



APRIL 2013

## Infrastructure Initiatives

INFRASTRUCTURE

### Infrastructure initiatives to enable economic growth

Northern Queensland is an expansive area of over 1.2 million km<sup>2</sup>, or 73 per cent of total state, and has a population of more than 926,000 people from Gladstone to Cairns (OESR 2013). It is a highly productive area with expansive mining, strong agriculture, renowned tourism destinations, growing tropical knowledge economy, and produces in excess of \$75 billion in Gross Regional Product across the four RDA areas.

Qld Treasury, 2013

While this growth has brought many benefits, significant pressure has also been placed on our roads and essential infrastructure, which has not kept pace with growing demand. Our greatest challenge is the development and maintenance of essential infrastructure to support the expansion of industry and our local communities.

This requires greater coordination of local, state and federal funding of infrastructure through a more strategic approach which will provide the framework for the prioritisation and sequencing of infrastructure including transportation (roads, rail, air and ports), water and sewerage, energy, telecommunications (phone, mobile and broadband) and social infrastructure. This will help to ensure infrastructure is provided where and when it is needed most, to address a clear and identified need.

#### Provision of essential infrastructure will improve:

- Productivity, economic opportunities, and job growth
- Increased standards of living
- Business productivity and competitiveness
- Health and education services and social connectivity; and
- Long-term planning and future sustainability of the region.

### Bruce Highway

The Bruce Highway forms the spine of Queensland's road network, stretching some 1,700 km from Brisbane to Cairns. This Federal owned road is critically important for the efficient, reliable and safe movement of people and freight throughout the state, and is the most significant single piece of transport infrastructure used by residents, visitors, business and industry all year round. However, it is fast approaching a state of crisis with safety concerns and access constraints now posing major problems for most communities along its length.

#### Priority sections including:

- Yeppen South Bruce Highway (\$296M)
- Sandy Gully Bridge – Bowen (\$58M)
- Haughton River and Pink Lily Lagoon Upgrades – South of Townsville (\$352M)
- Peninsula Development Road – Laura to Weipa Upgrade (\$300M)

QLD Government, Bruce Hwy Action Plan 2012

The Queensland Department of Transport and Main Roads (DTMR) has indicated that the Bruce Highway has been cut due to flooding over 400 times in the past two years, leading to significant impacts for the North Queensland economy, negatively impacting business continuity, investor confidence and community safety. It also impedes the potential growth of local industry and major projects, as well as the supply of goods and services in and out of the region.

### DID YOU KNOW

An AEC study has found the Bruce Highway generates around 60,000 jobs and \$15 billion in economic activity in North Queensland each year.

Just as compelling, a 24 hour cut to the highway results in losses of \$5.4 million in output; relating to 29 full-time jobs and \$1.4 million in wages and salaries.

North Qld Road Alliance, Feb 2012. Economic Impact for North Qld of Closure of the Bruce Hwy.

NB: North Queensland in the report's context refers to the Councils of Mackay, Isaac, Whitsunday, Burdekin, Townsville, Hinchinbrook, Cassowary Coast and Cairns, for the section of the Bruce Highway from Saint Lawrence to Cairns





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### Other Critical Roads and Infrastructure

#### Fitzroy and Central-West region

Calliope Crossroads Intersection Upgrade (links Bruce Highway, port and industrial facilities in Gladstone), Fitzroy River floodplain and road planning study (investigate flood impact reduction, identify traffic capacity issues and connections between Bruce Highway and freight generating hubs and recommendations for long-term solution for North Coast rail line) and Yeppen Roundabout (upgrade and new bridge).

#### Mackay Isaac Whitsunday region

Clermont Alpha road connects the expanding mining operations in the Galilee Basin and Bowen Basins. There is 80 km of unsealed road and this road is prone to flooding interrupting the supply chain of coal to ports. The Peak-Downs Highway requires upgrades, maintenance and widening to enhance productivity and critical safety issues in mining communities of Moranbah and Bowen Basin. Mackay Ring Road construction is a critical part of the Bruce Hwy upgrade to supports business access and links the north and south of Queensland, and serves the industrial areas of Mackay, harbor and port traffic and connects to Mackay airport. The upgrade to the Gregory Development Rd is critical to the expansion of the Galilee Basin where significant mining activity will occur in the next five years.

#### Townsville and North West Queensland region

With more than 5,500 km of road network in the region providing the backbone for the mining, agricultural and tourism industries along with community connectivity for health and education services, improvements in road safety, capacity and flood mitigation are a high priority. Works on the Bruce, Flinders and Barkly Highways are the highest priority given their carriage of high value freight and passenger vehicles. Other significant regional roads requiring upgrades are the Landsborough Highway and the Wills, Burke and Diamantina Development Roads, the Savannah Way and the Outback Highway. Road and rail connectivity to the Port of Townsville, through the Townsville Eastern Access Rail Corridor (TEARC), is planned

to drive greater efficiency and productivity for exporters and importers. To cope with increasing tonnage from the North West Minerals Province and Northern Galilee Basin, the Port also has significant expansion plans including a deep water outer harbour, land reclamation for new berths, bulk cargo storage and a new rail loop.

#### Far North Queensland and Torres Strait region

Hann Highway (\$15M needed-flood proofing a critical economic link providing alternative freight access for Bruce Highway) and Cairns Port expansion (\$13.5M needed -specialist freight facility with expanded wharf, barge ramp and new crane) and Peninsula Development Road (\$300M over three years - economic and social resilience in Cape York communities and access and protection for emerging World Heritage assets).

### Infrastructure Plan

Growth in the resources sector has also highlighted the fragmented nature of supply chains and shortcomings in both the planning and regulatory systems. While work has been undertaken around planning and investment in land transport infrastructure, such as the Northern Economic Triangle Infrastructure Plan 2007-2012; the Mount Isa to Townsville Economic Zone (MITEZ); and the Fifty Year Freight Plan (Juturna Consulting 2012); there is no coherent strategic vision and infrastructure plan for the Northern Queensland region.

#### Linking regional cities with our southern counterparts to address these critical issues requires:

- A trial of a regionally-based infrastructure investment model that is consistent with supply chain analysis and leverages public and private sector investments;
- An integrated regional infrastructure plan, including supply chain analysis is required to sequence the projects to support development and identified need;
- A reduction in the intensity and impacts of flooding on the Bruce Highway, in order to enhance supply chain access for mining and tourism operations, construction and agriculture, as a key focus of this Strategy.





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## Information and telecommunications

Telecommunications infrastructure across Northern Queensland needs significant upgrades. Large parts of the region are still without mobile telecommunications, suffer low broadband speeds and in extreme cases of flooding situations such as recently experienced in January this year, suffer a lack of emergency "000" access and total black out of all landline, mobile and internet services on the major regional Telstra telecommunications network. An estimated one million residents and travellers across more than 80 per cent of the State were affected by the recent Telstra system failure for more than 24 hours. An economic impact assessment has not yet been done, but anecdotally, millions of dollars of revenue were lost as most businesses could not operate their EFTPOS or credit card payment systems and consumers could not retrieve cash from ATMs.

The National Broadband Network (NBN) roll-out will provide opportunities for better intra-and inter-regional connectivity. However, with some areas to not get access to the fibre roll-out until later this decade, alternate interim options to ensure our region's businesses and communities are not left behind in the digital economy need to be developed and implemented.

In regard to mobile telecommunications, while there is great emphasis by telecommunications companies on the economics of providing access in rural and remote areas, there is also a

safety issue which must be addressed. In this day and age, mobile telecommunications need to be developed to provide access to emergency services by communities and travellers. Landline, mobile and internet telecommunications must be considered as vital economic and social infrastructure and we will support initiatives that build resilience and security of services to Northern Queensland.

## Airports, Rail and Ports

Meeting current and future demand for goods (at both the national and international level) requires the careful planning, prioritisation and sequencing of port, rail road and airport infrastructure over the long-term, which will help to provide export/import opportunities in the region.

Expansion of airports in the Northern Queensland is critical to enable a Food Distribution Hub and agriculture exports, increased opportunity for FIFO, and increased tourism and connectivity to Asia. Expansion of the Whitsunday, Cloncurry and Thangool airports will also be critical for mining expansion and regional communities' connectivity to services.

Expansion of airports and ports would also have a direct impact on employment opportunities such as food processing, further establishing the region as a resilient multi-sector economy. This enhanced import/export capacity would also have flow on effects to the mining industry, significantly increasing the region's coal export capacity.

## Where to from here:

Strategic initiatives, which span Northern Queensland and will support essential infrastructure, are as follows:

Action	What's needed	Benefits to our communities and regional economies
Northern Queensland 30-year Infrastructure Plan	Funding for a long-term infrastructure plan for Northern Queensland including prioritisation and sequencing of infrastructure along the supply chains to support agriculture, tourism, mining, and construction growth. Plan will better connect the supply chain planning work being done in Bowen and Galilee Basins and MITEZ.	<ul style="list-style-type: none"> <li>• Improved supply chain efficiencies</li> <li>• Reduced operating costs for businesses</li> <li>• Increase in SME start ups and greater investment in region</li> <li>• Better connectivity during disasters and post disaster</li> </ul>



Action	What's needed	Benefits to our communities and regional economies
<p><b>Bruce Hwy: Improve Capacity and Flood mitigation</b></p>	<p>Prioritised investment of key areas of the highway as part of the Queensland Government's Bruce Highway Action Plan.</p> <p>Federal Government to consider budget investment in Bruce Hwy to reduce impact of flooding and improve capacity:</p> <ul style="list-style-type: none"> <li>• Yeppen Floodplain South Upgrade</li> <li>• Sandy Gully Bridge - Bowen</li> <li>• Haughton River Floodplain and Pink Lily Lagoon Upgrades - South of Townsville</li> <li>• Peninsula Development Road - Laura to Weipa Upgrade</li> <li>• Mackay Ring Road - Plan and Preserve</li> <li>• Goorganga Plains - Plan and preserve Construction</li> <li>• Townsville North Access Intersections Upgrade</li> <li>• Rockhampton Bypass/Ring Road</li> <li>• Cairns Southern Access Corridor 6 lanes - Robert Rd to Foster Rd</li> </ul>	<ul style="list-style-type: none"> <li>• Improved efficiencies in freight and passenger movements</li> <li>• Reduced traffic accidents</li> <li>• Improved productivity and competitiveness</li> </ul>

Examples of other priority Bruce Highway sections and regional roads that would support the wider strategic initiative include:

- Sarina Northern Access
- Mackay North Access upgrade
- Emerald Flood Mitigation
- Mackay Intersection upgrades - stage 2
- Mackay Ring Road - construction stage 1
- Outback Regional Roads - Central West Councils
- Cattle and Frances Creeks Upgrades - Ingham
- Yellow Gin Creek Upgrades - Home Hill
- Cairns Southern Access Corridor Stage 2
- Clermont Alpha Road
- Hann Highway - Lynd to Hughenden, which traverses the RDA Far North Queensland and Torres Strait and RDA Townsville and North West Queensland regions



Action	What's needed	Benefits to our communities and regional economies
<b>Enabling Infrastructure</b>	<p>Improved supply chain productivity and infrastructure investment</p> <p>Freight tasks from road to rail for safety and productivity especially with mining expansions.</p> <p>Better rail to port connectivity including improved industrial and export productivity and community safety</p>	<ul style="list-style-type: none"> <li>• Increased Gross Regional Product</li> <li>• Improved productivity and competitiveness</li> <li>• Enhanced export opportunities across commodities</li> </ul>

**Examples of projects that would support the wider enabling infrastructure initiative include:**

- **Cairns Barge, Wharf Extension and Crane**  
Targeted extension to the Cairns Wharf (250m to 310m increasing from single berth to double berth), establishment of new common user barge facility and installation of heavy lift container crane
- **Next stage of the Townsville Port expansion**  
Deep water outer harbour, land reclamation for new berths, bulk cargo storage and rail loop
- **Abbot Point Port – State Development area**
- **Mackay Port Expansion**  
Enabling increased containers and export, also greater rail road connectivity
- **Karumba Port Master Plan**  
Development to support mines in area
- **Mourilyan Port expansion**  
Includes associated infrastructure, land use plan and road upgrades (for mineral and woodchip and sugar and explosives)

Action	What's needed	Benefits to our communities and regional economies
<b>Cultural and Sporting Infrastructure</b>	<p>Enhanced social wellbeing through Cultural and sporting community infrastructure</p>	<ul style="list-style-type: none"> <li>• Provision of social and community infrastructure to support growing populations</li> <li>• Attract investment in international, national, state and regional sporting events</li> <li>• Attract and retain families to the regions through adequate social infrastructure</li> </ul>

**Examples of projects that would support the wider cultural and sporting infrastructure initiative include:**

- Mackay Regional Sports and Recreation Hub – Central Queensland University
- Be Engulfed Monsoon Centre
- Tony Ireland Stadium Upgrade





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Action	What's needed	Benefits to our communities and regional economies
<b>NBN and Digital Economy</b>	Capacity building of SMEs across the region to take full advantage of the emerging digital economy. Increased NBN coverage to target remote health and education outcomes, wellbeing and industry productivity.	<ul style="list-style-type: none"> <li>• Increased productivity and GRP</li> <li>• Increased wellbeing and health outcomes, particularly in remote communities</li> <li>• Better learning outcomes in core STEM skills</li> <li>• Regional telecommunications security means to reduce business 'down-time'</li> <li>• Creation of significant investment attraction for new IT related and dependent industries looking for lifestyle</li> </ul>

### Examples of projects that would support the wider digital economy strategic initiative include:

- **Greenvale Mobile Tower**
- **'Next Generation' teleconferencing facilities in all major Northern Queensland centres**
- **Accelerated NBN urban roll-out**  
Including Cairns - Townsville - Mackay - Rockhampton corridor and Townsville-Mount Isa corridor

Source of Statistics and Data:

- Qld Treasury and Trade, 2013 Experimental Estimates of GRP.
- Qld Treasury and Trade - OESR 2013. Qld Regional Profile, Northern Qld Super Zone
- Qld Transport and Main Roads, Oct 2012 Bruce Hwy Action Plan
- North Qld Road Alliance, Feb 2012. Economic Impact for North Qld of Closure of the Bruce Hwy
- Bureau of Resources and Energy Economics July 2012 Australian Bulk Commodity Export and Infrastructure Outlook to 2025

### DID YOU KNOW: Major investment in the north

Major private sector investment in North Queensland was valued at \$113 billion in September Quarter 2012, which currently accounts for an estimated 58 per cent of the State's major project investment. Three quarters of Northern Queensland's major project investment is in Fitzroy with Mackay and North West accounting for another 23 per cent.

The record investment levels of 2012-13 are expected to moderate over the medium term as major projects near completion and cost pressures such as weakening demand and lower commodity prices influence the investment outlook. Notwithstanding, investments of approximately \$50 - \$86 billion are forecast in the mining, minerals processing, transport, electricity, gas and water and tourism sectors in Queensland over the next decade.

Source: Bureau of Resources and Energy Economics 2012

### WHO WE ARE

The role of Regional Development Australia Committees is to work across all three levels of Government, local industry and their regional communities to enhance the growth and development of regions across Australia. This includes the identification and advocacy of agreed regional priorities; and working in collaboration with regional partners to strengthen each region's long-term sustainability for the long-term benefit of future generations.

[www.rda.gov.au](http://www.rda.gov.au)

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NORTHERN QUEENSLAND

INFRASTRUCTURE

## Prioritised Projects

Bruce Highway Action Plan - 10 year Project Priorities									
BHAP No.	Safety Improvements	Cost (2012\$) (\$m)	BHAP No.	Flooding Improvements	Cost (2012\$) (\$m)	BHAP No.	Capacity Improvements	Cost (2012\$) (\$m)	
High Priority 1 Base Case - \$6b over 10 years (matched on historic basis)	S1a	Wide Centreline and Audible Edge Lines	174	F2	Dallachy Road Flood Immunity Upgrade	7	C1	Cairns Southern Access Corridor Stage 3	80
	S1b	S1a above plus sealed shoulders	188	F4a	Ingham to Cardwell Range Dev - Plan & Preserve	30	C3	Cairns Southern Access Corridor Stage 2	42
	S1c	S1b above plus formation widening	810	F5	Cattle and Frances Creeks Upgrade	185	C4	Edmonton to Gordonvale Duplication	300
	S2	Audible Edge lines other than S1a, S1b & S1c	48	F6	Haughton River & Pink Lily Lagoon Upgrade	352	C6	Babinda Intersection Upgrade	2
	S3	Clearzone clearing	26	FBa	Burdekin Deviation - Plan & Preserve Corridor	30	C7	Innisfail Bypass - Plan and Preserve Corridor	5
	S4	Safety barrier	200	F9	Yellow Gin Creek Upgrade	35	C8	Ash & Pine Streets Intersections Upgrade	4
	S5	Intersections	70	F10	Sandy Gully Bridge Upgrade	58	C11	Townsville Nth Access Intersections Upgrade	47
	S6	Rest areas and stopping places	18	F11a	Goorganga Plains Upgrade - Plan & Preserve	10	C13	MacArthur & Melton Black Intersection Upgrade	19
	S7	Pedestrian / cyclist upgrades	6	F12	Jumper Creek Upgrade	15	C19	Knobels Rd Intersection Upgrade	5
	S8	Overtaking lanes	334	F13	Yeppen Floodplain South Upgrade	214	C21	Mackay Northern Access Upgrade	58
	S9	Curve Widening	2				C23	Mackay Intersection Upgrades - Stage 2	7
	S10	Delineation for Narrow Structures	2				C24a	Mackay Ring Road - Plan and Preserve	18
	S11	Road-rail crossings	7				C27	Hay Point Road Intersection Upgrade	23
	M1	Resurfacing	98				C29	Sarina Northern Access Upgrade	8
	M2	Pavement rehabilitation	500				C31	Rockhampton Nth Access Upgrade - Stage 1	79
	M3	Culvert rehabilitation - Major (Concrete)	20				C33	Rockhampton Bypass - Plan and Preserve	48
	M3	Culvert rehabilitation - Major (Steel)	38				C41	Childers Bypass - Plan / Preserve Corridor	5
	M3	Culvert rehabilitation - Minor	40				C42	Tinana Interchange	25
	M4	Bridge rehabilitation	92				C47	Cooroy to Curra Upgrade - Section C	600
	M4	Misc - Guardrail deficiencies	8				C49	Cooroy to Curra Upgrade - Section A	578
M5	Misc - Truck/ motorist rest/ stop areas	12				C50a	Maroochydore Rd Interchange Upgrade - Stage 1	109	
M5	Misc - Slope stability	9				C51a	Caloundra Rd to Sunshine Mway - Stage 1	208	
High Priority 2 Crisis Action Plan 50-50	S1c	S1b above plus formation widening	350	F4b	Ingham to Cardwell Range Deviation - Construction	780	C24b	Mackay Ring Road Stage 1 Construction	450
	S4	Safety barrier	40						
	S8	Overtaking lanes	140						
	M2	Pavement rehabilitation	200						
	M3	Culvert Rehabilitation	30						
	M4	Bridge Rehabilitation	10						
	S1c	S1b above plus formation widening	200	F3	Merunga, Sunbeam and Lily Cks Deviation	80	C9	Liverpool Creek to Cowley Beach Rd Realign.	30
	S4	Safety barrier	35	FBb	Burdekin Deviation - Construction	1400	C17	Collingale Road Intersection Upgrade	3
	S5	Intersections	20	F15	Saltwater Creek Bridge Upgrade	65	C18	Prosepine - Shute Harbour Rd Intersection	28
	S8	Overtaking lanes	120				C32	Rockhampton Intersection upgrades	30
M2	Pavement rehabilitation	30				C38	Curve Re-alignment North of Minam Vale	21	
M3	Culvert Rehabilitation	12				C44	Gympie Nth Approach Intersection Upgrades	44	
High Priority 2 Crisis Action Plan 80-20	S4	Safety barrier	125	F16	Tiaro Flood Immunity Upgrades	64	C51b	Caloundra Rd to Sunshine Mway - Stage 2	610
	S5	Intersections	45				C55b	Pine River to Caloundra Rd Interchanges - Construction	150
	S6	Rest areas and stopping places	10				C53	Boundary Road Interchange Upgrade	130
	S7	Pedestrian / cyclist upgrades	7				C16	Bowen Intersection Upgrade	20
	S8	Overtaking lanes	140				C44	Gympie Nth Approach Intersection Upgrades	66
	M2	Pavement rehabilitation	143				C46	Cooroy to Curra Section D Stage 1	405
High Priority 2 Beyond 10 year Plan	M3	Culvert rehabilitation	120				C51c	Caloundra Rd to Sunshine Mway - Stage 3	455
	M4	Bridge rehabilitation	12						
	S4	Safety barrier	133	F11b	Goorganga Plains - Construction	330	C20	Mackay Northern Access Upgrade - Stage 2	45
	S5	Intersections	65	F14	Carangong Creek Bridge Upgrade	59	C26	Hay Point Road to Mackay Duplication	390
	S7	Pedestrian / cyclist upgrades	7				C28	Sarina to Hay Point Road Duplication	290
High Priority 3 Beyond 10 year Plan	S8	Overtaking lanes	400				C30	Rockhampton Nth Access Upgrade - Stage 2	95
	M3	Culvert rehabilitation	112				C43	Wide Bay Highway Intersection	50
							C45	Cooroy to Curra Upgrade - Section D, Stage 2	1600
							C50b	Maroochydore Road Interchange Upgrade - Stage 2	100
							C51d	Caloundra Rd to Sunshine Mway - Stage 4	300
						C51e	Caloundra Rd to Sunshine Mway - Stage 5	230	

Note: 1. Project costs are indicative only.  
2. Funding envelopes are in 2012\$.



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Queensland Government