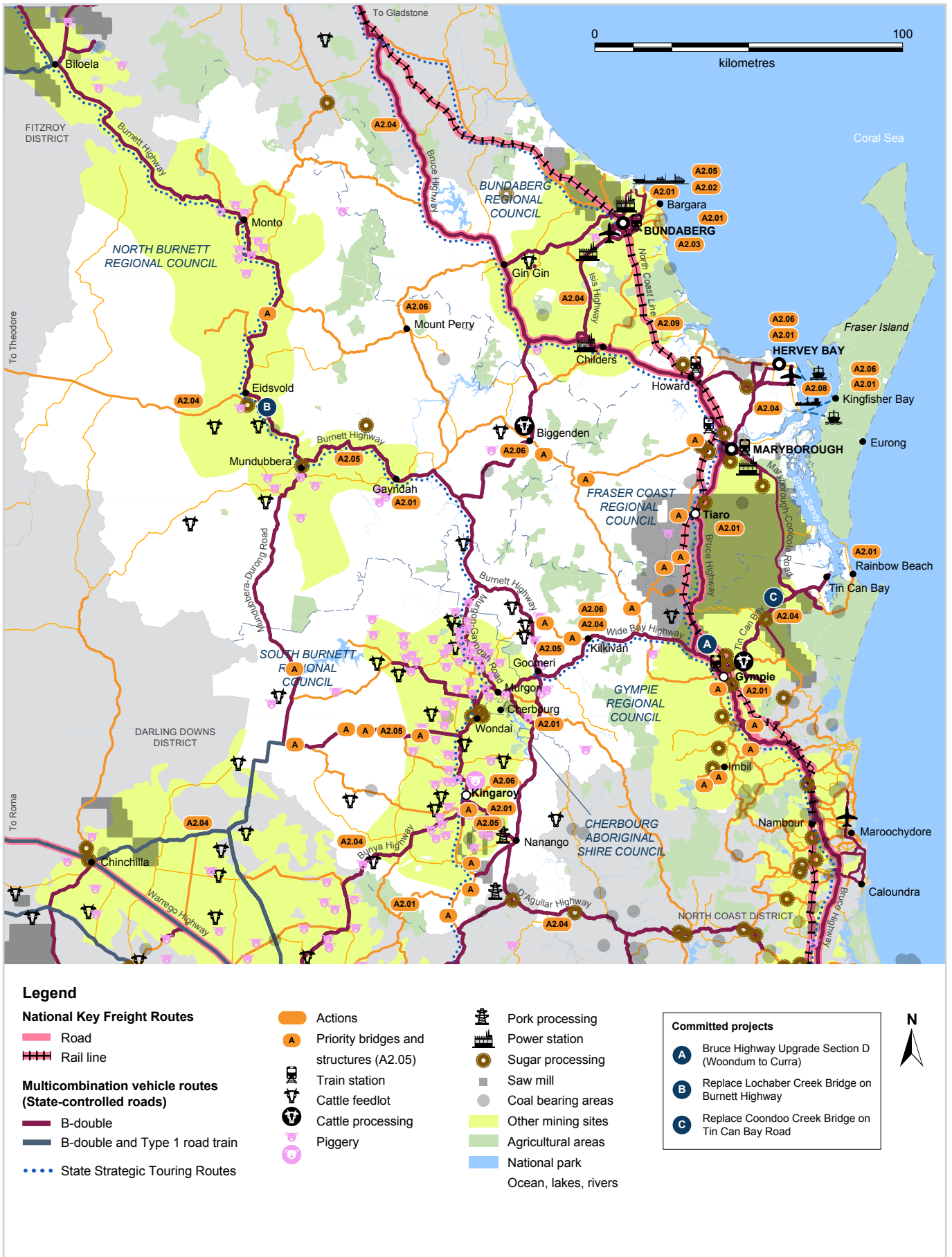


Figure 8: Priority 2 region map

This map is indicative to illustrate proposed strategies for the region and is not intended to be accurate in terms of exact geographic extent.

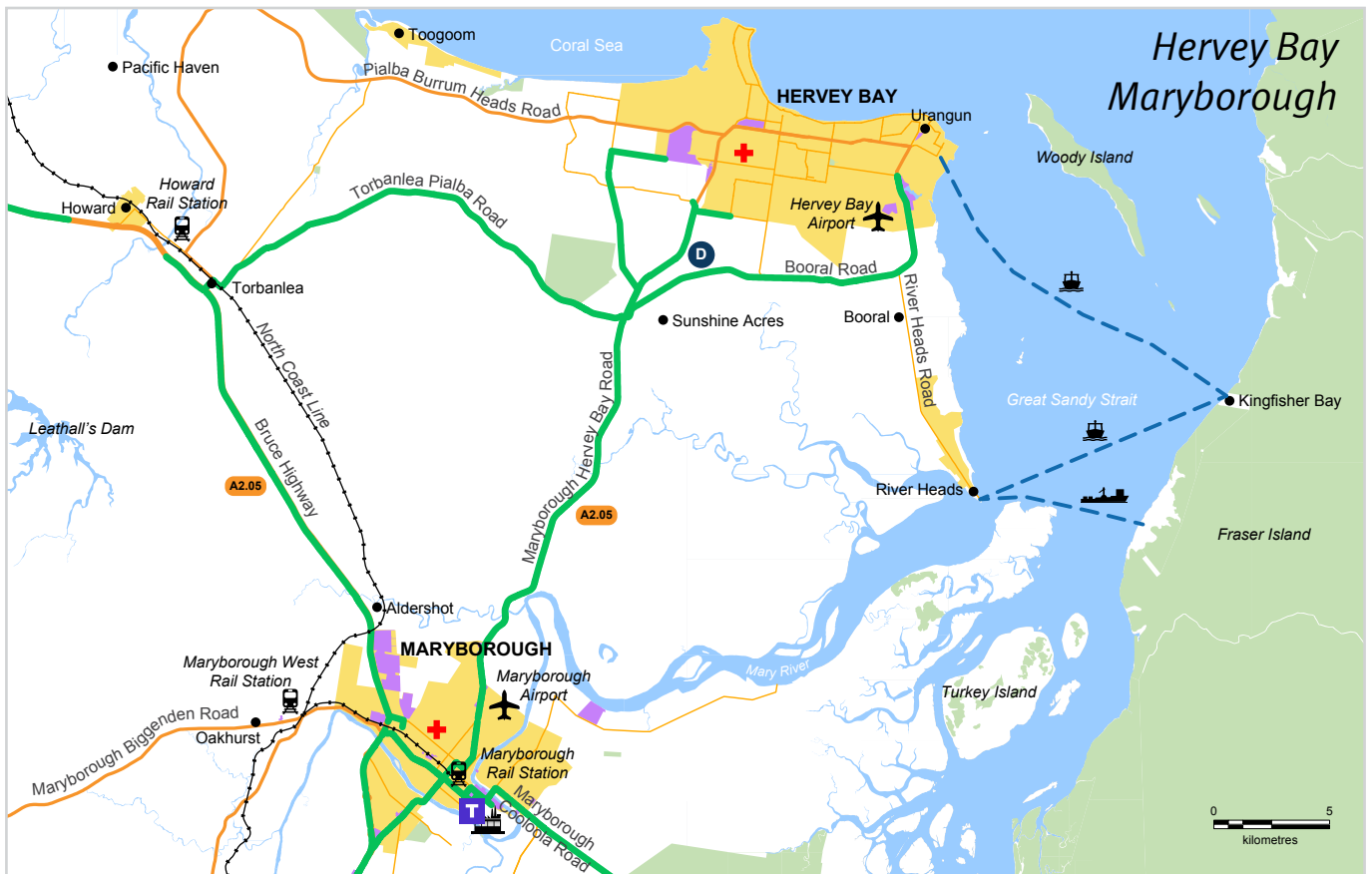
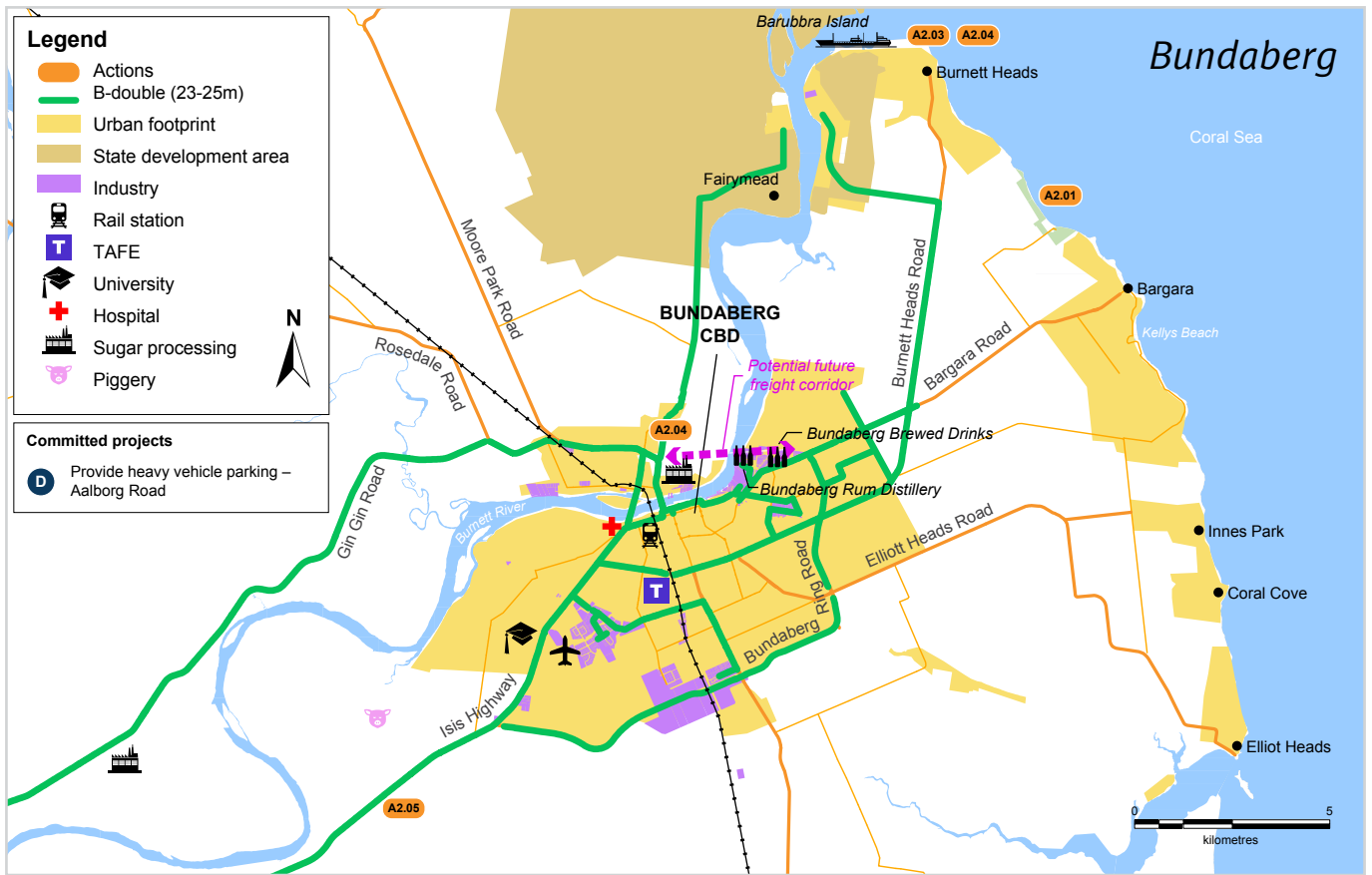


Figure 9: Priority 2 Bundaberg, Hervey Bay and Maryborough maps

This map is indicative to illustrate proposed strategies for the region and is not intended to be accurate in terms of exact geographic extent.

## 4.3 Priority 3: Safety

**A transport network that enables people to travel safely and feel secure.**

### Priority 3 supports:

- the Transport Coordination Plan's objectives for safety and security
- the *State Infrastructure Plan's* focus on infrastructure that improves the capacity, safety and security of the transport network
- the *Wide Bay Burnett Regional Plan's* policy that safety and well-being of road users are prioritised throughout the region.

A safe transport network is needed to assist the region's residents, visitors and freight to reach intended destinations without harm. Transport infrastructure that provides for safe travel is only one element of transport network safety. Transport user behaviour and vehicles also have significant impacts on the safety of the transport network. Transport users should feel safe using the transport system and behave in a way that promotes the safety of themselves and others. Examples of initiatives that support and encourage safety include rest areas to mitigate driver fatigue, way-finding to promote legibility on the roads, Wide Centreline Treatment to reduce the risk of head-on crashes and improved education for tourists visiting Fraser Island on the unique characteristics of driving off road.

Improving transport network safety can be achieved through a combination of improved infrastructure, information, communication technology and education. Intelligent Transport Systems (ITS) are an important component of the broader strategy to improve transport network safety. ITS empowers both motorists and road authorities to make more informed and timely decisions through greater situational awareness, reducing the likelihood and severity of incidents on the road network.



*Heavy vehicle rest area, Burnett Highway near Eidsvold*



## Transport objectives

**Objective 3.1: A transport network that addresses safety deficiencies and facilitates safer interactions between all users.**

The identification and management of transport safety risks is crucial in developing a safe network across all modes: road, maritime and air transport.

By upgrading existing road infrastructure to ensure there is consistency in network conditions and standards, the number of incidents in the region can be reduced. Appropriate planning, through a well-defined road hierarchy, contributes to maintaining safety through the provision of infrastructure suited to function, helping to minimise safety issues associated with incompatible uses.

The management of safety risks can be enhanced using innovative technology and available data. Use of early Flood Warning Systems for example, allow disaster management groups, road authorities and the Queensland Police Service to more quickly respond during and after extreme weather events.

A safe transport network provides a better travel experience for residents and visitors due to an increased perception of personal safety and security.

**Objective 3.2: Promote awareness of safe travel behaviours for all transport network users.**

Education and awareness programs address the transport user's role in the safety of the transport network by contributing to a change in culture and promoting a sense of accountability and responsibility for adhering to road and transport rules. Providing situational awareness through intelligent transport systems (ITS) can empower transport system users to make smarter decisions about how they travel, be proactive about safety and avoid unsafe situations, particularly during extreme weather events such as floods or cyclones.

## CASE STUDY: RYDA

Rotary Youth Driver Awareness (RYDA) is a road safety program, delivered via the school curriculum targeted at 16 to 18 year old students at a time where students start to drive independently or are travelling as passengers of novice drivers.<sup>111</sup>

RYDA is delivered as a community based initiative, relying on Rotary volunteers for logistical support and is funded through donations and student fees.

The program recognises that young people bring a unique set of factors to driving that puts them at high risk on the road: inexperience, factors associated with age such as cognitive development, strong peer influence and the fact they often drive unsafe cars at riskier times of the day and week.

The program seeks to assist participants to:

- understand road risks and reflect on long-term consequences of a crash
- identify crash factors and realise how they are preventable
- appreciate how personal factors affect risk
- develop personal strategies and plans, and consider self-monitoring of actions long term
- see driving as a social responsibility and recognise the protective measures.

The RYDA Program is delivered each year to over 50,000 senior high school students from more than 650 participating schools across Australia and New Zealand. RYDA provides an example of the type of education programs that can influence driver behaviour and contribute to the region's road safety.

<sup>111</sup> Road Safety Education. (2017). *Program*. [www.rse.org.au/programs/ryda/](http://www.rse.org.au/programs/ryda/).

## CASE STUDY: COOROY TO CURRA – SECTION D

Cooroy to Curra – Section D is the final section in the 62km upgrade to the Bruce Highway between Cooroy and Curra, north of Gympie. It is amongst Queensland's highest priority road projects, designed to address the safety and traffic needs of the Bruce Highway well into the future. Section D involves the construction of a new 26 kilometre four-lane bypass of Gympie, running east of the city. This will separate long distance traffic from local commuter traffic to allow the highway to function as a high-speed motorway. The project includes –

- a new four-lane divided highway, to almost double existing highway capacity between Woondum and Curra
- a number of new bridges over significant waterways, local roads and the North Coast Railway

- interchange upgrades at Penny Road, Gympie Connection Road and Curra
- removal of 53 at grade intersections (including nine signalised intersections) and 106 property accesses
- improved flood immunity
- improved safety in the Gympie CBD by removing the need for heavy vehicles to travel through town.

Completion of Cooroy to Curra – Section D will be a major milestone in realising some of the key priorities under the Bruce Highway Action Plan "Out of the Crisis" (October 2012), to improve safety, flood immunity and capacity along Queensland's most critical transport corridor.



*Cooroy to Curra – Section D will extend from Section C (above) for 26km via Gympie*

## CASE STUDY: WIDE CENTRELINE TREATMENT

Crashes involving vehicles crossing over the centreline, causing head-on collisions, are one of the most severe types of crashes.

The Department of Transport and Main Roads is committed to improving safety along Queensland roads, particularly on long stretches of highways where driver fatigue and unsafe overtaking can contribute to these head-on crashes. In recent years wide centreline treatments have become internationally recognised as an effective and relatively low-cost measure to reduce head-on collisions.

Wide centreline treatments replace the existing dividing centreline/s on a road with two new lines approximately

one metre apart, which creates a greater distance between opposing directions of traffic. This extra distance provides additional reaction time if a driver unintentionally drifts across the centreline towards oncoming traffic.

Wide centreline treatments also increase road safety by providing additional space when motorists are passing cyclists or vehicles that are stopped on the side of the road, as well as when they are overtaking, as it allows for better visibility of oncoming traffic. The treatment is often applied to heavily trafficked, high speed roads and highways and usually requires widening of the road shoulder to accommodate the wider centreline.



*Wide centre line treatments are an effective and relatively low-cost measure to reduce head-on collisions*

## Actions

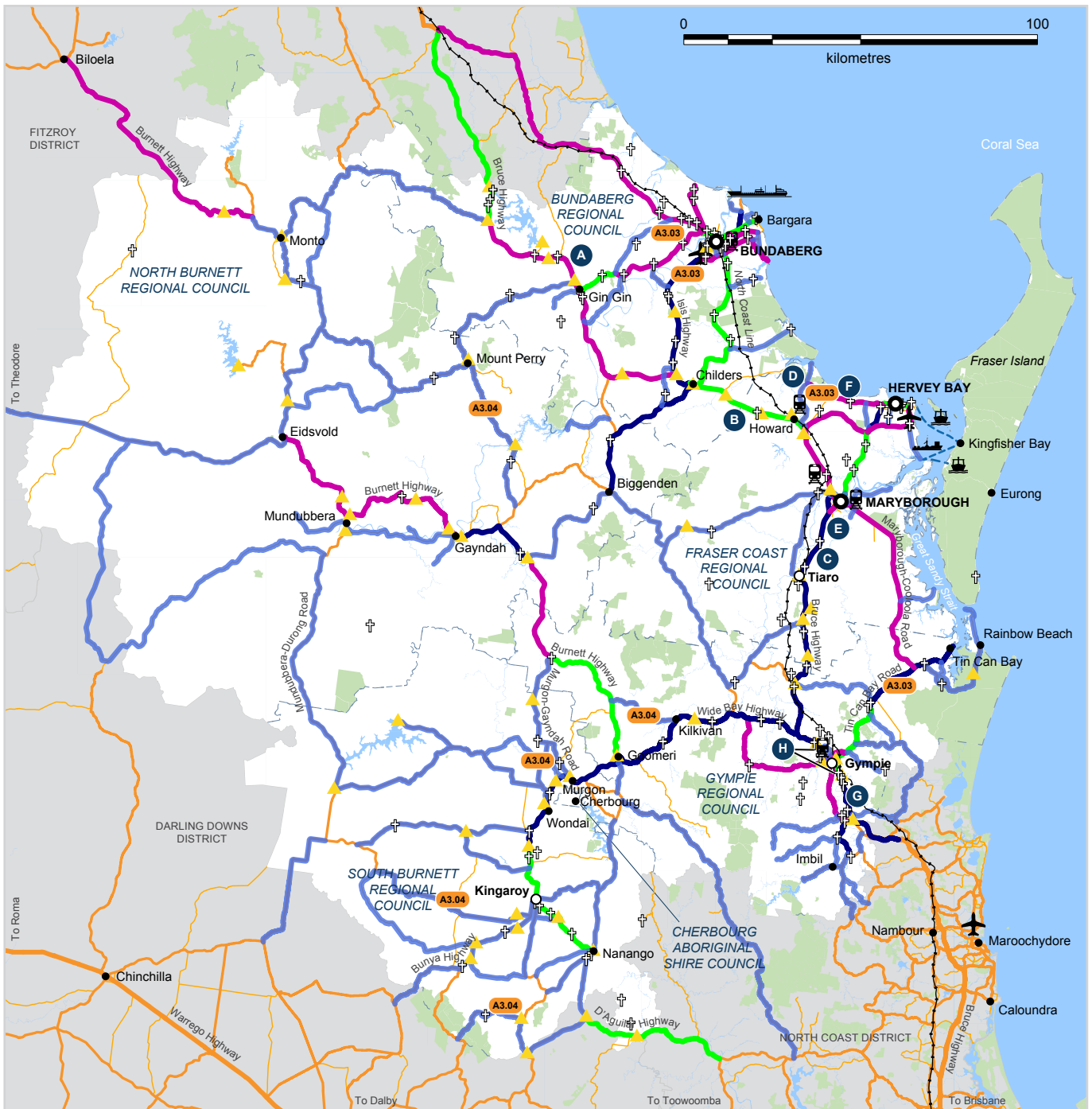
### PRIORITY 3: SAFETY

### OBJECTIVES

**Objective 3.1: A transport network that addresses safety deficiencies and facilitates safer interactions between all users.**

**Objective 3.2: Promote awareness of safe travel behaviours for all transport network users.**

Actions – short-term	3.1	3.2
<p><b>A3.01 Intelligent transport systems</b> Identify opportunities for increasing the use of intelligent transport systems (ITS) such as for signage, communicating real-time information, road freight prioritisation and road condition monitoring to improve the accuracy and timeliness of information on network closures, weather and safety events. Priority routes include the Bruce Highway, Kalpowar Road and Monto - Mount Perry Road, the Burnett Highway and other state-controlled roads shown in the Priority 4 map that are frequently closed each year due to flooding.</p>	✓	✓
<p><b>A3.02 Education</b> Continue to develop education, promotion and communication campaigns in partnership with community, industry and other authorities to provide driver information specific to the region (e.g. Fraser Island) and to encourage safe travel behaviour on roads, public transport, active transport pathways and waterways.</p>	✓	✓
<p><b>A3.03 Road safety</b> Continue to identify, prioritise and nominate locations, links and networks for road safety improvements as part of the Safer Roads Sooner, High Risks Roads and Black Spot programs, and through other opportunities such as planned upgrades. Safety improvements could include treatments such as wide centre line treatments, better signage, audio-tactile line markings and additional overtaking lanes. Priority routes for planned safety upgrades include Tin Can Bay Road, the Isis Highway (Bundaberg – Childers), Pialba-Burrum Heads Road and Bundaberg – Gin Gin Road.</p>	✓	
<p><b>A3.04 Road sealing prioritisation</b> Investigate options and investment priorities for the upgrading of key roads that are unsealed to a sealed standard across Wide Bay Burnett. Investigations for example may include roads such as Gayndah - Mt Perry Rd Road, Bye Road, Kilkivan-Tansey Road, unsealed sections of Bunya Mountains-Maidenwell Road and Kingaroy-Burrandowan Road, and other single-lane unsealed roads in some of the more remote parts of the region where there are identified safety issues.</p>	✓	
<p><b>A3.05 Improving mobile coverage</b> Investigate potential solutions to improve mobile communication coverage across the region's transport network, for example at recognised rest stops.</p>	✓	✓
<p><b>A3.06 Rest stops</b> Investigate investment priorities for new or upgraded rest areas to address driver fatigue risks, encourage safe travel and to provide sufficient capacity and amenities to enhance customer experiences particularly on drive tourism routes including the Bruce, Wide Bay, Burnett and Bunya Highways, Bundaberg - Miriam Vale Road, Murgon-Gayndah Road and Kingaroy - Cooyar Road. Ensure planning and provision of rest areas addresses safety risks associated with potential for incompatibility or conflicts between trucks and recreation vehicles.</p>	✓	



**Legend**

- ▲ Rest area
  - National park
  - Ocean, lakes, rivers
  - Actions
- Crash data 2013-2017\***
- 1-9 crashes requiring hospitalisation
  - 10-19 crashes requiring hospitalisation
  - 20-29 crashes requiring hospitalisation
  - 30+ crashes requiring hospitalisation
  - ⊕ Fatal crashes

\* Crash data only relates to roads within region. The information mapped is indicative only to highlight the extent of road crashes on the network over a defined period of time. Where crashes have been recorded between 2013-17, road upgrades and safety improvements may have been completed since the incident occurred resulting in a safer travel environment.

**Committed projects**

- A Bruce Highway (Gin Gin – Benaraby) – Widen and overlay
- B Bruce Highway (Maryborough – Gin Gin) – Rehabilitate and widen
- C Bruce Highway (Gympie – Maryborough) – Widen and overlay, construct additional lanes, grade separation – bridge works, construct additional lanes
- D Burrum Heads Road – improve channelisation
- E Bruce Highway (Tinana) - overtaking lane/s
- F Pialba-Burrum Heads Road – improve intersections
- G Bruce Highway (Brisbane – Gympie) – construct new 4 lane highway, install pedestrian crossings/facilities
- H Bruce Highway (Brisbane – Maryborough) – improve intersections
- Safety and Critical Maintenance Upgrades – South Burnett various locations
- Corridor and Minor Safety Enhancements – various locations across region



Figure 10: Priority 3 region map

This map is indicative to illustrate proposed strategies for the region and is not intended to be accurate in terms of exact geographic extent.

## 4.4 Priority 4: Sustainability and resilience

**A sustainable transport system that is resilient to major incidents or weather events and is compatible with the environmental and lifestyle values of the region.**

Sustainability is an important consideration when meeting the region's transport needs, to ensure the region's historical and natural values are not compromised for future generations. Protecting natural values is important to the community and the ongoing success of the region's tourism industry. Sustainable development and management of the transport system supports both liveability and the economy. The effective prioritisation, coordination and management of transport infrastructure and operations contribute to achieving a sustainable, efficient and connected transport network. A more sustainable transport network can be achieved through better integration of land use and transport planning, supporting a more compact urban form, encouraging a shift towards more sustainable travel behaviours and applying best practice in planning, design and delivery of transport projects.

Resilience is the ability of the transport system to retain performance during a disaster, or return to a normal state of operation (or a desired level of functioning) quickly following a disaster or incident. The resilience of the transport network is critical in emergency response immediately after a disaster with first responders requiring safe access to address damage and community impacts.

### Priority 4 supports:

- the Transport Coordination Plan's objectives for environment and sustainability
- the *State Infrastructure Plan*'s focus on reliable transport infrastructure that is resilient and adaptive to weather events and climate change
- the *Wide Bay Burnett Regional Plan* intent for the region to grow and change in a sustainable manner — generating prosperity, maintaining and enhancing quality of life, minimising the use of resources, providing high levels of environmental protection, reducing greenhouse gas emissions and increasing resilience to natural hazards and the anticipated effects of climate change.

Extreme weather can lead to road closures, infrastructure damage and delays across the region. Travel time reliability impacts are not isolated to the period the road is closed due to inundation or damage, but also the time it takes for road or bridge inspection prior to reopening, speed and weight restrictions until damage is addressed and potential delays associated with road works to repair damage. Resilience is also important in improving the reliability of the transport network, as well as decreasing repeat maintenance costs.



Bundaberg 2013 flood

## Transport objectives

### Objective 4.1: Transport infrastructure that it is resilient and reliable during incidents and weather events.

The Wide Bay Burnett region experiences an array of weather events in any given year. These events often result in the closure of major roads, railways and ports, which has significant impacts on the movement of freight, residents, visitors and commercial road users. Network closures can create widespread delays throughout the region and within neighbouring regions. Importantly, network closures are not only inconvenient, but can also be unsafe. Reliable access is required to support emergency connections and enable safe network use.

The innovative use of technology and application of smart infrastructure systems can be used to communicate with network users (including emergency services) to keep them informed and safe. By providing customers with the information to make better decisions, smart infrastructure solutions allow customers to more efficiently and safely use the transport network.

### Objective 4.2: Create a more sustainable transport system by reducing reliance on private vehicles and supporting more trips by walking, cycling and public transport.

A well-planned and maintained multi-modal transport network underpins economic activity in the region while ensuring that the needs of the community are met and that the impact on the local environment is managed.

A sustainable transport system offers a range of viable transport options ranging from private vehicle use through to public and active transport. Improving the accessibility of active and public transport facilities supports the mobility of the community, while also promoting a healthier and more active lifestyle in the region.

Land use planning has an important role in the efficiency of the transport network and the attractiveness of public and active transport in meeting everyday transport needs. Integrated land use and transport planning which provides for close and convenient access to basic goods and services and employment, combined with convenient and affordable transport options can lessen private vehicle dependence and encourage more trips by walking, cycling and public transport.

### Objective 4.3: Develop a sustainable transport system that supports the environmental and lifestyle values of the region.

The transport network needs to be developed in a way that contributes to the values of the region, its communities and visitors. Protecting lifestyle and environmental values is critical to the prosperity of the region, including attracting people to live in or visit. A transport network that is compatible with the environmental and lifestyle values of the region will lessen impacts on the environment, protect community amenity and support lifestyle and tourism values promoting a cleaner, healthier and more liveable environment.

## Actions

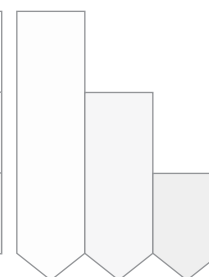
### PRIORITY 4: SUSTAINABILITY AND RESILIENCE

### OBJECTIVES

**Objective 4.1: Transport infrastructure that it is resilient and reliable during incidents and weather events.**

**Objective 4.2: Create a more sustainable transport system by reducing reliance on private vehicles and supporting more trips by walking, cycling and public transport.**

**Objective 4.3: Develop a sustainable transport system that supports the environmental and lifestyle values of the region.**



#### Actions – short-term

##### A4.01 Network response planning

Undertake critical transport network response planning that supports local and district disaster management groups in improving accessibility and safety during and following major weather events, including the reliability of communication systems along key links.

##### A4.02 Resilience investigations

Continue to undertake road network resilience investigations across the region to identify key locations susceptible to weather events and understand requirements to manage, mitigate and avoid network impacts. Investigations should explore key routes susceptible to flooding resulting from major weather events such as the Bruce Highway, Burnett Highway, D'Aguiar Highway and sections along Tin Can Bay Road. Residential growth areas such as Gympie, Bundaberg and Hervey Bay, as well as established rural areas such as Murgon, Kingaroy, Mundubbera and Monto should also be investigated.

	4.1	4.2	4.3
A4.01 Network response planning	✓		
A4.02 Resilience investigations	✓		

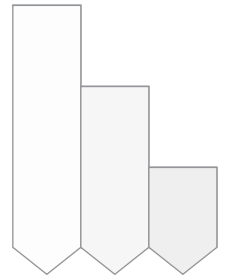
## PRIORITY 4: SUSTAINABILITY AND RESILIENCE (cont)

## OBJECTIVES

**Objective 4.1: Transport infrastructure that it is resilient and reliable during incidents and weather events.**

**Objective 4.2: Create a more sustainable transport system by reducing reliance on private vehicles and supporting more trips by walking, cycling and public transport.**

**Objective 4.3: Develop a sustainable transport system that supports the environmental and lifestyle values of the region.**



### Actions – short-term (cont.)

#### A4.03 Resilience mitigation

Using data and resilience investigations such as the Bundaberg 10-Year Action Plan, the State Government, in collaboration with the Federal Government and local governments, will continue to prioritise investments in transport infrastructure upgrades to improve flood immunity and accessibility during seasonal weather events.

4.1 4.2 4.3

✓

✓

#### A4.04 Sustainable infrastructure planning and design

Ensure natural systems and environmental processes are a key consideration when undertaking planning, design and business cases for transport infrastructure projects. This includes, for example, minimising impacts on sensitive receiving environments and coastal ecosystems around the Great Sandy Strait, Fraser Island, national parks and other important conservation areas.

#### A4.05 Climate change

Consider the impact of climate change in the planning of the transport network in Wide Bay Burnett, through long-term scenario modelling and analysis.

✓

#### A4.06 Road hierarchy and ownership

Review network vision standards, road hierarchy and road ownership in the region, to ensure road maintenance and management sits with the appropriate jurisdiction. For example, in conjunction with the Bundaberg Integrated Transport Strategy, review the road ownership of Quay Street, Bundaberg.

✓

✓

### Actions – medium/long-term

#### A4.07 Minimising emissions

Work with local governments and state government agencies to develop a strategy to reduce greenhouse gas emissions in the Wide Bay Burnett region. The strategy should investigate:

- how to encourage more sustainable transport choices
- how to optimise the efficiency of the transport network
- opportunities to encourage operators to use more efficient heavy vehicle configurations (high productivity vehicles)
- opportunities to develop transit oriented communities in Hervey Bay, Bundaberg, Maryborough and Gympie.

✓

✓

#### A4.08 Network optimisation solutions

Investigate opportunities to trial and implement network optimisation solutions within the region, particularly along the Bruce Highway and congested major urban arterial routes in Bundaberg, Hervey Bay, Maryborough and Gympie. The investigations could include Smarter Solution such as lane use management systems and improved signal coordination.

✓



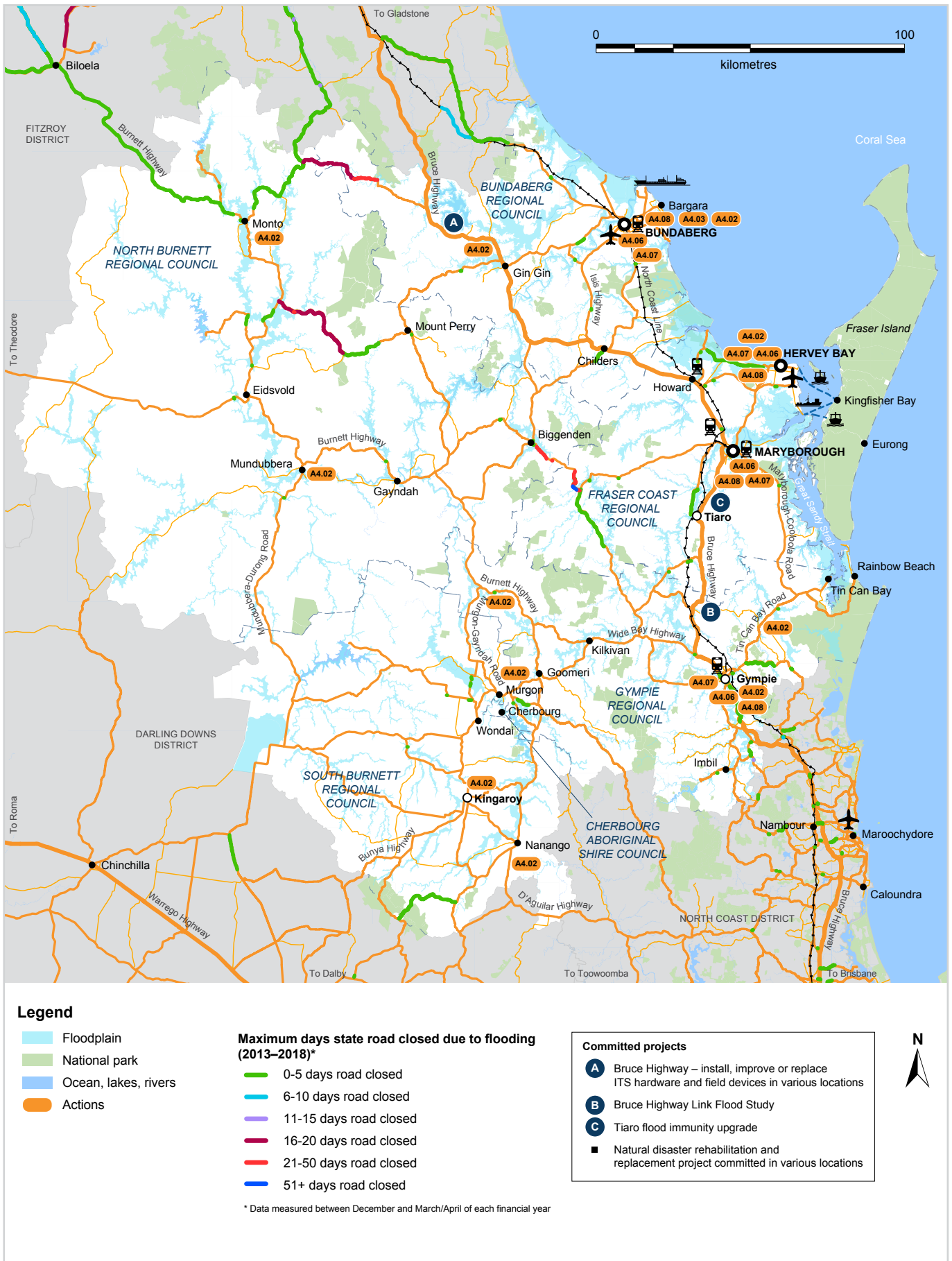


Figure 11: Priority 4 region map

This map is indicative to illustrate proposed strategies for the region and is not intended to be accurate in terms of exact geographic extent.

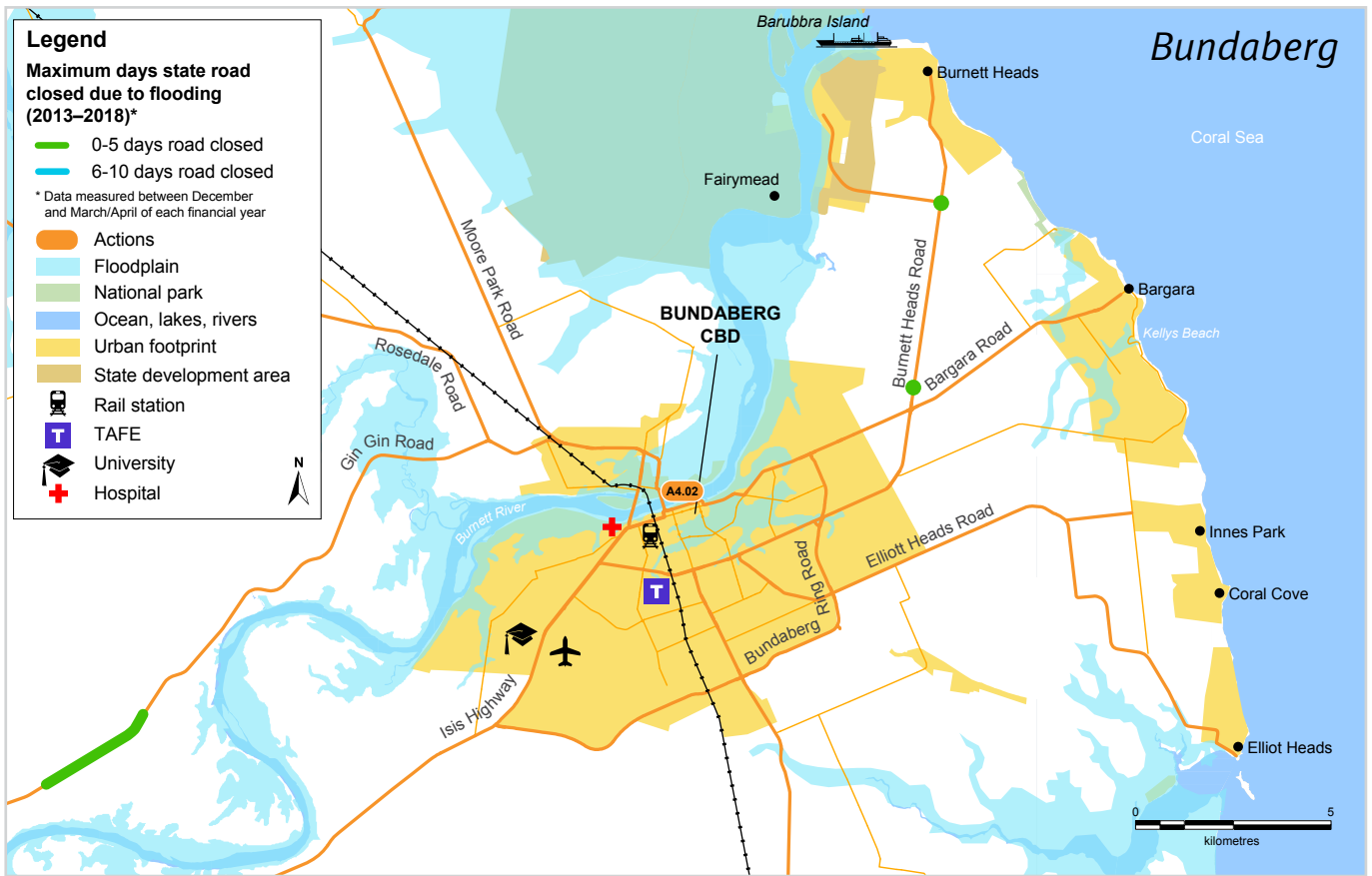


Figure 12: Priority 4 Bundaberg, Hervey Bay and Maryborough maps

This map is indicative to illustrate proposed strategies for the region and is not intended to be accurate in terms of exact geographic extent.

## CASE STUDY:

# Foamed bitumen pavements thwart Tropical Cyclone Debbie

Tropical Cyclone Debbie crossed the Queensland coast near Airlie Beach in late March 2017 unleashing damaging winds and torrential rain. It then tracked south to deliver wide spread flooding in several regions including Rockhampton and areas in south-east Queensland and northern New South Wales.

Innovations in pavement technology have provided for a more resilient transport network. The flooding aftermath of Cyclone Debbie tested the practical effectiveness of foamed bitumen pavement when three-metre floodwaters inundated Camp Cable Road and the Mt Lindesay Highway. There were concerns with the extent of the flooding, road condition would be compromised. When waters receded, the foamed bitumen pavement was found completely intact.

Recent heavy rainfall has demonstrated the resilience of the pavement on the Bruce Highway near Bowen,

in Warrill View, south of Ipswich and on the Yeppen floodway in Rockhampton.

Foamed bitumen pavements are an innovation of the Department of Transport and Main Roads and when constructed in the right environment with appropriate stabilisation, are more resilient to flooding. They survived unscathed in some of the worst-hit parts of Queensland and displayed impressive strength in the face of catastrophic weather. While some conventional thin asphalt/granular pavements suffered catastrophic damage from flooding, foamed bitumen pavements in similar circumstances have shown to be highly resilient.

By utilising foamed bitumen, Transport and Main Roads is not only saving on the cost of construction—foamed bitumen costs less per cubic metre than asphalt—but also on the cost of maintaining and rehabilitating roads after natural disasters like ex-Tropical Cyclone Debbie.



*Camp Cable Road, Jimboomba during flooding*



*Maheno Wreck, Fraser Island*

# 5. Implementation



## 5.1 Taking action

Delivering the *Wide Bay Burnett Regional Transport Plan* 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.

This Plan will be used to inform transport planning priorities and investment decision making for the region. The Plan will ensure that future investments address the priorities of customers, stakeholders and the community.

Figure 13 shows the importance of Regional Transport Plans in the Transport and Main Roads investment lifecycle.

Transport and Main Roads provides opportunities for customers to provide input into planning actions outlined in the Plan 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](http://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 this Plan.
- **Aligning with the *State Infrastructure Plan***  
Regional Transport Plans will inform the programs 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**  
This Plan has been prepared in consultation with other levels of government and considers their strategic planning and policy documents.
- **Delivering the Transport System Planning Program (TSPP)**  
The TSPP is a rolling program of planning projects across all modes and all regions with projects ranging from network to link level and investment proposal activities. Demonstrated alignment with RTPs is essential for planning projects to be eligible for funding under the TSPP.

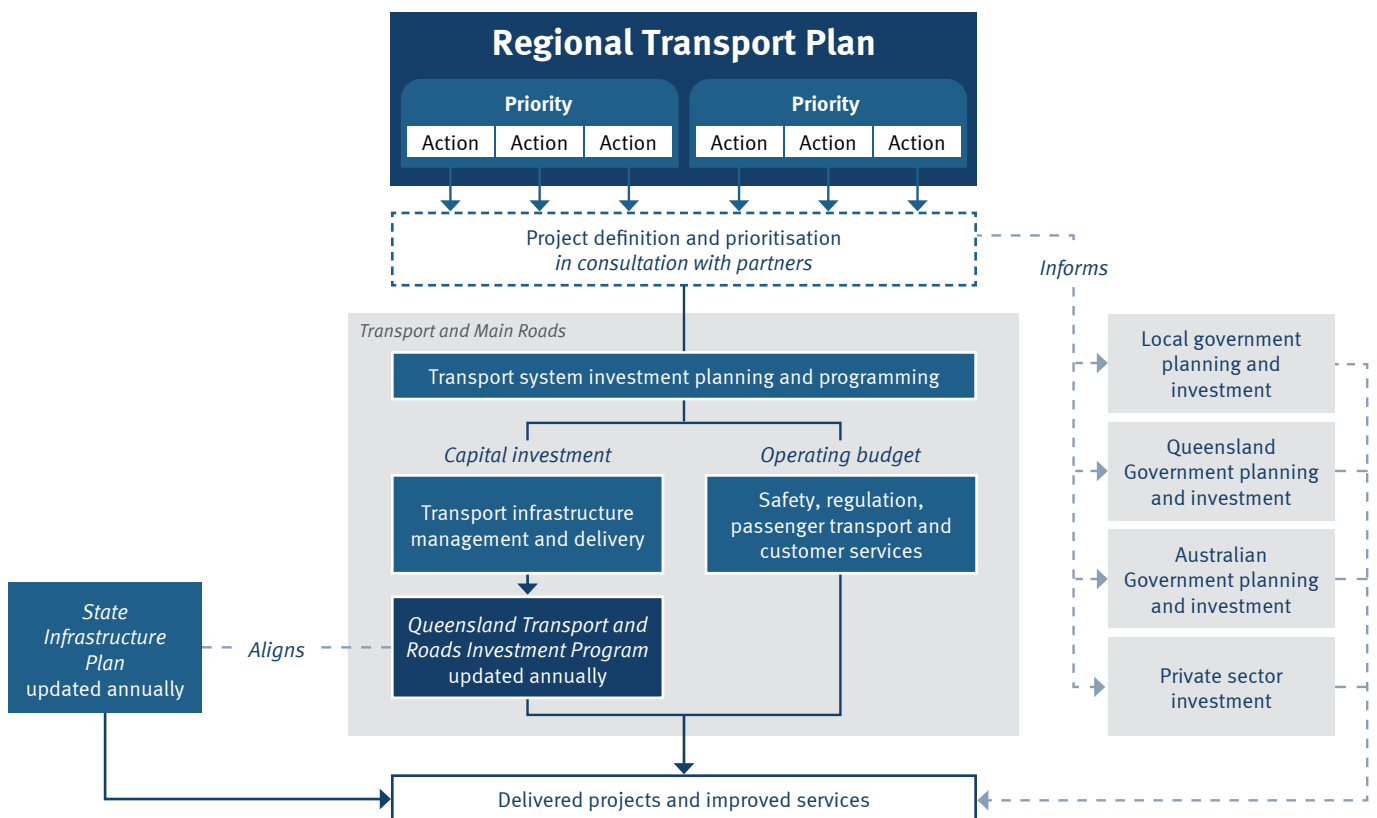


Figure 13: Regional Transport Plans are a critical step in Transport and Main Roads investment lifecycle

## 5.2 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 *Wide Bay Burnett Regional Transport Plan*, Transport and Main Roads has built relationships with stakeholders from all levels of government, business and industry. These relationships will be further developed in delivering the actions and opportunities outlined in this Plan. Opportunities for partnering include:

- collaborative planning leveraging knowledge from researchers, universities and education providers
- inviting project development support from individuals or organisations with an interest in implementing an initiative or action
- supporting and encouraging private sector investment through project facilitation to accelerate action delivery and realise economic or commercial benefits, for example, through investment facilitation or public-private 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). Moving forward RRTGs will 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. This includes reviewing and identifying specific economic drivers, opportunities and challenges as they change over time to inform project identification and prioritisation.

The priorities and actions outlined in this Regional Transport Plan will help focus RRTGs in their approach to strategic transport planning and local transport infrastructure investments.



Maryborough–Hervey Bay Road and Urraween Road intersection safety upgrade

## 5.3 Measuring success

Overall, the effectiveness of this Plan within the region will be measured against the measures of success outlined for each priority. These align to the Transport and Main Roads' *Transport Coordination Plan 2017–2027* 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 performance.

### PRIORITY 1: COMMUNITY

MEASURE OF SUCCESS	PROPOSED INDICATOR	SOURCE
Level of transport disadvantage decreases.	Proportion of population in areas of unmet transport need (high mobility disadvantage and not served by public transport).	Transport and Main Roads
Greater and improved access and connectivity to places, services and information.	Proportion of the population with good accessibility to a range of essential services in urban areas (by walking, cycling or public transport).*	Transport and Main Roads

### PRIORITY 2: ECONOMIC DEVELOPMENT

MEASURE OF SUCCESS	PROPOSED INDICATOR	SOURCE
Freight productivity improves.	Heavy vehicle operating costs	Transport and Main Roads
	Distance (km) of pre-approved heavy vehicle routes.	National Heavy Vehicle Regulator
Transport supports the region's tourism economy	Average travel time to key tourist destinations from major accommodation precincts.*	Transport and Main Roads



### PRIORITY 3: SAFETY

MEASURE OF SUCCESS	PROPOSED INDICATOR	SOURCE
Reduction in transport-related incidents, crashes, injuries and fatalities.	Number of road fatalities and hospitalised casualties.*	Transport and Main Roads
	Road crashes (resulting in fatalities or hospitalisation casualties) per 100 million vehicles kilometres travelled on state-controlled roads.	Transport and Main Roads
	Number of killed or seriously injured in marine incidents per 10,000 registered vessels.	Transport and Main Roads

### PRIORITY 4: SUSTAINABILITY AND RESILIENCE

MEASURE OF SUCCESS	PROPOSED INDICATOR	SOURCE
Reduced frequency and duration of unplanned closures.	Frequency and total duration of road closures on the transport network (state-controlled roads) during flooding events.	Transport and Main Roads
	Frequency and total duration of unplanned closures on the transport network (state-controlled roads).	Transport and Main Roads
Proportion of people choosing to walk, cycle and take public transport increases.	Proportion of people choosing to walk, cycle and take public transport to work.^	Australian Bureau of Statistics

Figure 14: Measures of success and proposed indicators

\* Bundaberg, Hervey Bay and Maryborough urban areas using the Land Use and Public Transport Accessibility Index (LUPTAI) model to estimate levels of access to destinations by various modes.

^ Proxy measure for a more accessible transport system through an increased use of a greater range of transport options.

## 5.4 Monitoring and review

This Plan will be monitored, periodically reviewed and updated to ensure it remains current and relevant.

In the short term, monitoring will focus on ensuring the actions put forward are prioritised and progressed through departmental and local planning programs. As the Plan matures and planning and delivery is completed, monitoring will focus on tracking progress against objectives and measures of success (Figure 15).

It is intended that a review of the Plan 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.

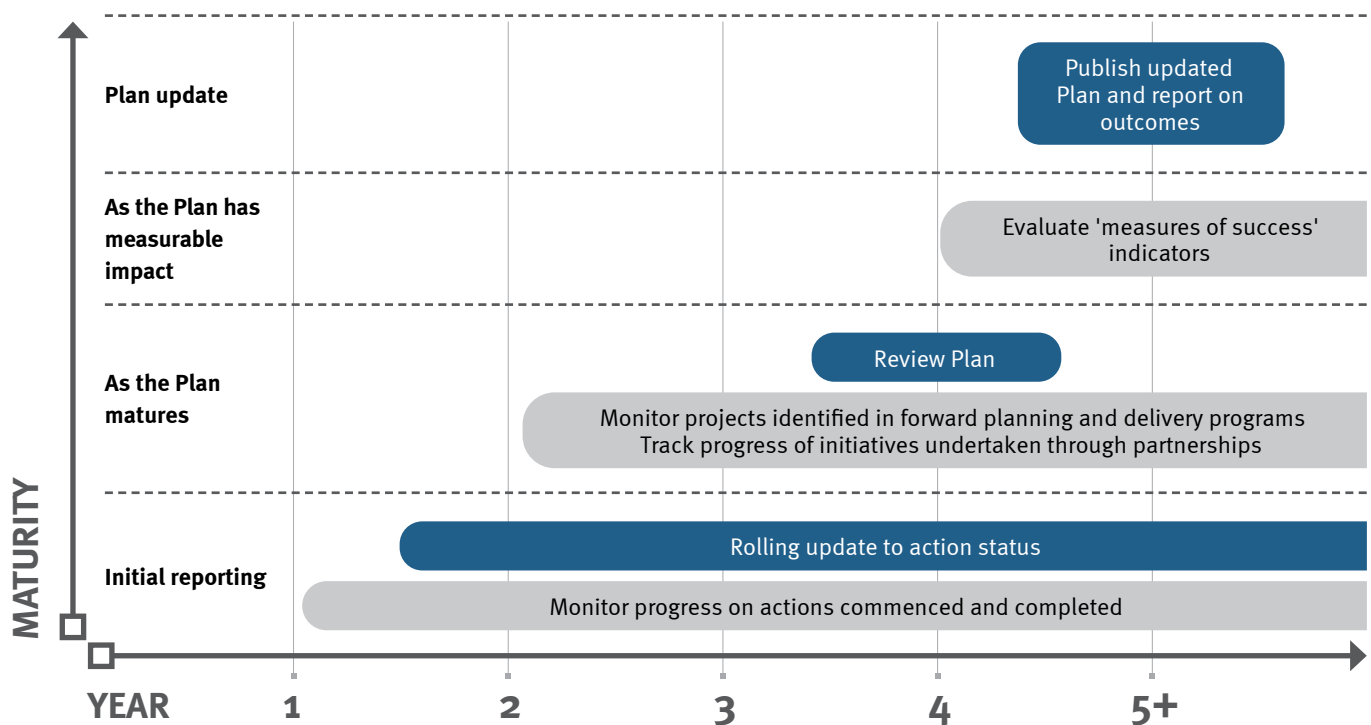


Figure 15: Monitoring, reporting and review as the Plan matures

### Further information

Please email [TMR\\_Regional\\_Transport\\_Plans@tmr.qld.gov.au](mailto:TMR_Regional_Transport_Plans@tmr.qld.gov.au) for further details on this or other Regional Transport Plans.



*Aboriginal midden site, Fraser Island*

## PHOTO CREDITS

Front cover, Port of Bundaberg, (background), Gladstone Ports Corporation Limited; long distance rail service at Maryborough West train station (inset, left); Wide Bay regional bus service (inset, centre); Old Monto Shire Hall (inset, right), Tourism and Events Queensland.

Inside cover, Lake McKenzie, Fraser Island, Tourism and Events Queensland.

Page 4, Bundaberg Post Office, Tourism and Events Queensland.

Page 10, Sea turtles at Lady Elliot Island, Tourism and Events Queensland.

Page 12, Burrum Heads recreational boating facility, Fraser Coast Regional Council.

Page 17, Activity on beach in the early evening, Hervey Bay, Tourism and Events Queensland.

Page 18, Urangan Pier, Hervey Bay, Tourism and Events Queensland.

Page 20, Pelicans on beach, Tourism and Events Queensland.

Page 21, Aerial view of the Burnett River, Tourism and Events Queensland; Ration Shed, Cherbourg, Ration Shed Museum.

Page 22, Aerial view of Hervey Bay, Fraser Coast Regional Council; Jacarandas in Nielson Reserve, Gympie, Tourism and Events Queensland.

Page 23, Gayndah town centre, North Burnett Regional Council; South Burnett farm, South Burnett Regional Council.

Page 25, Burnett River Bridge, Tourism and Events Queensland.

Page 31, Sunset overlooking bay, Hervey Bay, Tourism and Events Queensland.

Page 32, Campervan on unsealed road near Gayndah, Tourism and Events Queensland.

Page 42, Mystery Craters Leisure Park, Tourism and Events Queensland.

Page 43, Surat Basin Infrastructure Corridor, Department of State Development, Manufacturing, Infrastructure and Planning.

Page 44, Bundaberg State Development Area, Gladstone Ports Corporation.

Page 46, Fraser Venture unloading at River Heads, Tourism and Events Queensland/Darren Jew.

Page 47, Boat on shore at Elliot Heads, Tourism and Events Queensland.

Page 48, Rural road near Gayndah, Tourism and Events Queensland.

Page 50, Four wheel drive on beach, Seventy Five Mile Beach, Fraser Island, Tourism and Events Queensland.

Page 52, North Burnett Transport Service bus, North Burnett Regional Council.

Page 53, Mandarin farm, Gayndah, Tourism and Events Queensland.

Page 58, Harvesting at a Cordalba farm, Tourism and Events Queensland.

Page 76, Maheno Wreck, Fraser Island, Tourism and Events Queensland.

Page 83, Aboriginal midden site, Fraser Island, Tourism and Events Queensland.

The rights to images not listed are owned by the Department of Transport and Main Roads.

