





Pacific Highway upgrade

Six month report card (January - June 2014)

Overview





This report provides a progress update on the Pacific Highway upgrade program to 30 June 2014.

The Pacific Highway connects
Sydney and Brisbane, and is a major
contributor to Australia's economic
activity. The road is a vital piece of
the nation's infrastructure and is a
key link in the National Land Transport
Network.

There is now a multi-lane, divided highway link from Sydney through to Port Macquarie on the New South Wales Mid North Coast. The recent opening of the Devils Pulpit upgrade, in March 2014, has provided a seven kilometre section of four lane divided highway north of Grafton and will form part of the larger Woolgoolga to Ballina project.

Significant progress is being made as all of the final sections of the upgrade program are now either under construction or being prepared for major work to begin. The Australian and New South Wales Governments have committed to completing the Pacific Highway upgrade by 2020, with all projects to be under construction by 2015.

Improved weather patterns have allowed for progress to be made on the Frederickton to Eungai and Nambucca Heads to Urunga upgrades. The Sapphire to Woolgoolga project is almost complete and is due to be open to traffic in July. State approval has been received for the 155 kilometre Woolgoolga to Ballina project, with Federal approval due in the second half of 2014.

An upgraded Pacific Highway must continue to service the needs of the travelling public and achieve transport efficiencies, while also ensuring ecological sustainability and meeting the needs of the coastal communities that live along the highway.

Cover photo: Tintenbar to Ewingsdale project – looking south at the Byron interchange to the tunnel head at St Helena

Current status





As of the end of June 2014, about 58 per cent of the final length of highway, between Hexham and the Queensland border, is now a four lane divided road.

Between January and June 2014, major work was under way on six upgrade projects (about 90 kilometres). With the opening of the Devils Pulpit upgrade section in March 2014, there are currently about 80 kilometres being built.

The safety work that was being carried out on the sections yet to be upgraded was finished in March, with the completion of the Old Post Office Lane intersection at Ulmarra, north of Grafton.

The remaining two lane sections of the highway are all being prepared for construction.

Key pieces of infrastructure opened during the past six months include:

• The 10 kilometre Devils Pulpit upgrade (seven kilometres of four lane divided highway).

Devils Pulpit upgrade - line marking removal prior to opening the project to traffic

Of the 80 kilometres of highway being built in June 2014:

- Major traffic switches on the Sapphire to Woolgoolga upgrade, with traffic using the upgrade section (one lane in either direction) for about 15 kilometres, from the southern tie-in at Korora to south of Woolgoolga
- Batch plants to manufacture concrete for road surfaces were completed and operational on the Frederickton to Eungai and the Tintenbar to Ewingsdale projects
- Breakthrough in the twin tunnels at St Helena on the Tintenbar to Ewingsdale project
- More than 9.6 million cubic metres of earthwork out of 13.7 million cubic metres has been completed to date
- 29 bridges have been completed out of the 126 to be built.

Key milestones achieved during the last six months for projects being prepared for construction:

- Oxley Highway to Kempsey upgrade received approval from the Federal Department of the Environment
- Lend Lease were awarded the contract to design and build the Oxley Highway to Kundabung upgrade
- McConnell Dowell OHL Joint Venture were awarded the contract to build the Kundabung to Kempsey upgrade
- Acciona Ferrovial were announced as preferred tenderer for the Warrell Creek to Nambucca Heads upgrade (contract expected in July 2014)
- Site compound established and workers on site for the Sancrox interchange early work
- State approval received for the Woolgoolga to Ballina upgrade and awaiting Federal approval.

Upgrade outcomes



Where are we now?

At 30 June 2014:

381 kilometres are four lane divided highway – about 58 per cent.

80 kilometres are being built.

The remaining sections of two lane highway are being prepared for major work.

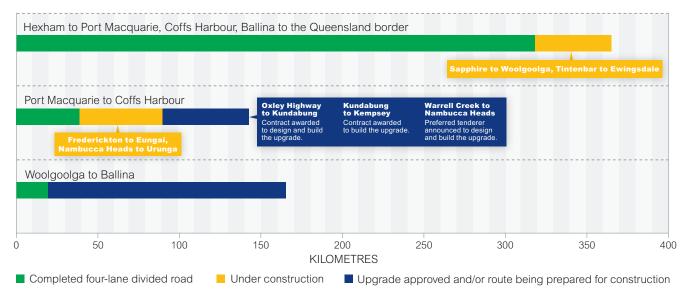
For the first half of 2014, there was an average of **1474** people working on the various construction projects.

There were about 1675 workers on site in June 2014.

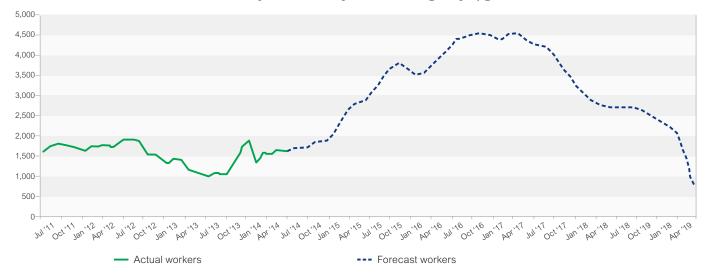
The peak employment period is expected to be during 2016 and 2017 when an estimated 4500 workers will be employed as a result of the Pacific Highway upgrade. The peak employment period has changed slightly due to delay while Federal Environmental approval was pending on projects between Port Macquarie and Coffs Harbour. The peak employment numbers are now higher than previous estimations as they include work generated as a result of the Woolgoolga to Ballina project.

Roads and Maritime Services and its contractors, wherever possible, use local products and services for infrastructure construction projects. The Pacific Highway upgrade has plans in place for all of its construction projects aimed at encouraging Aboriginal employment opportunities, including apprenticeship and traineeship programs.

Four-lane divided road status



Direct jobs created by the Pacific Highway upgrade



The graph to the right shows actual and predicted workers on site. Future predictions have been estimated on the basis of 1.98 direct jobs per million dollars budgeted each year and future cash flows. It is anticipated that the number of indirect jobs would be three times the number of direct jobs.

Upgrade outcomes





Expenditure update

The total expenditure for the upgrade program during the 2013/2014 financial year was \$1.044 billion (100.1 per cent of the revised allocation).

The graph below shows the six months to the end of June 2014 with \$558 million being spent. The graph also shows monthly expenditure against forecasts and generally there has been a close match between the two.

Pacific Highway Program expenditure by month January 2014 – June 2014



Wet weather

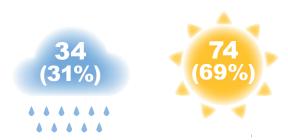
The period January to June 2014 was wetter than the preceding six month period, although considerably drier than the same period during 2013.

Some projects such as Sapphire to Woolgoolga and Nambucca Heads to Urunga had less wet days than planned, and progress on site was better than anticipated. Sapphire to Woolgoolga project is expected to be open to traffic in July 2014.

Tintenbar to Ewingsdale continues to be affected by wet weather, they have lost 59 percent of available workdays during this period and this will affect the opening date.



From 108 available working days



Upgrade outcomes





Tintenbar to Ewingsdale upgrade - road sealing work on northbound lanes at Martins Lane, Knockrow



Sapphire to Woolgoolga upgrade - laying of the low noise road surface on the new highway south of Woolgoolga

Travel times

Since the start of the Pacific Highway upgrade program in the mid 1990s, travel time between Hexham and the Queensland border has been tracked.

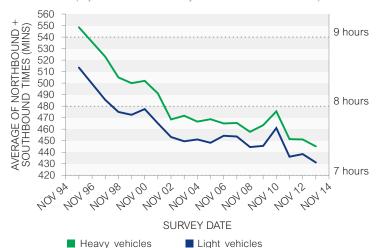
End of 2013 travel time surveys indicate light vehicles are saving a minimum of 90 minutes and heavy vehicles are saving a minimum of 100 minutes, compared to when the upgrade program started.

An additional five minutes, and over 10 minutes in peak traffic, is expected to be saved with the opening of Devils Pulpit (March 2014) and Sapphire to Woolgoolga (July 2014) due to higher and more consistent travel speeds.

The graph below shows travel time trends on the Pacific Highway between Hexham and the Queensland border and has been adjusted for work site delays.

Travel times on the Pacific Highway, Hexham to the Queensland border

(adjusted for work site delays from November 97 onwards)



Crashes

Since the start of the Pacific Highway upgrade, fatal crashes continue to trend downwards. Fatal crashes have almost halved, down from over 40 per annum to around 20, in recent years.

In 2013, 20 people died in 17 fatal crashes. This compares with the previous five year average of 24.

Crash data for 2013 shows there were 793 overall recorded crashes on the highway (Hexham to the Queensland border). This is lower than the previous five year average of 852.

Preliminary data for the first half of 2014 shows there have been six fatal crashes with seven people killed between January and June.

Fatalities on the Pacific Highway by year



Fatalities — Linear fatalities crashes

Finishing the job



Completing a four lane divided highway between Hexham and the Queensland border remains an important issue for local communities and is a priority for the Australian and NSW Governments. There is now a four lane divided highway between Hexham and Port Macquarie and shortly there will be a four lane divided highway between Urunga and Woolgoolga, on the mid north coast.

By the end of 2014 it is expected that:

- 395 kilometres of the Pacific Highway will be open to a four lane divided road standard
- 122 kilometres of new highway will be being built
- Substantial progress will be made in preparing the remaining length of the existing highway for major work.

Work will continue and ensure a four lane divided highway will be open to traffic between Ballina and the Queensland border by the end of 2015.

Good progress has been made on the section between Port Macquarie and Urunga with the Frederickton to Eungai and Nambucca Heads to Urunga projects scheduled to be open to traffic by the end of 2016. The remaining sections will be completed during 2017, weather permitting.

Work is being carried out to complete or advance a number of key activities on the highway between Woolgoolga and Ballina including, planning work, land acquisitions, preliminary investigations, early soil settlement and preconstruction work on critical sections. Some sections of four lane divided highway are already in place at Halfway Creek, Glenugie and Devils Pulpit.

Key project milestones – how are we travelling?

Did we do what we said we would between January and June 2014?

Open to traffic:

✓ The seven kilometre Devils Pulpit upgrade.

Achieve major work progress:

- ✓ Clearing work completed on the Frederickton to Eungai upgrade
- ✓ Breakthrough at the twin tunnels at St Helena Hill on the Tintenbar to Ewingsdale upgrade

- ✓ Bridge work on the Nambucca Heads to Urunga upgrade started
- ✓ Open a further overbridge on the Sapphire to Woolgoolga upgrade.
- Start to build the Kundabung to Kempsey upgrade (Project delayed while awaiting Federal Environmental approval)
- Start to build the Sancrox Road interchange (Expected to start in July)
- First bridge girder placed on the Frederickton to Eungai upgrade (construction sequencing changed to August 2014)



Devils Pulpit upgrade - first cars on the newly opened highway

Finishing the job



Prepare for major work:

- ✓ Award a contract to design and build the Oxley Highway to Kundabung upgrade
- ✓ Award a contract to build the Kundabung to Kempsey upgrade.
- Award a contract to design and build, and start detailed design work for the Warrell Creek to Nambucca Heads upgrade (contract expected to be awarded in July)

Plan for remaining sections:

- ✓ Receive NSW approval for the Woolgoolga to Ballina upgrade
- Receive Federal approval for the Woolgoolga to Ballina upgrade (expected to be received August)

In addition to the above all safety improvement work on the existing two lane highway have been completed.



Safety improvement work - Old Post Office Lane intersection

In the next six months (July to December 2014) we will:

Open to traffic:

√ The 25 kilometre Sapphire to Woolgoolga upgrade.

Achieve major work progress:

- ✓ Paving work on the future Macleay Valley Way will be completed on the Frederickton to Eungai upgrade and highway traffic switched onto it
- ✓ Start to build the Warrell Creek to Nambucca Heads upgrade
- ✓ Opening of a new bridge to traffic on the Tintenbar to Ewingsdale upgrade
- ✓ Start to build both sections of the Oxley Highway to Kempsey upgrade

- ✓ Bridge work started on the Nambucca Heads to Urunga project
- ✓ Start to build the Sancrox interchange
- ✓ First bridge girder placed on the Frederickton to Eungai upgrade.

Plan for remaining sections:

- ✓ Receive Federal approval for the Woolgoolga to Ballina upgrade
- ✓ Invite tenders for delivery partner and invite and award contract for building the first section of the Woolgoolga to Ballina project
- ✓ Invite and award contract for early work on soft soil sites for the Woolgoolga to Ballina upgrade.



Tintenbar to Ewingsdale upgrade - excavation of sub grade material, Knockrow

Community



How are we travelling?

Between January and June 2014, we have:

- √ Attended more than 17 community information sessions
- ✓ Carried out about 907 individual meetings with property owners and other stakeholders
- ✓ Maintained 10 static displays
- ✓ Distributed 119 separate letters to householders and community updates (including progress advertisements)
- ✓ Issued about 82 traffic alerts
- ✓ Held 11 community events (including site tours and opening events).

Working with the community on the Tintenbar to Ewingsdale project – Bangalow tree planting day

Following the clearing of trees for construction of a new noise mound adjacent to a park in the Clover Hill estate in Bangalow, the community approached the Tintenbar to Ewingsdale project team for assistance with purchasing additional trees and plants for the park.

The project team went one better and a community tree planting day was organised with the help of a community group from Clover Hill. A detailed landscaping plan was drawn up and agreed, with more than 250 trees, shrubs and plants bought or donated. Holes were pre-dug, mulch supplied, tools provided and a BBQ lunch put on for about 80 community volunteers and project staff.

It was a great day for all involved and has had a positive outcome for a community alongside the upgrade.



Tintenbar to Ewingsdale - community tree planting day

Collaboration and consultation results in a positive outcome for the Nambucca Heads to Urunga project

The Nambucca Heads to Urunga project includes the building of new twin bridges over the Kalang River near Urunga. Project contractors, Lend Lease, put forward an option to build a temporary bridge next to the location of the two new permanent bridges. The benefits of this proposal is it would provide direct access to the bridge site, making building the new twin bridges easier and reducing the number of trucks passing through Urunga during the building of the upgrade. It also means that up to 90,000 cubic



Nambucca Heads to Urunga upgrade - temporary bridge being built over the Kalang River

metres of material would no longer need to be driven through Urunga to reach the construction site. However, the building of this bridge would require the temporary closure of the river in this area.

The project team worked closely with the Maritime Division to carry out an extensive local consultation with the road users and local boat and river users. This process resulted in 100 per cent support for the temporary bridge proposal from the community and river users.

The temporary bridge is expected to speed up the project, remove the need to float construction barges up the river and improve environmental outcomes.

Environment



How are we travelling?

For projects being prepared for major work

Between January and June 2014:

- ✓ Widen Median Report approved by the Department of Planning and Environment for the Oxley Highway to Kempsey Project
- ✓ Approval received from the Department of Planning and Environment for the Oxley Highway to Kempsey Biodiversity Offset Strategy
- ✓ Surface and Ground Water Monitoring Program approved for Warrell Creek to Nambucca Heads and Oxley Highway to Kempsey projects
- ✓ Biodiversity offset workshop held with the Office of Environment and Heritage, National Parks and Wildlife Services, Department of the Environment and the project team for the Warrell Creek to Nambucca Heads upgrade
- ✓ Good progress on the ecological baseline monitoring for a range of threatened flora and fauna species across the 155 kilometre Woolgoolga to Ballina project
- ✓ Completed 12 months of baseline surface and groundwater monitoring for the Woolgoolga to Ballina project.

For projects under construction

Between January and June 2014:

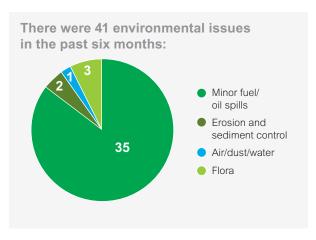
- ✓ Gained approval for the Operational Noise reports for the Frederickton to Eungai and Tintenbar to Ewingsdale projects
- ✓ Kalang River temporary crossing approved for Nambucca Heads to Urunga project, which will result in up to 18,000 fewer construction truck journeys carrying 90,000 tonnes of material travelling through the township of Urunga

- ✓ Artefacts have been successfully salvaged across the Sapphire to Woolgoolga project and returned to 'Country' in close consultation with local Aboriginal community
- ✓ Giant Barred Frog monitoring on Sapphire to Woolgoolga project has demonstrated that the population of this threatened frog species has been stable through the construction period
- ✓ Threatened species, Rusty Plum and Lindsaea incicisa, have been successfully translocated on the Sapphire to Woolgoolga project with good growth recorded to date at translocation sites
- ✓ Biodiversity offset package approved by Department of Planning and Environment for Sapphire to Woolgoolga project. This includes purchasing of a 98 hectare tract of forest immediately east of the project, which has secured the long term protection of the land and is a positive outcome for both the community and the environment
- ✓ Glider monitoring of rope crossing structures on the Glenugie upgrade have revealed successful use by threatened squirrel glider species
- √ Fauna underpass monitoring at Glenugie confirmed use by the threatened Rufus Bettong and koala species
- ✓ Secured more than 380 hectares of biodiversity offsets for the Devils Pulpit project
- ✓ Revegetation of fauna connectivity corridor on the Devils Pulpit project started, which included over 17,500 tube stock being planted
- ✓ Positive feedback from regulatory agencies on the creek diversions and use of soft engineering solutions implemented on Tintenbar to Ewingsdale project.

Environmental issues for the past six months

Environmental incidents recorded between January and June 2014 relate to:

- Excessive dust generation has been identified on the Sapphire to Woolgoolga project from the dry concrete saw cutting. The Environmental Protection Authority is investigating
- A subcontractor was fined by the Environmental Protection Authority on the Sapphire to Woolgoolga project for driving his truck with an unsecured load.



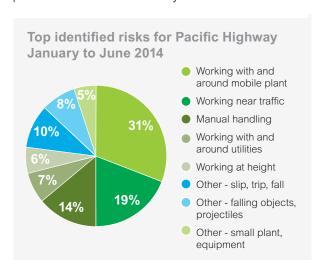
There were no spills that left the project site or entered waterways. Those spills that occurred were cleaned up immediately with site spill kits.

About 20 environmental inspections were carried out on projects between Port Macquarie and Ewingsdale during January and June 2014. The majority of these inspections recorded green status which indicated that sites were demonstrating good environmental practice with only minor corrective measures required.

Workplace health and safety

Safety is a core organisational value for Roads and Maritime Services. In practice, this means working safely is the way we conduct our daily business. Working with our industry partners we are continuing to work collaboratively to reduce workplace health and safety risks and create a safe and healthy work environment for all workers on our sites, road users and the community.

We continue to work with our industry partners, so together we lead work health and safety performance in our industry.



How are we travelling?

Between January and June 2014, the project teams have:

- worked more than 2.48 million hours
- had four lost-time injuries
- had 54 working days lost to injuries

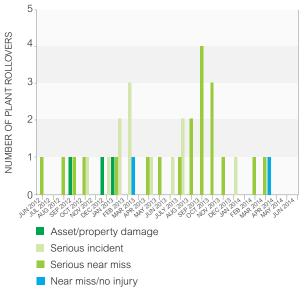
- proactively planned and actioned 4886 safety observations and audits
- reported 36 serious events.

The focus for reporting has been the accurate and timely transfer of information to achieve a faster response and communication on WHS risk and controls.

Managing construction plant risks

Management of plant risk – including plant rollover – has been a major focus for the period. A commitment statement for the prevention of plant roll-over has been prepared and will shortly be displayed at all sites. There has been a reported decrease in plant roll-overs on Pacific Highway projects over the six month period – four for this period compared to 14 for the period July to December 2013.

Project vehicle rollovers on the Pacific Highway



Pacific Highway projects workplace health and safety workshop at Coffs Harbour

The fifth bi-annual Pacific Highway workplace health and safety workshop was held in June 2014 and was attended by senior management from all projects, from both Roads and Maritime and industry partners. In addition there were representatives from Roads and Maritime's Heavy Vehicle Regulations, WorkCover and industry partners in traffic control and materials haulage. The workplace health and safety workshop provided an opportunity to share solutions and harmonise our approach to high risk activities across the projects.

The focus of the workshop was the Transport Regulation chain-of-responsibility provisions and workplace health and safety responsibilities in transport of materials along public roadways.



Ben Herden, Safety Manager for Thiess, speaking at the Pacific Highway WHS workshop

Workplace health and safety



Industry Partnership Safety Initiatives

Project: Frederickton to Eungai – Contractor: Theiss

 A Thiess plant operator won a \$100 award for two safety innovations, namely, an overheadwires detection device, which he sourced from overseas, and a hands-free radio. He was further nominated for and subsequently won a \$1000 State prize for Thiess and requested the money be donated to charity. The overhead-wires detection device sends an audible and visual alert as a plant item approaches to within 30 metres of overhead wires. The alert increases in intensity the closer the plant item approaches to wires. A working-at-heights barrier was developed for culvert work, for use when craning precast culverts from the back of trucks. A frame, engineered for the purpose is lifted onto the top of the culverts to give workers access to anchor points for the crane to attach to the load. At the same time it provides a fall barrier allowing safer work on top of the culverts.

Project: Tintenbar to Ewingsdale – Contractor: Lend Lease

 Roads and Maritime and Lend Lease collaborated on developing an action plan following an incident involving transport of a Super-T girder. A working party is being formed to progress the actions further. These include collaboration with Heavy Vehicle Regulations

- (HVR) on developing standards for the jinkers used in transport. The subject was presented at the Pacific Highway Safety Workshop in June.
- The Roads and Maritime site team and HVR
 have worked with Lend Lease to provide a safe
 location for heavy vehicle inspection within
 the project site. Following feedback from HVR,
 Lend Lease have stepped up the inspection
 and maintenance regime for their construction
 fleet, further ensuring the safety of project work.
- Lend Lease has established a 'safe access only' program for work on the back of trucks.
 This includes the installation of railings and other safety barrier systems on site trucks and requirements for subcontractors to provide the same or alternative safe access such as scaffold, elevated work platforms or platform ladders.



Tintenbar to Ewingsdale - safety barrier installed for work on the back of trucks



Tintenbar to Ewingsdale - transporting a Super-T girder

Projects open to traffic



Contractor:

John Holland

Form of contract:

Build only

Average workers on site during the past six months: 42

Average pieces of large machinery on site during the past six months: 8

Start of major construction:

December 2011

Completion date:

Opened to traffic March 2014

Project value: \$80 million

Australian Government contribution:

\$62 million *

NSW State Government contribution:

\$18 million *

^{*} Contribution amounts may vary from year to year.



Devils Pulpit upgrade

The Devils Pulpit upgrade project was jointly funded by the Australian and NSW Governments. The project upgrades a 10 kilometre section of highway between Grafton and Ballina. Seven kilometres has been upgraded to a four lane divided highway.

14 days were lost to wet weather in the past six months.



January – June 2014, work progress: 🐔



- √ Four lane divided highway opened to traffic
- ✓ Rest area facilities completed
- ✓ Line marking completed
- ✓ Installation of a median wire rope barrier in the two lane section
- ✓ Road safety audit carried out
- ✓ Wildlife connectivity planting completed.

Community issues



Nil.

Environmental issues



Nil.

Pacific Highway safety improvements

Contractor:

Roads and Maritime Fleet Services

Form of contract:

Build only

Average workers on site during the past six months: 6

Average pieces of large machinery on site during the past six months: 1

Start of major construction:

November 2009

Completion date:

March 2014

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

A program of safety improvement work was developed as part of the Australian and NSW Governments commitment to upgrade the Pacific Highway.

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

All safety work projects were completed during this period and Roads and Maritime is investigating projects that could form part of future safety improvement work.

January – June 2014, work progress: 🐔

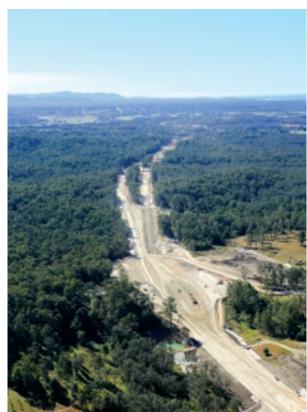


✓ Old Post Office Lane intersection. improvements completed.

Port Macquarie to Coffs Harbour overview







Nambucca Heads to Urunga project - looking north on the new alignment

Overview

As of the end of June 2014 the Pacific Highway between Port Macquarie and Coffs Harbour is either a four lane divided road, under construction or being prepared for major work. By the end of the year it is expected that all of the projects will be being built, equating to 105.5 kilometres of highway.

This summary outlines progress in completing this section of the Pacific Highway upgrade, in terms of key construction activities and how we are working to minimise the disruption to the road users.

Live travel time information systems

Live travel time information systems will be used between Port Macquarie and Coffs Harbour to coincide with major work starting on 105 kilometres of road.

The system uses a suite of portable variable message signs (VMS) and traffic sensors located along the highway. The sensors use Bluetooth technology in travelling cars to read the travel time from one point to another. This provides travellers with realistic timeframes from one place to another and the VMS changes automatically depending on the data it receives. This means that up to the minute travel information is directly relayed to the road user.

This information will allow Roads and Maritime to monitor the impact that highway construction is having on travel times and the data will be used to inform construction methods and traffic staging to minimise impact on the highway. This will minimise delays for all road users while still allowing essential construction, safety and maintenance work to take place.



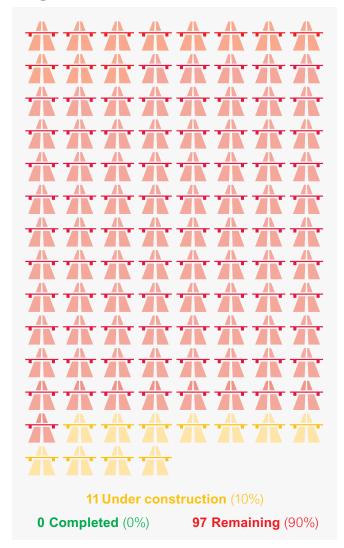
The time travel variable message board at Macksville

Port Macquarie to Coffs Harbour overview

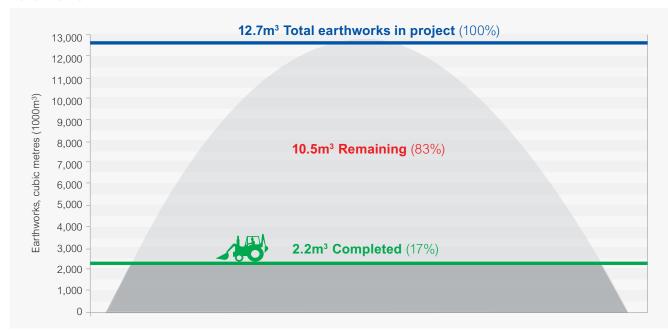


This page aims to show the scale of the total earthworks, number of bridges and amount of highway carriageway to be built for the five projects between Port Macquarie and Coffs Harbour. The work completed below is from the two projects currently being built - Frederickton to Eungai and Nambucca Heads to Urunga. By the end of the year it is expected that all five projects will be being built and each report will show progress against these projections.

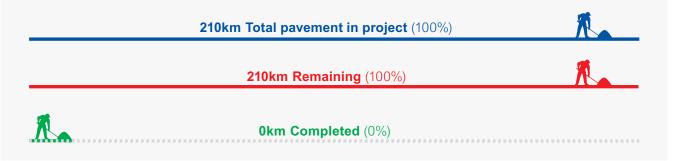
Bridges



Earthworks



Road surface (road highway kilometres)



Projects being prepared for major work







Existing highway between Oxley Highway and Kempsey

Oxley Highway to Kempsey upgrade

The Oxley Highway to Kempsey upgrade is jointly funded by the Australian and NSW Governments.

The upgrade will provide about 37 kilometres of four lane divided road between the Oxley Highway near Port Macquarie and the Kempsey bypass. The project is being built in two sections:

Oxley Highway to Kundabung

January to June 2014, work progress:



- ✓ Contract awarded to Lend Lease to design and build the upgrade
- ✓ Detailed design work started
- ✓ Land acquisitions continued
- ✓ Pre construction ecological monitoring continued
- ✓ Contract awarded to Ferrovial Agroman to build the Sancrox interchange early work
- ✓ Site compound established for the Sancrox early work package.

July to December 2014, expected work progress: 🐔

Sancrox interchange

- ✓ Start construction of the Sancrox interchange
- ✓ Complete clearing work
- ✓ Complete utility adjustments.

Oxley Highway to Kundabung

- ✓ Continue detailed design
- √ Start construction
- ✓ Start clearing work
- √ Start utility adjustments
- ✓ Start earthwork
- ✓ Continue land acquisition.

Community issues



• Nil.

Environmental issues



• Continued liaison with the Department of the Environment to address conditions associated with Federal approval.

Kundabung to Kempsey

January to June 2014, work progress:



- ✓ Contract awarded to McConnell Dowell OHL Joint Venture to build the Kundabung to Kempsey project
- ✓ Pre construction ecological monitoring continued
- ✓ Land acquisitions continued.

July to December 2014, expected work progress:



- √ Finalise land acquisitions
- √ Start construction
- ✓ Start clearing work
- ✓ Start utility adjustments
- ✓ Start earthworks.

Community issues



• Nil.

Environmental issues



 Continued liaison with the Department of the Environment to address conditions associated with Federal approval.



Contractor:

Thiess Pty Ltd

Form of contract:

Design and build

Average workers on site during the past six months: 449

Average pieces of large machinery on site during the past six months: 144

Start 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.



Frederickton to Eungai upgrade

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.

51 days were lost to wet weather in the past six months.



January – June 2014, work progress: 🔊



- ✓ Detailed design work completed
- ✓ Vegetation clearing completed and processing of the cleared timber is being carried out
- ✓ Piling for bridge work started across the project
- ✓ Rock import from surrounding quarries for the bridging layer in the low areas of the Collombatti floodplain continued
- ✓ Earth and drainage work continued across the project
- ✓ Off-site manufacture of precast concrete bridge piles and girders started
- ✓ Boundary and fauna fencing continued
- ✓ Local road improvements along Cooks Lane completed.

Batch plant on the Frederickton to Eungai project

July - December 2014, expected work progress: 🔊



- Weather permitting (a)
- ✓ Bulk earthworks will continue ✓ Bridgework will continue with first bridge airders
- ✓ Paving work on the future Macleay Valley, near Stuarts Point turnoff, will be completed and highway traffic switched onto it

erected on site. Piling will be mostly completed

- ✓ Local service roads will be opened at Frederickton, Barraganyatti and near the Stuarts Point turnoff
- ✓ Concrete road surface work to start
- ✓ Mainline transverse drainage lines will be completed
- ✓ Surcharge periods for embankments in soft soil areas will start.

Community issues



Noise and dust issues.

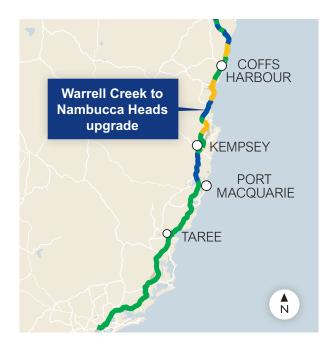
Environmental issues



• Nil.

Projects being prepared for major work







Existing highway between
Warrell Creek and Nambucca Heads

Warrell Creek to Nambucca Heads upgrade

The Warrell Creek to Nambucca Heads upgrade is the second stage of the 42 kilometre Warrell Creek to Urunga upgrade.

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 railway line.

Warrell Creek to Nambucca Heads upgrade

January to June 2014, work progress:



- ✓ Acciona Ferrovial announced as the preferred tenderer to design and build the project (contract award expected July 2014)
- ✓ Detailed design work started
- ✓ Geotechnical and noise impact assessment reports completed
- ✓ Land acquisition completed
- ✓ Environmental studies progressed, including Construction Environmental Management Plan and Environmental Protection Licence
- ✓ Referral to the Australian Government Department of the Environment displayed for community comment.

July to December 2014, expected work progress:



- ✓ A contract will be awarded for early contractor involvement to design and build the upgrade
- ✓ Pre-construction activities, including geotechnical investigations and surveys, will continue
- ✓ Site establishment activities, including establishment of site compounds, will start

- ✓ Installation of at-house noise mitigation measures will start
- ✓ Pre-construction environmental studies, including Construction Environmental Management Plan and Environmental Protection Licence, will be completed.
- ✓ Approval from the Federal Department of the Environment under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) will be obtained.
- ✓ Start construction.

Community issues



Nil.

Environmental issues



- Additional information provided to the Federal Department of the Environment for referral under the EPBC Act 1999
- Progress of pre-construction requirements from the Federal Department of the Environment, including baseline flora and fauna surveys and submission and approval of Biodiversity Offset Strategy and flora and fauna management plans.



Contractor:

Lend Lease

Form of contract:

Design and build

Average workers on site during the past six months: 509

Average pieces of large machinery on site during the past six months: 127

Started construction:

November 2013

Expected completion date:

End 2016 (weather permitting)



Australian Government contribution: \$390 million *

NSW State Government contribution:

\$390 million *

* Contribution amounts may vary from year to year.



Nambucca Heads to Urunga upgrade

The Nambucca Heads to Urunga upgrade is the first stage of the Warrell Creek to Urunga upgrade. The project is jointly funded by the Australian and NSW Governments.

It will provide about 22 kilometres of four lane divided road from Nambucca Heads to the existing Waterfall Way interchange at Raleigh.

24.5 days were lost to wet weather in the past six months.

January – June 2014, work progress: 🛝



- ✓ Detailed design work continued
- ✓ Building of the local access road started
- ✓ Drilling and controlled blasting started
- ✓ Building of the permanent Ballards Road intersection with the Pacific Highway started
- ✓ Earthwork and drainage work started
- ✓ Soft soil work continued across the project
- ✓ Bridge piling started at Ballards Road overbridge
- ✓ Building of the temporary bridge over the Kalang River started.

Nambucca Heads to Urunga upgrade new highway at the Kalang River

July – December 2014. expected work progress: 🐒



Weather permitting :

- ✓ Completion of detailed design work
- √ Completion of the permanent Ballards Road intersection with the Pacific Highway
- ✓ Soft soil work to be completed
- √ Temporary bridge over the Kalang River to be completed
- ✓ Drilling and controlled blasting to continue
- ✓ Earthwork and drainage work to continue
- ✓ Ballards Road overbridge to continue and near completion
- ✓ Super-T girders to start being transported to site
- √ Bridge works to start at Cow Creek, Deep Creek and Kalang River.

Community issues



 Haulage of construction materials from a guarry in Dorrigo to the project site.

Environmental issues



Nil.



Contractor:

Leighton Fulton Hogan Joint Venture

Form of contract:

Design and build

Average workers on site during the past six months: 134

Average pieces of large machinery on site during the past six months: 89

Start of major construction:

August 2010

Expected completion date:

July 2014

Project value: \$850 million

Australian Government contribution:

\$705 million *

NSW State Government contribution:

\$145 million *

* Contribution amounts may vary from year to year.



Sapphire to Woolgoolga upgrade

The project will provide a four lane divided highway for 25 kilometres from Campbell Close at Sapphire to Arrawarra Beach Road at Arrawarra. The project is jointly funded by the Australian and NSW Governments.

18 days were lost to wet weather in the past six months.

January – June 2014, work progress:



- ✓ Traffic switched to upgraded section of the highway (one lane in either direction) for about 15 kilometres, from the southern tie-in at Korora to south of Woolgoolga
- ✓ Construction of local roads continued
- ✓ Laying of the low noise road surface started.

July - December 2014, expected work progress: Weather permitting :

- ✓ Opening of the upgraded highway to traffic
- ✓ Completion of the low noise road surface completed
- √ Completion of 15 kilometres of local road works
- ✓ Completion of property work
- ✓ Completion of the installation of directional signage and landscaping
- ✓ Completion of project
- ✓ Progressively opening of the overpasses and intersections to traffic.

Community issues



- The project team are working with the local community, Coffs Harbour City Council and other key stakeholders to finalise a shared user path strategy
- The project team is working through issues relating to noise, dust, access, drainage, other property impacts and business signage.

Environmental issues



• The project team is managing the permanent placement of surplus soil generated during work.



Sapphire to Woolgoolga upgrade looking east at Sapphire Beach interchange

Projects in planning





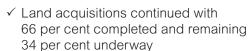


Existing highway at Shark Creek

Woolgoolga to Ballina upgrade

The Woolgoolga to Ballina project will upgrade about 155 kilometres of highway to four lane divided road. The project starts approximately six kilometres north of Woolgoolga and ends about six kilometres south of Ballina. The project received planning approval from the NSW Department of Planning and Environment in June 2014. Federal environmental approval is still required to enable construction to start, subject to funding.

January to June 2014, work progress:



- ✓ Contracts awarded for baseline surveys of Rufous Bettong, Brush Tailed Phascogale, bats, gliders, invertebrates, lowland rainforest and threatened flora
- ✓ Continued with design of soft soil early work sites
- ✓ Project approval from the NSW Department of Planning and Environment and awaiting Federal environmental approval.

July to December 2014, A expected work progress:

Weather permitting :

- ✓ Submit approval to the Federal Department of the Environment for consideration
- ✓ Consultation on Blackadder Creek safety work and flood mitigation options assessment report
- ✓ Invite and award contract for building the first section of the project between Woolgoolga and Glenugie

- ✓ Invite and award contract for early work on soft soil sites
- ✓ Start work on utility adjustments
- ✓ Invite tenders for the project delivery partner and hold industry briefing.

Community issues



 The project team is addressing issues raised by the community about the impact from the route between Wardell and Coolgardie, south of Ballina, to the local koala population.

Environmental issues



- Publication of the final flood reports for Corindi River floodplain and Arrawarra
- The project team is updating the threatened species management plans, including the koala
- Engagement of an environmental representative to oversee early works on the project.



Contractor:

Leighton Contractors

Form of contract:

Build only

Average workers on site during the past six months: 78

Average pieces of large machinery on site during the past six months: 14

Start of major construction:

November 2013

Expected completion date:

Mid 2016

Project value: Forms part

of the Woolgoolga to Ballina upgrade.



Pimlico to Teven upgrade

The Pimlico to Teven project will upgrade about 2.3 kilometres of the Pacific Highway between Pimlico Road and Teven Road. This work will facilitate the next phase of the highway upgrade, which is part of the overall Woolgoolga to Ballina Pacific Highway upgrade.

This project is jointly funded by the Australian and NSW Governments.

The project will involve building a bridge over Duck and Emigrant creeks, 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 is now under construction and stage three, which provides a four lane divided road, will be completed as part of the larger Woolgoolga to Ballina upgrade.

30.5 days were lost to wet weather in the past six months.

January to June 2014, work progress:



- ✓ Completed all bridge piling for Emigrant Creek bridge
- √ Vegetation clearing completed
- ✓ Started construction of the road widening on the Bruxner Highway, west of Emigrant Creek
- ✓ Switched traffic on to the Pacific Highway. diversion south of Duck Creek
- ✓ Bulk earthworks and ground treatment on the Bruxner Highway completed
- ✓ Ground treatment on Abutment B (north side) **Duck Creek completed**
- ✓ Pier one for Emigrant Creek bridge completed.

July to December 2014, 🔊 expected work progress:

Weather permitting :



- ✓ Complete the ground treatment south of **Duck Creek**
- ✓ Complete bridge piling for Duck Creek bridge
- ✓ Complete piers for Duck and Emigrant Creek bridges
- ✓ Build the southern half of the bridge segments for Emigrant Creek bridge
- ✓ Complete bulk earthworks south of Duck Creek
- ✓ Complete ground treatment north of Duck Creek
- ✓ Build retaining walls south of Duck Creek and on the Bruxner Highway.

Community issues



Nil.

Environmental issues



Nil.



Contractor:

Lend Lease

Form of contract:

Design and build

Average workers on site during the past six months: 277

Average pieces of large machinery on site during the past six months: 151

Start of major construction:

September 2012

Expected completion date:

Second half 2015 (weather permitting)



Australian Government contribution:

\$566.1 million

NSW State Government contribution:

\$295.9 million



Tintenbar to Ewingsdale upgrade

The project will provide a four lane divided highway for 17 kilometres from the northern end of the Ballina bypass at Ross Lane to the existing Ewingsdale interchange. The project is jointly funded by the Australian and NSW Governments.



Looking south to the Emigrant Creek bridges

68.5 days were lost to wet weather in the past six months.

January – June 2014, work progress:

- ✓ Breakthrough joining both ends in the north and southbound tunnels at St Helena Hill
- ✓ Controlled blasting at St Helena twin tunnels completed
- ✓ Work started on Clover Hill noise mound
- ✓ Bridge work continued at Emigrant, Minor, Skinners, Byron, and Tinderbox creeks
- ✓ Earthwork and drainage installation continued
- √ Work started on Bangalow roundabout
- ✓ Work continued on Myocum Road roundabout at Ewingsdale.

July – December 2014, sexpected work progress: Weather permitting :

- ✓ Start landscaping activities
- ✓ Start concrete paving and saw-cutting activities
- ✓ Continue the Bangalow roundabout work, including temporary closure of Bangalow Road for beam installation
- ✓ Opening of new Broken Head Road bridge to traffic
- ✓ Opening of local access road from Ross Lane to Minor Creek
- ✓ Continued tunnel work including waterproofing, permanent lining activities and tunnel control centre.

Community issues

 The project team is working through issues relating to access, noise, dust, other property impacts and business signage.

Environmental issues

Nil.









This paper is carbon neutral, Australian-made, recycled fibre, elemental chlorine free, pulp derived from sustainably managed sources.

For detailed information

about any of the projects, visit the project website at www.rms.nsw.gov.au/pacific or call the Pacific Highway office on 1800 653 092 or 02 6640 1000.