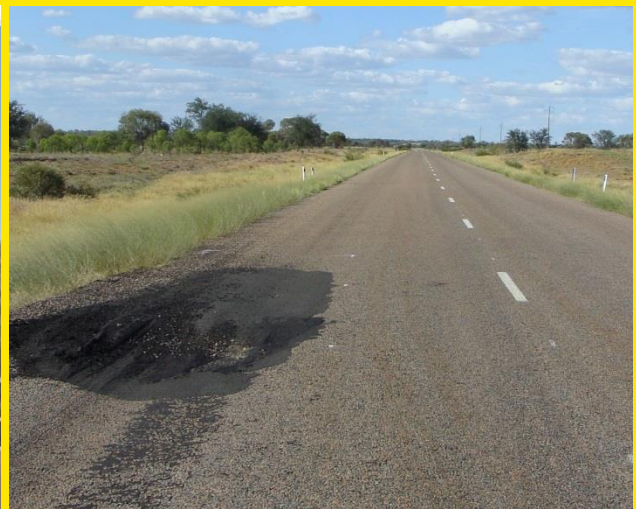




Regional Road Inspection Tour

April 2016



North Western Queensland

- Flinders Highway, Barkly Highway and Landsborough Highway
- Kennedy Developmental Road

INTRODUCTION

The information contained in this document is based on visual inspections along National Highways and lower order State roads in North Western Queensland conducted from 11 - 14 April, 2016. The RACQ performs these surveys so it can better understand the condition of Queensland roads with respect to road safety, capacity and vulnerability to flooding.

It also provided the opportunity to see how Queensland roads have recovered since the floods in 2010 and later, and better comprehend the challenges of engineering roads to withstand harsh weather and inferior soil conditions.

Almost 75 percent of crashes on rural highways are run off-road, head-on and intersection crashes. As a result, a focus of the inspection was to assess the standard and quality of the road infrastructure including roadside conditions, road and shoulder widths (including bridge / culvert / floodway width) and intersection safety.

The RACQ argues that the standard of all one and two-star highways (rated under the Australian Road Assessment Program - AusRAP) should be raised as a matter of priority. Implementing proven engineering countermeasures such as lane and shoulder widening, removing roadside hazards, upgrading intersections as well as installing audio tactile line marking and wide centre-line treatment, would go a long way to meeting these standards and reducing crash rates and road trauma.

The results of this report are used as supporting information to supplement other RACQ technical surveys such as AusRAP and the Inland Queensland Road Action Plan (IQ-RAP). The information also helps RACQ prioritise our advocacy for those roads most in need of upgrades and additional infrastructure investment.

METHODOLOGY

Two staff from RACQ's Advocacy Division undertook the tour. Together they drove each of the highways listed below, generally in one direction. Visual inspections were performed by the two RACQ staff and included noting traffic lane, shoulder and clear zone widths.

It also included observing and cataloguing other visual qualities of the roads such as pavement condition, delineation and types of roadside hazards.

Images were taken using a Sony Cyber-shot 8.1 megapixel camera. Video data was also collected using a Contour 'Contour+2' action camera, forward facing with a wide angle lens.

SURVEY ROUTE

The highways surveyed during this regional road inspection tour are listed below. In total, approximately 1850km of road was surveyed.

- Flinders Highway (Townsville to Hughenden, Hughenden to Cloncurry)
- Barkly Highway (Cloncurry to Mount Isa)
- Landsborough Highway (Cloncurry to Winton)
- Kennedy Developmental Road (Winton to The Lynd)



SUMMARY OF RESULTS

In April 2016, RACQ's Advocacy Division conducted a road inspection along National Highways and lower order State roads in North Western Queensland from Townsville to Mount Isa and back. This included the Flinders Highway, Barkly Highway, Landsborough Highway and Kennedy Developmental Road.

Since our last survey of the Flinders Highway in 2009 there has been significant investment in widening, rehabilitating and strengthening of the road surface on the Flinders Highway. The Landsborough Highway and Kennedy Developmental Road have also received emergency flood recovery funding (NDRRA) over a number of years.

While RACQ welcomes this investment, sections of narrow sealed surface (<8m) still exist on all the highways in this survey, including unsealed sections of the Kennedy Developmental Road. These narrow sections of seal should be widened to at least an 8m seal in the short term (0 - 5 years) with a continuation of sealing to dual lane sealed standard on the Kennedy Developmental Road from Hughenden to The Lynd.

Increased maintenance funding is also required over the long term to ensure the road condition, quality and resilience to future flood damage is preserved.

Another problem common to all the roads surveyed was low level, narrow, river and creek crossings. Flooding, or lack of flood immunity, is a significant issue that can cut access along the road reducing freight productivity, access to communities and tourism.

Frequently these crossings displayed poor road surface conditions. There are serious safety concerns at narrow crossings where two larger vehicles are unable to pass safely, especially on National Highway road train routes.

On approach to culverts on the Kennedy Developmental Road there were occasions where the speed limit was dropped and 'Rough surface' signs were displayed. The culverts project above the surface of the road, with the potential to damage tyres, suspension, and cause loss of control if traversed at an open speed limit.

The lower speed and warning sign is warranted, however there were two occasions where there were two culverts spaced a significant distance apart. Only the first culvert was signed on each occasion, so the driver was unaware of the second culvert, striking it firmly. Each culvert should be signed separately, or a supplementary distance plate, e.g., 'Next 2km' placed with the initial signs.

RACQ also noted that phone reception dropped out in regional areas which can delay emergency notifications of incidents, crashes or hazards, and delay response times.

Table 1 presents a summary of recommendations and priorities for improvements on the surveyed highways and supplements the findings within the Inland Queensland Road Action Plan (IQ-RAP) report <http://rdafcw.com.au/inland-queensland-roads-action-plan/>

Appendix A shows a catalogue of images taken during the inspection tour.

Disclaimer: This report is based on a visual inspection of highways. While attempts have been made to ensure the accuracy of the information contained in this report, the Royal Automobile Club of Queensland makes no statements, representations, or guarantees about the accuracy or completeness of it.

Table 1 – Summary of recommendations

	KEY					
	Priority					
	High	Medium	Low	Not Required		
Road Segment	Widen seal or shoulders	Bridge / culvert widening	Hazard removal / protection	Additional overtaking lanes	Improve flood immunity	Rehabilitate / strengthen pavement
Flinders Hwy (Townsville to Charters Towers)	Low	High	Not Required	Medium	Medium	Low
Requires additional overtaking lanes on higher volume sections south-west of Townsville. Investigate improvements to flood immunity, including widening narrow bridges / culverts for safety. Continue to maintain sections prone to surface failure. Consider a wide centre-line on high volume sections with adequate width.						
Flinders Hwy (Charters Towers to Cloncurry)	Medium	High	Not required	Not Required	High	Low
Primarily requires investment in flood immunity improvements and widening of narrow bridges and culverts, including approaches (e.g., at Box Ck, Scrubby Ck, Canal Ck, Williams River, Gilliat Channel). Widen short sections of narrow seal <8m and continue to rehabilitate and strengthen sections prone to surface failures. Lower raised culverts to road level to prevent damage to vehicle suspension / tyres or prevent a potential loss of control crash.						
Barkly Hwy (Cloncurry to Mount Isa)	Medium	Not required	Medium	Low	Low	Low
Widen / shoulder seal short sections of narrow seal through cuttings. Investigate potential skid resistance issues due to polished road surface and consider re-marking ATLM along worn sections that currently provide limited vibration / noise (typically centre line on narrow sections through curves). Continue to install safety barriers at high-risk locations with roadside hazards and consider additional overtaking lanes.						
Landsborough Hwy (Cloncurry to Winton)	Medium	High	Low	Not Required	Medium	Low
Improve surface condition and width of creek / river crossings and floodways to improve road condition, safety and flood immunity. Widen narrow seals <8m as a priority – most notably the first 75km north west of Winton. Continue to rehabilitate, widen and strengthen pavement prone to surface failures, especially on narrow sections. Lower raised culverts to road level to prevent damage to vehicle suspension / tyres or prevent a potential loss of control crash. Install ATLM on the edge line and centre line especially on approach to culverts and river / creek crossings, including sections where roadside hazards such as trees are close to the roadside (i.e., McKinlay to Cloncurry).						
Kennedy Developmental Rd (Winton to Hughenden)	Not required	High	Not Required	Not Required	Medium	Low
Improve flood immunity and widen narrow bridges and culverts. Continue to rehabilitate and strengthen pavement prone to surface failures, and continue crack sealing practices to minimise future surface failures. Lower raised culverts to road level to prevent damage to vehicle suspension / tyres or prevent a potential loss of control crash. Improve phone reception which can delay emergency notifications of incidents, crashes or hazards, and delay response times.						
Kennedy Developmental Rd (Hughenden to The Lynd)	High	High	Not Required	Not required	Medium	Low
Continue to allocate funding to seal gravel sections to provide an all weather road and minimise rutting and maintenance issues. Improve flood immunity and widen narrow bridges and culverts. Continue to rehabilitate and strengthen pavement prone to surface failures, and continue crack sealing practices to minimise future surface failures. Lower raised culverts to road level to prevent damage to vehicle suspension / tyres or prevent a potential loss of control crash. Improve phone reception which can delay emergency notifications of incidents, crashes or hazards, and delay response times.						

#Please note that the ranking of priorities should only be compared on the nominated road segment. No comparison of relative priority should be made between highways or road segments.

APPENDIX A - Images

Flinders Highway (Townsville to Hughenden)





Flinders Highway (Hughenden to Cloncurry)



Landsborough Highway (Cloncurry to Winton)



Kennedy Developmental Road (Winton to Hughenden)



Kennedy Developmental Road (Hughenden to The Lynd)





