



Australian Government

**BUILDING OUR FUTURE**



# Pacific Highway upgrade

Achievement report **May 2018**



Aerial view of the Glenugie to Maclean upgrade near Tyndale

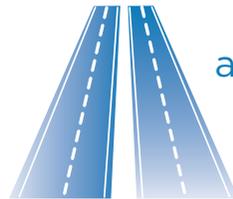
# Overview of the upgrade



## Pacific Highway upgrade

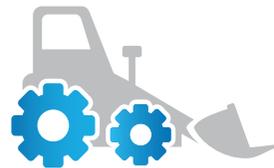
This report will provide you with information about Pacific Highway upgrade projects, including the current status and key activities.

As of 31st May 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

**3377** 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](http://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:** 91

**Pieces of large machinery:** 7

**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

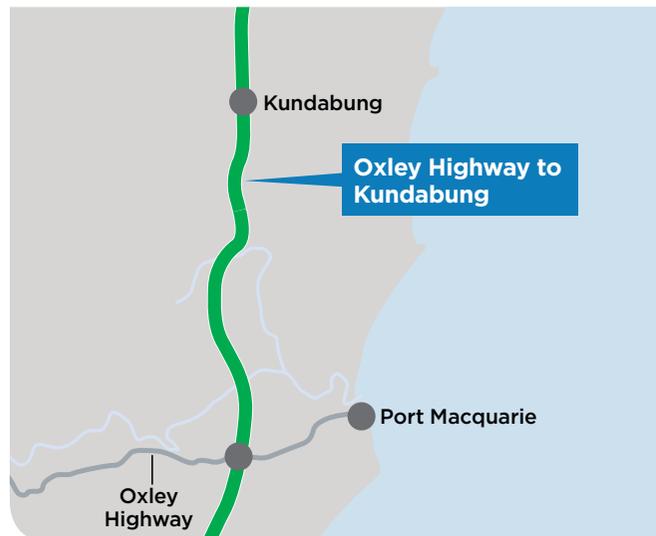
### Background

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.

### Key activities/progress in May 2018

- project fully open to traffic
- completed minor finishing work, enabling the final 110km/hr speed limit to be posted across the northern section of the project on 28 May 2018. The entire dual carriageway from Port Macquarie to Kempsey is now signposted at 110km/hr.

- completed re-lining work on a stormwater culvert under the Haydons Wharf northbound on-load ramp
- continued boundary fencing and fauna exclusion fencing
- finalising at-house noise treatments for affected properties
- completed final landscape works across the project
- continue to finalise local road works, including final kerb and drainage work on Telegraph Point Road and repairs to Glen Ewan Road
- completed gravel road into state forest, Cooperabung Range Road.



**OPEN TO TRAFFIC**

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

# Oxley Highway to Kundabung



Preparation for re-lining stormwater pipe culvert at Haydons Wharf Road northbound on-ramp



Re-lining stormwater pipe culvert at Haydons Wharf Road northbound on-ramp



Repairs on Glen Ewan Road



Sealing work underway on Glen Ewan Road



Completed gravel road into state forest, Cooperabung Range Road



Work on open drain next to Telegraph Point Road

# Port Macquarie to Coffs Harbour

## Project snapshot

**Contractors:** Pacifico (Acciona Ferrovial joint venture)

**Form of contract:** Design and build

**Workers on site:** 167

**Pieces of large machinery:** 47

**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

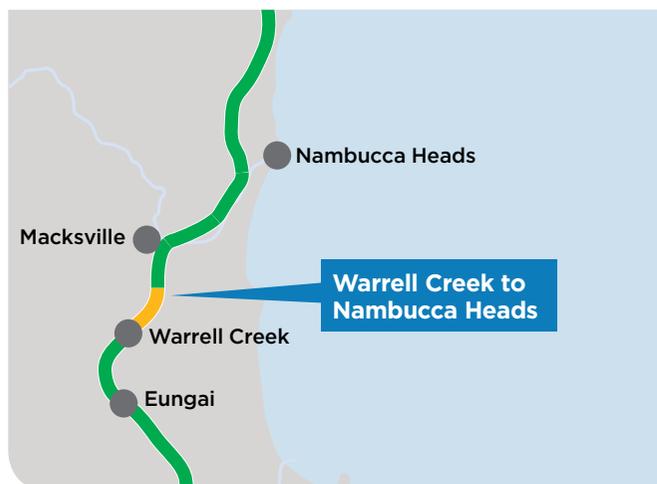
## Warrell Creek to Nambucca Heads

### 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 Allgobera 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 May 2018

- finished sign and wire rope work to the top of the secondary asphalt course in the Williamson Creek area
- finished building the noise mound, and work on the noise wall has started south of Williamson Creek
- continued work on the Bald Hill West roundabout
- finished sealing the Williamson Creek bridge and railing installation has started
- finished sealing the southbound carriageway of Upper Warrell Creek bridge. Railings and reinforced concrete barriers continue to be installed
- the Giant Barred frog fence at Upper Warrell Creek was moved at the end of May to start causeway removal work
- earthwork continues south of Upper Warrell Creek.



**PARTIALLY OPEN TO TRAFFIC**

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

# Warrell Creek to Nambucca Heads



Forming concrete barriers near Cockburns Lane bridge



Building the noise wall at Williamson Creek



Railway overpass looking south towards tie into existing highway



Railway overpass (pergola) construction continues, looking north



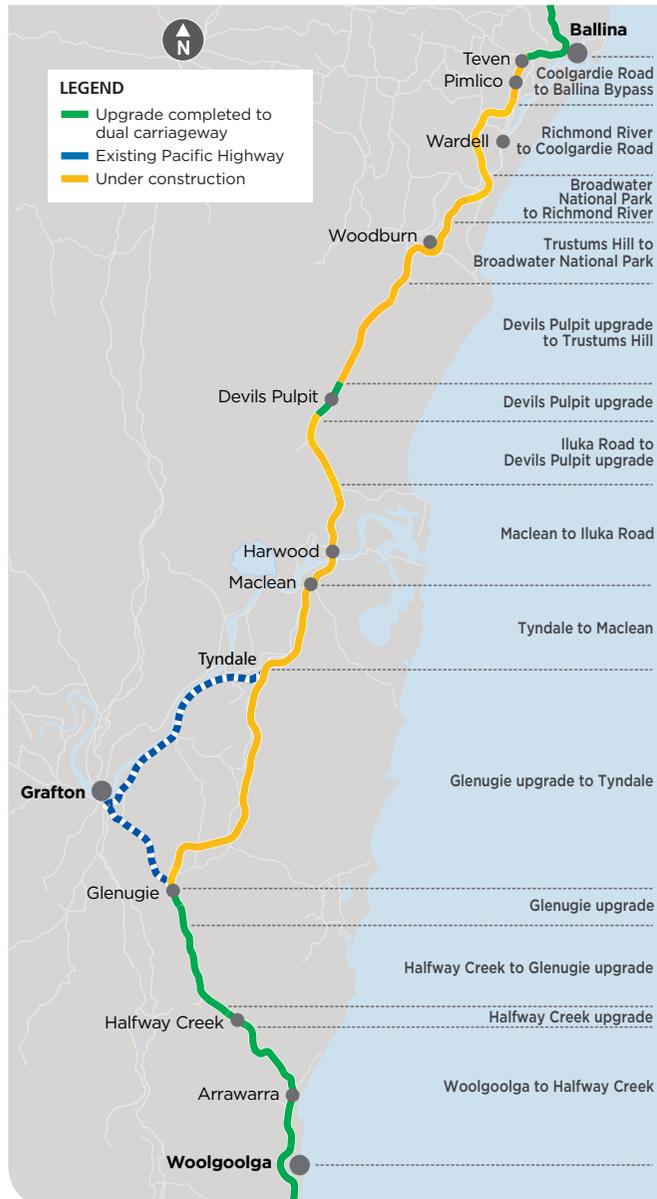
Earthwork near Upper Warrell Creek Road for the new northbound off ramp at Giinagay Way (old Pacific Highway), looking north

# 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. 26 kilometres opened in 2017 and the remaining sections are due to open in 2020.

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

- work packages awarded for rigid pavements for the alignment between Broadwater and Coolgardie Road.

### Highway Construction (Glenugie to Ballina)

#### Overview

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

### Successes / Achievements for May 2018

- 1.1 million cubic metres of earthwork completed. Earthwork across the alignment is currently 63 per cent complete
- 85 highway bridges are currently under construction
- first “Super-T” concrete girders installed on bridges at Shark Creek
- construction of marine columns complete for the bridge over the Clarence River at Harwood.

### Environment

- building started on a koala connectivity culvert at Wardell Road, to allow safe koala movement prior to the breeding season.

### Stakeholder and Community Engagement

- in May, the program built awareness and a social media following about temporary road closures for girder lifts for the new bridge over the Clarence River. Nearly 60,000 people were reached through a Facebook campaign.

3077 total workers\*  \* 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](http://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 May 2018

- 364,746m<sup>3</sup> of earthwork complete meaning overall earthwork is 72 per cent complete for this section
- work continued on 57 of the 71 bridges for this section of the upgrade
- installed first “Super-T” concrete girders for the new bridge over Shark Creek
- started foundation work for temporary road north of Jubilee Street, Maclean.



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

# Glenugie to Maclean



First "Super-T" concrete girders installed for the new bridge over Shark Creek



Earthwork looking south from McIntyres Lane, Maclean



Started foundation work for temporary road north of Jubilee Street, Maclean



New rock layer placed at the interchange near Glenugie

# 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 May 2018

- 77,081m<sup>3</sup> of earthwork complete meaning overall earthwork is 50 per cent complete for this section
- continued work on seven bridges. Two out of 24 bridges are complete for this section
- started preparation at Tyndale borrow site to extract material for this section
- continued preload construction to treat soft soil at Yamba interchange.



5 days  
lost to wet  
weather



371 workers  
on site



134 pieces of large  
machinery on site



about  
27%  
complete



10  
contractor  
companies  
on site

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# Maclean to Devils Pulpit



Preload construction to treat soft soil at Yamba interchange



Earthwork at Farlows Flat



Culvert construction near Mororo



Earthwork near Mororo

# Woolgoolga to Ballina



## Devils Pulpit to Broadwater

### Background

The Devils Pulpit to Broadwater 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 May 2018

- 118,011m<sup>3</sup> of earthwork complete meaning overall earthwork is 34 per cent complete for this section
- continued work on one bridge. Five out of 31 bridges are complete for this section
- completed relocation of optic fibre cable near Tabbimoble for building to start
- continued piling for bridges and delivering earthwork between Devils Pulpit and Trustums Hill
- started work on temporary carpark at New Italy rest stop.



12 days lost to wet weather



348 workers on site



122 pieces of large machinery on site



about 34% complete



7 contractor companies on site

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# Devils Pulpit to Broadwater



Bridge piling at Montis Gully south of Broadwater



Bridge piling progressing south of Broadwater



Earthwork near Tabbimoble State Forest

# Woolgoolga to Ballina



## Broadwater to Ballina Bypass

### Background

The Broadwater 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 May 2018

- 584,197m<sup>3</sup> of earthwork complete meaning overall earthwork is 51 per cent complete for this section
- continued work on 18 bridges from a total of 27 for this section
- completed preloading of soft soil areas at Whytes Lane and settlement period has started
- first deck pour completed for new bridge over Emigrant Creek
- first deck pour completed for new bridge over Wardell floodway.



8 days  
lost to wet  
weather



476 workers  
on site



314 pieces of large  
machinery on site



about  
45%  
complete



12  
contractor  
companies  
on site

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# Broadwater to Ballina Bypass



First deck pour for new bridge over Emigrant Creek



First concrete deck pour for bridge over Wardell floodway



Earthwork and soil stabilisation near Pimlico



Road preparation work for Whytes Lane traffic switch

# 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 May 2018

- completed concrete girder installation to the southern land side
- 750 tonne crane setup and operational on the Rebecca Lilly Barge installing marine girders
- started manufacturing bridge parapets on-site
- finished marine column construction.



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

# New bridge over Clarence River at Harwood



Completion of girder installation to the southern land side



Completion of marine columns



First marine girder being installed by the Rebecca Lilly Barge

# 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 May 2018

- first marine bridge pile cap shell installed and concreted
- continued building bridge columns and headstocks on the southern land side
- first bridge deck steel reinforcements installed on the southern side ready for concrete pour
- last concrete columns poured for the southern land spans.



1 day lost to wet weather



192 workers on site



45 pieces of large machinery on site



about 53% complete



1 contractor company on site

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

# New bridge over the Richmond River at Broadwater



First installed marine pile cap



Deck reinforcement installed ready for concrete pour



Last concrete columns poured on the southern land spans



Richmond River bridge construction team

# Fauna connectivity success between Sapphire and Woolgoolga

The Pacific Highway upgrade project team recently welcomed findings that fauna crossing structures between Sapphire to Woolgoolga are proving effective. Fauna crossing measures, including vegetated medians and glide poles, were installed as part of the project, and an ecological monitoring program was established to study the area known to house a number of threatened species, including the Squirrel glider.

Remote cameras and a catch-and-release method have shown the structures are working, recording regular use by Sugar gliders, Feathertail gliders and Squirrel gliders. The use of a glider pole by a Feathertail glider was considered unexpected, given the species' small size and vulnerability in open areas, and gliding capability not as strong as other larger species. All three species, including the threatened Squirrel glider, were recorded moving in both directions, confirming they've not only crossed the highway, but also showing there isn't a behavioural limitation and that the gliders are readily willing to use these structures to cross the road.

Brendan Taylor, Ecologist from Sandpiper Ecological, responsible for the study has said "the structures are considered insurance policies. We want animals to cross the road in the first instance, but also to feel safe enough to cross and to breed, so glider populations become connected and avoid an isolation of population".

The structures are part of the project's compliance with the strict conditions in place for the management of threatened species and the measures are part of the Woolgoolga to Ballina project's commitment to the ongoing safe movement of local wildlife under or over the new highway now and in the future.



Widened vegetated median through Wedding Bells State Forest on the Sapphire to Woolgoolga project



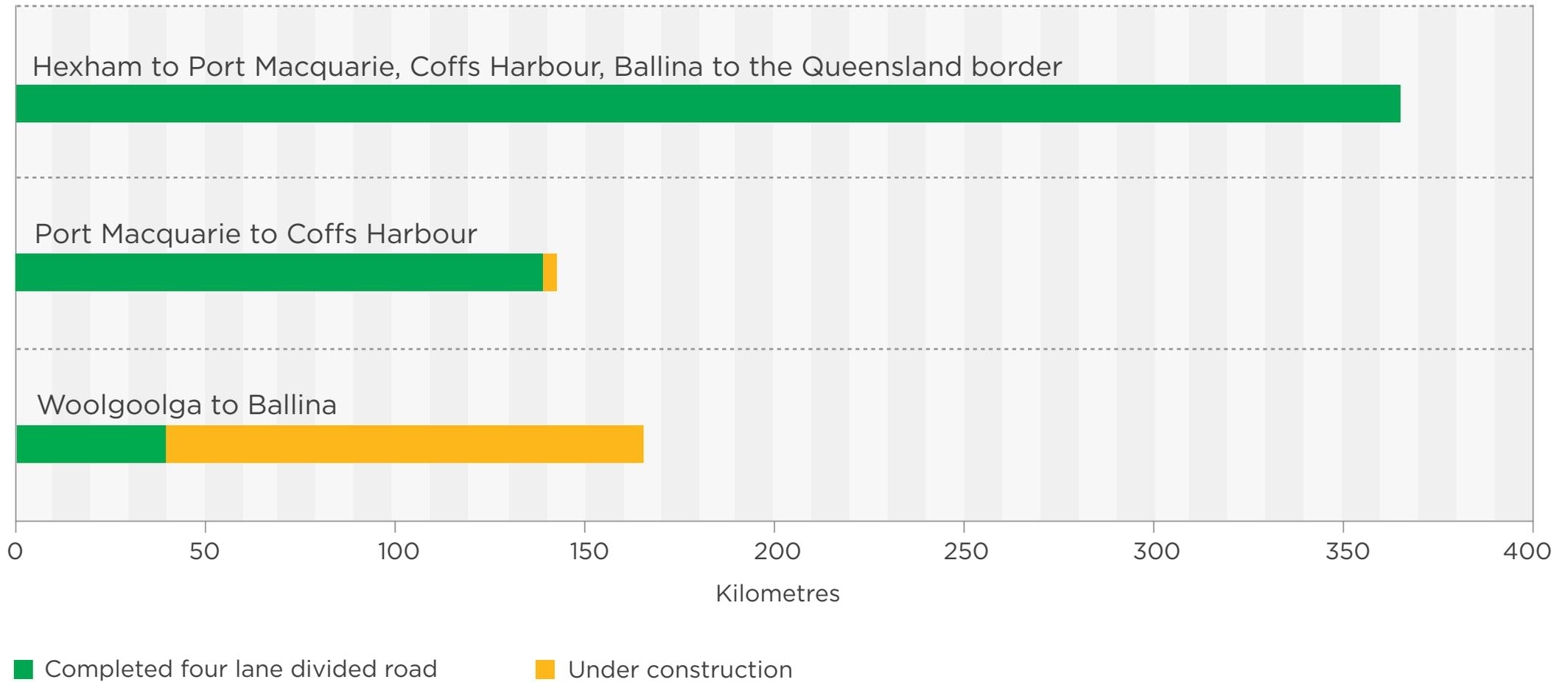
A squirrel glider launches into a glide across the southbound carriageway glide pole



View of the two glide poles at Arrawarra creek looking north

For more detailed information visit the project website at [www.rms.nsw.gov.au/pacific](http://www.rms.nsw.gov.au/pacific) and environment news at [www.rms.nsw.gov.au/projects/pacific-highway/environment/news.html](http://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





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