



Australian Government

BUILDING OUR FUTURE



Pacific Highway upgrade

Achievement report April 2017

Earthwork between Glenugie and Tyndale as part of the Woolgoolga to Ballina project

Overview of the upgrade

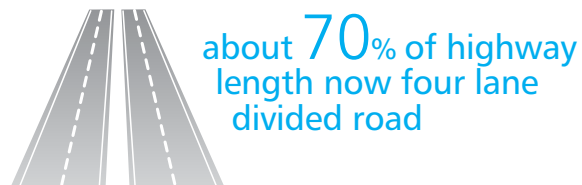


Pacific Highway upgrade

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

As of 30 April 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 **April 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 opened in the past year. 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

Project snapshot

Contractors: Lendlease

Form of contract: Design and build

Workers on site: 363

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/progress during April 2017

- Earthworks continued across the project, about 96 per cent complete
- About 45,000 cubic metres was removed from cuttings and placed in fill areas
- Boundary fencing and fauna exclusion fencing continued
- Completed construction of the new Hastings River bridge
- Installation of drainage and fauna culverts continued south of Fernbank Creek
- Minor finishing work continued on Barrys Creek, Fernbank Creek, Wilson River floodplain and Hastings River floodplain bridges
- Completed demolition of the old Cooperbung Creek bridge
- Piling work started on the new Yarrabee Rd overbridge
- Preparing to start at house noise treatments
- Mainline concrete paving near the Blackmans Point Road interchange
- Completed controlled blasting at Cooperbung Range
- Established machinery on site to process blasted material to reuse as gravel on the 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

Oxley Highway to Kundabung



Completed piling work at the new Yarrabee Rd overbridge



Concrete is placed into a pile hole at Yarrabee Road overbridge



Concrete traffic barrier placed on Wilson River bridge



Continued earthworks on the floodplain, south of the Hastings River



Earthworks underway on the southbound carriageway, south of Fernbank Creek Road



Finished median barrier on the new Wilson River bridge

Port Macquarie to Coffs Harbour

Project snapshot

Contractors: McConnell Dowell-OHL Joint Venture

Form of contract: Build only

Workers on site: 185

Pieces of large machinery: 72

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/progress during April 2017

- Placed and sealed pavement material at northbound rest area and on northbound carriageway
- Prepared for upcoming traffic switch at Kundabung interchange off ramp
- Completed Smiths Creek northbound bridge. Bridges across the project are now 95 per cent complete
- Placed asphalt on the northbound carriageway south of Smiths Creek and at Kundabung interchange
- Completed concrete hand pours on pavement near Pipers Creek bridge
- Continued drainage work on northbound carriageway. Drainage work now 95 per cent complete
- Prepared to restart concrete paving on northbound carriageway. Concrete paving now 85 per cent complete.



5.5 days
lost to wet
weather



about
80%
complete

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



Sealing concrete subbase on northbound carriageway near Kundabung bridge, looking north



Smith Creek bridge barrier rail installed on the northbound carriageway



Lime stabilisation of pavement on the northbound carriageway south of Smiths Creek, looking south



Shoulder paving on the northbound carriageway near old Bloodwood Rest Area looking south

Port Macquarie to Coffs Harbour

Project snapshot

Contractors: Pacifico (Acciona Ferrovial joint venture)

Form of contract: Design and build

Workers on site: 139

Pieces of large machinery: 163

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

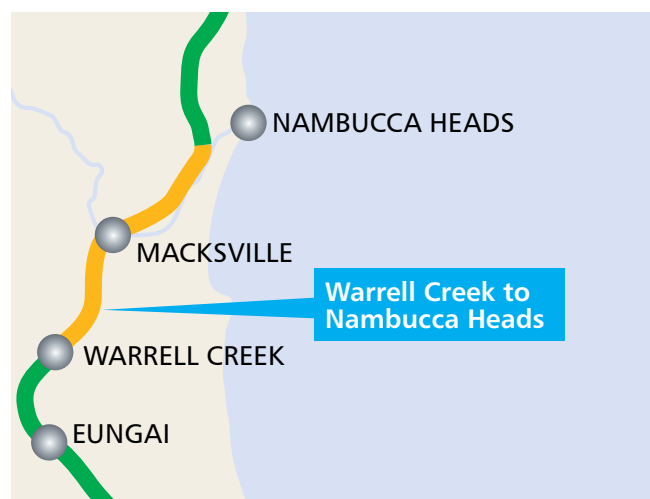
Warrell Creek to Nambucca Heads

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/progress during April 2017

- Continued earthworks continued across the Project, about 99.5 per cent complete
- Completed all piers across the project except the central pier for the railway underpass
- Continued drainage installation across the project, 95 per cent complete
- Completed piling across the project
- Completed placement of girders and installing transfloor panels for Nambucca River, Williamson Creek and Lower Warrell Creek bridges
- Completed walls at both abutments for the railway underpass
- Installed parapets for Cockburns Lane bridge
- Concrete base pavement 42 per cent complete
- Asphalting continued across the 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

Warrell Creek to Nambucca Heads



Backfilling the railway underpass



Warrell Creek Bridge looking north



Temporary traffic lights at the Letitia Close side track



Hand pouring concrete in the north of the project



Paver operating in north of the project

Pacific Highway upgrade

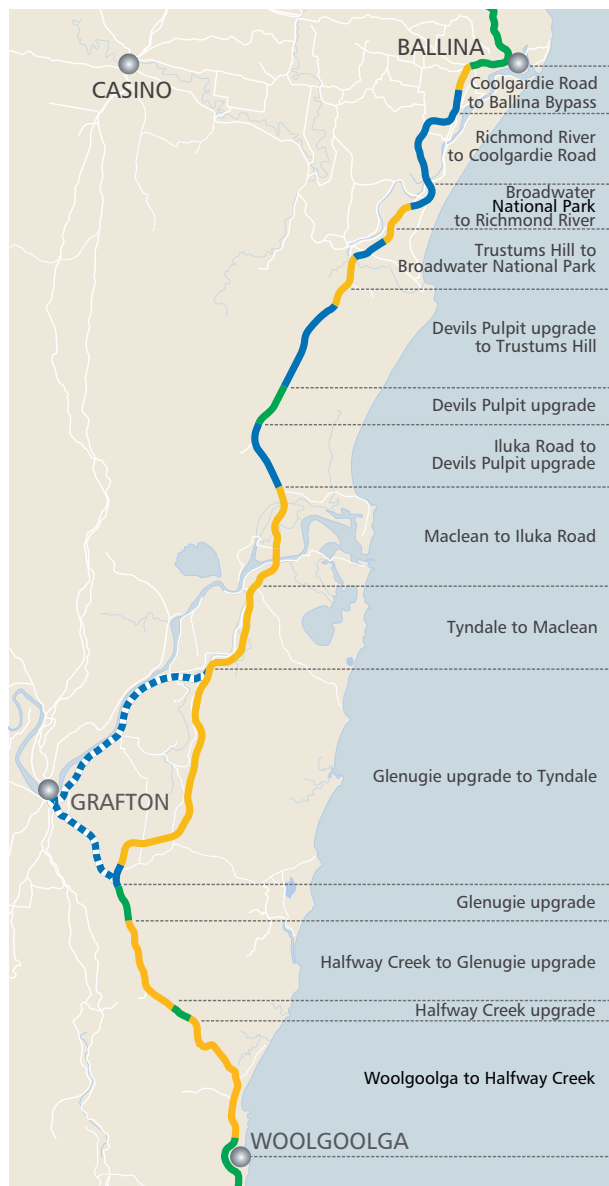
Achievement report **April 2017**

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



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.

Progress to date:

- Completed Waves 1 and 2 soft soil work
- Completed Pimlico to Teven stage two early work.

Key activities/progress during April 2017

Procurement

- Major supply package for Quarry Products awarded. 121 work packages out of 125 have been awarded or tendered to date.

Design

- Overall design component is 99 per cent complete. Completion expected in June.

Earthwork

- About 571,000 cubic metres of earthwork completed during April
- Total of 6.73 million cubic metres completed out of 14.3 million cubic metres for the project.

Environment

- Project met with Friends of the Koala group and provided an update on fencing, connectivity and construction mitigation measures for Richmond River to Ballina section.

Stakeholder and community engagement

- Three community drop in sessions held for the the Glenugie to Devils Pulpit hydrological mitigation report (total attendees 44)
- Six Aboriginal participation career roadshows held (total attendees 127).

- Yellow line trial media event and release of the yellow line trial survey with more than 166 responses to date
- Positive feedback from residents about street meeting consultation for the site compound for the new bridge over Richmond River.

1595 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 or call the Pacific Highway office on **1800 653 092**

Woolgoolga to Ballina

Project snapshot

Contractors: OHL and York joint venture

Form of contract: Build only

Workers on site: 138

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/progress during April 2017

- Switched traffic onto four kilometres of new highway, one lane in each direction north of Range Road
- Foundation treatment started on final four kilometres of carriageway
- Started excavation on final culverts
- Continued earthworks, 97 per cent complete
- Continued pavement, 46 per cent complete
- Continued installing drainage, 92 per cent complete
- Preparing for shotcreting in the Dirty Creek Range cut.



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



Installing a guardrail at a local access



Placing asphalt at Dunmar Lane



Installing fauna poles

Woolgoolga to Ballina

Project snapshot

Contractors: Civil Mining & Construction

Form of contract: Build only

Workers on site: 132

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

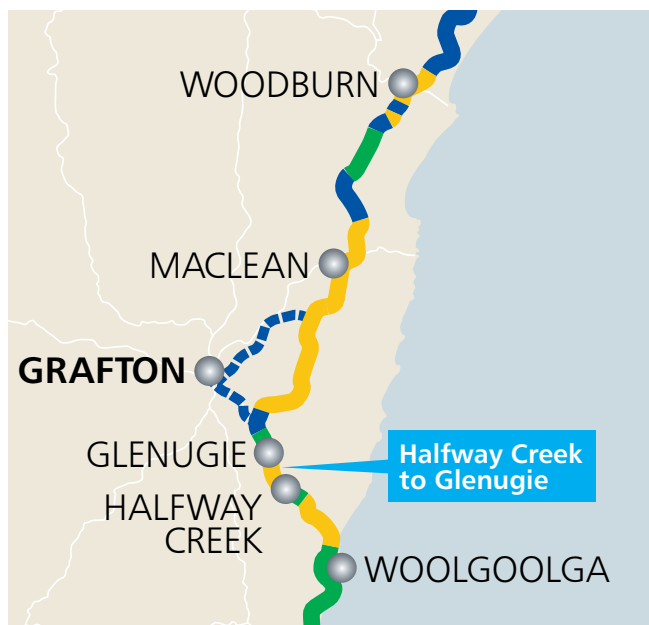
The Halfway Creek to Glenugie project – the second section of the overall Woolgoolga to Ballina upgrade – will link the completed Halfway Creek upgrade in the south and the existing Glenugie upgrade in the north, providing about 12 kilometres of new road.

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/progress during April 2017

- Earthworks almost complete with about 759,000 cubic metres of earthworks moved
- Continued drainage installation, about 92 per cent complete
- Continued concrete paving, about 78 per cent complete
- Completed a traffic switch at Franklins Road intersection
- Completed a traffic switch at Luthers Road intersection
- Continued finishing work on southbound carriageway, north of Wells Crossing bridges
- Continued wildlife connectivity work.



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



Concrete paving on the southbound carriageway at Lemon Tree Road

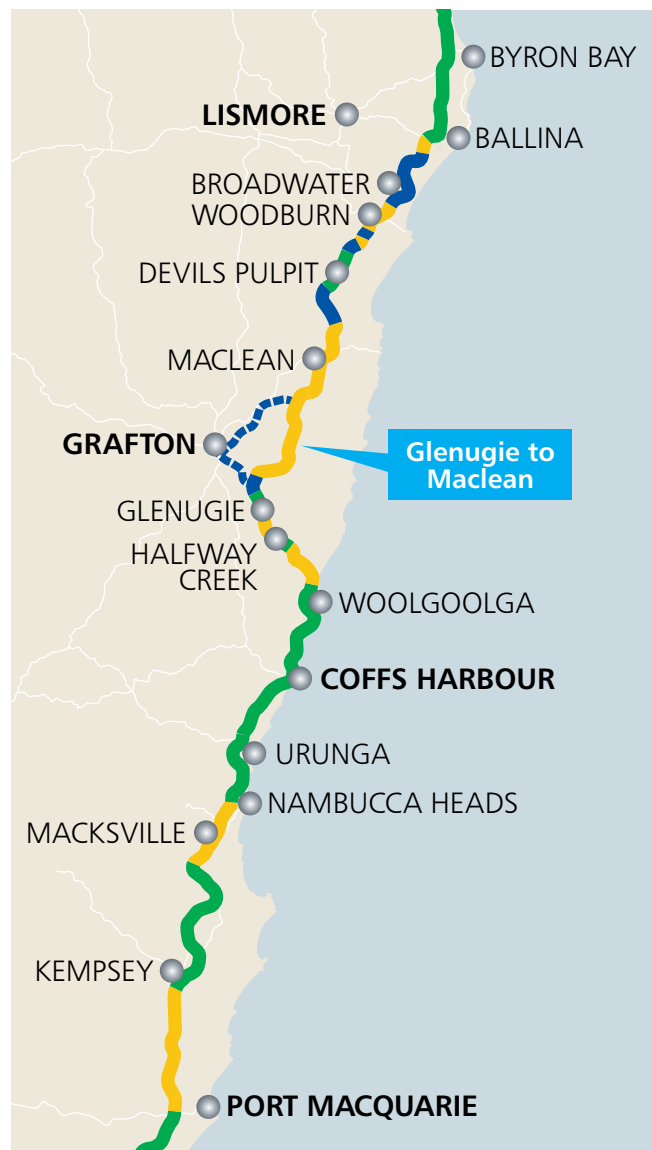


Asphalt paving service road near Lemon Tree Road



Completing earthworks on southbound carriageway north of Lemon Tree Road

Woolgoolga to Ballina



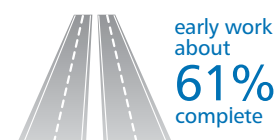
Glenugie to Maclean

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 2017

- Completed excavating one million cubic metres of earthworks
- Installed geotechnical instrumentation for soft soil sites
- Completed installation of wick drains
- Started installation of piling pads at Shark Creek
- Completed Avenue Road batch plant pad
- Opened the Avenue Road traffic diversion
- Continued placing high strength geofabric material at Somervale Road, 30 per cent complete
- Continued Coldstream and Pillar Valley piling pads and spill through abutments
- Started temporary work on Chaffin Creek Bailey bridge
- Continued placement of general fill in Coldstream and Pillar Valley.



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



Avenue Road diversion open to traffic



From Woolli Road looking south to Coldstream



Placement of high strength geosynthetic and fill at Somervale Road



Avenue Road batch plant pad

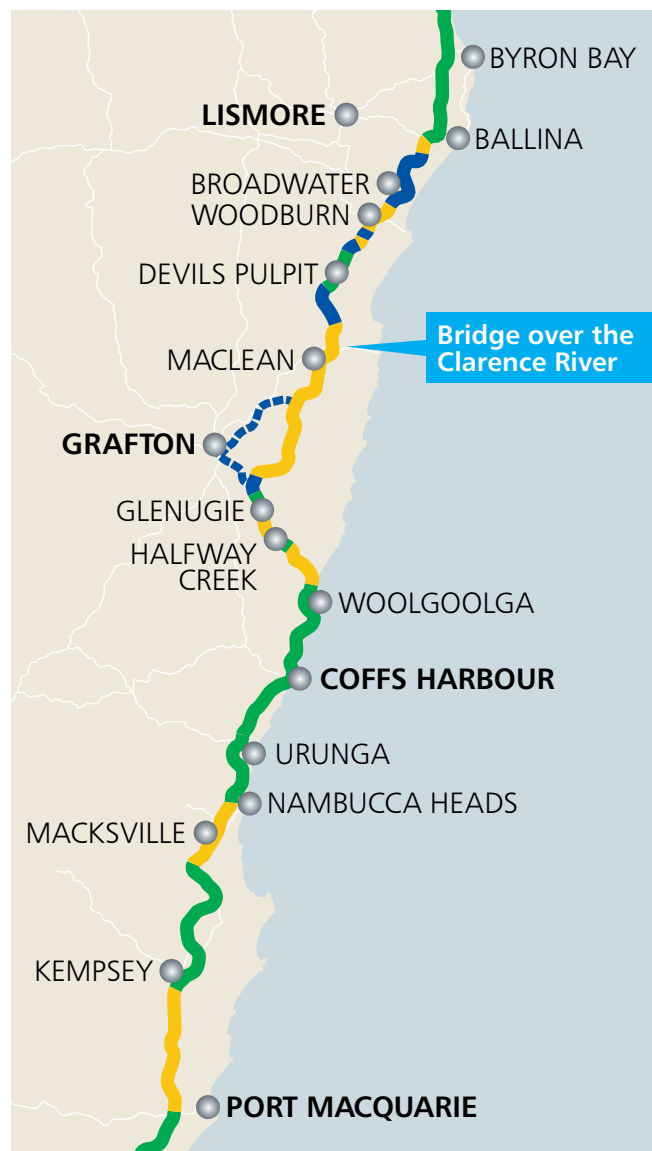


Hauling material out of Tyndale cut



Heavy vehicles lined up for inspection

Woolgoolga to Ballina



New 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. Activities included drilling and investigation work so that ground condition information can be considered in the detailed design.

Key activities/progress during April 2017

- Started culvert work
- Continued fitout of barge 'Rebecca Lily' at Harwood Marine
- Continued road work at the high vehicle underpass on Yamba Road highway turnoff
- Pile case welding yard now operational. Work started on the splicing of piles for the temporary jetty and permanent piles for the marine section
- Main ancillary facility electrical substation built and energised
- Satellite office operational on southern side
- Completed batch plant area rock platform
- Watts Lane site office opened.



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



Installation of culverts over the northern section of the project



Culvert work



Vibration hammer for jetty piling

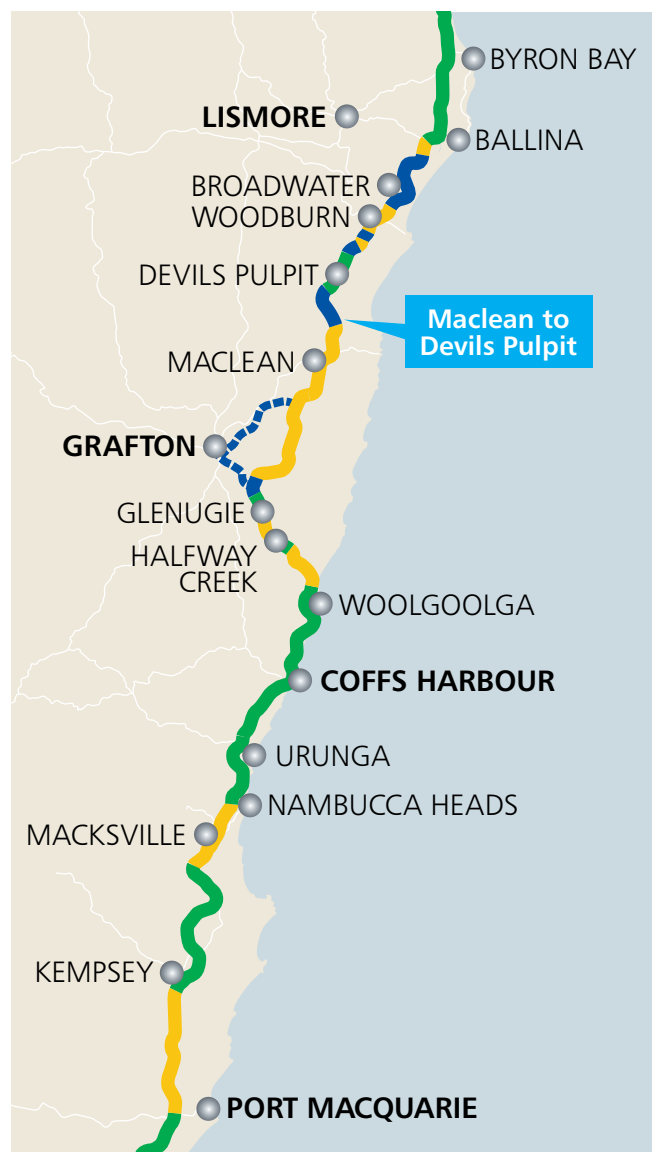


Jetty piles



Pile casing rollers used to hold piles for welding

Woolgoolga to Ballina



Maclean to Devils Pulpit

Background

The Maclean to Devils Pulpit section of the Woolgoolga to Ballina, Pacific Highway upgrade extends more than 29 kilometres. The upgrade in this location generally follows the existing Pacific Highway and includes Yamba, Harwood and Iluka interchanges.

Key activities/progress during April 2017

- Awarded 17 out of 26 work packages
- Completed temporary koala fencing in Iluka and Mororo areas
- Completed set-up of ancillary site in Iluka
- Continued work on permanent diversion lanes at Chatsworth South and Garretts Lane
- Bridge piles delivered to site to start work on bridges at Tabbimoble.



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



Construction of a box culvert near Fishers Lane



Installation of acid sulphate treatment area near Garretts Lane



Mobilisation of 180 tonne crane

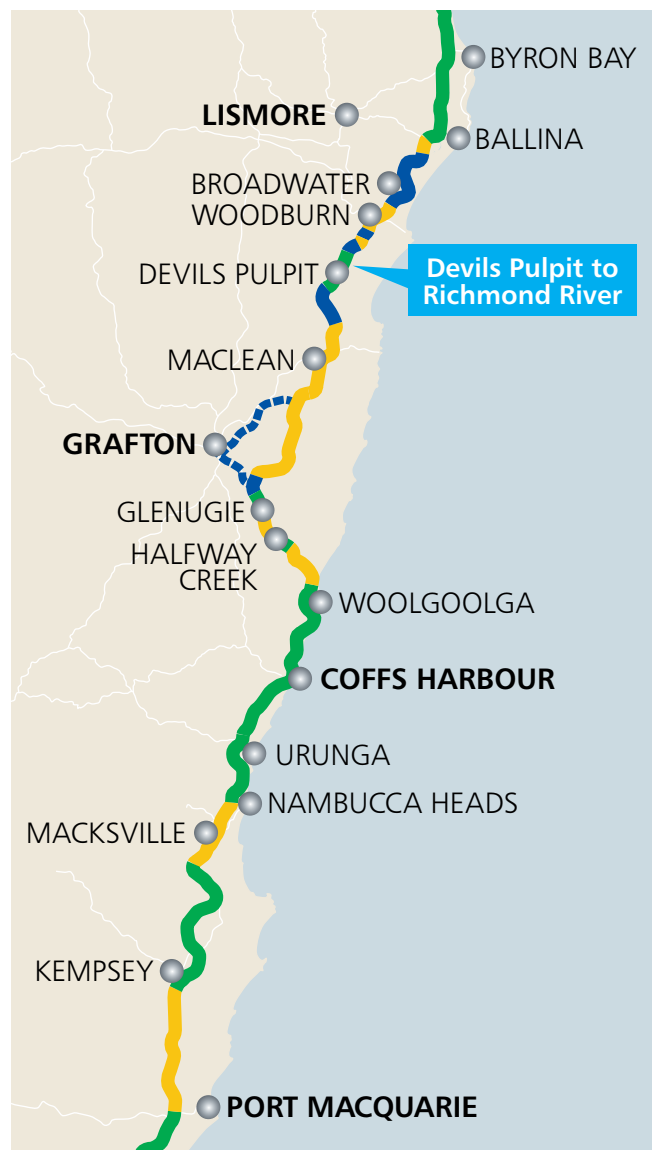


Foundation work at Garretts lane



Foundation and open drain at Yamba interchange

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 Richmond River Bridge. In this area the upgrade bypasses Woodburn, Broadwater and Wardell and includes Broadwater and Wardell interchanges.

Key activities/progress during April 2017

- Completed clearing for the service road mainline, with the exception of the old Broadwater landfill site
- Started importing foundation treatment material
- Continued building central site access
- Installed long term traffic control plan
- Completed drilling work for Telstra network relocations at Gap Road, Woodburn
- Continued electrical network relocations
- Continued sewer relocations on Woodburn-Evans Head Road.



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



Drilling for Telstra network relocations at Gap Road, Woodburn



Cable pulling for electrical network relocations at Gap Road, Woodburn



Mulching work



Earthwork to prepare road surface



Electrical network relocations at Gap Road, Woodburn



Sewer relocations on Woodburn-Evans Head Road

Woolgoolga to Ballina



Richmond River to Ballina Bypass

Background

The Richmond River to Ballina bypass section of the Woolgoolga to Ballina, Pacific Highway upgrade, extends more than 18 kilometres from the Richmond River bridge to just south of the Ballina interchange.

Key activities/progress during April 2017

- Started earthworks and ground improvement work from Pimlico Road to Duck Creek
- Started power utilities relocation work in preparation for construction
- Continued installation of temporary and permanent fauna fencing and koala food tree revegetation
- Completed site compounds on Wardell Road and Whytes Lane and mobilised workers.



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



Aerial photo of new northbound carriageway undergoing soft soil settlement at Pimlico

Environment

Fauna connectivity strategy and rootballs – Woolgoolga to Ballina

The NSW North Coast bioregion contains the greatest biological diversity in NSW and also contains the largest number of threatened species. Fauna Connectivity is an important, long term, environmental strategy that provides animals with structures to pass under or over the Pacific Highway so that their habitats remain connected on each side. In the past year logs have been salvaged from cleared land and the root balls at the base of the trees have been harvested between Woolgoolga and Glenugie.

Logs are providing ‘fauna furniture’ to give animals natural surfaces to help navigate the highway safely and move between their habitats on the east and west side of the road. Specially built fauna fencing along the road alignment guides animals towards culverts, underpasses, glider poles, and canopy rope crossings. Between Halfway Creek and Glenugie around 1.4km of fauna furniture has been installed and is being used by arboreal mammals such as possums and gliders

Aquatic habitat rehabilitation

Roads and Maritime are also working with local community groups and organisations including Tweed Council, OzFish Unlimited, NSW Department of Primary Industries (DPI) and North Coast Local Land Services, Grafton, to provide root balls for waterway and aquatic habitat restoration projects.

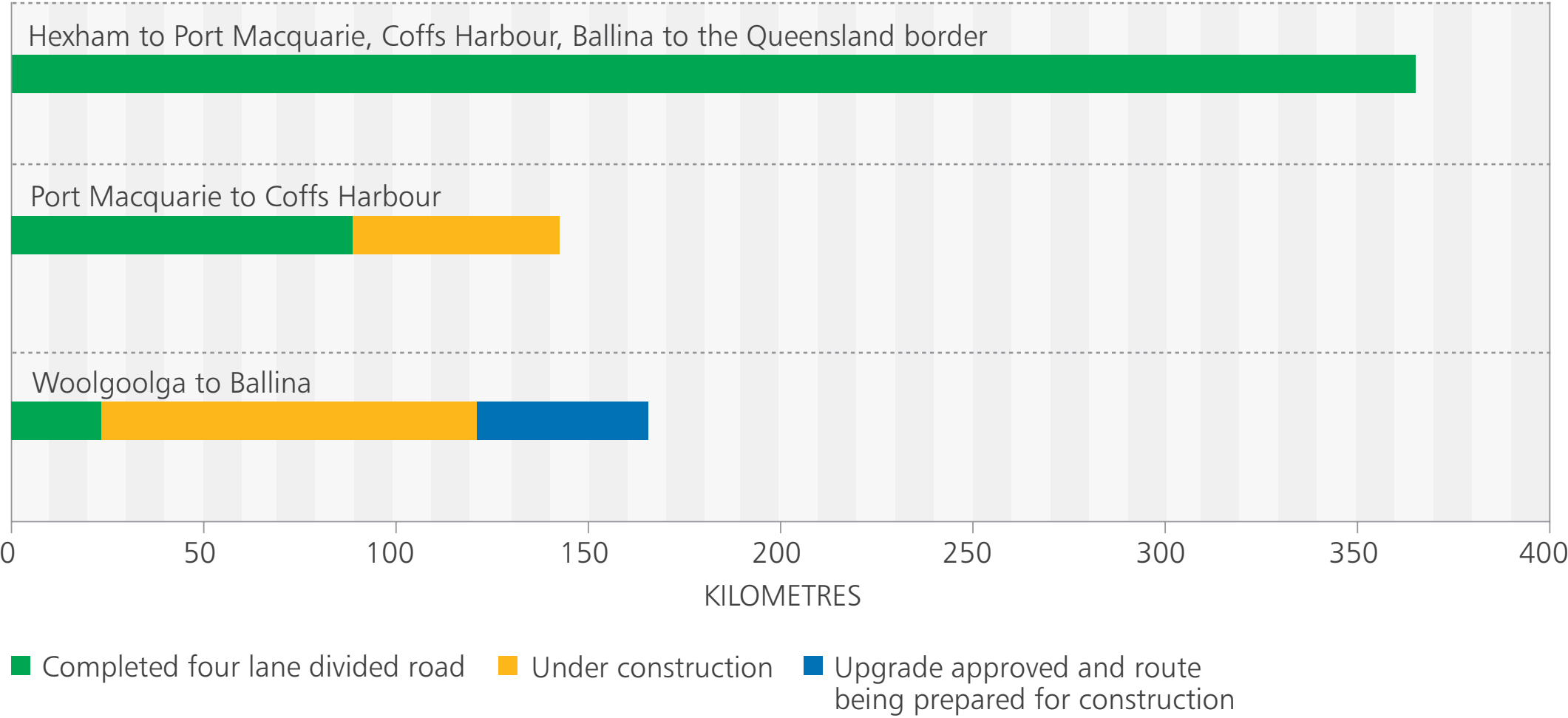
Tweed Council has used root balls and logs for riverbank restoration and revegetation works on the Oxley River. In Grafton, NCLLS is delivering a project for Roads and Maritime to mitigate the effects of boat wash on the banks of the Clarence River. The 150 root balls that have been harvested for this project are being held in dedicated stockpiles along the alignment.

In the Coldstream River the NSW DPI - Aquatic Habitat Rehabilitation will use root balls to restore riverine aquatic health by providing new fish habitats amongst the roots. Later in the year root balls will be salvaged from land clearing between Broadwater and Ballina and used by OzFish Unlimited to provide fish holding habitats in Emigrant Creek, a major tributary to the Richmond River.



Root balls and logs for riverbank restoration and revegetation

Four lane divided road 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**