



Australian Government

BUILDING OUR FUTURE

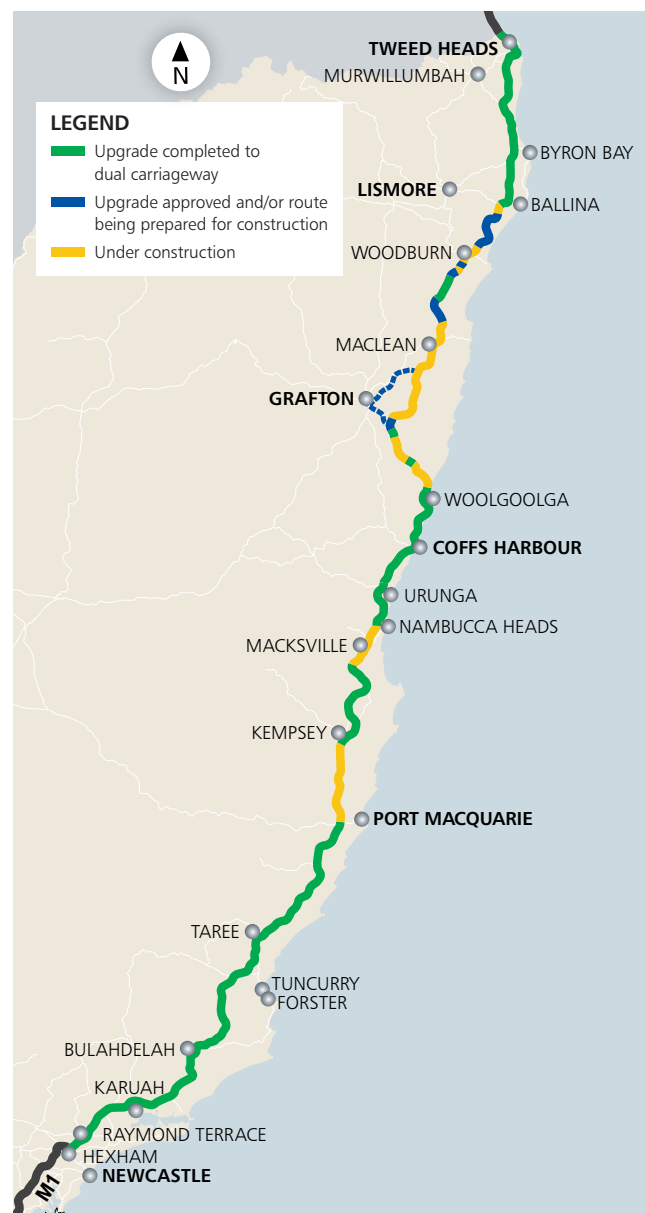


Pacific Highway upgrade

Achievement report January - February 2017

Aerial view of the Warrell Creek to Nambucca Heads upgrade (February 2017)

Overview of the upgrade

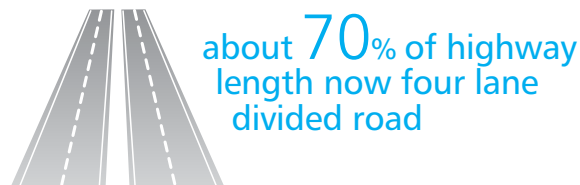


Pacific Highway upgrade

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

As of 28 February 2017, 459 kilometres are four lane divided road and about 161 kilometres are being built. The remaining sections of two lane highway are being prepared for major work.

About 70 per cent of the final highway length is now four lane divided road.



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**

Pacific Highway upgrade

Achievement report **January - February 2017**

Port Macquarie to Coffs Harbour

The remaining 57 kilometres of the Pacific Highway still to be upgraded to four lane divided road between Port Macquarie and Coffs Harbour is being built.

Five projects worth more than \$3.3 billion are either being built or recently opened. The 26 kilometre Frederickton to Eungai project opened to traffic in May 2016 and the Nambucca Heads to Urunga project in July 2016. The remaining three projects will open to traffic throughout 2017, 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 - projects being built

Project snapshot

Contractors: Lendlease

Form of contract: Design and build

Workers on site: 468

Pieces of large machinery: 105

Start date of major construction: October 2014

Expected completion date: 2017 (weather permitting)

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 during January - February 2017

Six days were lost to wet weather during this time. 

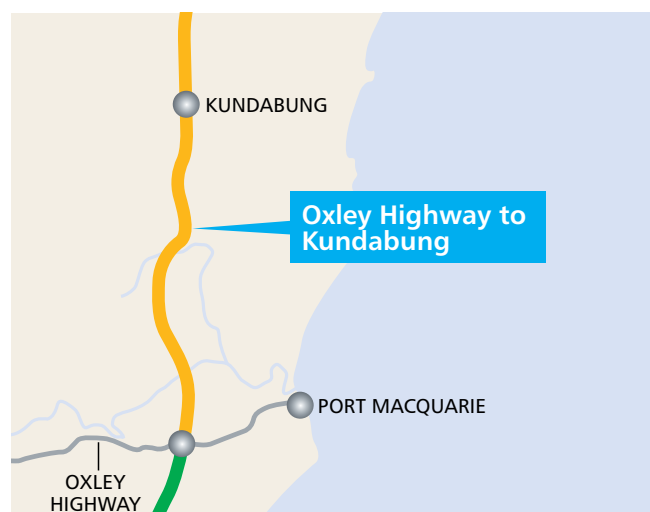
- Earthwork volume is about 94 per cent complete
- Earthwork continued near Barrys Creek, and south of Fernbank Creek where it is nearing completion
- Asphalt placement continued along the new highway at the Wilson River floodplain and completed finishing work at the flood plain bridges
- Completed concrete paving south from Haydons Wharf Road and on the northbound carriageway
- Fauna and boundary fence installation continued
- Drainage and fauna culverts installation continued, south of Fernbank Creek
- Building the new Hastings River bridge continued and is nearing completion
- Finishing work continued on the Hastings River floodplain bridges

- Concrete deck was poured at Barrys Creek bridge
- Scoping for at-house noise treatments continued for builders to start acoustic treatments
- Prepared four kilometre section of northbound carriageway, from Haydons Wharf Road to Yarrabee Road for traffic to use from March 2017. This will allow the start of the final round of controlled blasting at Cooperabung cutting and construction of southbound lanes.

468 workers on site



105 pieces of large machinery 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

Oxley Highway to Kundabung



Trimming sub-grade layer south of Fernbank Creek



Concrete paving north of Haydons Wharf Road



Placing reinforcing steel for a large box culvert under the highway south of Fernbank Creek Road



Pouring concrete deck at Barrys Creek northbound bridge



Line marking was completed for traffic switch onto the new northbound carriageway from Haydons Wharf Road to Yarrabee Road, due in March 2017

Port Macquarie to Coffs Harbour - projects being built

Project snapshot

Contractors: McConnell Dowell-OHL joint venture

Form of contract: Build only

Workers on site: 185

Pieces of large machinery: 96

Start date of major construction: November 2014

Expected completion date: 2017 (weather permitting)

Project value: \$230 million

Australian Government contribution: \$115 million*

NSW State Government contribution: \$115 million*

*Contribution amounts may vary from year to year

Kundabung to Kempsey

Background

The Kundabung to Kempsey project is the northern 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 14 kilometres of four lane divided road, including a new interchange at Kundabung and two new rest areas.

Key activities during January - February 2017

Seven and a half days were lost to wet weather during this time. 

- Continued building the new northbound carriageway with traffic traveling on 14 kilometres of the new southbound carriageway under contra-flow
- Continued concrete paving on shoulders of the new northbound carriageway
- Continued building the new Barrys Creek rest areas
- Ravenswood North local road was sealed and traffic switched
- Completed deck pour on the new Smiths Creek bridge, northbound, and overall bridgework is 88 per cent complete
- Continued drainage work, about 96 per cent complete
- Continued landscaping and topsoiling.

185 workers on site



96 pieces of large machinery 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

Kundabung to Kempsey



Traffic traveling on the new southbound carriageway under contra-flow at the Maria River State Forest



Drainage work, north of Pipers Creek



Verge placement, south of Stumpy Creek



Barrys Creek rest areas, northbound

Port Macquarie to Coffs Harbour - projects being built

Project snapshot

Contractors: Acciona Ferrovial joint venture

Form of contract: Design and build

Workers on site: 367

Pieces of large machinery: 135

Start date of major construction: December 2014

Expected completion date:
Late 2017 (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.

Key activities during January - February 2017

Fifteen and a half days were lost to wet weather during this time. 

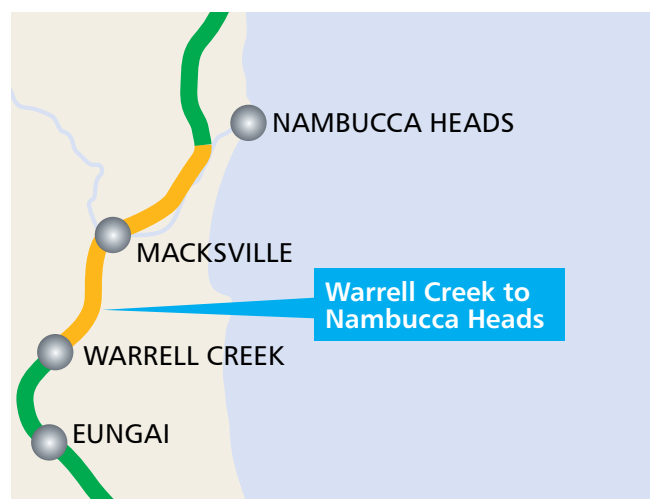
- Albert Drive bridge opened to traffic
- Bald Hill Road bridge opened to traffic
- Completed girders and transfloor panels on Williamson Creek bridge
- Completed girders and transfloor panels on Nambucca River bridge, deck pour is 60 per cent complete
- Completed girders and transfloor panels on Lower Warrell Creek bridge, started reinforcement of decks
- Completed girders and transfloor panels on Old Coast South bridge, deck reinforcement is 90 per cent complete
- Completed girders and piling work on Quarry Access bridge, transfloor installation is 66 per cent complete

- Completed girders and transfloor panels on Old Coast North bridge, piers and piling work is almost complete
- Completed controlled blasting and rock crushing opposite Scotts Head Road
- Completed fauna underpasses north of the Nambucca River
- Continued earthwork across the project, about 99 per cent complete
- Continued installing drainage, about 95 per cent complete
- Continued concrete paving and started asphalt placement.

367 workers on site



135 pieces of large machinery 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

Warrell Creek to Nambucca Heads



Work in progress at the Upper Warrell Creek bridge and railway overpass, looking south



Williamson Creek bridge, looking north to the Quarry Access Road overbridge



Concrete paving machine, north of the Nambucca River



Lower Warrell Creek bridge, looking south



Albert Drive overbridge opened 6 February 2017



Pouring side walls for the railway overpass at Warrell Creek

Pacific Highway upgrade

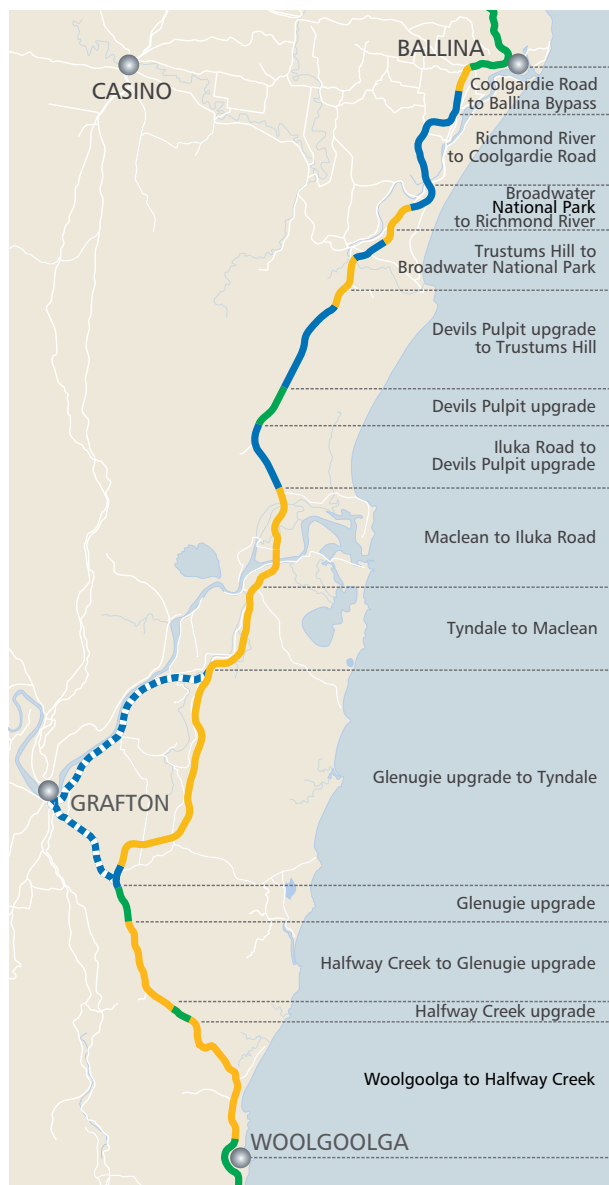
Achievement report **January - February 2017**

Woolgoolga to Ballina

The 155 kilometre upgrade between Woolgoolga and Ballina is Australia's largest regional infrastructure project and the last highway link between Hexham and the Queensland border to be upgraded to four lanes.

Roads and Maritime has selected Pacific Complete from the private sector as the delivery partner for the Woolgoolga to Ballina Pacific Highway upgrade. 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 - projects being prepared for major work



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. The 155 kilometre project 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.

Key activities during January - February 2017

Procurement

- Continued tender process with 107 tenders now closed, of a total of 125 contract packages to be awarded.

Design

- Continued detailed design work for the Woolgoolga to Ballina upgrade, about 96 per cent now complete.

1270 workers on site*



*excluding Woolgoolga to Glenugie projects

Environment

- Emu signs have been installed at Wave 3 (Tyndale to Maclean) as part of the coastal emu management plan
- A Native Stingless Bee Protocol has been developed by the project team and the Clarence Native Bees Landcare group. The protocol includes a hive tracking register, training for onsite ecologists and operators, a bee rescue procedure and encourages the safe relocation of beehives from upgrade sites to schools, nursing homes and community groups for education about the ecosystem.

Stakeholder and community engagement

- The project team held an information stand at the Saltwater Freshwater Festival in Coffs Harbour on 26 January and spoke with more than 90 people about work and training opportunities, as part of the Aboriginal participation program.

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 - soft soil work

Project snapshot

Contractors: FKG Group

Form of contract: Build only

Pieces of large machinery: 83

Start date of major construction: July 2016

Expected completion date:
October 2017 (weather permitting)


Project value: Forms part of the
Woolgoolga to Ballina upgrade

Soft soil (Wave 3) Tyndale to Maclean

Background

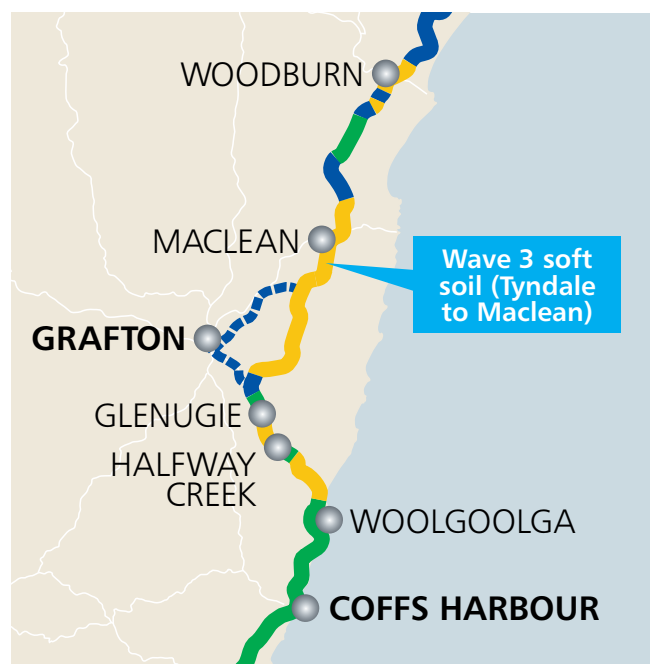
Soft soil work started between Tyndale and Maclean (about 11.5 kilometres) in July 2016. It is expected that the settlement of soft soils will be finished in October 2017, weather permitting. Following the settlement period, this early work will enable building to start on the main highway road. This work forms part of the Woolgoolga to Ballina upgrade which is jointly funded by the Australian and NSW governments.

Key activities during January - February 2017

Twelve days were lost to wet weather during this time. 

- Completed additional soft soil areas around the Maclean interchange
- Placed general fill and started laying high strength fabric at the Maclean interchange
- Started building the Greenhill to Shark Creek haul road
- Transferred and placed general fill at Tyndale, about 38 per cent complete
- Started excavation north of Sheehys Lane, near Tyndale
- Started placement of general fill, north of Tyndale
- Started abutment and piling work at Shark Creek
- Installed soil wicks in soft soil area at Norleys Lane, about 99 per cent complete
- Completed construction of Bailey bridge over Shark Creek
- Placed high strength fabric and general fill, north of Edwards Drain
- Completed haulage from Causleys Lane.

83 pieces of large machinery 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

Soft Soil (Wave 3) Tyndale to Maclean



Transportation operations, Wave 3



Installation of soil wick at Lees Drain



Piling rig arrival at Shark Creek



Placement of fill over high strength fabric, north of Edwards Drain



Rolling high strength material, north of Edwards Drain

Woolgoolga to Ballina - soft soil work

Project snapshot

Contractors: SEE Civil Pty Ltd

Form of contract: Build only

Pieces of large machinery: 35

Start date of construction: April 2016

Expected completion date:
March 2017 (weather permitting)


Project value: Forms part of the Woolgoolga to Ballina upgrade

Soft soil (Wave 4) Tuckombil, south of Woodburn

Background

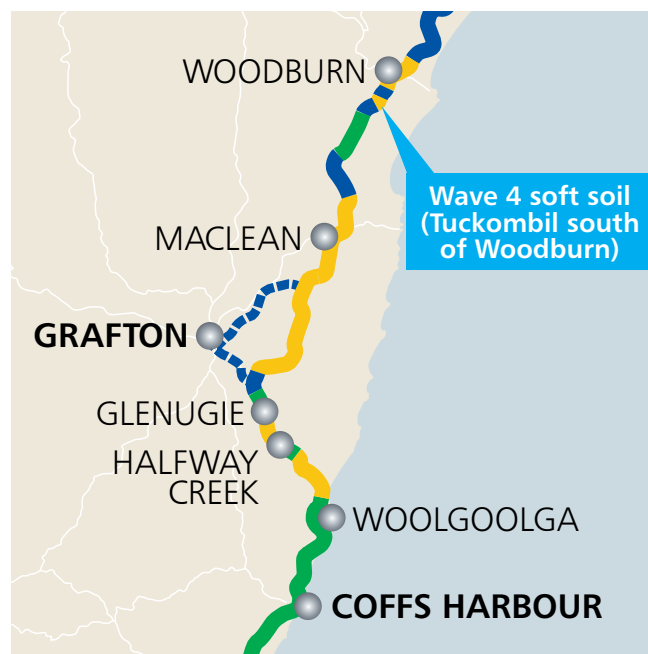
Soft soil work started at Tuckombil south of Woodburn (about 1.4 kilometres) in April 2016. It is expected that the settlement of soft soils will be finished in March 2017, weather permitting. Following the settlement period, this early work will enable building to start on the main highway road. This work forms part of the Woolgoolga to Ballina upgrade which is jointly funded by the Australian and NSW governments.

Key activities during January - February 2017

Two days were lost to wet weather during this time. 

- Completed temporary drainage
- Installed and commissioned geotechnical instrumentation in additional soft soil area
- Completed placement of soil wick and high strength material in additional soft soil area
- Started general fill placement in additional soft soil
- Continued drainage work in town drain
- Placed soil binder on batters on the northern embankment
- Started hard treatment fill on the northern and southern embankments
- Placed general fill on northern embankment
- Placed spill through material
- Continued monitoring of embankment fill.

35 pieces of large machinery 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

Soft Soil (Wave 4) Tuckombil, south of Woodburn



Pouring the base slab for underpasses in the town drain



Installation of temporary drainage lines



Separation fabric was placed on top of wick rock



Soil wick was installed at the additional soft soil area

Woolgoolga to Ballina

Project snapshot

Contractors: Seymour Whyte

Form of contract: Build only

Pieces of large machinery: 78

Expected completion date:
Late 2017 (weather permitting)

Project value: Forms part of the Woolgoolga to Ballina upgrade

Earlywork (Wave 5A) Glenugie to Tyndale

Background

Preparations for the start of clearing and foundation work between Glenugie and Tyndale (about 30 kilometres) began in July 2016. The early work in this section is expected to be completed in late 2017, weather permitting. This work forms part of the Woolgoolga to Ballina upgrade which is jointly funded by the Australian and NSW governments.

Key activities during January - February 2017

Four and a half days were lost to wet weather. 

- Completed clearing and grubbing along alignment
- Continued earthwork and foundation treatment at Pillar Valley and Coldstream
- Continued controlled production blasting at Tyndale
- Completed intersection upgrade at Glenugie for safer site access.

78 pieces of large machinery 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**

Earthwork (Wave 5A) Glenugie to Tyndale



Earthwork, looking south over Coldstream



General fill at embankments at Pillar Valley



Earthwork, looking north over Pillar Valley



Excavator work, looking north from Bostock Road

Woolgoolga to Ballina - projects being prepared for major work

Project snapshot

Contractors: Pacifico

Form of contract: Design and build

Pieces of large machinery: 30

Start date of major construction: August 2016

Expected completion date:
Open to traffic by 2020

Project value: Forms part of the Woolgoolga to Ballina upgrade

Bridge over Clarence River at Harwood

Background

The bridge over the Clarence River at Harwood project is part of the Woolgoolga to Ballina Pacific Highway upgrade. The project is jointly funded by the Australian and NSW governments. It involves building a 1.5 kilometre long, four lane divided bridge, about 20 metres east of the existing Harwood Bridge. Work started in late August 2016 to provide important information for the design of the new bridge over the Clarence River at Harwood. Activities included drilling and investigation work so that ground condition information can be considered in the detailed design.

Key activities during January - February 2017

Four days were lost to wet weather during this time. 

- Started the importation of quarry materials for the ancillary facility
- Started the fit out of a piling barge at Harwood
- Installed a weather station on site
- Completed the removal of houses
- Completed utilities work in River Street, Harwood, with overhead powerlines now underground
- Located a marine 300 tonne crane on site in preparation for piling work.

30 pieces of large machinery 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**

Bridge over Clarence River at Harwood



A weather station has been installed on site



Site preparation



Looking north to the work site for the new bridge, located downstream of the existing Harwood bridge

Woolgoolga to Ballina - projects being built

Project snapshot

Contractors: OHL and York joint venture

Form of contract: Build only

Workers on site: 142

Pieces of large machinery: 115

Start date of major construction: June 2015

Expected completion date:
2017 (weather permitting)

Project value: Forms part of the
Woolgoolga to Ballina upgrade

Woolgoolga to Halfway Creek


Background

The Woolgoolga to Halfway Creek project – the first section of the overall Woolgoolga to Ballina upgrade – will link the Sapphire to Woolgoolga project in the south and the existing Halfway Creek upgrade in the north, providing about 14 kilometres of divided road.

The project is jointly funded by the Australian and NSW governments.

The key features of the Woolgoolga to Halfway Creek upgrade include a 300 metre long twin bridge over the Corindi River floodplain to allow flood waters to pass under the highway and bridges over the highway at Sherwood Creek Road and Kangaroo Trail Road for local road access.

Key activities during January - February 2017

Seven days were lost to wet weather during this time. 

- Continued earthwork, about 97 per cent complete
- Continued drainage work about 90 per cent complete
- Continued concrete paving
- Installed rope connections at all fauna rope crossings.

142 workers on site



115 pieces of large machinery 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

Woolgoolga to Halfway Creek



Redbank Creek landscaping work



Safety screen installation at Range Road overpass bridge



Highway paving, north of Cassons Creek

Woolgoolga to Ballina - projects being built

Project snapshot

Contractors: Civil Mining & Construction

Form of contract: Build only

Workers on site: 146

Pieces of large machinery: 35

Start date of major construction: June 2015

Expected completion date:
2017 (weather permitting)

Project value: Forms part of the
Woolgoolga to Ballina upgrade

Halfway Creek to Glenugie


Background

The Halfway Creek to Glenugie project – the second section of the overall Woolgoolga to Ballina upgrade – will link the completed Halfway Creek upgrade in the south and the existing Glenugie upgrade in the north, providing about 12 kilometres of new road.

The project is jointly funded by the Australian and NSW governments.

Key features of the Halfway Creek to Glenugie section include twin bridges over Halfway Creek and Wells Crossing Creek, as well as a wide median to assist animals crossing at Newfoundland State Forest.

Key activities during January - February 2017

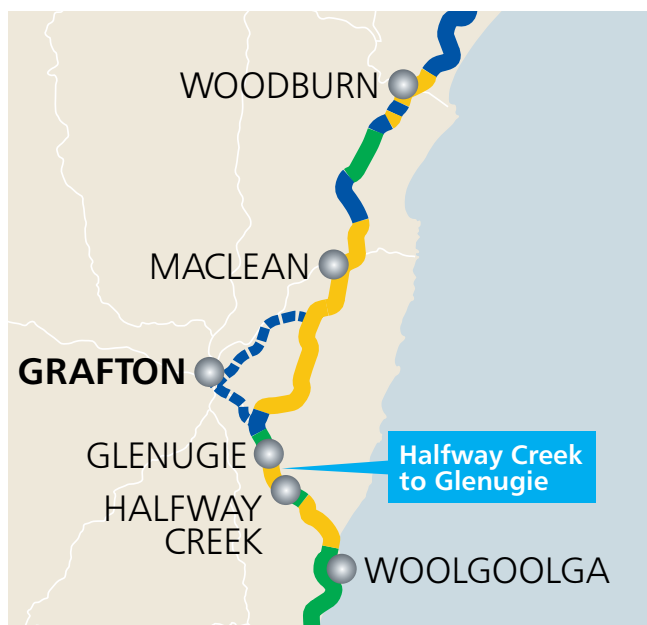
Seven days were lost to wet weather during this time. 

- Continued earthwork, about 98 percent complete
- Completed the new Wells Crossing bridges
- Continued drainage installation, about 79 per cent complete
- Continued concrete paving, about 73 per cent complete
- Continued foundation treatment and drainage work over the existing Pacific Highway for the new southbound carriageway from Lemon Tree Road to Kungala Road
- Continued finishing work on southbound carriageway, north of Wells Crossing bridges.

146 workers on site



35 pieces of large machinery 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

Halfway Creek to Glenugie



Drainage work, southbound carriageway, south of Wells Crossing



Paving, southbound carriageway, at Franklins Road



Shoulder paving, southbound carriageway, north of Lemon Tree Road

Environment

Emu fencing on highway upgrade shows signs of success

The Pacific Highway upgrade project team recently welcomed findings that emu fencing on the upgrade is proving effective.

Fencing was installed in December 2014 from Glenugie to Tyndale, where emus are regularly sighted, to guide emus to use designated crossing points that align with future crossing points.

Monitoring pictures and videos have shown the fencing is working with footage of emus regularly captured using the designated crossing points over the past two years. The fencing is part of the project's compliance with the strict conditions in place for the management of threatened species.

A coastal emu management plan has been published as part of early work for the upgrade. The plan includes management and mitigation measures during the design, construction and operational phases of the upgrade.

Features of the plan include 31 wildlife crossings between Glenugie and Maclean and the installation of 4.7 kilometres of trial fencing. This was completed in April 2015 between Wooli and Mitchell Roads in Pillar Valley, an area most commonly frequented by emus.

Eighty cameras were also installed, as part of the plan's monitoring program, to determine whether emus would learn to cross through strategic gaps.

At one location, a hybrid fence was installed which consisted of two stands of plain wire, two strands of barbed wire and a squeeze stile which is large enough for emus to use but too small for cattle. Importantly, the plain wire was installed on the top and bottom strands to minimise injury to native fauna.

All of these 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.

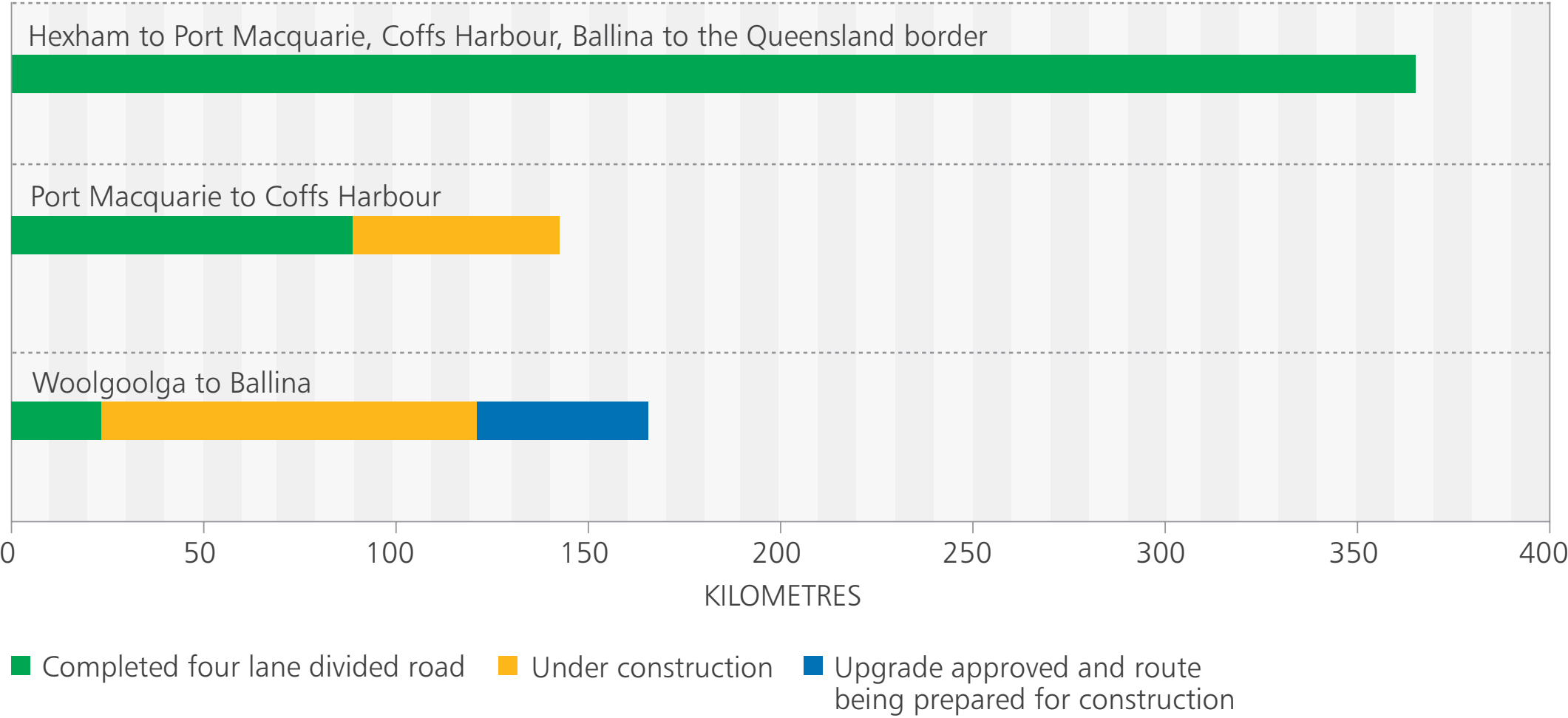


Emu fencing has proven effective, with emus regularly using the designated crossing points



Fencing was installed in December 2014 from Glenugie to Tyndale, where emus are regularly sighted

Four lane divided road status



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