Pacific Highway upgrade

Monthly achievement report

Australian Government

Nation Building Program

NSW GOVERNMENT Transport Roads & Maritime Services

JANUARY/FEBRUARY 2012

Pouring the concrete deck for the Macleay River and floodplain bridge on the Kempsey bypass

January/February 2012
60 km of highway under construction

1800 workers on site

For overall upgrading strategy for the next five years, refer to the last page

This report will provide you with information about Pacific Highway upgrade projects, including the current status and key activities carried out on construction projects over the last two months.

As at 29 February 2012, 346 kilometres are completed dual carriageway, about 60 kilometres are under construction, and about 121 kilometres have received planning approval are being prepared for construction. Planning is also being progressed on the remaining single carriageway sections of highway.

About 52 per cent of the final highway length of 664 kilometres is now dual carriageway.

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

Bulahdelah upgrade

Upgrading the Pacific Highway

Australian Government

Nation Building Program

NSW GOVERNMENT Transport Roads & Maritime Services

UNDER CONSTRUCTION

Contractors: Baulderstone Pty Ltd

Form of contract: Construction contract

Workers on site: 269

Pieces of large plant: 75

Start date of major construction: August 2010

Expected completion date: late 2012 (weather permitting)

Project value: $315 million

Deck reinforcement on the Myall River bridge

Background

The Bulahdelah upgrade project was approved by the NSW Minister for Planning on 9 July 2007.

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

It will involve the construction of about 8.5 kilometres of four-lane divided road with an eastern bypass of the Bulahdelah township.

Key construction activities during January and February 2012

The project was heavily affected by wet weather during January and February. About 19 days were lost due to wet weather during this time.

- Crushing of hard rock continued.
- About 80 per cent of the total earthwork required for the project is now complete.
- Treatment continued on acid sulphate rock and soils.
- Placement of high quality pavement material continued across the project.
- Bridge deck concrete pours were completed at the Myall River.
- Bridge parapets continued at the floodplain and Myall River bridges.
- Controlled blasting within the main cutting continued. Hard rock blasting is nearing completion.
- Paving work continued on the main alignment.
- Landscaping and revegetation of slopes continued.
- Formwork and scaffolding has started for the construction of the northern and southern interchange bridges.
- Safety barrier installation started.

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

Bulahdelah upgrade

Deck work underway at the southern interchange

Looking south through the main cutting toward Bombah Point Road bridge

Bridge work on the northbound Myall River bridge

Flooding at Bulahdelah in late January

Herons Creek to Stills Road

Upgrading the Pacific Highway

Australian Government

Nation Building Program

NSW GOVERNMENT Transport Roads & Maritime Services

UNDER CONSTRUCTION

Contractors: BMD Constructions Pty Ltd

Form of contract: Construction contract

Workers on site: 38

Pieces of large plant: 39

Start date of major construction: March 2011

Expected completion date: late 2012 (weather permitting)

Project value: $60 million

Pouring cross beams on the Bago Road bridge

Background

The Herons Creek to Stills Road upgrade project was approved to proceed on 5 October 2007.

The project is jointly funded by the Australian and NSW governments. It will upgrade 3.5 kilometres of highway between Herons Creek and Stills Road.

Key construction activities during January and February 2012

The project was heavily affected by wet weather during January and February. About 23 days were lost due to wet weather during this time.

- Earthwork continued near Bago Road.
- Construction continued on a reinforced earth wall at Cutty Creek.
- Support for the first pier and abutment were completed on the Herons Creek floodway bridge.
- Construction was completed on the western wing (or retaining) wall for the new northbound fauna underpass.
- Construction continued on the Herons Creek floodway, Herons Creek and Bago Road interchange bridges.
- Manufacturing of precast concrete units continued off site.
- Stormwater inlet construction continued.
- Installation of cross drainage pipelines continued.
- Construction of clean water drains continued throughout the project.
- Establishment of site accesses continued.

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.

Herons Creek to Stills Road upgrade

Herons Creek floodway during January

Flooding at Herons Creek basin

Looking south over the new northbound carriageway

Placing final panels on reinforced earth wall

Lime stabilisation work on northbound on ramp

Kempsey bypass

Upgrading the Pacific Highway

Australian Government

Nation Building Program

NSW GOVERNMENT Transport Roads & Maritime Services

UNDER CONSTRUCTION

Contractors: RMS has formed an alliance with Leighton Contractors, AECOM and Coffey Geotechnics to build the Kempsey bypass

The bridge over the Macleay River is being built by Abigroup Contractors under a separate design and construct contract

Form of contract: Alliance and design and construct contract

Workers on site: 596

Pieces of large plant: 188

Start date of major construction: June 2010

Expected completion date: by mid 2013 (weather permitting)

Project value: $618 million

Placing base concrete at Frederickton interchange roundabout

Background

The Kempsey bypass project was approved by the NSW Minister for Planning on 10 July 2008.

As part of the Building Australia Fund, the Australian Government is providing $618 million for construction of the bypass. The 14.5 kilometre project is part of the larger 40 kilometre Kempsey to Eungai upgrade, which extends from the existing dual carriageway south of Kempsey to the existing dual carriageway at Eungai Rail.

The bridge over the Macleay River and floodplain will be 3.2 kilometres long, making it the longest bridge in Australia.

Key construction activities during January and February 2012

The project was heavily affected by wet weather during January and February. About 21 days were lost due to wet weather during this time.

- The Crescent Head Road overpass was opened to traffic in February.
- Flood mitigation work continued, with 17 house raisings completed and 2 remaining houses in progress. The construction of all 23 stock mounds is now complete.
- Work to backfill both sides of the arches at Boat Harbour Creek was completed.
- Work to establish the concrete plant within the site compound at Old Station Road was completed.
- Pavement construction continued north of Pola Creek and concrete paving started on the main alignment.
- Production of various earthwork material continued.
- Super-T girders were installed at the South Kempsey interchange and the Old Station Road overbridge.
- Pouring of the concrete decks was completed at the Inches Road overbridge and for the new bridges over the North Coast Railway.
- Piling has been completed for 64 piers on the floodplain section of the Macleay River and floodplain bridge. 46 sets of piers have been completed along with 39 supports. 9 deck pours were also completed on the floodplain section of the bridge.
- 328 super-T girders have been manufactured to date. 256 giders have been put into position.

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.

Kempsey bypass

Construction of Macleay River floodplain bridge

Preparing the last section of the Bingus Lane fauna underpass

Looking south from Lyall Lane to the Crescent Head Road overpass

Placing concrete for first deck pour at the Macleay River and floodplain bridge

Building centre pier support, South Kempsey interchange

Completed piers at the Macleay River

Sapphire to Woolgoolga

Upgrading the Pacific Highway

Australian Government

Nation Building Program

NSW GOVERNMENT Transport Roads & Maritime Services

UNDER CONSTRUCTION

Contractors: Leighton Fulton Hogan Joint Venture

Form of contract: Design and construct contract

Workers on site: 370

Pieces of large plant: 277

Start date of major construction: August 2010

Expected completion date: early 2014 (weather permitting)

Project value: $705 million

Girders being lifted into position on the Greys Road bridge

Background

The NSW Minister for Planning approved the Sapphire to Woolgoolga upgrade project 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).

The project approval did not include a proposed rest area, which is being developed separately as part of an RMS rest area strategy for the Pacific Highway. The strategy aims to provide rest areas at about 50 kilometre intervals.

Key construction activities during January and February 2012

The project was heavily affected by wet weather during January and February. About 19 days were lost due to wet weather during this time.

- Construction continued on the Moonee Beach interchange.
- Piling work and construction continued on substructures and superstructures for bridges.
- The temporary Bark Hut Road side track was opened to traffic.
- Relocation of public utilities continued.
- Clearing and earth work continued for the Arrawarra interchange.
- Bulk earthwork and drainage work also continued throughout the project.
- Controlled blasting continued about 1 kilometre north of Bark Hut Road, Woolgoolga.
- The construction of fauna crossings continued between Bark Hut Road and Embankment 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.

Sapphire to Woolgoolga upgrade

Drainage work in Wedding Bells State Forest

Building the Poundyard Creek bridge on the Woolgoolga bypass

Earthwork north of Bark Hut Road on the Woolgoolga bypass

Bark Hut Road side track under construction

Glenugie upgrade

Upgrading the Pacific Highway

Australian Government

Nation Building Program

NSW GOVERNMENT Transport Roads & Maritime Services

UNDER CONSTRUCTION

Contractors: RMS has formed an alliance with Macmahon Contractors and Arup

Form of contract: Alliance design and construct contract

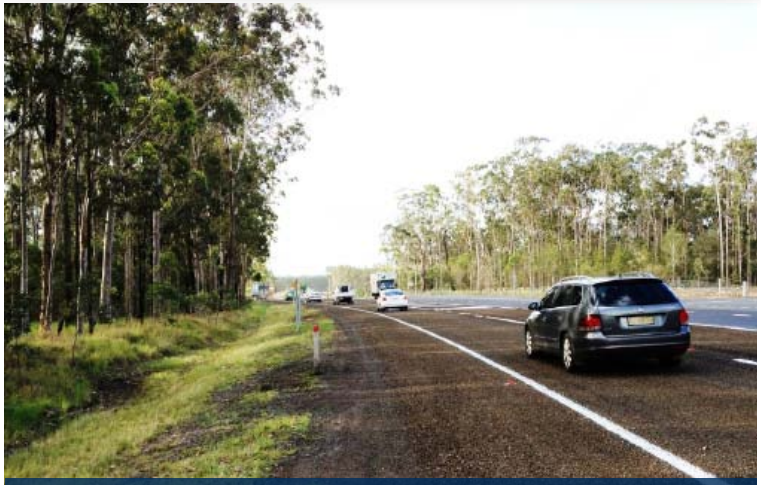
Workers on site: 18

Pieces of large plant: 5

Start date of major construction: March 2010

Expected completion date: February 2012

Project value: $60 million



Opening the northbound carriageway to traffic

Background

The NSW Minister for Planning approved the Glenugie upgrade project on 17 December 2009.

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

The seven kilometre Glenugie upgrade forms part of the larger Woolgoolga to Ballina project. It extends from Franklins Road to Eight Mile Lane, about 15 kilometres south of Grafton. The final section of the highway upgrade opened to traffic on 9 February 2012.

Key construction activities during January and February 2012

The project was heavily affected by wet weather during January and February. About 12 days were lost due to wet weather during January. Major work was completed in early February.

- The final section of the project was opened to traffic on 9 February 2012.
- Central tie-in work was completed including spray sealing of the road surface.
- Service road intersection completed.
- Linemarking was carried out on the central tie in and service road intersections.
- Curve realignment work was completed on the retained highway.
- Signs and raised pavement markers were installed on the retained highway.
- Fauna fencing was completed.
- Clearing of hazardous tree branches was carried out on retained highway.
- The site offices and compound were decomissioned.
- The school bus turning bay was built on the local service 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.

Glenugie upgrade

Work being completed on the central tie

Fauna fencing

Spray sealing at Rocky Corner

Curve widening on the retained highway

Ballina bypass

Upgrading the Pacific Highway

Australian Government

Nation Building Program

NSW GOVERNMENT Transport Roads & Maritime Services

UNDER CONSTRUCTION

Contractors: RMS has formed an alliance with Leighton Contractors, AECOM, SMEC and Coffey Geotechnics

Form of contract: Alliance design and construct contract

Workers on site: 116

Pieces of large plant: 59

Start date of major construction: May 2008

Expected completion date: mid 2012

(weather permitting)

Project value: $640 million

Completion of the northbound carriageway and McLeay culverts between the Bruxner Highway intersection and the Teven interchange

Background

The NSW Minister for Planning approved the Ballina bypass project on 22 May 2003.

The $640 million Ballina bypass project is jointly funded by the Australian and NSW governments.

The project will provide 12 kilometres of dual carriageway, extending from south of Ballina at the intersection of the Bruxner and Pacific highways to north of Ballina at the intersection of Ross Lane at Tintenbar. Cumbalum to Ross Lane was opened on 1 March 2011. The second stage from Teven Road to Cumbalum interchange was opened on 29 November 2011.

Key construction activities during January and February 2012

The project was heavily affected by wet weather during January and February. About 20 days were lost due to wet weather during this time.

- The Cumbalum interchange eastern roundabout and bridge on Tamarind Drive were opened to traffic.
- A further section of the northbound carriageway including the Teven Road overpass was opened to traffic.
- All advance directional sign work was completed and existing signs were modified within the Ballina CBD.
- Finishing work was completed between the Teven interchange and the existing Bruxner Highway.
- Sealing work was completed on Sandy Flat Road and Albert Sheather Lane.
- Boundary fence installation continued.
- Pavement construction continued on Flathead Lane.
- Landscaping continued on southern section fill batters.
- The site compound was relocated to the east of the Teven Truck rest area to enable pavement rehabilitation work and the installation of toilet facilities for the rest area to start.
- Construction of the Teven Truck Rest Area access continued.

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.

Ballina bypass

Installation of wick drains for soft soil settlement near the Bruxner Highway

Completion of the Teven Road interchange northbound exit ramp

Construction of the approaches to the Bruxner Highway bridge

Construction underway at the Teven Road interchange

Banora Point upgrade

Upgrading the Pacific Highway

Australian Government

Nation Building Program

NSW GOVERNMENT Transport Roads & Maritime Services

UNDER CONSTRUCTION

Contractors: RMS has formed an alliance with Abigroup Contractors, Seymour Whyte and SMEC.

Form of contract: Alliance design and construct contract

Workers on site: 153

Pieces of large plant: 92

Start date of major construction: December 2009

Expected completion date: Late 2012

(weather permitting)

Project value: $359 million

Southern end of the project, looking south

Background

The NSW Minister for Planning approved the Pacific Highway upgrade at Banora Point on 26 February 2009.

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

The upgrade extends over approximately 2.5 kilometres from the northern end of Barneys Point bridge to the southern end of the Tweed Heads bypass.

Key construction activities during January and February 2012

- Drainage installation started in the main cutting.
- Placement of noise wall posts and panels was completed on the southbound bridge of the southern valley viaduct. Work also started on the noise walls for the northbound bridge.
- Deck construction started on the Wilson Park land bridge.
- Construction of bridge supports continued on the Southern Valley viaduct bridges.
- The Barneys Point northbound on ramp was closed at the southern interchange.
- Work continued on construction of retaining walls for the northbound off ramp at the northern end.
- Pavement work 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.

Banora Point upgrade

Noise walls on the eastern side of the southern valley viaduct

Underneath the Wilson Park landbridge

Southern valley viaduct

Preparation for girder placement on the landbridge

Devils Pulpit upgrade

Upgrading the Pacific Highway

Australian Government

Nation Building Program

NSW GOVERNMENT Transport Roads & Maritime Services

UNDER CONSTRUCTION

Contractors: John Holland

Form of contract: Construct only contract

Workers on site: 86

Pieces of large plant: 30

Start of major construction: December 2011

Expected completion date: mid 2013

(weather permitting)

Project value: $77 million

Construction of sedimentation basin

Background

The NSW Minister for Planning approved the project on 1 February 2011. The Devils Pulpit upgrade project is jointly funded by the Australian and NSW governments.

It includes the upgrading of about 7 kilometres of highway between Grafton and Ballina.

It forms part of the larger Woolgoolga to Ballina project.

Key construction activities during January and February 2012

- Earthwork has started.
- Top soil stripping has started.
- Clearing work continued, with site compound establishement work almost completed.
- Establishment of gate accesses for construction underway.
- Public utility relocations and fencing work continued.
- Establishment of erosion and sedimentation controls continued.
- Traffic control and traffic barrier installation continued.

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 upgrade

Construction of rock bridging

Preparatory work for baseline fauna monitoring

Koala Bells

Grading of rock

Tree stump grinder at work

Tintenbar to Ewingsdale

Upgrading the Pacific Highway

Australian Government

Nation Building Program

NSW GOVERNMENT Transport Roads & Maritime Services

UNDER CONSTRUCTION

Contractors: Baulderstone Pty Ltd

Form of contract: Design and construct

Workers on site: 25

Pieces of large plant: 6

Expected start of major construction: mid 2012

Expected completion date: mid 2014 (weather permitting)

Project value: $862 million

Dedicated electrical feeds for the St Helena tunnel

Background

The NSW Minister for Planning approved the project on 29 January 2010.

The Tintenbar to Ewingsdale upgrade 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.

A contract has been awarded to Baulderstone Pty Ltd to design and build the project. Construction is expected to start by mid 2012.

RMS has formed a working group with community representatives to look at alternatives to the Bangalow interchange.

Key activities during January and February 2012

- Work continued on early at residence noise mitigation treatments.
- Geotechnical investigations are continued.
- Adjustments of telecommunication and electricity public utilities were completed.
- Detailed survey investigations continued.
- Survey work was carried out.
- Community information sessions were held on 24 January, 7 February and 28 February.
- Staffed displays were also held for the alternative interchange options at Bangalow on 19 January, 2 February and 4 February.

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.

Preconstruction projects

Upgrading the Pacific Highway

Australian Government

Nation Building Program

NSW GOVERNMENT Transport Roads & Maritime Services

BEING PREPARED FOR CONSTRUCTION

Completing the upgrade - 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 mid 2014. Priority two projects will complete four-lane divided road between Port Macquarie and Raleigh (south of Coffs Harbour). Progress is already being made on this section with the construction of the Kempsey bypass. Other projects to complete Priority two are being prepared for major work to start.

Oxley Highway to Kempsey

The NSW Minister for Planning and Infrastructure approved the Oxley Highway to Kempsey upgrade on 8 February 2012. It will provide about 37 kilometres of four-lane divided road 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.

Current activities:

- Geotechnical investigations are nearing completion.
- Land acquisitions are continuing.
- Expressions of interest for the detailed design for the 14km Kundabung to Kempsey section have closed.

Frederickton to Eungai

The NSW Minister for Planning approved the total Kempsey to Eungai upgrade in 2008. The Frederickton to Eungai section will provide about 26.5 kilometres of four-lane divided road between the Oxley Highway at Port Macquarie and the Kempsey bypass (now being built).

Current activities:

- Expressions of interest for the design and construction of this section have closed.

Warrell Creek to Urunga

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

The 42 kilometre project involves an upgrade of the existing 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.

Nambucca Heads to Urunga

- Expressions of interest for the design and construction of this section have closed.
- A shortlist of companies will be invited to submit tenders in mid 2012.
- The preferred tender is expected to be announced in the second half of the year.
- Land acquisitions and field investigations are continuing to prepare for the start of major work in 2013.
- Weather permitting, the project will open to traffic in 2016.

Warrell Creek to Nambucca Heads

RMS is carrying out a technical review of an eight kilometre section near Macksville, which falls within the Warrell Creek to Nambucca Heads section.

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

Upgrading the Pacific Highway

Australian Government

Nation Building Program

NSW GOVERNMENT Transport Roads & Maritime Services

IN PLANNING

Completing the upgrade - 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 mid 2014 (weather permitting).

Priority two projects (to complete four-lane dividied road between Port Macquarie and Raleigh) are currently being prepared for major work to start.

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

Background

The Woolgoolga to Ballina project will upgrade about 155 kilometres of highway to four-lane divided road. It is made up of four previous planning projects:

- Woolgoolga to Wells Crossing
- Wells Crossing to Iluka Road
- Iluka Road to Woodburn
- Woodburn to Ballina

This project does not include the Glenugie and Devils Pulpit upgrades, which are currently being built.

Current activities:

- Land acquisitions and environmental assessment work are underway.
- Geotechnical investigations are about to start.
- Expressions of interest for preparing the detailed design for the Woolgoolga to Glenugie section have closed.

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.

Safety improvement works

Upgrading the Pacific Highway

Australian Government

Nation Building Program

NSW GOVERNMENT Transport Roads & Maritime Services

UNDER CONSTRUCTION

Contractors: RMS, Road and Fleet Services

Workers on site: 6

Pieces of large plant: 4

Start date of major construction: November 2009

Expected completion date: mid 2014
(weather permitting)

Project value: $55 million

Background

A program of safety improvement works has been developed as part of the Australian and NSW governments commitment to upgrade the Pacific Highway over the next five years to mid 2014.

While most of the funding will be directed to upgrading the highway to dual carriageway, there is a need to address road safety and traffic issues on sections of two-lane highway. A package of smaller works 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 activities during January and February 2012

Significant rain in January caused some damage to the work being carried out at Blackadder Creek.

- Repair work was carried out on sections damaged by flood.
- Pavement sealing work was carried out, with the wire rope to be installed.
- Finishing work and decommissioning of the site was carried out.

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.

Environment

Upgrading the Pacific Highway

Australian Government

Nation Building Program

NSW GOVERNMENT Transport Roads & Maritime Services

RECYCLED TYRES PUT TO GOOD USE ON THE KEMPSEY BYPASS

When the project team responsible for building the Macleay River and floodplain bridge was faced with the prospect of constructing 81 separate crane pads, they turned to an innovative Australian product to reduce their construction footprint on local floodplains.

The crane pads, which are required to support the 250 tonne cranes working to build the bridge, were orginally designed to be made of pure rock. However, through the use of Ecoflex (an Australian developed and patented system which uses car tyres for increased strength), the construction team was able to significantly reduce the size of the crane pads by about 60 per cent.

The technique benefits both the project and local stakeholders by using waste tyres, which reduces landfill in the community. The quarry is located 30 kilometres from site so there is also a significant reduction in required truck movements on local roads as well as a reduction in CO2 emissions.

Other benefits to the project from the use of the crane pads include the fact that they can be easily dismantled and rebuilt on site. The pads are also more 'flood-proof' in the likely event the construction site goes underwater. Both of these features have the potential to provide significant time savings to the project.

In addition, the Ecoflex crane pad system has enabled large service cranes to access and work on some very poor, fully saturated alluvial floodplain areas along the length of the bridge site.

The engineered system and has had benefits in minimising total depth of crane pads, and hence minimising excavation work in the poor ground conditions on site. Because the footprint for the crane pads is small relative to some other possible solutions, it has reduced the need for additional quarry products used for the top layer. Overall, it is an innovative solution that has worked well to date, and has produced some clear benefits for the Kempsey bypass project.

Initial placement of the used tyres to form the crane pad.

Placing the top layer of rock to complete the crane pad.

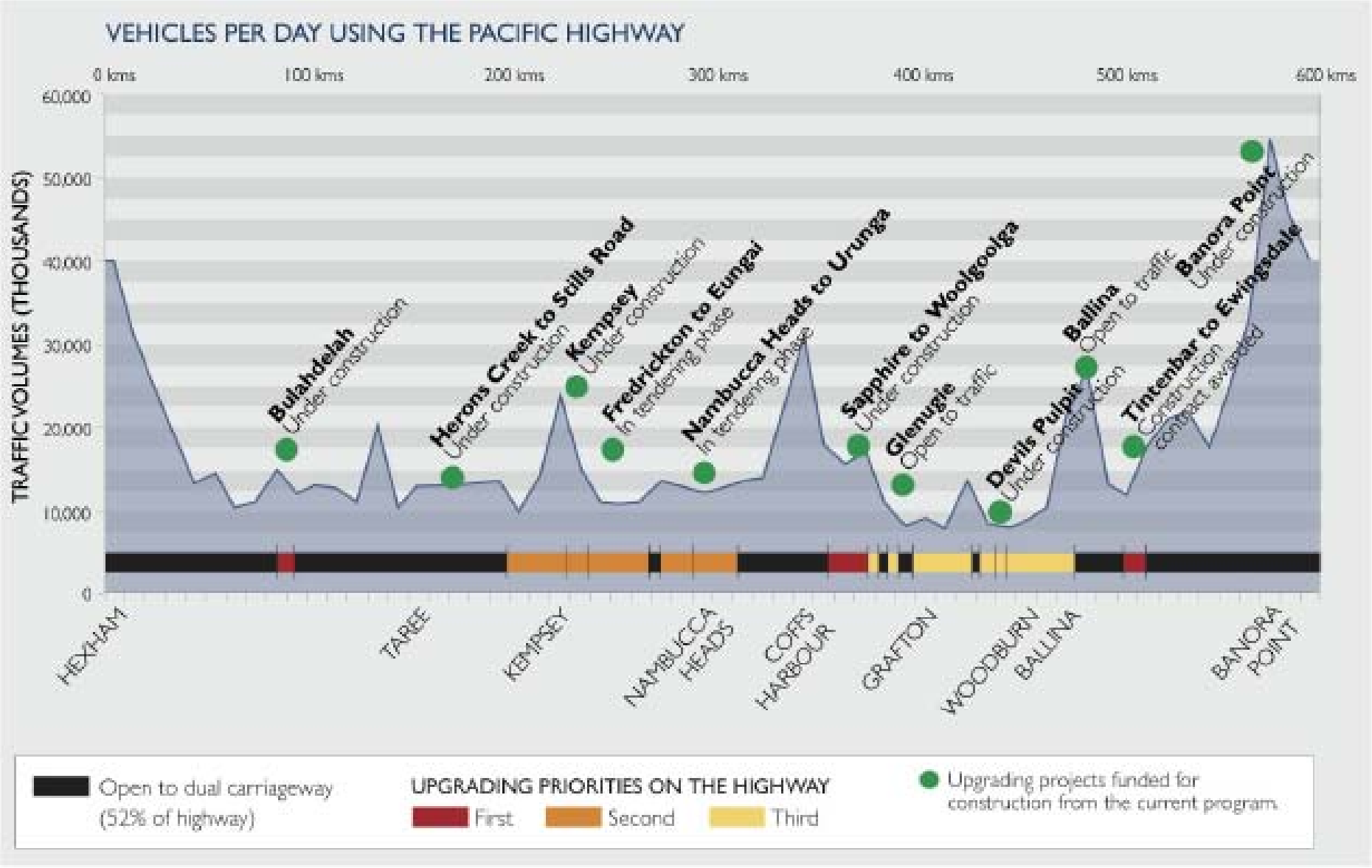
The plan

Upgrading the Pacific Highway

Australian Government

Nation Building Program

NSW GOVERNMENT Transport Roads & Maritime Services



Australian Government

Nation Building Program

NSW GOVERNMENT Transport Roads & Maritime Services

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