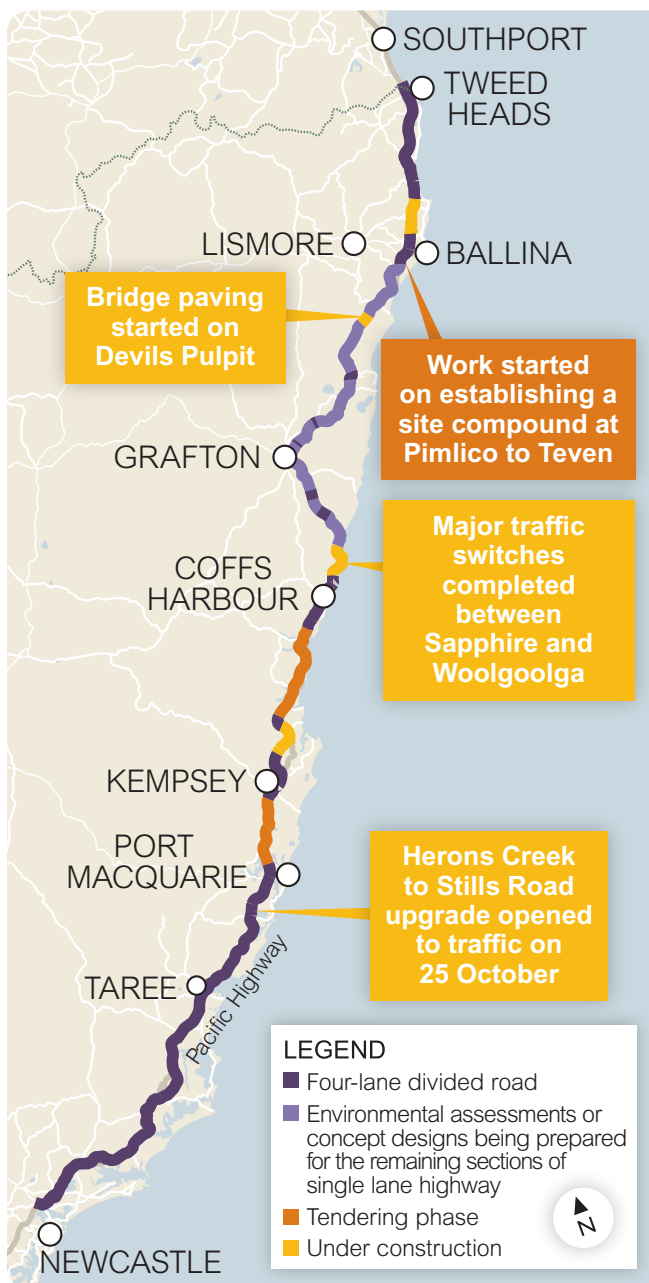


Pacific Highway upgrade

Achievement report **October 2013**



Pacific Highway upgrade

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

As at 31 October 2013, 368 kilometres are four-lane divided road, about 73 kilometres are under construction – after the opening of the Herons Creek to Stills Road upgrade. 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.



76 km* of highway under construction during October 2013.

*This includes the Herons Creek to Stills Road upgrade.



An average of 900 construction workers on site.



For overall upgrading strategy refer to the second last page.

Open to traffic

Contractors: BMD Constructions Pty Ltd
Form of contract: Construct only contract
Workers on site: 40
Pieces of large machinery: 17
Start date of major construction:
March 2011
Open to traffic:
October 2013
Project value: \$60 million
Australian Government contribution:
\$53 million **
NSW State Government contribution:
\$7 million **

** Contribution amounts may vary from year to year.



Traffic travelling on the new highway
north of Bago Road

Herons Creek to Stills Road upgrade

Background

The Herons Creek to Stills Road upgrade was approved to proceed on 5 October 2007 by the then Roads and Traffic Authority.

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

It upgraded 3.5 kilometres of highway between Herons Creek and Stills Road.

Key construction activities during October 2013

No days were lost to wet weather during this time. 

The Herons Creek to Stills Road upgrade is now open to traffic.

- The northbound lanes opened to traffic on 18 October.
- The southbound lanes opened to traffic on 25 October.
- Finishing work continued including line marking.

Incident investigation – site contamination

Roads and Maritime Services has remediated a contaminated area on the project which affected the health of a number of workers. The location of this site is where, in December 1980, a truck carrying a mixed load of waste crashed on the Pacific Highway.

Advice from a third party auditor found that the site has been successfully cleaned up.

Roads and Maritime completed remediation work at the Hastings Valley Motorcycle Club bike track. The work is being checked by a third party auditor and final advice is awaited.

More information is available on the project website at www.rms.nsw.gov.au/pacific (by clicking on Herons Creek to Stills Road).

Herons Creek to Stills Road upgrade open to traffic



Looking south from Bago Road



Bago Road interchange, looking west



Fauna overpass



Line marking on the eastern roundabout for the Bago Road interchange

Contractors:

Thiess Pty Ltd

Form of contract:

Design and construct contract

Workers on site: 180**Pieces of large machinery:** 50**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 Cooks Lane

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 October 2013

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

- Boundary fencing continued with about 40 per cent complete.
- Vegetation clearing continued with about 40 per cent complete.
 - Clearing was completed between the Frederickton interchange and Seven Hills Road.
 - Clearing for the service road south of Stuarts Point was 80 per cent completed.
- Building the rock bridging layer continued north of the Frederickton interchange, at Kems Access Road and started south of Cooks Lane.
- Topsoil stripping started north of the Frederickton interchange and south of Cooks Lane.
- Building environmental controls started including sediment basins, clean water diversions and erosion controls.
- Local road improvements at Kems Access and Quarry roads, near Frederickton, were completed. Improvement work at Cooks Lane started, with clearing 90 per cent complete.
- Preparation started for drainage lines south of the Stuarts Point turnoff.
- Utility adjustments were completed including telecommunications and power lines.
- Design work continued, with about 70 per cent complete.

Frederickton to Eungai under construction



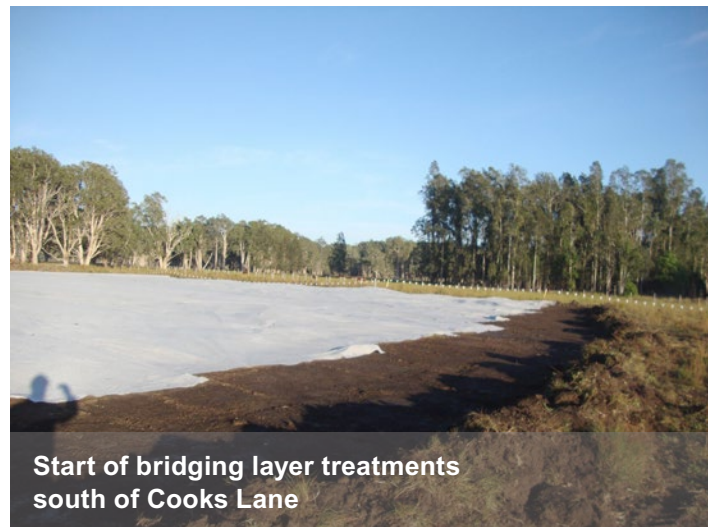
Clearing under way south of Seven Hills Road



Geotechnical drilling for bridge work north of Seven Hills Road



Rock bridging layer north of the Frederickton interchange



Start of bridging layer treatments south of Cooks Lane



Cooks Lane improvement work to improve access for haulage on the project

Contractors:

Leighton Fulton Hogan Joint Venture

Form of contract:

Design and construct contract

Workers on site: 245**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.



Stone mastic asphalt being laid
south of Greys Road bridge, Woolgoolga

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 October 2013

About one day was lost to wet weather during this time. 

- A series of traffic switches were carried out including:
 - Closing the western end of Split Solitary Road between North Sapphire Road and the intersection of the Pacific Highway and Split Solitary Road with alternative arrangements in place.
 - Moving traffic on the existing Pacific Highway between Emerald Beach at the intersection with Fiddaman Road and Graham Drive (south) onto about two kilometres of the new northbound lanes.
 - Moving highway traffic between the southern tie-in at Korora and about 150 metres north of Sugarmill Road at Sapphire onto about 3.5 kilometres of the new northbound lanes.
- Building continued on the Arrawarra interchange.
- Building continued on local roads.
- Asphalt paving started on the Woolgoolga bypass.
- Other bridge work, paving, retaining wall and road surface construction continued.
- Earthwork and drainage work continued throughout the project.

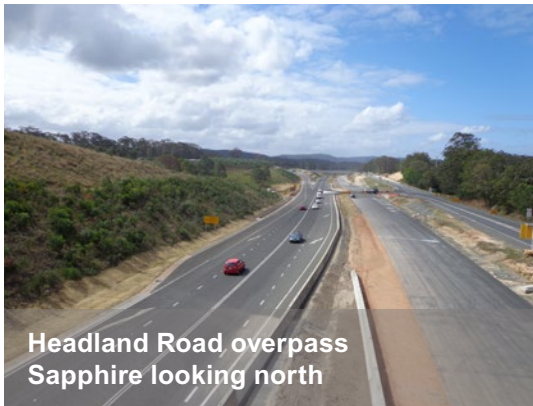
Sapphire to Woolgoolga upgrade under construction



Construction continuing north of the Smiths Road overpass



Graham Drive (north) western roundabout under construction



Headland Road overpass
Sapphire looking north



Construction of the local access road between
Maccues Road and the Moonee Beach overpass



Looking east across the Gaudrons Road overpass



Looking south along the new highway
from Bark Hut Road bridge

Under construction

Contractors: John Holland

Form of contract: Construct only contract

Workers on site: 85

Pieces of large machinery: 27

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.



Asphalt paving applied to bridge deck
before placement of final paving layer

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 October 2013

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

- Bridge paving started.
- Road shoulder and kerb paving continued.
- Median work continued.
- Wire rope safety barriers installation continued.
- Work on animal underpasses completed.
- Landscaping and revegetation continued.
- Tendering process continued for rest area facilities.
- Temporary sediment basins continued to be removed.
- Preparation started on new southbound pavement for upcoming traffic switch.

Devils Pulpit upgrade under construction



Asphalt paving work at the southern end of the project



Line marking and concrete joint sealing in advance of upcoming traffic switch



Line marking in preparation for upcoming traffic switch



Bridge paving work under way

Contractors: Lend Lease Engineering
Form of contract: Design and construct
Workers on site: 245
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.



Excavation work to build
the Tunnel Control Centre

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 October 2013

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

- Detailed design continued.
- Bridge building continued at Emigrant, Skinners, Byron and Minor creeks.
- Arch building continued at the local fish farm and at Martins Lane West.
- Piling continued at the Tinderbox Creek, Emigrant Creek and Bangalow, after Access Point D, retaining walls.
- Excavation of the northern and southern tunnel portals and Tunnel Control Centre continued.
- Watson Lane closure continued to allow building to proceed.
- Bulk earthwork continued.
- Drainage continued.
- Work under way for the demolition of the Bangalow Road bridges.
- Tunnelling continued on the St Helena tunnel.
- Preparation continued for Pacific Highway traffic switches at Bangalow and Ewingsdale.

Tintenbar to Ewingsdale upgrade under construction



Bridge piling work at Watsons Lane



Bridge work looking south over Byron Creek



Working inside the St Helena twin tunnels



Night work to demolish Bangalow bridge

Preconstruction projects

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 October 2013

- Environmental assessment and consistency reviews being finalised for design refinements.
- Tenders have closed and are being assessed for contractors to design and build the upgrade.
- Installation of animal roost boxes continued.
- Pre-construction ecological monitoring continued.
- Tenders being assessed for contractors to carry out and manage architectural noise measures and ecological monitoring.
- Investigations continued to identify biodiversity offset lands to meet federal environmental requirements.
- Land acquisitions continued.

Kundabung to Kempsey

Activities under way during October 2013

- Tenders have closed and are being assessed for contractors to build the upgrade.
- Installation of animal roost boxes continued.
- Pre-construction ecological monitoring continued.
- Tenders being assessed for contractors to manage architectural noise measures and ecological monitoring.
- Environmental assessment and consistency reviews being finalised for design refinements.
- Investigations continued to identify biodiversity offset lands to meet federal environmental requirements.
- 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 Allomera 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 Engineering was awarded a contract for the design and construction of the Nambucca Heads to Urunga section in December 2012.

Warrell Creek to Nambucca Heads

Activities under way during October 2013

- Participation in the early contractor involvement tendering process continued for building the upgrade. Tenders close on 4 December 2013.
- Preconstruction activities continued, including land acquisitions and environmental work.
- Preparation under way for a referral to the federal Department of the Environment under the *Environment Protection and Biodiversity Conservation Act 1999*.
- Work under way to identify and assess biodiversity offset properties.
- Geotechnical investigations and revised noise modelling completed and flood impact assessment finalised.
- Design and environmental assessment work under way for public utility adjustments including the start of work on selected adjustments.
- Architectural noise treatment work started.
- The project team is continuing to develop a revised strategy to allow the highway to be built along the approved alignment while reducing impact on an identified flying fox colony. Roads and Maritime continued to monitor the site.

Nambucca Heads to Urunga

Activities under way during October 2013

- Detailed design continued.
- Field investigations continued including plant and animal, ground level survey, water quality, environmental and Aboriginal heritage.
- Utility relocations continued.
- The project team moved into a permanent site compound in Ballards Road, Urunga.
- Construction Environmental Management Plan and Environmental Protection Licence approved.
- Architectural noise treatments continued.
- The project is awaiting federal approval by the Department of the Environment before major construction can start.
- Weather permitting the project will open to traffic by the end of 2016.

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 October 2013

- Submissions and preferred infrastructure report on the environmental impact statement were reviewed and amended, including preparation of 10 species management plans. This was in response to feedback from the NSW Department of Planning and Infrastructure and the Australian Government Department of the Environment.
- Ground survey investigations continued to gather data for design purposes.
- Tender assessment continued for a number of activities, including for updating a number of environmental panels to assist with specialist support services for the upgrade.
- 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 October 2013

A contract to build stage two awarded to Leighton Contractors.

- Work started on establishing site compound.
- Variable message signs installed to advise of upcoming closure of the Bruxner Highway turnoff.
- Construction Environment Management Plan and sub-plans being developed.
- Utility relocation work under way.

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

Under construction

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)



Asphalt paving work under way

Background

A program of safety improvements 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.

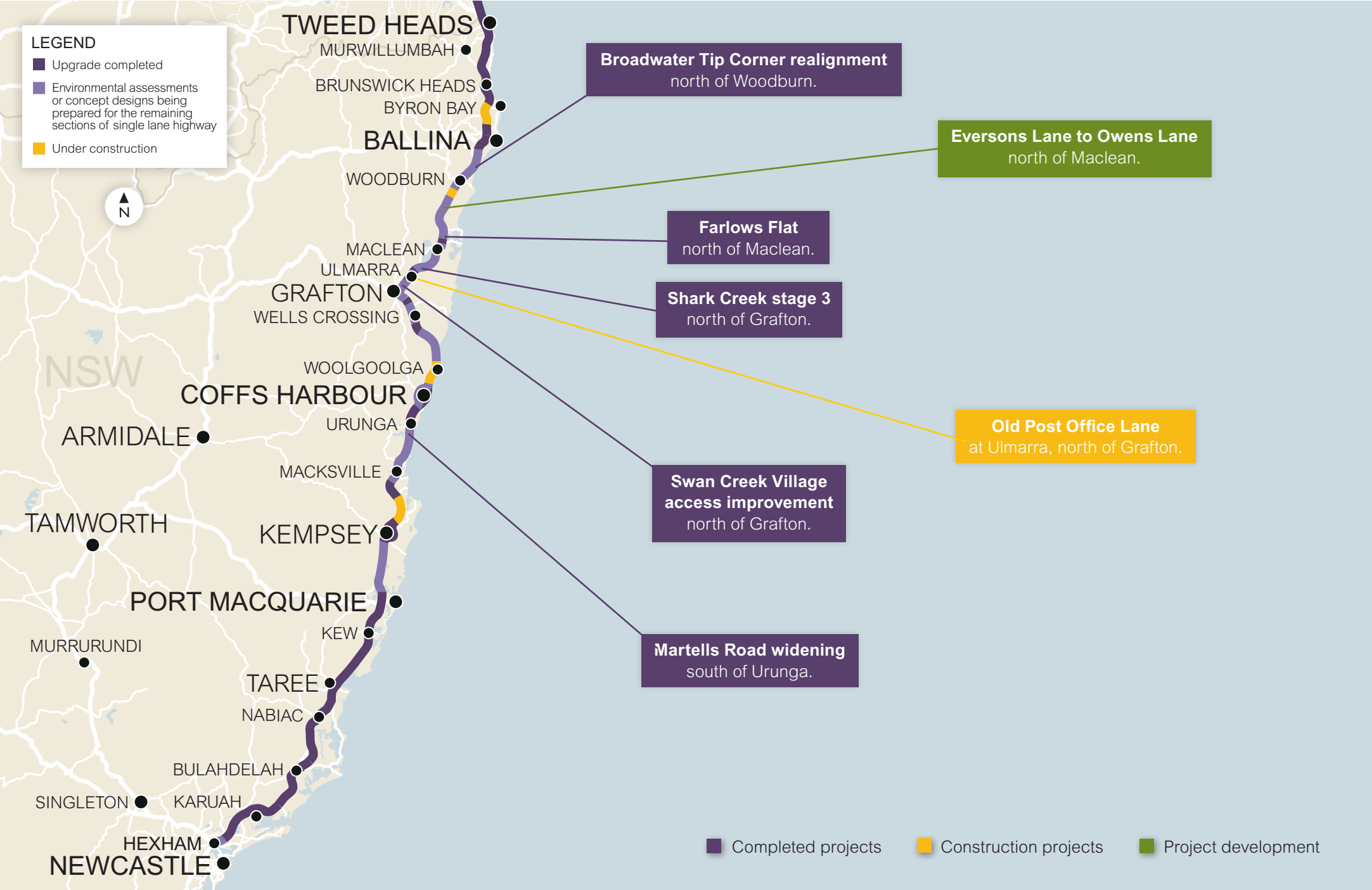
Key construction activities under way during October 2013

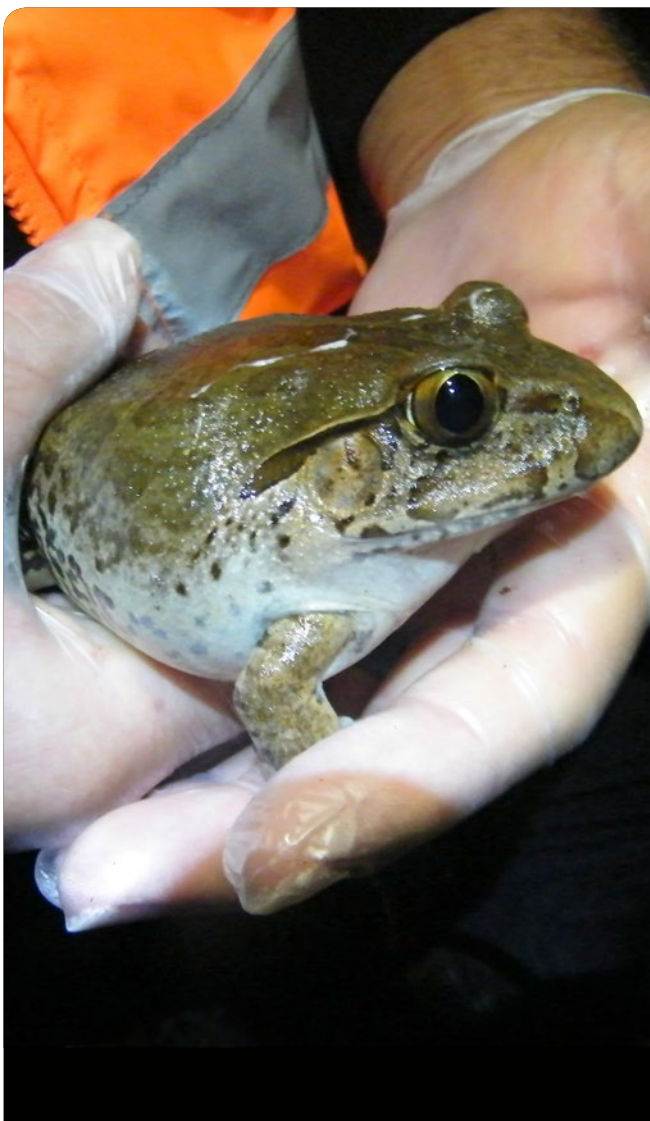
Work is currently under way near Old Post Office Lane, Ulmarra. It involves widening the road, realigning the curve of the road and providing turning lanes at the Old Post Office Lane intersection.

Current activities include:

- Asphalt paving work.

Safety improvement work under construction





One of many Giant Barred Frogs being protected on the Tintenbar to Ewingsdale upgrade. This frog is a mature aged male – known as a granddaddy frog.

Tintenbar to Ewingsdale It's not easy being green

The project team for the Tintenbar to Ewingsdale upgrade recently identified a population of the giant barred frog, a threatened species within the project area.

Once identified, the project team acted fast to develop and put in place an effective management and monitoring program to ensure the frogs were protected from the work. The program included:

- A worker awareness and education plan.
- Seven kilometres of exclusion fencing to restrict the frogs from the work site (while still maintaining access for the frogs to creek banks and other habitat).
- Limiting the potential spread of chytrid fungus which can result in high frog mortality rates.
- Monitoring of the colony during construction and operation.

Roads and Maritime engaged a nationally recognised frog expert, Professor Michael Mahoney from UNSW, who worked closely with an ecologist from a local environmental consultancy, GeoLink, as well as biodiversity staff from the Office of Environment and Heritage, to develop the giant barred frog management plan for the project.

The risk of harm to the population from chytrid fungus infection (a significant contributor to a decline in frog populations world-wide) was identified, and has been managed very successfully by the creation of frog hygiene management zones and implementation of a requirement for all plant, equipment, light vehicles and worker footwear to be washed down with disinfectant before entering and leaving the management zones and to prevent the spread of the fungus during the clearing and topsoil stripping phases of the project.

The success of the management protocol has been determined through periodic monitoring of population numbers and health through the construction period and will continue, once the project is opened to traffic.

In May this year, giant barred frog tadpoles were discovered in a section of Tinderbox Creek located within the construction zone, demonstrating work was not having a negative effect on the ongoing existence of the population.

Four-lane divided road status

