

# MACKAY ISAAC WHITSUNDAY

## REGIONAL TRANSPORT PLAN

2018





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

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

- Mackay Regional Council
- Isaac Regional Council
- Whitsunday Regional Council.

*Cover images : Aerial image of Mackay (background); Whitehaven Beach (inset, left); Boundary Creek (inset, centre); Ship docked, Mackay Harbour (inset, right).*

*Inside cover image: Heart Reef, Whitsunday.*

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*Cyclists in Mackay*



# 1. Introduction





## 1.1 A shared direction for transport

The *Mackay Isaac Whitsunday 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 Mackay, Isaac and Whitsunday region is home to over 173,000 people and includes the local government areas of Mackay, Isaac and Whitsunday.<sup>1</sup>

## 1.2 What is a Regional Transport Plan

The purpose of the *Mackay Isaac Whitsunday 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.

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

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

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

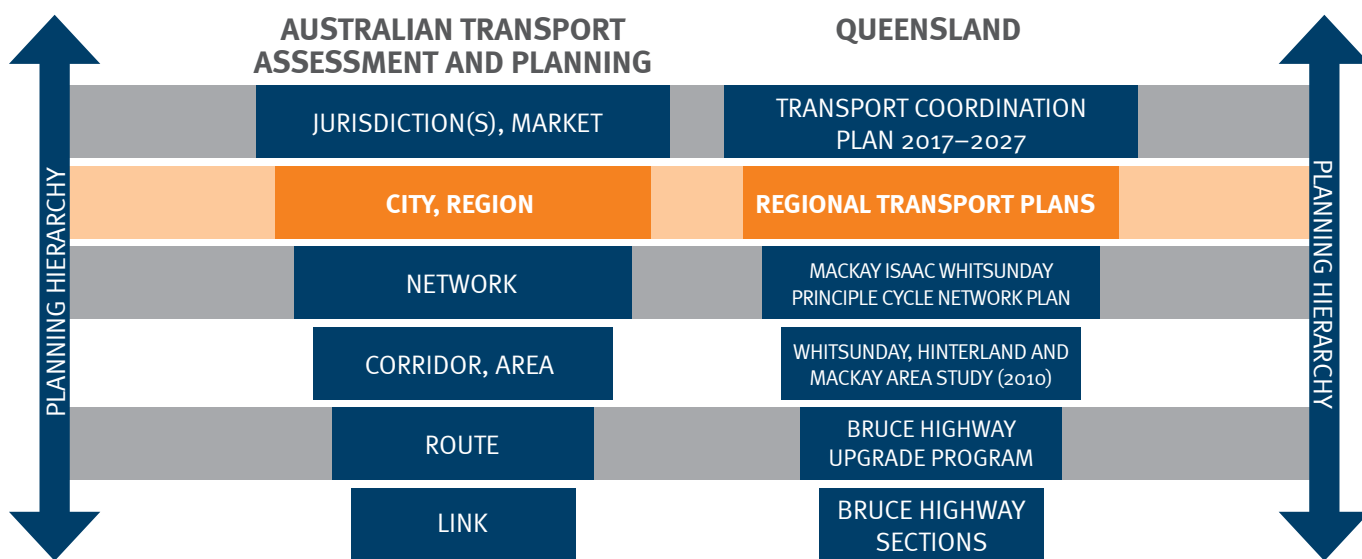


Figure 1: Examples of how Queensland responds to the Australian Transport Assessment and Planning hierarchy

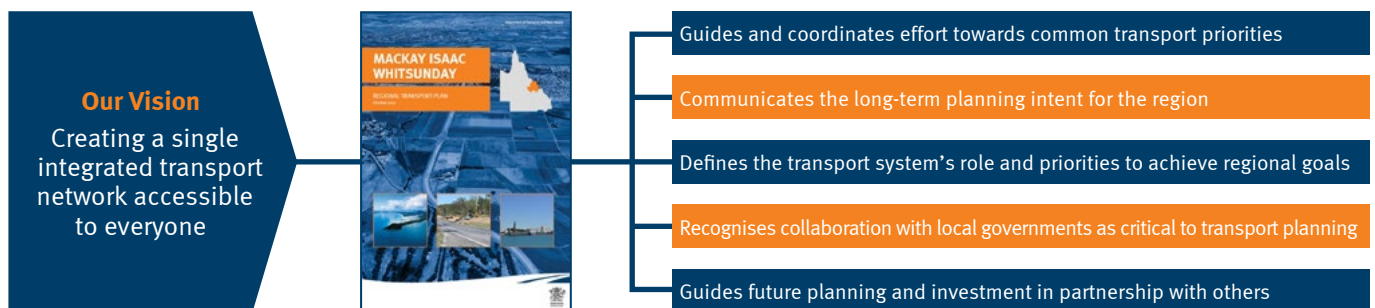
1 Australian Bureau of Statistics. (2017). *Regional Population Growth, Australia* (Catalogue No. 3218.0).



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

This Regional Transport Plan has been developed in the context of policies, strategies, plans and investment frameworks across all levels of government (see Table 1 on page 8). 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*
- *Mackay Isaac Whitsunday Regional Plan 2012*
- local government land use and transport plans, and strategies
- 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 2017–2027*
- 'Queensland transport Strategy' (draft)
- *Transport and Main Roads Strategic Plan 2016–2020*
- 'Queensland Freight Strategy' (draft)
- *Moving People Connecting Communities*
- *Safer Roads, Safer Queensland: Queensland's Road Safety Strategy 2015–2021*
- *Queensland Cycling Strategy 2017–2027*
- *Queensland Road System Performance Plan*
- *Bruce Highway Action Plan*
- 'Heavy Vehicle Network Plan' (draft).

Priorities and actions identified in this plan align with current statewide transport policies and objectives. The department regularly reviews and updates statewide strategies and plans. Future updates to the Plan will reflect any additional or amended statewide plans and strategies as part of the update.



Table 1: The strategic fit of Regional Transport Plans

FRAMEWORK ELEMENT	DIRECTION SETTING	STRATEGIC PLANNING	PROGRAMMING (including investment)	DELIVERING
	Establish broad, high level strategic intent or policy positions	Develop plans or strategies to focus on key themes or areas	Identify, evaluate, prioritise and program initiatives including addressing funding/ investment requirements, competing needs and timeframes	Provide services and infrastructure such as public transport, bridges and tunnels, maintenance, regulation and compliance/ monitoring activities
<b>National</b>	<ul style="list-style-type: none"> <li>Australian Infrastructure Plan</li> <li>Our North, Our Future: A White Paper on Developing Northern Australia</li> <li>Smart Cities Plan</li> </ul>	<ul style="list-style-type: none"> <li>Australian Transport and Assessment Planning Guidelines</li> <li>Infrastructure Australia's Infrastructure Priority List</li> <li>National Land Freight Strategy</li> <li>Infrastructure Australia's Urban Transport Strategy</li> </ul>	<ul style="list-style-type: none"> <li>Infrastructure Investment Program</li> <li>Australian Infrastructure Audit</li> <li>National Land Transport Network investment strategies</li> <li>Fix the Bruce</li> <li>Townsville City Deal</li> </ul>	<ul style="list-style-type: none"> <li>Gateway Upgrade North</li> <li>Cooroy to Curra, Section A</li> <li>Toowoomba Second Range Crossing</li> <li>Mackay Ring Road Stage 1</li> </ul>
<b>Queensland Government</b>	<ul style="list-style-type: none"> <li>Objectives for the community</li> <li>Advance Queensland</li> <li>State Planning Policy</li> </ul>	<ul style="list-style-type: none"> <li>Regional Plans – Mackay, Isaac Whitsunday Regional Plan 2012</li> <li>State Infrastructure Plan Part A</li> <li>Building Queensland's Infrastructure Pipeline</li> <li>Queensland Cycling Strategy 2017–2027</li> </ul>	<ul style="list-style-type: none"> <li>Project Assessment Framework</li> <li>State Infrastructure Plan Part B</li> <li>Building Queensland Business Case Assessment</li> <li>Bruce Highway Action Plan</li> </ul>	<ul style="list-style-type: none"> <li>Bill Fulton Bridge Cairns</li> <li>Riverway Drive Townsville</li> <li>Vines Creek Mackay</li> <li>North Coast Line Capacity Improvement Project</li> <li>Cross River Rail</li> </ul>
<b>Departmental</b>	<ul style="list-style-type: none"> <li>Transport Coordination Plan 2017–2027</li> <li>'Queensland transport Strategy' (draft)</li> <li>Transport and Main Roads Strategic Plan 2016–2020</li> </ul>	<ul style="list-style-type: none"> <li><b>Regional Transport Plans</b></li> <li>System strategies and plans (e.g. rail, ports, freight, passenger, road safety)</li> <li>Area and corridor transport strategies</li> <li>Route and link plans</li> <li>Principal cycle network plans</li> </ul>	<ul style="list-style-type: none"> <li>10-year transport infrastructure portfolio investment planning</li> <li>Queensland Transport and Roads Investment Program (QTRIP)</li> <li>Highway investment strategies</li> <li>Transport System Planning Program</li> </ul>	<ul style="list-style-type: none"> <li>Transport service contracts</li> <li>Transport Infrastructure Development Scheme</li> <li>Safer Roads Sooner</li> </ul>
<b>Local</b>	<ul style="list-style-type: none"> <li>Vision statements</li> <li>Strategic/corporate plans</li> </ul>	<ul style="list-style-type: none"> <li>Planning schemes</li> <li>Local area plans</li> <li>Local transport plans</li> </ul>	<ul style="list-style-type: none"> <li>Local government infrastructure plans</li> <li>Local government investment and works programs</li> </ul>	<ul style="list-style-type: none"> <li>Local roads projects</li> <li>Bikeway and footpath projects</li> <li>Local bus infrastructure projects</li> </ul>

## 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 the regional level.

The Queensland Government's strategic direction for transport infrastructure is expressed by the *State Infrastructure Plan* responses (Table 2). 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 2: *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*

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 Mackay Isaac Whitsunday 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 state transport interests: state transport infrastructure; strategic airports and aviation facilities; and strategic ports.

The *State Planning Policy* identifies four strategic airports within the region—the Mackay, Moranbah, Hamilton Island and Whitsunday Coast Airports and three strategic ports—Abbot Point, Hay Point and Mackay.



## 1.7 Alignment with regional planning

### *Mackay, Isaac and Whitsunday Regional Plan*

The *Mackay Isaac and Whitsunday Regional Plan* (the regional plan), established a 20-year direction for the region to be resilient, vibrant and sustainable. Published in 2012, it contains a number of elements still relevant today. These elements include:

- addressing regional economic, social and environmental issues
- identifying strategic infrastructure and service needs and priorities
- supporting economic prosperity and employment opportunities
- highlighting and responding to climate change concerns
- recognising environmental values
- supporting consolidated growth within established regional centres and townships
- focusing public, private and community sector responses to key regional issues
- aligning efforts across agencies and all levels of government.

Since the development of the regional plan in 2012, there have been changes to mineral commodity values and the mining investment cycle. This has resulted in a shift in the population trends and settlement patterns within the region, including an overall slowing in the population growth. Transport and Main Roads has used updated population forecasts to inform transport planning activities. Although the 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 desired regional outcomes express a number of core transport principles, including:

- providing highly connected transport networks to facilitate strong links within and between communities and activity centres to enable high levels of accessibility, route and mode choice
- an efficient, sustainable and integrated transport system exists for the region that is safe and accessible
- the efficient and effective movement of freight supports regional growth.



*Airlie Beach Lagoon*

## 1.8 Achievements to date

Transport and Main Roads have reflected on the transport principles outlined in the *Mackay Isaac Whitsunday Regional Plan 2012*, along with other strategic direction setting documents and delivered the following transport network improvements in the region:

- Mackay Ring Road (Stage 1), a two-lane rural highway deviation with 13 bridges bypassing Mackay. This will improve safety for the heavy vehicle industry and connectivity to the Port of Mackay and reduce congestion through Mackay.
- Duplication of the Bruce Highway between Bakers Creek and Mackay City Gates, including the upgrading of six intersections.
- Upgrades to the two Vines Creek Bridges on the Mackay-Slade Point Road. As the sole bridges for heavy vehicles travelling to the Port of Mackay, the new bridges will increase mass limit and support industry growth in the region.
- Two new overtaking lanes both 1.3 kilometres in length on the Bruce Highway at Dingo Creek (northbound) and Emu Creek (southbound).
- The Peak Downs Highway Upgrade works at Eton Range, west of Mackay which is expected to be completed in late 2018. The project aims to improve the safety and reliability of the Peak Downs Highway, which is the only designated B-double route from Mackay west to the Northern Bowen Basin. The works include widening to four lanes, a split carriageway, and partial realignment of the existing Eton Range crossing, which will reduce the need to close the range for oversized vehicles.
- Upgrades to the Bruce Highway intersection between the Mackay Showgrounds, Shakespeare Street and corner of Gordon and Milton Streets in Mackay. The intersection upgrade will reduce travel times and increase lane capacity and improves overall safety and traffic management. It also delivered a new protected bicycle lane, cycle specific crossing lights, kerb ramps to allow use of either on-road or off-road cycle facility and a three metre off-road shared path along the Bruce Highway on the showgrounds side.
- Upgrades to the intersection of Mackay-Eungella Road and Kennys Road. The project was jointly funded by the Queensland Government and local government. The works focussed on improving safety at the intersection through the installation of traffic signals and providing a pedestrian crossing on Mackay-Eungella Road.
- Upgrades to the Greenmount Wollingford Road intersection which included the provision of right turn facilities at the intersections on the Peak Downs Highway at Old Rocky Waterholes and Wollingford Road/Greenmount Drive. The project was funded by the Queensland Government under the Safer Roads Sooner Program.
- Development of the *Mackay Isaac Whitsunday Principal Cycle Network Plan*, which guides the ongoing establishment of cost-effective, efficient and safe network of cycle infrastructure throughout the region.
- Upgrades to the Bruce Highway (St Lawrence–Mackay) at the southern approach to Sarina as part of the Nation Building Program, funded by the Australian Government.
- Upgrades to the Waverley Creek Rest Area, construction of a new heavy vehicle rest area and shoulder widening on the Bruce Highway (St Lawrence–Mackay) between Granite Creek and Freshwater Creek, as part of the Nation Building Program, funded by the Australian Government.
- Replacement of the existing one-lane boat ramp at Constant Creek boat ramp.
- Rehabilitation of a section of the Bowen Developmental Road (Peter Delamothe Road) between Bowen and Collinsville.



Peak Downs Highway, Isaac



## 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 or bus lanes.

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.

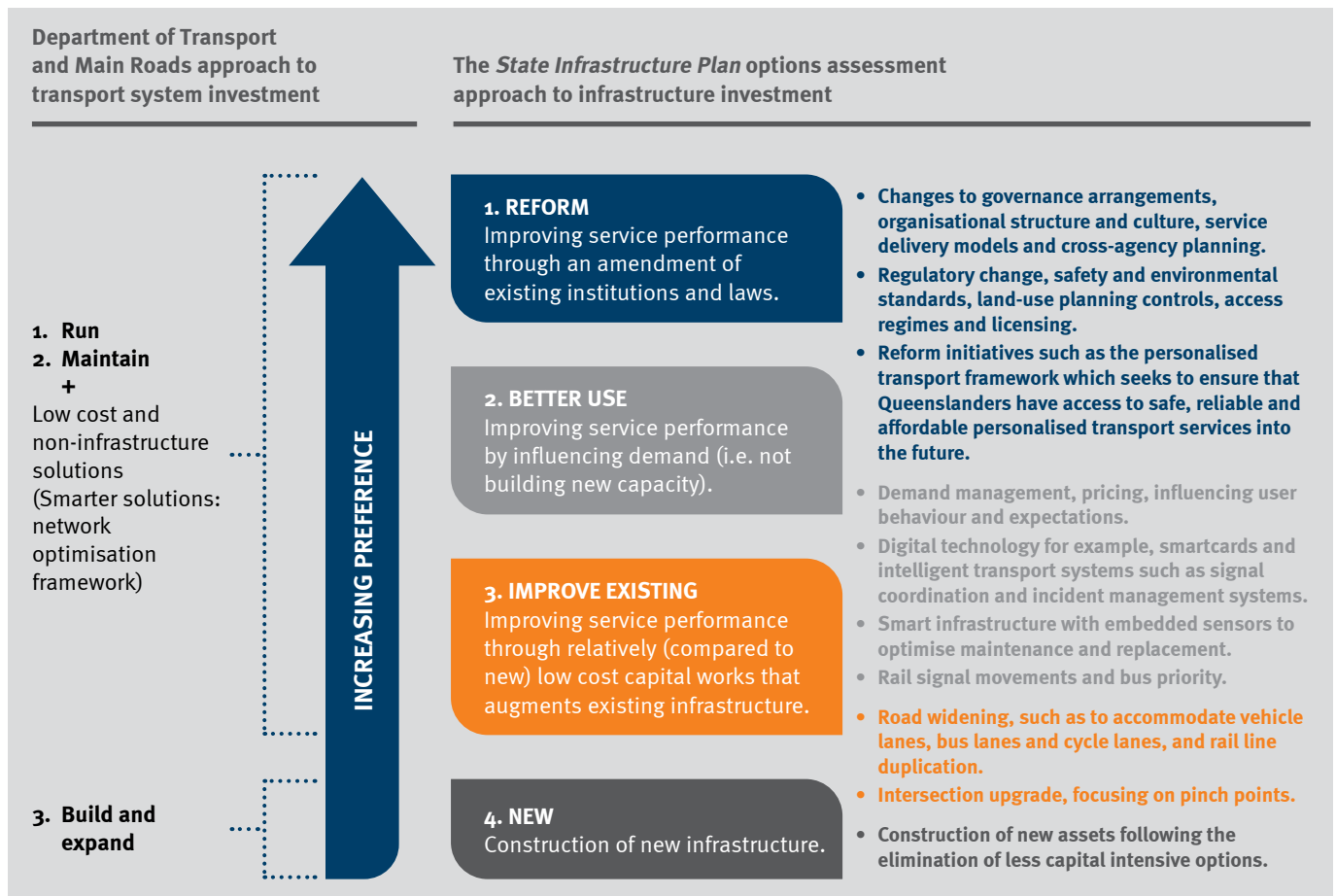
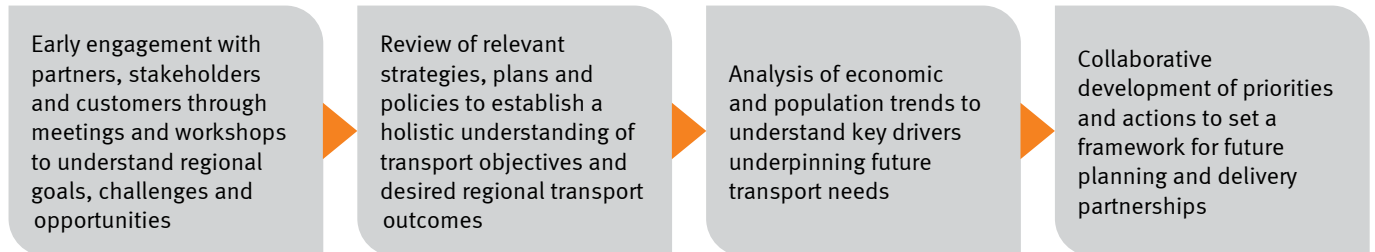


Figure 2: Alignment between the departmental and government approaches to infrastructure investment

## Process

The 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.



Mackay bus services



## 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 the experiences 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 agriculture, mining, health, tourism and small business. 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:

- A need for resilient roads which can remain open during weather events, and if they cannot, that they can re-open quickly.
- Safety on the region's roads must be a priority.
- The need to diversify the economy to reduce exposure to the cyclical nature of the resources sector.
- Population reduction from the contraction in the resources sector is effecting small businesses in Mackay and Isaac through weakened demand for goods and services.
- Minimise environmental impacts.

This 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.

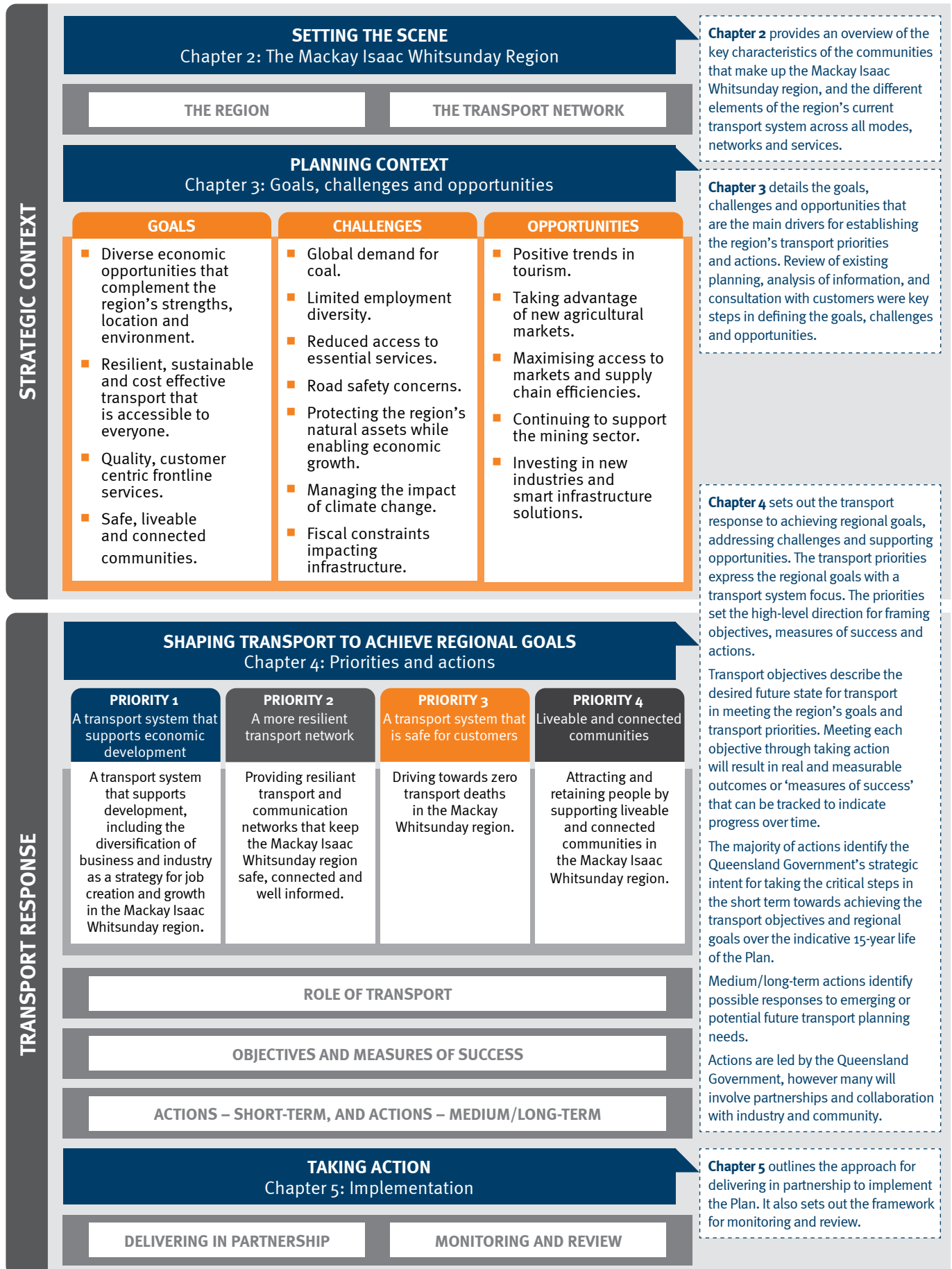
- **Chapter 1** introduces the purpose, scope and strategic alignment of the Regional Transport Plan.
- **Chapter 2** provides an overview of the region's community, economy and transport system.
- **Chapter 3** describes the region's goals, challenges and opportunities and their relationship to transport.
- **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 3 outlines the key components of the Regional Transport Plan.



Mackay-Bucasia Road, Mackay

Table 3: Structure of the Mackay Isaac Whitsunday Regional Transport Plan







Mackay

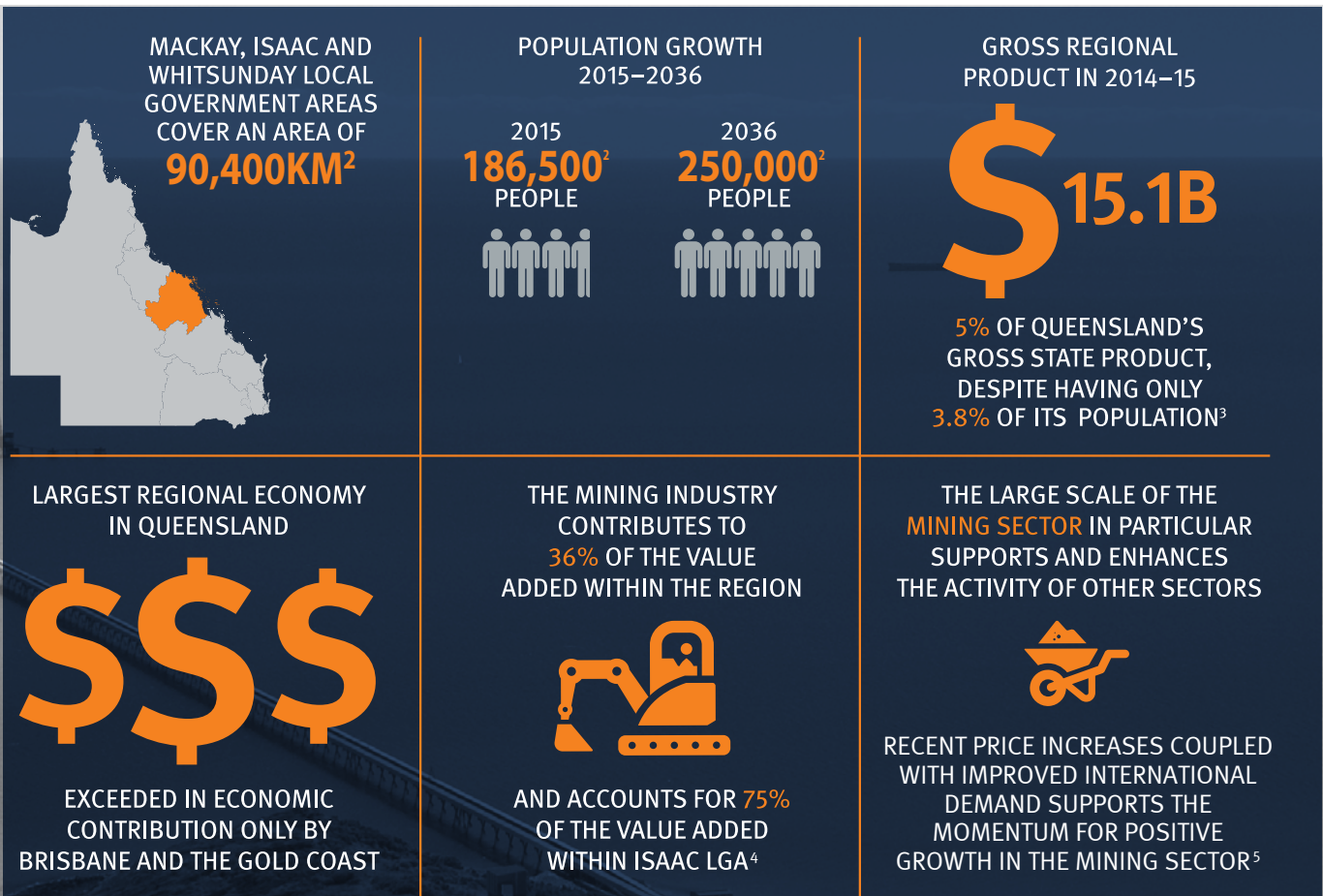


An aerial photograph of a rural landscape featuring a patchwork of green and brown agricultural fields. A road with a few vehicles is visible in the lower-left corner. A small farmstead with a white and yellow building is situated in the lower-middle section. A large, semi-transparent orange rectangle is overlaid on the top half of the image, containing white text.

## 2. The Mackay Isaac Whitsunday Region



## 2.1 Region overview



### KEY FEATURES OF THE REGIONAL ECONOMY



A strong **manufacturing base focused in the Mackay area<sup>6</sup>**.



The Bowen and Galilee basins contain the **largest coal mining deposits in Australia** and the majority of Queensland's prime coking coal including the highest grade metallurgical coal in the world<sup>7</sup>.



The strong agribusiness sector, which includes **one of the nation's largest sugar and bio commodity producers** and one of the largest winter produce growing regions in Australia.



The expanding construction, manufacturing and development industry is underpinned by **accessible port facilities, rail and air infrastructure**.



The region also includes **world renowned tourism destinations** including the 74 Whitsunday Islands and the Great Barrier Reef.

<sup>2</sup> Queensland Government Population Projections. (2015). *2015 edition (medium series)*.

<sup>3</sup> Australian Bureau of Statistics. (2011). *Population and Gross State Product data*.

<sup>4</sup> Economic Profile for Isaac Regional Council, Mackay Regional Council, Whitsunday Regional Council, Latest REMPLAN data incorporating Australian Bureau of Statistics' (ABS) June 2015 Gross State Product, 2012/2013 National Input Output Tables and 2011 Census Place of Work Employment Data.

<sup>5</sup> Australian Bureau of Statistics. (2016). *Private New Capital Expenditure and Expected Expenditure*.

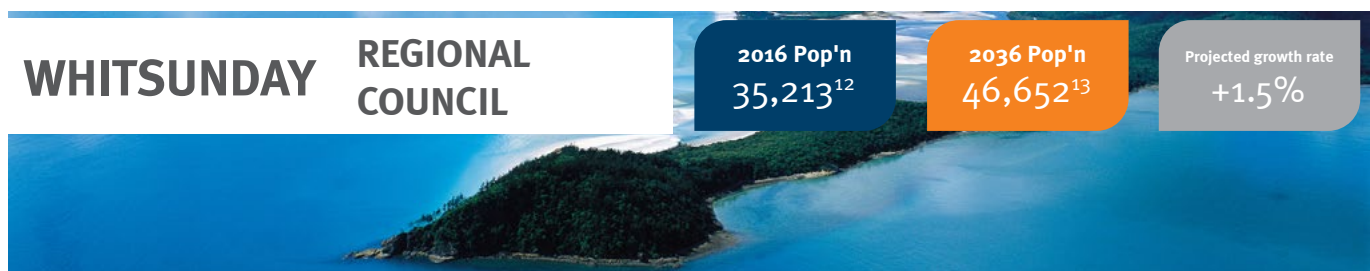
<sup>6</sup> Mackay Regional Council, Economic Profile, REMPLAN data incorporating Australian Bureau of Statistics' (ABS). (June 2015). *Gross State Product, (2012 / 2013). National Input Output Tables and (2011). Census Place of Work Employment Data*.

<sup>7</sup> Minerals Council of Australia. (2016). [www.minerals.org.au/resources/coal/coal\\_mines\\_by\\_state](http://www.minerals.org.au/resources/coal/coal_mines_by_state).

## Local government areas



Key centres	Mackay, Sarina, Mirani, Marian and Walkerston.
Economy	The Mackay Local Government Area is one of the largest sugar-producing regions in Australia. <sup>10</sup> The local economy's largest gross revenue generators are the manufacturing and construction industries. Mackay's local economy is underpinned by its role in supporting the mining and resource sectors that are prominent in the Bowen and Galilee Basins. <sup>10</sup>
Employment	The retail trade (12 per cent), manufacturing (11 per cent), health care and social assistance (10 per cent) and construction (9 per cent) industries are the top four employers in Mackay. <sup>10</sup>
Travel to work	More than 75 per cent of employees who live in Mackay travel to work by car, with a small proportion cycling and walking, and the remainder working from home. <sup>11</sup>



Key centres	Proserpine, Bowen, Airlie Beach, Cannonvale and Collinsville.
Economy	Whitsunday's local economy is driven by the agricultural, construction, mining and tourism industries. The key centres of Proserpine and Bowen support surrounding agriculture activity and benefit from direct access to the Bruce Highway and proximity to regionally significant transport facilities, including airports in Proserpine, on Hamilton Island, the Abbot Point port and Rail supporting the mining industry. Airlie Beach and nearby Cannonvale provide access to the Whitsunday coast and islands, with Airlie Beach a significant tourist destination.
Employment	The Whitsunday's tourism and agriculture industries continue to be the pillars of the economy with employment figures revealing the accommodation and food services industry being the most prolific employer, followed by the retail trade and the agriculture, forestry and fishing industry. <sup>14</sup>
Travel to work	A higher proportion of Whitsunday's workforce travels to work by car than the Queensland average. The Whitsunday local government area does however have a markedly higher proportion of its workforce who walk to work compared to the Mackay and Isaac local government areas. <sup>15</sup>

<sup>8</sup> Australian Bureau of Statistics. (2017). *Regional Population Growth, Australia* (Catalogue No. 3218.0).

<sup>9</sup> Queensland Government Statistician's Office. (2015). *Queensland Government Population Projections, 2015 edition (medium series)*.

<sup>10</sup> Mackay Regional Council, Economic Profile, REMPLAN data incorporating Australian Bureau of Statistics. (June 2015). *Gross State Product, (2012/2013). National Input Output Tables and (2011). Census Place of Work Employment Data*.

<sup>11</sup> Economic Profile for Isaac Regional Council, Mackay Regional Council, Whitsunday Regional Council, Latest REMPLAN data incorporating Australian Bureau of Statistics. (June 2015). *Gross State Product, (2012 / 2013). National Input Output Tables, and (2011) Census Place of Work Employment Data*.

<sup>12</sup> Australian Bureau of Statistics. (2017). *Regional Population Growth, Australia* (Catalogue No. 3218.0).

<sup>13</sup> Queensland Government Statistician's Office. (2015). *Queensland Government Population Projections, 2015 edition (medium series)*.

<sup>14</sup> Australian Bureau of Statistics. (2011). *Census of Population and Housing, Working Population Profile - W12 (place of work)* (Catalogue No. 2006.0)

<sup>15</sup> Australian Bureau of Statistics. (2011). *Census of Population and Housing, Working Population Profile - W22 (method of travel to work by age and sex)* (Catalogue No. 2006.0).





Key centres	Moranbah, Clermont, Dysart, Middlemount, Glenden, Nebo, and the smaller coastal communities of Carmila, St Lawrence and Clairview.
Economy	The Isaac area economy consists predominantly of agricultural industries, particularly grazing and dry land grain cropping. In recent decades this has moved toward the resources sector due to the proximity to the Bowen Basin coal reserve, which accounts for 83 per cent of all coal production in Queensland. <sup>18</sup>
Employment	The mining industry employs more than 50 per cent of residents, with those working in the region having a median income of close to \$100,000 per year, significantly above state and national averages. A large proportion of the mining workforce are non-resident workers that are not captured by census data. <sup>19</sup>
Travel to work	Close to 10 per cent of residents in the Isaac region travel to work by bus. <sup>20</sup> This is likely to be due to the proportion of residents using privately supplied shuttle buses to travel to mine sites. Journey to work mode-share in Isaac is likely to change over time in line with the cyclical nature of the resources sector.

<sup>16</sup> Australian Bureau of Statistics. (2017). *Regional Population Growth, Australia (Catalogue No. 3218.0)*.

<sup>17</sup> Queensland Government Statistician's Office. (2015). *Queensland Government Population Projections, 2015 edition (medium series)*.

<sup>18</sup> Central Queensland University. (2016). *Mining Communities Research Exchange*.

<sup>19</sup> Planning and Natural Resources Parliamentary Committee. (2015). *Inquiry into fly-in, fly-out and other long distance commuting work practices in regional Queensland*.

<sup>20</sup> Australian Bureau of Statistics. (2011). *Census of Population and Housing, Working Population Profile - W22 (method of travel to work by age and sex) (Catalogue No. 2006.0)*.





*Forgan Bridge, Mackay*



## 2.2 Transport network

The geographical area of the region is outlined in Figure 3 and includes three local government areas.



Figure 3: Mackay Isaac Whitsunday region

The region's transport network is characterised by intra-regional connections between the larger regional centres along the coast and smaller inland centres. It incorporates both road and rail links that are recognised as being of state and national significance. Figure 4 outlines the mode share of transport in comparison to other areas.

## Roads

Due to the long distances between centres and a lack of alternative options, private vehicle is the dominant mode of transport for the region. The Bruce Highway is the most prominent road in the region and is a critical north-south connection for both freight and passenger traffic. The Bruce Highway connects Brisbane to Cairns and passes the regional centres of Sarina, Mackay and Proserpine. The region contains a number of lower order state controlled roads and local roads that are detailed in Figure 3, these roads play a critical role in meeting the transport task of the region.

East-west movements are facilitated by the Peak Downs Highway and Bowen Developmental Road. The Peak Downs Highway connects Mackay to Clermont and serves the key centres of Moranbah and Nebo. The Peak Downs Highway is a key freight route that services the Bowen Basin. The Bowen Developmental Road serves as a key link to the Northern Bowen and Galilee Basins, it has an important freight function for the movement of commodities from the region's farming and grazing areas.

## Rail

Rail plays an important economic function within the region. Freight rail is the primary means of transporting coal from the Bowen Basin to the coal ports at Hay Point and Abbot Point. There is also an extensive cane railway network that transports harvested cane to the region's sugar mills for processing.

The North Coast Rail line runs parallel to the Queensland coast line between Nambour in the south and Cairns in the north, and is the principal regional freight and passenger line in Queensland's rail network. The line carries various freight products, including containerised freight, minerals, livestock, and commodities such as sugar and grain. Long distance and high speed passenger train services also operate on the route connecting Mackay to other regional centres.

## Ports

The region's ports are important to the continued function of the region's economy, enabling agricultural products and bulk commodities to be exported to market. There are two significant coal ports in the region at Hay Point and Abbot Point, and one mixed commodity port at Mackay. While coal is the major commodity moved by sea, the Mackay Port supports a broad range of other commodity movements.



*Rail crossing, Sarina*



## Airports

Airports at Proserpine, Mackay, Moranbah and Hamilton Island provide access for regular passenger transport services and are supported by smaller aerodromes and airstrips throughout the region. Increasingly, the region’s airports are contributing to the regional import and export of goods.<sup>21</sup>

## Passenger transport

The passenger transport network in the region comprises local bus, community transport services and long distance passenger services. Urban bus services are available within the Mackay and Whitsunday local government areas. Ferries depart from Airlie Beach to the Whitsunday Islands and long distance bus services operate along the Bruce Highway and from Mackay to Emerald and Bowen to Collinsville. The North Coast Rail Line also provides passenger services which connect Bowen, Proserpine, Mackay, Sarina, Carmila and St Lawrence, with other centres along the coast.

These rail services predominantly cater for travel by tourists or residents making long distance trips. The infrequency and timetabling of services means they are largely unsuitable for intra-regional travel and do not serve commuter needs. A limited amount of flexible and community-based transport options are available in some centres including school buses and taxi services.

## Network constraints and challenges

The region’s transport system is reasonably efficient at moving export goods. There are some constraints on freight productivity through roads, rail and ports. Freight movement is largely reliant on the road network, with cane trains crossing roads in coastal areas. As a consequence, there are conflicts between freight, passenger vehicles and cane trains.

Increases in size, tonnage and frequency of freight vehicles, population growth and the large number of drive-in drive-out workers also contribute to conflict on the road network. There are a number of ‘last mile’ access constraints and lack of direct access to initial producers. The region is subject to high average rainfall causing seasonal deterioration of road and rail infrastructure. Flooding caused by weather events can cut access to communities and cause safety and maintenance issues.

Road safety is a concern, particularly along the Bruce Highway, which has a higher number of fatalities and serious injuries compared to other areas of the state.

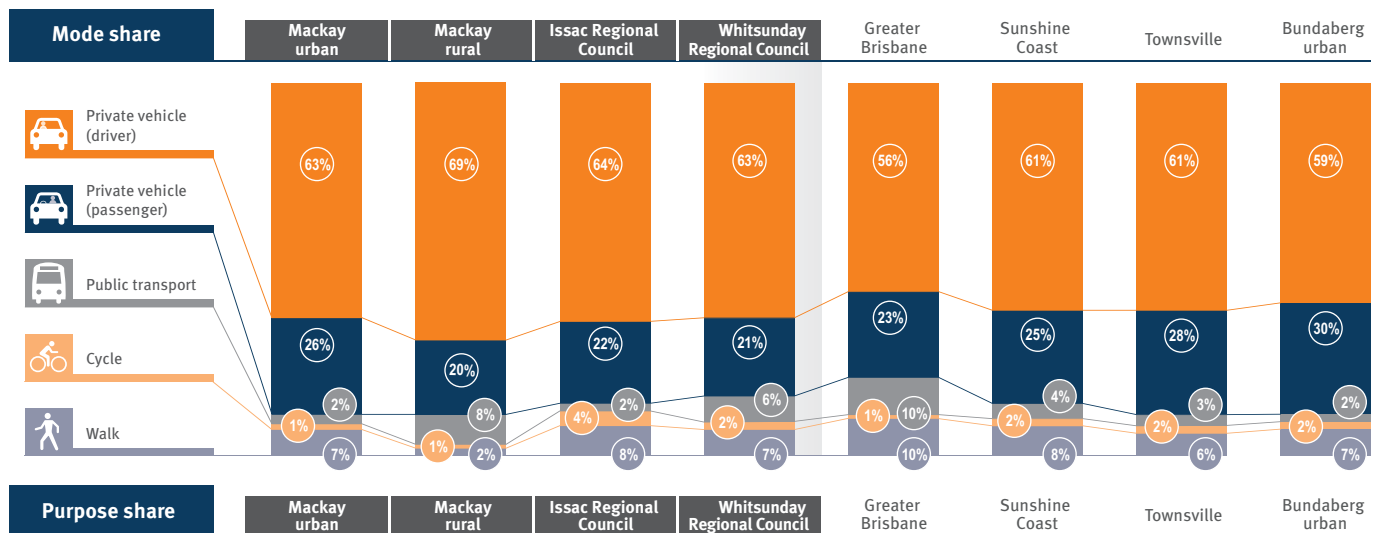


Figure 4: Mode share<sup>22</sup>

21 Department of State Development, Infrastructure and Planning. (2013). *Economic Directions Statement Queensland Airports 2013–2023*

22 Department of Transport and Main Roads. (2012). *Household Travel Survey in Mackay, Isaac and Whitsunday*

THE REGION'S MAJOR ROADS CARRY APPROXIMATELY  
**16 MILLION**  
TONNES OF FREIGHT ANNUALLY



THE REGION'S RAIL NETWORK CARRIES APPROXIMATELY  
**140 MILLION**  
TONNES OF FREIGHT (OR 50 PER CENT OF THE TOTAL STATE FREIGHT TASK)



THE REGION'S PORTS HANDLE APPROXIMATELY  
**145 MILLION**  
TONNES OF GOODS ANNUALLY



THE REGION'S AIRPORTS MOVE MORE THAN  
**50,000 TONNES**  
OF AIRFREIGHT ANNUALLY



**576,000**  
TRIPS ARE MADE EACH WEEKDAY



EACH PERSON MAKES AN AVERAGE OF  
**3.4**  
TRIPS PER DAY



TOTAL DISTANCE  
**57.5KM**  
PER DAY

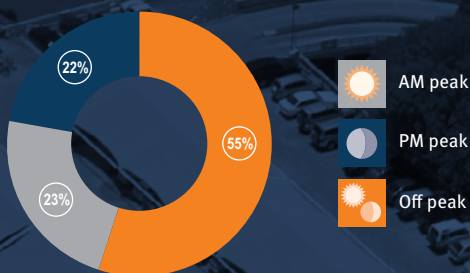


**CAR**  
IS THE DOMINANT MODE OF TRANSPORT IN THE REGION



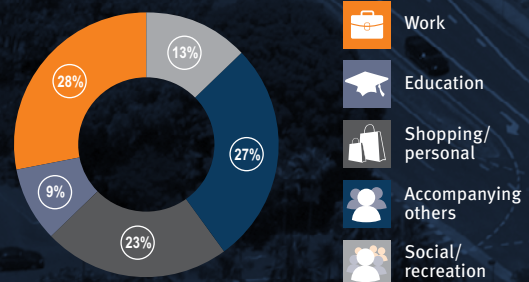
TRAVEL IN THE AM AND PM PEAKS ARE COMPARABLE TO OTHER REGIONAL CENTRES AND BRISBANE.

**OFF PEAK TRAVEL**  
IS LOWER IN MACKAY THAN BRISBANE



\* Data weighted to Australian Bureau of Statistics 2011 Census of Population and Housing

**THE PROPORTION OF TRIPS**  
MADE IN MACKAY TO ACCOMPANY OR TRANSPORT OTHER PEOPLE IS COMPARABLE TO OTHER REGIONAL CENTRES BUT IS SIGNIFICANTLY HIGHER COMPARED TO BRISBANE



\* Queensland Department of Transport and Main Roads, 2012, Household Travel Survey in Mackay, Isaac and Whitsunday





*Abbot Point Coal Terminal, Bowen*

# 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 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 *Mackay Isaac Whitsunday Regional Transport Plan* goals are as follows:

- diverse economic opportunities that complement the region's strengths, location and environment
- resilient, sustainable and cost effective transport that is accessible to everyone
- safe, liveable and connected communities
- quality, customer centric frontline services.

The relationship between goals and priorities is presented in Figure 5. Priorities are the transport response to the region's goals in the context of addressing the region's challenges and supporting the opportunities that present.



Hideaway Bay, Whitsunday

### MACKAY ISAAC WHITSUNDAY REGIONAL TRANSPORT PLAN GOALS



**Diverse economic opportunities that complement the region's strengths, location and environment**

**Resilient, sustainable and cost effective transport that is accessible to everyone**

**Safe, liveable and connected communities**

**Quality, customer centric frontline services**

#### PRIORITY 1:

**A transport system that supports economic development**

A transport system that supports economic development, including the diversification of business and industry as a strategy for job creation and growth in the Mackay Isaac Whitsunday region.

#### PRIORITY 2:

**A more resilient transport network**

Providing resilient transport and communication networks that keep the Mackay Isaac Whitsunday region safe, connected and well informed.

#### PRIORITY 3:

**A transport system that is safe for customers**

Driving towards zero transport deaths in the Mackay Isaac Whitsunday region.

#### PRIORITY 4:

**Liveable and connected communities**

Attracting and retaining people by supporting liveable and connected communities in the Mackay Isaac Whitsunday region.

Figure 5: Regional goals and relationship to transport priorities

## 3.2 Challenges

### Global demand for coal

Mining has periodically been a key economic driver of the region since the 1860s. As the mining industry is cyclical in nature, this exposes the region to the impacts of downturns in mining-generated investment and demand. This part of the cycle has been seen recently, with the global plateauing of demand for coal and the broad shift from construction to production impacting local employment and wider economic activity in the region.

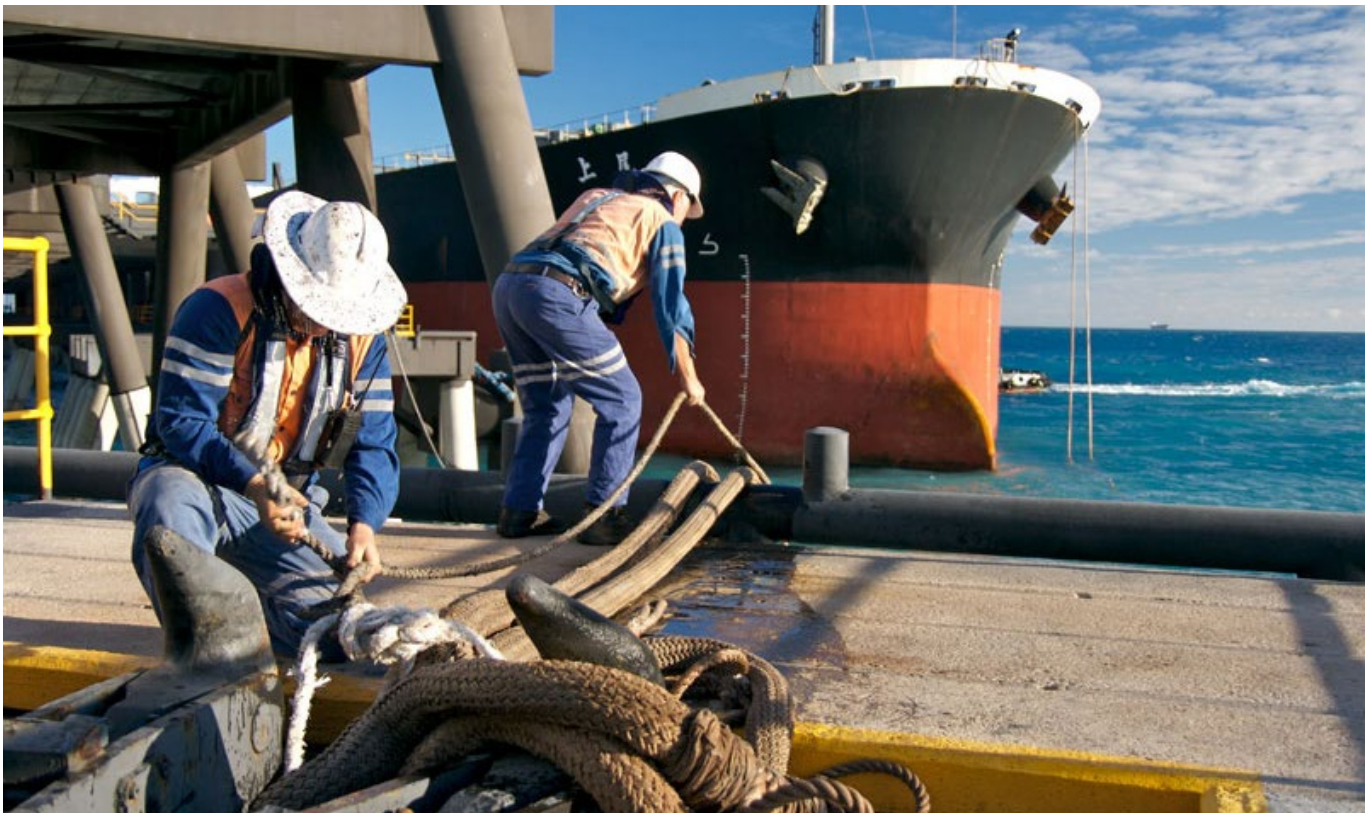
This has been evidenced by the size of the non-resident population in Isaac decreasing from a peak of 17,125 in 2012 to 10,400 people in 2015.<sup>23</sup> More recent higher coal prices have led to an increase in coal-mining related infrastructure investment and proposals for new coal mining projects are actively being developed. The challenge for the region's economy will be to transition with, and adapt to, a rapidly changing industry.

Mining will continue to be an important economic driver in the region, however, diversification of the economy is desirable to reduce exposure to this cyclical nature of the resources sector.

### Limited employment diversity

Reliance on the mining sector has led to challenges in the attraction and retention of skilled workers outside the mining industry, particularly in Isaac where there is limited employment diversity (54.5 per cent of workers were employed in the mining industry in Isaac, the next largest industry was construction which employed 9 per cent of workers).<sup>24</sup> With the cyclical nature of the mining industry and limited employment diversity, there has been an increase in the unemployment rate, with the region now having a slightly higher unemployment rate (6.8 per cent) than the Queensland average (6.2 per cent).<sup>25</sup>

The region needs to attract and retain workers within a more diverse range of industries to maintain a strong economic base. The challenge for the region will be in its ability to foster additional economic activity in sectors other than mining. Diversification could include expanding industries such as agriculture, horticulture and tourism.



Ship docking at Abbot Point Coal Terminal, Bowen

<sup>23</sup> Queensland Government Statistician's Office. (2015). *Bowen Basin: Non-resident workers on-shift, by local government area, 2006 to 2015*.

<sup>24</sup> Queensland Government Statistician's Office. (2016). *Queensland Regional Profiles*.

<sup>25</sup> *Ibid.*



## Reduced access to essential services

Outside of Mackay, the generally dispersed settlement pattern has resulted in long travel distances for people to access jobs, educational and health facilities, shopping districts and other facilities.

While there are community services located in Mackay and Sarina, people in rural and coastal towns and surrounding areas are required to travel to larger centres to access services. Providing an efficient and effective public transport system is not always viable due to low population densities. A lack of public transport in some areas can affect access to services.

Access to services needs to be provided for new development and growth areas throughout the region. Providing appropriate access is linked to the provision of roads, connected to the wider network, but also to passenger transport services for those who cannot or choose not to drive. Often, growth areas can be underserved by public transport while the area is developing, until sufficient demand is created.

Known growth areas throughout the region that represent opportunities for new or optimised services include:

- a new sporting and recreation precinct at Ooralea
- further development of new estates at Pioneer Lakes, Black Beach Cove, Richmond Hills, Plantation Palms and Airlie Beach
- the centre expansion at Rural View
- the Bakers Creek suburb expansion.

Continuing to maintain, improve and provide new connections within the transport network will ensure customers have access to essential services such as health, education, shopping and employment.



*Bruce Highway, Mackay to Townsville*

## Road safety concerns

The region is characterised by geographically disparate communities, particularly between employment and home locations. Road infrastructure connecting the communities in the region is, in some instances, at a lesser standard than the roads within the region's urban areas. Further, the requirement to drive long distances for some, such as drive-in-drive-out mining jobs, increases the risk of driver fatigue. This results in a high proportion of road users being exposed to comparatively more hazardous transport environments. In particular, the region is susceptible to a higher rate of crash fatalities in outer regional areas, compared to the rest of Queensland.

The severity of accidents in rural and regional areas is usually higher than those experienced in urban areas. This is due to higher speeds, the presence of oncoming traffic travelling at speed and the increased likelihood of longer non-stop journeys.

In 2013, 87 per cent of all fatal crashes in the region were on roads where the speed limit was 100km/hour or more. The likelihood of longer non-stop journeys and higher speeds significantly increases the chances of being involved in a fatal road crash.

The safety of drivers on the Bruce Highway is a significant issue. In 2016, there were seven fatalities on the Bruce Highway in the region—30 per cent of all Bruce Highway fatalities in Queensland. In the same year, more than 80 people were hospitalised as a result of accidents on the Bruce Highway—22 per cent of all hospitalisations from Bruce Highway accidents in Queensland.

Driver safety is also an issue on the Peak Downs Highway between Mackay and Clermont, which has a relatively high number of crashes. In 2016, there was one fatality and twelve people hospitalised as a result of crashes along the Peak Downs Highway.<sup>26</sup>

<sup>26</sup> Department of Transport and Main Roads. (2016). *Road Crash Locations*.

Current trends contributing to potential safety issues along the major highway routes include:

- driver fatigue among non-resident workers (the relative risk of a fatality as a result of fatigue is 13.5 times higher on rural roads than urban areas)<sup>27</sup>
- the volume of heavy vehicles associated with mining and agricultural industries
- mobile phone black spots.

In addition, the horticultural production window (May to December) coincides with the annual drive tourism season resulting in increased caravan traffic on the Bruce Highway, creating efficiency and safety issues due to:

- caravans sharing the road with heavy vehicles
- few pull over and rest areas
- not enough overtaking lanes.

### Safety initiatives

There are a number of initiatives that have been undertaken or are underway to address safety. These initiatives include:

- a safety upgrade at the intersection of Mackay-Eungella Road and Kennys Road, including installation of traffic signals. This project was jointly funded by the Queensland Government and Mackay Regional Council
- ongoing upgrading (widening, strengthening and provision of additional overtaking lanes) of the Peak Downs Highway
- Kitty Creek and Carey Creek upgrades – completed construction of overtaking lanes on the Bruce Highway between Calen and Kuttabul
- a number of safety construction projects along the region's section of the Bruce Highway
  - rest area and heavy vehicle parking projects.

## Protecting the region's natural assets while enabling economic growth

The region has one of the largest tidal ranges along the Queensland coast, and includes major river systems, wetlands, mangrove areas and numerous declared fish habitat areas. The Great Barrier Reef World Heritage Area supports nearly 70,000 jobs and is worth \$5.7 billion annually to the local economy.<sup>28</sup>

These natural features are shared by multiple interests – the community, the tourism industry, and the agricultural and mining sectors. Bulk commodities require infrastructure investment which can disrupt the delicate natural environment if not managed correctly. Reliable and efficient road and rail access to port facilities is critical to growing exports.

### Flood Mitigation Projects

Significant planning work is being undertaken to improve flood prone routes in the region as part of the Queensland Government's Strategic Flood Investigation Program. Projects include:

- Hamilton Plains Flooding Investigation to improve Bruce Highway access to Airlie Beach from Proserpine
- Bruce Highway Flood Immunity Upgrade investigation from Proserpine to Six Mile Creek (north)
- Goorganga Plains Flooding Investigation over an 11 kilometre section of the Bruce Highway south of Proserpine
- Jumper Creek Flood Immunity Upgrade providing flood immunity on the Bruce Highway between Mackay and Proserpine.

The major ports in the region are: the Port of Mackay (annual throughput of about 2.8 million tonnes in 2015–2016), Port of Hay Point (annual throughput of about 155 million tonnes in 2015–2016) and Port of Abbot Point (annual throughput of about 27 million tonnes in 2015–2016).<sup>29</sup> There are three coal export terminals: Hay Point, Dalrymple Bay (at Hay Point) and Abbot Point. The combined capacity at Hay Point is the largest in Queensland. Increasing the export capacity at Abbot Point is also being investigated. These are strategic ports under the State Planning Policy and priority ports under the *Sustainable Ports Development Act 2015*.

The *Sustainable Ports Development Act 2015* balances the protection of the Great Barrier Reef with the development of Queensland's priority ports. The region's ports are undertaking master planning to optimise the use of infrastructure and address operational, economic, environmental and community relationships, as well as supply chains and surrounding land uses. This Regional Transport Plan will help inform the port master plans which, when complete, will inform future regional transport plans.

<sup>27</sup> Legislative Assembly of Queensland, Parliamentary Travelsafe Committee. (2005). *Driving on empty: Fatigue driving in Queensland*.

<sup>28</sup> Great Barrier Reef Marine Park Authority. (2013). *Economic Contribution of the Great Barrier Reef*.

<sup>29</sup> Department of Transport and Main Roads. (2015). *Trade Statistics for Queensland Ports*.



## Managing the impact of climate change

Scientific evidence indicates climate change is already impacting all communities in the region through intensified extreme weather events.<sup>30</sup> The region is particularly prone to tropical storms and cyclones, leading to flooding and road closures. Highway flooding causes destruction of road pavement and structures, resulting in road closures and unsafe driving conditions. Reconstruction then results in further delays to the movement of goods and people. Key urban centres can be isolated when sections of the highway are flooded, further impacting freight movements and productivity. The situation is exacerbated by a lack of alternative routes. Rail networks are also impacted by severe weather events. Investment in building resilience must be planned holistically to prevent network ‘islands’.

There are many corridors throughout the region that are prone to flooding. Key corridors that experience flooding in various locations include:

- the Bruce Highway
- the Peak Downs Highway
- Proserpine–Shute Harbour Road
- Fitzroy Developmental Road
- Gregory Developmental Road
- Suttor Developmental Road
- parts of the North Coast Rail line.

The impacts of climate change on the region’s transport system can be mitigated by actions to improve the network’s resilience, however, transport also has a role to play in minimising climate change impacts. The provision of eco-friendly servicing options such as electric vehicles, cycle paths, public and active transport and harnessing energy efficient production and maintenance methods, can positively contribute to the environmental sustainability of the region.

## Fiscal constraints impacting infrastructure

Infrastructure is required to support communities established during the mining boom and to support visitor growth. Providing the right infrastructure at the right time is challenging given the costly nature of construction and the need to consider the region’s infrastructure requirements in the context of statewide priorities.

### Road upgrade projects

A number of road projects have recently been undertaken to improve the ease of movement throughout the region. These include:

- provision of right-turn facilities at intersections on the Peaks Downs Highway at Old Rocky Waterholes and Wollingford Road/Greenmount Drive
- a major intersection upgrade on the Bruce Highway at Mackay Showgrounds and Shakespeare Street, which was completed in 2016. This included improved cycling and pedestrian access and was funded by the Australian Government
- Mackay-Habana Road and Glenella Richmond Road intersection improvements
- Hay Point Road intersection – completed construction of a dual-lane roundabout on the Bruce Highway.

Projects planned for the near future include:

- the Sarina Northern Access upgrade which will include the installation of a roundabout at the Sarina Beach Road intersection as well as pavement rehabilitation on the immediate approaches
- the Mackay Northern Access upgrade, which involves six-laning 1.5 kilometre of the Bruce Highway from Ron Camm Bridge to Mackay-Bucasia Road and four-laning from Mackay-Bucasia Road to the Mackay Ring Road.

### Argyle Park upgrade

Whitsunday Regional Council secured funding through the Queensland Government and Australian Government funded Natural Disaster Resilience Program in April 2014 to upgrade Argyle Park Road. Previously the coastal community in Bowen did not have any safe evacuation routes in times of river flooding or heavy rainfall which cut all roads linking the Central Business District to the beaches. The low level concrete causeway was replaced, significantly improving flood immunity.

<sup>30</sup> Australian Government. (2016). [www.climatechangeinaustralia.gov.au/en/climate-projections/future-climate/regional-climate-change-explorer/super-clusters/](http://www.climatechangeinaustralia.gov.au/en/climate-projections/future-climate/regional-climate-change-explorer/super-clusters/).

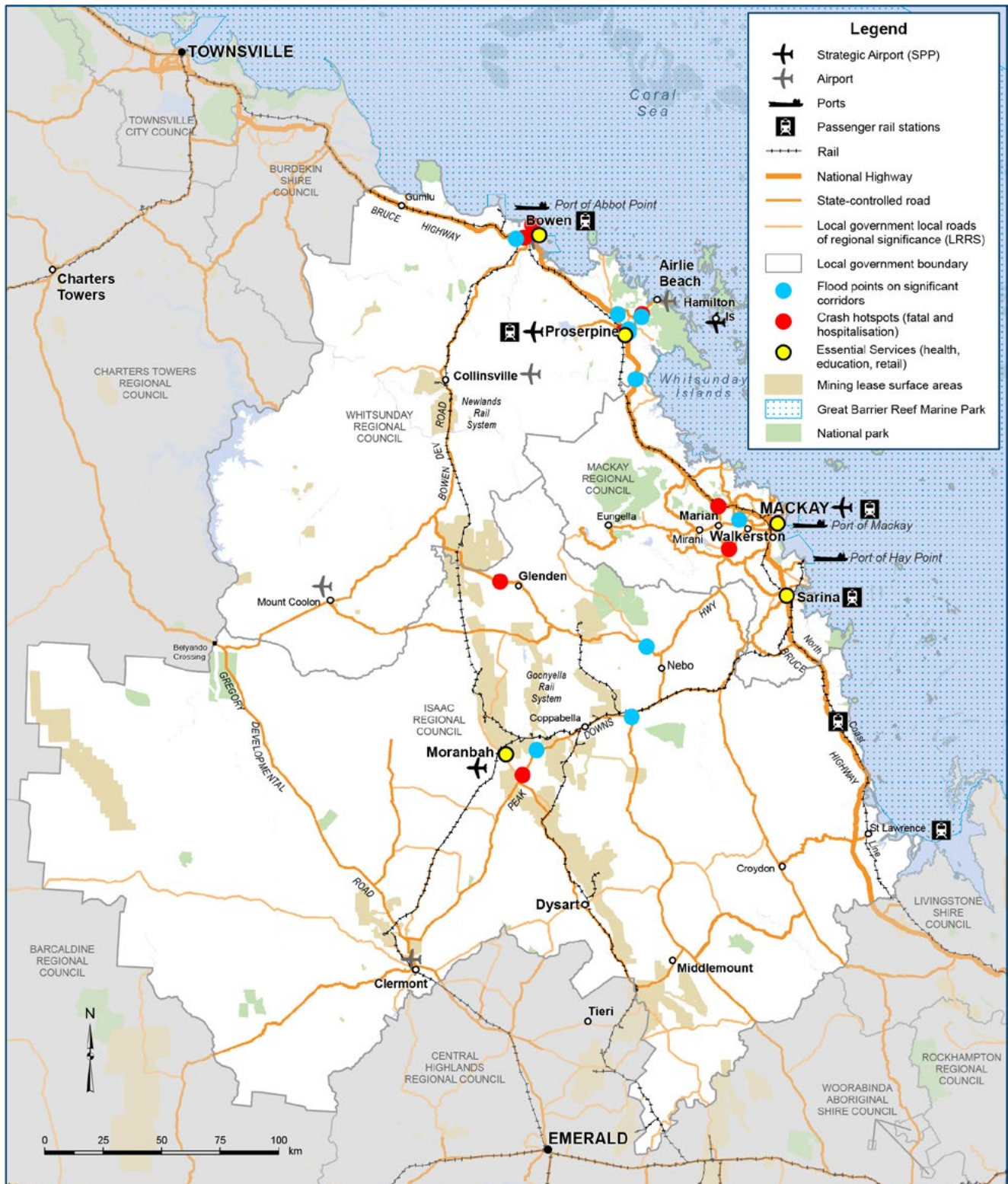


Figure 6: Key locations linked to critical economic, social and environmental challenges



### 3.3 Opportunities

The Mackay Isaac Whitsunday region enjoys many strengths. It is continuing to benefit from historical growth in the resource industry, providing future opportunities for other service and manufacturing industries. This includes opportunities to maximise the volume of exports, play a significant role in natural food security and grow agricultural exports. In particular, the region has comparative advantages in each of the following:

- fertile, high-quality and high-yield agricultural land
- aquaculture opportunities
- high quality metallurgical coal
- world renowned natural features, including the Whitsunday Islands
- high economic productivity (with a total industry productivity rate 67 per cent higher than the Queensland average).<sup>31</sup>

Figure 7 (on page 37) maps some of the region's key opportunities.

#### Positive trends in tourism

The region's lifestyle opportunities are attractive to domestic and international tourists alike, with more than 1.3 million visitors annually.<sup>32</sup> It is one of Australia's most beautiful regions with a sub-tropical climate, warm winters and ready access to the Great Barrier Reef. A range of trends are likely to contribute to the significant expansion of the tourism industry. These include the rise of the middle class in Asia, and subsequent increased overseas travel, which provides an opportunity to tap into new developing tourist markets (particularly in China and India).

Tourism Research Australia predicts growth in international visitor arrivals to Queensland at an average of 4.5 per cent from 2013-14 to 2022-23.<sup>33</sup> There is opportunity to capture a significant share of this additional market through better coordination between tourism operators and airlines.

The region has two distinct tourism markets: leisure tourists primarily in Whitsunday and Isaac local government areas and business tourism in Mackay. Business tourism presents a new opportunity for operators to identify additional activities for people employed in the resource sector, such as adventure tourism.

Broadening the tourism sector is also an important element of diversifying the region's employment base.

Safe and efficient access to the region's natural and recreational assets is critical to leveraging tourism exposure. The transport system can help strengthen the tourism industry by making it convenient, safe and easy to access and experience destinations and touring routes. Boating, air, road, passenger and rail infrastructure and services are all integral to the viability and success of the tourism industry.

The most successful tourist precincts, such as Main Street, Airlie Beach, are those that provide the most comfort and pleasure for pedestrians. Pedestrian-friendly conditions improve the commercial and cultural vibrancy of communities. Providing a high quality walking environment within and around local activity centres can enhance residents' and visitors' experience, increase pedestrian and business activity, and subsequently encourage people to stay within the region.

#### **Queensland Tourism and Transport Strategy**

The Queensland Government has developed the *Queensland Tourism and Transport Strategy*. The strategy considers visitor's needs across all modes of transport including drive, cruise, long distance and local transport and aviation transport priorities.

#### Taking advantage of new agricultural markets

The region has high capacity and skill in the agriculture sector. Currently, agriculture contributes \$388 million annually to the regional economy.<sup>34</sup> There is further opportunity for the rural sector to grow by using additional regional infrastructure, logistics, skilled workforce and expanded supply chains. In particular, the region is well placed as a central agricultural commodities hub.

Current significant agricultural activities in the region include:

- sugar production and processing
- wheat, grain and sorghum production
- beef, pork and poultry production and processing
- fruit and vegetable production
- tree crops such as macadamias
- seafood production and processing.

<sup>31</sup> Mackay-Isaac-Whitsunday Regional Economic Development Corporation. (2013). *Economic profile*.

<sup>32</sup> Tourism and Events Queensland. (2015). *Regional Snapshot Mackay*. (2016). *Regional Snapshot Whitsunday*.

<sup>33</sup> Austrade. (2015). *Tourism Research Australia*.

<sup>34</sup> Queensland Treasury and Trade. (2013).

These agricultural industries will continue to be important in the future, however, diversification and new production methods may be needed in light of projected climate change, changing market needs and competition.

Opportunities for diversification and expansion of the primary industries sector lie in value-adding, new agribusiness, new agri-tourism, new crops, timber plantations and farm forestry. Opportunities also exist for aquaculture to meet the predicted growth in demand for seafood in the domestic market.

In order to make the most of these opportunities, land will need to be identified for future growth of these sectors, and sufficient infrastructure established to support industry viability and development.

## New Asian markets

The region's geographic location means it is at the doorstep of the world's fastest economic growing region – Asia. This creates new export opportunities for the Australian food industry. The well-developed port infrastructure along the region's coastline provides a direct gateway to Asia, presenting considerable potential to develop the region's trade connections and value.

## Emerging opportunities for the sugarcane industry

The diversification of the sugarcane industry is particularly important for achieving long-term sustainability in the agriculture sector. Key opportunities for future diversification and growth of the industry include the expansion into energy production, biofuels and other products. It is intended for the region to become the leading producer of bio-based products in the Asia-Pacific region by 2020, which may revitalise the region's sugar industry.

## Maximising access to markets and supply chain efficiencies

Good transport connectivity will attract more investment for both established and new industries, resulting in significant economic and social benefits. The region has a highly developed export market and regional ports infrastructure that plays a key role in accessing domestic and international markets. There are opportunities to:

- increase rail usage to deliver transport efficiencies, in particular, for agricultural production to take pressure off the road network
- expand port capacity to cater for industry need
- develop intermodal and multi-modal facilities that can accommodate both containers and bulk freight
- increase tourism and agriculture exports through expansion of airports, including direct international airport access

- develop an agriculture distribution hub connected to port and airport development opportunities – allowing produce to be exported through the ports and by air freight
- develop containerisation facilities, including for agricultural freight, and to allow for greater export/import capacity.

Abbot Point offers the potential for future growth should additional export capacity be required. There is potential to further expand the types of commodities being traded through the Mackay Harbour and protect against downturns in particular commodities. Abbot Point State Development Area was established in 2008 to facilitate large-scale industrial development of regional, state and national significance. The expansion of port facilities and other projects within the state development area are expected to generate significant employment opportunities over the next 20 years.

The Mackay and Whitsunday Coast airports could both support air freight. Mackay has a high number of southbound flights that have available cargo space, while the Whitsunday Coast Airport Masterplan identifies available land for expansion of freight facilities close to road and rail links. In addition, Whitsunday Coast Airport is experiencing a significant increase in passenger numbers.

## Continuing to support the mining sector

Mining continues to be a significant contributor to the region's economy. While capital investment is declining, export volumes of coal are reaching record levels, and although prices have declined on average over the last five years, the mining industry tends to be cyclical in nature. It is therefore important that investment is maintained to ensure the region is well placed to capitalise on the next upward trend.

Major projects, such as Adani's Carmichael Coal Mine, may provide the next wave of investment stimulus for the region. The Galilee Basin does not have the same level of transport infrastructure provision as the Bowen Basin, and any opportunities to develop that infrastructure should be explored, subject to the outcomes of environmental, social and economic assessment.

The transport network can provide cost-efficient and appropriate supply chains linking mines and ports, as well as safe access for mine workers and service providers. These initiatives would help protect the competitiveness and viability of the industry.



## New industries

The region currently produces a wide range of raw products and there is an opportunity to value-add to these products to return greater profit margins and facilitate new employment. Agribusiness and agritourism are other strategies to capitalise on agricultural activities. Increased export potential would drive new industries, as well as related industrial activity.

There are opportunities to invest in new industries, increase diversification and innovation. In particular, the expected growth of the biofuels industry will support industrial and mining development, in addition to broadening the region's economic base. There is also opportunity to invest in renewable energy sources such as solar farms with increasing activity occurring, particularly within Whitsunday Regional Council.

The transport system can help support the diversification of economic and employment opportunities by better understanding and responding to industry needs for operation, expansion and growth. This can provide fit-for-purpose access for workers, producers, consumers and distributors.

## Smart infrastructure

Economic growth will be supported through the integration of resilient information and communications technology infrastructure. This will enable innovation and encourage the development of new information and communications technology businesses. This will bring efficiency and competitiveness, especially with national and international markets.

The region has recognised this opportunity and proactively developed the *Digital Economy Strategy and Action Plan* through the Whitsunday Region Organisation of Councils. The strategy contains a number of actions to enable the region to embrace opportunities provided by the digital economy.

Embracing emerging technology provides opportunity to further connect with transport customers. There are numerous digital opportunities to completely re-define the customer experience, such as providing real-time transport information, Wi-Fi at rest stops and allowing customers to undertake activities online.

Technology also provides a means to re-shape the physical transport environment. Intelligent transport systems integrate computer, sensor, electronic and communication technologies to enable contemporary transport management strategies. For example, new 'smart motorway' systems can improve capacity on existing roads without the cost of duplication or lane widening. This is similarly the case for signalling systems for rail and port facilities.

## Freight flow improvement works

Government has recently completed or has begun works to assist freight flows through the region. Upgrades include:

- Thomsetts Road upgrade—provision of overtaking lanes on the Bruce Highway between Mackay and Proserpine
- Dingo Creek and Emu Creek upgrades—construction of overtaking lanes on the Bruce Highway between Proserpine and Bowen
- Bruce Highway safety and capacity construction
- Sandy Gully Bridge upgrade to replace the existing bridge to improve flood immunity
- Gregory Highway, southern approach to Clermont—pavement widening works at various locations on the Gregory Highway as part of the Heavy Vehicle Safety and Productivity Program. This project is undertaken in partnership with the Australian Government
- Vines Creek bridges replacement on Slade Point Road
- Peak Downs Highway timber bridge replacements from Nebo to Mackay to replace timber bridges and approaches at Fiery Creek, Lonely Creek, Boundary Creek and Cut Creek, as part of the Bridges Renewal Program. This project is in partnership with the Australian Government
- Peak Downs Highway, Eton Range realignment. This project is in partnership with the Australian Government.

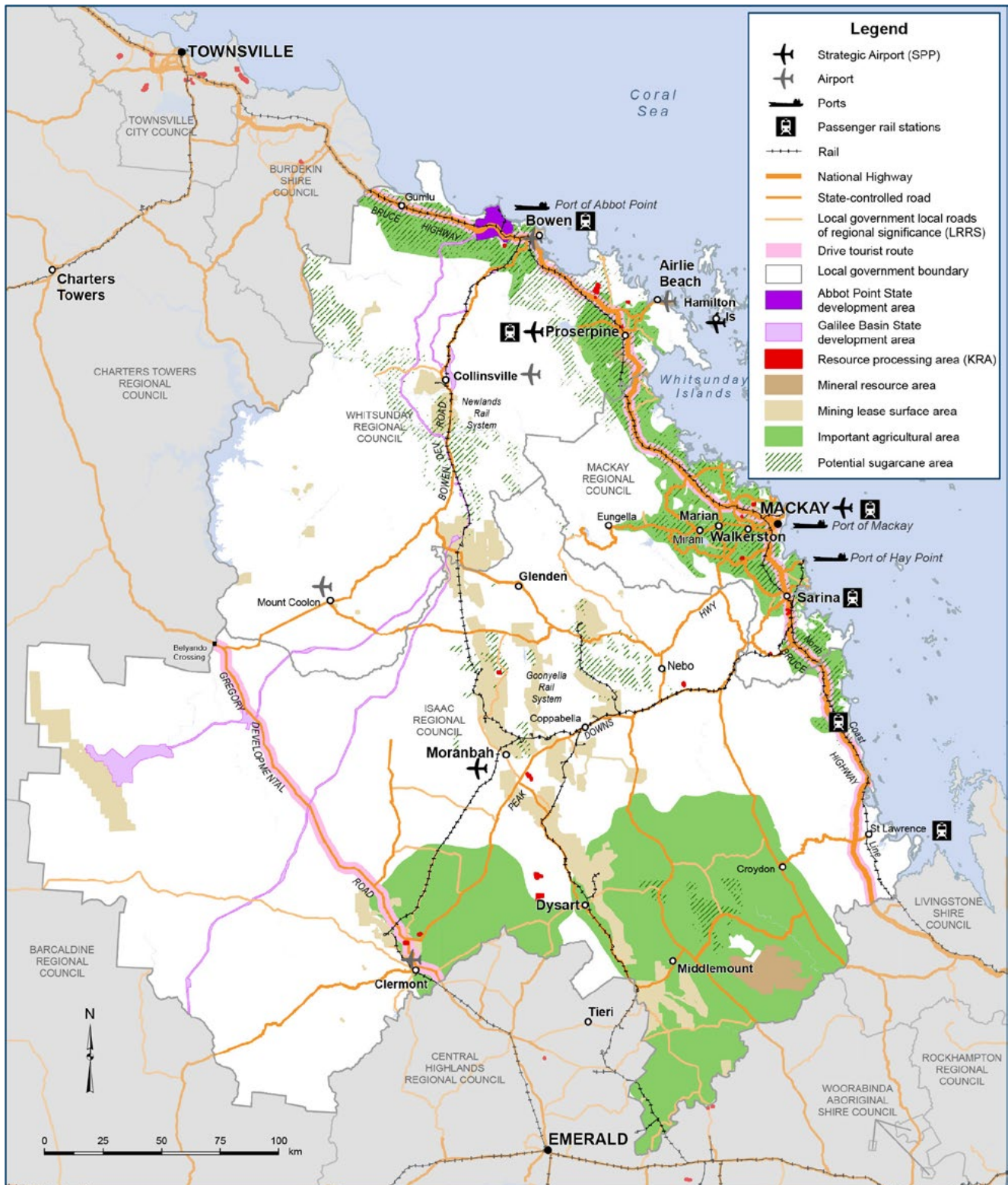


Figure 7: Areas that can be leveraged for economic, social and environmental benefit





Eungella



# 4. Priorities and actions





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

- **Priority 1:** A transport system that supports economic development
- **Priority 2:** A more resilient transport network
- **Priority 3:** A transport system that is safe for customers
- **Priority 4:** Liveable and connected communities.

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.

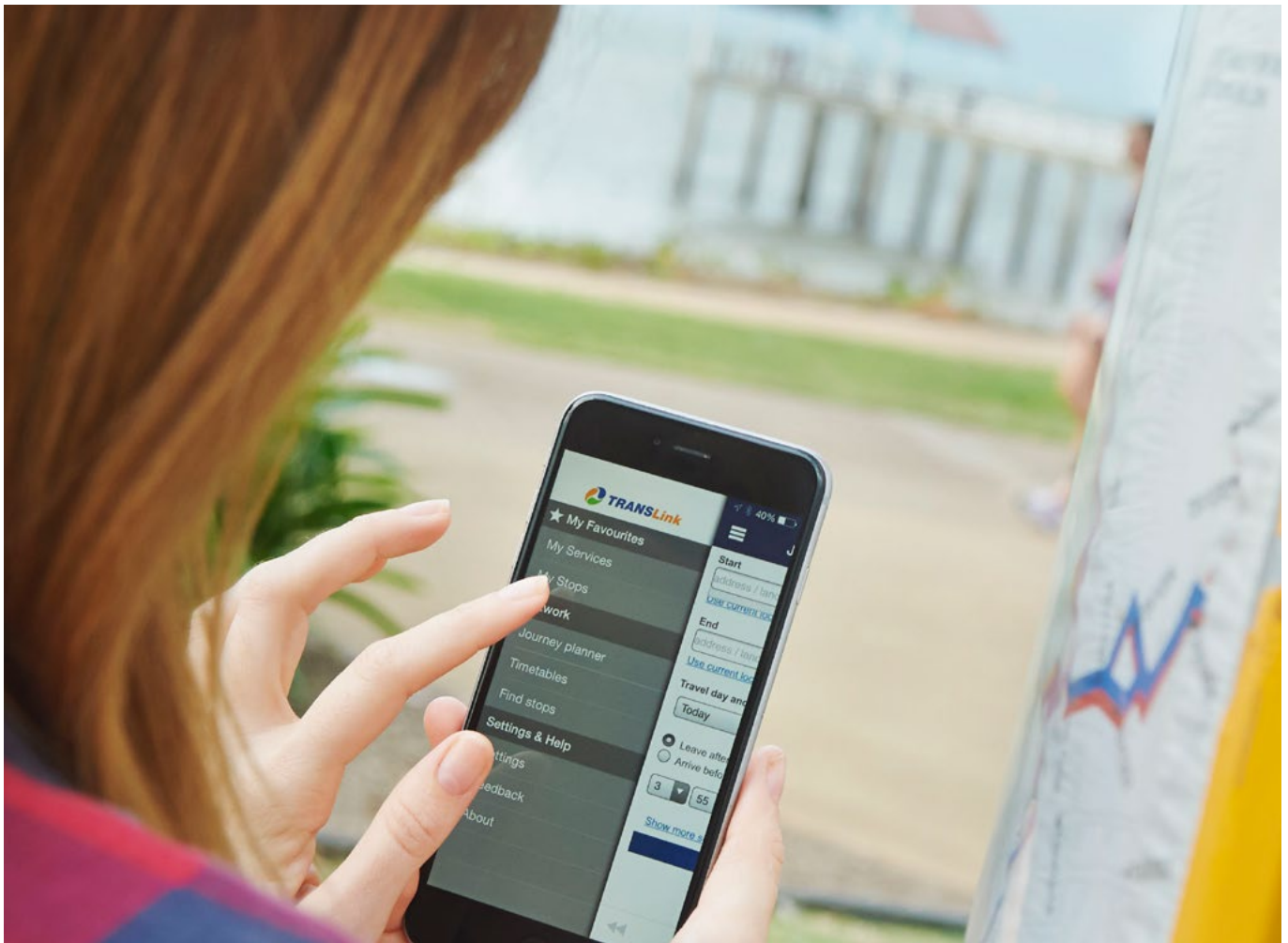
Medium/long-term actions identify possible responses to emerging or potential future transport planning needs. Actions will be reviewed and updated periodically as part of the implementation, monitoring and review process described in Chapter 5.

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 services providers.

Each action under the four priorities is 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 4 shows the relationship linking priorities, objectives and measures of success.



Customer using TransLink journey planner

Table 4: 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 A transport system that supports economic development	PRIORITY 2 A more resilient transport network	PRIORITY 3 A transport system that is safe for customers	PRIORITY 4 Liveable and connected communities
	A transport system that supports economic development, including the diversification of business and industry as a strategy for job creation and growth in the Mackay Isaac Whitsunday region.	Providing resilient transport and communication networks that keep the Mackay Isaac Whitsunday region safe, connected and well informed.	Driving towards zero transport deaths in the Mackay Isaac Whitsunday region.	Attracting and retaining people by supporting liveable and connected communities in the Mackay Isaac Whitsunday region.
ROLE OF TRANSPORT	<p><b>Responding to the challenges of:</b></p> <ul style="list-style-type: none"> <li>global demand for coal</li> <li>limited employment diversity</li> <li>protecting the region’s natural assets while enabling economic growth</li> <li>fiscal constraints impacting infrastructure.</li> </ul> <p><b>And opportunities for:</b></p> <ul style="list-style-type: none"> <li>positive trends in tourism</li> <li>maximising access to markets and supply chains.</li> </ul> <p><b>By taking action to:</b></p> <ul style="list-style-type: none"> <li>support increased and more diverse economic activity</li> <li>provide access to natural assets and destinations.</li> </ul>	<p><b>Responding to the challenges of:</b></p> <ul style="list-style-type: none"> <li>road safety concerns</li> <li>managing the impact of climate change.</li> </ul> <p><b>And opportunities for:</b></p> <ul style="list-style-type: none"> <li>investing in new industries and smart infrastructure solutions.</li> </ul> <p><b>By taking action to:</b></p> <ul style="list-style-type: none"> <li>maintain access to essential services</li> <li>keep people safe and informed</li> <li>keep supply chains open.</li> </ul>	<p><b>Responding to the challenges of:</b></p> <ul style="list-style-type: none"> <li>road safety concerns.</li> </ul> <p><b>By taking action to:</b></p> <ul style="list-style-type: none"> <li>upgrade high risk roads</li> <li>adopt advancing car and infrastructure technology</li> <li>set appropriate speeds for road conditions</li> <li>enable enforcement.</li> </ul>	<p><b>Responding to the challenges of:</b></p> <ul style="list-style-type: none"> <li>reduced access to essential services</li> <li>protecting the region’s natural assets while enabling economic growth.</li> </ul> <p><b>And opportunities for:</b></p> <ul style="list-style-type: none"> <li>investing in new industries and smart infrastructure solutions.</li> </ul> <p><b>By taking action to:</b></p> <ul style="list-style-type: none"> <li>providing access to a range of recreational opportunities</li> <li>supporting active and healthy lifestyles</li> <li>supporting environmental sustainability and minimising climate change impacts</li> <li>providing access to essential services for all</li> <li>supporting and enabling tourism.</li> </ul>
TRANSPORT OBJECTIVES	<p><b>1.1</b> Facilitate supply chains that efficiently link producers, distributors and consumers on an integrated network.</p> <p><b>1.2</b> Plan and develop a safe, legible and enjoyable transport experience accessing the destinations in the region that people want to visit.</p>	<p><b>2.1</b> A transport system that remains resilient and reliable for customers, despite major weather events.</p> <p><b>2.2</b> Provide the emergency connections needed to keep locals safe.</p> <p><b>2.3</b> A transport system that enables our customers to make intelligent mobility decisions.</p>	<p><b>3.1</b> A road network that allows customers to travel safely.</p> <p><b>3.2</b> Educated transport users that play a strong role in enhancing safety.</p>	<p><b>4.1</b> Connect customers to major attractions, employment centres and essential services in an efficient, legible and equitable way.</p> <p><b>4.2</b> Provide customers with increased travel choice and mobility across the region.</p>
MEASURES OF SUCCESS	<ul style="list-style-type: none"> <li>Maintain or improve road network reliability.</li> <li>Freight productivity improves.</li> <li>Transport supports the region's tourism economy.</li> </ul>	<ul style="list-style-type: none"> <li>Reduced frequency and duration of unplanned closures.</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>Level of transport disadvantage decreases.</li> <li>Greater access and connectivity to places and services.</li> <li>Proportion of people choosing to walk, cycle and take public transport increases.</li> </ul>



## 4.1 Priority 1: A transport system that supports economic development

**A transport system that supports economic development, including the diversification of business and industry as a strategy for job creation and growth in the Mackay Isaac Whitsunday region.**

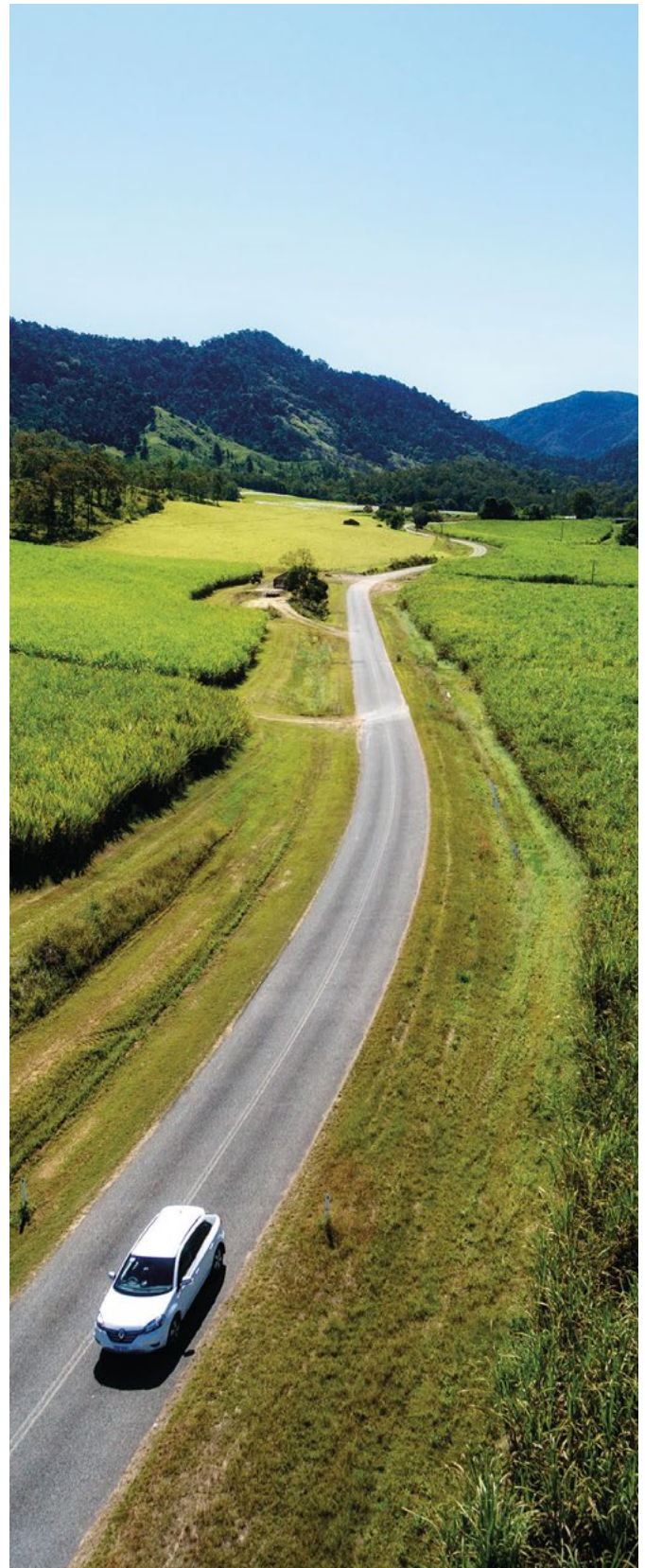
This will support growth in jobs, enable businesses to expand and support development of new economic opportunities for the region's residents.

The region's transport system can support these aspirations by shaping services and connections to respond to the needs of these industries.

Figure 8 (on page 47) shows location-specific actions, committed projects, and local conditions and factors relevant to Priority 1.

### Priority 1 supports:

- the *Transport Coordination Plan's* objective for transport that facilitates the efficient movement of people and freight to grow Queensland's economy
- the *State Infrastructure Plan's* focus on transport infrastructure that unlocks the potential of critical supply chains by identifying and improving the freight network
- the *Mackay Isaac Whitsunday Regional Plan's* desired regional outcomes of supporting economic prosperity and employment opportunities.



*Driving through Eungulla*

## Transport objectives and measures of success

### Objective 1.1: Facilitate supply chains that efficiently link producers, distributors and consumers on an integrated network.

The ability for freight to move as efficiently as possible between producers, manufacturers and consumers is important to support the economic growth and diversification of the region. There are a number of known network issues throughout the region that disrupt the efficient movement of goods. These include:

- a number of roads requiring upgrading to achieve their intended freight function, including the Peak Downs Highway and the Gregory Development Road
- a number of sections of road are susceptible to flooding, including roads connecting to the Whitsunday Coast Airport, the Bruce Highway to the north of Mackay and north of Merinda, and the Hamilton Plains and Goorganga Plains
- the need for appropriate connections to emerging industrial estates, such as the Rosella Industrial Estate
- conflicts between freight and passenger vehicles where major routes pass through townships and urban areas. For example, the Bruce Highway through Bowen, Bakers Creek, West Mackay, Walkerston and Coppabella
- conflict and competition between passenger vehicles and freight on major highways and rail lines including the Bruce and Peak Downs highways and the North Coast Rail Line.

To enable supply chain efficiency, the freight network needs to be planned holistically with consideration of the entire supply chain. Only then can the region's economic assets be connected through an optimised end-to-end supply chain. An optimised supply chain will:

- minimise unnecessary load transfers, splitting or handling, allowing direct connections between producers and receivers
- minimise transportation costs for producers, transporters, distributors and consumers
- provide reliable and direct access to transport hubs such as air and sea ports
- increase the overall efficiency of freight movement throughout the region
- empower freight operators and network managers to make informed decisions as part of a connected network.

### Objective 1.2: Plan and develop a safe, legible and enjoyable transport experience accessing the destinations in the region that people want to visit.

Access to the region's tourist destinations and experiences is important to help grow the region's tourism industry. Successfully developing safe, legible and enjoyable access to the region's destinations and experiences will:

- incentivise tourists to want to travel through the region as they enjoy their journey in accessing the region's destinations
- make it safe and easy to navigate throughout the region
- link key accommodation areas with destinations and attractions.

### Measures of success

Measure of success	Proposed indicator	Source	Objectives	
			1.1	1.2
Maintain or improve road network reliability.	Percentage variation from posted speed limit. <sup>†</sup>	Australian Bureau of Statistics		✓
Freight productivity improves.	Proportion of high productivity vehicles used on key road freight routes.	Department of Transport and Main Roads (TMR)	✓	
Transport supports the region's tourism economy.	Evolving measure, to be developed.	To be confirmed.		✓

<sup>†</sup> State-controlled roads.



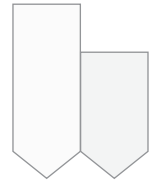
## Actions

### PRIORITY 1: A TRANSPORT SYSTEM THAT SUPPORTS ECONOMIC DEVELOPMENT

**Objective 1.1:** Facilitate supply chains that efficiently link producers, distributors and consumers on an integrated network.

**Objective 1.2:** Plan and develop a safe, legible and enjoyable transport experience accessing the destinations in the region that people want to visit.

### OBJECTIVES



Actions – short-term		1.1	1.2
<b>A1.01</b>	Develop a multi-modal freight strategy to identify and prioritise productivity and safety improvements throughout the region in response to statewide freight and heavy vehicle network strategies.	✓	
<b>A1.02</b>	The Department of State Development, Manufacturing, Infrastructure and Planning will investigate opportunities to lower transport and logistics costs across the region's supply chain in support of the growth and development of the region's economy.	✓	
<b>A1.03</b>	Define the optimum dimensions for oversize, overmass (OSOM) clearance envelopes on the region's key freight routes, and identify priority upgrades for inclusion in future works programs (including Peak Downs Highway, Gregory Developmental Road, Fitzroy Developmental Road and Suttor Developmental Road).	✓	
<b>A1.04</b>	Undertake planning on the North Coast rail line to support freight efficiency improvements.	✓	
<b>A1.05</b>	Investigate rail network upgrades to improve port connectivity.	✓	
<b>A1.06</b>	Undertake regional bridge renewal investigations and planning for bridge replacements or structural enhancements across the state controlled road network for high priority structures in the region (including Kirkup Bridge at Walkerston on the Peak Downs Highway, Miclere Creek Bridge on Gregory Developmental Road, Palmtree Creek Bridge at Kuttabul on the Bruce Highway, Blackrock Creek Bridge at Pindi Pindi on the Bruce Highway and Bee Creek Bridge on the Peak Downs Highway).	✓	
<b>A1.07</b>	Identify and protect future transport corridors to respond to growth, economic drivers and land use changes (including the Walkerston Bypass and Mackay Ring Road Stage 2 and 3).	✓	✓
<b>A1.08</b>	Continue to monitor and assess corridors for impacts generated by airports in the region (including Proserpine Airport, Bruce Highway and Proserpine – Shute Harbour Road and Moranbah Airport, Peak Downs Highway and Moranbah Access Road).	✓	✓
<b>A1.09</b>	Work with the Department of State Development, Manufacturing, Infrastructure and Planning and the region's ports to create Port Master Plans that optimise supply chains, meet transport servicing requirements and protect the region's natural assets.	✓	
<b>A1.10</b>	Identify and undertake planning to progress delivery of rail trails and iconic cycle routes to support cycling tourism in the region.		✓
<b>A1.11</b>	Review major road network decision points within the region to identify legibility gaps and develop a prioritised list of improvements. The list should inform appropriate initiatives and programs such as Drive Tourism, Tourism and Transport Connections, Natural Attractions and State Strategic Touring Route Signage Program.		✓
<b>A1.12</b>	Undertake market sounding to determine private sector interest in developing a portion of the Bowen Boat Harbour. If this market sounding indicates potential viability, consider releasing an offer to market.		✓
<b>A1.13</b>	Work with industry to realise opportunities to access new markets through coastal shipping and air freight and support trade development strategies in the region.	✓	

Actions – medium/long-term		1.1	1.2
<b>A1.14</b>	Undertake a review of the Bowen Development Road Link Plan. Identify deficiencies and identify efficiency priorities that respond to the link's vision standards and future demand.	✓	
<b>A1.15</b>	Collaborate with federal and state agencies to explore opportunities to coordinate disaster and reconstruction funding with investment into preventative infrastructure to improve resilience, reduce on-going maintenance costs and cater for the region's changing climate.	✓	✓
<b>A1.16</b>	Advance partnerships with state and local tourism agencies to ensure regional transport planning and investment appropriately responds to strategic tourism needs.		✓
<b>A1.17</b>	Work with the rental vehicle industry to improve driver safety, and enhance the drive tourism experience, through investigating opportunities for visitor-focused in-vehicle signage, improved trip generation tools, and autonomous vehicles.		✓
<b>A1.18</b>	Improve visitor safety through easily accessible, multilingual information materials and videos about safety practices and requirements in Queensland .		✓

## CASE STUDY: Hunter Economic Infrastructure Project

The Hunter Economic Infrastructure Project was developed by Regional Development Australia Hunter and Infrastructure NSW and identifies key infrastructure that will sustain and grow the district's economy and community. The project recognises the importance of preserving nationally strategic freight corridors and assessing the ongoing impact of the resource sector on mining-affected communities.

Five key components of economic infrastructure were considered—ports, rail, electricity, roads and water. It holistically identified long-term transport forecasts, needs and emerging conflicts.

A holistic 'supply chain' approach exposed the scale of inbound road freight flows to the mining sector and the impacts on community safety and amenity. Similar drivers are evident in the Mackay Isaac Whitsunday region. The study also identified where intra-regional freight flows needed to be separated from transiting (inter-regional) flows.

The project provided an integrated framework and identified the need to deliver a range of network enhancements that: separated communities and freight flows where there are safety concerns; and addressed constraints in the road network impede the efficient movement of higher performance vehicles, including oversize, overmass vehicles.

## CASE STUDY: CSIRO supply chain transit model

Access to reliable transport and supply chain data is a key challenge facing the movement of freight around Queensland.

To help bridge the data gap, CSIRO have recently developed a model to better inform the agricultural industry of the logistical issues influencing the transport of produce from the farm gate to market. It is formulated on market data and has been used by Transport and Main Roads on regional transport studies.

Transport costs and reliability of access are one of the biggest issues facing the agricultural industry. However, these issues also relate to other industries, such as mining. As such, CSIRO's model continues to be updated for wider supply chain use. The model is already providing evidence based data to support programs of work to better the freight network outside of spot maintenance and repair. Building upon this, the model could expand to be a key input to inform other models and supply chain optimisation across the freight network.



## Mackay Ring Road

The Mackay Ring Road is a key component of the region's freight network that supports supply chain efficiencies by minimising the need for freight vehicles to travel through Mackay's built up areas.

The Mackay Ring Road (Stage 1) is a key priority for all levels of government, jointly funded by the Queensland and Australian governments. The project is part of the Bruce Highway Upgrade Program and includes:

- an 11.3 kilometre two-lane rural highway bypass (circumventing 10 signalised intersections from Stockroute Road to Bald Hill Road)
- 14 new bridges including local road overpasses and major waterway crossings of the Pioneer River and the Fursden Creek floodplain.

Construction commenced in 2017 and will take about two and a half years to complete. When completed, the Mackay Ring Road will reduce the amount of heavy vehicles travelling through built up areas, and improve the efficiency and safety of the highway.

Stage 2 of the Mackay Ring Road will feature an 8.2 kilometre two-lane highway from the Bruce Highway North intersection to Harbour Road intersection, removing all signalised intersections between the Port of Mackay and the Peak Downs Highway. Mackay Ring Road (Stage 2) is not currently required for another 10 to 15 years.



Truck on Mackay Ring Road

### PRIORITY 1: COMMITTED PROJECTS

<b>A</b>	Sandy Gully Bridge upgrade
<b>B</b>	Dingo and Emu Creek upgrades between Proserpine and Bowen
<b>C</b>	Peak Downs Highway Logan Creek to Nine Mile Creek widening
<b>D</b>	Bowen Developmental Road progressive sealing
<b>E</b>	Peak Downs Highway Eton Range realignment
<b>F</b>	Peak Downs Highway – timber bridge replacements from Nebo to Mackay
<b>G</b>	Peak Downs Mine Road bridge replacements
<b>H</b>	Southern approach to Clermont on Gregory Highway
<b>I</b>	Walkerston Bypass

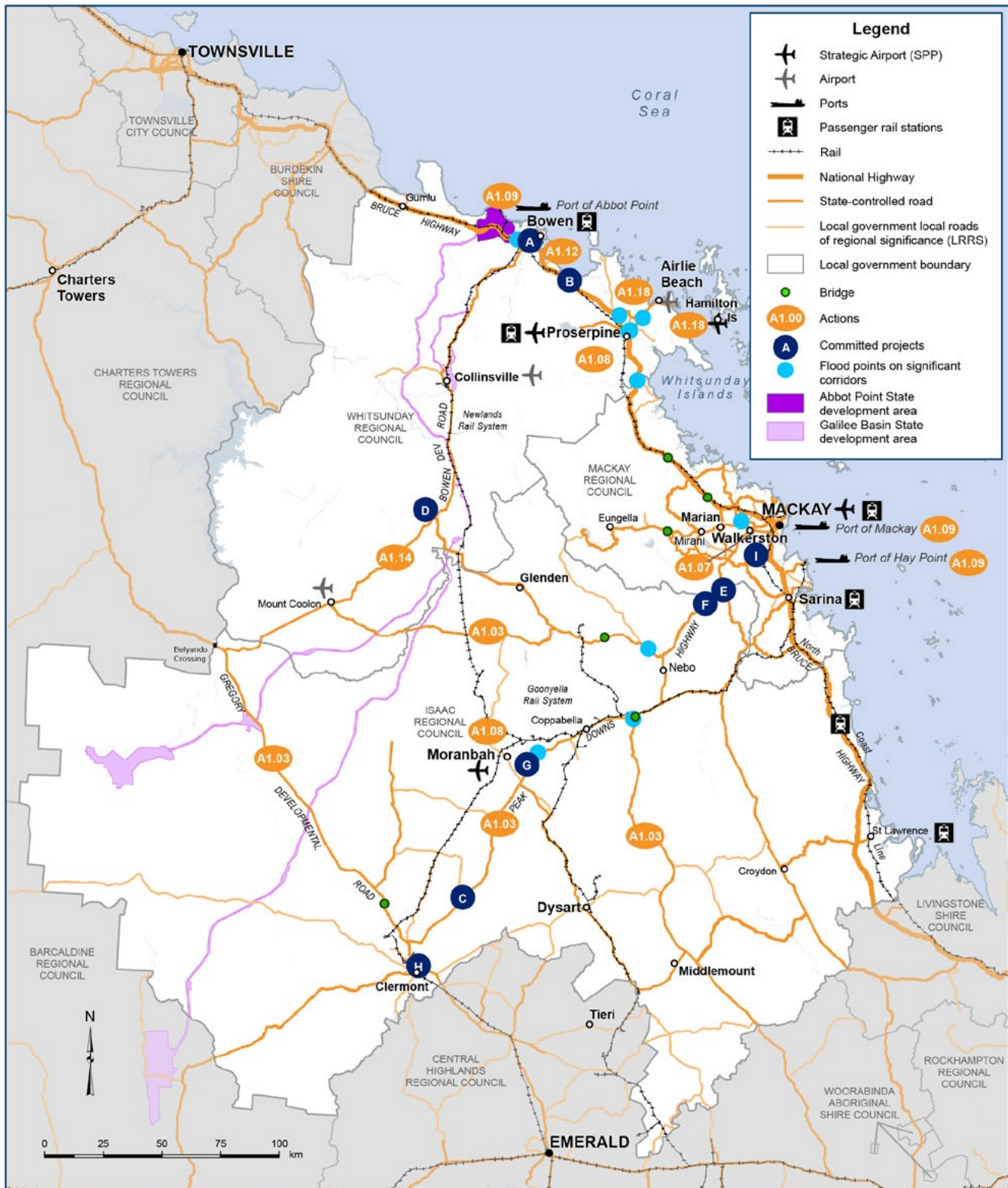


Figure 8: Priority 1 location-specific actions



## 4.2 Priority 2: A more resilient transport network

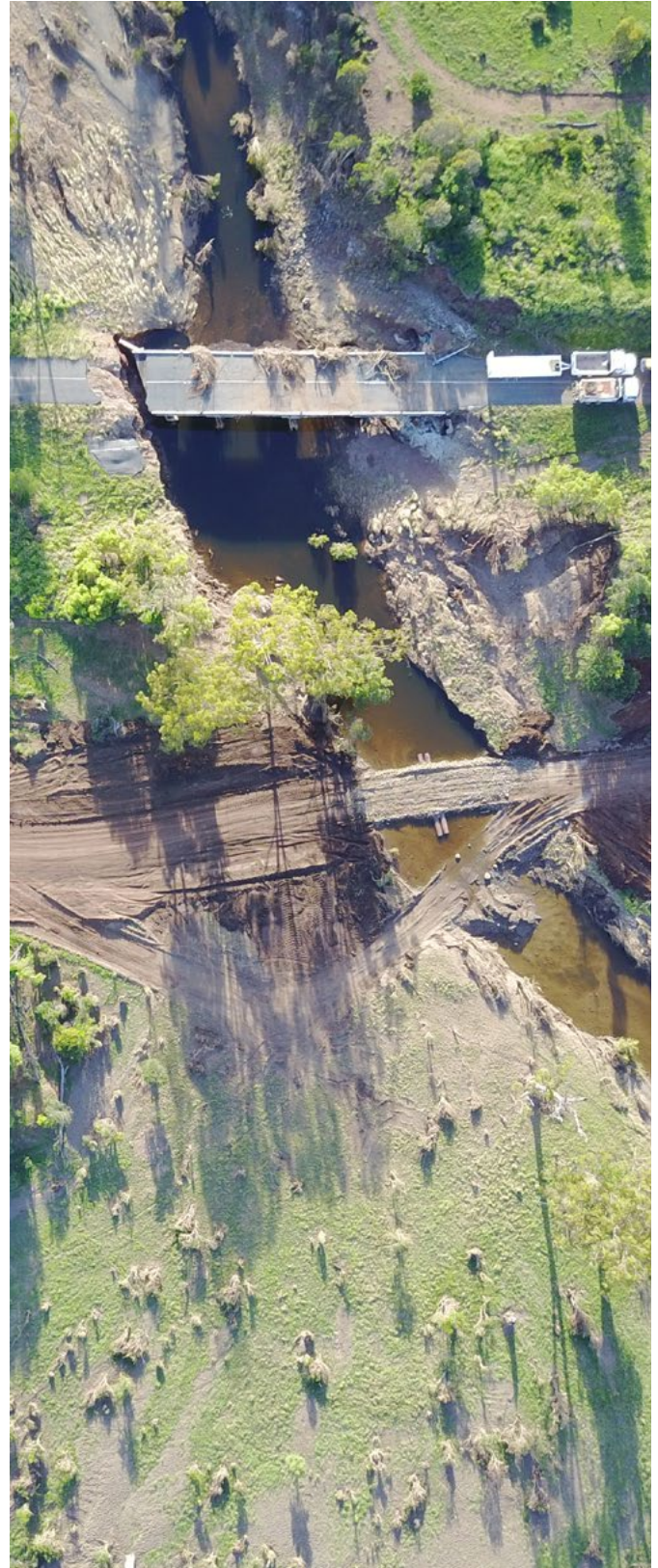
**Providing resilient transport and communication networks that keep the Mackay Isaac Whitsunday region safe, connected and well informed.**

A resilient transport system is one that responds to unexpected conditions and events in ways that ensure the transport needs of the region, its community and its economy are met. Increasing network resilience requires a multifaceted approach involving infrastructure improvements to build functional redundancy as well as strong information and communication networks that help identify problems and educate users on network conditions and risks. Improving the region's network resilience will help to keep the system open despite major weather events, provide access to keep people safe and enable people to make informed decisions. Improving infrastructure, technology and communication networks are all critical elements of achieving resilience under Priority 2.

Figure 9 (on page 53) shows the location-specific actions for Priority 2.

### Priority 2 supports:

- the *Transport Coordination Plan's* objective for transport that is safe and secure for customers, and is resilient to Queensland's weather extremes
- the *State Infrastructure Plan's* focus on transport infrastructure that reduces the long-term cost of repair, improves infrastructure resilience, and improves safety and security
- the *Mackay Isaac Whitsunday Regional Plan's* core transport principle of an efficient, sustainable and integrated system that is safe and accessible.



Marlborough-Sarina Road, Yatton Creek

## Transport objectives and measures of success

### Objective 2.1: A transport system that remains resilient and reliable for customers, despite major weather events.

Parts of the region's transport system are known to flood. However, to remain resilient and reliable, these parts need to be considered within the context of the transport network as a whole, to determine their priority and how they can best be addressed.

A range of options will need to be considered, such as the coverage of early warning systems, existing or possible re-routing options and the type of infrastructure or non-infrastructure solution to be provided.

The application of technology to manage infrastructure and transport incidents provides an overarching opportunity to ensure these issues are managed as cost effectively as possible. This approach recognises the inevitability of weather events and seeks to mitigate their effects on the region's transport and communication networks.

### Objective 2.2: Provide the emergency connections needed to keep locals safe.

Transport resilience is not just about providing resilient infrastructure. It also relates to the management of weather or transport incidents. Emergency connections, coordinated between appropriate agencies can:

- enhance the ability of first responders to access locations experiencing flooding or other emergencies
- achieve improved mobility for all customers when incidents occur including improved access to escape routes
- work in coordination with the region's communications network, so the status of road, rail and other transport connections are known in real-time.

### Objective 2.3: A transport system that enables our customers to make intelligent mobility decisions.

Accurate, convenient and timely information provides customers with a sense of certainty by keeping them informed and increasing their situational awareness.

The information can influence a person's decision to travel, the time chosen to begin the journey and the planned route. More timely provision of information can empower customers to make informed decisions and will:

- reduce confusion and uncertainty when weather and transport incidents occur
- manage customer expectations regarding the operation of the transport network during and after weather and transport incidents
- allow customers to rely on communications networks to update them on their travel options
- give customers a greater sense of awareness regarding transport decisions that affect their safety.

## Measures of success

Measure of success	Proposed indicator	Source	Objectives		
			2.1	2.2	2.3
Reduced frequency and duration of unplanned closures.	Total frequency and duration of unplanned closures on the transport network.	TMR	✓	✓	



## Actions

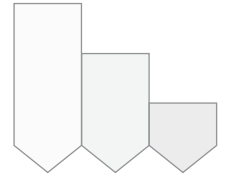
### PRIORITY 2: A MORE RESILIENT TRANSPORT NETWORK

### OBJECTIVES

**Objective 2.1:** A transport system that remains resilient and reliable for customers.

**Objective 2.2:** Provide the emergency connections needed to keep locals safe.

**Objective 2.3:** A transport system that enables our customers to make intelligent mobility decisions.



#### Actions – short-term

**A2.01** Review and assess flood prone sections of critical routes such as the Bruce Highway, Peak Downs Highway and Gregory Developmental Road and prioritise investment to improve network resilience.

**A2.02** Complete a business case for upgrades to flood affected areas of the transport network in Hamilton Plains.

**A2.03** Undertake a planning study to determine the appropriate immunity options for Goorganga Plains.

**A2.04** Using technology and partnerships, continue to develop improved systems and channels for the provision of information to all the region's customers about weather events, transport incidents and other network disruptions in real-time.

#### Actions – medium/long-term

**A2.05** Undertake flood studies around Mackay to accurately determine flood immunity requirements and flood protection measures on the North Coast Rail Line to improve reliability for rail freight.

**A2.06** Identify and implement system enhancement opportunities to improve information capture and sharing internally and across emergency management agencies.

**A2.07** Incorporate the provision of real-time information for the region.

	2.1	2.2	2.3
A2.01	✓		
A2.02	✓		
A2.03	✓		
A2.04			✓
Actions – medium/long-term	2.1	2.2	2.3
A2.05	✓		
A2.06		✓	
A2.07			✓

## CASE STUDY: Yeppen Floodplain traffic management

The flood event in the Rockhampton area following Tropical Cyclone Debbie in April 2017, saw the Traffic Management Plan for the Yeppen Floodplain bridges enacted for the first time under flood conditions.

The inundation of the Fitzroy River Floodplain caused the Capricorn Highway between Rockhampton and Gracemere, the low level of the Bruce Highway south of Rockhampton and the iconic Rocky Roundabout to be submerged in.

With the Capricorn Highway closed, all eastbound traffic was diverted through Gracemere (including heavy vehicles up to B-double configuration) onto the Burnett Highway and then merged with all

northbound traffic on the new high-level bridges on the Bruce Highway crossing the Yeppen Floodplain.

At the southern entrance to Rockhampton, traffic was diverted from the flooded Gladstone Road (Bruce Highway) onto the local government controlled Upper Dawson Road, and then re-joined the Bruce Highway (beyond the low level flooded sections).

The effective operation of the Yeppen Floodplain Bridges meant Rockhampton was open for business from the south and east where in previous flood events access had been cut.



*Yeppen Floodplain bridges, Rockhampton*



## CASE STUDY: Surat Basin Flood Immunity Strategy

The Surat Basin in southern Queensland experiences issues associated with accessibility during weather events and is highly susceptible to seasonal flooding. In 2011 and 2013, extensive flooding severely impacted the road network, with periodic road closures and a road infrastructure repair program still ongoing.

The complexity of the district's hydrological system, a characteristic which is shared with the Mackay Isaac Whitsunday region, ensures there is no easy solution to addressing flooding impacts.

Tackling the problem with individual road improvements can result in islands of higher flood immunity within the wider network that do not fully address the accessibility issues.

A Surat Basin Region Flood Immunity Strategy was developed by the Queensland Government and looked at heavy vehicle route access, in particular actions to respond to the growth in High Performance Vehicles.

The study looked at the transport system as a whole and developed a system-wide approach, which would also be relevant for the Mackay Isaac Whitsunday region. This approach included targeted infrastructure improvements, knowledge management, and effective communication to road users.



Peak Downs Highway, Eton Range, Nebo to Mackay

### PRIORITY 2: COMMITTED PROJECTS

- |          |                                     |
|----------|-------------------------------------|
| <b>A</b> | Argyle Park Road upgrade            |
| <b>B</b> | Hamilton Plains Business Case       |
| <b>C</b> | Jumper Creek flood immunity upgrade |
| <b>D</b> | Goorganga Plains planning study     |

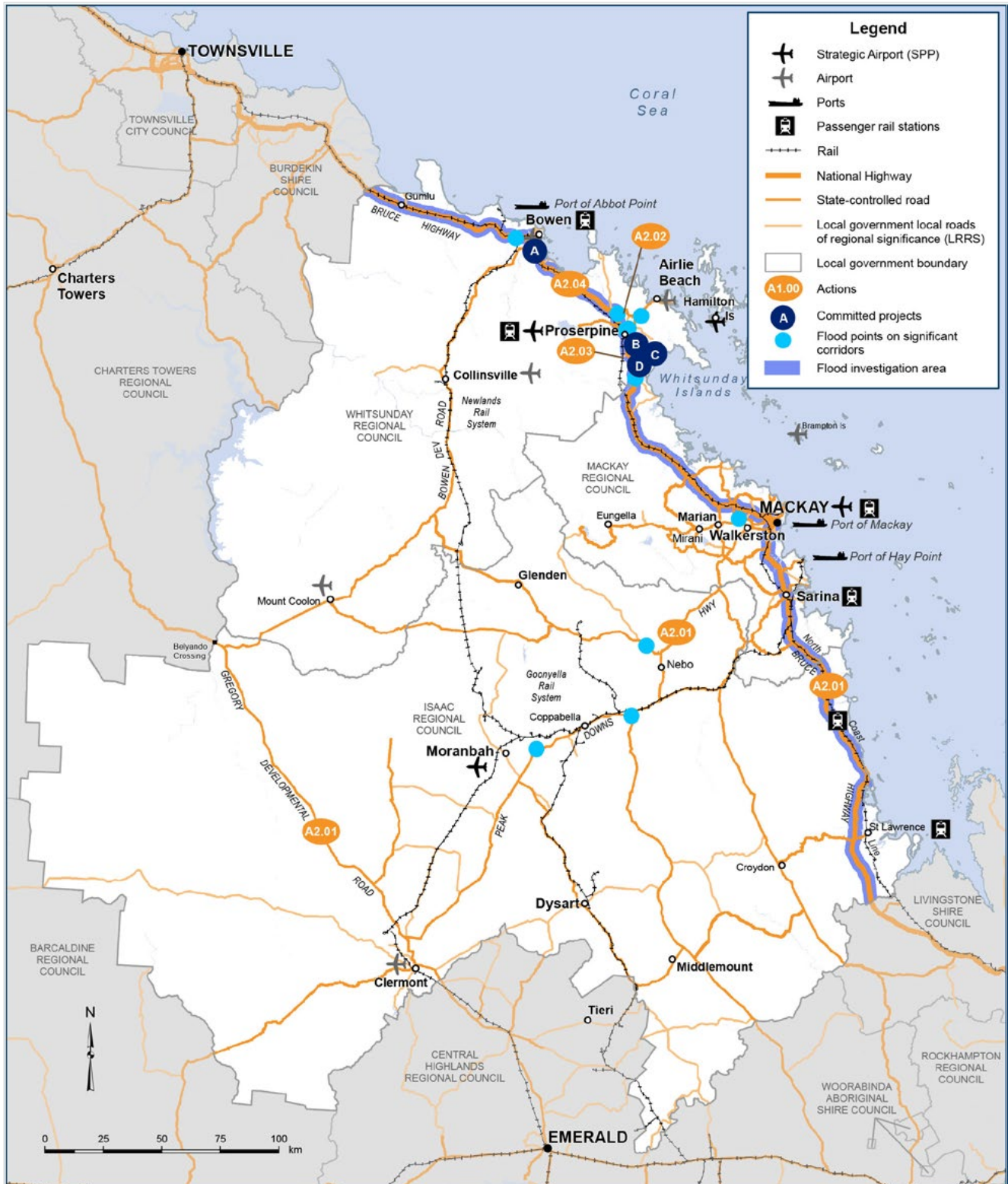


Figure 9: Priority 2 location specific actions



## 4.3 Priority 3: A transport system that is safe for customers

### Driving towards zero transport deaths in the Mackay Isaac Whitsunday region.

Road accidents often result in significant social and personal loss. They impose burdens on health services and can result in commercial losses due to absence in staff, damage or production downturns.

Improving road safety in the Mackay Isaac Whitsunday region can be achieved through a combination of improved infrastructure, technology solutions, community information and education.

Improvements in areas such as upgrading high risk roads, adopting advancements in car and infrastructure technology, setting appropriate speeds for road conditions and compliance with road rules will all contribute to a safer road system and reduce the number of deaths and serious injuries.

Figure 10 (on page 57) shows the location-specific committed projects and actions for Priority 3.

#### Priority 3 supports:

- the *Transport Coordination Plan's* objective for transport that is safe and secure for customers, and is resilient to Queensland's weather extremes
- the *State Infrastructure Plan's* focus on transport infrastructure that reduces the long-term cost of repair, improves infrastructure resilience, and improves safety and security
- the *Mackay Isaac Whitsunday Regional Plan's* core transport principle of an efficient, sustainable and integrated system that is safe and accessible.



*Railway crossing near Sarina*

## Transport objectives and measures of success

### Objective 3.1: A road network that allows customers to travel safely.

A safe regional road network requires the provision of a transport system that protects customers. There are a number of known sites perceived as unsafe due to their tendency for crashes. These include:

- the intersection of Horse and Jockey Road
- Landsdowne Road
- sections of the Peaks Downs Highway
- Collinsville Elphinstone Road to the west of Glenden.

This information assists in targeting known risk areas. Achieving the outcome will require upgrades to existing road infrastructure, changes in speed limits where appropriate, and provision of suitable rest and enforcement/interception areas. Incorporating vehicle technology as part of the transport system can inform customers of upcoming hazards or obstructions when travelling and allow movement throughout the region to occur safely regardless of vehicle.

### Objective 3.2: Educated transport users that play a strong role in enhancing safety.

Educational and awareness programs are a means to effect a change in culture and promote a sense of accountability and responsibility for following the road and transport rules. It also empowers transport system users to make smart decisions about how they travel and be proactive about safety. Educated transport users will:

- be aware of the risks in any journey
- proactively move safely on the network at all times
- be informed of options and encouraged to rest frequently when travelling long distances.

Road safety advocates exist throughout the local community. These advocates are great allies in providing education on road safety.

### Measures of success

Measure of success	Proposed indicator	Source	Objectives	
			3.1	3.2
Reduction in transport-related incidents, crashes, injuries and fatalities.	Number of road fatalities and hospitalised casualties.	TMR	✓	✓
	Number of road fatalities and hospitalised casualties per 100 million vehicle kilometres travelled.	TMR	✓	✓



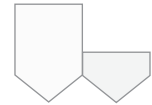
## Actions

### PRIORITY 3: A TRANSPORT SYSTEM THAT IS SAFE FOR CUSTOMERS

### OBJECTIVES

**Objective 3.1:** A road network that allows customers to travel safely.

**Objective 3.2:** Educated transport users that play a strong role in enhancing safety.



#### Actions – short-term

<b>A3.01</b>	Continue to identify candidate sites (including links and networks) in the region where road safety treatments can be applied to enhance overall road safety outcomes. Including the Bruce Highway Safety Program, Wide Centreline Upgrade Program.
<b>A3.02</b>	Undertake planning, design and business case development for Peak Downs Highway safety, capacity and resilience improvements.
<b>A3.03</b>	Undertake planning, design and business case development for Bruce Highway safety, capacity and resilience improvements.
<b>A3.04</b>	Undertake planning, design and business case development for Gregory Developmental Road safety, capacity and resilience improvements.
<b>A3.05</b>	Determine the need for investment in new or upgraded rest areas and freight stop to improve safety, usage and customer experiences. This may result in the prioritisation of investment in upgrading or providing new rest areas on the region's network on roads including the Bruce Highway, Peak Downs Highway and Gregory Developmental Road.
<b>A3.06</b>	Trial rail safety system technologies in the region to improve safety at level crossings.
<b>A3.07</b>	Investigate the feasibility of entering into a more formal partnership with local, community-based road safety advocates to deliver further road safety engagement and education programs.

	3.1	3.2
A3.01	✓	
A3.02	✓	
A3.03	✓	
A3.04	✓	
A3.05	✓	✓
A3.06	✓	
A3.07	✓	✓

## CASE STUDY: Waverly Creek rest area upgrade

In late 2008, the Queensland Government introduced stronger fatigue management legislation requiring professional drivers of fatigue regulated heavy vehicles to stop and rest during journeys. As a result, Transport and Main Roads commenced a program to deliver a network of heavy vehicle and motorist rest areas across the State Controlled Road Network.

The rest area at Waverley Creek is located on the Bruce Highway at the halfway point between Mackay and Rockhampton. It has been upgraded by Transport and Main Roads through federal government funding, and is considered to be a best practice example of a rest area for truck drivers and motorists.

It is a combined motorist and heavy vehicle rest area with split facilities and is shielded from headlights and noise, allowing truck drivers to effectively rest at the site. Facilities include a shelter shed, truck parking area, sealed hard stand area, toilet block, shady trees, wood-fired barbeques and a public telephone.

The rest area program will ensure suitable opportunities to stop and rest generally no more than 80 kilometres, or one hour drive time, from each other wherever possible on the State Controlled Road Network.

### PRIORITY 3: COMMITTED PROJECTS

<b>A</b>	Peak Downs Highway – ongoing upgrading
<b>B</b>	Bruce Highway Safety Program

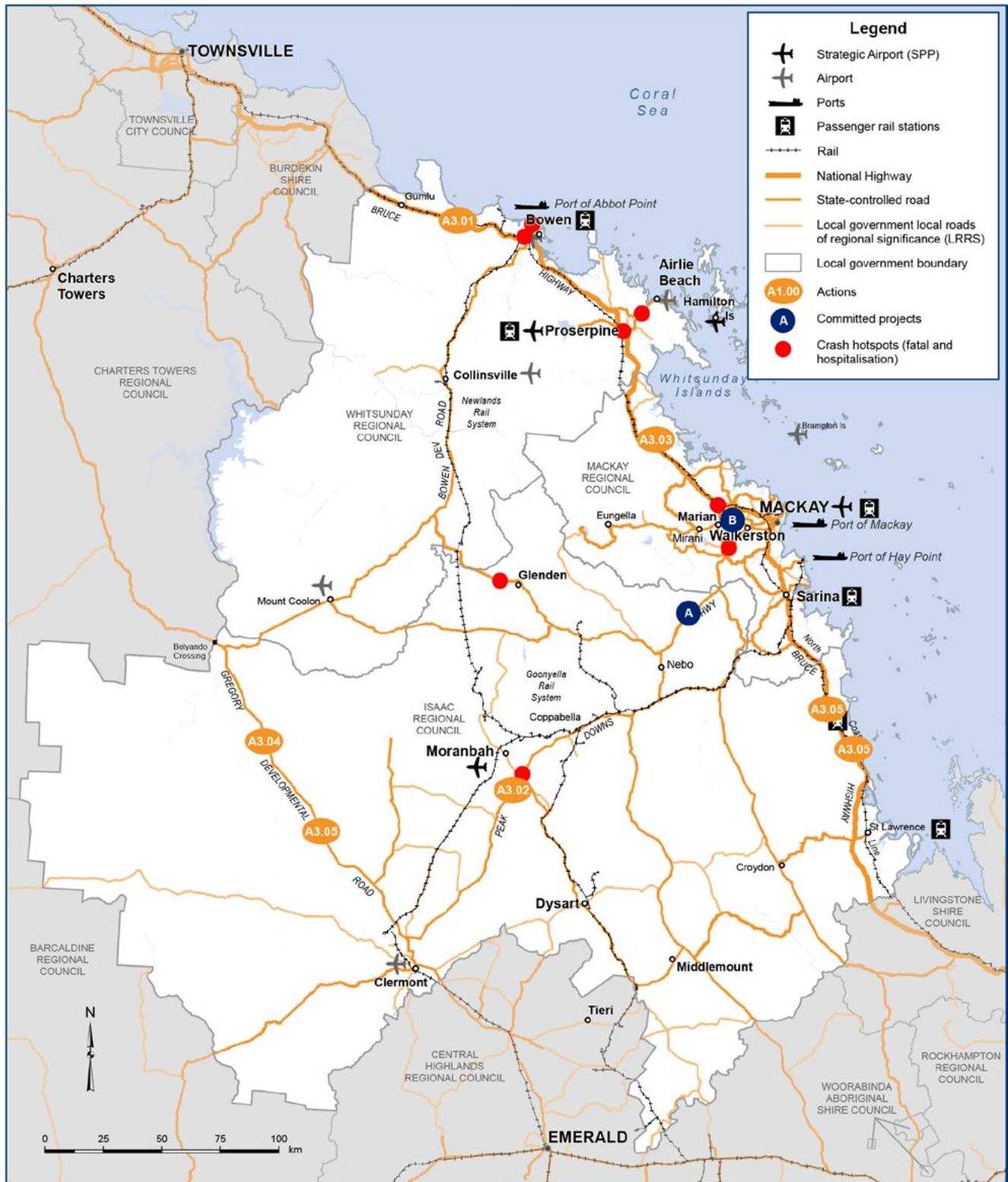


Figure 10: Priority 3 location specific actions



## 4.4 Priority 4: Liveable and connected communities

### Attracting and retaining people by supporting liveable and connected communities in the Mackay Isaac Whitsunday region.

The transport network is a critical element of any society and is central to the creation of liveable and connected communities. However, the livability of a community is equally effected by built and natural environments, economic prosperity, social stability and equity, educational opportunity, as well as cultural, entertainment and recreation possibilities. The region has high quality education and community facilities and a variety of cultural, entertainment and recreation opportunities. Yet recent changes to the region's economy have resulted in a decline in the population base of some areas.

Fly-in fly-out employment, particularly in mining, has seen the establishment of temporary worker accommodation which is detached from the region's townships with little or no connection to the region. Failing to attract and retain people within the region has flow-on effects that can restrict future opportunities and impact the region's social fabric. Priority 4, liveable and connected communities, is about creating a place that attracts and retains people in a community that can function in a self-contained way.

Transport has an important role in enhancing liveability by improving accessibility to employment, social services, recreation and day to day activities. Government and business can strive to provide and maintain the services and attributes that attract people to a place, but effort will be compromised if the community is unable to access them.

#### Priority 4 supports:

- the *Transport Coordination Plan's* objective for transport connects communities to employment and vital services and contributes to a cleaner, healthier and more liveable environment
- the *State Infrastructure Plan's* focus on connecting regional communities with access to essential services and opportunities
- the *Mackay Isaac Whitsunday Regional Plan's* transport principle of providing highly connected transport networks to facilitate strong links within and between communities and activity centres to enable high levels of accessibility, route and mode choice.



Mackay-Bucasia Road

## Transport objectives and measures of success

### Objective 4.1: Connect customers to major attractions, employment centres and essential services in an efficient, legible and equitable way.

Well planned, built and maintained transport infrastructure plays the central role in achieving this outcome. Transport choice is key: acknowledging and planning for all modes of transport and recognising that not all customers have access to private vehicles. The provision of appropriate transport infrastructure in remote areas in particular assists people to remain connected with each other, supporting more liveable and socially viable communities.

### Objective 4.2: Provide customers with increased travel choice and mobility across the region.

Providing customers with increased travel choices and mobility across the region will assist in building more liveable and connected communities. There are opportunities in the region to leverage technology, and new approaches to passenger transport service provision that can increase travel choice, accessibility and mobility.

In remote and lower density urban areas, traditional bus services are generally expensive to operate and are unattractive to customers because they are typically indirect and infrequent. Innovative approaches to passenger transport service such as demand responsive transport, present opportunities to service lower density urban areas and greenfield communities in a more sustainable, efficient and responsive way.

Providing increased travel choices and mobility is likely to require more flexible and regular services in some areas. Adopting more innovative approaches to passenger transport service coordination and delivery offers an opportunity to move beyond a single transport service to a well synchronised family of services that provides alternatives to meet customer's needs. Considering infrastructure delivery in the context of emerging transport services, technology, data and information will help to ensure resources are coordinated efficiently to provide competitive travel choices and mobility options for the community.

Leveraging technology and new approaches to passenger transport service provision will:

- increase travel choice options and mobility for customers
- provide personalised mobility that fits the customer's needs
- enable seamless movement throughout the region that is not inhibited by mode
- facilitate efficient, reliable service that customers can depend upon
- empower customers to navigate around the region with ease
- strengthen passenger transport branding
- improve customer information to assist in customer confidence in the system.

### Measures of success

Measure of success	Proposed indicator	Source	Objectives	
			4.1	4.2
Level of transport disadvantage decreases.	Proportion of population in areas of unmet transport need (high mobility disadvantage and not served by public transport).	TMR	✓	✓
Greater access and connectivity to places and services.	Proportion of population with good accessibility to a range of essential services in urban areas (by walking or public transport).	TMR	✓	✓
Proportion of people choosing to walk, cycle and take public transport increases.	Proportion of people choosing to walk, cycle and take public transport. Journey to work mode share.	TMR	✓	✓



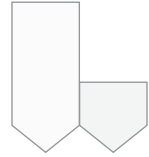
## Actions

### PRIORITY 4: LIVEABLE AND CONNECTED COMMUNITIES

**Objective 4.1:** Connect customers to major attractions, employment centres and essential services in an efficient, legible and equitable way.

**Objective 4.2:** Provide customers with increased travel choice and mobility across the region.

### OBJECTIVES



Actions – short-term		4.1	4.2
<b>A4.01</b>	Undertake options analysis and business case development for highest priority routes on the principal cycle network, such as the Bruce Highway, Mackay Bucasia Road, Shoal Point Road and Shute Harbour Road.	✓	
<b>A4.02</b>	Complete business case planning for the new Mackay CBD Bus Interchange. The identification of changes to the bus network resulting from the new Mackay CBD Bus Interchange, will be identified as part of the business case.	✓	✓
<b>A4.03</b>	Develop a passenger transport servicing strategy that improves access to Mackay and Whitsunday Coast airports.	✓	
<b>A4.04</b>	Review public transport network decision points including Rural View, Mackay CBD and Airlie Beach to identify legibility gaps and develop a prioritised list of improvements for input into relevant programs such as passenger transport facilities and bus stop upgrades.	✓	
<b>A4.05</b>	Continue to prioritise investment in boating infrastructure across Queensland based on an assessment of demand and extensive input from the community and stakeholders. Key locations include Constant Creek, Cape Gloucester and Shute Harbour.	✓	
<b>A4.06</b>	Develop a new transport service delivery model for the region that considers all methods of mobility as part of one integrated network.		✓
<b>A4.07</b>	Mackay Regional Council will investigate options to manage parking in the Mackay CBD to facilitate the future growth and economic vitality of Mackay.		✓
<b>A4.08</b>	Transport and Main Roads will work with the region's local councils to investigate and prioritise opportunities to improve the pedestrian environment in activity centres and at key transport nodes including Rural View, Mackay CBD and Airlie Beach to strengthen walkability and local amenity.		✓
<b>A4.09</b>	Review and update Priority Route Maps, addendum to Mackay Isaac Whitsunday Principal Cycle Network Plan, every two years in collaboration with local government.		
Actions – medium/long-term		4.1	4.2
<b>A4.10</b>	Work with local governments to develop and implement a standardised approach to wayfinding for transport services and infrastructure that provides clear, useful and multilingual information.	✓	
<b>A4.11</b>	Review and update Principal Cycle Network Plans every five years in collaboration with local government.	✓	
<b>A4.12</b>	Improve the integration of personalised transport services as part of region's transport system.		✓
<b>A4.13</b>	Investigate opportunities to implement smart ticketing within the region, including opportunities for pricing incentives and innovative products to encourage greater public transport use.		✓

**PRIORITY 4: COMMITTED PROJECTS**

<b>A</b>	Mackay-Bucasia Road upgrade progressing (business case complete)	<b>G</b>	Mackay Northern Access upgrades – Stages 1 and 2
<b>B</b>	Sarina Northern Access upgrade	<b>H</b>	Malcomson Street bus stop improvements
<b>C</b>	James Cook Drive to Mackay-Bucasia Road shared path extension	<b>I</b>	Mangrove Road bus station upgrade
<b>D</b>	Eimeo Road upgrade progressing	<b>J</b>	Sams Road upgrade progressing (business case complete)
<b>E</b>	Bluewater Trail Bridge Road, Mackay missing link shared path	<b>K</b>	Heaths Road upgrade progressing (business case complete)
<b>F</b>	Bluewater Trail Quota Park, Mackay shared path		

**CASE STUDY: RouteMatch – holistic mobility management**

Transport for New South Wales introduced a new vehicle scheduling system (RouteMatch) from in 2016 in order to enable community transport organisations to provide a more efficient transport service.

Organisations that share overlaps in service areas or ridership can work together to provide coordinated transportation.

Not only can this open up more vehicle capacity and reduce operational costs, but coordinated transportation results in fulfilling under-served areas and communities as well as greater customer satisfaction. Taxis, van-pools and fixed route services are just a few examples of such transportation options.

RouteMatch provides complete resources for mobility management that allow organisations to expand their service areas and improve ridership reach holistically.

RouteMatch's capabilities include:

- launch and manage one-call one-click centres
- share trips based on client needs, location, availability and other criteria
- calculate trips and coordinating cost models
- manage passenger eligibility, capabilities and funding sources
- view real time status of vehicles through GPS tracking
- improve service planning and scheduling
- facilitate trip planning for riders
- communicate to your riders through RouteShout traveller information system
- take advantage of end-to-end systems integration.

Coordination of routes between agencies, in particular, is one mechanism to provide appropriate transport services in lower density areas.

Source:

[www.routematch.com/contact-us/australia](http://www.routematch.com/contact-us/australia)



### ***Queensland Cycling Strategy 2017–2027: Mackay Isaac Whitsunday Region***

The Queensland Government's vision for cycling, as set out in the *Queensland Cycling Strategy 2017–2027*, is for more cycling, more often.

Well-designed streets, paths and public spaces that provide physical separation from motorised traffic, way finding, adequate shade and amenities play an important role in encouraging people to walk and ride as an everyday activity.

Promoting active transport as a favoured, practical option in Mackay Isaac Whitsunday region means prioritising connections to support walking and cycling so as to maximise accessibility to and from employment, educational institutions such as schools and universities, public transport stops and stations and centres.

State and local government and key stakeholders worked together to develop the *Mackay Isaac Whitsunday Principal Cycle Network Plan* and accompanying Priority Route Maps to help make it easier and safer for people to cycle.

The Mackay Isaac Whitsunday Principal Cycle Network is supported by local government plans and strategies, such as the *Mackay Regional Council's Cycleway Strategy* and the *Whitsunday Regional Council's Cycle Network Plan*



*Cycling on the Blue Water Trail, Mackay*

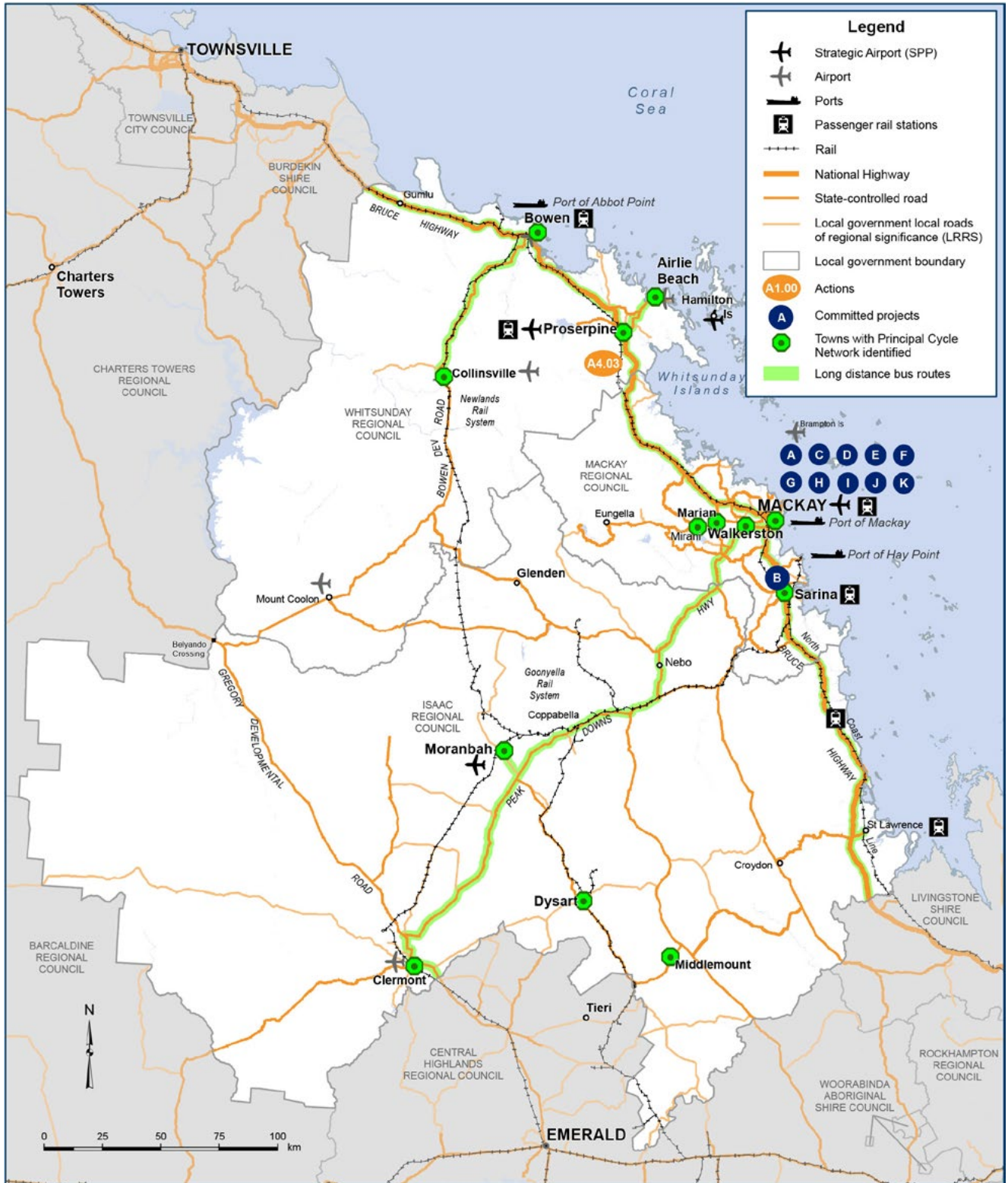


Figure 11: Priority 4 location specific actions





*Mount Nebo, Clermont*





# 5. Implementation



## 5.1 Taking action

Delivering the *Mackay Isaac Whitsunday 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 12 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 this 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.

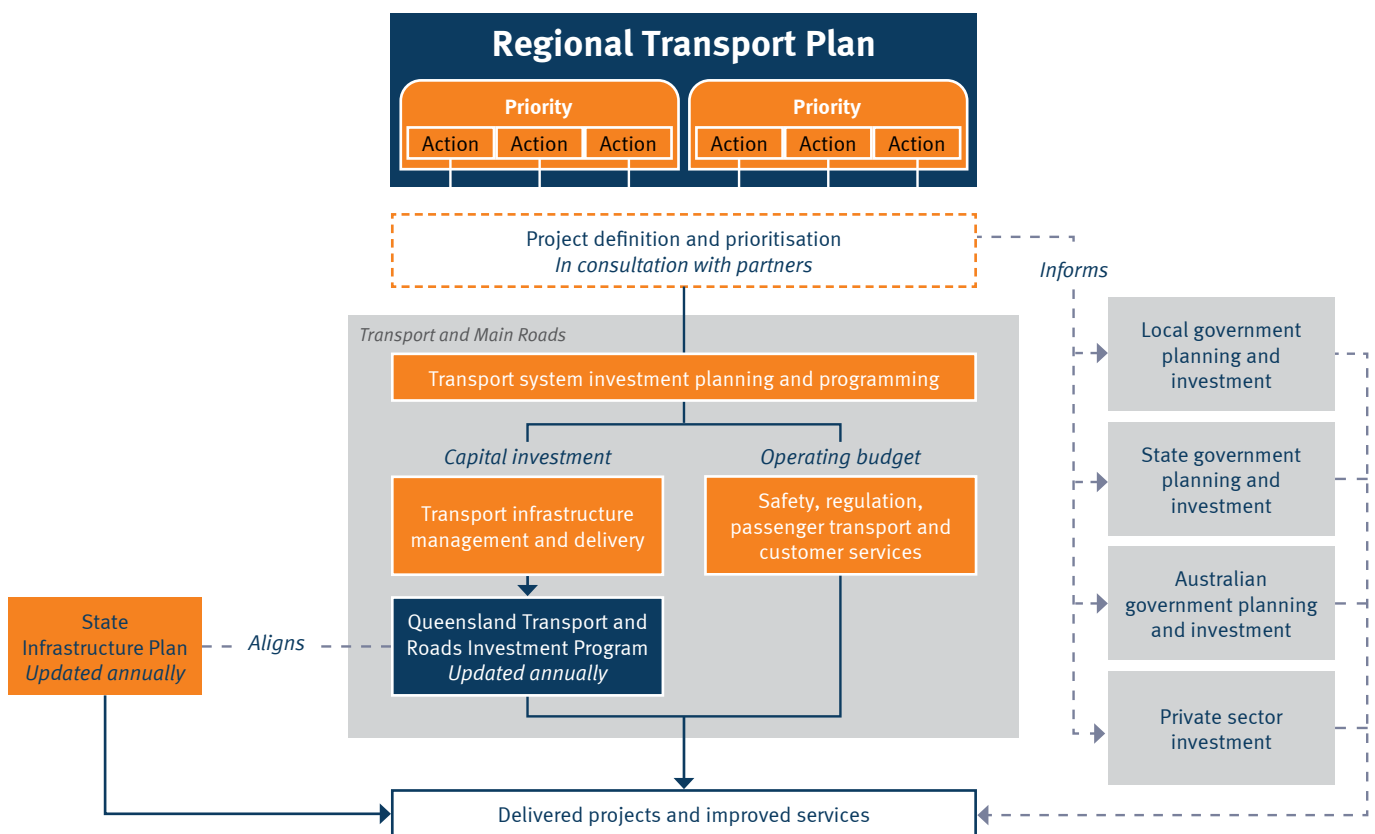


Figure 12: Regional Transport Plans are a critical step in Transport and Main Roads investment lifecycle

## 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 *Mackay Isaac Whitsunday 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 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
- establishing funding partnerships to accelerate action delivery and realise economic or commercial benefits, for example, through market-led proposals 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). RRTGs work collaboratively to prioritise investment on road and transport infrastructure and should evolve further to influence the strategic planning and management of regional transport networks.

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



*Ned Casey Bridge, Sandy Creek, Eton*



## 5.3 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 13).

It is intended that a review of this 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.

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

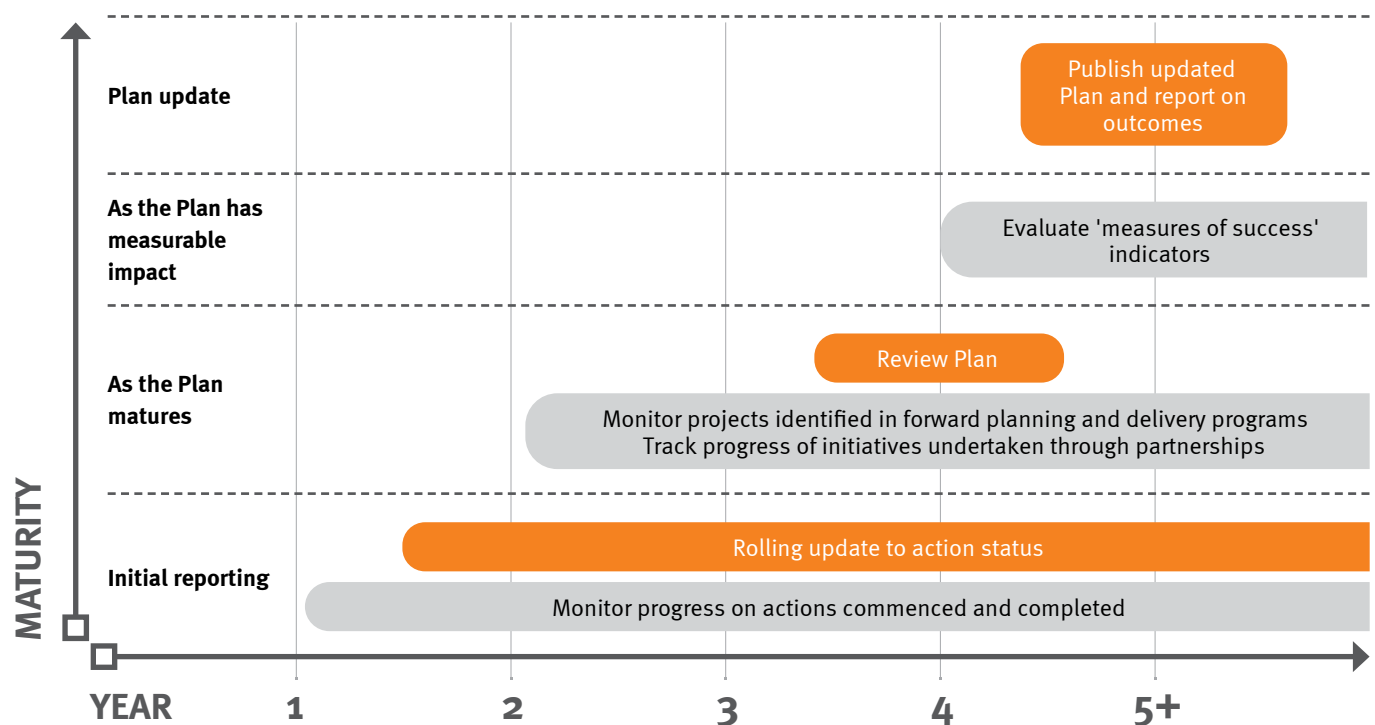


Figure 13: Monitoring, reporting and review as the Plan matures

### 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.



## PHOTO CREDITS

*Cover, Whitehaven Beach (inset, left), Whitsunday Regional Council.*

*Inside cover, Heart Reef, Tourism and Events Queensland.*

*Page 10, Airlie Beach Lagoon, Whitsunday Regional Council.*

*Page*

*Page 20, Rural Property, Clermont, Isaac Regional Council.*

*Page 23, Rail Crossing, Sarina, Tourism and Events Queensland.*

*Page 28, Hideaway Bay, Whitsunday, Tourism and Events Queensland.*

*Page 30, Bruce Highway, Mackay to Townsville, Tourism and Events Queensland.*

*Page 38, Eungella, Tourism and Events Queensland.*

*Page 42, Driving through Eungella, Tourism and Events Queensland.*

*Page 54, Railway crossing near Sarina, Tourism and Events Queensland.*

*Page 62, Blue Water Trail, Mackay, Tourism and Events Queensland.*

*Page 64, Mount Nebo, Clermont, Tourism and Events Queensland.*

*Page 67, Ned Casey Bridge, Sandy Creek, Eton, Tourism and Events Queensland.*

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Active transport is good for health, but is also a fun attractor of locals and tourists



