



Australian Government

**BUILDING OUR FUTURE**



# Pacific Highway upgrade

Achievement report **March 2018**



Yarrabee Road underpass, Cooperabung

# 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.

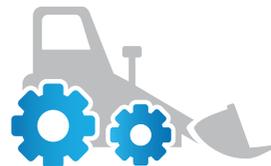
As of 31st March 2018, about 80% of 657 kilometres has been upgraded, and the remaining 135 kilometres of highway is under construction. The final 6 kilometres of Oxley Highway to Kundabung section of the upgrade opened to traffic in March.

About 80 per cent of the final highway length is now four lane divided road.



about 80% of highway length now four lane divided road

3447 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 6 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 6 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:** 169

**Pieces of large machinery:** 20

**Start date of major construction:** October 2014

**Expected completion date:** 18km opened in 2017, remaining 5km to open to dual carriageway in March 2018

**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 March 2018

- project now open to traffic
- completed final traffic switch on 29 March 2018 in time for Easter holiday traffic. The 23 kilometres project length is now dual carriageway
- continuing minor finishing work before the final 110 km/hr speed limit is posted
- continued boundary and fauna exclusion fencing
- finalising acoustic treatments for noise affected properties
- continued paving for the Yarrabee Road interchange
- placed topsoil and continued landscape works at Cooperabung Range
- continued local road works.



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# Oxley Highway to Kundabung



Placing signs before final traffic switch, at Cooperabung



Placing concrete gutter at Yarrabee Road, Cooperabung



The final northern 5 kilometre section ready for traffic



Median finishing work underway, prior to the final traffic switch



Traffic using the new dual-carriageway highway at Cooperabung cutting

# Port Macquarie to Coffs Harbour

## Project snapshot

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

**Form of contract:** Design and build

**Workers on site:** 378

**Pieces of large machinery:** 45

**Start date of major construction:** December 2014

**Expected completion date:** 14 km Macksville and Nambucca Heads bypass opened late 2017, remaining 6 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

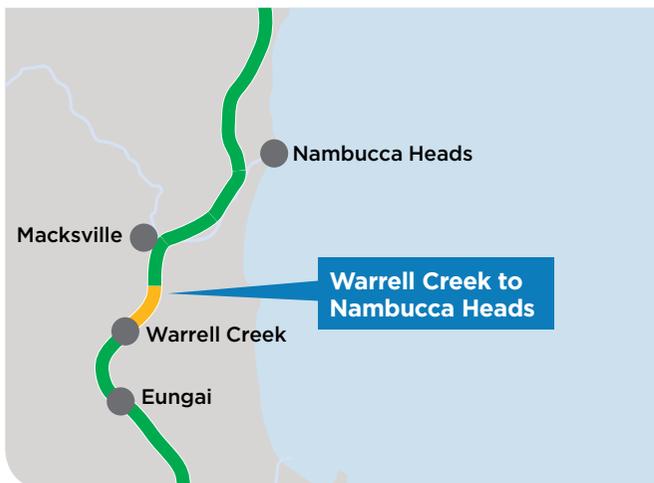
### Background

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 and Nambucca Heads, just south of the North Coast railway line where it will join the Nambucca Heads to Urunga upgrade.

- started work on approach slabs and expansion joints on Upper Warrell Creek bridge
- started earthwork on the removal of the temporary tie-in ramp at Nambucca Heads in preparation for revegetation
- started Nambucca River bank restoration
- continued property adjustment work
- completed finishing work on the railway overpass
- completed last deck pour at Williamson Creek northbound
- continued work on verges, batter treatment, topsoiling, tree planting, fauna fencing and revegetation in all southern zones
- decommissioned the northern and southern concrete batch plants.

### Key activities/progress in March 2018

- switched traffic off the Pacific Highway and onto a service road so that drainage and earthwork could start near Upper Warrell Creek
- completed installing parapet and stitch pours for Upper Warrell Creek bridge



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# Warrell Creek to Nambucca Heads



Diversion road at Upper Warrell Creek



Earthwork between the railway overpass and Cockburns Lane bridge, looking north



Earthwork at Upper Warrell Creek, looking north



Earthwork north of Williams Creek bridge, looking south



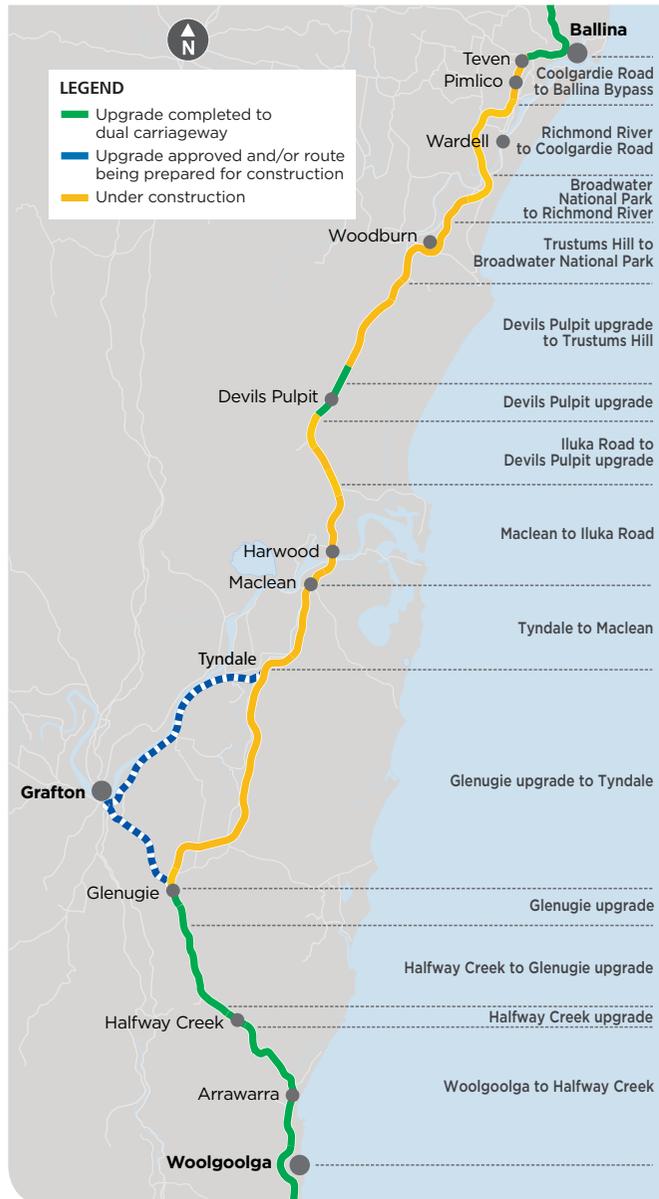
Paving at Bald Hill Road western roundabout

# 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 \$4.36 billion 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

- tenders for street lighting and foamed bitumen packages closed
- packages awarded for earthwork, culvert and drainage construction between Maclean and Iluka Road.

### Highway Construction

#### Overview

- construction work is now underway along the entire Woolgoolga to Ballina alignment
- completed 35 bored bridge piles
- completed about 480,363 cubic metres of earthwork.

#### Successes / Achievements for March 2018

- 70 highway bridges are currently being built

- completed about 52 per cent of earthwork
- installed first “Super-T” precast concrete girders on the southern side of new bridge over Richmond River at Broadwater
- poured first concrete bridge slab on the northern side of the bridge over Clarence River at Harwood.

### Environment

- community newsletter distributed updating progress on the Koala Management Plan
- 23 kilometres of temporary fauna fencing and 16 kilometres of permanent fencing installed for wildlife protection.

### Stakeholder and Community Engagement

- delivered a Facebook series to inform road users about temporary closures of the Pacific Highway and detours at the Yamba interchange for girder movements, reaching more than 74,000 people with the first post
- presented to 43 members of Woodburn Chamber of Commerce meeting to discuss flooding, road safety and accommodation pressures at Evans Head
- presented to 18 people at the Yamba and Maclean Men’s Shed and 23 at the Clarence Valley Servicemen Association to discuss girder transportation, speed limits and signage.

2,900 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 March 2018

- completed decks for a bridge in the Pillar Valley
- installed “Super T” concrete girders for a bridge at Tyndale interchange
- completed piling for four bridges along the alignment
- started local road construction for Six Mile Lane and Somervale Road diversions.



12 days  
lost to wet  
weather



769 workers  
on site



466 pieces of large  
machinery on site



about  
26%  
complete



12  
contractor  
companies  
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**

# Glenugie to Maclean



“Super-T” girders in place for bridge near Tyndale



Pile driving for a bridge over Crackers Drain at Tyndale



Building bridge headstocks at Shark Creek



Vegetation removal 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 March 2018

- switched traffic onto Garretts Lane at Mororo
- started earthwork between Maclean and Iluka Road
- started fill on the embankment at the Yamba interchange
- continued bridge piling and installing drains.



7 days lost to wet weather



363 workers on site



138 pieces of large machinery on site



about 23% complete



10 contractor companies 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**

# Maclean to Devils Pulpit



Piling work for bridge building north of Harwood



Earthwork on the Yamba interchange at James Creek

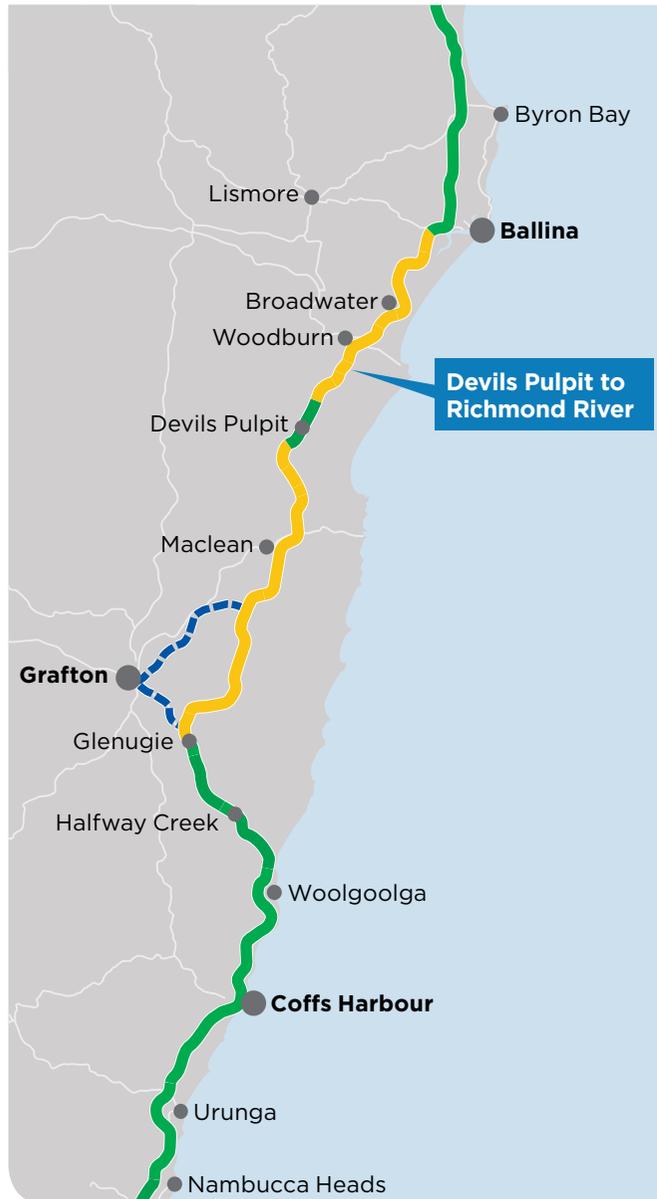


Bridge building over Clarence floodplain at Harwood Island



Installing drains near Ryans Lane, Chatsworth

# 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 March 2018

- traffic switched onto the completed Woodburn to Broadwater link road
- started utility relocation on alignment between Devils Pulpit and Trustums Hill
- started earthwork on Woodburn-Evans Head Road overpass at Woodburn
- started vegetation removal, clearing and placement of rock foundation north of the Broadwater interchange.



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**

# Devils Pulpit to Richmond River



Preparation work looking north along the alignment near Woodburn



Woodburn to Broadwater link road open to traffic



Placement of geo-fabric and rock foundation north of Broadwater interchange



Main civil work on alignment between Devils Pulpit and Trustums Hill

# 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 March 2018

- installed first precast concrete planks for bridge over Wardell floodway
- continued piling on 12 highway bridges
- completed piling for new bridge at Emigrant Creek
- completed foundations between Richmond River and Coolgardie Road.



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**

# Richmond River to Ballina Bypass



Earthwork near Wardell



Pouring the concrete base for a drain near Wardell



Building formwork on the new bridge at Emigrant Creek



Installing the first concrete planks on bridge over Wardell floodway

# 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 March 2018

- installed the final concrete “U” girder on the northern side
- poured the first concrete bridge slab on the northern side
- Deputy Prime Minister Michael McCormack, Deputy Leader of the Nationals Bridget McKenzie and Federal Member for Page Kevin Hogan visited the bridge building site
- continued building bridge columns in the Clarence River.



1 day lost to wet weather



328 workers on site



60 pieces of large machinery on site



about 74% 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 Clarence River at Harwood



Concreting the bridge deck slab



The first concrete bridge deck slab on northern side



Installing the final concrete girder on northern side

# 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 March 2018

- continued casing for marine bridge piles, about 95 per cent complete
- installed the first “Super-T” precast concrete girders on the southern side
- continued building columns and installing headstocks on southern side.



2 days lost to wet weather



156 workers on site



26 pieces of large machinery on site



about 42% 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



Installing marine piles, looking from the northern bank of Richmond River



Installing "Super T" precast concrete girders



Installing bridge piles at northern bridge abutment



Reinforcing the north abutment earth wall

# We dig it!

## Why the treatment of acidic soils matters on Woolgoolga to Ballina

As part of the Pacific Highway upgrade the project team has been working in collaboration with our industry partners and regulatory stakeholders in the treatment of organic acidic topsoil to encourage a crucial culture of environmental responsibility. To minimise our environmental impact on the Woolgoolga to Ballina project, approximately 14,000 cubic metres of acidic soil at Harwood has been treated in situ resulting in reduced truck movements on the Pacific Highway, reduced carbon emissions, increased productivity and improved rehabilitation outcomes.

This innovative three month trial treating soil in situ was first proposed as the treated soil would eventually be required very close to where it was first uncovered. Soil is reused for landscaping and revegetation, usually towards the end of the project. In the past, uncovered acidic soil would be transported to an approved treatment area only to be hauled back to the original site for re-use. Allowing the material to be treated in situ has removed the need to haul the soil, creating significant environmental benefits. These benefits included:

- 2000 less heavy vehicle movements required over a 12 kilometre stretch of the existing Pacific Highway
- carbon emissions saving of over 57,000kg CO<sub>2</sub>
- fuel saving of over 20,000 litres of diesel, equivalent to a direct cost saving of around \$30,000.

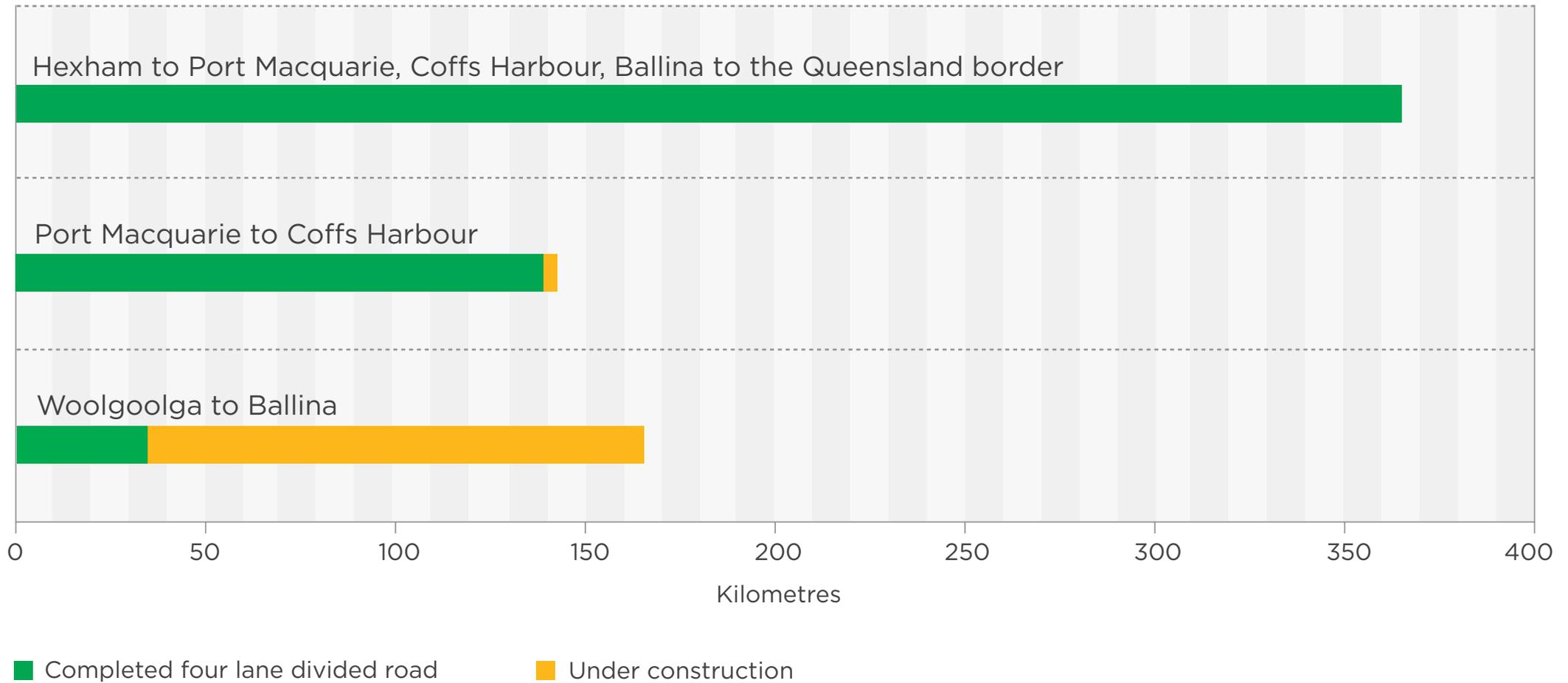
As the trial demonstrated substantial environmental, sustainability and financial benefits, it has been recommended that further in situ treatment of other acidic soil be used at other parts of the upgrade on the Woolgoolga to Ballina project.



Treatment of acidic soil involved application of a lime guard layer before installation of high strength geo-fabric

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





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**