Department of Transport and Main Roads Road Priorities in North Queensland Region

Peter Sakkas
Manager (Project Planning & Corridor Management)
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North Queensland - Snapshot

Population: 256,151
Total Area: 386,813sq km
Total Declared Road Length: 5394km
North Queensland – Snapshot (cont.)

- Constant population growth for 10 years (Townsville 12.8%, Mt Isa 8%)
  - 2011 Population – about 260,000 (or 5.8% of the state)
  - Projected 2021 population – about 328,000
  - Projected 2031 population – about 382,000

- Stable and vibrant economy which is extremely diverse. The key industries are:
  - Agriculture – beef, sugar and fishing
  - Mining and minerals processing from the NE and NW Minerals
  - Provinces – copper, lead, zinc, nickel
  - Tourism
  - Defence
North Queensland – Snapshot (cont.)

- All modes of transport including deep water harbours, airports and extensive road/rail networks

- DTMR is working with developers and mining companies to ensure developments do not compromise the road network

Port of Townsville

Rocky Springs
North Queensland – Snapshot (cont.)

• 5,394km of State-controlled road network

• 778km of State-controlled road network is National Network

• 286 bridges, 489 major culverts, many in poor condition

• 20% of the network is unsealed

• In several places, closure of the Bruce Highway requires long detours via Central or Western Queensland

• Major and minor roads are regularly cut during the wet season

Ingham in Flood
Only minor additional work is anticipated from the 2013 flood event.

- Includes flood damage funds for 2012 event but does not include any new projects that may be approved under the Bruce Highway Action Plan.
Regional Road Challenges & Opportunities

- Increased demand on the transport network. While some parts of the network are performing well, others will face challenges, including:
  
  - Road safety
  - Flood proofing
  - Supporting the Freight Industry
  - Managing congestion in urban areas
  - Maintaining the road network in a safe and useable condition
  
  - Damaged Assets - Flood damage restoration works from 2010, 2011 and 2012 (total for 3 events - $791M) – under construction
Support Growing Population
Road Challenges & Opportunities

- The **Bruce Highway** is the region’s most critical road transport link.

- Demands on **Townsville City**’s transport system will increase as the city grows.

- The provision of **new infrastructure** and the **maintenance** of existing assets are key to sustainable economic growth in this region.

- For **remote areas**, ensuring that transport connections are reliable and resilient.

- **Opportunities** - Innovative ways of managing traffic and travel demand
Keep Economy Moving
Road Challenges & Opportunities

• Improvements to the Bruce, Flinders and Barkly Highways are required to support more
development through efficient movement of goods and services, and more reliable access for
tourism.

• Better freight connections are needed to support agriculture and mining industries, between the
North west and the ports.

• Some key tourist routes are also critical for freight movement. Potential conflict needs to be
managed.

• Opportunities - Enhancements to road freight routes

Mining Equipment is regularly transported on the Barkly Highway near Mount Isa.
Operate within Fiscal Constraints

Road Challenges & Opportunities

- The high cost of owning and maintaining the extensive road network, combined with a climate and heavy traffic that erodes infrastructure at an accelerated rate leads to a very high cost per capita.

- Opportunities - Better utilisation of existing assets

Degraded Steel Culvert

Flinders Highway
North Queensland Regional Road Priorities

- The regional road priorities
  - identify what is needed in the next 10 years
  - are designed to address current issues
  - respond to the regional opportunities and challenges
  - Align with core system strategies
Efficient and Reliable Transport for North Queensland

Flooding on the Flinders Highway at Macrossan Bridge

Burdekin River in Flood
Bruce Highway

Deliver improvements identified in the Bruce Highway Action Plan to improve capacity, efficiency and flood immunity

Mt. Cudmore intersection at the foot of Cardwell Range
Yellow Gin Creek Upgrade

**Location**
- About 18 kms south of Home Hill

**Current situation**
- 1.1 km section - highway floods frequently during the annual wet season. Also the existing culvert structures and floodway approaches are very narrow which lowers the level of safety on this section

**Proposed Solution**
- Construct a new bridge and higher road approaches with improved drainage structures to provide a higher flood immunity

**Cost**
- $49m (outturn)

**Timing of construction**
- High Priority 1 (years 1 to 4)
Burdekin Deviation

Location
• A deviation to the west of the existing highway, from the south of Home Hill to the north of Brandon, bypassing, Home Hill, Ayr and Brandon.

Current situation
• The existing highway is flood regularly at several locations during the annual wet season; creates safety and amenity impacts and suffers transport efficiency impacts where it passes through these three towns; and has limited capacity through these towns. The Burdekin Bridge is an aging steel bridge which has height and width restrictions on large vehicles and regularly needs maintenance which frequently imposes delays on traffic flows.

Proposed Solution
• 1. Plan & Preserve Corridor & 2. Design & Construct a deviation to the west to higher flood and will avoid congestion through towns.

Cost and Timing
• $30 million (2012 $’s) – Plan & Preserve Corridor: High Priority 1 (years 1 to 4)
• $1.4 billion (2012 $’s) – Design & Construct: High Priority 2 (years 5 to 7)
Sandy Corner - Collinson's Lagoon Upgrade

**Location**
- 9 kms north of Ayr

**Current situation**
- 5 km section - highway floods frequently during the annual wet season, the pavement is in poor condition, there are limited overtaking opportunities, and a sugarcane railway at-grade crossing of the highway imposes safety and travel time impacts on freight and passenger trips.

**Proposed Solution**
- Grade-separate the sugarcane railway, provide an overtaking facility, and lift, widen and re-align the road to improve its flood immunity and safety

**Cost**
- $50m (outturn)

**Timing of construction**
- Construction start 2012 and finish 2014. NB1 funded
Haughton River Floodplain Upgrade

Location
• 50 kms north of Ayr

Current situation
• 14km section: About 12.5km suffers from frequent and prolonged flooding every year. The existing Haughton River bridge is very narrow and does not have any guardrails.

Proposed Solution
• Construct new high level bridges at Haughton River & Pink Lily Lagoon and higher flood immunity road across a 14 km floodplain of the existing corridor between south of Horseshoe Lagoon to Palm Creek

Cost
• $488m (outturn)

Timing of construction
• High Priority 1 (years 1 to 4)
Townsville Southern Access Corridor Stage 1

Location
• A 7km section of the Highway on the southern approach to Townsville from Vantassel St to Stuart Drive (old Flinders Highway) junction at Cluden.

Current situation
• Existing 2 lane road is starting to suffer from congestion due to sustained rates of population and economic growths area around the southern approaches to Townsville. The north coast rail line crosses the highway via an at-grade intersection. This is the primary freight route to the Port of Townsville.

Proposed Solution
• Duplicate to a dual carriageway highway, grade-separate the north coast rail line, construct two new, higher-level, two-lane bridges over Stuart Creek and upgrade uncontrolled intersections at priority locations

Cost
• $137.5 million (outturn) 80/20 Fed/State funds

Timing of construction
• Start construction in 2013 & finish by 2015; NB1 Funded
Townsville Ring Road Section 4

**Location**
- 8km section of new alignment at the western end of the Townsville Ring Road from Shaw Rd to the Bruce Highway north of Mount Low Parkway.

**Current situation**
- The existing 2 lane Shaw Rd is suffering from congestion and safety impacts due to the high economic and urban growth being created by the boom in mining and associated industries.

**Proposed Solution**
- Construct a 2 lane bypass which can eventually form part of a 4 lane motorway bypass of Townsville. This will avoid safety and congestion amenity impacts along Shaw Rd and provide a more direct freight route from northern areas to the Port of Townsville.

**Cost**
- $200 million (outturn)

**Timing of construction**
- Completion by 2016. (RIF) Funded
Cattle & Frances Creeks Upgrade

Location
• 10 kms south of Ingham between Penna’s Road and Toobanna

Current situation
• 4.8 kms section: About 4 kms suffer from frequent and prolonged flooding every year.

Proposed Solution
• Construct new high level bridge at Cattle Creek and higher flood immunity road.

Cost
• $145m (outturn)

Timing of construction
• High Priority 1 (years 1 to 4)
Ingham - Cardwell Range Deviation

**Location**
- Just south of Ingham to the southern approach of the Cardwell Range.

**Current situation**
- The 16.2 kms of the existing Highway from 1.6 kms south of Ingham to 14.6 kms north of Ingham suffers from frequent and prolonged flooding every year.

**Proposed Solution**
- 1. Plan & Preserve Corridor & 2. Design & Construct deviation on higher ground to the west of the existing Highway and bypassing Ingham (option W2A) such that a much higher flood immunity can be achieved along this section.

**Cost & Timing**
- $30 million (2012 $'s) – Plan & Preserve Corridor: High Priority 1 (years 1 to 4)
- $780 million (2012 $'s) – Design & Construct: High Priority 2 (years 5 to 7)
Other Priority Roads

The Flinders & Barkly Highways are the backbone of North Queensland regional communities and support the economic pillars of mining and agriculture.

A road train on the Barkly Hwy
Flinders Highway

- Upgrade the capacity and flood immunity of the Flinders Highway:
  - Undertake a flood study to determine the requirements (level of flood immunity
  - and project prioritisation) for improving flood immunity
  - Gilliat Channels – Road widening and improvements to flood immunity
  - Pavement strengthening and widening between Hughenden and Cloncurry
  - Pavement strengthening and widening between Townsville and Torrens Creek
  - Shovel and Gardiner creeks – New bridges for flood immunity and safety
Landsborough Highway

- Upgrade the flood immunity of the Landsborough Highway
  - McKinlay River floodway upgrade
Townsville Urban Road Network

- Improve the efficiency and reliability of the Townsville urban road network
  - Investigate and implement intelligent transport system initiatives to better manage the Townsville urban road network
  - Address safety and congestion issues on Dalrymple Road, Woolcock Street, Stuart Drive, Abbott Street, Thuringowa Drive and Riverway Drive
  - Replace aged bridge infrastructure to improve capacity and load limit restrictions on key arterials and freight routes

*Blakey’s Crossing on Ingham Road*
Dalrymple Road / Banfield Drive Intersection Upgrade

- Existing inbound lane converted to service road
- Existing roundabout to be converted to signals
Woolcock Street / Mather Street Intersection Upgrade

Existing roundabout to be converted to signals
Blakey’s Crossing Upgrade
Safe & Secure Transport for North Queensland

Accident south of Townsville

Cardwell Range car crash

DRIVERS on the Cardwell Range during the past week would have been cautioned by the sight of a vehicle smashed up against an embankment on the northern declivity.

The Ford Falcon sedan was involved in a single vehicle accident which occurred about 11.30pm last Friday night.

A police spokesman said the 21-year-old driver, who was travelling from Townsville to Innisfail, reportedly lost control of the vehicle in wet weather.

She said he was given a lift to the Ingham Police Station by a passing truck driver and was subsequently taken to the Ingham Hospital for treatment of an ankle injury.

The vehicle was extensively damaged, and police will be called in to control traffic on the range near the embankment for the duration of the week.

The accident occurred about 10km from the lookout on the left-hand side of the decline.
Bruce Highway

- Improve safety conditions and reduce conflicts with other road users
Safety Improvements

• Implement safety improvements on Bruce Hwy including:
  o Intersection treatments
  o Clear zone clearing and barrier protection
  o additional overtaking lanes
  o widening
  o wide centreline treatment works to reduce risk of crashes
  o providing more rest areas
  o Rehabilitating bridges and culverts

• BHAP identified about $100M per annum for Northern Region as Priority 1 (years 1 to 4)
Melton Black Drive Intersection Upgrade

**Location**
- On University Road in Townsville City.

**Current situation**
- Existing roundabout is suffering from congestion during peak periods and there are no crossing facilities at or near the roundabout for cyclists or pedestrians. It also has a poor safety record.

**Proposed Solution**
- Upgrade from a roundabout to a signalised intersection

**Cost**
- $12 million (outturn)

**Timing of construction**
- High Priority 1 (years 1 to 4)
Townsville Northern Access Intersection Upgrade

**Location**
- Bowden, Church and Black River Roads Intersections exist over an 1.1km section of the highway on the northern approaches to Townsville, approximately 22 kms north west of Townsville just outside the Townsville urban section.

**Current situation**
- A two lane highway experiencing an increasing volume of traffic due to growth in the Northern Beach. Two adjacent side roads (Bowden and Church Roads) in close proximity to Black River Bridge have inadequate turning provision and this section of the highway (including the Black River Road intersection) has a high crash rate. All intersections are currently unsignalised.

**Proposed Solution**
- A four way signalisation of Black River Rd & connection to Bowden Rd and Church Roads via service roads to suit the future four lane duplication.

**Cost**
- $47 million (2012 $'s)

**Timing of construction**
- High Priority 1 (years 1 to 4)
Alligator Creek Road to Allendale Road
Overtaking Lanes

**Location**
- About 9km south of Townsville

**Current situation**
- Single carriageway 2-lane road carrying over 7,500 vehicles per day and trailing vehicles are experiencing delays behind slower causing frustration and safety issues.

**Proposed Solution**
- Upgrade to dual overtaking lanes south and northbound.

**Timing of construction**
- High Priority 1 (years 1 to 4)
Other Priority Roads

- Improve conditions on tourist drive routes and reduce conflicts with other road users by
  - widening sealed pavement and bridges, improving flood immunity and overtaking
  - opportunities and providing more rest areas, particularly on:
    - Flinders Highway
    - Landsborough Highway
    - Gregory Development Road
    - Burke and Wills Developmental Roads
Thank You