



Australian Government



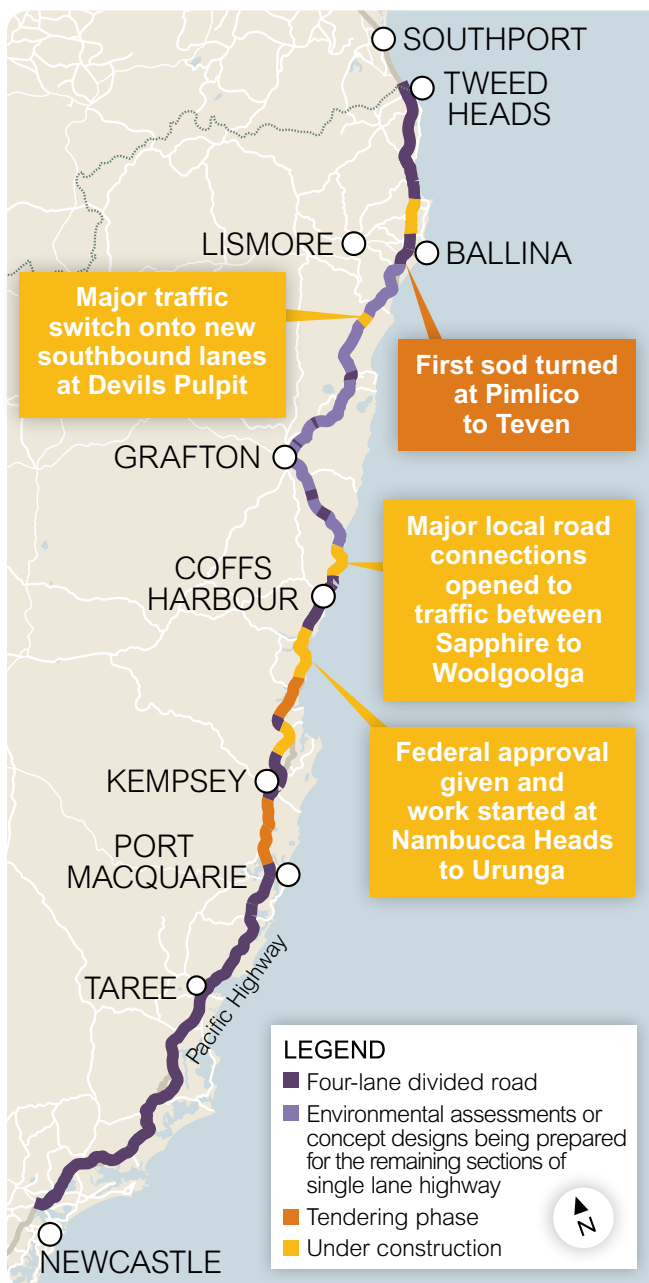
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Pacific Highway upgrade

Achievement report **November 2013**

Graham Drive (north) western roundabout open to traffic



Pacific Highway upgrade

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

As at 30 November 2013, 368 kilometres are four-lane divided road, about 95 kilometres are being built. The remaining sections of two-lane highway are being prepared for major work.

About 56 per cent of the final highway length is now four-lane divided road.

For overall upgrading strategy refer to the second last page.



95 km of highway under construction during November 2013.



An average of 1300 construction workers on site.



For overall upgrading strategy refer to the second last page.

**Contractors:**

Thiess Pty Ltd

Form of contract:

Design and construct contract

Workers on site: 190**Pieces of large machinery:** 60**Start date of major construction:**

August 2013

Expected completion date:

2016 (weather permitting)

Project value: \$675 million**Australian Government contribution:**

\$337.5 million *

NSW State Government contribution:

\$337.5 million *

* Contribution amounts may vary from year to year.



Clearing south of Seven Hills Road,
looking south toward Collombatti floodplain

Frederickton to Eungai

Background

The Frederickton to Eungai upgrade is the second stage of the Kempsey to Eungai upgrade, which was approved in 2008.

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

It will provide about 26.5 kilometres of four-lane divided road from the completed Kempsey bypass to Eungai Rail.

Key construction activities during November 2013

About 14 days were lost to wet weather during this time. 

- Vegetation clearing about 85 per cent finished including between Frederickton interchange and Seven Hills Road, future Macleay Valley Way near Stuarts Point, and highway alignment
- Rock imported from surrounding quarries to place as a bridging layer in the low areas north of Kemps Access Road
- Rock bridging layer work continued south of Cooks Lane
- Drainage work north of Frederickton interchange
- Geotechnical monitoring started in soft soil areas
- Earthwork continued in cutting areas north of Frederickton interchange, and south of Cooks lane
- Environmental testing carried out on wet weather days
- Water quality testing carried out after wet weather
- Boundary fencing about 50 per cent complete
- Local road improvements at Cooks Lane continued
- New 80km/h speed zone implemented at Cooks Lane work access
- Design work nearly finished.

Frederickton to Eungai under construction



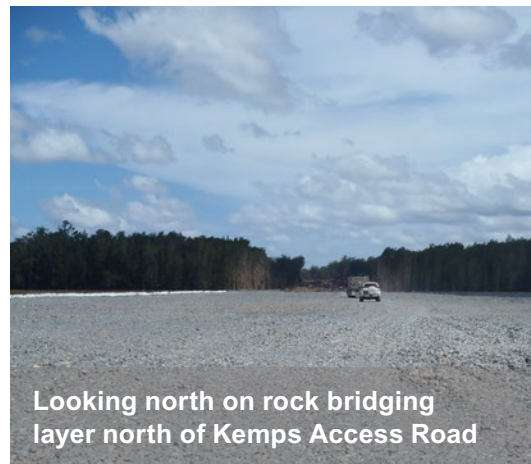
Geotechnical testing in soft soil north of Frederickton interchange



Piping near Raymond's Lane



Cooks Lane improvement work



Looking north on rock bridging layer north of Kemps Access Road



Clearing south of Nirvana Way



Cut-stump clearing in drainage to minimise construction impact at Barraganyatti Creek

**Contractors:**

Leighton Fulton Hogan Joint Venture

Form of contract:

Design and construct contract

Workers on site: 240**Pieces of large machinery:** 165**Start date of major construction:**

August 2010

Expected completion date:

Second half of 2014 (weather permitting)

Project value: \$850 million**Australian Government contribution:**

\$705 million *

NSW State Government contribution:

\$145 million *

* Contribution amounts may vary from year to year.



Graham Drive (north) interchange open to traffic

Sapphire to Woolgoolga upgrade

Background

The Sapphire to Woolgoolga upgrade was approved on 13 January 2009.

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

It will provide a four-lane divided highway extending about 25 kilometres from Campbell Close at Sapphire to Arrawarra Beach Road at Arrawarra.

Key construction activities during November 2013

About eight days were lost to wet weather during this time. 

- Arrawarra interchange building work continued
- Earthwork and drainage work continued from Sapphire to Woolgoolga
- Bridge work at Skinners Creek, Killara Avenue, Fiddaman Road, Graham Drive (south) and Double Crossing Creek continued
- Concrete and pavement work continued
- Pavement gravel work continued
- Local road work continued
- Low noise wearing pavement work continued on Woolgoolga bypass section
- Community information session held on Saturday 30 November 2013
- Local service road from Maccues Road to the Moonee Beach overpass opened to traffic
- Graham Drive (north) overpass bridge and approaches south of Woolgoolga opened to traffic.

Sapphire to Woolgoolga upgrade under construction



Roundabout being built at Fiddaman Road Emerald Beach.



Noise wall installation progressing northward at Sapphire Beach near southern end of the project



Concrete paving looking south from Smiths Road overpass



Headlight screen finished at Sugarmill Road Sapphire Beach



Culvert work at Sapphire Beach opposite Sugarmill Road

Under construction



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Contractors: John Holland

Form of contract: Construct only contract

Workers on site: 85

Pieces of large machinery: 10

Start date of major construction:
December 2011

Expected completion date:
Early 2014 (weather permitting)

Project value: \$80 million

Australian Government contribution:
\$62 million **

NSW State Government contribution:
\$18 million **

** Contribution amounts may vary from year to year.



Part of new southbound lanes now in use in one lane in each direction arrangement

Devils Pulpit upgrade

Background

The Devils Pulpit upgrade was approved by the NSW Minister for Planning on 1 February 2011.

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

It includes upgrading about seven kilometres of highway between Grafton and Ballina.

It forms part of the larger Woolgoolga to Ballina project.

Key construction activities during November 2013

About seven days were lost to wet weather during this time. 

- Verge installation continued
- Installation of wire rope safety barrier continued
- Landscape planting continued
- Work for rest area facilities started
- On November 4 2013, traffic switched onto five kilometres of new southbound lanes, under one lane in each direction arrangement.

Devils Pulpit upgrade under construction





Contractors: Lend Lease Engineering

Form of contract: Design and construct

Workers on site: 244

Pieces of large machinery: 220

Start date of major construction:
September 2012

Expected completion date:
End of 2014 (weather permitting)

Project value: \$862 million

Australian Government contribution:
\$566.1 million **

NSW State Government contribution:
\$295.9 million **

** Contribution amounts may vary from year to year.



Planting fig trees at Arundel Hill, Bangalow

Tintenbar to Ewingsdale upgrade

Background

The Tintenbar to Ewingsdale upgrade was approved on 29 January 2010.

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

It will provide 17 kilometres of four-lane divided road from the northern end of the Ballina bypass at Ross Lane to the existing Ewingsdale interchange.

Key construction activities during November 2013

About two days were lost to wet weather during this time. 

- Detailed design continued
- Bridge building at Emigrant, Skinners, Byron and Minor creeks
- Reinforced wall building continued at Emigrant Creek
- Arch building continued at the local fish farm and Martins Lane West
- Excavation of the northern and southern tunnel portal and Tunnel Control Centre continued
- First concrete base slab poured
- Bulk earthwork continued
- Drainage work continued
- Watsons Lane has re-opened to traffic.

Tintenbar to Ewingsdale upgrade under construction



Drilling jumbos in southern portal



Inside the southern tunnel portal



Lifting a girder at Minor Creek bridge

Preconstruction projects



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Priority two

(Port Macquarie to Raleigh)

The completion of the Pacific Highway upgrade has been divided into three key priorities. Priority one projects will be completed by the end of 2014.

Priority two projects will provide completion of a four-lane divided road between Port Macquarie and Raleigh (south of Coffs Harbour). Progress has already been made on this section with the completion of the Kempsey bypass and the Frederickton to Eungai upgrade that is now being built.

There are about 79 kilometres left to be upgraded to four-lane divided road, in order to complete priority two. These projects are being prepared for major work to start.

Oxley Highway to Kempsey upgrade

The Oxley Highway to Kempsey upgrade was approved on 8 February 2012. It will provide about 37 kilometres of four-lane divided highway between the Oxley Highway at Port Macquarie and the Kempsey bypass.

Planning for the project is jointly funded by the Australian and NSW governments. The project will be built in two sections.

The project is awaiting federal approval by the Department of the Environment.

Oxley Highway to Kundabung

Activities under way during November 2013

- Environmental assessment and consistency reviews being finalised for design refinements
- Tenders assessed for contractors to design and build the upgrade
- Pre-construction ecological monitoring continued
- Tenders assessed for contractors to carry out and manage architectural noise measures and ecological monitoring
- Land acquisitions continued
- Property adjustments started.

Kundabung to Kempsey

Activities under way during November 2013

- Tenders assessed for contractors to build the upgrade
- Pre-construction ecological monitoring continued
- Tenders assessed for contractors to manage architectural noise measures and ecological monitoring
- Environmental assessment and consistency reviews being finalised for design refinements
- Land acquisitions continued.



Preconstruction projects

Warrell Creek to Urunga

The Warrell Creek to Urunga upgrade was approved in 2011. The project is jointly funded by the Australian and NSW governments.

The 42 kilometre project involves upgrading the highway from the existing Allgomera deviation, south of Warrell Creek, to the existing Waterfall Way interchange at Raleigh. The project will be built in two sections from Nambucca Heads to Urunga and from Warrell Creek to Nambucca Heads.

Lend Lease was awarded the contract to design and build the Nambucca Heads to Urunga in June 2013.

Warrell Creek to Nambucca Heads

Activities under way during November 2013

- Participation in early contractor involvement tendering process continued for building the upgrade. Tenders close on 4 December 2013
- Preconstruction work including land acquisition continued
- Environmental studies and management plans progressed
- Preparation under way for a referral to the federal Department of the Environment (DoE) under (*Environmental Protection and Biodiversity Conservation Act*) 1999
- Work under way to identify and assess biodiversity offset properties
- Geotechnical investigations finished
- Noise impact assessments completed
- Flood impact assessment finalised
- Selected utility work started
- Architectural noise mitigation treatments continued.

Nambucca Heads to Urunga upgrade

Activities under way during November 2013

- Detailed design continued
- Field investigations continued including plant and animal ground level survey, water quality, environmental and Aboriginal heritage
- Utility relocation continued
- Architectural noise treatments continued
- Early project boundary fencing work started
- Temporary upgrade to Ballards Road intersection with Pacific Highway started
- Australian Government environmental approval given and work started 29 November 2013.

Priority three

(Woolgoolga to Ballina)

The completion of the Pacific Highway upgrade has been divided into three key priorities. Priority one projects will be completed by the end of 2014, weather permitting.

Priority two projects (to complete four-lane divided road between Port Macquarie and Raleigh) are either completed, under construction or being prepared for major work to start.

Priority three involves completing the remaining single-lane sections of the Pacific Highway between Woolgoolga and Ballina.



Woolgoolga to Ballina – quarry investigations

Woolgoolga to Ballina

Background

The Woolgoolga to Ballina project will upgrade about 155 kilometres of highway to four-lane divided road. This project does not include the completed Glenugie upgrade or the Devils Pulpit upgrade (which is being built).

Activities under way during November 2013

- NSW Department of Planning and Infrastructure released the Submissions/Preferred Infrastructure Report for public exhibition, submissions close 13 December 2013
- Meetings held with cane industry and farmers of properties potentially affected by early work detailed design
- Corindi and Arrawarra flood modelling finalised
- Land acquisitions continued.

Pimlico to Teven

Soft soil and building preparation work is being carried out between Pimlico and Teven, just south of the completed Ballina bypass, so this location will be ready for major work to start as part of the larger Woolgoolga to Ballina upgrade.

The Pimlico to Teven project will involve building a bridge over Duck and Emigrant creeks, upgrading the Pacific Highway and Bruxner Highway intersection just south of Ballina, providing about two kilometres of new road on the Pacific Highway and more than one kilometre of new road on the Bruxner Highway. The project is being carried out in three stages.

Stage one was completed by the Ballina Bypass Alliance.

Stage two activities during November 2013

- Early work under way
- Signage installed
- Line marking for new gates carried out
- Concrete barriers installed
- Site compound established
- Pre-clearing surveys carried out
- Left turn from Pacific Highway to Bruxner Highway closed
- Survey under way
- Clearing limits marked.

Stage three will be completed as part of the larger Woolgoolga to Ballina upgrade.

Under construction



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Safety improvement work

Contractors:

Roads and Maritime Services,
Road and Fleet Services

Current work site:

Old Post Office Lane, Ulmarra
(north of Grafton)

Workers on site: 12

Pieces of large machinery: 0

Start date of safety work program:

November 2009

Expected completion date:

Mid 2014, weather permitting

Program value: \$55 million (2009-2014)



Night work at Old Post Office Lane

Background

A program of safety improvement work has been developed as part of the Australian and NSW governments' commitment to upgrade the Pacific Highway.

While most of the funding will be directed to upgrading the highway to a four-lane divided road, there is a need to address road safety and traffic issues on sections of the two-lane highway.

A package of smaller work is being delivered to keep these sections safe and serviceable until upgrades can be completed. This work is also aimed at reducing the delays caused by local and major flood events.

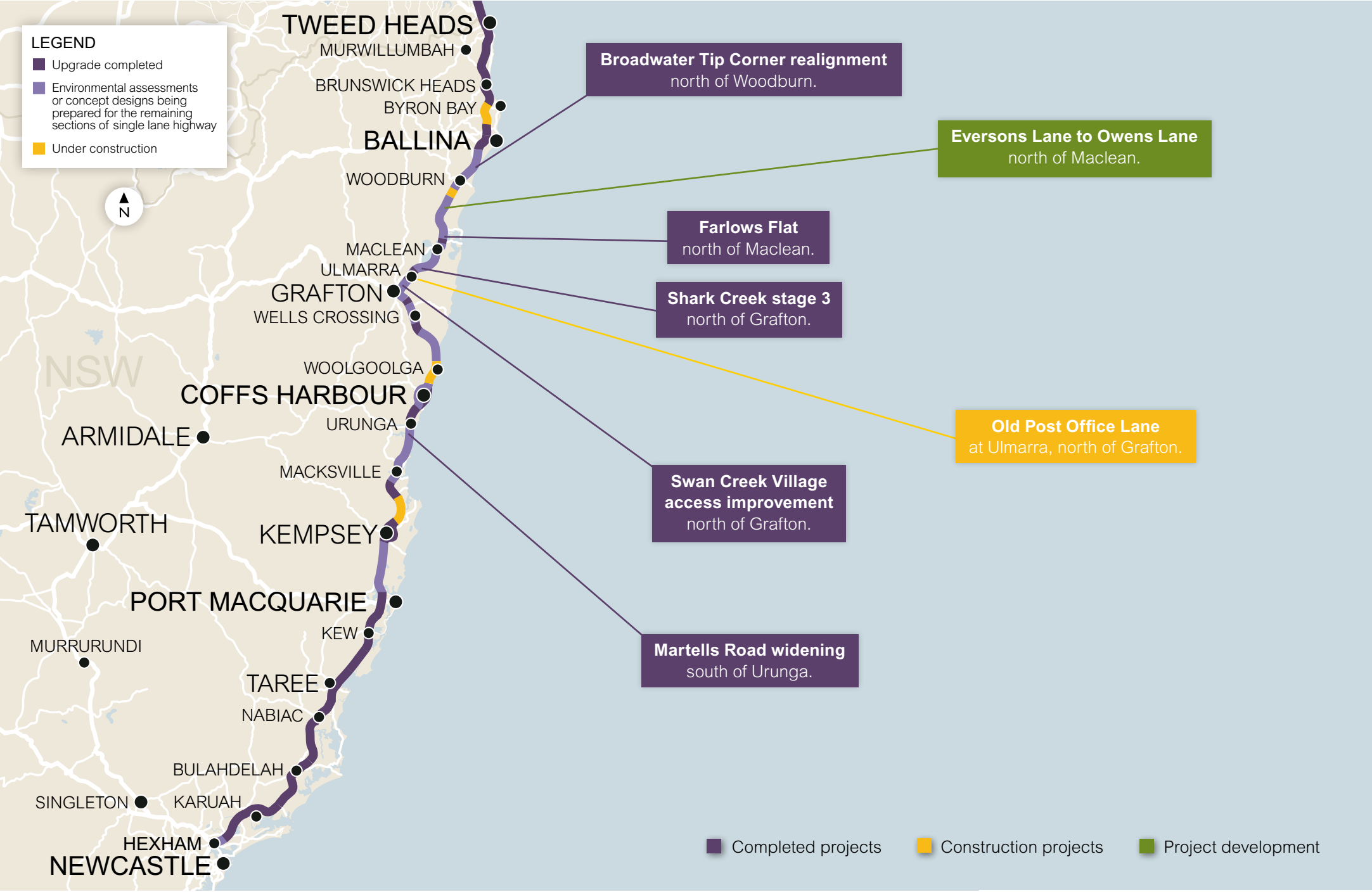
Key construction activities under way during November 2013

Work is currently under way near Old Post Office Lane, Ulmarra. It involves widening the road, realigning the curve of the road and providing turning lanes at the Old Post Office Lane intersection.

Current activities include:

- Asphalt paving work.

Safety improvement work under construction





Landscape regeneration progress July 2013



Landscape regeneration progress July 2013

Glenugie upgrade

Innovative landscape technique on Glenugie upgrade

The Glenugie Pacific Highway upgrade project recently took out the Land Management category of the 2013 Australian Institute of Landscape Architects (AILA) Landscape Architecture Awards. The award was given in recognition of the innovative and cost-effective revegetation technique used on the project.

Revegetation of highway projects is typically carried out by planting and seeding large areas of land disturbed during major work.

As the Glenugie upgrade was located almost entirely within a dense native forest, an unconventional and innovative revegetation technique was proposed. This approach adopted a natural process of regeneration, harnessing resources already existing in and adjacent to the road corridor.

The natural regeneration process was designed to mitigate environmental impact on land disturbed by major work using an environmentally sustainable, time efficient and cost effective process.

It aimed to restore native ecosystems by recreating natural conditions and establishing indigenous trees, shrubs and groundcover.

Careful recovery and reuse of site materials including seed, soil and mulched material from the cleared vegetation allowed the project team to rebuild the natural soil profile to preserve the fertility and seedbank of the existing topsoil, as well as depth and formation of subsoils.

The mulched site vegetation provided a valuable additional seed source and by blending with the topsoil, providing an essential and highly effective erosion protection measure in areas with exposed soil, such as on steep batters.

This method was successful in establishing local native tree, shrub and groundcover species as well as restricting growth of weeds, maintaining soil stability and protecting water quality in nearby creeks and streams.

This approach cost less to develop and implement than traditional revegetation techniques and has also minimised ongoing maintenance work and associate costs on the upgraded section of highway.

Four-lane divided road status

