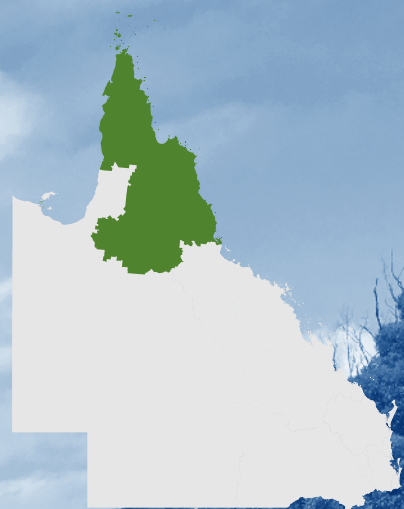


FAR NORTH QUEENSLAND

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.

Cover images: Elim Beach, Hopevale (background); Moving freight, Thursday Island (inset, left); CBD to Aeroglen Cycleway, Cairns (inset, centre); Cattle on the Mulligan Highway near Lakeland (inset, right).

Inside front cover: Barron River Falls, Smithfield.

CONTENTS

1. Introduction	5
1.1 A shared direction for transport	6
1.2 What is a Regional Transport Plan	6
1.3 Strategic alignment	7
1.4 Alignment with the <i>State Infrastructure Plan</i>	9
1.5 Alignment with the <i>Transport Coordination Plan</i>	9
1.6 Alignment with the <i>State Planning Policy</i>	9
1.7 Alignment with regional planning	10
1.8 Achievements to date	12
1.9 Developing Regional Transport Plans	14
2. The Far North Queensland Region	19
2.1 Region overview	20
2.2 Transport network	28
3. Goals, challenges and opportunities	35
3.1 Goals	36
3.2 Challenges	36
3.3 Opportunities	42
4. Priorities and actions	51
4.1 Priority 1: A safer more resilient transport network	54
4.2 Priority 2: Transport that supports the economy	63
4.3 Priority 3: Connected, liveable and sustainable communities	70
4.4 Priority 4: Better coordination of transport infrastructure and services	80
5. Implementation	83
5.1 Taking action	84
5.2 Delivering in partnership	85
5.3 Monitoring and review	86



Cyclist on Captain Cook Highway north of Cairns

1. Introduction



1.1 A shared direction for transport

The *Far North 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 Far North Queensland region is home to around 280,000 people and includes the 21 local government areas of:

- Aurukun
- Cairns
- Cassowary Coast
- Cook
- Croydon
- Douglas
- Etheridge
- Hope Vale
- Kowanyama
- Lockhart River
- Mapoon
- Mareeba
- Napranum
- Northern Peninsula Area
- Pormpuraaw
- Tablelands
- Torres Strait Island
- Torres
- Weipa¹
- Wujal Wujal
- Yarrabah.

1.2 What is a Regional Transport Plan

The purpose of the *Far North 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 (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.

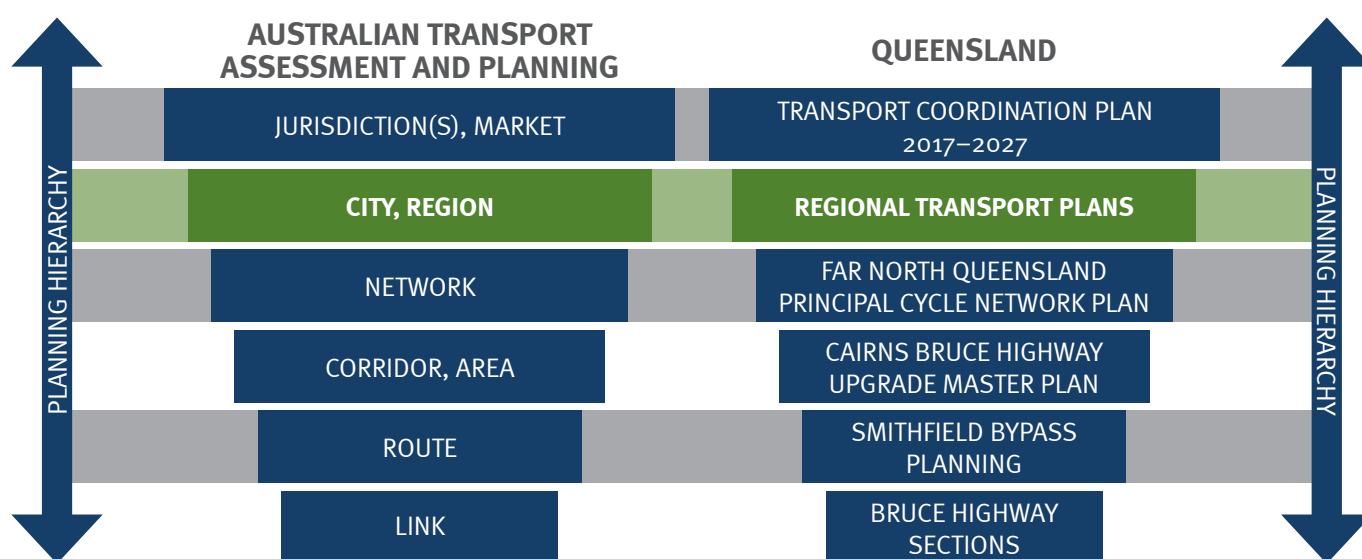


Figure 1: Examples of how Queensland responds to the Australian Transport Assessment and Planning hierarchy

¹ Town Authority

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
- recognises collaboration with local governments is critical to transport planning
- guiding future planning and investment in partnership with others.

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



1.3 Strategic alignment

This Regional Transport Plan has been developed in the context of policies, strategies, plans and investment frameworks across all levels of government (see Table 1 on page 8). These policy and planning documents are reflected in the objectives, challenges, opportunities and priorities identified in the Plan.

The Plan aligns with:

- *State Infrastructure Plan*
- *State Planning Policy*
- *Far North Queensland Regional Plan 2009*
- *Cape York Regional Plan 2014*
- *Gulf Regional Development Plan 2000*
- *Torres Strait and Northern Peninsula Regional Plan 2009*
- local government land use and transport plans, and strategies
- economic development strategies
- the *Australian Government's Australian Infrastructure Plan* (prepared by Infrastructure Australia).

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 Action 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"> Far North Queensland Regional Plan 2009 Cape York Regional Plan 2014 Gulf Regional Development Plan 2000 Torres Strait and Northern Peninsula Area Regional Plan 2009 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 	<ul style="list-style-type: none"> Bill Fulton Bridge Cairns Riverway Drive Townsville Vines Creek Mackay North Coast Line Capacity Improvement Project Cross River Rail 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"> Ten-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* options assessment approach.

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

The system-wide transport objectives articulated in the TCP have informed the Far North 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 means for customers, the community, the economy and the environment.

1.6 Alignment with the *State Planning Policy*

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

The *State Planning Policy* identifies six state strategic airports within the region—Cairns International, Mareeba, Northern Peninsula (Bamaga), Horn Island, RAAF Base Scherger and Weipa, and five strategic ports—Cairns, Mourilyan, Cape Flattery, Thursday Island and Weipa.

1.7 Alignment with regional planning

Far North Queensland Regional Plan

The *Far North Queensland Regional Transport Plan* includes seven local government areas of:

- Cairns
- Cassowary Coast
- Douglas
- Mareeba
- Tablelands
- Wujal Wujal
- Yarrabah

The 20-year plan outlines strategies, recommendations and priority actions to address key issues and achieve desired regional outcomes.

This regional plan's vision is for 'a stronger, more liveable and sustainable community'. The desired regional outcome for transport is 'Communities are connected through an integrated transport system that promotes tourism, public transport use, walking and cycling, provides safe, efficient and effective movement of goods and people, and facilitates access to places and services'.

The *Far North Queensland Regional Transport Plan's* key objectives for transport are:

- Integrated transport and land use planning—An efficient, integrated transport system that meets community needs, supports a more compact pattern of urban development, maintains efficient transport connections and promotes the self-containment of travel of sub-regions within the Far North Queensland region.
- Transport networks—Highly connected transport networks provide strong links between activity centres and surrounding areas to enable good accessibility, route and mode choice.
- Transport infrastructure—Affordable and efficient air, sea, rail and road transport infrastructure supports a vibrant economy and meets community and tourist needs.

Cape York Regional Plan

The *Cape York Regional Plan* covers 10 local government areas and one town authority including:

- Aurukun
- Cook
- Hope Vale
- Kowanyama
- Lockhart River
- Mapoon
- Napranum
- Northern Peninsula Area
- Pormpuraaw
- Wujal Wujal²
- Weipa Town Authority

The *Cape York Regional Plan* outlines strategic directions, objectives and policies encompassing land use, economy, environment, communities, native title and infrastructure.

The priority outcome sought by the *Cape York Regional Plan* for the region's transport network is a program management approach to:

- improve the reliability and condition of transport networks for freight and people movement throughout the region
- facilitate multi-user infrastructure upgrades to support economic development in the region.

The state government is interested in ensuring long-term outcomes for state infrastructure and services in the region and therefore expects planning and development outcomes to:

- maximise the benefits of investment in state infrastructure and services through integrated state and local land use planning
- protect state transport infrastructure, corridors and transport networks from the impacts of development to ensure their ongoing safe and efficient operation
- protect strategic airports, aviation facilities, defence facilities including RAAF Base Scherger and marine facilities from incompatible development to ensure their long-term safe and viable operation.³

² Included in both the *Cape York Regional Plan* and *Far North Queensland Regional Plan*.

³ Department of Local Government and Planning. (2016). www.dilgp.qld.gov.au/resources/plan/cape-york/cape-york-regional-plan.pdf.

Gulf Regional Development Plan

The *Gulf Regional Development Plan* includes the local government areas of:

- Burke
- Carpentaria
- Croydon
- Doomadgee
- Etheridge
- Kowanyama⁴
- Mornington.

The 20-year plan outlines strategies, recommendations and priority actions to address key issues for the Gulf of Carpentaria, and provide guidance for policy development and implementation.

The *Gulf Regional Development Plan* contains vision statements and goals for integrated transport covering themes such as:

- an efficient and cost-competitive freight industry operating from a number of regional and interstate sources

- improved range and affordability of goods and services that are available to the Gulf communities
- Karumba has a role as a major economic activity and transportation node for the region
- improved capability to export and import through the Port of Karumba and through Mount Isa, Townsville, Cairns and the Northern Territory and direct to southern markets via rail and road links
- development and integration of key transportation facilities
- state-controlled roads are closed only by major flood events and there is decreased closure on local roads
- improved physical access to and between communities provides a choice of reasonable and affordable means of access within the region and to external service centres
- increased reliability, efficiency, safety and affordability of an integrated transport network
- responding to community needs and economic development requirements whilst developing the transportation system in an ecologically sustainable manner.



Motorcycles on Mulligan Highway, south of Cooktown

⁴ Included in both the *Cape York Regional Plan* and *Far North Queensland Regional Plan*.

Torres Strait and Northern Peninsula Area Regional Plan

The *Torres Strait and Northern Peninsula Area Regional Plan* guides development, and ensures opportunities and resources are maximised to secure the region's future through coordinated service delivery. This regional plan is a non-statutory 20-year plan collectively developed by Torres Strait Regional Authority, Torres Strait Island Regional Council, Torres Shire Council and the Northern Peninsula Area Regional Council, and supported by the Queensland Government.

The *Torres Strait and Northern Peninsula Area Regional Plan* acknowledges the role of transport as important to:

- the future development of the region, contributing to economic opportunities
- the level of community economic participation
- public safety objectives, with access to a safe transport system.

Summary of regional planning themes for the Far North Queensland region

The *Far North Queensland Regional Transport Plan* responds to the themes that are common across each of the four regional plans. The key themes relevant to transport are:

- **Safety** – Transport that supports the safe movement of goods and people, by all modes and at all times.
- **Economy** – Transport that facilitates the growth of key industries, and the efficient movement of people and goods for increased regional competitiveness and productivity.

- **Communities** – Integrated and sustainable transport that fosters a more liveable, affordable and accessible region for improved social outcomes.
- **Coordination** – Working in partnership across agencies to maximise the benefits of investment in transport.

1.8 Achievements to date

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

Upgrade of Bruce Highway

Upgrades to the Bruce Highway are committed, with a series of safety improvements between Ingham and Cairns. Treatments include road widening, wide centreline treatment and intersection upgrades as part of the jointly funded federal and state government 10-year upgrade program.

Cairns Southern Access Corridor

In 2010, the Cairns Bruce Highway Upgrade Master Plan was released. It was the result of a planning study that investigated long-term, multi-modal transport planning options to address the impacts of urban growth, congestion and traffic accidents. Significant work has been completed to manage urban congestion on Cairns' southern corridor. A six-lane extension of the Bruce Highway was completed in 2017 between Robert Road and Foster Road.

The Edmonton to Gordonvale project is stage 3 of the Cairns Southern Access Corridor and involves a 10km highway duplication between Edmonton and Gordonvale. The Kate to Aumuller Street project is stage 4 of the



Walking on Cairns boardwalk

Cairns Southern Access Corridor and will widen the Bruce Highway (Ray Jones Drive) from four to six lanes. Both projects are in the pre-construction phase.

Bill Fulton Bridge Duplication

Duplication of the Bill Fulton Bridge was completed in December 2017 to improve safety and traffic flow.

Smithfield Bypass

Pre-construction activities are underway for the \$152 million Smithfield Bypass project. When completed the new road is expected to significantly improve traffic flow for road users and reduce travel time.

Flood mitigation

Works have been undertaken to improve flood prone routes in the region and maintain connectivity, including completion of a section of the Kennedy Highway, near Ravenshoe to improve safety and travelling conditions and reduce the impacts of flooding on the important inland highway link.

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. Safety reviews for high risk roads including the Captain Cook Highway, Kennedy Highway (Smithfield to Mareeba) and Gillies Range Road have been completed.

Passenger transport

Ongoing improvements to Cairns bus infrastructure are planned as part of the Cairns Transit Network. Options analysis and business case investigations have commenced for priority bus stops and corridors across the network.

Active transport

The Queensland Government and local councils have produced Principal Cycle Network Plans and Priority Route Maps. Councils are eligible for funding to build trails through the Cycle Network Local Government Grants Program. A series of cycle projects, planned or under construction, include the Captain Cook Highway, Mission Beach, Palm Cove to Trinity Beach, Cairns southern cycleway, Cooktown and Newell Beach to Port Douglas.

Boating

Boat ramp improvements have been undertaken at Bellenden Ker, Packers Camp, Cowley Beach, Mourilyan Harbour and Fernley Street, and replacement of fender piles on two jetties in Innisfail. Planning has commenced for a new boat ramp and floating walkways at Yorkeys Knob.

Seisia Wharf

Upgrades to the existing Seisia Wharf are committed as part of the Cape York Region Package. A masterplan has been prepared to guide the long-term planning for improvements to the marine facilities and the waterfront at Seisia.

Northern Australia Roads Program

Within Etheridge Shire Council area, progressive sealing is planned for 36 kilometres of the remaining unsealed Kennedy Developmental Road.



Sealing works, Peninsula Development Road

Northern Australia Beef Roads Program

Within Mareeba, Croydon and Tablelands local government areas progressive sealing is planned for 30 kilometres of unsealed roads including the Burke Developmental, Ootann and Richmond-Croydon Roads.

Cape York Region Package

Works continue on the \$260.5 million Cape York region package jointly funded by the Australian and Queensland Governments. Works include significantly upgrading (pave and seal) parts of the Peninsula Developmental Road, from Laura to Weipa and an extension of the seal on the Endeavour Valley Road north-west of Cooktown. The package also includes \$50.5 million for priority community infrastructure works identified by the Torres Cape Indigenous Council's Alliance.

Western Road Upgrade Program

Ongoing road widening and sealing will improve efficiency and safety, and reduce maintenance costs on the Gulf Developmental Road between Croydon and Georgetown.

Reconciliation Awards for Peninsula Developmental Road Priority Agreement

The Peninsula Developmental Road Priority Agreement won the Partnership Category at the 2016 Queensland Reconciliation Awards. This agreement was developed in consultation with Traditional Owners and ensured that work carried out on the Peninsula Developmental Road set a new standard for engagement with traditional owners through providing tangible economic opportunities.

1.9 Developing Regional Transport Plans

Planning principles

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

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

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

In the context of constrained funding, Regional Transport Plans are being developed with the view that solutions to transport challenges and customer needs are not always about building 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.



Tourists crossing Annan River Bridge

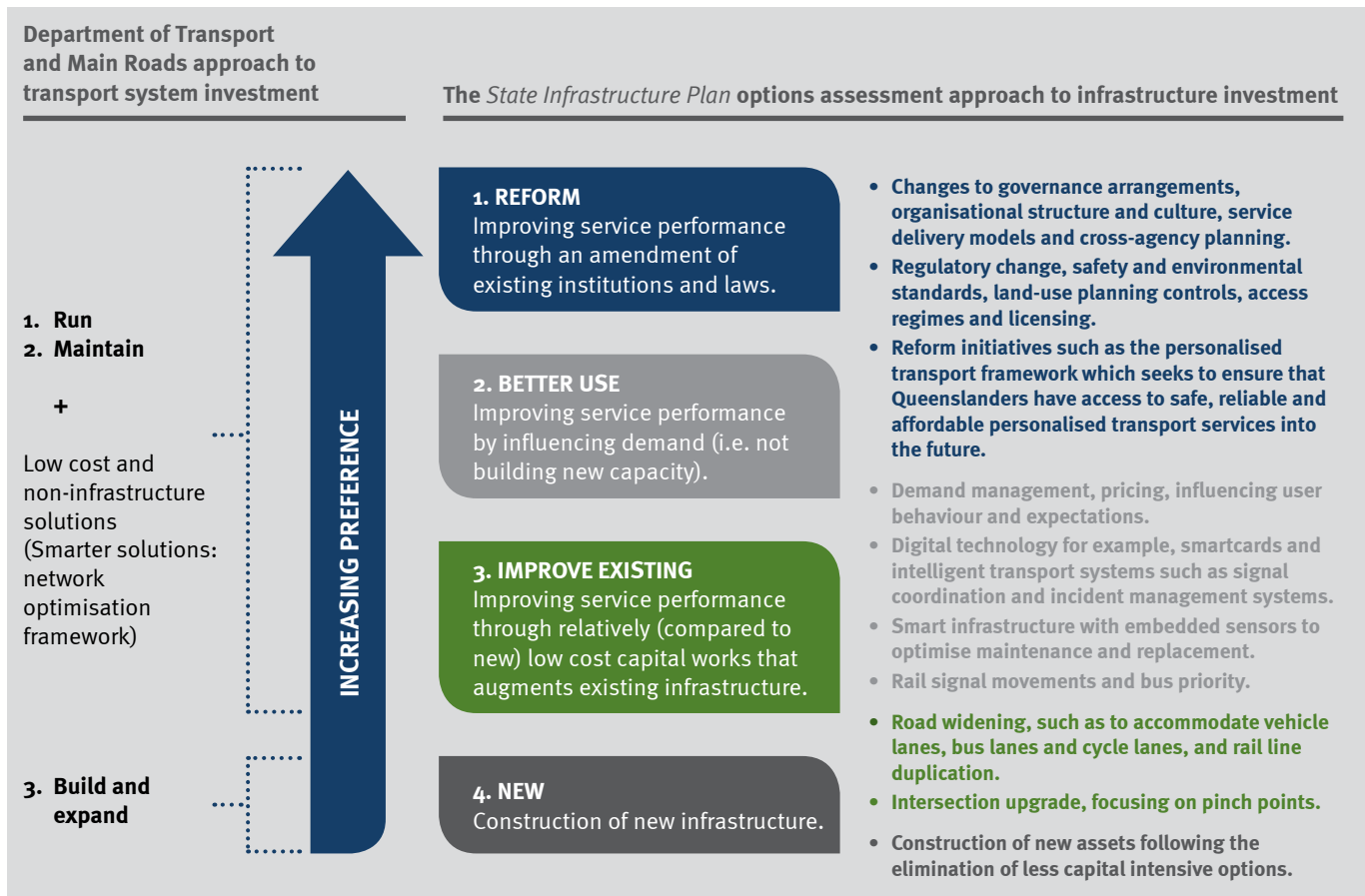
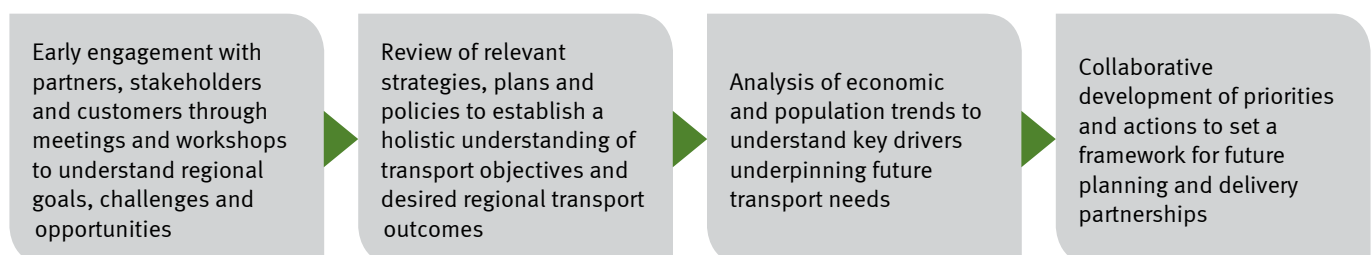


Figure 2: Alignment between the departmental and government approaches to infrastructure investment

Process

The *Far North Queensland Regional Transport Plan* was developed with a 'customer-first' and 'one network' approach. Early engagement with customers, stakeholders and partners was vital to identify and understand the region's issues, challenges, opportunities, goals and priorities for taking action. Key stages in the development process are set out below.



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 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 across agriculture, mining, health, tourism and small business. To gain customer input, Transport and Main Roads hosted workshops, and facilitated a number of one-on-one interviews. Some of the key issues that emerged from this engagement included:

- the size and complexity of the region is a challenge for the effective funding, management and delivery of equitable transport infrastructure and services.
- the geography and climate of the region make the transport network vulnerable and unreliable throughout the year, particularly during the wet season.
- there is a lack of basic access to affordable transport options to connect the more remote parts of the region to goods and services and to other places.
- regional variability in the efficiency and reliability for access to markets by road, rail, sea and air limits investment opportunities and constrains economic sustainability and growth.
- population growth and development is increasing demand pressures on urban transport networks and threatening liveability and productivity in towns and city centres.
- the current transport network is not meeting the diverse and sometimes competing needs of different users resulting in safety issues.

This input from customers has informed the priorities and actions identified in the 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.

Table 3: Structure of the Far North Queensland Regional Transport Plan

STRATEGIC CONTEXT

SETTING THE SCENE

Chapter 2: The Far North Queensland Region

THE REGION

THE TRANSPORT NETWORK

PLANNING CONTEXT

Chapter 3: Goals, challenges and opportunities

GOALS

CHALLENGES

OPPORTUNITIES

Chapter 2

Chapter 3

TRANSPORT RESPONSE

SHAPING TRANSPORT TO ACHIEVE REGIONAL GOALS

Chapter 4: Priorities and actions

PRIORITY 1

PRIORITY 2

PRIORITY 3

PRIORITY 4

ROLE OF TRANSPORT

OBJECTIVES AND MEASURES OF SUCCESS

ACTIONS – SHORT-TERM, AND ACTIONS – MEDIUM/LONG-TERM

TAKING ACTION

Chapter 5: Implementation

DELIVERING IN PARTNERSHIP

MONITORING AND REVIEW

Chapter 4

Chapter 5



Munro Martin Parklands, Cairns

A nighttime photograph of a public space. In the foreground, a grassy area is illuminated by a long, low, glowing light fixture. A person in a blue shirt is walking. In the middle ground, a modern pavilion with a glass and metal structure is lit up. To the left, a large tree is decorated with red lights. In the background, there are palm trees and a sign for 'Cape of Good Hope'.

2. The Far North Queensland Region

2.1 Region overview

The Far North Queensland region extends from the Torres Strait Islands in the north to the top of the Cardwell Range in the south, and from Cairns in the east to Croydon in the west. The region includes 20 local government areas and one town authority. The region is rich in untouched and pristine environmental areas, Aboriginal and Torres Strait Islander cultures, and productive agricultural and resource industries. As part of the wider northern Australia area, this region is also known for its untapped potential to

support economic and population growth. Huge distances, a highly dispersed population outside of Cairns and seasonal climatic impacts are key characteristics of the region.

The geography of the Far North Queensland region, including its size, diversity, climatic conditions, land use and demographics, results in different characteristics and challenges for different parts of the region. For this reason, the Far North Queensland region can be considered as four sub-regions made up of local government areas grouped according to shared characteristics and transport needs.



Lighthouse on Grassy Hill, Cooktown

FAR NORTH REGION
COVERS AN AREA OF
273,158KM²

OR **15.8%** OF
QUEENSLAND'S
LAND AREA



COASTAL CENTRES AND TABLELANDS

- 1 CASSOWARY COAST REGIONAL COUNCIL
 - 2 CAIRNS REGIONAL COUNCIL
 - 3 DOUGLAS SHIRE COUNCIL
 - 4 YARRABAH ABORIGINAL SHIRE COUNCIL
 - 5 MAREEBA SHIRE COUNCIL
 - 6 TABLELANDS REGIONAL COUNCIL
- #### THE SAVANNAH
- 7 CROYDON SHIRE COUNCIL
 - 8 ETHERIDGE SHIRE COUNCIL

CAPE YORK COMMUNITIES

- 9 COOK SHIRE COUNCIL
- 10 AURUKUN SHIRE COUNCIL
- 11 HOPE VALE ABORIGINAL SHIRE COUNCIL
- 12 KOWANYAMA ABORIGINAL SHIRE COUNCIL
- 13 LOCKHART RIVER ABORIGINAL SHIRE COUNCIL
- 14 MAPOON ABORIGINAL SHIRE COUNCIL
- 15 NAPRANUM ABORIGINAL SHIRE COUNCIL

- 16 NORTHERN PENINSULA AREA REGIONAL COUNCIL
- 17 PORMPURAAB ABORIGINAL SHIRE COUNCIL
- 18 WEIPA TOWN AUTHORITY
- 19 WUJAL WUJAL ABORIGINAL SHIRE COUNCIL

TORRES STRAIT ISLANDS

- 20 TORRES STRAIT ISLAND REGIONAL COUNCIL
- 21 TORRES SHIRE COUNCIL

POPULATION GROWTH*



CAIRNS IS THE MAJOR
ACTIVITY CENTRE IN THE
REGION AND THE MOST
DENSELY POPULATED
LOCAL GOVERNMENT
AREA WITH **58%** OF THE
POPULATION AND ONLY
6.2% OF THE REGION'S
LAND AREA



CASSOWARY COAST (**18.5%**),
DOUGLAS (**15.5%**), ETHERIDGE
(**19.4%**), MAREEBA (**18.1%**) AND
TABLELANDS (**21.3%**) HAVE A HIGHER
PROPORTION OF POPULATION OVER
65 THAN QUEENSLAND'S

14.4%*



THE REGION HAS
A DIVERSE MIX
OF INDUSTRIES
ACROSS EXPORT
AND SERVICE
MARKETS



THE ESTIMATED AVERAGE
ANNUAL GROWTH RATE OF
FAR NORTH QUEENSLAND'S
GROSS REGIONAL PRODUCT
WAS **6.3%** BETWEEN
2001 AND 2011⁵

CLIMATE CHANGE COULD MEAN
INCREASED INUNDATION, MORE
INTENSE CYCLONES AND RISING
SEA LEVELS



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 **11.9%***



Agriculture is a key industry contributing around **\$1.4 billion** to the regional economy in the year 2015–2016 with opportunities to further expand^{6,7}



HMAS Cairns RAAF Scherger are both set to undergo upgrades in order to advance defence capabilities in Northern Australia



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



The region is on track to achieve the 2020 visitor expenditure target of **\$3.9 billion⁸**



Far North is expanding in energy markets with **several renewable projects** throughout the region



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

5 Queensland Treasury and Trade. (2013). *Experimental Estimates of Gross Regional Product 2000-01, 2006-07 and 2010-11*.

6 Trade and Investment Queensland. (2016). *Market Profile Far North Queensland*.

7 Australian Government. (2015). *Northern Australia White Paper*.

8 Tourism Tropical North Queensland. (2017). *Annual Report 2016–2017*.

* 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

COASTAL CENTRES AND TABLELANDS

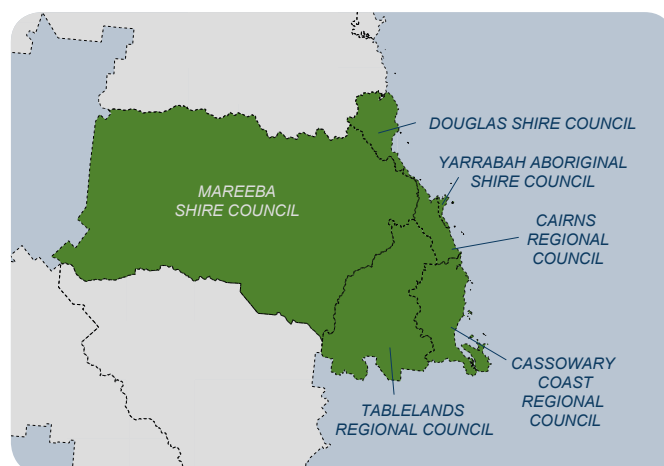


Cycling along Cairns Esplanade

The majority of the Far North Queensland region's population and activity centres are in the Coastal Centres and Tablelands area. The city of Cairns is the principal regional centre, with larger service towns of Mareeba, Atherton, Innisfail and Port Douglas. There are also a number of smaller centres, such as Mossman, Tully, Cardwell, Mission Beach, Malanda, Kuranda and Yarrabah.

The area has an estimated resident population of around 254,000 as of June 2016 with an annual projected growth rate of 1.3 per cent.* Major employment is in health care and social assistance (13.2 per cent), and retail trade (10.2 per cent). Tourism is a major economic driver as the region provides access to the world heritage listed Great Barrier Reef Marine Park, and the Wet Tropics World Heritage Area.

The Coastal Centres and Tablelands area is the gateway to the broader region. This area has the highest population, highest density and most extensive demand for transport network infrastructure and services.



* Population and employment statistics cited in this section are sourced from the Queensland Government Statistician's Office Regional Profiles for local government areas current as at September 2017. Population statistics for 2016 are based on Australian Bureau of Statistics. (2017). *Regional Population Growth, Australia (Catalogue No. 3218.0, various editions)*. Population statistics for 2036 are based on *Queensland Government Population Projections, 2015 edition* (medium series). Employment statistics are based on Australian Bureau of Statistics, *Census of Population and Housing, 2016, General Community Profile - G51* and unpublished data.

Local government*	Key centres	Estimated 2016 population	Average annual growth rate (%)	Projected 2036 population	Economy
Cairns	Cairns, Babinda	162,451	1.7	227,542	Health and social services, education, service industries, construction, transport, sugar and tourism
Cassowary Coast	Innisfail, Tully, Cardwell, Mission Beach	29,396	0.0	28,868	Sugar, bananas, livestock and tourism
Douglas	Port Douglas, Mossman	11,997	1.1	14,796	Sugar and tourism
Mareeba	Mareeba, Kuranda	22,157	1.1	27,301	Diverse agriculture sector, tourism, emerging manufacturing and transport industries, mining
Tablelands	Atherton, Yungaburra	25,312	0.8	29,667	Agriculture and tourism
Yarrabah	Yarrabah	2,703	1.1	3,390	Health and social services, potential for tourism
COASTAL CENTRES AND TABLELANDS		254,016	1.3%	331,565	

Cairns – the region's principal activity centre

Cairns is the major activity centre in the region and the most densely populated local government area with 58 per cent of the population and only 6.2 per cent of the region's land area. Cairns plays a vital role in servicing the needs of the broader Far North Queensland community as a key destination offering access to government and health services and a larger range of shopping, entertainment and leisure options than available elsewhere in the region. Cairns Airport is a major international and regional airport and serves as a tourism gateway to the region.

The 2016 census data highlights Cairns role in servicing the wider region with 14.4 per cent of employed persons working in the health care and social assistance industry, 10.6 per cent of employed persons worked in retail trade industry and 10 per cent in accommodation and food services reflecting the demand for workers to support the tourism industry.

Cairns Regional Council's population is expected to grow by around 64,000 people between 2016 and

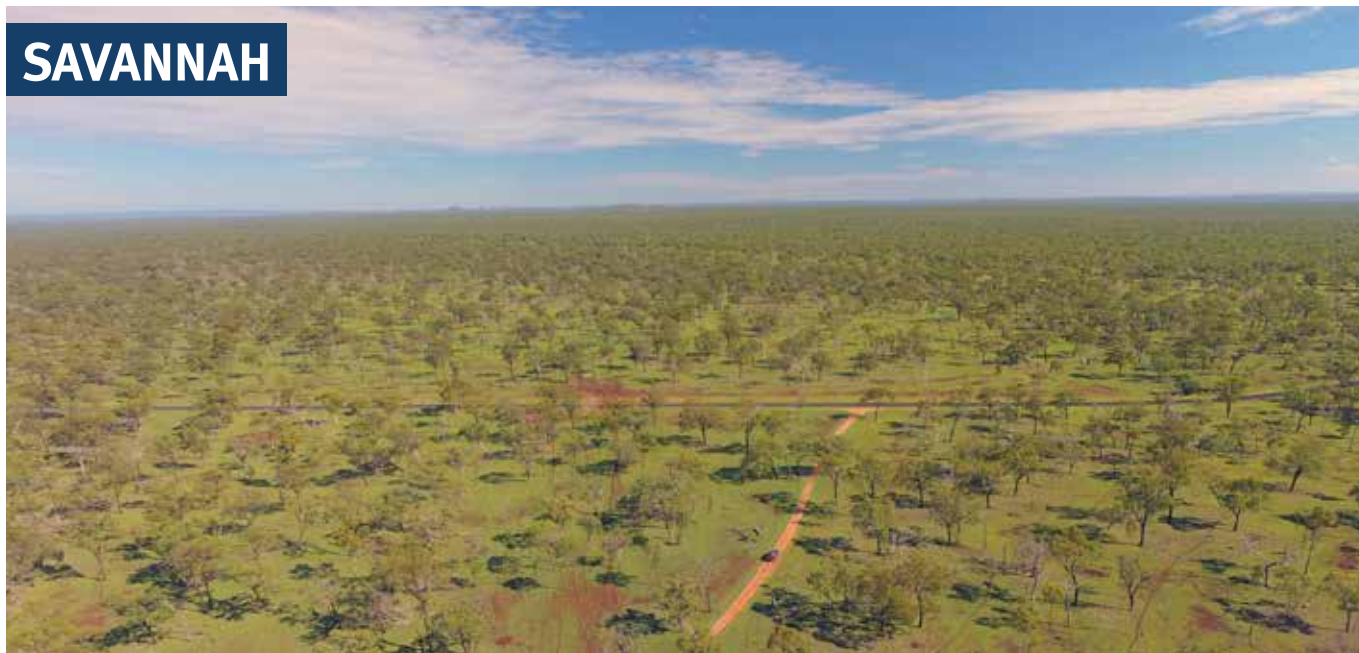
2036, catering to the majority of the wider region's population growth. Around half of this growth will occur in southern Cairns' greenfield sites including the emerging community of Mount Peter, between Edmonton and Gordonvale.



Cairns Reef Terminal Jetty

* Population and employment statistics cited in this section are sourced from the Queensland Government Statistician's Office Regional Profiles for local government areas current as at September 2017. Population statistics for 2016 are based on Australian Bureau of Statistics. (2017). *Regional Population Growth, Australia (Catalogue No. 3218.0, various editions)*. Population statistics for 2036 are based on *Queensland Government Population Projections, 2015 edition* (medium series). Employment statistics are based on Australian Bureau of Statistics, *Census of Population and Housing, 2016, General Community Profile - G51* and unpublished data.

SAVANNAH

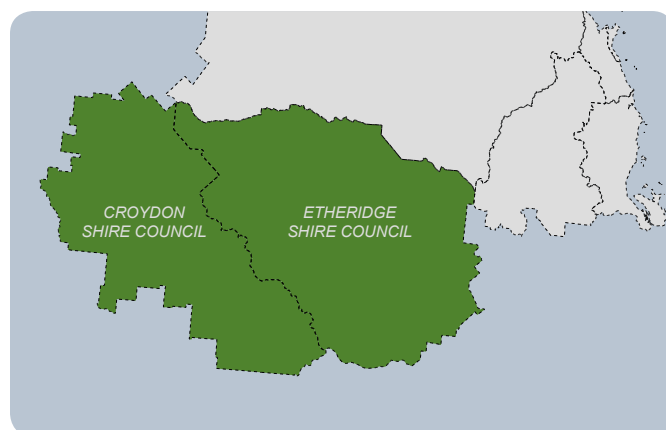


Undara Lava Tubes, Etheridge Shire Council

Croydon and Etheridge are located in the far west of the Far North Queensland region. This area is part of the *Gulf Regional Development Plan* and has strong connections to the neighbouring *North West Queensland* and *Northern Queensland Regional Transport Plans*.

The area is accessible by the Gulf Developmental Road, Gregory Highway and Kennedy Developmental Road. The Savannah-Lander and Gulf-Lander tourist rails are an iconic feature of the area's tourism industry.

The 2016 Census data indicates the major employing industries are agriculture (44.3 per cent) and public administration and training (16.8 per cent). Cattle and tourism are also significant industry sectors.



Local government*	Key centres	Estimated 2016 population	Average annual growth rate (%)	Projected 2036 population	Economy
Croydon	Croydon	300	0.4	352	Agriculture, predominately cattle, and tourism, including organised tours, tourist rail and self-drive tourism.
Etheridge	Mount Surprise, Forsayth, Georgetown, Einasleigh	819	-0.2	862	
SAVANNAH		1,119	0.0%	1,214	

* Population and employment statistics cited in this section are sourced from the Queensland Government Statistician's Office Regional Profiles for local government areas current as at September 2017. Population statistics for 2016 are based on Australian Bureau of Statistics. (2017). *Regional Population Growth, Australia (Catalogue No. 3218.0, various editions)*. Population statistics for 2036 are based on *Queensland Government Population Projections, 2015 edition* (medium series). Employment statistics are based on Australian Bureau of Statistics, *Census of Population and Housing, 2016, General Community Profile - G51* and unpublished data.

TORRES STRAIT

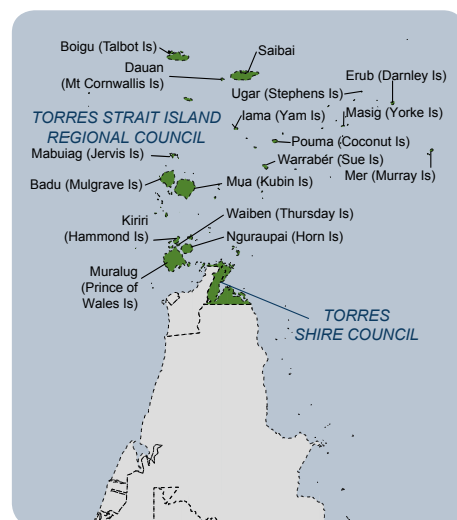


Poruma (Coconut Island), Torres Strait

Located in the northern most part of Queensland, Torres Strait is close to the border of Papua New Guinea and includes 17 populated islands within two local government areas. The Torres Shire Council includes Waiben (Thursday Island), the major administrative and service centre, and Ngurupai (Horn Island) with the main airport. Air services connect to Cairns, Weipa and other Torres Strait Islands. Passenger ferry services operate between Waiben and Ngurupai, and between Waiben and Seisia on the Cape York Peninsula.

Most of the remaining islands are included in the Torres Strait Island Regional Council area. Air and water services and infrastructure are critical for the movement of people and goods in the Torres Strait.

Major employing industries in the Torres Strait are public administration and safety (25.4 per cent) and health care and social assistance (18.2 per cent). The tourism and fishing industries have potential for growth. The Torres Strait's high cost of living is linked to a reliance on imports and the high cost of transporting goods to these remote and island based communities.⁹



Local government*	Key centres	Estimated 2016 population	Average annual growth rate (%)	Projected 2036 population
Torres	Waiben (Thursday Island), Ngurupai (Horn Island) and Muralug (Prince of Wales Island)	3,789	0.6	4,176
Torres Strait Island	Eastern Islands: Mer (Murray Island), Erub (Darnley Island), Ugar (Stephen/s Island) Central Islands: lama (Yam Island), Masig (Yorke Island), Warraber (Sue Island), Poruma (Coconut Island) Western Islands: Badu (Mulgrave Island), Mua Island-Arkai (Kubin), Mua Island-Wug (St. Pauls), Mabuyag (Jervis Island) Southern Islands: Kiriri (Hammond Island) Top Western Islands: Saibai Island, Boigu (Talbot Island), Dauan (Mt Cornwallis Island)	4,785	0.2	4,858

TORRES STRAIT

8,574

0.4%

9,034

⁹ Torres Strait Regional Authority. (2009). www.tsra.gov.au/_data/assets/pdf_file/0018/1773/ts-npa-rp-09-29.pdf, page1.

* Population and employment statistics cited in this section are sourced from the Queensland Government Statistician's Office Regional Profiles for local government areas current as at September 2017. Population statistics for 2016 are based on Australian Bureau of Statistics. (2017). *Regional Population Growth, Australia (Catalogue No. 3218.0, various editions)*. Population statistics for 2036 are based on *Queensland Government Population Projections, 2015 edition* (medium series). Employment statistics are based on Australian Bureau of Statistics, *Census of Population and Housing, 2016, General Community Profile - G51* and unpublished data.

CAPE YORK

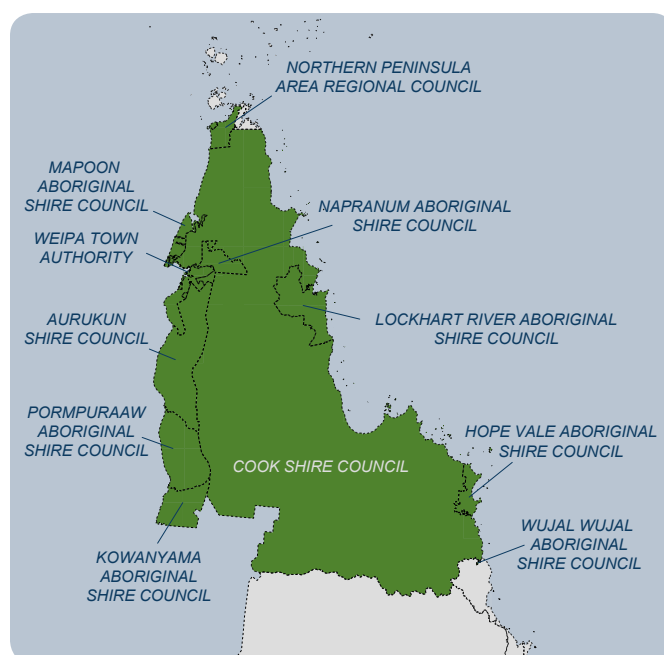


Quintell Beach, Lockhart River

Cape York is a large, remote and sparsely populated area made up of 11 local governments containing many small remote communities spread across a land mass of 128,330km². The main access into the Cape is via the predominantly unsealed Peninsula Developmental Road. The Peninsula Developmental Road is subject to frequent and lengthy closures or load restrictions as a result of wet season flood events. Seasonal road access restrictions can leave many of the Cape communities isolated for weeks and even months at a time. Air and sea transport provide vital access when road closures isolate communities.

Of the local government areas in Cape York, Cook Shire, Weipa Town Authority and Northern Peninsula Area have the largest populations. Key centres include the administrative and service hub of Cooktown in Cook Shire, the mining town of Weipa, and the service and administrative hub of Bamaga in the Northern Peninsula Area. Small towns, service centres and roadhouses, along the Peninsula Developmental Road in Cook Shire, play an important role in servicing the needs of residents, visitors, service providers and freight operators travelling through the region.

The 2016 Census data indicates the major employing industries are public administration and safety (14.6 per cent) and mining (16.7 per cent). Local Government is the main employer for most Cape communities aside from Rio Tinto's mining operations in Weipa. Cape York communities pursue the diverse economies of fishing, agriculture, tourism and tropical expertise.



Priority 1	Priority 2	Priority 3	Priority 4	Implementation
Local government*	Key centres	Estimated 2016 population	Average annual growth rate (%)	Projected 2036 population
Aurukun		1,323	0.9	1,716
Cook	Cooktown, Coen, Lakeland	4,424	0.1	4,433
Hope Vale		967	1.3	1,560
Kowanyama		984	0.6	1,286
Lockhart River		747	2.0	841
Mapoon		322	0.4	338
Napranum		1,001	0.4	1,078
Northern Peninsula Area	Bamaga, Seisia, New Mapoon, Umagico, Injinoo	2,952	1.1	3,466
Pormpuraaw		785	1.0	896
Weipa		4,024	1.4	5,250
Wujal Wujal		296	0.4	320
CAPE YORK		17,825	0.9%	21,185

FAR NORTH QUEENSLAND
REGION TOTAL

Estimated 2016
population
281,561

Average annual
growth rate (%)
1.3%

Projected 2036
population
362,988

* Population and employment statistics cited in this section are sourced from the Queensland Government Statistician’s Office Regional Profiles for local government areas current as at September 2017. Population statistics for 2016 are based on Australian Bureau of Statistics. (2017). *Regional Population Growth, Australia (Catalogue No. 3218.0, various editions)*. Population statistics for 2036 are based on *Queensland Government Population Projections, 2015 edition* (medium series). Employment statistics are based on Australian Bureau of Statistics, *Census of Population and Housing, 2016, General Community Profile - G51* and unpublished data.

Draft Regional Transport Plan | Far North Queensland Region | 201827

2.2 Transport network

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

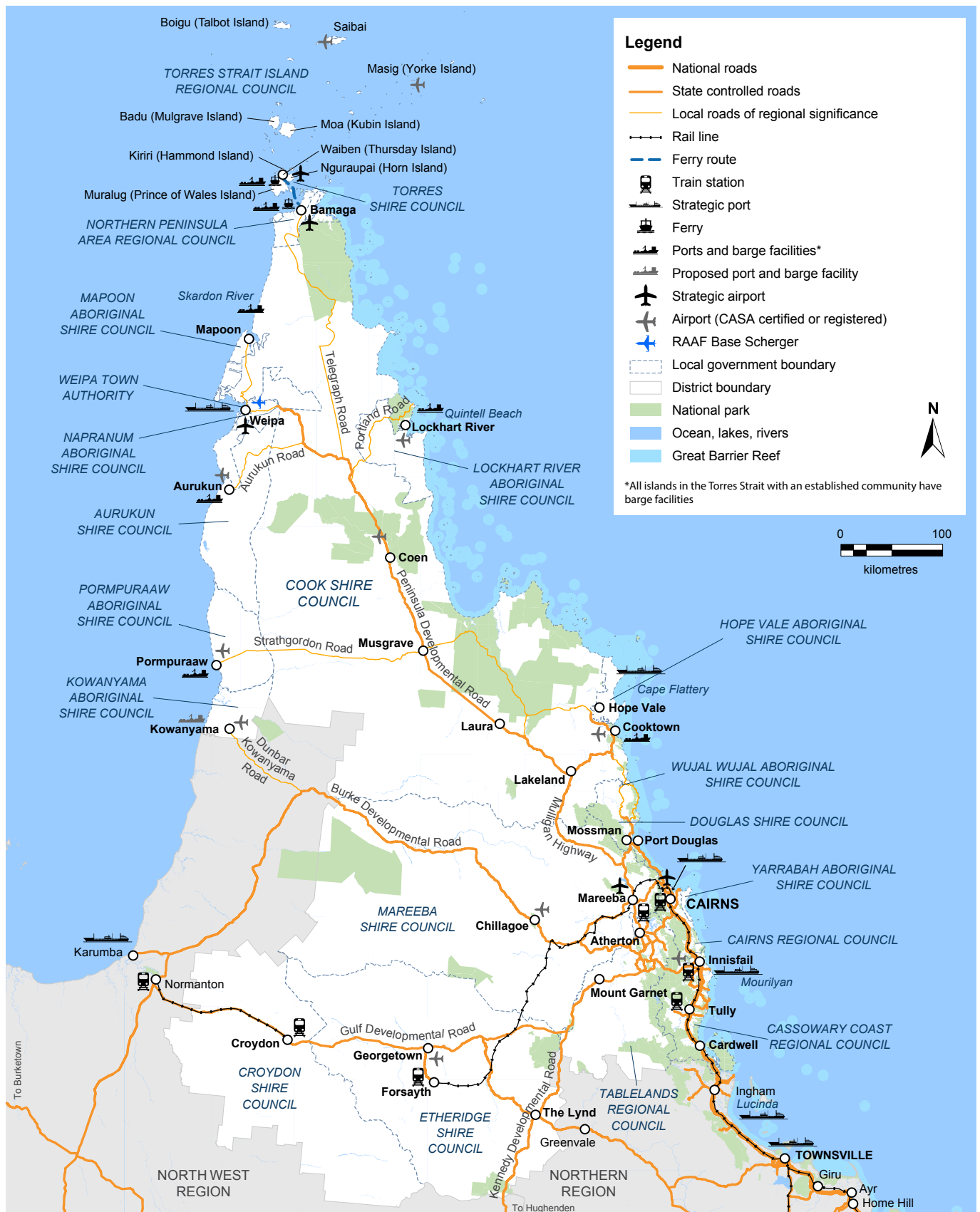


Figure 3: The Far North Queensland region transport network

IN THE 12-MONTH PERIOD LEADING
UP TO AUGUST 2015

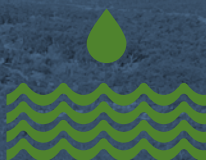
5 MILLION

PASSENGERS PASSED THROUGH
CAIRNS AIRPORT¹⁰



THE REGION'S PORTS

ARE INTEGRAL FOR THE SUPPLY OF
GOODS TO LOCAL COMMUNITIES
THAT ARE ISOLATED DURING
WET SEASONS



THE REGION'S PORTS HANDLE
APPROXIMATELY

34.4 MILLION

TONNES OF GOODS ANNUALLY¹¹



THE LOCAL FARE SCHEME
PROVIDES RESIDENTS IN
REMOTE COMMUNITIES

AFFORDABLE ACCESS

AIR TRAVEL TO CAIRNS



THE KURANDA HISTORICAL
RAILWAY ATTRACTS

450,000¹²

PASSENGERS ANNUALLY



217KM
NATIONAL LAND TRANSPORT
NETWORK

2,941KM
STATE-CONTROLLED ROADS

15,454KM
LOCAL GOVERNMENT
MANAGED ROADS



IN THE FAR NORTH,
HOUSEHOLDS WITHOUT A
PRIVATE VEHICLE RANGE FROM

0% AND 68%

ACROSS LOCAL GOVERNMENT
AREAS¹³



SOME TOWNS IN THE REGION ARE
ISOLATED FOR OVER

5 MONTHS

OF THE YEAR
DUE TO FLOODING



IN THE TORRES STRAIT
COMMUNITIES

BOATING

IS AN IMPORTANT
FORM OF TRANSPORT



¹⁰ Cairns Airport. (2016). www.cairnsairport.com.au/corporate/wp-content/uploads/sites/3/2014/04/CNS-August-2016-Passenger-Statistics.pdf.

¹¹ Transport and Main Roads. (2014). *Trade statistics for Queensland Ports*.

¹² Queensland Rail. (2017). *Queensland Rail Annual and Financial Report 2016-17*.

¹³ Australian Bureau of Statistics. (2017). *2016 Census of Population and Housing, 'General Community Profile: G30 Number of Motor Vehicles by Dwellings'*. Findings based on use of ABS GCP data.

Roads

The Bruce Highway forms the north-south coastal route that connects Cairns with major population centres to the south and a strategic transport connection between Brisbane and Cairns. It caters for both long and short-distance freight and passenger movements.

Cairns, as the gateway for Far North Queensland, is connected to the rest of the region by a number of major routes:

- Mulligan Highway to Cooktown
- Kennedy Highway to Mareeba, Atherton and ultimately to Central Queensland
- Peninsula Developmental Road connecting to communities in Cape York
- Gulf Developmental Road to Croydon and Etheridge
- Burke Developmental Road providing a connection between Cairns and Gulf of Carpentaria communities.

With higher population densities, and as the region's major centre, roads in and around Cairns experience the greatest traffic volumes. Population centres such as Atherton, Mareeba and Innisfail include links attracting average daily traffic of more than 10,000 vehicles per day. Outside these centres, traffic volumes are low and generally roads have a higher proportion of heavy vehicles. This demonstrates their importance in delivering essential supplies to communities and products to markets.

Road network accessibility is highly affected by climatic conditions particularly north of Cairns. Many communities in Cape York are inaccessible by road for the duration of the wet season, with complete reliance on sea and air transport for the supply of goods and passenger travel

outside their community. This leads to an increase in the cost of living, adverse social and economic impacts for these communities and significant annual maintenance costs for the road network.

Bus and coach

The region's bus and coach network includes scheduled public bus services in Cairns and Innisfail, school bus services across the region, and long-distance coach services.

The Cairns urban bus network consists of 16 bus routes extending from Palm Cove in the north, to Gordonvale in the south. The Cairns bus network plays an important role for tourist travel, as reflected by the increase in patronage figures during the peak tourism season.

The Innisfail bus network comprises five bus routes, providing services from Belvedere in the west to Flying Fish Point in the east.

School students in Cairns can travel to and from school on any TransLink service. In many parts of the region, where a TransLink service is not available, students may travel on a designated school bus service. Buses provide an important service in ensuring that children have access to educational opportunities, particularly in areas where travel distances can be significant and car ownership low.

There are currently three government regulated long-distance coach services operating in the Far North Queensland region. These include two routes between Cairns and Cooktown (inland and coastal) and a route between Cairns and Karumba.

Other coach services include the Brisbane to Cairns route operating daily, and routes from Cairns to Atherton,



Passengers on bus, Mareeba

stopping at Mareeba and Kuranda. Connections for this service are available to Malanda, Yungaburra, Herberton, Ravenshoe, Dimbulah and Chillagoe.

Supporting regional connectivity and the tourism industry are a number of local privately operated, and airport connection, shuttle services. These connect Cairns to Port Douglas, Mission Beach, Cooktown, Kuranda, Mareeba, Bibohra, Mt Molloy, Mt Carbine, Palmer River, Lakeland and the Lion's Den. There are also many privately owned coaches operating in Cairns and across the region that transport tourists to attractions.

Active Transport

High quality and connected pedestrian and bicycle infrastructure in the region is generally limited to urban areas and town centres. The large distances between communities, lack of amenities at destinations and along routes, and the region's climate and geography make it challenging to provide connected cycling routes linking towns. Long-distance active transport journeys are primarily associated with touring cyclists, and events such as the Cairns to Karumba Bike Ride, held in June each year. The riders travel from Cairns through Atherton, Mt Garnet, Mt Surprise, Georgetown, Croydon and Normanton, and finish in Karumba (a total of 780 kilometres).¹⁴

The *Far North Queensland Principal Cycle Network Plan* (FNQPCNP) sets a framework for the planning, design and construction of core cycle routes to connect places where people live to key destinations such as schools, commercial centres and attractions.¹⁵ The FNQPCNP and associated Priority Route Maps identify priority principal and iconic recreational routes in the local government areas of:

- Cairns
- Douglas
- Cassowary Coast
- Tablelands
- Mareeba
- Yarrabah
- Wujal Wujal
- Cook
- Napranum
- Weipa
- Thursday Island
- Torres Strait
- Northern Peninsula Area.

Principal routes are planned to support high levels of bicycle accessibility within urban areas where demand is highest, and the need is greatest. Iconic recreation routes, including the Atherton Tablelands rail trails, are identified for their potential to support cycle tourism as they

comprise long distance routes linking town centres, and scenic routes connecting to the region's natural attractions and tourist destinations.

Rail

The North Coast line extends from Brisbane to Cairns, and connects the region's coastal towns. The line is primarily a single track rail line with short passing loops. Speed is limited by tight bends and numerous open level crossings. The Spirit of Queensland passenger service operates three return trips per week between Cairns and Brisbane. The journey spans 1,681 kilometres over 24 hours. Freight on the North Coast line includes containerised and general freight, industrial products, sugar and molasses.

The Kuranda Scenic Railway is a popular tourist rail journey that operates twice daily return trips and attracts over 450,000 passengers annually.¹⁶ The Savannahlander tourist motor rail operates on the same line as the Kuranda Scenic Railway, between Cairns and Kuranda, and then continues on to Forsayth. The Gulflander motor rail runs between Croydon and Normanton on a line that was originally built in 1888 to transport gold from Croydon gold mines. Both motor rail services undertake limited trips throughout the week, varying in trip itinerary from two hours to three days. The Kuranda Scenic Railway and the Gulflander are both operated by Queensland Rail¹⁷, whereas the Savannahlander is a privately owned and operated service.¹⁸

A 20-kilometre single line railway is privately owned and operated by Rio Tinto Alcan and connects the bauxite mine, north of the Embley River, to the Port of Weipa.¹⁹

The sugar industry is supported by an extensive cane rail network in the cane producing areas of the region, transporting cane from farms to mills. Cane railway systems provide an efficient way to move cane, with a lower impact on the major transport corridors, than if it was transported on the road network.



Savannahlander, Einasleigh

¹⁴ Cairns to Kurumba Bike Ride. (2017). www.ridefnq.com/.

¹⁵ Transport and Main Roads. (2016). *Far North Queensland Principal Cycle Network Plan*.

¹⁶ Queensland Rail. (2017). *Queensland Rail Annual and Financial Report 2016–2017*.

¹⁷ Queensland Rail. (2016). www.queenslandrailtravel.com.au/.

¹⁸ The Savannahlander. (2016). www.savannahlander.com.au/.

¹⁹ Rio Tinto Alcan. (2016). www.riotinto.com/documents/Amrun_project_fact_sheet.pdf.

Air

Cairns Airport is a privately owned airport that operates scheduled passenger services to 28 domestic and 12 international destinations.²⁰ It is the only international airport outside south-east Queensland that has no existing airport curfews and caters for a range of aircrafts with varying passenger numbers. Cairns Airport also supports the movement of high value freight to international and domestic markets.

The region is also served by state regulated air services. These passenger and freight services provide remote communities with important access to economic, medical, educational and social opportunities.

The Cape and Torres Strait communities are serviced by airports located in Weipa, Pormpuraaw, Northern Peninsula Area, Lockhart River, Kowanyama, Ngurupai

(Horn Island), Cooktown, Coen and Aurukun, with frequent scheduled services by aircraft with more than 30 seats. Other aerodromes and airfields across the Far North Queensland region cater for smaller aircrafts and are generally used for agriculture, tourism, private charter, community and emergency access.

Air transport is extremely important for remote and regional areas such as the Cape and Torres Strait. Maintaining continuity and affordability in air travel is important to support future growth, and social and economic outcomes. Continuous improvements and upgrades to airports and associated infrastructure (runways, terminals, access roads, car parks, fencing and so on) are required to maintain, and improve access. Pavement failures on runways is a common issue for airports across the region, resulting in constant repair and maintenance.

CASE STUDY: Far North Queensland – Local Fare Scheme trial

The Local Fare Scheme (the Scheme), which commenced on 20 July 2015, aims to improve the standard of living in remote parts of the Far North Queensland region by reducing the cost of air travel for eligible residents. The Scheme seeks to increase accessibility of those living in remote communities to basic health, employment, and educational facilities. Through financial assistance, the Scheme allows eligible residents to move around more frequently, enabling social and recreational benefits that, in turn, will help boost the local economy.

The Scheme provides subsidised air travel to eligible residents of the Cape York, Gulf of Carpentaria and Torres Strait through an airfare discount of up to \$400 for return flights. The Scheme is administered through participating airlines and local councils from selected airports in Cape York, Gulf of Carpentaria and the Torres Strait.

Eligible communities include Kowanyama, Pormpuraaw, Aurukun, Weipa, Bamaga, Lockhart River, Coen, Doomadgee, Northern Peninsula, Mornington Island, Kubin, Mua-Arkai, Ngurupai, Mabuyag, Badu, Boigu, Saibai, Iama, Warraber, Poruma, Masig, Erub, and Mer Islands.²¹

The Scheme has been extended to 30 June 2019.

More information can be viewed at www.tmr.qld.gov.au/Travel-and-transport/Local-Fare-Scheme-Far-North-Queensland.aspx



Aerial view of Poruma (Coconut Island), Torres Strait

20 Cairns Airport. (2016). www.cairnsairport.com.au/assets/documents/CNS-August-2016-Passenger-Statistics.pdf.

21 Department of Transport and Main Roads. (2018). www.tmr.qld.gov.au/Travel-and-transport/Local-Fare-Scheme-Far-North-Queensland.aspx.

Sea

The Far North Queensland region includes a number of ports connecting its industries to market and also supporting the supply of goods to local communities. These ports are of particular importance during the wet season when they provide alternative access while the road network is impassable.

Far North Queensland Ports Corporation Limited, trading as Ports North, is a Queensland government-owned corporation responsible for the development and management of the declared ports of Cairns, Cape Flattery, Mourilyan, Skardon River, Quintell Beach, Waiben (Thursday Island) and Cooktown. The Port of Cooktown is a declared port, however no commercial trade takes place there. Strategic Ports in the Far North Queensland region include the Port of Weipa, Port of Cairns, Port of Mourilyan, Thursday Island and Cape Flattery.

Other smaller ports and marine facilities (jetties and barge ramps) are integral for the movement of residents, and import of supplies to remote Torres Strait islands and Cape York communities that are periodically cut off by road due to wet season impacts. Examples include Quintell Beach for Lockhart River, Waiben (Thursday Island) for Torres Strait communities, and Seisia for the Northern Peninsula Area.²² There are also barge ramps for Aurukun and Pormpuraaw. Kowanyama Aboriginal Shire Council is currently working with the Department of Transport and Main Roads to establish viable barge facilities at Topsy Creek.

Boat ramps, moorings and jetties throughout the region support the fishing industry, the tourism industry and

recreational boating. In the Torres Strait, travel by boat is a key means of daily transportation for many residents and the primary means for inter-island travel.

All habitable islands are serviced by a barge ramp and all, except for Mer, are serviced by a pier. It is understood that many of these structures may be nearing their design life, and may soon require replacement.

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.

Cairns, Atherton, Mareeba, Port Douglas, Weipa, Innisfail, Mission Beach, Bamaga, Cooktown, Mossman, Waiben (Thursday Island), Gordonvale, Yarrabah and Kuranda have access to taxi services, providing accessibility for short trips. Other personalised transport services such as booked-hire services 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.



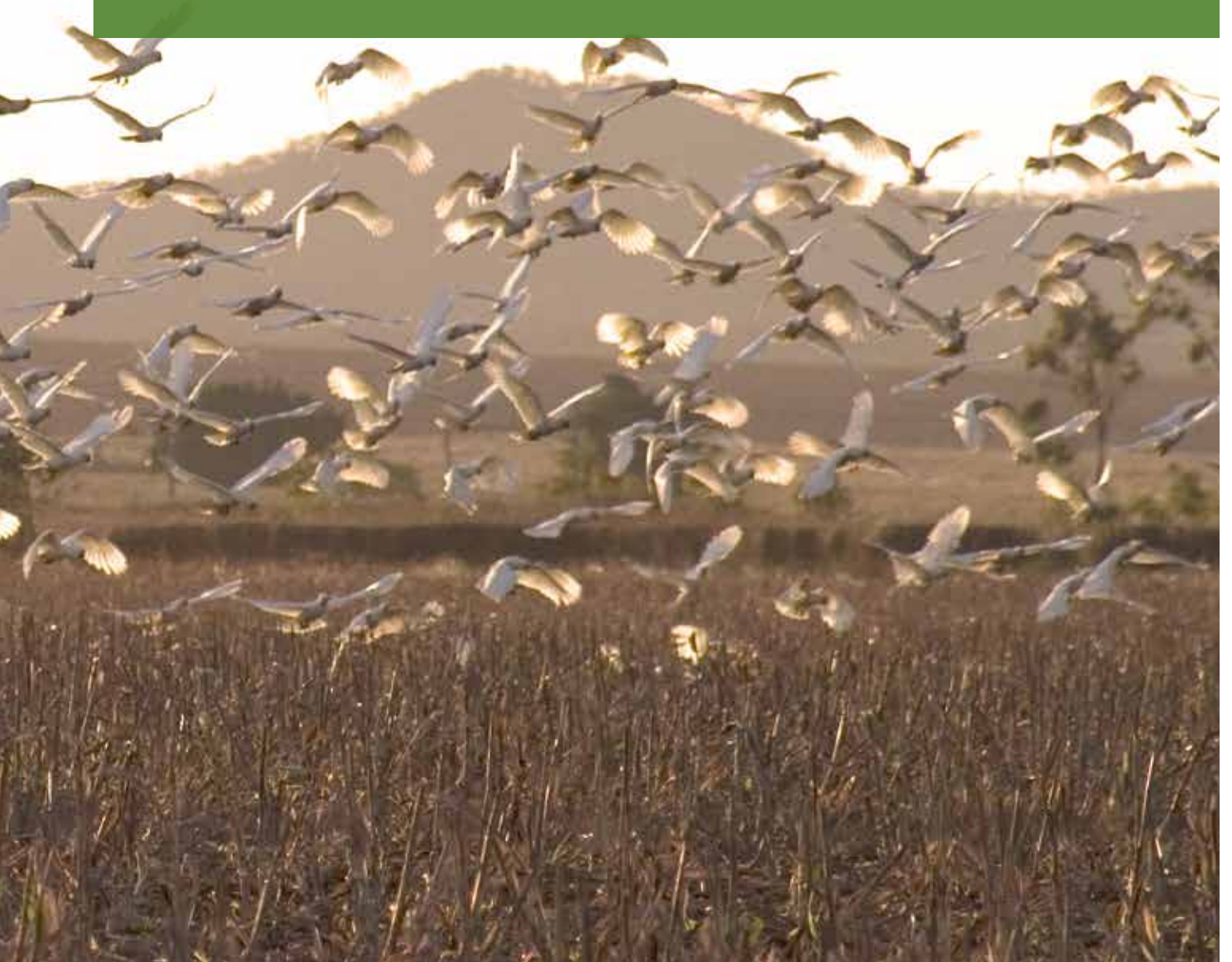
Trinity Wharf, Cairns

²² Ports North. (2016). www.portsnorth.com.au/our-ports.php.



Cockatoos near Lakeland

3. Goals, challenges and opportunities



3.1 Goals

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

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

The 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 opportunities.

3.2 Challenges

Network safety

In the Far North Queensland region there were 137 fatalities and 2,128 crashes requiring hospitalisation in the period 2011–2016, with alcohol, fatigue, speed, road geometry and driver behaviour cited as contributing factors. Disruptions, damage, hospitalisations and fatalities resulting from 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).

FAR NORTH QUEENSLAND REGIONAL TRANSPORT PLAN GOALS



Figure 4: Regional goals, and relationship to transport priorities

High Risk Roads

The High Risk Roads approach to developing effective road safety improvement projects recognises that some of the factors contributing to high risk on the network are route based or network wide issues.

The High Risk Roads program identifies that the existing Black Spot and Safer Roads Sooner programs tend to address issues at discrete locations. In some circumstances a more coordinated, whole route approach is required that analyses and assesses safety issues together. This approach can achieve greater benefit and lower cost.

High Risk Roads planning for the Far North Queensland region includes Captain Cook Highway, Gillies Range Road, Kennedy Highway (Cairns to Mareeba), Cairns Western Arterial Road and Mulgrave Road.



Aerial view of Gillies Range Road, Atherton Tablelands

The region is prone to the impacts of seasonal flooding and cyclone events that can create hazards such as landslips, floodwaters, debris washouts and potholes. Damage to road network infrastructure can be unseen and cause dangerous driving conditions. Crash risks are heightened during bad weather through a combination of road conditions and poor driver behaviour. For example, situations where there is limited access to information, no known alternate routes, or where alternative routes may add hours to the journey, can lead to risk taking behaviour such as attempting to cross flooded roads.

Maritime safety is also an important issue in the region. The Cairns' maritime region recorded 41 marine incidents, one death, and three hospitalisations for 22,031 registered recreational vessels in 2016. Although consistent with the state average for marine incidents, Maritime Safety Queensland's research and anecdotal evidence of volunteer rescue organisations suggests that the number could be higher. Marine incidents continue to go unreported, in particular those not resulting in either damage or serious injury, and those occurring in more remote locations.

Torres Strait Marine Safety Program

Private boats are a common form of inter-island transport throughout the Torres Strait Islands. Lack of awareness of safe sea travel, combined with unpredictable weather conditions, leads to a high rate of boating incidents requiring search and rescue.

The Torres Strait Maritime Safety Program is a joint program delivered by Maritime Safety Queensland, Torres Strait Regional Authority, Queensland Police Service and the National Maritime Authority of Papua New Guinea. The program seeks to promote and improve boating safety throughout the Torres Strait and as a consequence reduce the need for search and rescue operations, improve survival rates for those lost at sea and support the coastal maritime industry. Initiatives include maritime safety education workshops which have been delivered at 23 school campuses since July 2014.

Since the program's inception in 2006, there has been a 50 per cent reduction in boating incidents in the Torres Strait.



Boats at Waiben Jetty (Thursday Island)

Geography and climate

The size of the region and the climate present significant challenges for maintaining a connected and accessible transport system.

The region comprises a single regional city, Cairns, in the south-east and becomes increasingly remote the further the network extends to the north and west. At the furthest reaches of the region, the Torres Strait Island communities are highly reliant on sea and air transport to connect people with goods and services.

Generally, with greater distance comes lower population and demand, and higher social and economic disadvantage.

Distance:

- increases the cost of goods to market making business marginal
- dictates the road standard achievable with available funds
- increases the time required to undertake repairs and
- results in a higher delivery cost of transport services.

The wet season impacts transport networks, their dependent communities and businesses from November to March. Cyclones further impact already vulnerable areas, and climate change may exacerbate existing conditions. Wet season rains reduce the time available to undertake repairs. A more resilient network relies on improvements that will decrease repeat maintenance costs.

Improved road conditions and increased traffic from the far north raises the potential biosecurity risk, including the spread of human, animal and plant disease, weeds and other pests.

Network efficiency and reliability

The ability to deliver efficient freight movements between key production areas and markets is dependent on the weakest link in the transport network. Varying standards and road conditions, including load restrictions and road closures, cause serious impacts on the efficiency of the network.

The region's road network is limited in its ability to support high productivity freight vehicles. Constraints on the efficient movement of freight include, poor vertical and horizontal alignment, narrow pavement widths, poor flood immunity, road surface roughness and bridge load capacity. With the exception of bridge load capacity, these same issues affect the quality of the self-drive tourism experience.



The cost of transport for livestock from Northern Australia can be up to 35% of the market price.²³



Flooding near Malanda

²³ CSIRO Livestock logistics. (2015). www.csiro.au/en/Research/LWF/Areas/Landscape-management/Livestock-logistics.

Competing needs of road users

The growth of the self-drive tourism market is positively contributing to the region's economy. Its further expansion is a key economic development strategy of the various local governments. With the progressive sealing of the Peninsula Developmental Road, the Far North Queensland region will be more reliable and accessible for both tourists and road freight vehicles, heightening the interaction between inexperienced rural/remote road users and high-efficiency freight vehicles. It will also result in an increased demand on the limited rest areas available.

The differing customer needs of a rural and regional network are recognised as a challenge nationally. The National Remote and Regional Transport Strategy identifies that standards and regulations can hinder economic and social development because they cannot be applied flexibly in ways that are relevant to remote areas.²⁴

A key challenge for the region is improving global competitiveness of Queensland's industries through reduced freight costs.

Changes required to meet this challenge are:

- better, safer roads
- optimised road network access for High Productivity Vehicles (HPVs) on key road freight links
- facilitation of oversize overmass loads along key transport routes.

Lifeline freight routes

The *National Remote and Regional Transport Strategy* identifies the need to explore 'alternative models' for considering the priority for investment in remote and regional roads. Evaluation and prioritisation of investment in road projects is generally through cost-benefit analysis, and based on usage of the route, which favours routes with high Annual Average Daily Traffic volumes, regardless of being light vehicles or larger freight vehicles.

In mid-2016, Austroads released a tool designed to identify and support investment in 'Life Line' freight routes.²⁵ 'Life Line' freight routes are highly valued by local communities and regions but due to traffic volumes may not deliver positive outcomes in traditional upgrade project priority assessments.

A risk indicator tool, has been developed for use by road managers to establish if a route is a 'Life Line' and which routes have the greatest claim for project funding based on 'Life Line' needs. The Excel based tool considers factors relevant to determining priority for road upgrade investment including the:

- size and needs of the communities serviced
- availability of alternative routes
- length and convenience of any alternative routes
- historic incidence of events that have closed the route
- assessment of responses to previous events, including cost and impacts in the regions serviced.



Road train on unsealed road, Cape York

²⁴ Transport and Infrastructure Council. (2015). *National Remote and Regional Transport Strategy*.

²⁵ Austroads. (2016). www.austroads.com.au/news-events/item/358-supporting-life-line-freight-routes.

Investment across jurisdictional boundaries

Many communities rely upon roads that are owned and managed by an adjacent local government. To maintain access, adjacent local governments need to invest in roads that offer no direct benefit to their own communities. This challenge is common across Australia but is compounded by Far North Queensland region's vast distances, climate, limited alternative routes and the need for network connectivity to isolated coastal local government areas. Revenue of remote-area local governments is limited and the distance of roads requiring investment is immense. Affordability of the road network is a major challenge.

Communication and coordination amongst local governments in the management of 'one network' can improve reliability, not just for investment purposes, but also in providing road condition and scheduled road works information to minimise inconvenience for transport customers.

Another funding challenge for the transport network in the Far North Queensland region relates to the Australian Government's *National Disaster Relief and Recovery Arrangements*. Following a disaster, funding is available

to fix the network only to its pre-disaster standard, not improve the network. This results in local government addressing wet season impacts repeatedly.

Greater access to 'betterment' funding, to coordinate recovery and reconstruction works with improvement investment, is necessary to address this cycle and improve the resilience of the network.

Cook Shire Council

The Cook Shire Council is responsible for 2,927 kilometres of local roads. The size of the road network and the impacts of the wet season on its condition are a significant challenge in meeting the needs of the Shire's residents.

Pormpuraaw, Lockhart River, Northern Peninsula Area and Aurukun are reliant on community access roads owned and managed by Cook Shire.

These roads are essential for adjacent local governments but deliver little benefit to residents of Cook Shire.



Jensen's Crossing Bridge Marrett



Distances from Musgrave Roadhouse on the Peninsula Developmental Road

Population growth and development

While population growth and development provides economic growth and opportunities for the region, it also results in transport challenges, particularly for the Cairns urban area where the majority of the population growth is likely to occur. With 64,000 more people living, and a commensurate number working, in the Cairns area by 2036, demand for the area's transport infrastructure will increase, especially if the population's reliance on private vehicle travel continues.



85.6% of all trips in Cairns were completed in a private vehicle, either as a driver (59.2%), or a passenger (26.4%)²⁶

To protect the liveability and productivity of the Cairns urban area, more trips need to be completed with sustainable travel modes, such as public or active transport, hence freeing up valuable road space for the efficient movement of goods and services.

Improving the attractiveness of public and active transport is essential in supporting a mode shift from private to public transport. Affordable, frequent and reliable services to where people want to go and delivering equivalent or better travel times, will improve the attractiveness of public transport over private vehicles.

Safe and direct active transport routes and end of trip facilities are important in attracting customers to walking and cycling. Locally, within and around some communities, dedicated pathways are limited due to safety implications resulting from pedestrian and heavy vehicle conflicts.

Planning and delivery of direct and high quality shared paths, cycle tracks and public transport corridors is an important step towards encouraging more trips by sustainable modes. Higher density infill development is planned around key centres and along key public transport routes to provide greater accessibility by walking, cycling and public transport. Higher density, mixed use, transit oriented development is proposed to reduce demand on roads and car parking and dependence on private vehicle trips.

An efficient network reduces the cost of congestion and its impact on work travel time, goods delivery time and overall transportation cost.

Far North Queensland's aging population

The region's overall percentage of people over 65 is lower, at 13.4 per cent, than Queensland's 14.4 per cent, but the variance of age profile across the region's local government areas is significant, with Tablelands (21.3 per cent), Etheridge (19.4 per cent), Cassowary Coast (18.5 per cent) and Mareeba (18.1 per cent).^{*} As the population ages the need to access health and community services increases, while the ability to independently access these services often decreases. In response, public and community transport services become increasingly important. Dispersed settlement and the distance between communities presents a challenge to meeting the needs of our aging population.

Providing access to affordable and available transport options

A transport system that supports the social and economic health of the region is designed around the knowledge that socio-economic factors intensify with distance and climatic challenges. The region includes a number of communities with high rates of unemployment, low vehicle ownership and low levels of education.

In the Far North Queensland region, 8 per cent of households are without a private vehicles compared to the Queensland average of 6 per cent. This figure does not give a clear picture at a local level because circumstances vary greatly across the region. Most households in the Savannah region have a private motor vehicle, with only 1.5 per cent of households without a vehicle. Of households in the Coastal Centres and Tablelands, 6.6 per cent are without a private vehicle. This is in contrast with the more remote communities in Cape York and the Torres Strait where vehicle ownership is very low, for example, 68 per cent of households in Aurukun Shire are without a private vehicle.^{*}

Well planned urban development is important in managing demand on the transport network. In Cairns, local area planning for emerging communities such as Mount Peter will provide housing for around 34,000 people, as well as industrial and commercial areas to supply jobs and activity centres. The aim is to achieve greater self-containment and a lesser dependence on the Bruce Highway, southern access commute to Cairns city.

²⁶ Department of Transport and Main Roads, 2014. Household Travel Survey Cairns

^{*} Population and employment statistics cited in this section are sourced from the Queensland Government Statistician's Office Regional Profiles for local government areas current as at September 2017. Population statistics for 2016 are based on Australian Bureau of Statistics. (2017). *Regional Population Growth, Australia (Catalogue No. 3218.0, various editions)*. Population statistics for 2036 are based on *Queensland Government Population Projections, 2015 edition* (medium series). Employment statistics are based on Australian Bureau of Statistics, *Census of Population and Housing, 2016, General Community Profile - G51* and unpublished data.

3.3 Opportunities

Broad economic opportunities

The transport network underpins opportunities for future growth and productivity of the region's key industry sectors – agriculture, mining and tourism.

The Far North Queensland region covers a number of sub-regions with varied regional and local economic drivers. Tourism, agriculture and mining are long-established industries. While growth and diversification within these industries will continue, new economic opportunities are offered by emerging industries such as education, tropical health and clean energy.

A transport system that supports economic development and diversification will help position the region for a strong and sustainable economic future. This will support growth in jobs, enable businesses to expand and support development of new economic opportunities for the region's residents. For rural and remote customers, this represents the ability to connect to other places, access employment, services and supplies, and to transport goods to market.

Urban areas are challenged with providing an integrated and connected transport system that caters for travel demands, and reduces the liveability and economic impacts caused by congestion. The effective prioritisation, coordination and management of transport infrastructure and operations will contribute to achieving an efficient and connected transport network.

Agricultural industry opportunities

Agriculture is one of the north's largest sectors, contributing \$1.4 billion to the regional economy in the year 2015–2016, and providing 5.3 per cent of employment in the region.^{27,28}

An increasing global population is driving an increasing global demand for food, fibre and other higher value products. The Far North Queensland region has some of the most efficient agricultural processing technologies in the world providing an excellent opportunity in leading the field in tropical development. The growth of Asian markets and their proximity to the Far North presents a particular economic opportunity for the region. The availability of suitable land provides significant potential for future growth in this sector. The Queensland Government has set a clear, ambitious target to double Queensland's agricultural production by 2040.

The region has a number of well-established agricultural areas including:²⁹

- The Lakeland Downs area supports small-scale horticulture and broad acre development. This area is approximately 250 kilometres north of Cairns, has reasonable road access all year and is a viable distance from markets. The area produces a wide range of minor crops including pasture cut for hay, barley, maize, sorghum, bananas, melons, limes, tropical fruit and passionfruit.



Lakeland farm

27 Trade and Investment Queensland. (2016). www.tiq.qld.gov.au/download/business-interest/about-queensland/qld-regional-market-profiles/TIQ-16-767-Regional-Overview_Cairns_final.pdf.

28 Queensland Government Statisticians Office. (2017). *Regional Profile Custom Region-9 August 2017*.

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

- The Mareeba Dimbulah Water Supply Scheme area, on the Atherton Tableland is mainly used for sugarcane, a wide range of vegetables, nuts and fruits. It has a reliable water supply, good quality soils and reasonably flat land for cropping development. The area is supported by a network of roads and adequate access to labour and is considered one of the richest and most diverse agricultural areas in the state. The Mareeba Shire Council upgrade of the Mareeba Airport is seen as an opportunity for the agricultural industry, with the potential addition of airfreight services and the ability to accommodate larger planes. This may allow additional or faster market access, both domestic and international, for high value products such as beef, dairy and high value horticulture.³⁰
- The coastal area, south of Cairns, has long-established crop production of bananas and sugarcane. The area is also beginning to diversify into growing pawpaws, tea, rambutans, pineapples, watermelon, pumpkins, lettuces, lychees, mangosteens, tomatoes and vanilla. In 2011, the Cassowary Coast local government area contributed 66 per cent of the state's production of fruit.³¹
- A strong cattle industry exists through the Cape, Gulf and Tablelands. Grazing livestock production in the Far North Queensland region accounts for 75 per cent of current land use.³² The area supports abattoirs located at Weipa, Tully and Tolga (on the Atherton Tablelands) and saleyards in Mareeba. Live export to Asian markets occurs out of the ports of Weipa, Karumba and Mourilyan. Exports from these ports have been limited due to bauxite export consuming port capacity in Weipa and insufficient channel depth in Karumba – requiring transshipment. Although cattle holding facilities have been established at Mourilyan the port is not regularly used for the export of cattle.
- The Department of Agriculture and Fisheries has endeavoured to diversify the Flinders Gilbert agricultural zone (Figure 5), from predominately grazing, into irrigated agriculture in two major Gulf river systems, the Flinders and Gilbert Rivers. The Gilbert River catchment is within the Far North Queensland region. According to Agriculture and Fisheries, the strategic location of this development allows produce to be delivered to national and international markets with easy access to ports and international airports via Townsville, Darwin, Cairns and Brisbane.³³

A large fishing industry also exists, supplying Asian and domestic markets with fresh and frozen products. The aquaculture sector produces prawns, barramundi and red claw crayfish for local markets.

The primary issue that the agricultural industry faces is access to markets, where time to market impacts product condition and cost. There is established infrastructure at the ports of Cairns, Weipa and Mourilyan and at Cairns Airport, however access to ports is limited by frequent road closures and poor road condition caused by the wet season. Safe and efficient links, including ports and land transport between producers and markets underpin the success of the agricultural sector. Access for seasonal workers is another key consideration for the growth of more intensive agriculture in the region.

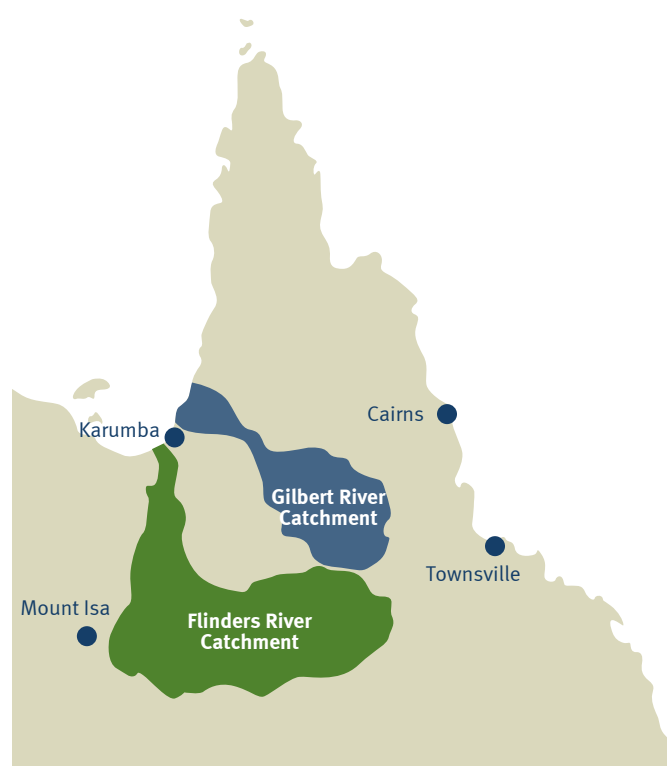


Figure 5: Location of the Flinders Gilbert agricultural area³³

³⁰ Department of Agriculture and Fisheries. (2015). *Queensland Agricultural Land Audit - Annual Addendum September 2015*.

³¹ Department of Agriculture and Fisheries. (2013). *Queensland Agricultural Land Audit: Far North Queensland*.

³² Ibid.

³³ Department of Agriculture and Fisheries. (2013) www.daf.qld.gov.au/business-trade/development/industry-development/flinders-gilbert-agricultural-zone/map-of-catchments.

Growth in tourism

The Far North Queensland region offers visitors a range of sights, experiences and accommodation choices. With state government seeking tourism growth of \$15 billion by 2020, the region is believed to be at the forefront of reaching this target.³⁴ Cairns is the gateway to the region including the Great Barrier Reef and Wet Tropics World Heritage areas and attracts the majority of domestic and overseas visitors due to its accessibility via Cairns Airport. In the 2015–16 financial year, Cairns Airport reported over 4.1 million domestic passenger movements and over 621,000 international passenger movements.³⁵

Further opportunity is provided by the region's proximity to Asia, along with Asia's growth in population and wealth. For the 12 months to August 2016, the international growth of Cairns Airport's Terminal One was 11.3 per cent. This was due to an increase of Chinese (up 89 per cent) and Japanese (up 8 per cent) travellers flying on direct international flights to Cairns during August.³⁶ This increase is largely due to the commencement, in December 2016, of seasonal direct flights to and from Seoul.

Cairns Port, Yorkeys Knob (providing access to the Cairns region for large ships), Port Douglas, Cooktown and Thursday Island provide for cruise ships of varying size and passenger numbers. The continued growth of the cruise industry would benefit from Cairns becoming a 'home base' for further cruise ships, and having better support for visiting cruise ships.

Currently, more than 80% of cruise ships built since 2008 are too large to access the Port of Cairns. Larger ships anchor two nautical miles from Yorkeys Knob, passengers are tendered to shore and transported by bus to the Cairns CBD. This impacts both the tourism experience and the economic benefit provided to the region with fewer passengers and crew disembarking during their stay.³⁸



In 2014–15 the cruise shipping market contributed over \$22 million in direct expenditure to the region's economy³⁷

The Cairns Shipping Development project proposes to accommodate an additional 70 cruise ships each year by 2031, with the dredging of the port facilitating access for mega cruise ships of up to 300 metres in length.

Self-drive tourism is also on the rise, with increasing numbers of grey nomads, caravans and recreational vehicles visiting the region.³⁹ The trend includes customers that travel long distances by road from other regions in Australia, and people that fly in and then drive to explore the area. The sealing of the Mulligan Highway in 2006 has seen tourist numbers travelling to Cooktown increase. A similar result is expected with the sealing of the Peninsula Developmental Road (PDR) ultimately to Weipa. Currently, exploring Cape York is limited to travellers driving a 4WD during the dry season. Sealing will improve accessibility for standard vehicles (including rental vehicles) and extend the tourist season.

Business tourism also plays a large part in the regional economy contributing \$100m directly to the Cairns economy and over \$350m to the wider tropical north region.⁴⁰ A rise in tourism numbers provides opportunities for tourism businesses such as ecotourism, wilderness experiences, adventure tourism activities, cycle events, Aboriginal and Torres Strait Islander cultural activities and sites, and coastal and outback tourism attractions, further increasing the attractiveness of the region as a tourist destination.

Queensland Tourism and Transport Strategy

The *Queensland Tourism and Transport Strategy* (QTTS) has been developed jointly by the Department of Transport and Main Roads and the Department of Innovation, Tourism Industry Development and the Commonwealth Games.

The QTTS details the Queensland Government's plan to improve access to our world class tourism destinations in an effort to enhance the visitor experience and grow the tourism industry.

Actions will be achieved through strong coordination and collaboration between government and industry to invest in infrastructure and services that enhance access and improve connectivity.

³⁴ Tourism and Events Queensland. (2012). *Tropical North Queensland Destination Tourism Plan*.

³⁵ Cairns Airport Corporation. (2016). www.cairnsairport.com.au/corporate/wp-content/uploads/sites/3/2014/04/CNS-June-2016-Passenger-Statistics.pdf.

³⁶ Ibid.

³⁷ Cruise Down Under. (2015). *Economic Impact Assessment of the Cruise Shipping Industry in Australia, 2014–15 Cruise Down Under Executive Summary September, 2015*.

³⁸ Ports North. (2014). *Cairns Shipping Development Project Draft EIS*.

³⁹ Ports North. (2017). www.portsnorth.com.au/pdfs/csdp/EISFactsSummary2017-July.pdf.

⁴⁰ Tropical North Queensland. (2010). *Tourism Opportunity Plan*.

Future development in mining and resource industry

A significant mining, energy and natural resources sector operates in the region. It is responsible for the production of many resources, including bauxite, kaolin, gold, tin, zinc, lead, silver, silica, marble, limestone, perlite and copper.⁴¹ Most of the region's mining and resource areas are located in Cook, Mareeba, Etheridge, Croydon and Tablelands Shires, with some mines also located throughout Cape York, most notably Rio Tinto Alcan's bauxite mining at Weipa.

The mining industry, not only delivers economic benefits to the region, it also provides economic opportunity for local communities. For example, Rio Tinto Alcan's Weipa operations has around 24 per cent of the workforce representing local Aboriginal peoples and invests in local community and recreational infrastructure and projects.⁴² The construction of the Amrun Project, 40 kilometres south of Weipa and 40 kilometres north of Aurukun, will secure ongoing operations in the area and see the delivery of a new port and ferry service between Weipa and the proposed mine.

Through improvement of the region's transport network the viability of mining and the opportunity to undertake further exploration is improved. Mining activities have potential for significant negative impacts on the road network. Impacts must be managed to ensure the network is safe for all users.

Growth of new and existing industries

Opportunities exist to further diversify the region's economy due to its location, workforce and environment.

Shipbuilding, maintenance and home porting

Ship building and maintenance is seen as a potential growth industry and will help to strengthen the position of Cairns as a major service centre location in South East Asia. Opportunity exists for shipbuilding, maintenance and home porting for defence, cruise shipping, private luxury yachts and general marine.

Tropical health and research

The Far North Queensland region has a very unique opportunity for investment and economic development in progressing innovation through a number of industries

targeted at developing countries within the tropics. As a developed country, within the tropical zone, this region of Australia is positioned to deliver targeted and field-tested products and services for export to other tropical economies.⁴³

With over 40 per cent of the world's population residing in this zone, there is a resounding need for specific health, agricultural, infrastructure, education, mining and disaster management initiatives to help developing countries.⁴⁴ The value of a tropical expertise product is set to significantly increase by 2025, projected to total US\$40 trillion with approximately 30 per cent being spent on importing goods and services.

The James Cook University campus in Cairns and research centre on Thursday Island are currently undergoing major construction works in developing new facilities specialising in Tropical Health and Medicine innovations.⁴⁵ The Australian Institute of Tropical Health and Medicine in Cairns is another facility within the region that will focus on tropical health and disease research and health worker training. Given that tropical diseases account for 10 per cent of the global disease burden, Far North Queensland is in an excellent position to be at the forefront in developing these innovations.

Education

Along with research and innovation, education is a growing industry for the region, particularly in Cairns. The James Cook University has recently completed the construction of on-campus student accommodation increasing the university's attraction for additional students, particularly from overseas. Central Queensland University established a new campus in Cairns with its first intake of international students in mid-2016.⁴⁶

Energy production

Large scale energy projects are proposed and underway across the region and include a combination of hydroelectric, solar and biofuel energy projects. Examples include the Kidston solar and hydro electricity project in Etheridge Shire Council, the Lakeland Solar and Storage Project in Cook Shire and the use of sugar cane waste to generate electricity. These projects will provide energy for the region and will decrease reliance on external energy production.

41 Queensland Government. (2015). *Business and Industry Portal: Cairns and the Far North*.

42 Rio Tinto Alcan. (2016). www.riotinto.com/aluminium/weipa-4732.aspx.

43 Australian Government. (2015). *Northern Australia White Paper*.

44 James Cook University Townsville on behalf of the State of the Tropics leadership group, 2014. *State of the Tropics Report* www.stateofthetropics.org/wp-content/uploads/SOTT-Single-Page-view-Section-1.pdf.

45 Australian Institute of Tropical Health and Medicine & Translation Research Facility. (2016). www.aithmtrf.jcu.edu.au/project/aithm-torres-strait.

46 Central Queensland University. (2016). www.cqu.edu.au/cqunews/stories/general-category/2015/cquni-on-the-move-in-cairns,-new-campus-open-from-monday.

Transport opportunities

Protecting future transport options

With much of the Far North Queensland region relatively unconstrained by urban development, there is the opportunity to protect transport corridors and provide infrastructure that will meet future industry and community needs. There are a number of significant infrastructure corridors that are currently preserved in the region including:

- Innisfail bypass
- Captain Cook Highway including Smithfield bypass
- Atherton bypass
- Mareeba bypass
- Cairns Transit Network.

Cairns Transit Network

The Cairns Transit Network will improve public transport in Cairns by giving public transport priority, either in separate transit lanes or on dedicated bus-only lanes (busways), separated from general traffic. The Cairns Transit Network will make it easier for people to move around Cairns on public transport, now and into the future. It will connect Cairns from Palm Cove to Gordonvale and the neighbourhoods in between. It will help make public transport an attractive alternative to traveling by car, ensuring faster, more frequent and reliable trips. Local area planning for emerging communities such as Edmonton and Mount Peter, includes sections of the Cairns Transit Network which will provide high quality public transport connections to cater to the population growth expected in this area. It is a long-term vision for the future of Cairns and is planned to be built and opened in stages.



Passengers at James Cook University bus station

Improved social outcomes

The transport system can help improve social outcomes by providing more reliable and accessible travel options, particularly between remote communities and service centres, and between areas with strong social connections.

Initiatives to improve affordability of air services to major centres, such as the Local Fares Scheme pilot, promote and maintain social connections across the region contributing to individual and community well-being.

Transport and Main Road's *Disability Service Plan 2017–2020* (Disability Service Plan) aims to improve the accessibility of our transport network, making it easier for everyone, including people with disability, to participate in our community.⁴⁷

The actions of the Disability Service Plan that can be partially delivered through the *Far North Queensland Regional Transport Plan* include:

- Continue to make the Queensland public transport network more accessible for people with disability and those with limited mobility.
- Continue to implement Transport and Main Road's *Disability Action Plan – Improving Access 2017*.
- Develop a new disability action plan to demonstrate Transport and Main Road's commitment to making the passenger transport network more accessible for people with disabilities and those with limited mobility.
- Review current online service offerings and implement changes to increase accessibility of information and services provided to customers and employees with disability.

There are a number of communities in the Cape and Torres Strait that have low levels of car ownership and low life expectancy. Quality of life and health may be improved in these communities through the provision of a network of direct and practical walk and cycle paths. Facilitating walking and cycling in Aboriginal and Torres Strait Islander communities, in cooperation with local government, will help to achieve the all Australian governments, Closing the Gap commitment—to achieve Aboriginal and Torres Strait Islander health equality within 25 years.⁴⁸

⁴⁷ Transport and Main Roads. (2017). www.tmr.qld.gov.au/Travel-and-transport/Disability-access-and-mobility/Disability-Service-Plan.aspx.

⁴⁸ Australian Indigenous HealthInfoNet. (2017). www.healthinfonet.ecu.edu.au/closing-the-gap/key-facts/what-is-closing-the-gap.

Liveability

Liveability is a measure of the amenity, of the natural and built environments, economic prosperity, social stability and equity, accessibility, educational opportunity as well as cultural, entertainment and recreational possibilities.

The liveability of communities across the Far North Queensland region varies, with 35.9 per cent of the population considered to be the most disadvantaged Queenslanders when considering income, education, unemployment rates and motor vehicles ownership.⁴⁹ The proportion of disadvantage is particularly high in the Cape York communities with 70.2 per cent of the population being within the most disadvantaged group, and the Torres Strait with 78.2 per cent. Access to essential services and employment opportunities are fundamental to liveability in these areas.

Transport is an essential part of liveability. Providing convenient and accessible connections to where people want to go is the underlying objective of the transport network.

With the population of the Far North Queensland region expected to increase by 60,248 in 2031 (47,375, or almost 80 per cent of which is in the Cairns area) the opportunity exists to manage land use, transport planning and the impacts of growth in a way that protects the lifestyle of those living in the region.

For urban areas, congestion levels and the availability of public transport and active transport influence the perception of whether or not a community is liveable. Traffic network congestion has a negative impact with more time spent travelling resulting in less business and leisure time, delays in delivering goods and services, and added pressure to business and household budgets. Public transport and active transport can improve urban amenity, provide greater travel choice, affordability and independence, and reduce the land needed for roads and parking, and reduce greenhouse gasses.

Active transport infrastructure is also important in promoting an active and healthy lifestyle. This infrastructure also has a role in connecting the region's attractions, and providing events that are a drawcard for tourists.

Sustainability is an important consideration. It ensures that meeting the region's transport needs now, does not compromise future generations or adversely affect the region's natural values. Sustainable development and operation of the transport system supports both liveability and the economy. Protecting natural values is important to the community and to the ongoing success of the region's tourism industry.

Transport and climate change

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

- The future should be powered by clean and renewable energy and technology.
- We need low-carbon construction, infrastructure and transport systems.
- Key opportunities are in renewable energy, battery and power storage, cleaner technologies and electric vehicle industries.
- Improve public transport systems to be low-emission, well maintained, affordable, reliable, frequent and integrated.⁵⁰



Aerial view of Cardwell after Cyclone Yasi

⁴⁹ Queensland Statisticians Office. (2016). *Queensland Regional Profiles (custom region- Far North Queensland)*.

⁵⁰ Department of Environment and Heritage. (2016). www.ehp.qld.gov.au/assets/documents/climate/qld-climate-transition-strategy.pdf.

Mode shift to public transport

Public transport, mostly in the form of urban bus services, is available in the urban areas of Cairns and Innisfail. Initiatives to improve customer experience for current services aims to attract more trips to public transport, reduce pressure on the broader transport network, and improve the viability of public transport operations. Encouraging sustained growth in public transport mode share provides the opportunity for future enhancement of public transport services and infrastructure, further improving the convenience and comfort for public transport users.

Protection of future public transport needs can be achieved through corridor preservation, for example the Cairns Transit Network, facilitating direct and prioritised connections for public transport in the future.

Advances in technology

Communication and information technology provides the opportunity for communities in the Far North Queensland region to better connect socially and economically. There is potential to use advancements in technology to provide real-time road condition information, alternative routes and better communication services in emergency situations thereby improving the resilience of the road network. Mobile coverage is essential to realise this potential, and has the added benefit of helping to attract and retain staff in remote area.

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

Using communication technologies to remotely access health and professional services negates the need to travel.

Sustainability assessments

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

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 policy decision, to build preparedness and maximise opportunities.

Priority cycle network

Priority cycle networks have been identified in the *Principal Cycle Network Plans* across the Far North Queensland region (Figure 6). The most extensive networks of cycle trails are committed in Cairns, the region's principal activity centre.

Ongoing implementation seeks to:

- achieve a mode shift to active transport
- provide viable alternatives to private vehicle travel, particularly during peak demand periods
- support healthier lifestyles
- improve economic opportunities such as cycle tourism.

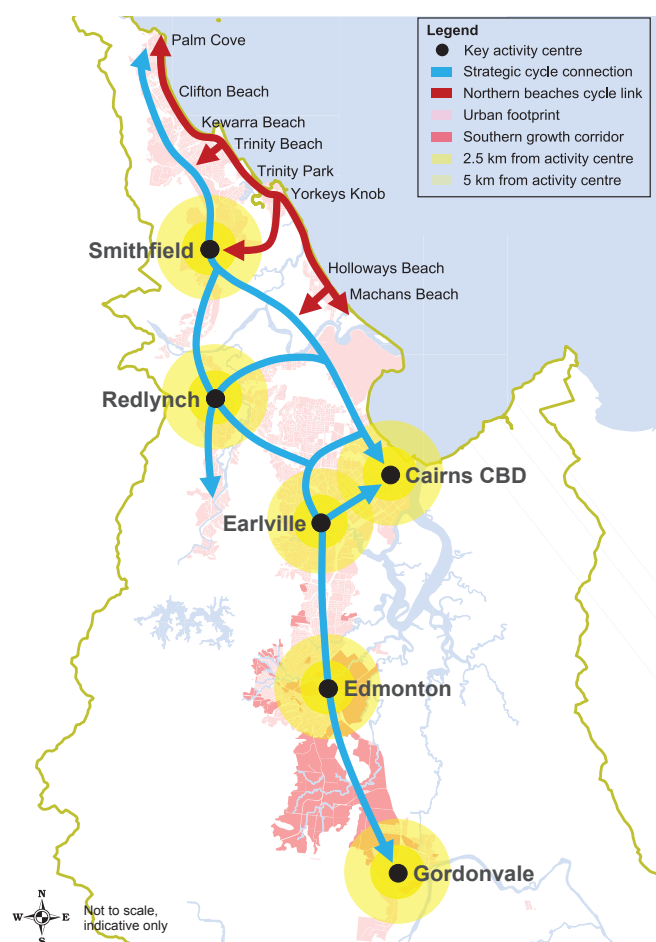


Figure 6: Strategic cycle network for Cairns, Far North Queensland Principal Cycle Network

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 intelligent transport systems. 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 trialling the technology with heavy vehicles in the Illawarra area. Heavy vehicles fitted with the technology receive safety messages about upcoming hazards and potential crashes.

Messages include:

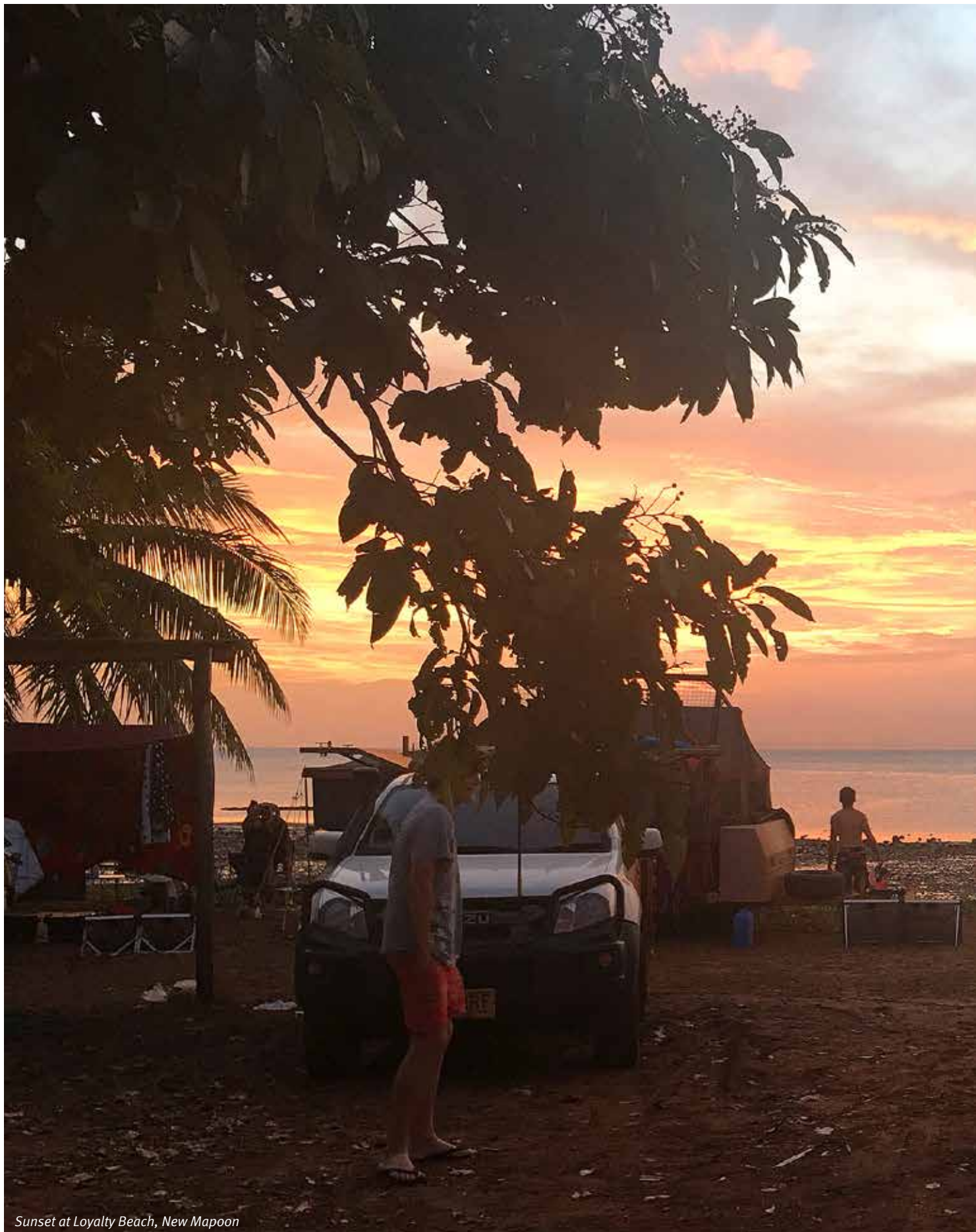
- intersection collision warning
- forward collision warning
- heavy braking ahead warning
- traffic signal phase information
- speed limit information
- location and availability of rest areas.

Crumb rubber asphalt thickness reduction

The Department of Transport and Main Roads is partnering with ARRB Group Research to deliver better technology and road transport solutions for the people of Queensland. The program is researching opportunities to reduce asphalt thicknesses, while maintaining quality. Work is done in collaboration with the Department of Environment and Heritage Protection and Tyre Stewardship Australia to research the use of crumb rubber in binder seals and open graded asphalt. Trialling the use of crumb rubber (from waste tyres) in seals and open graded asphalt. During the 2017–2018 financial year the department has used crumb rubber modified binder on two major research projects leading to project savings of approximately \$170,000 and recycled an estimated 40,000 tyres.⁵¹



⁵¹ Department of Transport and Main Roads. (2016). *Annual Report 2015–2016*. www.publications.qld.gov.au/dataset/annual-report-2015-2016-transport-and-main-roads, p101.



Sunset at Loyalty Beach, New Mapoon

4. Priorities and actions



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

- **Priority 1:** A safer, more resilient transport network
- **Priority 2:** Transport that supports the economy
- **Priority 3:** Connected, liveable and sustainable communities
- **Priority 4:** Better coordination of transport infrastructure and services

Actions are identified under each of the priorities. These are grouped into short-term and medium/long-term. Short-term actions identify the first steps needed to achieve the transport objectives and regional goals over the indicative 15-year life of the Plan. Medium/long-term actions identify possible responses to emerging or potential future transport planning needs. Actions will be reviewed and updated periodically as part of the implementation, monitoring and review process described in Chapter 5.

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

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

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

Table 4 shows the relationship framework linking priorities, objectives and measures of success.



Laura Aboriginal Dance Festival 2017

Table 4: Relationship between priorities, transport objectives and measures of success

TRANSPORT SYSTEM The safety of all transport system customers is our primary priority as we create a single integrated transport network accessible to everyone.				
RTP PRIORITIES	PRIORITY 1 A safer, more resilient transport network	PRIORITY 2 Transport that supports the economy	PRIORITY 3 Connected, liveable and sustainable communities	PRIORITY 4 Better coordination of transport infrastructure and services
	Improve the safety, and resilience of the transport system and communications network throughout the Far North Queensland region.	Develop a transport system that supports economic growth and diversification in the Far North Queensland region.	Develop an integrated and accessible transport system to support connected, liveable and sustainable communities.	Find better ways to prioritise, coordinate and manage transport infrastructure and operations.
ROLE OF TRANSPORT	Responding to the challenges of: <ul style="list-style-type: none"> improving road, rail and maritime safety climate change, extreme weather and annual wet season impacts competing needs of different road users. 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 identify and target resilience issues reduce repair and rehabilitation costs improve reliability and access improve connectivity. 	Responding to the challenges of: <ul style="list-style-type: none"> moving freight efficiently managing growth network efficiency and reliability. And opportunities for: <ul style="list-style-type: none"> growth and productivity in key industries – agriculture, tourism, resources and education facilitating new industries 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 understand and respond to the travel needs of the tourism market. 	Responding to the challenges of: <ul style="list-style-type: none"> population growth and changing needs improving public transport competitiveness providing affordable and accessible transport to all. And opportunities for: <ul style="list-style-type: none"> improved social outcomes better use of existing infrastructure advances in technology sustainable transport. By taking action to: <ul style="list-style-type: none"> plan places so they are easy to move 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 support economic and social development across the region. 	Responding to the challenges of: <ul style="list-style-type: none"> cross boundary infrastructure investment prioritising between urban and remote demands. And opportunities for: <ul style="list-style-type: none"> an integrated transport system that caters for all users and manages demand equitable transport infrastructure development in remote areas to maximise access to services and freight routes. By taking action to: <ul style="list-style-type: none"> work together to overcome regional challenges for design, and delivery of transport infrastructure and services.
TRANSPORT OBJECTIVES	1.1 Develop a transport network that allows customers to travel safely. 1.2 Ensure customers are aware of potential hazards and can make informed decisions about their travel options. 1.3 Develop a more resilient and reliable transport system through disaster response strategies and infrastructure improvements.	2.1 Optimise supply chains to efficiently link producers, distributors and consumers on an integrated network. 2.2 Realise the tourism potential of the region by improving tourism accessibility with a focus on the self-drive market.	3.1 Develop a transport system that connects customers to jobs, schools, shops and services by a range of transport options. 3.2 Manage congestion in urban areas. 3.3 Create a transport system that is compatible with the natural values of the region and lifestyle.	4.1 Achieve more efficient transport planning and delivery, with a greater focus on partnerships.
	<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 region's tourism 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. 	<ul style="list-style-type: none"> Formation of partnerships in transport planning and delivery projects

4.1 Priority 1: A safer, more resilient transport network

Improve the safety and resilience of Far North Queensland's transport system and communications network.

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
- regional planning objectives that support the safe movement of goods and people, by all modes and at all times.

Road safety has many dimensions and includes road conditions as well as driver behaviour. *Safer Roads, Safer Queensland – Queensland's Road Safety Strategy 2015–21* and the *Heavy Vehicle Safety Action Plan 2016–18* both identify the importance of safety across a range of factors including roads and roadsides, vehicles speeds and human behaviour.

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.

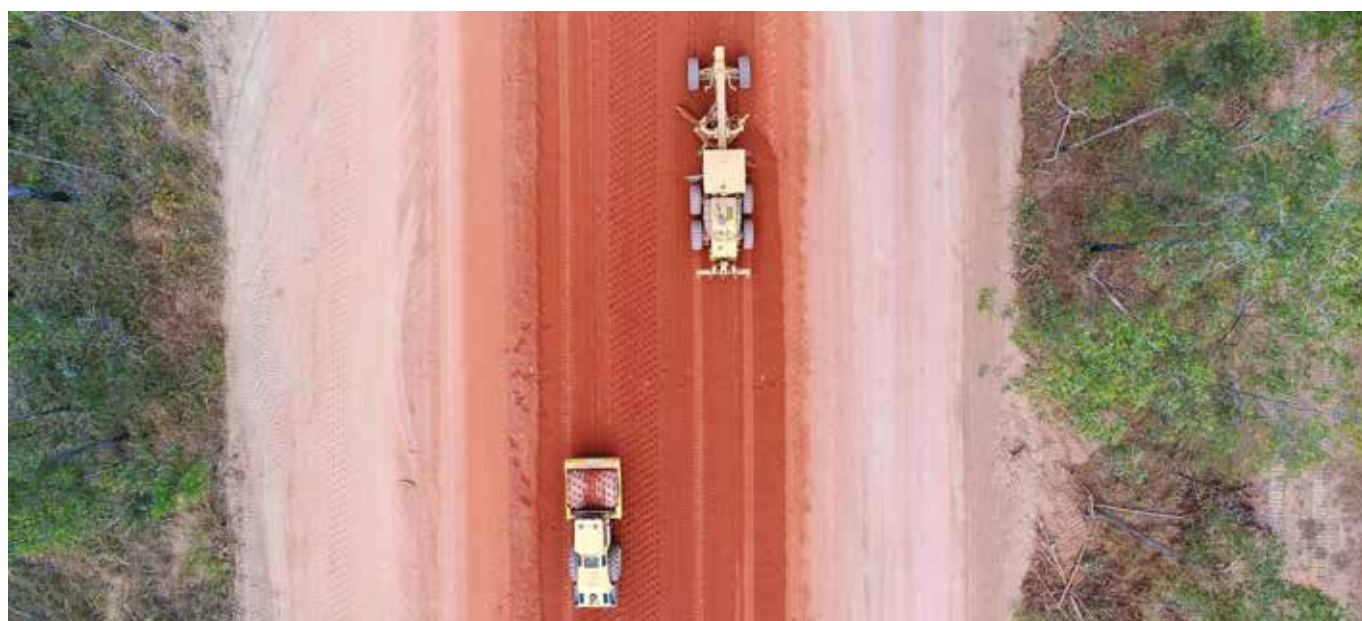
Examples of initiatives that support and encourage safety include:

- rest areas to mitigate driver fatigue
- way-finding to promote legibility on the roads
- wide centreline treatment to reduce the risk of head-on crashes.

Improving resilience and safety in the Far North Queensland region 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 rest area provision or upgrades where most needed to reduce driver fatigue.



Grader and roller on Aurukun Access Road

Transport objectives and measures of success

Objective 1.1: Develop a transport network that allows customers to travel safely.

Identifying and managing transport safety risk is an essential part of working towards zero deaths, and reducing trauma on the Far North Queensland region's roads, rail networks, pathways and waterways. Personal safety is an equally important aspect of improving conditions 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
- achieve a greater sense of personal safety for our customers.

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 about 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 and reliable transport system through disaster response strategies and infrastructure improvements.

The frequency and duration of closures of roads, ports, airports and pathways can have a considerable impact on freight transport, local businesses, visitors, travellers and residents, particularly for remote customers. Network closures occur annually and can be lengthy. They cost industry money, disconnect residents and inconvenience visitors and travellers. 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.

Summer wet season events and cyclones can't be avoided, but more resilient infrastructure, and better management systems and response times can reduce their impacts on the region's transport network. Developing a more resilient and reliable transport system will:

- reduce the frequency and duration of road closures thereby reducing disruption to supply chains, service delivery and commercial activity
- improve transport options for our customers and protect the economic function of the region
- improve access to essential services, including emergency services, during and immediately after extreme weather events
- improve network safety
- reduce the cost of disaster recovery and repairs to the transport system.

Queensland Traffic Reporting Service

This service reports on flood and road conditions, mainly in Queensland's rural areas. Automated flood-warning systems are being trialled in the Far North Queensland region, using river height gauges. The system alerts district Transport and Main Roads officers and traffic managers via email and SMS.⁵²

⁵² Department of Transport and Main Roads. (2016). www.tmr.qld.gov.au/business-industry/Road-systems-and-engineering/Innovation.

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*.	TMR	✓	✓	
	Number killed or seriously injured in marine incidents per 10,000 registered vessels.	TMR	✓	✓	
Reduced frequency and duration of unplanned closures.	Total frequency and duration of unplanned closures on the transport network.*	TMR			✓

* State-controlled roads



Flooded causeway McLeod River, Mulligan Highway

Actions

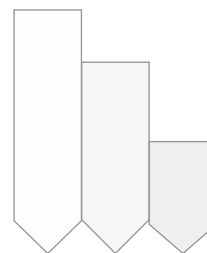
PRIORITY 1: A SAFER, MORE RESILIENT TRANSPORT NETWORK

OBJECTIVES

Objective 1.1: Develop a transport network that allows customers to travel safely.

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

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



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. Focus areas include priority intersection upgrades across the regional state-controlled road network, rural intersection improvements, progressive sealing of developmental roads and implementation of High Risk Roads priority safety treatments.	✓		
A1.02 Bruce Highway – Cairns southern access Continue planning and implementation for the staged delivery of the Cairns Bruce Highway Upgrade Master Plan to improve safety, capacity and resilience of the Bruce Highway south of Cairns.	✓		
A1.03 Safety of range roads Investigate innovative solutions (for example Intelligent Transport Systems) to address increasing traffic demand and improve safety on range roads where topography limits the safety treatments available. Key range roads in the region include the Kennedy Highway (Kuranda Range), Gillies Range Road, Pine Creek-Yarrabah Road, Palmerston Highway and Mossman-Mount Molloy Road (Rex Range).	✓	✓	✓
A1.04 Overtaking lanes and wide centreline Continue to assess and prioritise the need for additional overtaking lanes and wide centreline on key road corridors throughout the region, including: <ul style="list-style-type: none"> in high priority locations such as between Kuranda and Ravenshoe on the Kennedy Highway through continued roll-out of overtaking lanes identified under the Bruce Highway Upgrade Program as part of treatments identified under High Risk Roads planning. 	✓		
A1.05 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 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.	✓	✓	
A1.06 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"> the Atherton Tablelands heavy vehicle network the region's developmental roads heavy vehicle rest stops and decoupling facilities at key locations, for example in the Cairns city area and west of Kuranda. 	✓	✓	✓

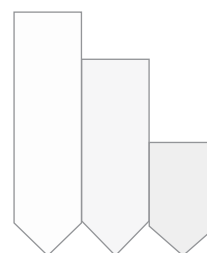
PRIORITY 1: A SAFER, MORE RESILIENT TRANSPORT NETWORK

OBJECTIVES

Objective 1.1: Develop a transport network that allows customers to travel safely.

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

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



Actions – short-term	1.1	1.2	1.3
A1.07 Rail crossing safety Continue to improve safety at rail level crossings and cane rail crossings through initiatives such as reducing the number of open level crossings, improving infrastructure and exploring new technology to align with the <i>National Railway Level Crossing Strategy 2017–2020</i> . Rail crossing safety is a key consideration in Cairns Bruce Highway Upgrade projects and the Munroe Street (Babinda)/Bruce Highway intersection upgrade.	✓		
A1.08 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. This includes education relating to maritime safety and continuing the Torres Strait Maritime Safety Program and Torres Strait Maritime Pathways Project.	✓	✓	✓
A1.09 Tourist safety Undertake planning to improve safety and customer experience on tourist routes such as the Great Inland Way, the Pacific Coast Way, the Great Tropical Drive and the Savannah Way, through initiatives such as signage, and targeted communication about safe driving in Far North Queensland. This includes 'keep left' initiatives, delivered in partnership with local government, which uses line marking and signage to remind overseas tourists to drive on the correct side of the road.	✓	✓	
A1.10 Personal security Work with local government to assess and mitigate risks to personal security when designing passenger transport stops, stations and terminals in addition to pathways. For instance, improved lighting and passive surveillance as part of the planned Raintrees Bus Stop upgrade will contribute to improving personal security. For existing infrastructure, undertake an audit of safety 'hot spots' and consider treatments, which adopt Crime Prevention Through Environmental Design (CPTED) principles to improve personal safety.	✓	✓	
A1.11 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, including through studies such as the Cape York Access Strategy, and for priority locations such as Spear and Rifle Creek at Mount Molloy, McLeod River bridge (Mulligan Highway) and Archer River (PDR).	✓	✓	✓
A1.12 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. Consider potential applications for other key links throughout the region, to assist in the management of traffic operations.	✓	✓	
A1.13 Mobile and internet blackspot 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, particularly in remote areas.	✓	✓	✓

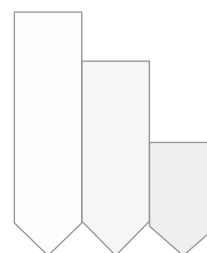
PRIORITY 1: A SAFER, MORE RESILIENT TRANSPORT NETWORK

OBJECTIVES

Objective 1.1: Develop a transport network that allows customers to travel safely.

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

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



Actions – short-term	1.1	1.2	1.3
A1.14 Technology Identify opportunities to improve communication infrastructure and increase the use of innovative technology, for example, traffic monitoring, road condition monitoring, provision of real-time information on closures and improved staff safety by using drones for culvert inspections in crocodile habitat.	✓	✓	✓
Actions – medium/long-term	1.1	1.2	1.3
A1.15 Cross-agency solutions to infrastructure betterment Collaborate with federal and state agencies to explore opportunities to coordinate disaster and reconstruction funding with investment into preventative infrastructure to improve resilience, reduce on-going maintenance costs and cater for the region's changing climate.			✓
A1.16 Wildlife collision avoidance Investigate mitigation and intervention strategies and the use of technology to reduce the risk of wildlife-to-vehicle collisions, including for example, with cassowaries, livestock and kangaroos.	✓	✓	
A1.17 Information capture Investigate opportunities to improve the way information is captured and shared between Transport and Main Roads and emergency management agencies to facilitate more responsive planning and operations.	✓	✓	✓
A1.18 Scenario planning for the longer term Commence long-term planning for scenario changes, such as rising sea levels, more frequent and extreme weather events, and water security. Incorporate strategic recommendations into updates of transport network plans.			✓



Signage on Mission Beach Road, Mission Beach



Signage alerting drivers of kangaroos

Benefits of sealing roads in the Far North Queensland region⁵³

If a whole of life cost analysis was adopted for evaluating roads in the Far North Queensland regions and other relevant Queensland regions, a greater portion of roads could be sealed, thereby reducing the financial burden on the road operator, providing economic benefits to the region and reducing calls for National Disaster Relief and Recovery Arrangements (NDRRA) funding over the long term.

It can be more expensive to construct or rehabilitate a sealed road, however a sealed road often requires less frequent repair and is more resilient to flood damage. Progressive sealing of roads in the Far North Queensland region could result in significant cost savings over a short-term period, providing more resilient infrastructure, reducing maintenance costs, and resulting in significant economic and social benefits across the regions. The table below outlines the potential benefits associated with whole-of-life costing and subsequent road sealing in the Far North Queensland region.

A key example is the Cape York Region Package for sealing sections of the Peninsula Developmental Road, Endeavour Valley Road and community infrastructure works identified by the Cape Indigenous Mayors Alliance.

Benefits of this program are improved access to Cape York for freight, tourists and other road users, improved safety, reduced ongoing road maintenance costs, improved community infrastructure, employment and training and business development opportunities for indigenous and non-indigenous people.



Sealing works Peninsula Developmental Road, near Archer River 2017

Road operator benefits:	Economic benefits:	Social benefits:	Environmental benefits:
<ul style="list-style-type: none"> ■ more resilient infrastructure ■ reduced damage from road trains, especially when the road base is saturated ■ reduced cost to source and haul road aggregate to repeatedly repair flood damage ■ reduced annual maintenance costs ■ reduced flood repair and rehabilitation. 	<ul style="list-style-type: none"> ■ reduced travel time ■ improved road access ■ increased productivity ■ increased freight capacity ■ reduced vehicle maintenance costs. 	<ul style="list-style-type: none"> ■ reduced isolation for remote aboriginal and pastoral communities ■ enhanced opportunities for wealth creation via more reliable transport links to local enterprise ■ improved access for freight and produce, permitting farmers to better capitalise on seasonal market prices ■ improved road safety, resulting in fewer crashes, injuries and fatalities. 	<ul style="list-style-type: none"> ■ reduced pollution from unsealed road aggregate washing into nearby waterways ■ decreased damage to flora and fauna due to a decreased need to access aggregate for the repair of unsealed roads ■ reduced air pollution from hauling aggregate to work sites.

⁵³ Alan Stanton. (2014). *Sealing the Case for Change*.

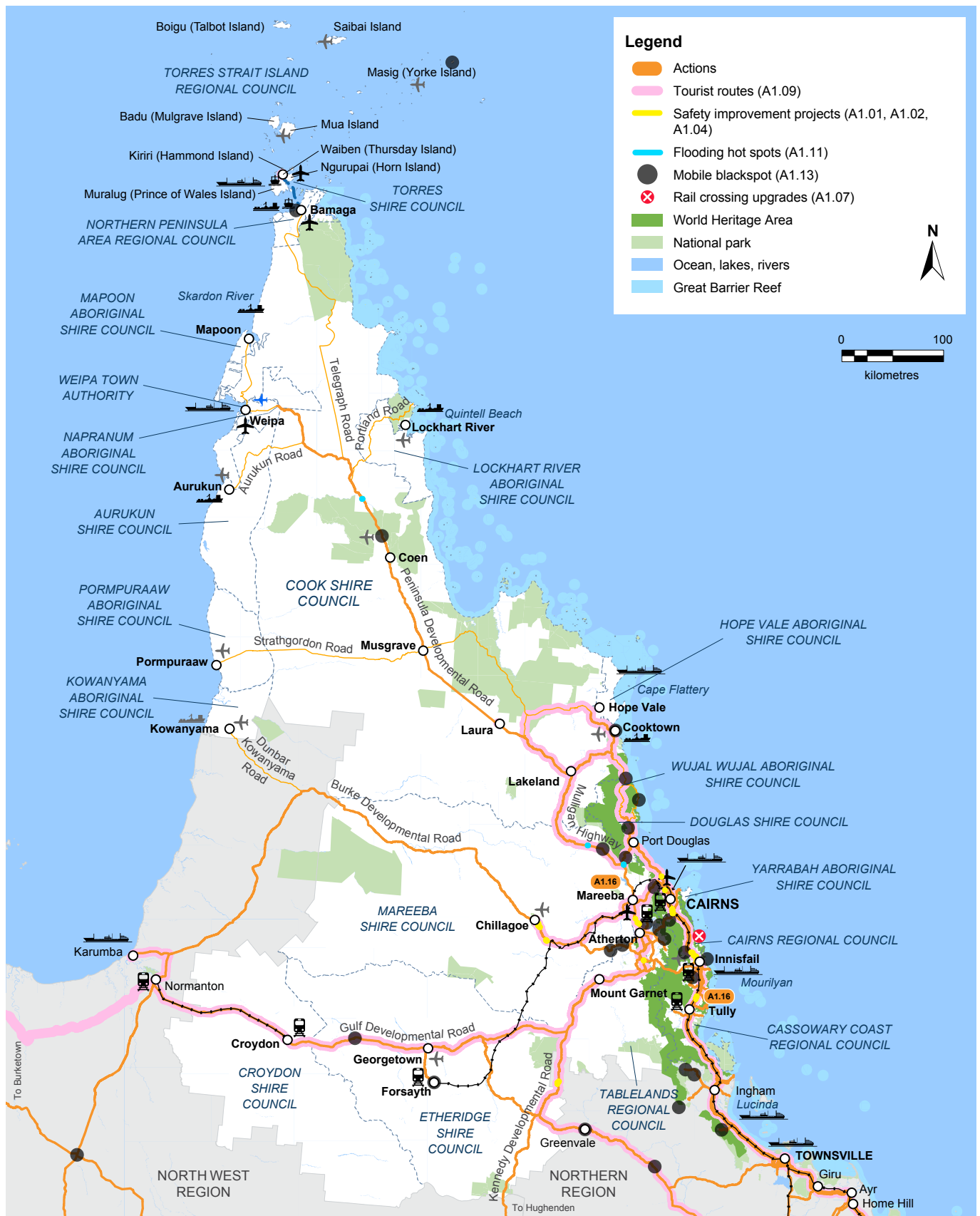


Figure 7: Priority 1 region map

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

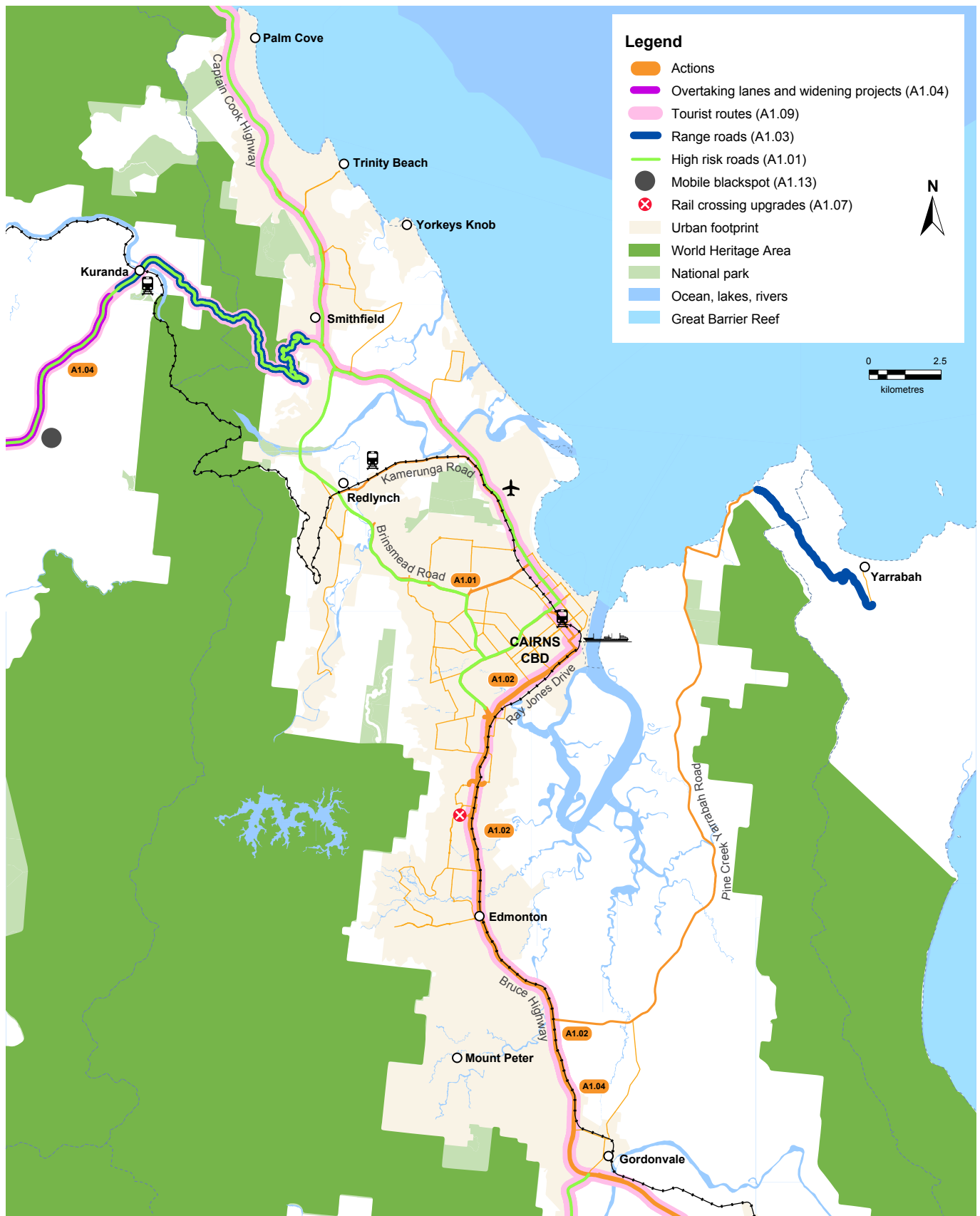


Figure 8: Priority 1 Cairns map

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 supports economic growth and diversification.

Economic productivity and growth is essential for the Far North Queensland region's prosperity particularly in relation to sustaining employment for strong communities. Transport has a central role in supporting the economic function of the region. The transport network is required for an efficient and reliable supply chain that underpins the productivity of the Far North Queensland region. The role of the transport network in supporting the economy extends beyond its freight and commercial transport function. The Far North Queensland region covers a number of sub-regions with varied regional and local economic drivers—tourism, agriculture and mining being long-established industries. While growth and diversification within these industries will continue, emerging industries such as education, tropical health and expertise and clean energy offer new economic opportunities.

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
- the common theme across the four regional land use plans for 'economy'—transport that facilitates the growth of key industries, and the efficient movement of people and goods for increased regional competitiveness and productivity.



Sugar cane train, Tully

Transport objectives and measures of success

Objective 2.1: Optimise supply chains to efficiently link producers, distributors and consumers on an integrated network.

The efficient movement of goods between producers, manufacturers and customers is important for the future growth of the Far North Queensland region's economy. Resilience is a significant issue in the region, impacting network reliability and therefore efficiency of the transport network. Resilience is addressed in Priority 1. The other aspect of efficiency is ensuring entire routes, regardless of ownership, provide for high productivity freight vehicles, and, in addition, cater to all users of the system and provide reliable travel times.

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

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

Objective 2.2: Realise the tourism potential of the region by improving tourism accessibility with a focus on the self-drive market.

The way visitors access the region's attractions is part of their overall experience. Ease of access, feeling safe on the journey, wayfinding signage and information, and access to high quality facilities are all part of a positive experience. This is relevant for all transport modes. Aspects impacting on the quality of self-drive tourism experiences include rest stops, the standard of the road network, their ability to safely interact with heavy vehicles and the provision of scenic lookouts.

Realising tourism potential through improvements to the transport system will:

- help strengthen the tourism industry by making it convenient, safe and easy to access
- make experience destinations and touring routes more accessible
- improve boating, air, road, passenger and rail infrastructure, and associated services that are integral to the viability and success of the tourism industry.

Improving cattle industry productivity in the Far North Queensland region

Ootann Road provides a north-south link between the Burke Developmental Road and Kennedy Highway. The majority of the road is unsealed, with poor vertical and horizontal geometry, and has a high proportion of heavy vehicle and livestock traffic including Type 2 (larger) road trains. The Northern Australian Beef Roads Program includes funding for sealing key sections of Ootann Road. The project will deliver the following improvements to the cattle supply chain⁵⁴:

- improved productivity and travel times by sealing unsealed sections of road
- improved accessibility for all road users
- improved road safety by upgrading road quality
- reduced damage and stress to livestock by increasing the sealed length of the link and reducing the overall roughness of the link
- reduced road closures during the wet season
- reduced whole-of-life asset management costs by strengthening and widening pavements to reduce accelerated road wear and damage by heavy vehicles.

⁵⁴ Australian Government. (2016). www.investment.infrastructure.gov.au/projects/ProjectDetails.aspx?Project_id=067229-16QLD-NAB.

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 (state-controlled roads and national highways).	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		✓

Actions

PRIORITY 2: TRANSPORT THAT SUPPORTS THE ECONOMY

OBJECTIVES

Objective 2.1: Optimise supply chains to efficiently link producers, distributors and consumers on an integrated network.

Objective 2.2: Realise the tourism potential of the region by improving tourism accessibility with a focus on the self-drive market.

Actions – short-term

2.1 2.2

A2.01 Strategic corridors

Undertake strategic corridor planning to support supply chains, regional productivity and access to markets. Core priorities for strategic corridor investigations are:

- Palmerston Highway linking Port of Mourilyan and Innisfail to the Tablelands and beyond
- Kennedy Highway linking key freight generators and population centres between Cairns and Mareeba
- potential extension of the National Land Transport Network (Bruce Highway) to connect with the Cairns International Airport.

A2.02 Road hierarchy

Review network vision standards ensuring the regional road hierarchy considers purpose, function, and different user needs. The review will inform future planning and design of road upgrades to support economic growth and manage congestion. Review of Cairns' urban network functional hierarchy is a high priority and will include consideration of capacity upgrades and network optimisation solutions.

A2.03 Far North Queensland multi-modal freight strategy

Develop a multimodal freight strategy to identify and prioritise productivity and safety improvements throughout the region in response to state-wide freight and heavy vehicle network strategies. This will consolidate and integrate existing planning for the region's ports, airports, rail terminals, freight routes and hubs, and primary production areas (agriculture and mining).

A2.04 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, including road widening and heavy vehicle roadside facilities.

PRIORITY 2: TRANSPORT THAT SUPPORTS THE ECONOMY**OBJECTIVES**

Objective 2.1: Optimise supply chains to efficiently link producers, distributors and consumers on an integrated network.

Objective 2.2: Realise the tourism potential of the region by improving tourism accessibility with a focus on the self-drive market.

Actions – short-term**2.1****2.2****A2.05 Reducing road freight transport costs**

Investigate opportunities to support industry use of high productivity vehicles (HPVs) including improving the continuity of the HPV network and investigating better connectivity for freight transport between Cape York, Atherton Tablelands, Gulf-Savannah, coastal ports and southern markets.

✓

A2.06 Industrial access

Work with local government, the private sector and other government agencies to provide an appropriate level of access to industrial areas at existing and proposed new industrial areas and transport industry hubs at Mareeba, Innisfail and South of Cairns.

✓

✓

A2.07 Bridge renewal

Using the outputs of regional bridge renewal investigations, commence planning for necessary bridge replacements or structural enhancements, including strengthening of the Mulligan Highway bridges at Kelly St George River, Spear Creek (near Mt Molloy), Spring Creek and Palmer River, and bridge replacements at Spear (near Palmer River) and Rifle Creeks and Archer River.

✓

✓

A2.08 Supporting self-drive tourism

Undertake a regional transport needs analysis to understand the travel needs of tourists and visitors, and strategic opportunities to inform initiatives and programs such as Drive Tourism, Tourism and Transport Connections, Natural Attractions and State Strategic Touring Route Signage Program.

✓

A2.09 Cruise ship industry

Investigate opportunities for the region to support a growing cruise ship industry, including improvements in port-to-destination customer experience, and considering the outcomes of the Cairns Shipping Development Project.

✓

A2.10 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 Ironman Asia Pacific Championship and UCI Mountain Bike World Championship, while minimising disruptions to the transport network.

✓

A2.11 Strategic outlook for mining

Position the region's transport authorities to efficiently respond to development and diversification in the mining and resources industry, particularly from the North East Minerals Province and in western Cape York.

✓

A2.12 Supporting local employment opportunities

Develop a local employment plan for transport infrastructure projects (planning and construction) to increase benefits of road projects to local communities and enhance local skills and employment opportunities.

✓

A2.13 Future road corridors

Plan and protect future road corridors including the Mareeba, Atherton, Smithfield and Innisfail bypass corridors.

✓

PRIORITY 2: TRANSPORT THAT SUPPORTS THE ECONOMY

OBJECTIVES

Objective 2.1: Optimise supply chains to efficiently link producers, distributors and consumers on an integrated network.

Objective 2.2: Realise the tourism potential of the region by improving tourism accessibility with a focus on the self-drive market.

Actions – medium/long-term

2.1

2.2

A2.14 Food miles

Work with stakeholders to develop a 'food miles' strategy which aims to minimise the unnecessary transportation of fresh produce that results from the central distribution systems of large retailers, and to increase community resilience during wet season and post-disaster isolation.

✓

A2.15 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.

✓

✓

A2.16 Innisfail freight network

Improve road access between the Palmerston Highway and the Port of Mourilyan, and through the township of Innisfail including as part of the Innisfail Bypass – Plan and Preserve Corridor project.

✓

A2.17 More competitive rail to maximise use

Investigate options to improve the price competitiveness of rail freight as a potential means to encourage greater use of the spare capacity on the rail network.

✓



Cape Flattery

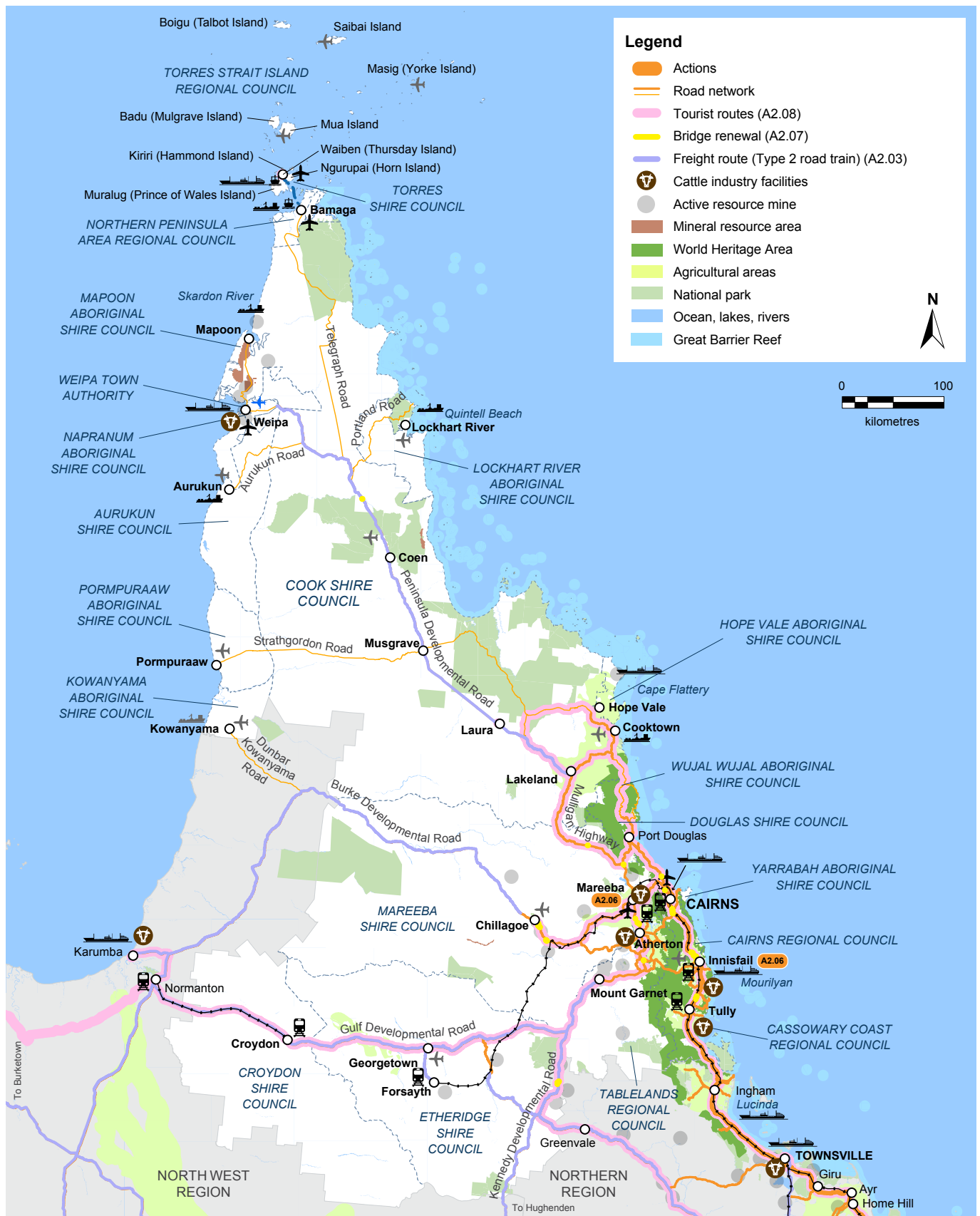


Figure 9: Priority 2 region map

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

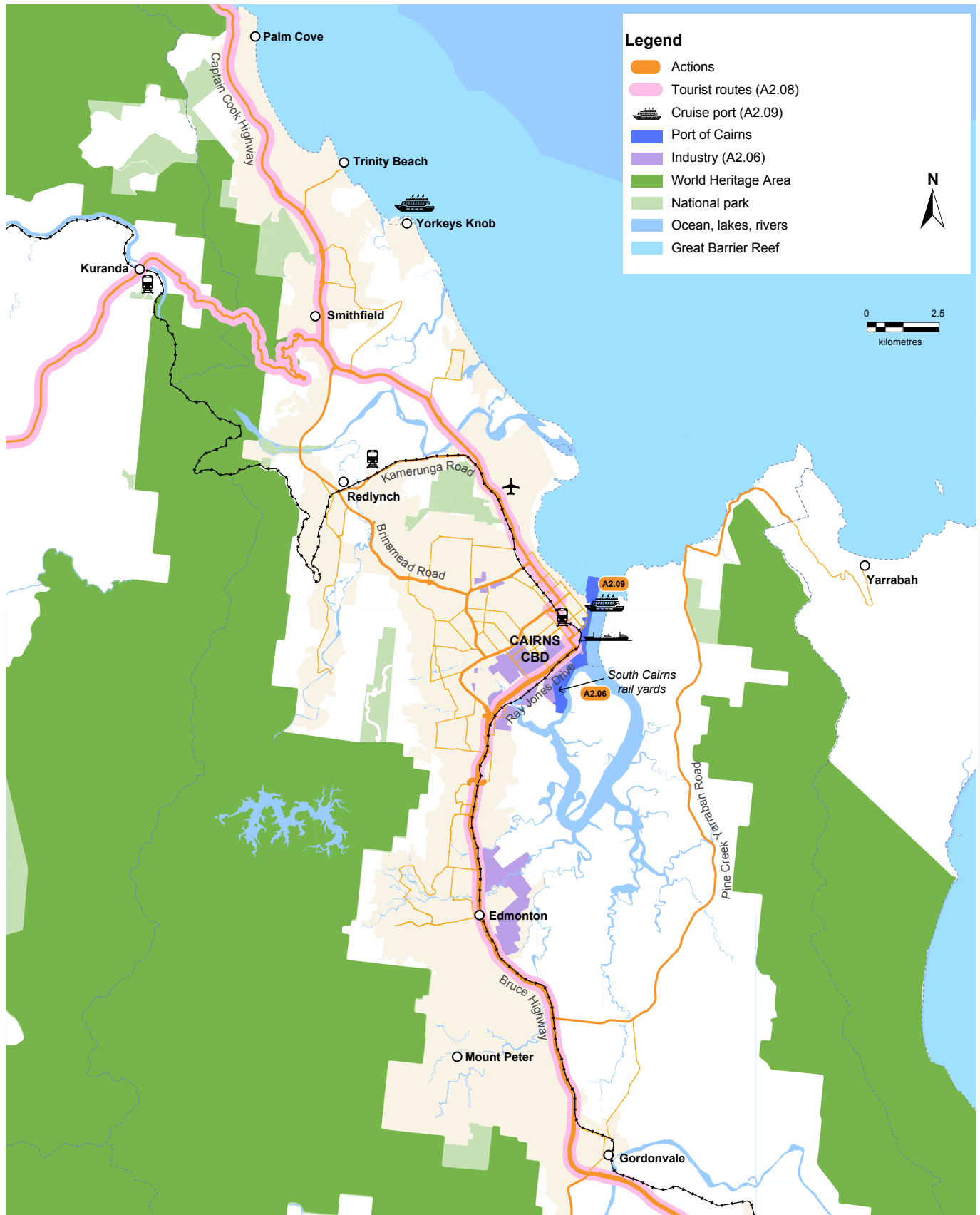


Figure 10: Priority 2 Cairns map

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: Connected, liveable and sustainable communities

Develop an integrated and accessible transport system to support connected, liveable and sustainable communities.

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.
- regional planning objectives for integrated and sustainable transport that supports a more liveable, affordable and accessible region for improved social outcomes across diverse communities.

Access and connectivity plays a major role in creating liveable places, and promoting positive health and social outcomes. Integrated land use and transport planning, including 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, 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 footprint, 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 in planning, design and delivery of transport projects.



Cairns City bus station

Transport objectives and measures of success

Objective 3.1: Develop a transport system that connects customers to jobs, schools, shops and services by a range of transport options.

This objective includes improved and affordable access to service centres, educational opportunities and basic goods and services such as nutritious foods. With varied challenges across the region, improving connectivity will require the planning and delivery of a mix of solutions encompassing infrastructure, transport services and funding schemes. A connected transport system in the urban areas of the Far North requires different actions to achieve a connected transport system in the more remote parts of the region.

A transport system that supports the needs of a community will:

- connect residents to essential services
- connect towns to one another
- connect communities to larger services centres
- include a flexible and diverse range of transport modes.

Objective 3.2: Manage congestion in urban areas.

Managing congestion requires strategies that address a range of factors including travel choice, network capacity and operations, and land use planning.

Land use planning has a significant role in managing congestion in urban centres. The development of mixed use centres means people can live, work, shop and play in the same area. This promotes shorter trips, more trips by walking and cycling, and less dependency on lengthy commutes to access destinations. Higher density self-contained mixed use centres can help to achieve reduced travel distances and expenses, reduced demand on the overall network, and reduced greenhouse gas emissions. The distance between, and location of, trip origins and destinations is a key factor affecting urban traffic congestion.

Capacity upgrades and improved operations on the urban road network is another way to meet increases in demand as a city grows. There are a number of projects underway aimed at improving capacity and traffic flow at congestion hotspots, including projects such as planning for the Smithfield Bypass and Bruce Highway upgrade works.

Managing congestion in urban areas will:

- reduce work travel time
- improve transport reliability
- reduce freight delivery time and cost
- reduce vehicle and fuel expenditure
- improve health outcomes.

Objective 3.3: Create a transport system that is compatible with the natural values of the region and lifestyle.

The Far North Queensland region's natural features, that attract thousands of tourists each year and provide recreational opportunities for residents and visitors, include coastline and beaches, the world heritage listed Great Barrier Reef and Wet Tropics of Queensland areas and national parks. Delivering transport services and infrastructure initiatives that lessen impacts on the environment, and help to protect the amenity of residents, is important for lifestyle, sustainability and the tourism values of the Far North Queensland region. Environmental considerations are a core business of Transport and Main Roads, and the department will continue to improve its environmental practices. Access to natural and recreational assets is important in attracting residents and tourists to the Far North Queensland region.

A compatible transport system will:

- support the lifestyle values of residents
- protect the unique environmental and aesthetic values of the region
- respect the landscapes in which it is developed.



Undara Experience, Undara

CASE STUDY: Transport planning for cassowaries

Transport and Main Roads takes the issue of cassowary protection very seriously and has been working closely with community cassowary advocacy groups since 2015 to find effective and innovative solutions to reduce cassowary vehicle strikes, and assist in protecting these iconic birds. Death from motor vehicle strikes is an ongoing problem, and is the largest known killer of cassowaries within the Cassowary Coast local government area.⁵⁵ The cassowary is considered an endangered species and in 2006, it was found that only 25% of its former habitat remained.

Transport and Main Roads recognises the challenges facing the remaining cassowary population and the concerns of local residents, and is committed to finding innovative solutions to reduce cassowary road strikes on state controlled roads.

Measures already implemented include:

- Warning signs, line-marking and speed reductions.
- Vegetation management along key roads in the Mission Beach area to increase visibility of cassowary chicks during the breeding season.
- Installation of Variable Message Signs on the Kuranda Range, which are being used to notify drivers of road hazards, including cassowary sightings.

Cassowary safety measures are also being considered in the design and planning for proposed overtaking lanes in the identified Smiths Gap Cassowary Corridor on the Bruce Highway, south of Cairns.

Reporting of cassowary sightings is being considered as an enhancement to the QLD Traffic mobile application. Scoping of a trial feature to allow cassowary reporting and alert drivers is underway with a trial release date scheduled for late 2018.

Transport and Main Roads will continue to meet regularly with the Cassowary Recovery Team to discuss ideas, seek feedback and monitor safety initiatives.



Cassowaries crossing road

Reef 2050 Plan

The Reef 2050 Plan was released by the Australian and Queensland governments in March 2015 and is the overarching framework for protecting and managing the Great Barrier Reef until 2050. The Reef 2050 Plan is a world-first document that outlines management measures for the next 35 years to ensure the outstanding universal value of the reef is preserved now and for generations to come. The plan firmly responds to the pressures facing the reef and will address cumulative impacts, and increase the reef's resilience to longer term threats such as climate change.⁵⁷

The Reef 2050 Plan contains implementation actions across all levels and areas of government. Transport and Main Roads has a strong role in implementing actions relating to dredging, trans-shipping,

bulk goods carrier safety standards and vessel crew competency standards. In November 2016 the Maintenance Dredging Strategy was delivered by Transport and Main Roads in response to the Reef 2050 Plan.⁵⁸



Fitzroy Island

55 James Cook University. (2011). *Mission Beach Road Research: Traffic Impacts on Cassowaries and Other Fauna and Strategies for Mitigation*.

56 The Queensland Cabinet and Ministerial Directory. (2016). www.govnews.com.au/qld-trials-vehicle-activated-signs-protect-cassowaries/.

57 Australian Government. (2017). www.environment.gov.au/marine/gbr/long-term-sustainability-plan.

58 Australian and Queensland Governments. (2015). www.environment.gov.au/system/files/resources/2cb646bb-2738-4743-a41d-e2cdoce8832c/files/reef2050-implementation-strategy-edition2.pdf.

Measures of success

Measure of success	Proposed indicator	Source	Objectives		
			3.1	3.2	3.3
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.	TMR	✓	✓	✓
	Journey to work mode share	Australian Bureau of Statistics	✓	✓	✓

* Essential services include Education, Employment, Health, Recreational, Retail and Community Service facilities



Port Douglas Markets

Actions

PRIORITY 3: CONNECTED, LIVEABLE AND SUSTAINABLE COMMUNITIES

OBJECTIVES

Objective 3.1: Develop a transport system that connects customers to jobs, schools, shops and services by a range of transport options.

Objective 3.2: Manage congestion in urban areas.

Objective 3.3: Develop a transport system that is compatible with the natural values of the Region and lifestyle.



Actions – short-term	3.1	3.2	3.3
A3.01 Network optimisation solutions Work with Cairns Regional Council to investigate opportunities to optimise transport network operations and manage congestion pressures for the major urban arterial road network of Cairns, including adopting Smarter Solutions such as lane-use management systems, improved traffic signal coordination and bus priority intersection treatments.	✓	✓	✓
A3.02 Cairns Transit Network Work with Cairns Regional Council and continue the staged planning for the Cairns Transit Network to create more efficient and reliable bus journeys on key corridors connecting Cairns city, with a focus on priority connections linking Cairns city to James Cook University and Edmonton.	✓	✓	✓
A3.03 Urban bus services For existing urban bus services in the region, review and optimise the bus routes and consider bus stop upgrades at key locations to respond to customer requirements. Locations identified as priority candidates for upgrades within the Cairns area include Smithfield, Cairns Hospital, Earlville, Raintrees and Mount Sheridan.	✓	✓	✓
A3.04 Smart ticketing Investigate opportunities to implement smart ticketing for transport servicing Cairns and potentially linking to other regional areas. Consideration should include pricing incentives and innovative products to encourage greater passenger transport use.	✓	✓	✓
A3.05 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 Service Plan 2017–2020</i> .	✓		✓
A3.06 Car parking management To encourage more people to choose public passenger transport, work with local government and other stakeholders to investigate options for the management of car parking in major activity centres, employment nodes and education precincts.		✓	
A3.07 Improved walkability and amenity Work with local government to investigate and prioritise opportunities to improve the pedestrian environment in town centres throughout the region to strengthen walkability and local amenity.	✓	✓	✓
A3.08 Principal Cycle Network Plan Undertake options analysis and business case development for the highest priority routes on the principal cycle network, with over 20 priority cycle routes identified across the Far North Queensland region.	✓	✓	✓
A3.09 End of trip facilities Work with local governments to investigate opportunities to improve end of trip facilities to encourage more walking and cycling particularly around schools, universities, public transport stops, sports and recreation precincts and commercial centres.	✓	✓	✓

PRIORITY 3: CONNECTED, LIVEABLE AND SUSTAINABLE COMMUNITIES

OBJECTIVES

Objective 3.1: Develop a transport system that connects customers to jobs, schools, shops and services by a range of transport options.

Objective 3.2: Manage congestion in urban areas.

Objective 3.3: Develop a transport system that is compatible with the natural values of the Region and lifestyle.



Actions – short-term	3.1	3.2	3.3
A3.10 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 (such as Edmonton, Earlville, Cairns City and Smithfield). Consider initiatives to encourage travel behaviour change in major centres, in line with investment in passenger transport and active transport infrastructure.	✓	✓	✓
A3.11 Passenger connectivity Investigate options to improve passenger connectivity between local and regional passenger transport services including connections to air, rail, sea and long distance coaches. Cairns Airport should be considered as a significant passenger transport node in the region, requiring improved connectivity to other modes.	✓	✓	✓
A3.12 School Travel Assistance Scheme Monitor the School Travel Assistance scheme to ensure it continues to meet the needs of the region's school students.	✓		
A3.13 Boating infrastructure prioritisation Continue to prioritise investment in boating infrastructure across the region based on an assessment of demand and input from the community and stakeholders using tools such as the <i>Recreational Boating Facilities Demand Forecasting Study (2016)</i> (for individual local government areas).	✓		✓
A3.14 Iconic recreation 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 the Far North Queensland region, including the Tip of Australia Way Cycling and Walking Track in the Northern Peninsula Area, and rail trails such as Mareeba to Ravenshoe identified in the Far North Queensland Principal Cycle Network Plan.	✓		✓
A3.15 Environmental outcomes Work with key stakeholders to identify and prioritise opportunities to improve environmental outcomes in developing and operating the transport system, including improved wildlife movement, vegetation management, visual amenity, water quality management and protection of the Great Barrier Reef.			✓
A3.16 Local Fare Scheme Evaluate the continued implementation of the Local Fare Scheme in Cape York, Torres Strait and Gulf of Carpentaria in reducing the cost of air travel and enabling residents to move around more frequently.	✓		
A3.17 Cape York and Torres Strait Access Continue to progressively improve key transport infrastructure in Cape York and the Torres Strait including the Peninsula Developmental Road, community access roads, airstrips and barge landings, and the accesses to those facilities.	✓		✓

PRIORITY 3: CONNECTED, LIVEABLE AND SUSTAINABLE COMMUNITIES**OBJECTIVES**

Objective 3.1: Develop a transport system that connects customers to jobs, schools, shops and services by a range of transport options.

Objective 3.2: Manage congestion in urban areas.

Objective 3.3: Develop a transport system that is compatible with the natural values of the Region and lifestyle.



Actions – short-term	3.1	3.2	3.3
A3.18 Remote community access and cost of living Work with other government agencies to investigate freight and passenger transport options to help address the cost of living, and improve access to basic goods and services for the more remote parts of the region (such as the Torres Strait islands, and Cape York communities). The investigation should consider options to improve access of remote communities to fresh produce, services and employment, for improved health and social outcomes.	✓		✓
Actions – medium/long-term	3.1	3.2	3.3
A3.19 Disused rail corridors Identify opportunities for future use of disused rail corridors (including cane rail corridors) in partnership with local government (for example, Atherton Tablelands Rail Trails).	✓	✓	✓
A3.20 Community connection Partner with local government to identify opportunities to improve access to transport services and coordination between transport providers. Transport and Main Road's Demand Responsive Transit trials are due for completion in mid-2018 and outputs from this trial should be considered in identifying access improvement options.	✓	✓	✓
A3.21 Principal Cycle Network Plan update Undertake a five-yearly update of the Far North Queensland Principal Cycle Network Plan.	✓	✓	✓
A3.22 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 (e.g. the electric vehicle super highway fast charging station recently made available on Cairns Esplanade).			✓
A3.23 Capacity pressures on range roads Determine the role of changing vehicle technology, and intelligent transport systems, in addressing increasing traffic pressure and capacity constraints on the Kuranda Range Road (Kennedy Highway).	✓	✓	✓

Tip of Australia Way Cycling and Walking Track

A study has been conducted to further the idea of a network of shared walking and cycling paths to link the five communities of the Northern Peninsula Area - Injinoo, Umagico, Bamaga, New Mapoon and Seisia.

The current highways between each of these communities are high-speed environments and walking and cycling occurs on the road shoulders. As the communities are located only three to four kilometres from each other, a cycling and walking track network would provide an ideal opportunity to promote physical activity between each town.⁵⁹ It is anticipated that the track would have the following benefits for the Northern Peninsula Area community:

- improve health of Aboriginal and Torres Strait Islander peoples by facilitating a safe and healthy exercise culture
- promote a healthy active lifestyle for school children that may translate to a physically active culture in later years
- improve safety through dedicated cycling and walking paths, in place of using the shoulders of existing highways
- promote Northern Peninsula Area as a tourist destination, with the tracks becoming an iconic feature in the area for general tourism, sporting events and guided tours
- create employment and business opportunities resulting from construction and maintenance of the track, as well as tourism employment opportunities, for example, bike hire, tours and so on.



View from Tip of Australia Way track, Seisia

59 RPS Australia East Pty Ltd. (2011). *Tip of Australia Way Cycling and Walking Track*

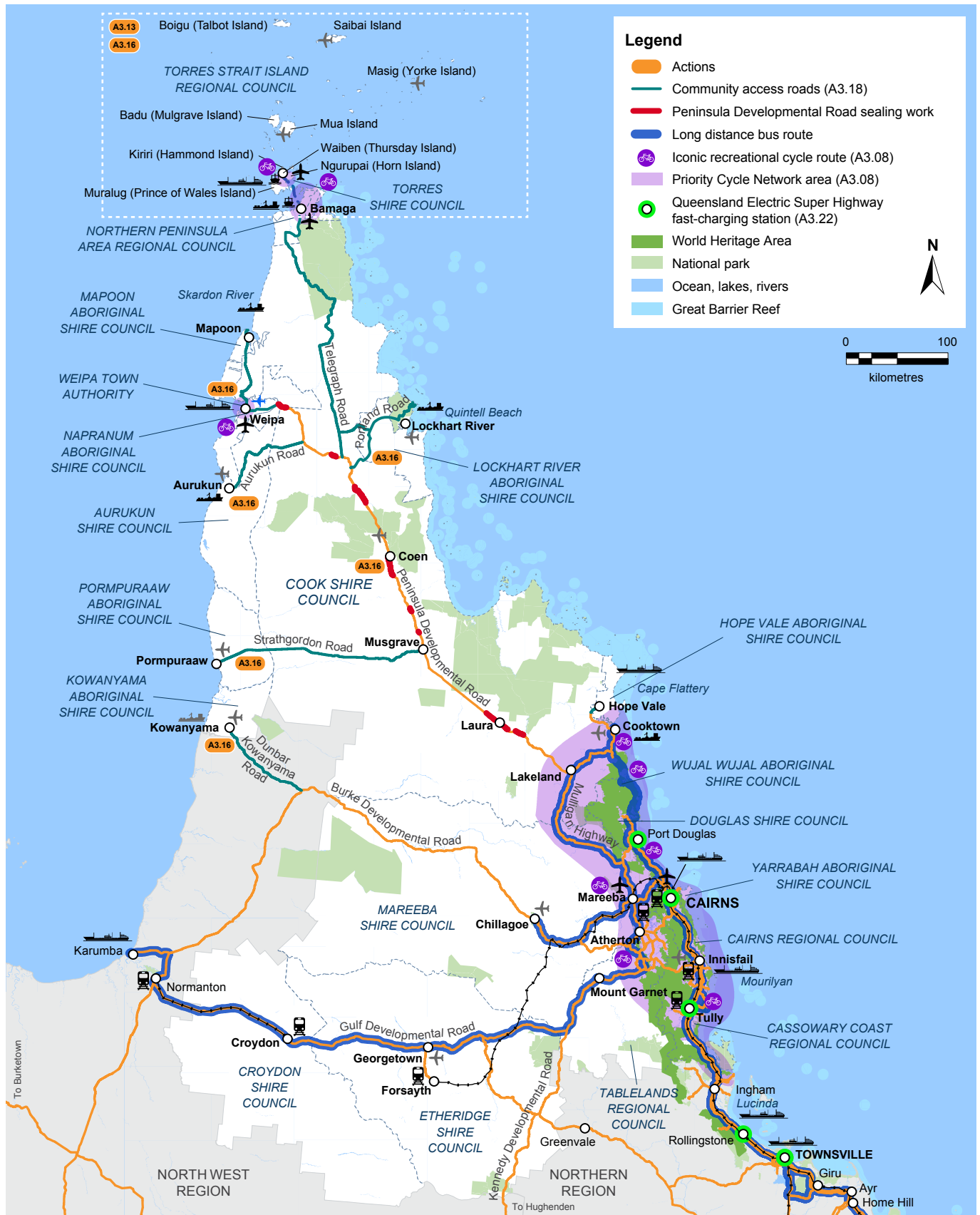


Figure 11: Priority 3 region map

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

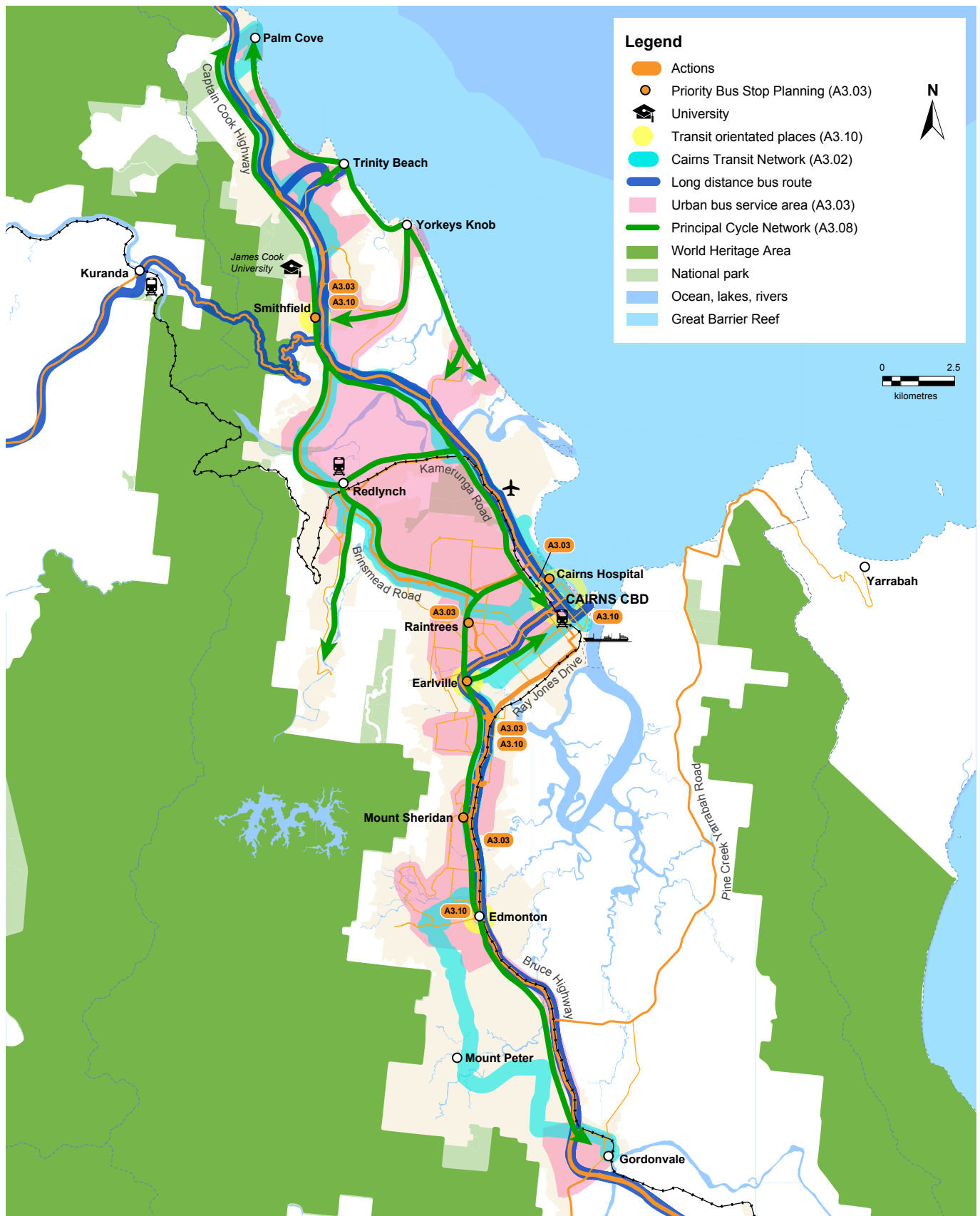


Figure 12: Priority 3 Cairns map

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

4.4 Priority 4: Better coordination of transport infrastructure and services

Finding better ways to prioritise, coordinate and manage transport infrastructure and operations.

Priority 4 aligns to:

- the *Transport Coordination Plan's* principles and priorities for decision-making to ensure proposals provide maximum net benefit to the community and represent value for money
- the *State Infrastructure Plan's* focus on maintenance and rehabilitation to reduce the long-term cost of repair, seeks innovation to create a better performing transport system, and connects regional communities with access to essential services and opportunities
- regional planning objectives for a coordinated approach to transport system management, and working in partnership across agencies to maximise the benefits of investment in transport.

Attracting investment in the region's transport network is essential in meeting many of the priorities outlined in this Regional Transport Plan. Attracting investment can be a challenge, particularly when comparing the number of rural and remote road users to that of urban roads. Local governments in these areas are also tasked with the management of thousands of kilometres of roads, despite having limited revenue. For the Far North Queensland region, this is further complicated for communities who rely on investment by neighbouring local governments for access to their towns.

It is acknowledged that attracting funding to remote and regional projects cannot be directly compared to those in metropolitan and inner regional areas because the benefits differ and are often difficult to quantify in dollar terms. The traditional cost benefit analysis is unsuitable because of the higher construction costs in remote areas (excluding land acquisition) and the lower volume of users. As a result, achieving a positive cost benefit analysis can be challenging.⁶⁰



Trinity Bay unloading at Sesia

60 Austroads. (2016). *Identification of a Risk Indicator to Support 'Life Line' Freight Routes*.

Transport objective and measure of success

Objective 4.1: Achieve more efficient transport planning and delivery, with a greater focus on partnerships

Improving flexibility in the approach to planning and delivery of the transport system should open up further opportunity to deliver essential and suitable infrastructure to support the region's economy and community access. Taking a partnership approach to manage the system as

one network can open up options to achieve efficiencies and provide a more consistent network across ownerships and jurisdictional boundaries.

A more coordinated transport delivery program will:

- be fit for purpose and place
- result from cooperation with other providers to maximise delivery and reduce cost
- be prioritised using an equitable measure.

Measure of success	Proposed indicator	Source	Objective
			4.1
Formation of partnerships in transport planning and delivery projects	Evolving indicator to be further developed	TMR	✓

Actions

PRIORITY 4: BETTER COORDINATION OF TRANSPORT INFRASTRUCTURE AND SERVICES

Objective 4.1: Achieve more efficient transport planning and delivery, with a greater focus on partnerships.

Actions – short-term

A4.01 Design standards fit for remote conditions

In partnership with local government, consider 'fit for purpose' transport infrastructure design standards for rural and remote areas to achieve value for money outcomes, including applying solutions that were developed in sealing the Peninsula Developmental Road under the Cape York Region Package.

A4.02 Methodology for evaluating remote area projects

Develop informed business cases to investigate ways in which evaluation and assessment methodologies can better reflect the benefits of investing in remote and regional transport projects.

A4.03 Sharing resources and information

Work with partners to identify opportunities to improve sharing and coordination of information and resources to more efficiently deliver transport investment programs, particularly for smaller local governments with limited financial and technical capabilities. Foster funding collaboration between government agencies to enable transport outcomes in Aboriginal and Torres Strait Islander council areas.

A4.04 Road stewardship

Review road ownership, jurisdiction and the extent of the state controlled road network in the region, to ensure that road maintenance and management sits with the appropriate agency or group, including potential service level agreements.

Actions – medium/long-term

A4.05 Household travel surveys

Continue to undertake regular household travel surveys to better understand travel behaviour and why travel choices are made, to inform planning decisions and prioritisation.

A4.06 Autonomous vehicles

Undertake scenario modelling and work with partners to consider the transport implications and opportunities associated with the emergence of autonomous vehicles.



Waterfalls lookout Paronella Park, Mena Creek



5. Implementation

5.1 Taking action

Delivering the *Far North 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 spending addresses priorities that matter to customers, stakeholders and the community.

Figure 13 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 the planning and investment framework 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.

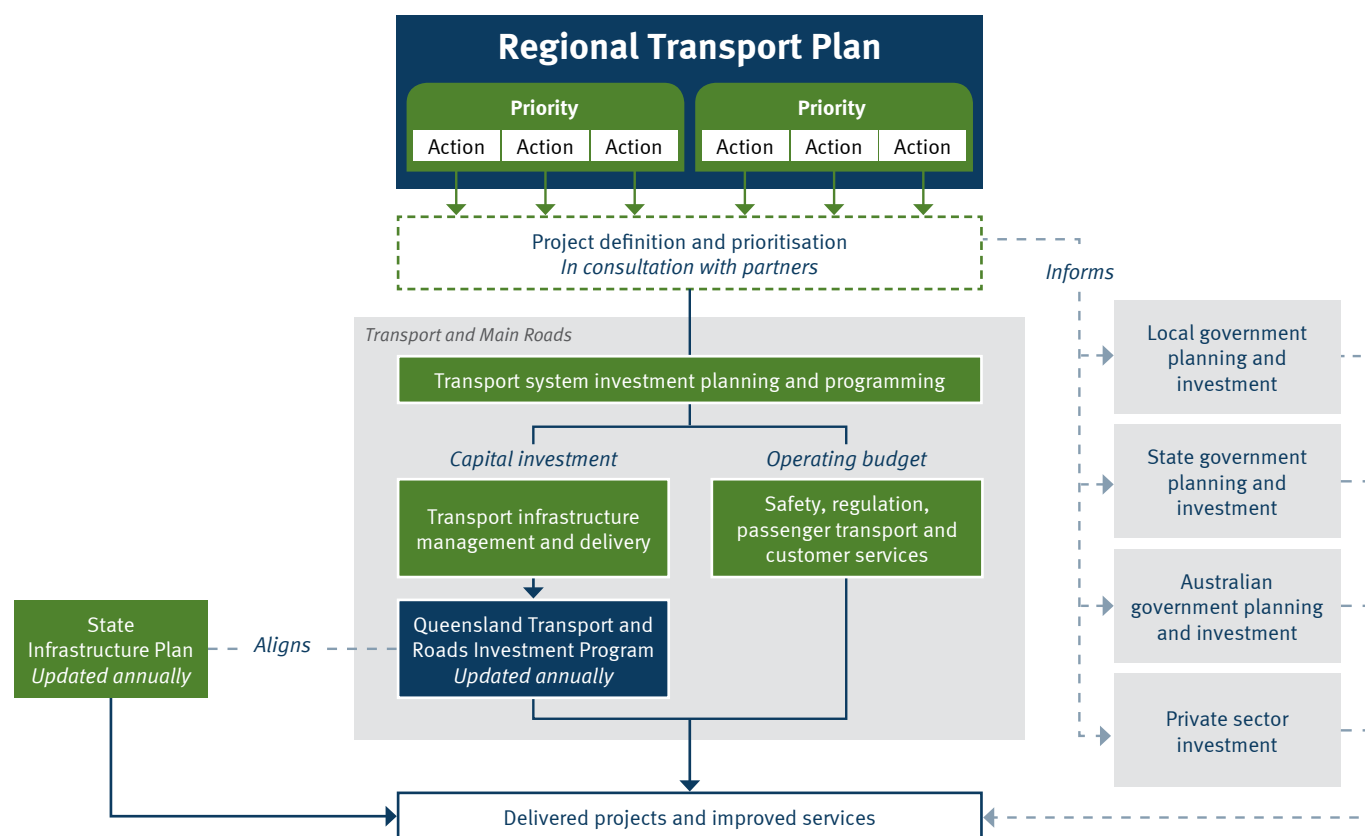


Figure 13: Regional Transport Plans are a critical step in Transport and Main Roads investment lifecycle

5.2 Delivering in partnership

More can be achieved when partnering with stakeholders to deliver shared goals using collective expertise and resources. Throughout the development of the *Far North 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 the 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 the implementation of an initiative or action
- establishing funding partnerships to accelerate action delivery and realise economic or commercial benefits, for example, through market-led proposals or public-private partnerships
- providing resource support such as human resources, equipment or material.

Cooperative transport planning is the foundation for delivery of Regional Transport Plans. Each plan will be

delivered with a focus on cooperation, coordination and collaboration. This approach builds on the framework for inter-agency cooperation established within the Roads and Transport Alliance (RTA). The RTA is a partnership between Transport and Main Roads and the Local Government Association of Queensland, on behalf of local governments, for the stewardship of Queensland's regional road and transport network.

Local governments together with Transport and Main Roads form Regional Roads and Transport Groups (RRTGs). RRTGs work collaboratively to prioritise investment on road and transport infrastructure and should evolve further to influence the strategic planning and management of regional transport networks.

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

It is acknowledged that not all local governments in the Far North Queensland region are part of a RRTG. In such cases it will be necessary for direct partnership arrangements to be developed between Transport and Main Roads and the respective local government.



Cairns marina

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 intended objectives and measures of success (Figure 14).

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* 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.

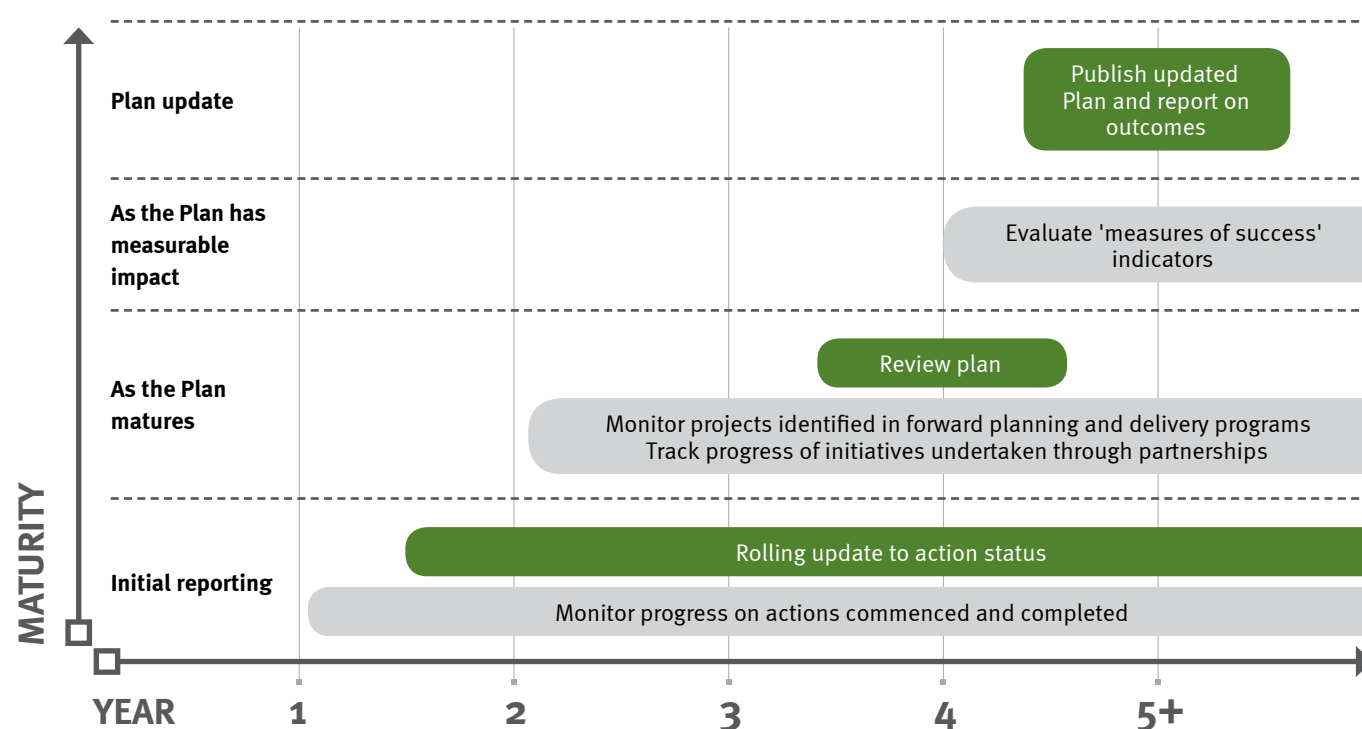
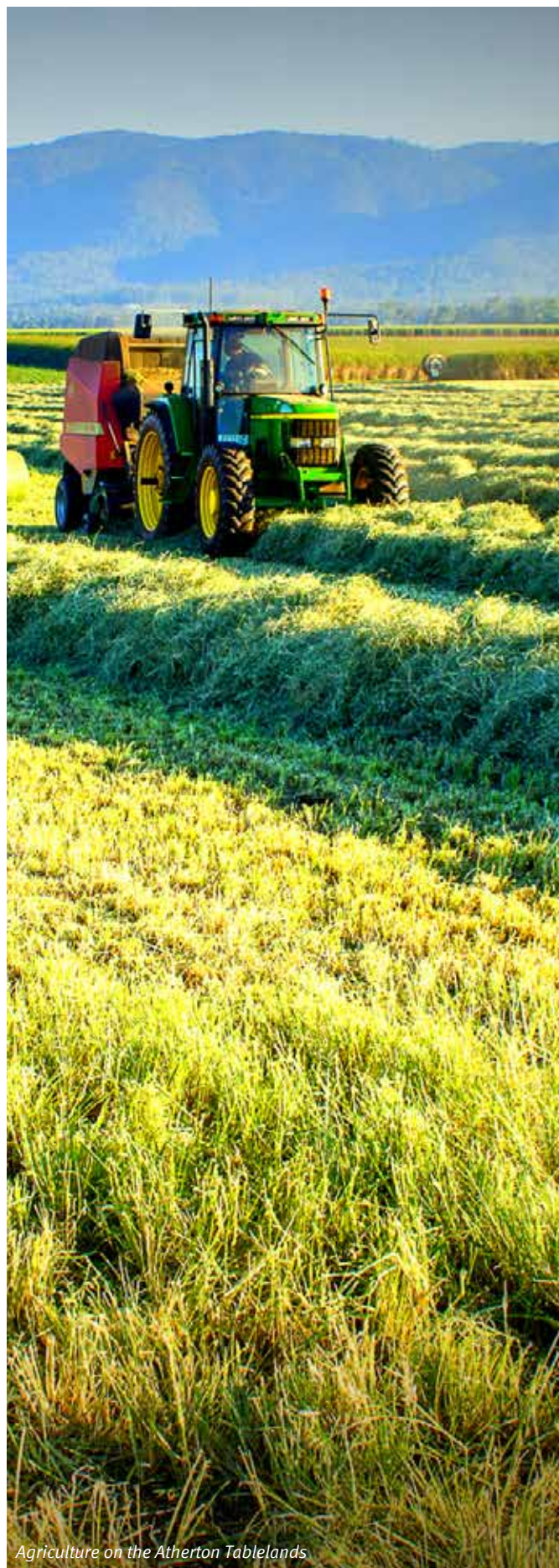


Figure 14: Monitoring, reporting and review as the Plan matures

Further information

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



Agriculture on the Atherton Tablelands

PHOTO CREDITS

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