

NORTHERN QUEENSLAND

DRAFT 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:

- Burdekin Shire Council
- Charters Towers Regional Council
- Hinchinbrook Shire Council
- Palm Island Aboriginal Shire Council
- Townsville City Council.

Cover images: Aerial image of Townsville (background); Port of Lucinda, Hinchinbrook (inset, left); Cattle loading at sale yards, Charters Towers (inset, centre); Shops on Bruce Highway, Ayr (inset, right).

Inside cover image: Bike lane on road, Townsville.



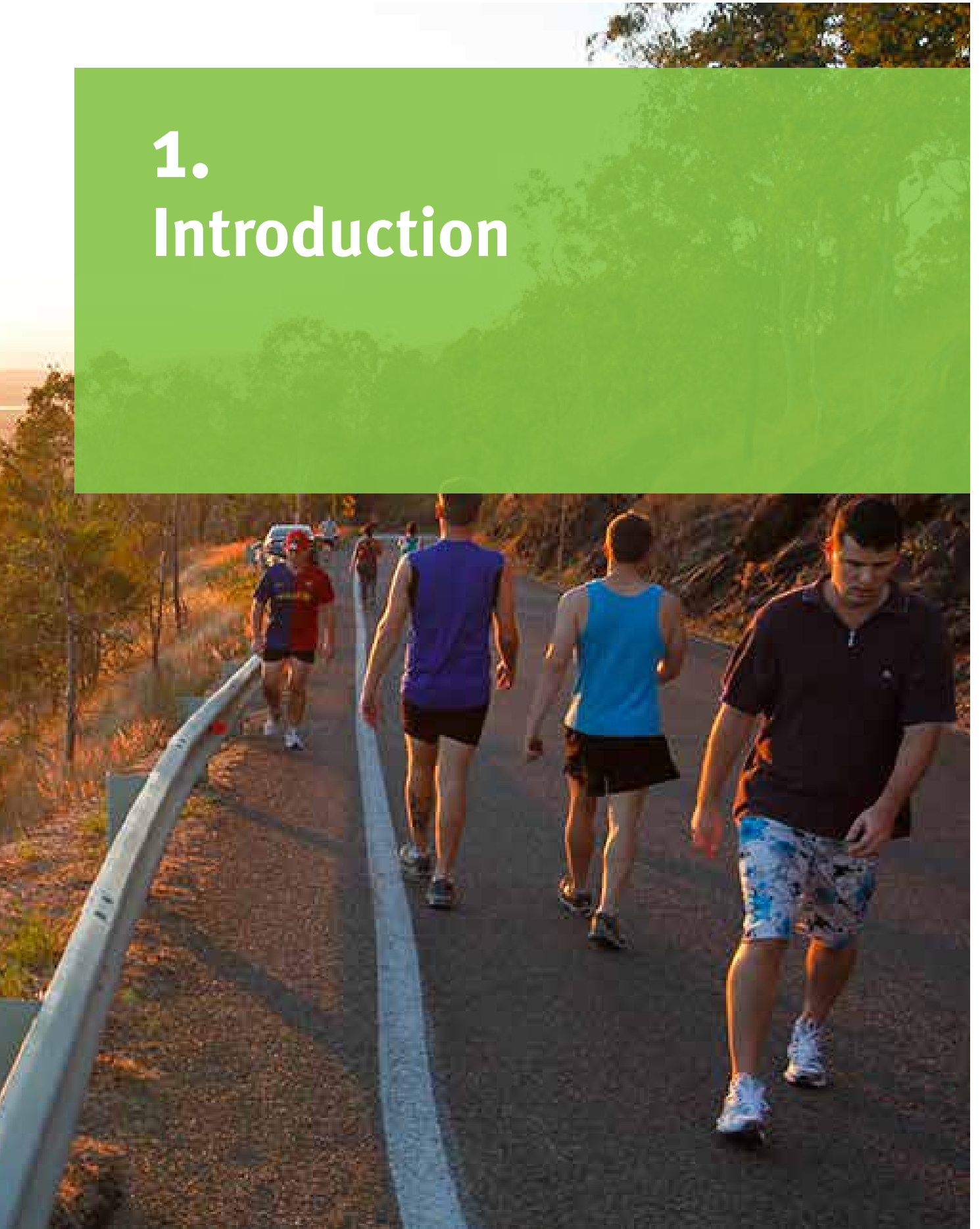
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Walkers on Castle Hill, Townsville

1. Introduction



1.1 A shared direction for transport

The *Northern Queensland 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 Northern Queensland region is home to over 235,000 people and includes the local government areas of Burdekin, Charters Towers, Hinchinbrook, Palm Island and Townsville.¹

1.2 What is a Regional Transport Plan

The purpose of the *Northern Queensland 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 (see 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.

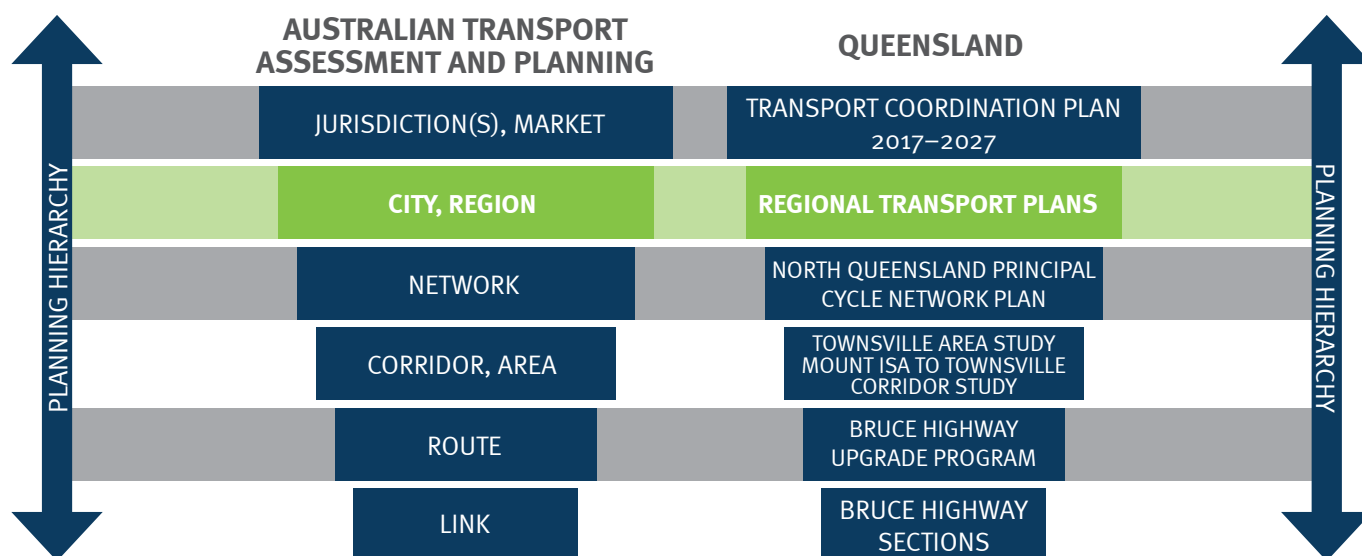


Figure 1: Examples of how Queensland responds to the Australian Transport Assessment and Planning hierarchy

¹ Australian Bureau of Statistics. (2017). *Regional Population Growth, Australia* (Catalogue No. 3218.00).

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). 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*
- 'North Queensland Regional Plan' (draft)
- 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
National	<ul style="list-style-type: none"> Australian Infrastructure Plan Our North, Our Future: A White Paper on Developing Northern Australia Smart Cities Plan 	<ul style="list-style-type: none"> Australian Transport and Assessment Planning Guidelines Infrastructure Australia's Infrastructure Priority List National Land Freight Strategy Infrastructure Australia's Urban Transport Strategy 	<ul style="list-style-type: none"> Infrastructure Investment Program Australian Infrastructure Audit National Land Transport Network investment strategies Fix the Bruce Townsville City Deal 	<ul style="list-style-type: none"> Gateway Upgrade North Cooroy to Curra, Section A Toowoomba Second Range Crossing Mackay Ring Road Stage 1
Queensland Government	<ul style="list-style-type: none"> Objectives for the community Advance Queensland State Planning Policy 	<ul style="list-style-type: none"> Regional Plans <ul style="list-style-type: none"> 'North Queensland Regional Plan' (draft) State Infrastructure Plan Part A Building Queensland's Infrastructure Pipeline Queensland Cycling Strategy 2017–2027 	<ul style="list-style-type: none"> Project Assessment Framework State Infrastructure Plan Part B Building Queensland Business Case Assessment Bruce Highway Action Plan Cross River Rail 	<ul style="list-style-type: none"> Bill Fulton Bridge Cairns Riverway Drive Townsville Vines Creek Mackay North Coast Line Capacity Improvement Project
Departmental	<ul style="list-style-type: none"> Transport Coordination Plan 2017–2027 'Queensland Transport Strategy' (draft) Transport and Main Roads Strategic Plan 2016–2020 	<ul style="list-style-type: none"> Regional Transport Plans System strategies and plans (e.g. rail, ports, freight, passenger, road safety, cycle strategies) Area and corridor transport strategies Route and link plans Principle cycle network plans 	<ul style="list-style-type: none"> 10-year transport infrastructure portfolio investment planning Queensland Transport and Roads Investment Program (QTRIP) Highway investment strategies Transport System Planning Program 	<ul style="list-style-type: none"> Transport service contracts Transport Infrastructure Development Scheme Safer Roads Sooner
Local	<ul style="list-style-type: none"> Vision statements Strategic/corporate plans 	<ul style="list-style-type: none"> Planning schemes Local area plans Local transport plans 	<ul style="list-style-type: none"> Local government infrastructure plans Local government investment and works programs 	<ul style="list-style-type: none"> Local roads projects Bikeway and footpath projects Local bus infrastructure projects

1.4 Alignment with the *State Infrastructure Plan*

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

The Queensland Government's strategic direction for transport infrastructure is expressed by the *State Infrastructure Plan* responses (Table 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* option 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 Northern Queensland 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 the Townsville Airport as the only strategic airport within the region and two strategic ports—the Port of Townsville and the Port of Lucinda.

1.7 Alignment with regional planning

'North Queensland Regional Plan'

The Department of State Development, Manufacturing, Infrastructure and Planning is currently preparing the first regional plan for North Queensland (the draft 'North Queensland Regional Plan'). The draft 'North Queensland Regional Plan' will set the vision for Northern Queensland and provide a blueprint for the region's future. The draft *Northern Queensland Regional Transport Plan* covers the same area as the draft 'North Queensland Regional Plan'.

Recognising that local government is best placed to undertake local planning, the draft 'North Queensland Regional Plan' will not respond to all matters in the region but will play a focussed role in addressing and resolving competing state interests on a regional scale.

This Plan and the draft 'North Queensland Regional Plan' will work together towards achieving shared goals and objectives for transport through complementary land use and transport initiatives that:

- support sustainable growth and land use development patterns
- create resilient and liveable communities
- protect lifestyle and environmental values
- facilitate economic growth and productivity
- address the challenges of aging population, increasing urbanisation, and structural changes in the regional economy.

1.8 Achievements to date

The *Northern Queensland Regional Transport Plan* outlines priorities and actions to respond to the challenges and opportunities facing the Northern Queensland region. A snapshot of actions already undertaken or underway include:

Townsville Ring Road (Section 4)

The Townsville Ring Road (Bruce Highway) is a key priority for all levels of government. Section 4, jointly funded by the Queensland and Australian Governments, was completed in early 2017. It completes the 22 kilometre Townsville Ring Road link and forms a new section of the National Network. Benefits include improved efficiency, safety and amenity, flood immunity and travel time reliability.

The Queensland Government is committed to accelerating planning and delivery of Stage 5 of the Townsville Ring Road as a key initiative to improve road safety, freight efficiency and capacity along this important section of the Bruce Highway.

Flood mitigation projects

Flood prone routes in the region are being improved as part of the Queensland Government's Strategic Flood Investigation Program. In June 2016, an elevated bridge was installed at Yellow Gin Creek, 30 kilometres south of Ayr. In February 2017, the Arnot Creek Bridge was replaced on the Bruce Highway, 12 kilometres north of Ingham. Upgrades are also planned on the Bruce Highway, within the Haughton River floodplain, to further improve flood immunity, travel reliability and freight efficiency between Townsville and Ayr.

Safety initiatives

Safety initiatives across the region that have been recently completed or are underway include intersection upgrades, road widening, overtaking lanes and more rest and parking areas for heavy vehicles. The Haughton River project will enhance safety with the elimination of two at-grade rail crossings south of Haughton, at the Bruce Highway intersections with Woodstock Giru Road and Hodel Road.

Passenger transport

Construction is underway for bus stop improvements that aim to enhance the experience and attractiveness of using public transport. The project includes a major upgrade to bus facilities in Townsville as part of Ogden Street Revitalisation Works led by Townsville City Council.

Active transport

The *North Queensland Principal Cycle Network Plan* and Priority Route Maps were developed collaboratively by local governments and Transport and Main Roads. The *North Queensland Principal Cycle Network Plan* identifies high order cycle routes that make up the regional cycle network and is used to guide coordinated delivery of a connected cycle network in the region. Local governments in the region are able to apply for funding through the Cycling Infrastructure Program to deliver projects under this plan.

Northern Australia Roads Program

Pavement rehabilitation and culvert replacement is planned for the Flinders Highway in the Charters Towers local government area as part of the Northern Australia Roads Program.

Townsville Recreational Boating Park

The Townsville Recreational Boating Park is a \$25 million joint venture between Townsville City Council, the Department of Transport and Main Roads and Port of Townsville Limited. Stages 1 and 2 of the three stage project are now complete, and provide access to four 4-lane boat ramps, 333 car-with-trailer bays, new wash-down areas, security cameras, extra lighting, a 30-metre pontoon, a 50-metre all-ability accessible pontoon, a sheltered park area, BBQs and covered playground facilities. Once completed, the Townsville Recreational Boating Park will be the largest facility of its kind in Australia.



Newly completed Townsville Ring Road (Stage 4)

Hervey's Range Developmental Road widening works

Completed in late 2016, the Hervey's Range Developmental Road project involved road widening, wide centre line treatment and other safety improvements on a 13-kilometre narrow section of Hervey's Range Developmental Road, between Lynam Road and Alice River Bridge.

Townsville Decoupling Pad

Completed in May 2016, the Townsville Decoupling Pad is located adjacent to the Townsville Port Access Road. The project has improved safety for road train operators and increased the productivity of smaller transport companies that require short-term trailer storage.

Townsville City Deal

The Australian Government, Queensland Government and Townsville City Council signed Australia's first City Deal—the Townsville City Deal—on 9 December 2016. The Townsville City Deal is a 15-year commitment between the three levels of government to work together to deliver transformative outcomes for Townsville and its communities.

Priority projects under the Townsville City Deal are targeted to support economic growth, deliver major infrastructure, create new and sustainable jobs and enhance the liveability of the city.

The Townsville City Deal was developed collaboratively with the Townsville community and private sector and includes commitments that will influence planning for the city's urban commuter routes, public transport network, and freight supply chains. The *Townsville City Deal Implementation Plan*, published in April 2017, highlights key commitments for delivery over the next five years including:

- development of the North Queensland Stadium
- Port of Townsville channel capacity upgrade business case
- Townsville Eastern Access Rail Corridor (TEARC) business case
- Flinders Highway/Woodstock-Giru Road intersection upgrade planning investigation to support the Woodstock industrial and export estate
- acceleration of the State Development Area
- investigation of innovative public transport solutions to better connect the CBD, James Cook University and other key business, health and education precincts.

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 and requirements 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.



Artistic impression of proposed North Queensland Stadium



Artistic impression of Ogden Street bus hub, Townsville CBD

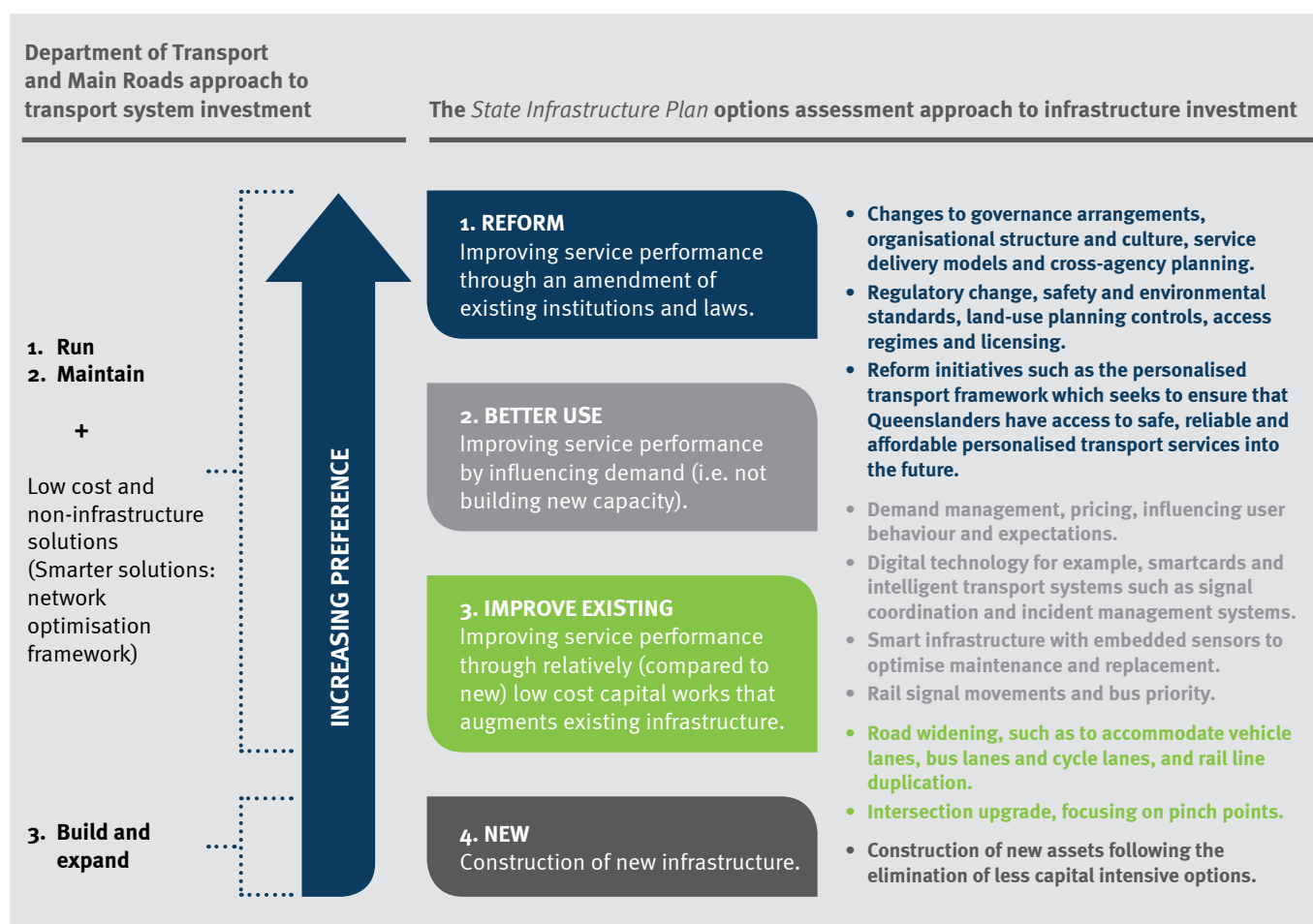
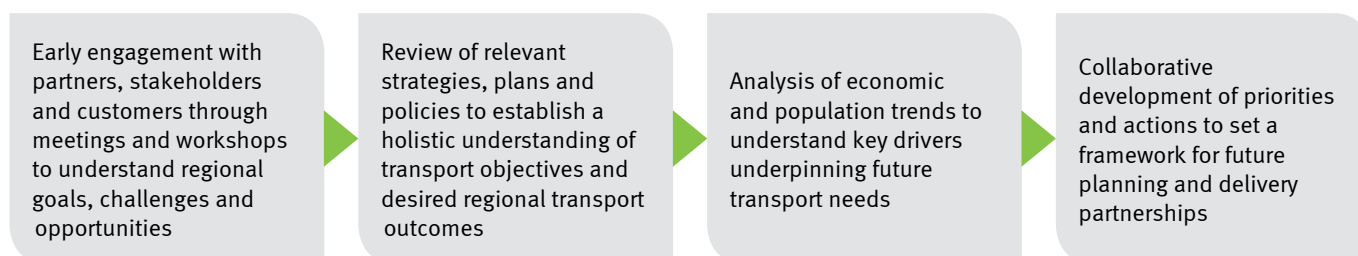


Figure 2: Alignment between the departmental and government approaches to infrastructure investment

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.



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:

- Existing transport infrastructure is not keeping pace with changing economic needs, limiting the competitiveness of the region.
- The limited integration, service levels and travel options across the transport network are not meeting changing demographic needs, restricting regional liveability, safety and accessibility.
- Changing climate and seasonal weather patterns intermittently restrict the reliability of the existing transport network.
- The dispersed land use pattern of the region makes it challenging to maintain an efficient transport system and 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.

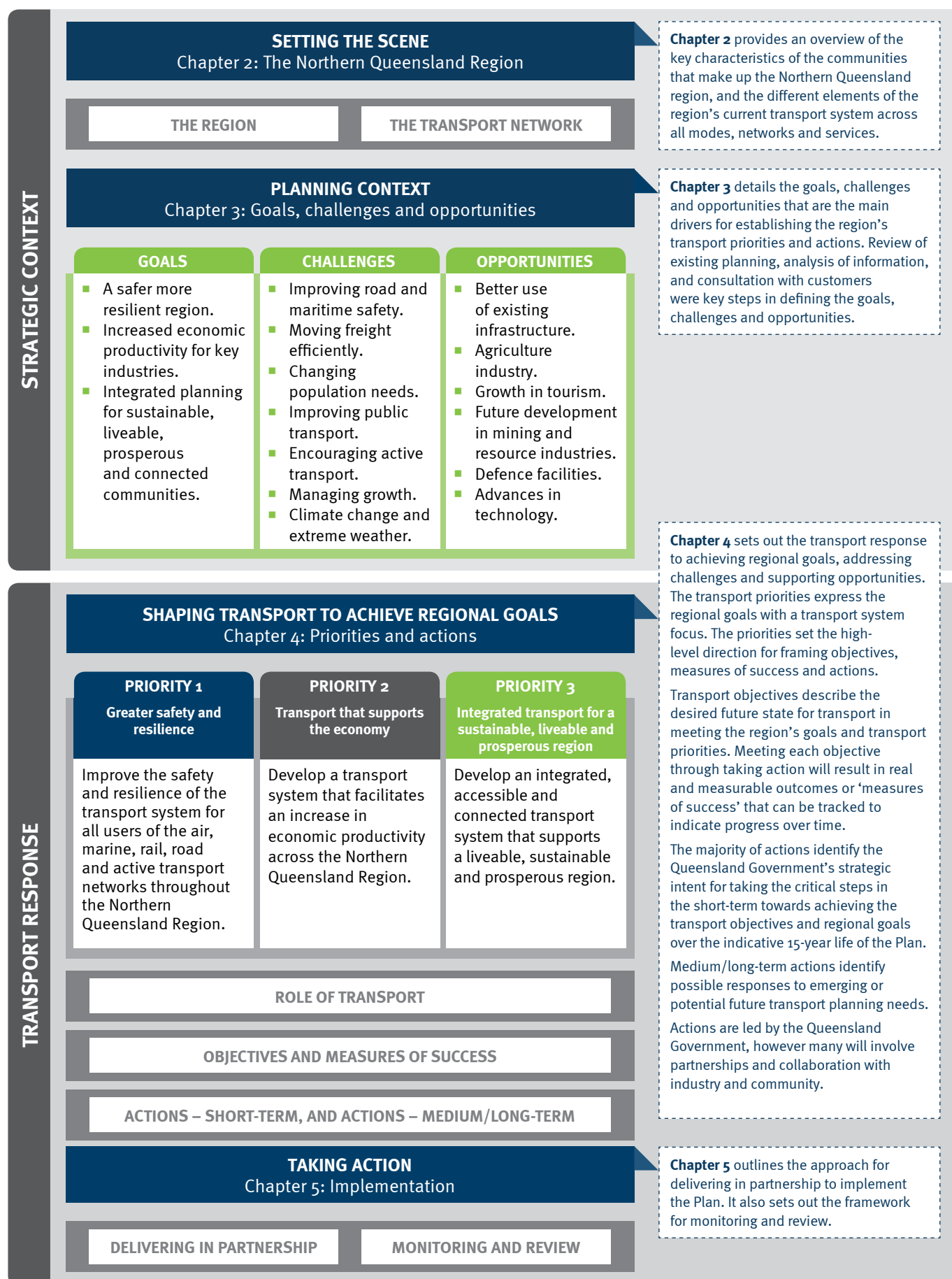
- **Chapter 1** introduces the purpose, scope and strategic alignment of the Regional Transport Plan.
- **Chapter 2** provides an overview of the region's community, economy and transport system.
- **Chapter 3** describes the region's goals, challenges and opportunities and their relationship to transport.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



Bohle River Bridge flooding

Table 3: Structure of the draft Northern Queensland Regional Transport Plan





Car travelling along shoreline, Magnetic Island

2. The Northern Queensland Region



2.1 Region overview



KEY FEATURES OF THE REGIONAL ECONOMY



The region has a diverse mix of industries across export and services markets and is further diversifying to become an **education and research hub**



Health care and social assistance is the largest employing industry at **12.1%***



Agriculture is a key industry contributing **\$894.5 million** to the local economy with opportunities to further expand and add value⁴



The region is home to Australia's largest defence garrison which is critical to Australia's overall Defence capability and security in the Indo-Pacific region⁵



Growth in knowledge based industries particularly in research expertise in tropical living such as tropical disease and agriculture production



Gross output generated from tourism in Northern Queensland is estimated to be worth over **\$1 billion⁶**



Covering approximately **1,100km²** Lower Burdekin is Northern Australia's largest irrigation area⁷



The region supports a significant mining, energy and natural resources sector and downstream sectors, including manufacturing and professional services

² Townsville Enterprise Limited. (2017). *Economy Profile*. www.economyprofile.com.au/townsvillenorthqueensland/industries/gross-regional-product.

³ Queensland Government Statistician's Office. (2017). *Regional Profile 2017*.

⁴ Australian Bureau of Statistics. (2012). *Value of Agriculture Commodities Produced, Australia, 2010*.

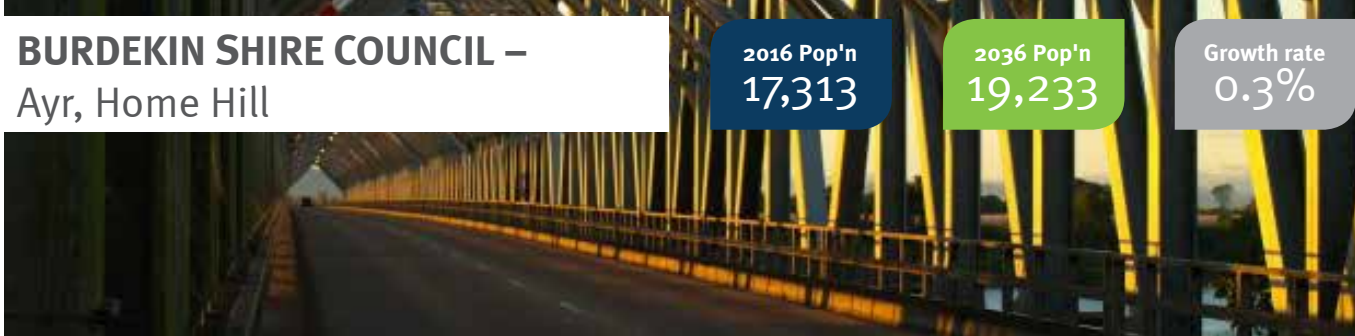

⁵ Department of State Development, Manufacturing, Infrastructure and Planning. (2017). www.defenceindustries.qld.gov.au/defence-industries/land/facilities.html.

⁶ Townsville Enterprise Limited. (2017). *Economy Profile*. www.economyprofile.com.au/townsvillenorthqueensland/tourism/output Source: 2015–16, Australian Bureau of Statistics, Tourism Satellite Account.

⁷ Department of Agriculture and Fisheries. (2013). *Agricultural Land Audit*.



* Note: Population and employment statistics are sourced from Australian Bureau of Statistics Census of Population and Housing, and Queensland Government Population Projections cited in Queensland Government Statistician's Office Queensland Regional Profiles current as at August 2017.

Local government areas


Local government areas and population centres*	2016 estimated resident population	2036 projected population	Average annual growth rate (2011–2036)
BURDEKIN SHIRE COUNCIL – Ayr, Home Hill 	2016 Pop'n 17,313	2036 Pop'n 19,233	Growth rate 0.3%
<p>Burdekin Shire is highly specialised around agribusiness and sugar cane farming and production. Agriculture (20 per cent) and manufacturing (14.4 per cent) are the major employment industries. There are opportunities to expand the total hectares under irrigation, and thereby grow and diversify the agribusiness sector.</p> <p>The Bruce Highway connects the Burdekin Shire to Townsville in the north and Brisbane to the south. Train stations on the North Coast rail line are located at Home Hill, Ayr and Giru.</p>			
CHARTERS TOWERS REGIONAL COUNCIL – Charters Towers 	2016 Pop'n 12,074	2036 Pop'n 13,198	Growth rate 0.2%
<p>Major industries of employment in Charters Towers are mining (13.7 per cent) and the education and training sector (11.5 per cent). Tourism is a growing feature of the Charters Towers' economy, worth an estimated \$51 million per year.⁸</p> <p>Charters Towers is located on the junction of two main highways providing east-west and north-south connections. The Flinders Highway connects east</p> <p>to Townsville and west to Mount Isa. The Gregory Developmental Road provides a northern inland link through to far north Queensland, the Cape and the Gulf via The Lynd, and an inland route south through Emerald. The Mount Isa line supports regular passenger rail services accessible from Charters Towers and Pentland.</p>			

⁸ Tourism and Events Queensland. (2017). *Charters Towers Tourism Profile—Average annual data from year ending December 2009 to December 2012*.

* Note: Population and employment statistics are sourced from Australian Bureau of Statistics *Census of Population and Housing*, and Queensland Government Population Projections cited in Queensland Government Statistician's Office Queensland Regional Profiles for local government areas current as at August 2017.

Local government areas and population centres*	2016 estimated resident population	2036 projected population	Average annual growth rate (2011–2036)
HINCHINBROOK SHIRE COUNCIL – Ingham  <p>Similar to Burdekin Shire, agriculture is central to Hinchinbrook's economy. Agriculture (16.3 per cent) and manufacturing (13.7 per cent) are major employing industries. Economic development strategies for Hinchinbrook include the revitalisation of the Ingham main street, enhancing tourism attractions, diversification of the agriculture industry and expanding biofuel production.</p> <p>The Bruce Highway connects Hinchinbrook south to Townsville, and north to Cairns. Passenger rail services on the North Coast line are accessible from Ingham Railway Station. Raw sugar grown in the district is exported from the Port of Lucinda.</p>	2016 Pop'n 10,990	2036 Pop'n 9,636	Growth rate -0.8%
PALM ISLAND ABORIGINAL SHIRE COUNCIL  <p>The community service and public administration sectors are the major employers in Palm Island, with 23.6 per cent of workers employed in public administration and safety, and 21.8 per cent in health care and social assistance.</p> <p>Ferry services provide five return trips per week taking 1.5 hours each way. Regular scheduled flights operate from Palm Island on weekdays.</p>	2016 Pop'n 2,602	2036 Pop'n 3,184	Growth rate 0.9%

* Note: Population and employment statistics are sourced from Australian Bureau of Statistics *Census of Population and Housing*, and Queensland Government Population Projections cited in Queensland Government Statistician's Office Queensland Regional Profiles for local government areas current as at August 2017.

Local government areas and population centres*	2016 estimated resident population	2036 projected population	Average annual growth rate (2011–2036)
TOWNSVILLE CITY COUNCIL – Townsville  <p>Major industries of employment in Townsville are health care and social assistance (12.5 per cent) and public administration and safety (11.9 per cent). Townsville's large defence presence provides significant industry investment and employment opportunities. Defence personnel and their dependents number about 15,000 people or eight per cent of Townsville's population.⁹</p> <p>Townsville is the major centre for the region and is accessible from the Bruce and Flinders Highways, as well as as Hervey's Range Developmental Road. The Townsville</p>	2016 Pop'n 192,058	2036 Pop'n 288,593	Growth rate 1.9%
<p>Airport has flights to regional and capital cities within Australia, as well as a number of newly introduced international destinations (Bali and Port Moresby). Ferry services connect Townsville City to Magnetic Island and Palm Island. A cruise ship terminal at Port of Townsville caters for both domestic and international tourist groups. Townsville has access to freight and passenger rail services connecting to Brisbane in the south, and Cairns in the north via the North Coast line, and west to Charters Towers and Mount Isa via the Mount Isa line.</p>			

NORTHERN QUEENSLAND REGION TOTAL

235,037
333,833
1.7%

⁹ Townsville City Council. (2017). *Australian Defence Force Factsheet*. www.townsville.qld.gov.au/_data/assets/pdf_file/0018/9360/Defence-Fact-Sheet-17.pdf

* Note: Population and employment statistics are sourced from Australian Bureau of Statistics *Census of Population and Housing*, and Queensland Government Population Projections cited in Queensland Government Statistician's Office Queensland Regional Profiles for local government areas current as at August 2017.

2.2 Transport network

An overview of the region's transport network is shown in Figure 3.



Figure 3: The Northern Queensland region transport network

TOWNSVILLE AIRPORT PASSENGER NUMBERS EXPECTED TO GROW FROM

1.5 MILLION PASSENGERS

IN 2015 TO

2.6 MILLION PASSENGERS

IN 2036¹⁰



THE REGION'S PORTS HANDLE APPROXIMATELY

11.6 MILLION

TONNES OF GOODS ANNUALLY¹¹



515KM

NATIONAL LAND TRANSPORT NETWORK

1,143KM

STATE-CONTROLLED ROADS

6,853KM

LOCAL GOVERNMENT MANAGED ROADS¹²



OVER 74% OF TRADE

FROM TOWNSVILLE PORT OCCURS WITH ASIAN MARKETS¹³



CAR

IS THE DOMINANT MODE OF TRANSPORT IN THE REGION¹⁴



50% OF RESIDENTS

IN THE NORTHERN REGION LIVE WITHIN 400M OF A BUS STOP¹⁴



THE REGION'S RAIL NETWORK CARRIES APPROXIMATELY

12.5 BILLION

GROSS KILOMETRE TONNES OF FREIGHT¹⁵



THE REGION'S TRANSPORT NETWORK PLAYS A KEY ROLE IN SUPPORTING

NORTH WEST MINERALS PROVINCE



- 10 Townsville Airport. (2016). *Townsville Airport Master Plan*. www.townsvilleairport.com.au/regulatory/townsville-airport-master-plan/.
- 11 Port of Townsville Limited. (2017). www.townsville-port.com.au/business-with-the-port/trade-statistics/new-customers-decision-tree.
- 12 Transport and Main Roads. (2017). *QTRIP Northern District*.
- 13 Port of Townsville. (2014). *Defence White Paper Submission*. www.defence.gov.au/Whitepaper/docs/254-PortofTownsville.pdf.
- 14 Transport and Main Roads. (2010). *Townsville Household Travel Survey Summary Report*.
- 15 Queensland Rail. (2016). *Queensland Rail Annual and Financial Report (2015-16)*.

Roads

The Bruce Highway, which is part of the National Land Transport Network, forms the primary north-south coastal route connecting the region's major population centres. It forms the strategic transport connection between Brisbane and Cairns, and caters for both long and short distance freight and passenger movements.

The Flinders Highway, also part of the National Land Transport Network, connects Townsville and Mount Isa through Charters Towers. The Gregory Developmental Road provides the inland north-south connection to far north Queensland. Hervey's Range Developmental Road provides a more direct north-west connection between Townsville and the Gregory Developmental Road for northern inland traffic.

The Bruce Highway and the Flinders Highway are the region's priority freight routes, connecting supply chains from the west to the Port of Townsville via the Townsville Access Road. Hervey's Range Developmental Road, Gregory Developmental Road, North Townsville Road and the Kennedy Developmental Road are key supporting road freight corridors within the region. Heavy vehicles fulfil an important freight task in the region, accounting for around 10 per cent of traffic within and around Townsville, and between 15 per cent and 40 per cent on other key freight routes.

The movement of people and goods across the region is highly dependent on the road network. Private vehicle transport is the primary mode for commuter travel for all trip purposes across most of the region with the exception of Palm Island. Private vehicle dependence is largely due to the long distances between centres, the dispersed low-density settlement pattern across the region, and lack of viable alternative transport options.

The role and function of the region's road network has undergone significant changes over time, particularly in urban centres. For example, some state-controlled roads and are now catering to more localised traffic demands due to changes or development in surrounding land use, whereas they once served more regional trips.

Bus and coach

Urban public transport bus services operate in Townsville city and on Magnetic Island. Townsville currently has 13 public transport bus routes that extend from the city centre north-west to Bushland Beach, south to Kelso and south-east to Stuart. The primary public transport corridor in Townsville operates on Charters Towers Road, Ross River Road and Nathan Street and connects the CBD to Hyde Park (Castletown), Aitkenvale, Thuringowa, Townsville Hospital and James Cook University. This primary public transport corridor has the highest frequency of services on the network, and connects parts of the city with higher density land use, and a concentration of commercial and social activity. Magnetic Island has one bus service that runs from the Nelly Bay ferry terminal north to Horseshoe Bay and south to Picnic Bay Esplanade.

School bus services are available for students in Townsville, Burdekin, Charters Towers and Hinchinbrook. Under the School Transport Assistance Scheme, school transport assistance is offered to eligible students in the more rural and remote parts of the region providing affordable options for travel to the nearest school.

Both regulated and unregulated long distance coach services operate in the region. Government-regulated long distance bus services include east-west connections from Townsville, with five return services to Charters Towers and three return services to Mount Isa per week. Greyhound Australia operates two unregulated long distance coach routes. The Brisbane to Cairns route has two daily return services stopping at Townsville, Ayr and Home Hill, and four daily return services stopping at Townsville and Ingham. The Alice Springs to Townsville route includes stops at Pentland, Charters Towers and Townsville with two return services per week.



Urban bus services, Townsville

Rail

The North Coast line extends from Brisbane to Cairns, and connects Townsville to major towns and settlements along the coast. The Mount Isa line runs east-west connecting Mount Isa to Townsville. Both lines provide freight transport and passenger services.

Passenger services include:

- the Spirit of Queensland, with five return services weekly, connecting Townsville with Cairns in the north and Brisbane to the south, operating on the North Coast line. This rail service also stops at Home Hill, Ayr, Giru and Ingham
- the Inlander rail service, a twice-weekly return service on the Mount Isa line between Mount Isa and Townsville, stopping at Townsville, Charters Towers and Pentland.

The Mount Isa line is a key rail freight line with a terminal at Townsville that transports:

- mineral concentrates
- intermodal and general freight
- sulphuric acid
- fertiliser
- cattle.

Freight on the North Coast line includes:

- containerised and general freight
- industrial products
- sugar
- molasses.



Passengers on platform at Townsville Railway Station

Active transport

Active transport refers to non-motorised travel such as walking and cycling. The active transport network consists of shared paths, cycle tracks, on-road cycle routes and other facilities that provide connectivity for people walking or cycling. The current pedestrian network in the region is made up of kerbside footpaths, which are often shared with cyclists (due to the absence of dedicated cycle facilities), and pedestrian footpaths through parks, reserves and along the oceanfront in coastal areas.

Townsville has a number of cycling facilities of varying standards. Outside of Townsville however, the cycle network is largely undeveloped. The bicycle network in Townsville includes more than 100 kilometres of on-road bicycle lanes and more than 40 kilometres of off-road bicycle paths. The on-road cycle network is typically defined by marked bicycle lanes, wider shoulders and signage. Off-road facilities are typically shared paths and there are some designated bicycle routes on quieter streets.

Air

Townsville Airport is the regional aviation hub for the Northern Queensland region. Townsville Airport supports domestic flights to a range of capital cities and major centres across Australia, as well as regional and remote centres in north west and central Queensland. The airport's international facilities support flights to a limited, but expanding list of international destinations including Bali and Port Moresby. The airport also has a strategic role in providing essential defence aviation services for Townsville, linking Australia's principal garrison city to a range of defence facilities within the Asian subcontinent, South East Asia and Pacific regions. Passenger numbers through the airport have grown steadily since 2003, with annual rates forecast to grow from current figures of around 1.5 million passengers to 2.6 million by 2036.

Townsville Airport also has an important air freight role, supported by road freight connections via Ingham Road and North Townsville Road. While air freight exports are not expected to increase significantly over the life of the Regional Transport Plan, potential opportunities to increase agricultural production in north west Queensland may influence total export volumes in the longer term.

There are also a number of smaller airports throughout the region, including Palm Island, with scheduled passenger services to and from Townsville.

Townsville Airport Master Plan

The Townsville Airport Master Plan 2016–2036 was released in 2016 and identified a number of strategies to guide the development of airport facilities, infrastructure and land use over the next 20 years. Within the first five years of the master plan to 2021, the following key works are proposed:

- terminal and apron expansion
- infrastructure related upgrades such as electricity and water
- expansion of car parks and road upgrades to accommodate anticipated passenger growth
- other improvements to the Northern Australia Aerospace Centre of Excellence (NAACEX) and
- enterprise precincts, based on demand.

In the longer term, to 2036, the following key works are proposed:

- further stages of expansion for the terminal and apron
- additional upgrades to roads and car parks to accommodate anticipated growth
- further development of the Northern Aviation Precinct
- precinct and associated infrastructure to support this growth
- potential aviation development leases and NAACEX expansion.¹⁶

Marine

Strategic ports in the Northern Queensland region include the Port of Townsville and the Port of Lucinda. The Port of Townsville caters for freight (including commodities such as metals, sugar and petroleum products), Defence Force needs and a growing cruise ship industry. Lucinda is dedicated to the export of raw sugar from the Herbert River sugar growing area. The majority of exports from the region are mineral resources. This is due to the Port of Townsville's strategic proximity to the resource-rich North West region, and also due to the freight rail connection to the port from Mount Isa and Stuart.

Passenger ferry services operate from the Townsville Breakwater Terminal connecting to Palm Island and Magnetic Island. Palm Island has five return services a week and additional services subject to passenger

demands (for example, extra services over the December-January holiday period and for special events). The Palm Island ferry service is critical for the community to access goods and services in Townsville that aren't readily available on Palm Island. There is also one return service every Monday to Friday between the Port of Lucinda and Palm Island for passengers, vehicles and cargo.

The Magnetic Island ferry service has between 15 and 18 return services per day. Ferry services to Magnetic Island have an important commuter and tourism function for the region.

The Ross Island Barracks, situated one kilometre south-east of the Townsville CBD, has an important support role for the army's amphibious operations. These barracks accommodate the headquarters and elements of the 10th Force Support Battalion Marine workshops, 30 Terminal Squadron, 35 Water Transport Squadron and the Army School of Transport – Maritime Wing.

Recreational boating is also an important aspect of the region's lifestyle, with an estimated one in seven households owning a boat. There are a number of jetties and boat ramps available throughout the region, including the Townsville Recreational Boat Park.

Mobility and community transport services

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

Travel subsidies and special transport services are available to people with a transport disadvantage, including the elderly, sick and people with a disability who require travel assistance to access essential health and community service needs. The range of services available in the region include subsidised taxi travel, community bus services, and patient transport services delivered by the Queensland Ambulance Service.

Taxi services are available in Townsville, Ingham, Charters Towers, Ayr and Magnetic Island. Other personalised transport services such as booked hire now also play a role in the region's transport system. This trend towards more diverse transport options offers customers improved choice about how they travel.

¹⁶ Townsville Airport Pty Ltd. (2016). *Major Development Plan: Townsville Airport Terminal Redevelopment*. www.issuu.com/townsvilleairport/docs/tapl_mdp_march2016

Master Planning for the Port of Townsville

The Queensland Government is leading a master planning process for the priority Port of Townsville, working with the Port of Townsville Limited, the Townsville City Council and other key stakeholders.

Master planning for the Port of Townsville is a commitment of the *Reef 2050 Long-Term Sustainability Plan* and mandated under the *Sustainable Ports Development Act 2015* (Ports Act).

The Port of Townsville is a critical northern gateway for the state's trade and investment, handling more than \$11 billion in trade in 2014–2015 and leading Australia in exporting copper, zinc, lead and sugar.

Priority port master planning will support the sustainable development of the Port of Townsville in a way that will balance growth, job creation and environmental values.



Wallaman Falls, Girringun National Park



People walking on the Strand, Townsville

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

NORTHERN QUEENSLAND REGIONAL TRANSPORT PLAN GOALS

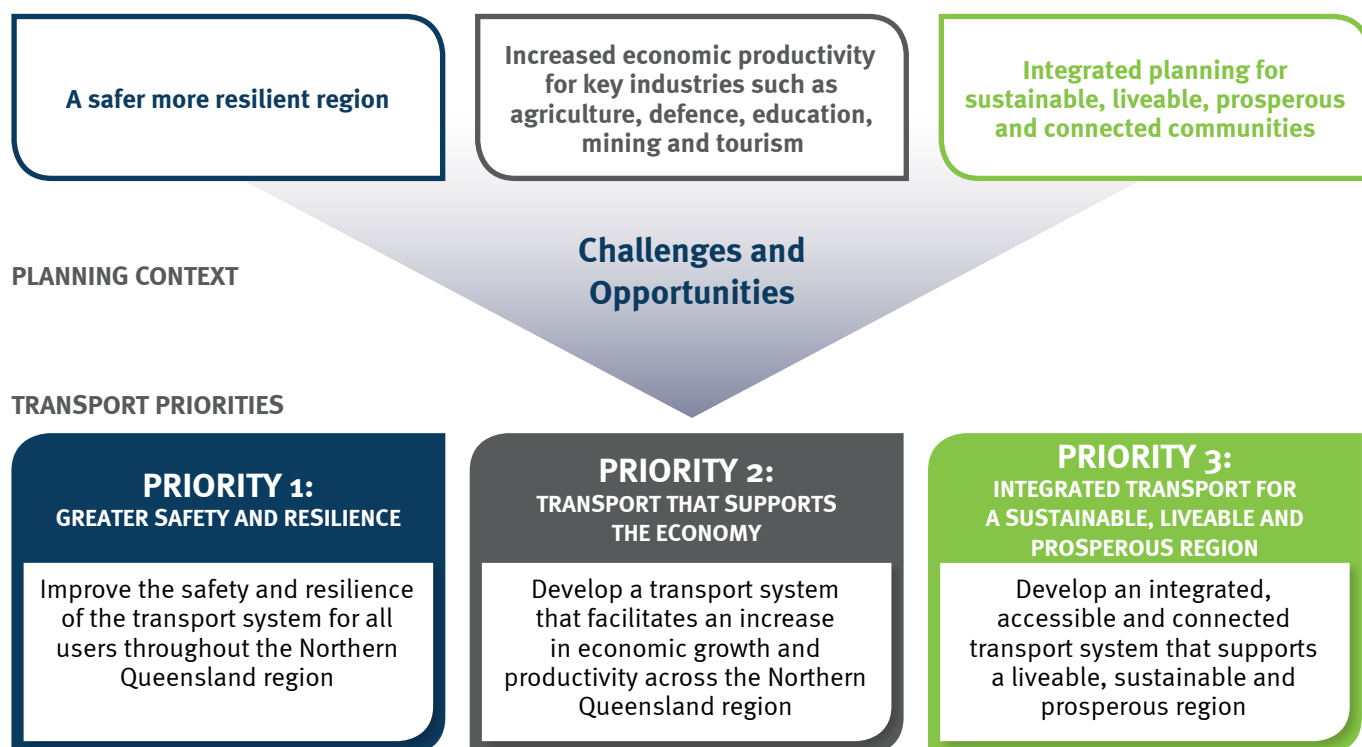


Figure 4: Regional goals and relationship to transport priorities

3.2 Challenges

Improving road and maritime safety

In Northern Queensland, there were 70 fatalities and 1,759 reported crashes requiring hospitalisation in the period 2011–2016, with alcohol, fatigue, speed, road geometry and driver behaviour all cited as contributing factors.¹⁷ Disruptions, damage, hospitalisations and fatalities because of incidents on the transport network come at a high cost to the community.

Safety for transport users can be influenced by a number of factors, including their awareness and respect for other road users (like heavy and recreational vehicles), changing road environments as the surrounding land uses change (for example, heavy vehicles passing through busy city centres, with people and cyclists in close proximity) and how different users share infrastructure (for example, rest areas with mixed vehicle usage, such as cars and heavy vehicles).

North Queensland is prone to seasonal flooding and cyclone events. These can create hazards such as landslips, floodwaters, debris washouts and potholes.

This damage to the road network infrastructure can be unseen and cause dangerous driving conditions. Crash risks are heightened during bad weather through a combination of dangerous road conditions and poor driver behaviour.

For example, in situations where there is limited access to information, no known alternative routes, or where alternative routes may add hours to the journey, people are more likely to attempt risky behaviour such as attempting to cross flooded roads.

Maritime safety is also an important issue for Northern Queensland. In Townsville, an estimated one in six people own a registered vessel. During 2015, there were 10 marine incidents for every 10,000 registered recreational vessels. However, marine incidents continue to go unreported, in particular those that do not result in either damage or serious personal injury, and also those that occur in more remote locations.¹⁸

The Townsville Recreational Boat Park is the biggest facility of its type in Australia and popular with boat owners. The boat park's close proximity to the Port of Townsville means that maintaining the safety of this facility is of particular importance for the region.



Maritime Safety Queensland (MSQ) in action

¹⁷ Queensland Department of Transport and Main Roads, 2017. *Road Crash Locations (updated 24 July 2017)*

¹⁸ Department of Transport and Main Roads, June 2016. *Marine incidents in Queensland, 2015*

Moving freight efficiently

The freight network is a critical economic enabler that connects commodities to market, and the region with the rest of the world. The primary freight network in Northern Queensland consists of major arterial roads, two national highways, two rail lines, two seaports and an international airport. Collectively, this infrastructure forms the supply chain that moves commodities and produce throughout the region, and to national and international markets.

Supporting the region's export market is a particularly important challenge when considering the region's proximity to growing markets in Asia. The Port of Townsville is considered one of Australia's most Asian-oriented trading ports with over 74 per cent of its trade occurring with Asian markets.¹⁹ The port's largest trading partners are China, Indonesia, Japan, Republic of Korea, Singapore, Philippines and Malaysia.

The growing Asian market

The booming economies of south east Asia and southern China are within four to seven hours flying time from the region, less than the flight time from Townsville to Perth. With Free Trade Agreements now in place with a number of key trading partners – most notably China – the North is well positioned to embrace further trade opportunities. Ensuring that the region's infrastructure and trading frameworks facilitate and strengthen ties with international trading partners is an important regional focus.

Global air passenger numbers are expected to more than double to over seven billion within the next 20 years. Around half of the world's air traffic growth will be to, from, or within the Asia-Pacific region. By 2030 the Asia-Pacific region will represent approximately two-thirds of the global middle class population and middle class consumption.²⁰



Rail is critical for connecting minerals and resources from the Mount Isa - Townsville economic development zone through to the Port of Townsville. In 2016, the Mount Isa Line moved approximately 5.7 billion gross kilometre tonnes (GKT) - over a quarter of total GKT moved on Queensland's rail network²¹. The rail network's efficiency is currently constrained by its alignment which requires freight trains to travel through Townsville city to access the Port. A recently completed Business Case for the Townsville Eastern Access Rail Corridor identified a new freight line is strategically important for future port development, however current demand does not support construction of the line at this time.

Demand for road freight in Queensland continues to grow with over 75 per cent of non-bulk domestic freight carried on roads.²² Key challenges associated with increased demand for road freight include growth in the use of high productivity freight vehicles (HPVs) and number of oversized overmass (OSOM) vehicle movements. Using HPVs or larger truck combinations is an efficient way to move more freight with fewer trips, but these vehicles can require more room to safely corner and negotiate intersections, larger break down areas, and can have a greater impact on the life of road pavements. OSOM vehicle movements present additional challenges. The clearance envelopes needed to facilitate the safe movement of OSOM vehicles are sometimes insufficient. For example, in Charters Towers, OSOM vehicles are forced to bypass the Mount Isa Rail Link via the local street network because the rail underpass has insufficient vertical clearance. With the commencement of the Carmichael Coal Mine project, and expected increase in OSOM vehicles along this route, these challenges are expected to intensify. This has safety, amenity, productivity, and maintenance implications for the road network.



A doubles provide a 32 per cent increase in payload compared to B doubles.

There are a number of significant industrial developments expected to mature over the life of the Regional Transport Plan. Ensuring that connectivity of these developments via freight corridors continues into the future is one of the key challenges facing the region's transport. Narrow pavements, poor flood immunity, bridge load limits and insufficient clearance envelopes have been highlighted by stakeholders.

¹⁹ Port of Townsville. (2017) *Defence White Paper Submission 2014*. www.defence.gov.au/Whitepaper/docs/254-PortofTownsville.pdf.

²⁰ Australian Government. (2015). *Our North Our Future: White Paper on Developing Northern Australia*.

²¹ Queensland Rail. (2016). *Annual Report 2015/16*.

²² Department of Transport and Main Roads. (2013). *Moving Freight: A strategy for more efficient freight movement*.

The cost of cattle transport

Moving cattle from the farm gate to market is a key challenge for the cattle industry.

The Queensland Government's Livestock Transport Services Contract provides 325 government-subsidised rail cattle services every year to beef producers around the state, connecting regional hubs with processing facilities. This initiative is critical to the success of Queensland's cattle industry and plays a vital role in supporting the economic viability of our regions and helping Queensland's agricultural sector to prosper.

Transport has impacts on animal condition and profitability especially in northern Australia where there are long distances from production to market. Sufficient access to truck stops on freight corridors is essential to manage driver fatigue and animal welfare. Disruptions to the transport network are also common during wet seasons, preventing stock reaching ports or abattoirs.

The inefficient movement of cattle impacts economic viability and reduces the industry's profitability and resilience and can erode the geographic advantage of the north's proximity to Asian-Pacific markets.

To understand and assess the efficiency of agricultural supply chains, CSIRO developed the Transport Network Strategic Investment Tool (TraNSIT). The tool is used to understand the benefits of infrastructure and policy changes have on agricultural supply chains. The tool has been used to assess infrastructure improvement scenarios linked to the Federal Governments Beef Roads Program. In the Northern Queensland region, the Federal Government has committed funding for widening works on the Gregory Development Road south of Charters Towers.



Cattle at H.M Clarke Saleyards, Charters Towers

Meeting the current and future needs of the region's communities

Provision of affordable transport that provides equitable access to essential services and employment, regardless of geographical location, age or mobility requirements is a key challenge facing the region. This challenge is more pronounced in the region's rural and remote communities where people face additional barriers of distance, time, and limited or no public transport. Outside of Townsville, the region's communities are geographically dispersed making it difficult or unviable to service with public transport.

As the region's demographic profile changes, so too will its transport needs. Australia's population is ageing and will require an adaptive approach to meeting changing travel needs including, for example, addressing higher dependency on public or community transport services and higher demands for access to specialised health services. An ageing population dispersed across regional and remote areas presents a significant challenge for connecting to health care and other community services. Hinchinbrook, Burdekin and Charters Towers all have a greater percentage of people aged over 65 than the Queensland average.

Providing appropriate accessibility for people with a disability or mobility impairment is also important when planning for the needs of our customers. One in five Queenslanders, approximately 830,000 people, identify as having a disability.²³ People with a disability require access to health, education, public places and spaces. Mobility devices, such as wheelchairs and mobility scooters, are an essential part of daily life for people with a mobility impairment. Improved access and design of transport services can allow people with mobility impairments to genuinely participate in the community.

An adaptive approach to meeting communities' current and future transport needs will require innovative transport service models, and leveraging advances in communications technology. For example, connecting people to services via virtual networks as an alternative to travel, such as video conferencing with health specialists.

Improving public transport competitiveness

There is a high reliance on private vehicle travel in the region. In rural areas this reliance is due to limited public transport options and the dispersed nature of settlement patterns. Within Townsville, where urban public transport services are available, public transport mode share is still low at 1.2 per cent for journey to work trips.

Townsville is the region's major population centre and is home to 82 per cent of people living in Northern Queensland. Townsville's population is expected to increase by nearly 90,000 people up to around 290,000 in 2036. While some of this growth will be accommodated in the city's current urban footprint, much of this new growth will occur in new development areas on the fringes of Townsville City including:

- northern suburbs of Burdell and Deeragun
- Elliot Springs, south of Townsville
- Bohle Plains, west of Townsville.

As the city grows, careful consideration for the provision and/or extension of public transport networks will be essential in promoting connected and accessible communities, reducing car dependency and managing demand on the transport network. Outside of Townsville city, the region's geographically dispersed population presents significant challenges in providing viable transport alternatives to private vehicle travel. Investigating innovative solutions and introducing initiatives such as smart-ticketing, real-time information at major bus stops and other customer focused service improvements could significantly enhance public transport efficiency, customer experience and attractiveness.

Encouraging active transport

Active travel, including walking and cycling, has many benefits to individuals and the community as a whole. Townsville is well suited to cycling and walking due to the city's flat terrain. Increasing active transport mode share for communities in rural areas is more challenging due to long distances and less developed active transport infrastructure.

According to a household travel survey undertaken by Transport and Main Roads in 2010, 50 per cent of trips made in Townsville are less than five kilometres, with 20 per cent less than two kilometres.²⁴ Journey to work data indicates that 5.5 per cent of single mode journeys were made by either walking or cycling, higher than the state average of 4.8 per cent. Improving the viability and attractiveness of the active transport network will support changes to travel behaviour that are essential in managing demand on the transport network.

A key challenge facing the region is the progressive delivery of high quality priority principal cycle routes. High quality cycle routes provide safer, more direct and attractive routes for people to cycle to work, school, shopping precincts, and other major destinations. Under the *North Queensland Principle Cycle Network Plan*, a connected network of principal cycle routes has been identified for each major centre in the region.

²³ Department of Transport and Main Roads. (2017). *Disability Action Plan—Improving Access to 2017*.

²⁴ Department of Transport and Main Roads. (2010). *Household Travel in Townsville*.

Ensuring the safety of people cycling and walking is an important aspect of improving the attractiveness of active travel as a transport choice. Making certain that infrastructure is responsive to safety risks by implementing treatments that adopt Crime Prevention Through Environmental Design (CPTED) principles will assist in improving the personal safety of our customers.

Managing growth

Integrated transport and land use planning, underpinned by sustainability principles, helps to protect liveability, amenity and environmental values. With growing demand on the region's transport system, associated with economic and population growth, it will become increasingly important to ensure future transport networks are planned, built and operated in a way that preserves and protects North Queensland's social, economic and environmental values. Ensuring that the region's centres, towns and development fronts contribute to a consolidated urban form that supports the efficient delivery of transport infrastructure and services is a key challenge facing the region.

Key areas where sustainable, integrated planning can play a role in reducing environmental impacts, and improving access, connectivity, liveability and prosperity include:

- planning and design practices that create highly legible, permeable, attractive places and streets where people feel safe and confident walking, cycling and driving
- connected networks of walking and cycling infrastructure supported by end-of-trip facilities to promote active, healthy, low-cost and environmentally sustainable travel that is accessible to people of all ages and abilities
- encouraging urban development that contributes to a consolidated and well-integrated urban form and supports existing centres and the efficient delivery of infrastructure and services
- achieving an appropriate balance and coverage of public and commercial transport services and facilities (land and sea) including, but not limited to, ferries, urban public transport, long distance coaches, personalised transport services, community based services, school services, health and community care services
- using technology to improve the customer interface with transport service providers, and to reduce the need to travel (for example, E-learning and telecommuting, smart-ticketing and journey planners)
- applying best practice design and management of car parking supply to reduce impacts on streetscape amenity, minimise inefficient use of land, reduce unnecessary traffic circulation and manage congestion

- ensuring land use planning instruments facilitate safe and efficient operation of heavy vehicles along key freight routes and into industrial areas while mitigating impacts on amenity
- ensuring community and commercial activities permitted on or within state controlled road corridors are managed and controlled in a way that considers local amenity and safety interests
- promoting rail and shipping as primary transport modes for transport of bulk commodities, and/or general freight that isn't time sensitive as an alternative to road transport
- promoting and supporting sustainable travel choices to reduce the impacts associated with car-dependency such as sedentary lifestyles, poor air quality, and personal costs of vehicle ownership.

Townsville City Waterfront Priority Development Area

Townsville City Waterfront Priority Development Area (PDA) comprises 97.2 hectares of land located on both sides of Ross Creek directly adjacent to Townsville's Central Business District (CBD).

Planning for this area includes maritime transport infrastructure such as the Port of Townsville, passenger ferry terminals (supporting ferry services to Palm Island and Magnetic Island) and recreational boating facilities. It also provides improved pedestrian connectivity with an active transport bridge across Ross Creek.

A market-led proposal to investigate an upgrade to the Townsville Breakwater ferry terminal located within the PDA was recently announced. The proposal will consider a new tourism precinct and an integrated coach and ferry terminal. The project aims to support tourism growth and improve the general attractiveness of the terminal, including its amenity and safety.

The Townsville planning scheme identifies the PDA as a major infill site to accommodate some of the additional

30,000 people planned to live and work in the wider Townsville CBD by 2030. The PDA also incorporates the new North Queensland Stadium. The stadium will have capacity for 25,000 seats and will be open in time for the 2020 National Rugby League season.

North Queensland Stadium is a joint project of the Queensland Government, Australian Government and Townsville City Council and is supported by both the National Rugby League and the North Queensland Cowboys. The Stadium forms part of the Townsville City Deal signed in December 2016.

The vision for the PDA is 'a place where the city and nature intersect as a world-class active and vibrant destination in Townsville's CBD'. The PDA seeks to create a vibrant mixed-use place where people live, work and play in a high-density environment that is active day and night.



Artistic impression of proposed passenger ferry terminal, Townsville

Changing climate and extreme weather

The region's transport network is vulnerable to the effects of extreme weather events such as cyclones and monsoon flooding that are common in the tropics. Climate change is already impacting on communities, particularly in coastal areas, and extreme weather events are expected to worsen in terms of their frequency and intensity.

Extreme weather events can lead to network closures that have social and economic impacts, isolating communities and preventing goods from reaching market. Increasing the transport network's resilience to extreme weather events is a significant challenge for the region. In addition to road and rail networks, regional airports can also be impacted by extreme weather. Significant rainfall events can undermine airport pavements limiting the ability of regional airports to function as a critical connection to isolated communities.

3.3 Opportunities

Better use of existing infrastructure

The region has a well-established transport network connecting industry to markets, and community to employment and services. As the region grows, there will be increasing pressure to upgrade networks and build new infrastructure to meet demands. Responding to growing demands in a sustainable way requires a progressive approach to transport system management. There is an opportunity to adopt solutions and initiatives that optimise existing networks to improve the capacity and operation of the transport system without delivering new infrastructure. This approach can defer large capital expenditure and lead to significant savings while still maintaining or improving efficiency and reliability.

Opportunities to make better use of existing infrastructure and improve supply chain efficiency and accessibility include:

- increasing freight and passenger capacity of the existing port through expansion of the shipping channel to allow access by larger cruise ships and freight vessels
- increasing existing infrastructure capacity through improved flexibility in contractual arrangements allowing for multi-user access to additional Port of Townsville berths
- consideration of rail freight pricing structures and market competitiveness to road freight movement
- improving air freight capabilities
- attracting domestic and international routes from the established Townsville Airport
- enhancing existing road networks, particularly inland routes, to provide shorter, more direct freight routes and improve network resilience by providing alternate routes during disaster
- optimising the existing network through innovative, low cost non-infrastructure solutions such as signal coordination, intelligent transport systems, high occupancy vehicle (HOV) transit lanes and so on.

Agriculture industry opportunities

Agriculture is a key industry in the Northern Queensland region, contributing \$894.5 million to the regional economy each year.²⁵ The Queensland Government is striving to double agricultural production by 2040, and with Northern Queensland's proximity to Asia, the region is ideally placed to supply growing demand.

The opportunity for growth in Northern Queensland can be realised through intensification of agricultural production areas, and implementation of the Burdekin Water Resource Plan. The region's well-established agricultural areas include Herbert River, Ingham and the Lower Burdekin. These areas are supported by existing distribution networks that can be expanded to meet demand, as productivity increases. Transport costs represent around 12 per cent of farm-gate returns and, due to the distances involved, improving supply chain efficiency has the potential to unlock productivity gains and improve competitiveness.

Intensifying agricultural land use and developing value adding processing facilities to support the agricultural industry is a strategic economic opportunity for the region. Transport plays a key role in facilitating the region's ability to capitalise on the opportunity to increase productivity and intensify the agricultural sector.

Growth in tourism

The Northern Queensland region attracts tourists travelling by car, air, bus and train. In 2014/2015, the Townsville North Queensland tourism and events industry contributed approximately \$2.4 million to the region's economy every day and supported 4,000 jobs.²⁶

Self-drive tourism is a growing market, with increasing numbers of caravans and recreational vehicles frequenting the region. The trend includes those that drive from other regions, and those that fly in and then drive to explore the area. The region features three established self-drive tourism routes:

- Overlander's Way is a 1,550 kilometre drive tourism route from Townsville to Tennant Creek in the Northern Territory
- the Great Tropical Drive is a 2,079 kilometre self-drive touring loop that also includes Northern and North West regions
- the Pacific Coast Way is a 1,784 kilometre touring route from Sydney (NSW) to Cairns.

Safety, network condition, signage and the provision of rest stops are important to the growth of the self-drive tourism sector. Ensuring that the network supports the self-drive tourism market is especially important to smaller communities who are seeking to encourage tourism.

The region's proximity to the Great Barrier Reef and the growing Asian tourism market provides further economic opportunity. Most domestic and overseas travellers to the region visit Townsville as part of their trip. Townsville City is also an attraction at the regional level, with access

²⁵ Australian Bureau of Statistics. (2012). *Value of Agriculture Commodities Produced, Australia (2010-2011)*.

²⁶ Port of Townsville. (2016). *White and Grey Ship Attraction Plan 2016-2020*.

to services, large shopping centres and entertainment opportunities not available in other centres. Townsville's new North Queensland Stadium is expected to attract major events and provides an opportunity for the city to review and renew major events transport operations and systems.

Further opportunities exist for the Port of Townsville to support cruise ships and improve customer experience for tourists entering through the port. The near-new Quayside Terminal and Berth 10 can accommodate vessels up to 238 metres in length. The terminal has capacity to process up to 1,000 passengers an hour boarding or disembarking a vessel. Larger vessels can anchor off Magnetic Island using tender services to transfer passengers by ferry. There is an opportunity to build on the port's existing capacity by widening the port channel which would allow some larger cruise ships to dock in port.

Future development in mining and resources industry

The region supports the mining, energy and natural resources sectors as well as several downstream sectors, including manufacturing and professional services. The network's key support function is connecting resource extraction and processing facilities within the region. The Flinders and Barkly Highways in conjunction with the railway connecting Mount Isa and the Port of Townsville are critical to the resources industry.

While some areas of the mining sector are experiencing a period of transition or downturn due to fluctuating markets and commodity prices, the industry will continue to offer economic opportunities due to the wealth of resources in the region.

Consulting with industry to identify and plan for these future opportunities will assist in this area. Future growth scenarios, supply chain resilience, use of technology and changing practices in industry will be explored.

Expansion of defence facilities

An announcement from the Australian and Singaporean Governments in May 2016 advised of the plan to jointly upgrade military training areas and facilities in Australia. Singapore will have enhanced and expanded military training access in Australia over a period of 25 years. This announcement will deliver economic benefit to Townsville and have implications for the region's transport system. The movement of oversize and over width vehicles on the road network, the management of defence vehicle convoys and increased demand and capability requirements for Townsville Airport and Port of Townsville are possible implications. Planning is required, in consultation with the Australian Department of Defence, to fully understand the implications of the expansion of defence facilities and the need for upgraded transport infrastructure.

Australian Defence Force Joint User Facility Agreements

The Australian Defence Force (ADF) has agreements in place with Townsville Airport and the Port of Townsville in relation to use of infrastructure.

Ports and airfields are essential infrastructure to ADF operations and these agreements provide for shared planning, investment and operations that provide the required infrastructure and protection for the operational requirements of the ADF and the commercial asset owner.

Townsville Airport, now privately owned, is located on a section of the RAAF base leased to Townsville Airport Pty Ltd by the ADF. Any upgrades of the airfields for defence purposes benefit the commercial operation of Townsville Airport by allowing use by larger commercial passenger and freight aircrafts.

Reliable access to military bases, ports, airbases and training ranges is essential to ADF's ability to conduct and sustain operations in Australia. The movement of ADF personnel and equipment, which is often oversize and overmass, is a consideration in the management of the region's road network.



Army tank, Townsville

Advances in technology

Communications technology can improve the quality of transport users' experience through the provision of real-time information, delivering reliability and convenience. This could be applied to public transport and the road network through the provision of:

- integrated public transport information, mapping and real-time information improving the legibility and convenience of the public transport network for residents and visitors
- Intelligent Transport Systems and real-time information, providing road condition, roadwork and incident information to road users in advance of travel, allowing travellers to avoid delays by retiming journeys or selecting an alternate route, potentially providing benefits to the freight industry, tourists and the local community.

Advances in vehicle technology, such as autonomous vehicles, and smart features, such as park assist and lane-change technology, present opportunities and risks that need to be considered. Considering emerging technologies and being mindful of what transport in the future may look like is key to making good planning and policy decisions, to build preparedness and maximise opportunities.

Cooperative Intelligent Transport Systems

Cooperative Intelligent Transport Systems (CITS) is technology that communicates between vehicles with vehicle-to-vehicle systems, traffic signals and roadside infrastructure. CITS provides information to drivers regarding their immediate environment in real time.

The Cooperative and Automated Vehicle Initiative (CAVI) will be delivered by the Department of Transport and Main Roads to help prepare for the arrival of new vehicle technologies with safety, mobility and environmental benefits on Queensland roads. The CAVI pilot will take place on public roads in and around the City of Ipswich from 2019 for up to one year. It is the largest Australian on-road testing trial of cooperative vehicles. There will be 500 public and fleet vehicles fitted with devices. These devices allow vehicles and infrastructure to talk to each other to share real-time information about the road and to generate safety-related warning messages for drivers. Find out more at www.qld.gov.au/transport/projects/cavi.

Transport for New South Wales is currently trialling the technology with heavy vehicles in the Illawarra area.²⁷ Heavy vehicles fitted with the technology receive safety messages about upcoming hazards and potential crashes. Messages include:

- intersection collision warning
- forward collision warning
- heavy braking ahead warning
- traffic signal phase information
- speed limit information
- location and availability of rest areas.



Variable message sign, Bruce Highway

²⁷ Transport for NSW. (2016). www.roadsafety.transport.nsw.gov.au/research/roadsafetytechnology/cits/index.html



Moorings at Ross Creek Marina, Townsville

4. Priorities and actions



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

- **Priority 1:** Greater safety and resilience.
- **Priority 2:** Transport that supports the economy.
- **Priority 3:** Integrated transport for a sustainable, liveable and prosperous region.

Actions are identified under each of the priorities. Actions 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 three 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.



Use of drone technology to inspect structures, Hinchinbrook

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 Greater safety and resilience	PRIORITY 2 Transport that supports the economy	PRIORITY 3 Integrated transport for a sustainable, liveable and prosperous region
	Improve the safety and resilience of the transport system for all users throughout the Northern Queensland region.	Develop a transport system that facilitates an increase in economic growth and productivity across the Northern Queensland region.	Develop an integrated, accessible and connected transport system that supports a liveable, sustainable and prosperous region.
ROLE OF TRANSPORT	Responding to the challenges of: <ul style="list-style-type: none"> improving road and maritime safety climate change and extreme weather. And opportunities for: <ul style="list-style-type: none"> advances in technology. By taking action to: <ul style="list-style-type: none"> build, maintain and operate safe and resilient transport infrastructure and facilities encourage safe travel behaviour review and improve emergency and disaster management and recovery efforts. 	Responding to the challenges of: <ul style="list-style-type: none"> moving freight efficiently managing growth climate change and extreme weather. And opportunities for: <ul style="list-style-type: none"> growth and productivity in key industries – agriculture, tourism, resources and defence better use of existing transport infrastructure advances in technology By taking action to: <ul style="list-style-type: none"> build, maintain and operate transport networks to support industry and unlock growth plan and prioritise capacity upgrades and new infrastructure where it supports industry and productivity most. 	Responding to the challenges of: <ul style="list-style-type: none"> changing population needs Improving public transport competitiveness encouraging active transport managing growth. And opportunities for: <ul style="list-style-type: none"> growth in tourism better use of existing infrastructure advances in technology. By taking action to: <ul style="list-style-type: none"> plan places so they're easy to get around provide infrastructure and services that are equitable and meet diverse community needs deliver transport projects in line with best practice environmental standards and sustainability principles.
TRANSPORT OBJECTIVES	1.1 Improve the overall safety and security of the transport system for customers. 1.2 Ensure customers are aware of potential hazards and can make informed decisions about their travel options. 1.3 Develop a more resilient transport system through disaster response strategies and infrastructure improvements.	2.1 Plan and develop transport infrastructure that supports economic growth and productivity for the region's key industries. 2.2 Develop a transport system that optimises supply chains through an integrated network and facilitates the efficient movement of people and freight to grow the economy.	3.1 Connect communities to essential services and places where they can learn, work, and play, through a range of appropriate and affordable transport options. 3.2 Develop a sustainable transport system that supports the environmental and lifestyle values of the region. 3.3 Create a more sustainable transport system by supporting a shift away from private vehicle dependency and encouraging more trips by walking, cycling and public transport. 3.4 Effectively integrate land use and transport planning to mitigate impacts of growing transport demands, particularly around industrial areas, activity centres, employment precincts, educational nodes and new growth areas.
MEASURES OF SUCCESS	<ul style="list-style-type: none"> Reduction in transport-related incidents, crashes, injuries and fatalities. Reduced frequency and duration of unplanned closures. 	<ul style="list-style-type: none"> Maintain or improve road network reliability. Freight productivity improves. Transport supports the regions tourist economy. 	<ul style="list-style-type: none"> Level of transport disadvantage decreases. Greater access and connectivity to places and services. Proportion of people choosing to walk, cycle and take public transport increases.

4.1 Priority 1: Greater safety and resilience

Improve the safety and resilience of the transport system for all users throughout the Northern Queensland region.

A safe transport network is needed to ensure customers can reach their destination without incident. Transport users should feel safe using the transport system and behave in a way that promotes the safety of themselves and others. Examples of initiatives that support and encourage safety include rest areas to mitigate driver fatigue, way-finding to promote legibility on the roads, and wide centre line treatment to reduce the risk of head-on crashes.

Improving resilience and safety in Northern Queensland can be achieved through a combination of improved infrastructure, information, communication technology and education. Identifying safety issues and vulnerable parts of the network are important steps towards addressing safety risks, and developing strategies to keep people safe during and after extreme weather events. Examples include identifying alternative routes around flood-prone parts of the network, improving real-time communication systems to keep customers informed, prioritising new rest areas or upgrades where needed most to reduce driver fatigue, and so on.



Intelligent Transportation Systems, Flinders Highway

Priority 1 aligns to:

- the *Transport Coordination Plan*'s objectives 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.

Road safety has many dimensions and includes road conditions as well as driver behaviour. *Safer Roads, Safer Queensland – Queensland's Road Safety Strategy 2015–2021* and the *Heavy Vehicle Safety Action Plan 2016–2018* both identify the importance of safety across a range of factors including roads and roadsides, vehicles, speeds and human behaviour.

Transport objectives and measures of success

Objective 1.1: Improve the overall safety and security of the transport system for customers.

Identifying and managing transport safety risk is an essential part of working towards zero deaths, and reducing trauma on Northern Queensland's roads, rail networks and waterways. Personal safety is an equally important aspect of improving safety for our customers who need to feel safe, regardless of how they choose to travel.

Improving the safety and security of the transport network will:

- reduce the number of crashes on our road network
- reduce fatalities and hospitalisations
- lead to economic and social benefits
- lead to a greater sense of personal safety.

Objective 1.2: Ensure customers are aware of potential hazards and can make informed decisions about their travel options.

Accurate, convenient and timely information provides customers with a sense of certainty by keeping them informed and increasing their situational awareness. Information can influence a person's decision if and when to travel, and inform them on the best route to take. Timely and effective communication of travel conditions can empower customers to make informed decisions and will:

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

Objective 1.3: Develop a more resilient transport system through disaster response strategies and infrastructure improvements.

Maintaining access to essential services, especially during severe weather events, is necessary to keep people safe and healthy. First responders also need the transport system to access people requiring assistance. The transport system can be developed to maintain connectivity by providing alternatives to routes that regularly flood, and reducing the impacts of inundation so roads can be opened immediately after the water recedes. Safety can be improved by mapping alternative routes, providing real-time information to customers about road closures and network conditions, and preparing contingency strategies.

Developing a more resilient transport system will:

- improve transport options for our customers and protect the economic function of the region under unexpected conditions
- improve access to essential services during and following extreme weather events
- improve network safety.

Measures of success

Measure of success	Proposed indicator	Source	Objectives		
			1.1	1.2	1.3
Reduction in transport-related incidents, crashes, injuries and fatalities.	Number of road fatalities and hospitalised casualties*.	Transport and Main Roads (TMR)	✓	✓	
	Number of road fatalities and hospitalised casualties per 100 million vehicle kilometres travelled*.		✓	✓	
Reduced frequency and duration of unplanned closures.	Total frequency and duration of unplanned closures on the transport network*.	TMR			✓

* State-controlled roads

Actions

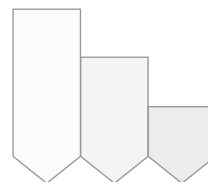
PRIORITY 1: GREATER SAFETY AND RESILIENCE

OBJECTIVES

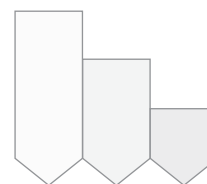
Objective 1.1: Improve the overall safety and security of the transport system for customers.

Objective 1.2: Ensure customers are aware of potential hazards and can make informed decisions.

Objective 1.3: Develop a more resilient transport system.



Actions – short-term	1.1	1.2	1.3
A1.01 Road safety projects Continue to identify, prioritise and nominate candidate sites for road safety treatments as part of Safer Roads Sooner and Black Spot programs, and through other opportunities such as planned upgrades. (Committed safety improvement projects, and priority candidates nominated for future funding are shown on Figure 5: Priority 1 region map and Figure 6: Priority 1 Townsville map).	✓		
A1.02 Overtaking lanes and wide centre line treatment Continue to assess and prioritise the need for additional overtaking lanes and wide centre line treatments on the region's highways, particularly along the Bruce Highway and Flinders Highway.	✓		
A1.03 Rest areas that meet different customers' needs Determine investment priorities for new or upgraded rest areas to address driver fatigue risks, encourage safe travel and to provide sufficient capacity and amenities to enhance customer experiences particularly on self-drive tourism routes. Ensure planning and provision of rest areas addresses safety risks associated with potential for incompatibility or conflicts between trucks and recreation vehicles.	✓		
A1.04 Facilities to support a safe trucking and transport industry Carry forward the strategic intent of Queensland's <i>Heavy Vehicle Safety Action Plan 2016-2018</i> by undertaking a deficiency analysis of roadside facilities to support safe trucking and transport operations, and develop a prioritised investment plan to address the deficiencies. This includes planning for: <ul style="list-style-type: none"> heavy vehicle rest areas and decoupling pads on the Flinders Highway improvements to inspection and weigh pad sites on the Bruce Highway. 	✓		
A1.05 Raising customer awareness about safe travel behaviour Continue to develop region specific education, promotion and communication campaigns in partnership with community, industry and other authorities to encourage safe travel behaviour on roads, pathways, public transport and waterways in the region.	✓	✓	
A1.06 Mobile and internet black spot Work with other government agencies to support continued development and implementation of the Mobile Black Spot Program for improved coverage and reliability of communication networks across the region's transport network (refer to Figure 5: Priority 1 region map and Figure 6: Priority 1 Townsville map).		✓	✓
A1.07 Intelligent Transport Systems (ITS) Identify opportunities to implement Intelligent Transport System (ITS) initiatives along the Bruce Highway in response to the outcomes of the Bruce Highway Road Operations Improvement Project, and consider potential applications for other key links throughout the region such as the Flinders Highway.	✓	✓	✓
A1.08 Resilience analysis and flood immunity strategy Undertake a region wide network resilience analysis to identify and prioritise transport infrastructure upgrades to improve flood immunity and accessibility during the wet season and major weather events.		✓	✓

PRIORITY 1: GREATER SAFETY AND RESILIENCE**OBJECTIVES****Objective 1.1: Improve the overall safety and security of the transport system for customers.****Objective 1.2: Ensure customers are aware of potential hazards and can make informed decisions.****Objective 1.3: Develop a more resilient transport system.**

Actions – short-term		1.1	1.2	1.3
A1.09 Flood immunity improvement projects Undertake planning, design and business case development to upgrade flood affected sections of the road network, including: <ul style="list-style-type: none"> along North Townsville Road, from Ingham Road to North Shore Boulevard, including the Bohle River Bridge along the Bruce Highway, in particular, as part of planning for the Ingham to Cardwell Range Deviation and Burdekin Deviation upgrading bridge and culvert structures on the Flinders Highway, Gregory Developmental Road and Woodstock-Giru Road. 				✓
A1.10 Bridge renewal Using the outputs of regional bridge renewal investigations, commence planning for necessary bridge replacements or structural enhancements (including over 20 identified priority locations across the region, and the Bowen Road Bridge committed project).				✓
A1.11 Cross-agency solutions to infrastructure resilience Collaborate with federal and state agencies to explore opportunities to coordinate disaster and reconstruction funding with investment into preventative infrastructure to improve resilience, reduce ongoing maintenance costs and cater for the region's changing climate.				✓
A1.12 Disaster management Develop responsive and adaptive disaster management strategies for emergency access, and access to essential goods and services during the wet season and following extreme weather events.		✓	✓	✓
A1.13 Personal security Work with local government to assess and mitigate risks to personal security when designing passenger transport stops, stations and terminals, as well as cycle tracks and shared paths (for example, as part of the Townsville City Bus Hub project in Ogden Street). For existing infrastructure, undertake an audit of safety 'hot spots' and consider treatments which adopt Crime Prevention Through Environmental Design principles to improve personal safety.		✓		
Actions – medium/long-term		1.1	1.2	1.3
A1.14 Wildlife collision avoidance technology Investigate collision avoidance technology to reduce crashes with wildlife.		✓		
A1.15 Leveraging new technology Identify opportunities to improve communications infrastructure and increase the use of innovative technology (e.g. drones) for traffic monitoring, road condition monitoring and the provision of real-time information about network closures and disruptions.			✓	✓
A1.16 Rail crossing safety Continue to improve safety at rail level crossings and cane rail crossings through initiatives such as reducing the number of level crossings, improving infrastructure and exploring new technology to align with the <i>National Railway Level Crossing Strategy 2017-2020</i> , including: <ul style="list-style-type: none"> the Houghton River Flood Plain Upgrade project which will eliminate two cane rail crossings planning for both the Burdekin, and Ingham to Cardwell Range deviations which may eliminate a number of cane rail crossings, as well as crossings on the North Coast line. 		✓		



Figure 5: Priority 1 region map

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

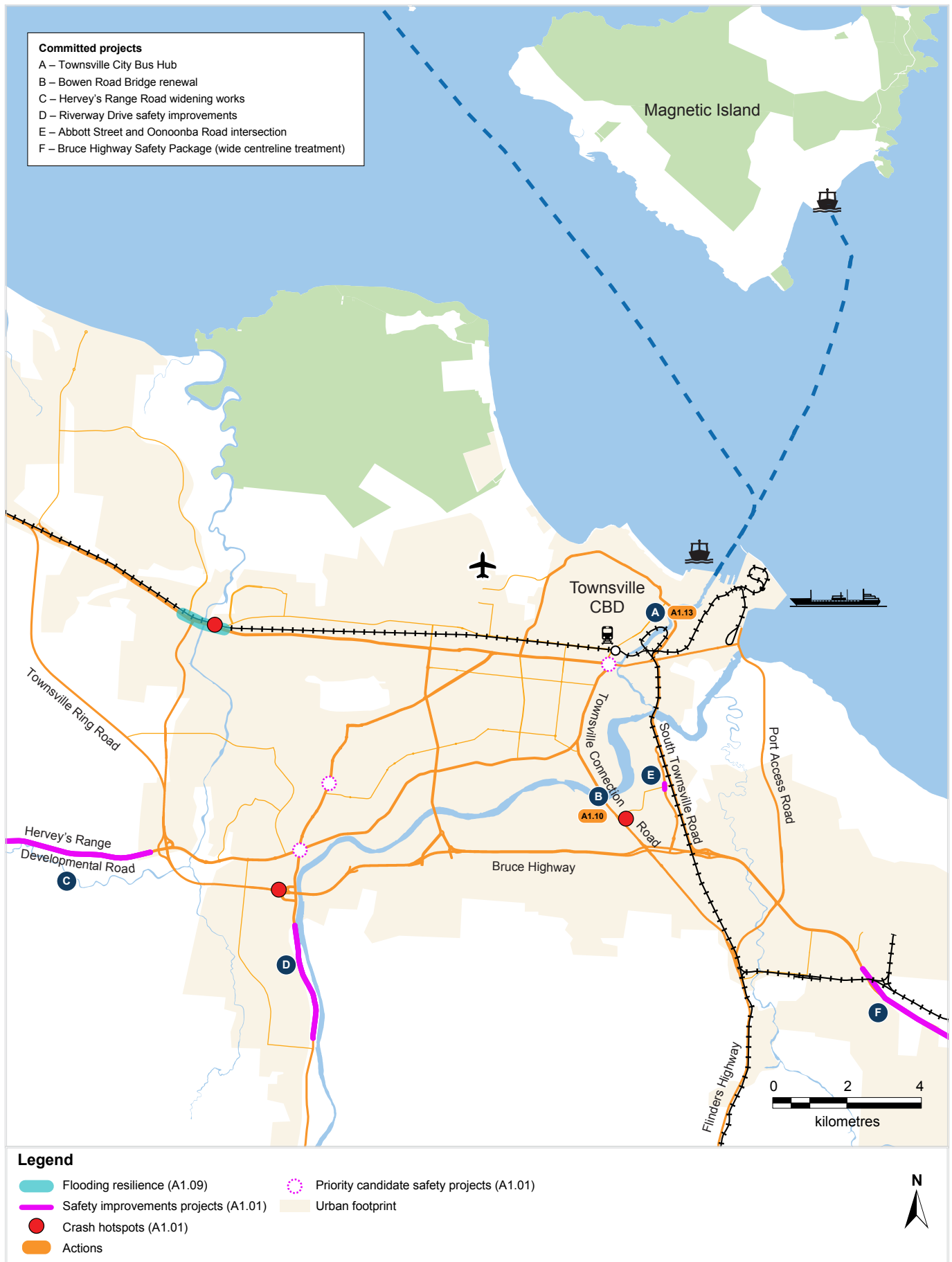


Figure 6: Priority 1 Townsville map

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

4.2 Priority 2: Transport that supports the economy

Develop a transport system that facilitates an increase in economic growth and productivity across the Northern Queensland region.

Economic productivity and growth is essential for the region's prosperity particularly in relation to sustaining employment for strong communities. Transport has a central role in supporting the economic function of the Northern Queensland region. The transport network is

required for an efficient and reliable supply chain that underpins the productivity of the region.

The role of the transport network in supporting the economy extends beyond its freight and commercial transport function. In the Northern Queensland region the transport network has a critical role in connecting an emerging tourism market to the region's cultural, historic and natural attractions.



Port of Townsville

Priority 2 aligns to:

- 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.

Advancing North Queensland

Advancing North Queensland: Investing in the future of the north outlines five priority areas to drive economic development in the region, based on feedback from stakeholders.²⁸ These priorities are:

- **Roads infrastructure:** Continuing strong state government investment in roads infrastructure for North Queensland through key projects in the \$3.9 billion *QTRIP*, and making sure Queensland gets a fair share of funding under the Developing Northern Australia White Paper's \$600 million Northern Australia Roads Program and the \$100 million Beef Roads Program.
- **Water security:** Securing Queensland's fair share of funding and working to deliver funded projects under the National Water Infrastructure Development Fund as well as continuing to undertake Regional Water Supply Security Assessments and working with councils at risk of running out of water due to drought.
- **Research and innovation:** Engaging with stakeholders to create ongoing opportunities and influence to ensure strong Cooperative Research Centres that maximises industry involvement.
- **Tourism, trade and investment:** Ensuring a dedicated focus on North Queensland in the upcoming Queensland Trade and Investment Strategy and the proposed Advancing Queensland Tourism Strategy to bolster the tourism sector, and increase global exposure and access to Asian markets.
- **North Queensland Stadium:** The construction of a world-class stadium, a vital catalyst for the development of an exciting entertainment, retail and residential precinct adjacent to the Townsville Central Business District. Design work for the stadium is currently underway.

Transport objectives and measures of success

Objective 2.1: Plan and develop transport infrastructure that supports economic growth and productivity for the region's key industries.

It is estimated that an additional 46,000 jobs will be required to support the region's forecast population in 2031. Transport plays a critical role in supporting economic growth and productivity by connecting

businesses with input sources, other businesses and their markets. Planning for and investing in transport that reduces transport costs and expands access to markets is an important outcome for supporting economic growth and productivity.

Transport infrastructure that supports economic growth and productivity for the region's key industries will:

- reduce transport costs
- increase access to international markets
- increase access to production inputs, trade opportunities and lead to long term productivity gains.

Objective 2.2: Develop a transport system that optimises supply chains through an integrated network and facilitates the efficient movement of people and freight to grow the economy.

The efficient movement of goods between producers, manufacturers and customers, is important to the future growth of the region's economy. Efficient supply chains are achieved through holistic and integrated planning across all modes and jurisdictions that promotes seamless end-to-end movement of people and goods through the entire supply chain or journey. Capacity, reliability, access and connectedness that meet customer and industry needs are key requirements for developing a transport system that unlocks economic growth. Planning in partnership across all levels of government and with customers and industry is essential for finding the best solutions to optimise the transport system for faster, lower cost and more reliable movement of people and goods.

An optimised supply chain will:

- minimise unnecessary load transfers, splitting or handling allowing direct connections between producers and receivers
- efficiently link the labour force to workplaces
- minimise transportation costs for producers, transporters, distributors and consumers
- provide reliable and direct access transport hubs such as air and sea ports, and rail terminals
- maximise use of existing capacity at the Port of Townsville through multi-user access arrangements.

²⁸ Department of the Premier and Cabinet. (2016). *Advancing North Queensland: Investing in the future of the north*. www.premiers.qld.gov.au/publications/categories/plans/assets/advancing-north-qld.pdf

Measures of success

Measure of success	Proposed indicator	Source	Objectives	
			2.1	2.2
Maintain or improve road network reliability.	Percentage variation from posted speed limit*.	TMR	✓	✓
Freight productivity improves.	Proportion of high productivity vehicles used on key road freight routes.	TMR	✓	✓
Transport supports the region's tourist economy.	Evolving measure, to be further developed.	To be confirmed	✓	✓

*State-controlled roads

Actions

PRIORITY 2: TRANSPORT THAT SUPPORTS THE ECONOMY

OBJECTIVES

Objective 2.1: Plan and develop transport infrastructure that supports economic growth and productivity for the region's key industries.

Objective 2.2: Develop a transport system that optimises supply chains through an integrated network and facilitates the efficient movement of people and freight to grow the economy.

Actions – short-term	2.1	2.2
A2.01 Regional freight strategy 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.	✓	✓
A2.02 Reducing road freight transport costs Investigate opportunities for supporting industry to increase use of High Productivity Vehicles to move freight more safely and efficiently, including studies such as the Townsville to (west of) Charters Towers Heavy Vehicle Safety and Productivity Package.	✓	✓
A2.03 Port of Townsville expansion The Port of Townsville to plan for its future expansion and upgrade.	✓	✓
A2.04 Charters Towers heavy vehicle access Investigate options for heavy vehicle routes through and around Charters Towers township, with particular focus on the constraints imposed by the railway underpass.	✓	✓
A2.05 Oversize overmass (OSOM) routes Define the optimum dimensions for OSOM clearance envelopes on the region's key freight routes, and identify priority upgrades for inclusion in future works programs.	✓	
A2.06 Access to existing and future industrial areas Work with local government, the private sector and the Department of State Development, Manufacturing, Infrastructure and Planning to plan for safe and appropriate levels of access to industrial areas in the region, particularly the industrial areas at Roseneath, the Townsville State Development Area, the Bohle Future Industrial Area and the Lansdown Station Future Industrial Area (Woodstock).	✓	✓

PRIORITY 2: TRANSPORT THAT SUPPORTS THE ECONOMY

OBJECTIVES

Objective 2.1: Plan and develop transport infrastructure that supports economic growth and productivity for the region's key industries.

Objective 2.2: Develop a transport system that optimises supply chains through an integrated network and facilitates the efficient movement of people and freight to grow the economy.

Actions – short-term	2.1	2.2
A2.07 Plan and protect future transport corridors Plan and protect future transport corridors including Ingham to Cardwell Range Deviation, Southern Access Corridor and the Burdekin Deviation.	✓	
A2.08 Protect the future Townsville Eastern Access Rail Corridor Plan and protect for the Townsville Eastern Access Rail Corridor, including undertaking an Environmental Impact Statement.	✓	
A2.09 Planning for future road upgrades Undertake corridor and link planning for the State Strategic and State Regional road network for: <ul style="list-style-type: none"> high priority inter-regional links such as the Flinders Highway, Hervey's Range Road, Gregory Developmental Road and Woodstock-Giru Road key routes connecting the Townsville CBD such as Townsville Connection Road, Townsville Port Road, North Townsville Road and South Townsville Road 	✓	✓
A2.10 Supporting self-drive tourism Undertake a regional transport needs analysis to understand the travel needs of tourists and visitors, and the strategic opportunities to inform initiatives and programs such as Drive Tourism, Tourism and Transport Connections, Natural Attractions and State Strategic Touring Route Signage Program. This includes a focus on the Pacific Coast Way, Overlander's Way and Great Inland Way.	✓	
A2.11 Targeted tourist travel information Identify opportunities to integrate transport and travel information with tourism industry materials and communications mediums to enhance visitor experience.	✓	
A2.12 Transport that supports major events Investigate potential transport system improvements across infrastructure, management and operations that would strengthen the region's capacity to host major events (such as the V8 Supercars Championship and the National Rugby League (NRL) competition) while minimising disruptions to the transport network.	✓	✓
A2.13 Supporting local employment opportunities Develop a local employment plan for transport infrastructure projects (planning and construction).	✓	
A2.14 Design standards fit for remote conditions In partnership with local government, develop and apply fit for purpose transport infrastructure design standards for rural and remote areas to achieve value for money outcomes.	✓	
A2.15 Business case methodologies Develop informed business cases (including consideration of whole of life costs), investigating ways in which evaluation and assessment methodologies can better reflect the benefits of investing in remote and regional transport projects (for example, Infrastructure Australia's rural road group approach and the CSIRO TranSIT model approach).	✓	

PRIORITY 2: TRANSPORT THAT SUPPORTS THE ECONOMY

OBJECTIVES

Objective 2.1: Plan and develop transport infrastructure that supports economic growth and productivity for the region's key industries.

Objective 2.2: Develop a transport system that optimises supply chains through an integrated network and facilitates the efficient movement of people and freight to grow the economy.

Actions – medium/long-term	2.1	2.2
A2.16 Strategic outlook for mining Consider the strategic opportunities for supporting future development and diversification in the mining and resources sector when undertaking transport planning, particularly from the North West Minerals Province and Charters Towers to the Port of Townsville.	✓	✓
A2.17 More competitive rail to maximise use Investigate options to improve the viability of rail freight to support greater use of existing rail network capacity.	✓	✓
A2.18 North Coast Line Develop a North Coast Line Action Plan to prioritise planning that will support rail freight and passenger efficiency improvements. This may include opportunities to reduce the number of level crossings, increase the length of passing loops, improve flood resilience, and re-align low speed sections of the North Coast Line.	✓	✓
A2.19 Cruise ship industry Investigate opportunities for the region to support a growing cruise ship industry through improving access to the Port of Townsville to meet capacity needs, and improving the quality of facilities and surrounding area to enhance visitor experience.	✓	✓



Aurizon freight train

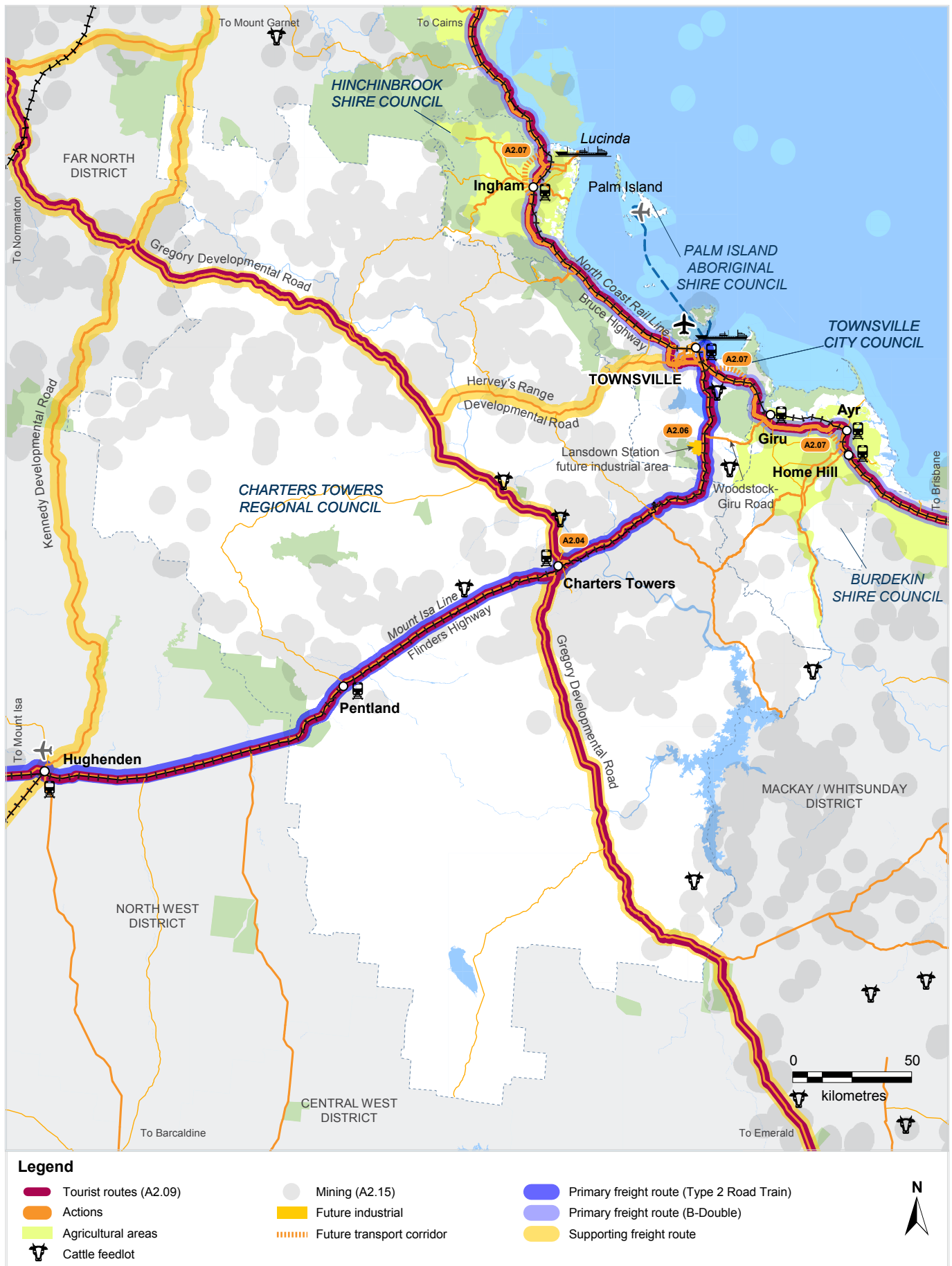


Figure 7: Priority 2 region map

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



Figure 8: Priority 2 Townsville map

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

4.3 Priority 3: Integrated transport for a sustainable, liveable and prosperous region

Develop an integrated, accessible and connected transport system that supports a liveable, sustainable and prosperous region

Access and connectivity play major roles in creating liveable places and promoting positive health and social outcomes. Integrated land use and transport planning, combined with convenient and affordable transport options has an essential role in creating attractive, safe and permeable built environments that are easy for people to get around regardless of age, ability or income. Different communities and customers have different access needs and challenges. A considered and tailored approach to transport planning and service provision is essential to ensure transport options are appropriate and affordable and meet the needs of the region's diverse communities and people.

Responsible development and operation of transport networks is important for building a sustainable region. Integrated land use and transport planning is critical to ensure the transport system meets customers' needs, minimises environmental impact and reduces the land and resources required for transport purposes. Sustainable development of the transport system is essential for meeting the region's goals and protecting lifestyle and environmental values.

This priority can be achieved through integrated land use and transport planning, supporting a more compact urban form, encouraging a shift towards sustainable travel behaviour, and applying best practice for planning, design and delivery of transport projects.



Shared zone in the Townsville Central Business District

Priority 3 aligns to:

- the *Transport Coordination Plan*'s objectives for transport that meets the needs of all Queenslanders, now and into the future, connects communities to employment and vital services, and contributes to a cleaner, healthier and more liveable environment
- the *State Infrastructure Plan*'s focus on transport infrastructure that seeks innovation and technology solutions to create a better performing and lower emissions transport system, and connects regional communities with access to essential services and opportunities.

Transport objectives and measures of success

Objective 3.1: Connect communities to essential services and places where they can learn, work and play, through a range of appropriate and affordable transport options.

Healthy, inclusive and liveable communities are places where people of all ages and abilities have appropriate access to basic goods and services. Each community is different and has different access needs and limitations. A range of solutions will be needed to provide appropriate and affordable transport options to enhance community connectivity in different parts of the Northern Queensland region. Improving connectivity will require a mix of solutions encompassing infrastructure, transport services and funding schemes.

Connecting communities to essential services will:

- increase capacity to access services and participate in activities
- reduce the time and cost of accessing essential services
- reduce isolation and improve community welfare.

Objective 3.2: Develop a sustainable transport system that supports the environmental and lifestyle values of the region.

The region's transport system needs to be developed in a way that contributes to the values of the region, its communities and visitors. Protecting lifestyle and environmental values is critical to the prosperity of the region, including attracting people to live in or visit the region, thereby supporting local businesses and helping to grow the tourism industry. The transport network will be developed in a way that protects and enhances the region's natural features such as the World Heritage listed Great Barrier Reef Marine Park, Wet Tropics World Heritage Area, national parks and pristine tropical islands.

A transport system that is compatible with the environmental and lifestyle values of the region will:

- lessen impacts on the environment
- protect amenity for communities
- support the lifestyle, sustainability and the tourism values of the region.

Objective 3.3: Create a more sustainable transport system by supporting a shift away from private vehicle dependency and encouraging more trips by walking, cycling and public transport.

Managing growth in private vehicle use and mitigating the impacts of increasing traffic is important in maintaining the liveability of our region. Offering transport alternatives suitable to the region's geography and changing demographics—including improved active transport

infrastructure and public transport services—requires integrated planning and consideration of changing customer needs. Maintaining the efficiency and accessibility of a transport system requires a holistic approach, with strategies that respond to the underlying drivers for transportation demand.

A more sustainable transport system that reduces dependency on the private vehicle will:

- minimise traffic growth and congestion pressures, and costs associated with crashes and environmental impacts
- reduce road and parking expenditure
- reduce vehicle and fuel expenditure
- increase transport options
- improve health outcomes
- increase transport access and equity by reducing reliance on private vehicle travel.

Objective 3.4: Effectively integrate land use and transport planning to mitigate impacts of growing transport demands, particularly around industrial areas, activity centres, employment precincts, educational nodes and new growth areas.

Land use planning has a significant role in the efficiency and functional characteristics of transport networks. The development of transit oriented communities and mixed-use centres provide greater opportunities to live and work locally. Quality, well-designed public spaces and transport facilities create attractive environments where people feel safe and confident getting around, whether by walking, cycling, taking public transport or driving a private vehicle. Integrated land use and transport outcomes lead to cheaper, more convenient and sustainable transport options which reduce greenhouse gas emissions.

Effective land use and transport integration will:

- lead to greater levels of social inclusion
- ensure a better standard of living for the region's communities
- reduce reliance on private vehicles to access day-to-day services
- reduce the negative environmental impacts of transport.

Measures of success

Measure of success	Proposed indicator	Source	Objectives			
			3.1	3.2	3.3	3.4
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	✓	✓	✓	✓
	Coverage and frequency of scheduled passenger transport services (rail, air, ferry and coach services) connecting regional centres to local town centres in rural areas.	Operators	✓		✓	
	Availability of 'mobility as a service' options (e.g. demand responsive transport, taxis, ride-share and booked hire).	Operators	✓		✓	
Proportion of people choosing to walk, cycle and take public transport increases.	Proportion of people choosing to walk, cycle and take public transport.	Operators	✓	✓	✓	✓
	Journey to Work mode share.	Operators	✓	✓	✓	✓

Actions

PRIORITY 3: INTEGRATED TRANSPORT FOR A SUSTAINABLE, LIVEABLE AND PROSPEROUS REGION

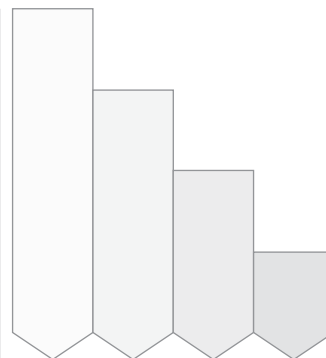
OBJECTIVES

Objective 3.1: Connect communities to essential services and places where they can learn, work, and play, through a range of appropriate and affordable transport options.

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Objective 3.3: Create a more sustainable transport system by supporting a shift away from private vehicle dependency and encouraging more trips by walking, cycling and public transport.

Objective 3.4: Effectively integrate land use and transport planning to mitigate impacts of growing transport demands.



Actions – short-term	3.1	3.2	3.3	3.4
A3.01 School travel assistance Monitor the School Travel Assistance Scheme to ensure it continues to meet the needs of the region's school students.	✓			
A3.02 Ferry services and facilities Investigate opportunities to improve ferry facilities and services connecting Townsville, Palm Island and Magnetic Island, to enhance social and economic outcomes.	✓			
A3.03 Remote community access and cost of living Develop a strategy to improve the connectivity between regional and remote communities (such as Ingham, Ayr, Home Hill, Charters Towers and Palm Island) to essential goods and services, and to Townsville. The strategy should be multi-modal and should consider the role of digital networks to help improve connectivity.	✓			
A3.04 Access for people with disabilities Work in collaboration with partners and stakeholders to improve the end-to-end journey for people with a disability using passenger transport services in the region in accordance with the <i>Disability Action Plan 2017</i> .	✓	✓		
A3.05 Personalised transport Investigate opportunities to adapt the region's transport system to take advantage of diversification in personalised transport services to areas such as the Townsville Airport and the region's major activity centres.	✓		✓	
A3.06 Smart ticketing Investigate opportunities to implement smart ticketing for public transport servicing Palm Island and Townsville, including opportunities for pricing incentives and innovative products to encourage greater passenger transport uptake.	✓		✓	
A3.07 Road hierarchy and ownership Review network vision standards, road hierarchy and road ownership in the region, to ensure road maintenance and management sits with the appropriate jurisdiction.				✓
A3.08 Principal Cycle Network Plan Partner with local government to coordinate the planning and delivery of the <i>North Queensland Principal Cycle Network Plan</i> to accelerate opportunities to enhance cycle connectivity and encourage more people to cycle.	✓	✓	✓	
A3.09 Townsville mobility strategy Develop a mobility strategy for Townsville focusing on medium to long-term opportunities for improved people movement.	✓		✓	

PRIORITY 3: INTEGRATED TRANSPORT FOR A SUSTAINABLE, LIVEABLE AND PROSPEROUS REGION

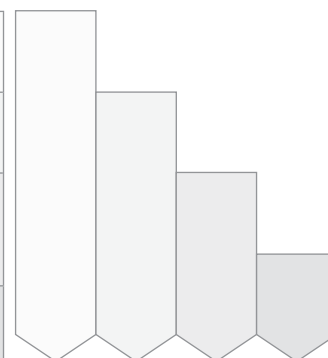
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Objective 3.4: Effectively integrate land use and transport planning to mitigate impacts of growing transport demands.



Actions – short-term	3.1	3.2	3.3	3.4
A3.10 Priority principal cycle network routes Undertake options analysis and business case development for the highest priority routes on the principal cycle network, including for connections between the Northern Beaches, Townsville CBD and Elliot Springs, as well as links to major centres, major growth areas and key education and employment nodes.	✓	✓	✓	✓
A3.11 Transit oriented places Work with local government and other authorities to encourage the development of transit oriented communities and more compact mixed-use urban forms in close proximity to existing and proposed major centres. Consider initiatives to encourage travel behaviour change in major centres, in line with investment in passenger transport and active transport infrastructure.	✓		✓	✓
A3.12 Network optimisation solutions Work with Townsville City Council to investigate opportunities to optimise transport network operations for Townsville's major urban arterial road network, including adopting Smarter Solutions such as lane use management systems, improved traffic signal coordination and bus priority intersection treatments.	✓	✓		
A3.13 Townsville passenger transport planning Partner with local governments to develop a public transport plan for Townsville with a focus on investigating opportunities to: <ul style="list-style-type: none"> improve connectivity, efficiency and service frequency between residential areas, major centres and key employment and education nodes use existing transport assets more efficiently, for example, using school buses for other roles and services outside of school runs (such as for rural town services) introduce alternative service models that meet different or changing customer needs (for example, demand responsive transport services). 	✓		✓	
A3.14 Improved walkability and amenity Work with local government to investigate and prioritise opportunities to improve the pedestrian environment at key activity nodes throughout the region to strengthen walkability and local amenity.	✓	✓	✓	
A3.15 Carparking management To encourage more people to choose public passenger transport, work with Townsville City Council and other stakeholders to investigate options for the management of parking in major activity centres, employment nodes and education precincts.			✓	✓

PRIORITY 3: INTEGRATED TRANSPORT FOR A SUSTAINABLE, LIVEABLE AND PROSPEROUS REGION

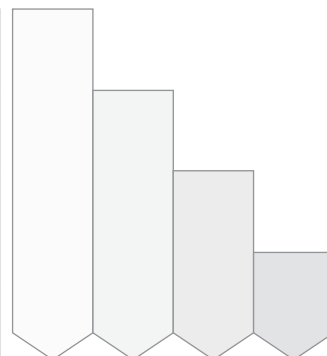
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Objective 3.4: Effectively integrate land use and transport planning to mitigate impacts of growing transport demands.



Actions – short-term

A3.16 Tourism cycling routes

Work with local government, other state government agencies and tourism bodies to support active transport projects that also have recreational values and contribute to the lifestyle of Northern Queensland (for example, planning for the tourism route identified on Magnetic Island in the *North Queensland Principal Cycle Network Plan*).

A3.17 Managing activities within state road corridors

Work with local government to ensure roadside advertising and other activities within state-controlled road corridors is appropriately managed with regard to local consideration of amenity, safety, land use and community issues.

A3.18 Integrated land use and transport for priority development area

Develop a multi-modal sustainable transport strategy to support the North Queensland Stadium and surrounding Townsville City Waterfront Priority Development Area (PDA).

A3.19 Boating infrastructure prioritisation

Continue to prioritise investment in boating infrastructure across the region based on an assessment of demand and input from customers and stakeholders, using tools such as the Recreational Boating Facilities Demand Forecasting Study (2016) (for individual local government areas).

A3.20 Household Travel Surveys

Undertake an update to the 2010 Household Travel Survey to gauge travel behaviour patterns in the region and inform integrated transport and land use planning.

Actions – medium/long-term

A3.21 Scenario planning for the longer term

Commence long-term planning for scenario changes, such as climate change, flood resilience and water security.

A3.22 Principal Cycle Network Plan update

Undertake a five-yearly update of the *North Queensland Principal Cycle Network Plan*.

A3.23 Cleaner, more energy efficient transport

Investigate regional opportunities to support a transition to cleaner more energy efficient transport systems, services, vehicles and operations, to achieve better environment, health and economic outcomes, including responding to *The Future is Electric: Queensland's Electric Vehicle Strategy*.

A3.24 Environmental systems and natural processes

Work with key stakeholders to identify and prioritise opportunities to improve environmental outcomes, including improved wildlife movement, vegetation management and water quality, through the use of water sensitive urban design solutions.

✓	✓	✓	
	✓		✓
	✓		✓
✓	✓		
			✓
	✓		✓
		✓	✓
	✓		
	✓		✓



Nelly Bay Ferry Terminal, Magnetic Island



Figure 9: Priority 3 region map

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



Figure 10: Priority 3 Townsville map

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



Aerial view of event in Townsville CBD



5. Implementation

5.1 Taking action

Delivering the *Northern Queensland 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 11 shows the importance of the 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.

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.

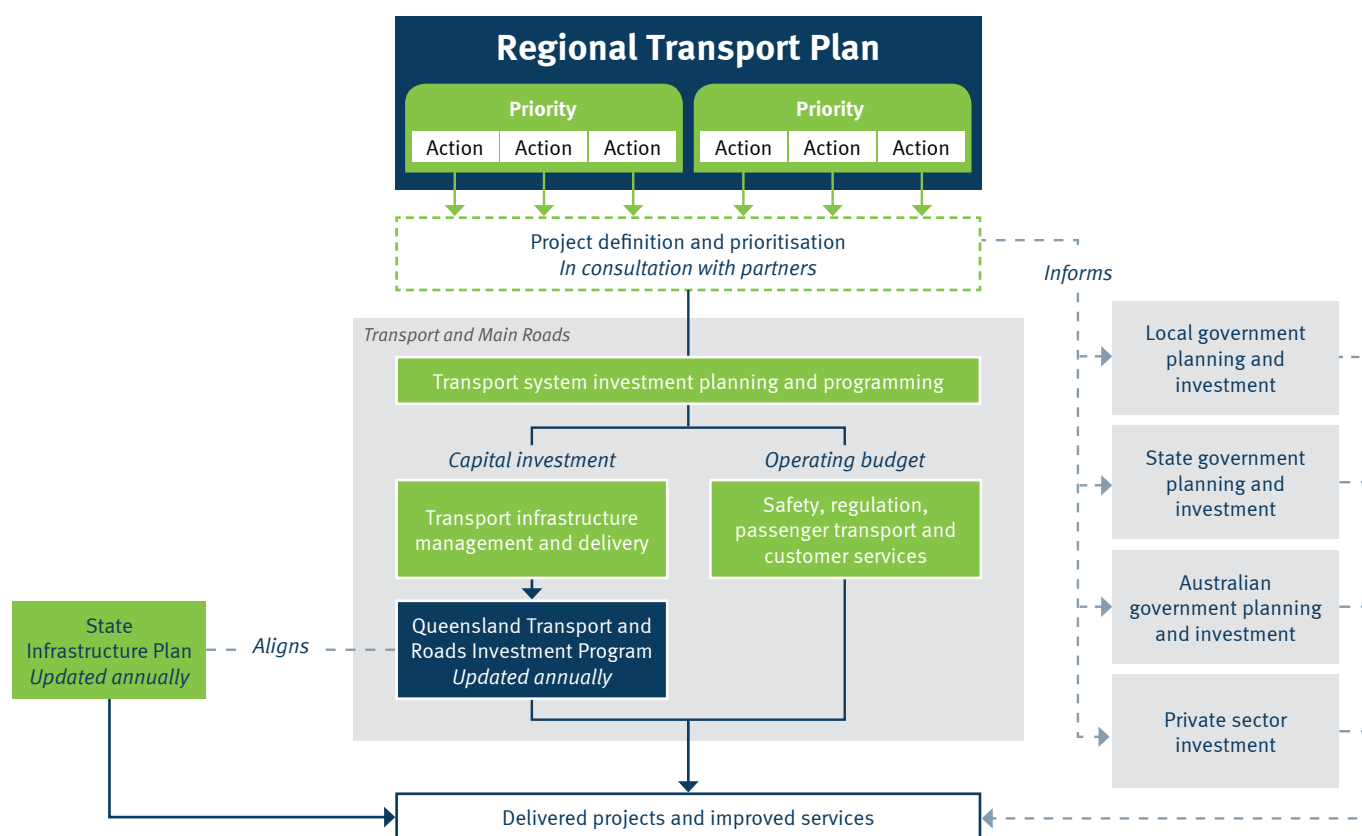


Figure 11: Regional Transport Plans are a critical step in Transport and Main Roads investment lifecycle

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 *Northern Queensland Regional Transport Plan*, Transport and Main Roads has built relationships with stakeholders from all levels of government, business and industry. These relationships will be maintained and built on to deliver the actions and opportunities outlined in this Plan. Opportunities for partnering include:

- collaborative planning leveraging knowledge from researchers, universities and education providers
- inviting project development support from individuals or organisations with an interest in implementing an initiative or action
- 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 77 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 RRTG in their approach to strategic transport planning and local transport infrastructure investments.



Townsville Recreational Boat Park: Delivered in partnership with the State Government and Townsville City Council

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 that 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 12).

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.

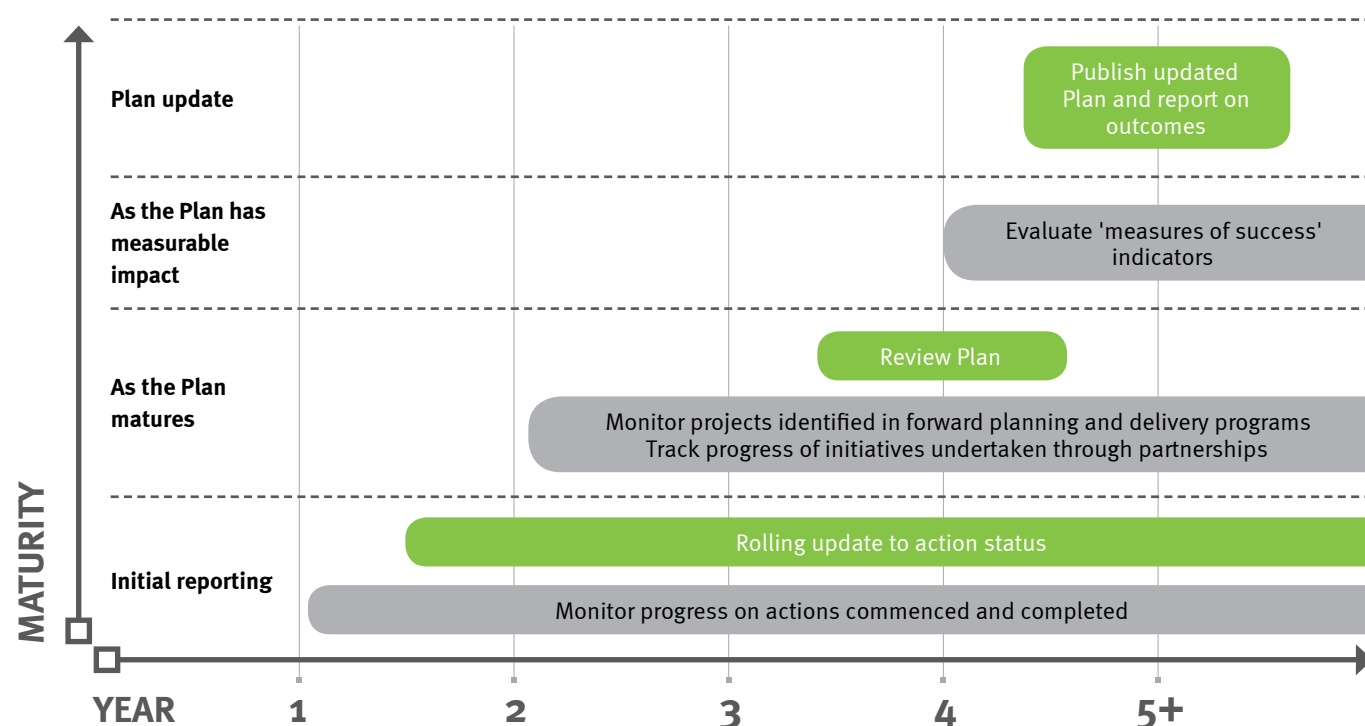
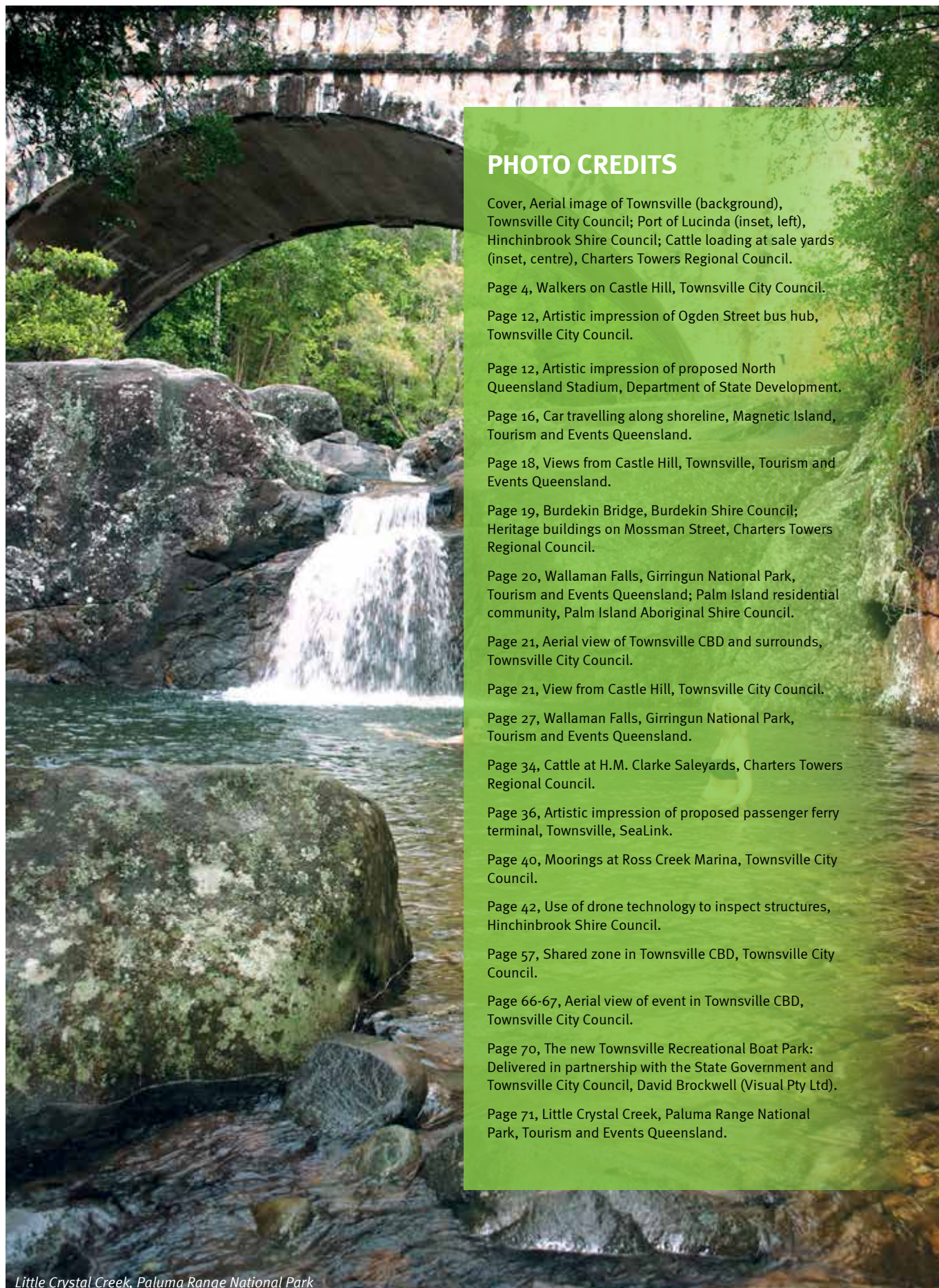


Figure 12: Monitoring, reporting and review as the Plan matures

Further information

Please email TMR_Regional_Transport_Plans@tmr.qld.gov.au for further details on this or other Regional Transport Plans.



Little Crystal Creek, Paluma Range National Park

PHOTO CREDITS

Cover, Aerial image of Townsville (background), Townsville City Council; Port of Lucinda (inset, left), Hinchinbrook Shire Council; Cattle loading at sale yards (inset, centre), Charters Towers Regional Council.

Page 4, Walkers on Castle Hill, Townsville City Council.

Page 12, Artistic impression of Ogden Street bus hub, Townsville City Council.

Page 12, Artistic impression of proposed North Queensland Stadium, Department of State Development.

Page 16, Car travelling along shoreline, Magnetic Island, Tourism and Events Queensland.

Page 18, Views from Castle Hill, Townsville, Tourism and Events Queensland.

Page 19, Burdekin Bridge, Burdekin Shire Council; Heritage buildings on Mossman Street, Charters Towers Regional Council.

Page 20, Wallaman Falls, Girringun National Park, Tourism and Events Queensland; Palm Island residential community, Palm Island Aboriginal Shire Council.

Page 21, Aerial view of Townsville CBD and surrounds, Townsville City Council.

Page 21, View from Castle Hill, Townsville City Council.

Page 27, Wallaman Falls, Girringun National Park, Tourism and Events Queensland.

Page 34, Cattle at H.M. Clarke Saleyards, Charters Towers Regional Council.

Page 36, Artistic impression of proposed passenger ferry terminal, Townsville, SeaLink.

Page 40, Moorings at Ross Creek Marina, Townsville City Council.

Page 42, Use of drone technology to inspect structures, Hinchinbrook Shire Council.

Page 57, Shared zone in Townsville CBD, Townsville City Council.

Page 66-67, Aerial view of event in Townsville CBD, Townsville City Council.

Page 70, The new Townsville Recreational Boat Park: Delivered in partnership with the State Government and Townsville City Council, David Brockwell (Visual Pty Ltd).

Page 71, Little Crystal Creek, Paluma Range National Park, Tourism and Events Queensland.

