



Australian Government

BUILDING OUR FUTURE



Pacific Highway upgrade

Achievement report **April 2018**



Aerial view of Harwood Bridge
being built. April 2018

Overview of the upgrade



Pacific Highway upgrade

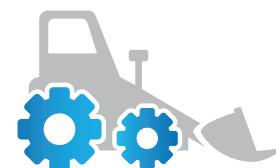
This report will provide you with information about Pacific Highway upgrade projects, including the current status and key activities.

As of 30th April 2018, about 80% of 657 kilometres has been upgraded, and the remaining 135 kilometres of highway is under construction.



about 80%
of
highway length now
four lane divided road

3334 workers
on site



135km
of highway
being built

The total number of workers includes workers on site for the Pacific Highway upgrade projects contained in this report, and workers on site preparing for work not yet reported on.

For more detailed information visit the project website at www.rms.nsw.gov.au/pacific or call the Pacific Highway office on 1800 653 092

Port Macquarie to Coffs Harbour

The remaining six kilometres of the Pacific Highway still to be upgraded to four lane divided road between Port Macquarie and Coffs Harbour are being built. Five projects worth more than \$3.3 billion are either being built or opened to traffic.

The 26 kilometre Frederickton to Eungai project opened to traffic in May 2016, the Nambucca Heads to Urunga project in July 2016, the 14 kilometre Kundabung to Kempsey project opened to four lanes in October 2017, the 23 kilometre Oxley Highway to Kundabung section opened progressively between November 2017 and March 2018, and 14 kilometres of the Warrell Creek to Nambucca Heads section opened in December 2017. The remaining six kilometres of the Warrell Creek to Nambucca Heads section is expected to open to traffic from mid-2018, weather permitting. The summaries on the following pages outline progress in completing this section of the Pacific Highway upgrade, including key building activities.

Port Macquarie to Coffs Harbour

Project snapshot

Contractors: Lendlease

Form of contract: Design and build

Workers on site: 138

Pieces of large machinery: 10

Start date of major construction: October 2014

Expected completion date: open to traffic

Project value: \$820 million

Australian Government contribution: \$542.4 million*

NSW State Government contribution: \$277.6 million*

*Contribution amounts may vary from year to year

Oxley Highway to Kundabung

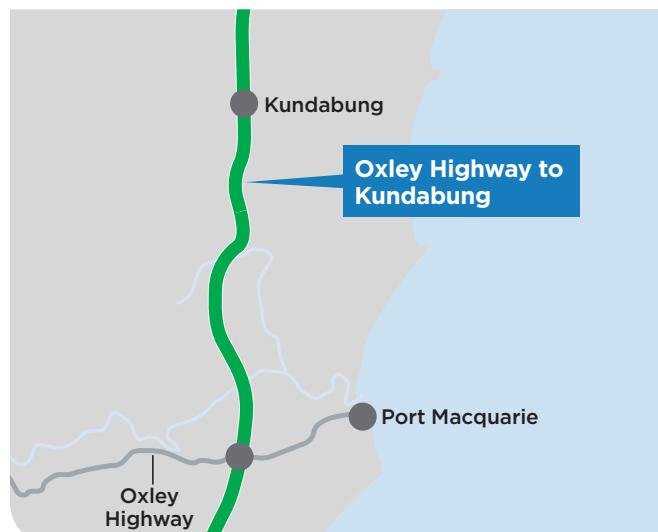
Background

The Oxley Highway to Kundabung project is the southern section of the Oxley Highway to Kempsey upgrade, which was approved by the NSW Minister for Planning and Infrastructure in 2012 and the Federal Department of the Environment in January 2014. The project is jointly funded by the Australian and NSW governments. It involves building 23 kilometres of four lane divided road, including bridges over the Hastings and Wilson rivers.

- finished northbound on-ramp asphalt pavement at Haydons Wharf Road
- continued work on boundary and fauna exclusion fencing
- finalising at-house noise treatments for affected properties
- finished pavement for the Yarrabee Road interchange
- completed landscape work at Cooperabung Range
- finalising drainage on Telegraph Point Road.

Key activities/progress in April 2018

- project fully open to traffic
- continued minor finishing work before speed limit is raised to 110km/h



OPEN TO TRAFFIC

For more detailed information visit the project website at www.rms.nsw.gov.au/pacific or call the Pacific Highway office on 1800 653 092

Oxley Highway to Kundabung



Placing asphalt pavement at the Haydons Wharf Road northbound on-ramp



Placing stone pitching under Yarrabee Road overbridges



Finalising gutters on Telegraph Point Road



Drainage and landscaping at Blackmans Point Road interchange



Asphalt pavement being placed at the northbound on-ramp at Haydons Wharf Road interchange

Port Macquarie to Coffs Harbour

Project snapshot

Contractors: Pacifico (Acciona Ferrovial joint venture)

Form of contract: Design and build

Workers on site: 180

Pieces of large machinery: 45

Start date of major construction: December 2014

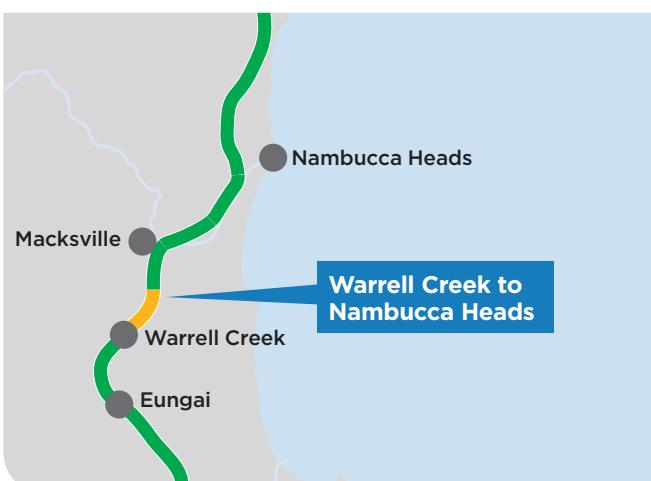
Expected completion date: 14 km Macksville bypass opened late 2017, remaining six km to open by mid 2018 (weather permitting)

Project value: \$830 million

Australian Government contribution: \$415 million*

NSW State Government contribution: \$415 million*

*Contribution amounts may vary from year to year



Warrell Creek to Nambucca Heads

Background

The Warrell Creek to Nambucca Heads project is the second stage of the Warrell Creek to Urunga upgrade, which was approved by the NSW Minister for Planning and Infrastructure in 2011. The Federal Department of the Environment approved this upgrade in December 2014. The project is jointly funded by the Australian and NSW governments. The 20 kilometre project involves upgrading the existing highway to a four lane divided road between the Allgomera deviation, south of Warrell Creek, to just south of the North Coast railway line where it joins the Nambucca Heads to Urunga upgrade.

Key activities/progress in April 2018

- completed placing sub grade material at southern end near Browns Crossing Road
- completed placing pavement material near the railway underpass
- started installing major highway signage
- continued work on the emergency crossover at the northern end of the project
- continued deck and finishing work for bridges over Upper Warrell Creek and Williamson Creek.



PARTIALLY OPEN TO TRAFFIC

For more detailed information visit the project website at www.rms.nsw.gov.au/pacific or call the Pacific Highway office on 1800 653 092

Warrell Creek to Nambucca Heads



A 'double' rainbow over the new highway near Rosewood Road, during finishing work looking south.



Building concrete barrier north of Cockburns Lane



Road pavement ready for sealing at the railway underpass, looking south



Landscaping and the road ready for sealing at the railway underpass, looking north



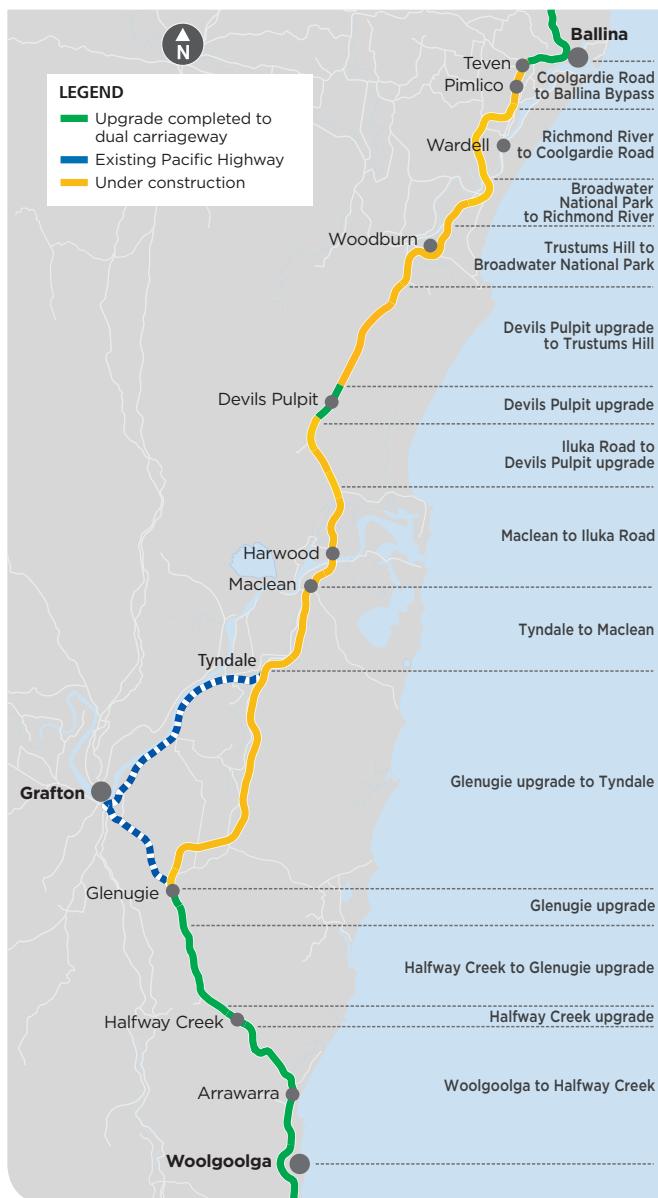
Pouring concrete deck at Williamson Bridge (last deck pour for the project)

Woolgoolga to Ballina

The 155 kilometre upgrade between Woolgoolga and Ballina is the last highway link between Hexham and the Queensland border to be upgraded to four lanes.

Roads and Maritime Services' Pacific Highway Project Office, Pacific Complete and its contractor partners are working together to deliver the project. The delivery partner model is based on the approach used to oversee construction of infrastructure for the London Olympics and supports collaboration and innovation by bringing businesses, workers, consumers and suppliers together. It encourages the best ideas and solutions from the private sector while also drawing on Roads and Maritime's knowledge to ensure better engineering and design, customer outcomes and public value.

Woolgoolga to Ballina



Woolgoolga to Ballina

Background

The Woolgoolga to Ballina upgrade was approved by the NSW Minister for Planning in June 2014 and the Federal Minister for the Environment in August 2014. Of the 155 kilometre project, 26 kilometres are open to traffic, and when complete will provide a four lane divided road from the northern end of the Woolgoolga Bypass to the southern end of the Ballina Bypass. The project is jointly funded by the Australian and NSW governments.

Procurement

- tender assessments are currently being carried out for foamed bitumen and street lighting packages.

Highway Construction (Glenugie to Ballina)

Overview

- construction is progressing across the remaining W2B alignment. Key construction activities for April include bulk earthwork and foundation treatments, site wide piling and construction of highway bridges in numerous locations.

Successes / Achievements for April 2018

- 447,282m³ of earthwork was completed. Earthwork across the alignment is currently 55 per cent complete
- 81 bridges, either along or over the highway, are currently under construction

- start of final Pacific Highway traffic switch at Mororo
- specialised equipment mobilised to start construction of the balanced cantilevered bridge over Emigrant Creek, Pimlico.

Environment

- 110 hectares of koala food trees including 80,000 koala food trees planted
- detailed design completed on all fauna connectivity structures and construction started in most areas.

Stakeholder and Community Engagement

- held the final round of roadshows to connect local people looking for work with contractors
- held a workshop with head contractors to manage issues and reinforce expectations about timely payments to subcontractors and sub-subcontractors
- distributed an update to more than 30,000 properties along the alignment providing information about directional signage public display, out of hours work, operational noise, employment update and traffic management.



* including workers not on site working across the whole Woolgoolga to Ballina project

For more detailed information visit the project website at www.rms.nsw.gov.au/pacific or call the Pacific Highway office on 1800 653 092

Woolgoolga to Ballina



Glenugie to Maclean

Background

The Glenugie to Maclean section of the Woolgoolga to Ballina Pacific Highway upgrade extends more than 48 kilometres. Diverging from the existing Pacific Highway at Glenugie the new alignment heads east passing through Pillar Valley joining the existing Pacific Highway at Maclean. The upgrade in this location includes the Glenugie, Tyndale and Maclean interchanges.

Key activities/progress during April 2018

- completed 210,083m³ of earthwork. 67 per cent of earthwork has now been completed overall
- continued work on 53 bridges, from a total of 71 for this portion
- continued work on drains.



For more detailed information visit the project website at www.rms.nsw.gov.au/pacific or call the Pacific Highway office on 1800 653 092

Glenugie to Maclean



Earthwork for highway construction south of Jubilee Street, Maclean



Bulk earthwork being carried out north of Tyndale



Concrete deck pour at bridge south of Tyndale

Woolgoolga to Ballina



Maclean to Devils Pulpit

Background

The Maclean to Devils Pulpit section of the Woolgoolga to Ballina Pacific Highway upgrade extends about 27 kilometres. The upgrade in this location generally follows the existing Pacific Highway and includes Yamba, Harwood and Iluka interchanges.

Key activities/progress in April 2018

- completed 14,801m³ of earthwork. 45 per cent of earthwork has now been completed overall
- continued work on seven bridges. Two bridges have been finished, from a total of 24 for the portion
- completed the final temporary traffic switch on the Pacific Highway at Mororo
- started installing open drains and permanent fencing at Mororo roundabout
- continued local road work at Harwood.



For more detailed information visit the project website at www.rms.nsw.gov.au/pacific or call the Pacific Highway office on 1800 653 092

Maclean to Devils Pulpit



Local road work at Harwood, looking south



Work started at Mororo roundabout

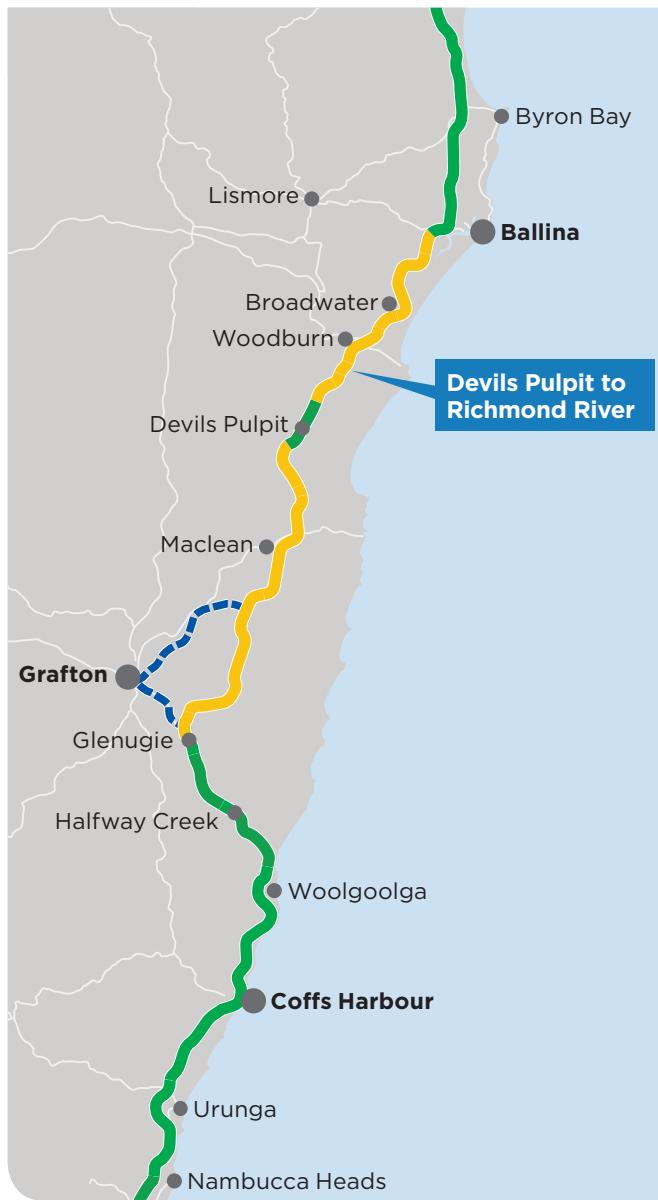


Building drains north of Harwood



Building bridge piers near Chatsworth Road, Chatsworth Island

Woolgoolga to Ballina



Devils Pulpit to Richmond River

Background

The Devils Pulpit to Richmond River section of the Woolgoolga to Ballina Pacific Highway upgrade begins about 13 kilometres north of Mororo Road and extends about 34 kilometres north to the new Richmond River bridge. In this area the upgrade bypasses Woodburn, Broadwater and Wardell and includes Broadwater and Wardell interchanges.

Key activities/progress in April 2018

- completed 79,940m³ of earthwork. 33 per cent of earthwork has now been completed overall
- continued work on one bridge. Five bridges have now been completed, from a total of 31 for the portion
- continued preparation work at the sugar mill conveyor in Broadwater
- continued telephone service relocation between Devils Pulpit and Trustums Hill.



294 workers on site



113 pieces of large machinery on site



about 32% complete



8 contractor companies on site



For more detailed information visit the project website at www.rms.nsw.gov.au/pacific or call the Pacific Highway office on 1800 653 092

Devils Pulpit to Richmond River



Site preparation on road alignment south of Woodburn



Preparation work under Broadwater sugar cane conveyor



Piling for bridge work south of Broadwater



Testing before piling pad work begins, south of Broadwater

Woolgoolga to Ballina



Richmond River to Ballina Bypass

Background

The Richmond River to Ballina bypass section of the Woolgoolga to Ballina Pacific Highway extends more than 18 kilometres from the new Richmond River bridge to just south of the Teven Road interchange at Ballina.

Key activities/progress in April 2018

- completed 137,807m³ of earthwork. 51 per cent of earthwork has now been completed overall
- continued work on 16 bridges, from a total of 25 for the portion
- started placing final road base material before paving between Richmond River and Pimlico
- set up equipment to start building the bridge over Emigrant Creek, Pimlico.



468 workers on site

328 pieces of large machinery on site



about 40% complete



13 contractor companies on site

For more detailed information visit the project website at www.rms.nsw.gov.au/pacific or call the Pacific Highway office on 1800 653 092

Richmond River to Ballina Bypass



Building equipment in place for Emigrant Creek bridge, Pimlico



Placing final road base material prior to paving south of Wardell



Fauna crossing culvert being installed near Wardell

Installing precast concrete planks on bridge between Wardell and Pimlico



Woolgoolga to Ballina



New bridge over the Clarence River at Harwood

Background

The bridge over the Clarence River at Harwood project is part of the Woolgoolga to Ballina Pacific Highway upgrade. It involves building a 1.5 kilometre long, four lane divided bridge, about 20 metres east of the existing Harwood Bridge.

Key activities/progress in April 2018

- finished all river pile caps
- started night work to install bridge girders on southern side of the Clarence River
- continued concreting bridge deck on the northern side
- precast concrete moulds arrived on site to start building bridge parapets.



For more detailed information visit the project website at www.rms.nsw.gov.au/pacific or call the Pacific Highway office on 1800 653 092

New bridge over Clarence River at Harwood



Morning view of bridge construction over the Clarence River at Harwood



Finished marine pile cap building



Started bridge girder night work on the southern side



Precast bridge parapets moulds arrived on site and building started

Woolgoolga to Ballina



New bridge over the Richmond River at Broadwater

Background

The bridge over the Richmond River at Broadwater will be one of two major bridges for the Woolgoolga to Ballina Pacific Highway upgrade.

The project involves building a one kilometre long, four lane divided road bridge, about 500 metres north of Broadwater.

Key activities/progress in April 2018

- placed first two spans of 'Super-T' bridge girders
- finished concreting first bridge pile in the Richmond River
- building bridge abutment on northern side now 50 per cent completed
- started building temporary work platform on northern riverbank.



0 days lost to wet weather



150 workers on site



38 pieces of large machinery on site



about 47% complete



1 contractor company on site

For more detailed information visit the project website at www.rms.nsw.gov.au/pacific or call the Pacific Highway office on 1800 653 092

New bridge over the Richmond River at Broadwater



Super-T bridge girder placed on the southern side, Broadwater



Northern bridge abutment being built, Broadwater



Placing precast concrete bridge headstock on the southern side



First marine pile concrete pour

Pacific Highway environment work showcased at international ecological conference

The Pacific Highway Environment team showcased the ecological work along the Pacific Highway upgrade at this year's Australasian Network for Ecology and Transportation (ANET) conference in Melbourne.

The Australasian Network for Ecology and Transportation (ANET) is a professional network dedicated to the research, design and implementation of environmentally-sensitive linear infrastructure including rail, roads and utility easements across Australasia. Acting as a hub, ANET provides links between government, industry, scientists and community groups to ensure all have access to current evidence and best practice.

ANET has held international conferences in 2009 and 2014, focussing on sharing global best practice in identifying and mitigating the ecological impacts of all types of linear infrastructure and transport. The 2018 ANET conference, co-hosted by the Environment Institute of Australia and New Zealand in Victoria, explored the theme Connecting nature, connecting people, focussing on the intersection of people and linear infrastructure, specifically how both people and nature are connected along, across and between different types of infrastructure.

The Pacific Highway Project Office prides itself on continuous improvement in environmental engineering and management which is done through good relationships with contractors, clear environmental standards and governance and working with all stakeholders to improve environmental outcomes.

The Pacific Highway environment team participated in the ANET conference and shared learnings and innovation from the 20 year upgrade program. Through a trade booth the team distributed a brochure and displayed posters as well as online resources. The team also made key presentations on the Ballina Koala Management Plan and the Woolgoolga to Ballina Fauna Connectivity Strategy.

With significant community, regulator and political interest, the koala management plan sets out Roads and Maritime's mitigation and monitoring actions for the upgrade as required under the project's condition of approval. The presentation detailed the project team's work with numerous koala experts, ecologists, NSW Office of the Chief Scientist, road designers and engineers as well as regulatory agencies to develop range of integrated measures to minimise impacts on the Ballina koala population

The fauna connectivity presentation outlined Roads and Maritime's environmental strategy that provides animals with structures to pass under or over the Pacific Highway so that their habitats remain connected on each side.

ANET 2018 gave the Roads and Maritime environment team the opportunity to showcase the project as it traverses some of the most diverse ecological areas on the east coast of NSW.



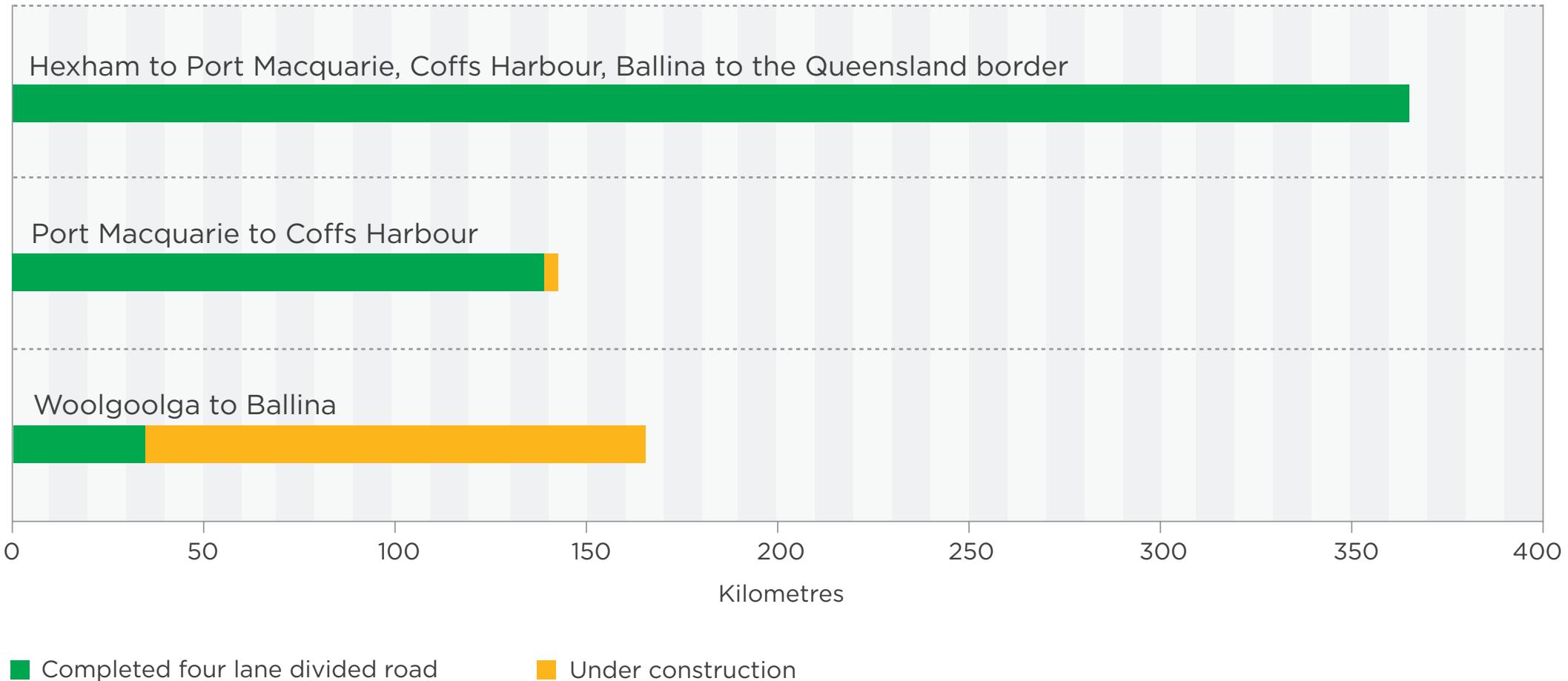
Emu fencing has proven effective, with emus regularly using the designated crossing points



Fauna underpass

For more detailed information visit the project website at www.rms.nsw.gov.au/pacific and environment news at www.rms.nsw.gov.au/projects/pacific-highway/environment/news.html or call the Pacific Highway office on 1800 653 092

Four lane divided route status





For more detailed information visit the project website at **www.rms.nsw.gov.au/pacific** or call the Pacific Highway office on **1800 653 092**