

Pacific Highway upgrade

Monthly achievement report

JULY 2011



This achievement 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 month. As at 31 July 2011, 337 kilometres are completed dual carriageway, 67 kilometres are under construction, and about 128 kilometres are being prepared for construction. Planning is also being progressed on the remaining single carriageway sections of highway. About 51 per cent of the final highway length of 664 kilometres is now dual carriageway.

Bulahdelah upgrade

Upgrading the Pacific Highway

UNDER CONSTRUCTION

Contractors: Boulderstone Pty Ltd.

Form of contract: Construction contract

Workers on site: 265

Pieces of large plant: 98

Start date of major construction: August 2010

Expected completion date: late 2012
(weather permitting)

Project value: \$315 million



Looking south into the main cut near Bombah Point Road at the southern end of the project

Background

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

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

The upgrade of the Pacific Highway at Bulahdelah will involve the construction of about 8.6 kilometres of four lane divided road with an eastern bypass of the Bulahdelah township.

Key construction activities during July 2011

- Girder installation completed at floodplain bridge.
- Piles continued to be bored and cast for the northern side of Myall River bridge.
- Concrete deck poured for the Mountain Park steel truss bridge.
- Footings for the centre pier of the northern bridge of northern interchange started.
- Shotcreting (spray concreting) was completed on the batter at the northern interchange with sawcutting continuing.
- Material continued to be processed immediately north of Bombah Point Road.
- The large fill at Lee Street, adjacent to the northern interchange continues to be raised.
- Revegetation continued of the drains and batters throughout the project.
- Fauna fence installation has started.
- Acid sulphate rock processing and lime treatment continued. This is a process where rock is treated with lime until the rock is neutralised so that it can be used as fill throughout the project.

Bulahdelah upgrade



Piles that have been driven for the pier at Frys Creek



Final cleaning of joints for shotcrete prior to sealing



Reinforcement for the bridge abutment at the northern interchange

Hérons Creek to Stills Road upgrade

Upgrading the Pacific Highway

UNDER CONSTRUCTION

Contractors: BMD Constructions Pty Ltd.

Form of contract: Construction contract

Workers on site: 71

Pieces of large plant: 23

Start date of major construction: March 2011

Expected completion date: late 2012
(weather permitting)

Project value: \$60 million

Background

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

The Herons Creek to Stills Road upgrade project is jointly funded by the Australian and NSW governments.

The upgrade of the Pacific Highway between Herons Creek and Stills Road will upgrade 3.5 kilometres of highway. The majority of the existing northbound carriageway will become a two-way local service road, linking Bago Road, Burrawan Forest Drive, Herons Creek and local properties to the Bago Road interchange.

Key construction activities during July 2011

- Installation of bored piles and concreting for the Bago Road interchange.
- Completion of concreting for the fauna underpass base slab.
- Installation of culverts at Cutty Creek.
- Stormwater inlet construction at two locations on site near Bago Road interchange.
- Topsoil was stripped north of Cutty Creek.
- Installation of cross drainage pipelines.
- Construction continued of clean water drains throughout the project.
- Establishment continued of site accesses.
- Small donations were taken at the mulch pick up site for Herons Creek Public School. Approximately \$500 was raised with the assistance of BMD matching the initial dollars collected..



Bored piles north of Cutty Creek



Stormwater inlet structure under construction near Bago Road basin



Placing reinforcement cage into prepared bore hole for pile Bago Road interchange



Bago Road interchange central pier



Cutty Creek culverts

Kempsey bypass

Upgrading the Pacific Highway



UNDER CONSTRUCTION

Contractors: The RTA 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: 467

Pieces of large plant: 25

Start date of major construction: June 2010

Expected completion date: by mid 2013 (weather permitting)

Project value: \$618 million



Installation of rock fill and preparation for Wick Drain installation on Smithtown Link of Frederickton Interchange

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 announced that it would provide \$618 million for the construction of the Kempsey bypass.

The 14.5 kilometre Kempsey bypass project is part of the 40 kilometre Kempsey to Eungai project, 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 and on completion, making it the longest bridge in Australia.

Key construction activities during July 2011

- General earthworks, foundation layers and transverse drainage installation are in progress between the South Kempsey interchange and the Macleay River floodplain at Frogmore and also between the northern bank of the Macleay River and the Frederickton interchange.
- Noise mound construction is in progress north of Crescent Head Road. Inches Road temporary side track was opened to traffic, enabling full excavation of between Inches Road and Old Station Road and the start of building of the Inches Road overpass bridge. Approach embankments for Old Station Road overpass also started being built.
- The reinforced earth retaining wall for the Northern abutment of the bridges over the main Northern Railway Line was completed and construction of the Southern abutment wall started. The centre blade pier for the southbound bridge was also completed.
- The Crescent Head Road overbridge is nearing completion with construction of the road approach in progress.
- Work started on the overpass bridges for both the South Kempsey interchange and the Frederickton interchange.
- Wick drain installation was completed on the main alignment at the Northern interchange and works have commenced at the northbound ramp of the Frederickton interchange.
- Construction started on the Macleay River and Floodplain bridge with the driving of the first piles.
- Flood mitigation works in the form of house raising and stock mound construction continued on the floodplain at Frogmore. 13 house raisings are complete, 4 houses are in progress with 2 remaining. 19 stock mounds have been built with 2 mounds underway, and 1 remaining.
- Controlled blast is ongoing and is being carried out at South Kempsey and South of Crescent Head Road.
- Water and sewer relocations are continuing at the Northern interchange. Telstra and power installations are ongoing at the Southern interchange.
- Construction of the levee wall at Frederickton along the Macleay River is ongoing with sheet piling ready to start.
- General community project update information sessions were held on 21 July.

Kempsey bypass



Concrete pour for centre pier at the North Coast Rail Overbridge



Centre pier for southbound bridge over Main Northern Railway line



Installation of pipes for major transverse drainage lines at Frederickton Interchange



Construction of reinforced Soil Wall at North Coast Railway

Sapphire to Woolgoolga upgrade

Upgrading the Pacific Highway



UNDER CONSTRUCTION

Contractors: Leighton Fulton Hogan Joint Venture

Form of contract: Design and construct contract

Workers on site: 281

Pieces of large plant: 197

Start date of major construction: August 2010

Expected completion date: early 2014
(weather permitting)

Project value: \$705 million

Background

The NSW Minister for Planning approved the project on 13 January 2009 which did not include a rest area. The RTA's rest area strategy for the Pacific Highway aims to provide rest areas at about 50 kilometre intervals.

The preferred location for the rest area is proposed at the Arrawarra interchange. An environmental assessment of the proposed rest area location was on display in April 2011 and a submissions report is currently being prepared.

The Sapphire to Woolgoolga Pacific Highway upgrade project is jointly funded by the Australian and NSW governments.

This project will provide a four-lane divided highway extending approximately 25 kilometres from Campbell Close, Sapphire, to Arrawarra Beach Road, Arrawarra.

Key construction activities during July 2011

- Piling for bridges continued.
- Fenceline clearing and fencing continued.
- Installation of erosion and sediment controls continued.
- Property adjustments continued.
- General earthworks including drainage on the upgrade section continued. Earthworks and drainage between Unwins Road and Woolgoolga Creek Road on the bypass. Earthworks and drainage from Woolgoolga Creek Road to Bark Hut Road on the bypass.
- Clearing north of Bark Hut Road on the bypass continued.
- Blasting about 1 km southwest of Woolgoolga near Unwins Road.
- Environmental presentations were made to local schools regarding the native bee hive relocations.
- A presentation was made to Coffs Harbour South Rotary Club.



Earthworks north of Bark Hut Road on the Woolgoolga bypass

Sapphire to Woolgoolga upgrade



Area where controlled blasting north of Unwins Road on the Woolgoolga bypass was undertaken



Relocation of power poles near Unwins Road on the Woolgoolga bypass



Tree clearing and earthworks at the Moonee Beach Road intersection with the Pacific Highway



Earthworks south of Bark Hut Road on the Woolgoolga bypass



Piling operations for the Moonee Beach interchange

Glenugie upgrade

Upgrading the Pacific Highway



UNDER CONSTRUCTION

Contractors: The RTA has formed an alliance with Macmahon Contractors and Arup

Form of contract: Alliance design and construct contract

Workers on site: 84

Pieces of large plant: 42

Start date of major construction: March 2010

Expected completion date: late 2011
(weather permitting)

Project value: \$60 million



Installation of Geofabric material and the placement of select material over the drainage blanket rock north of Glenugie Creek

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. This section extends from Franklins Road to Eight Mile Lane, approximately 15 kilometres south of Grafton.

Key construction activities during July 2011

- Northern end tie in works commenced.
- Select material zone placement continued.
- Install drainage blanket rock and select material placement into north of Glenugie Creek.
- Drainage kerb and guttering installation continued.
- Subsoil drainage continued.
- Manufacturing of Heavy Duty Base pavement material (offsite) continued.
- Placing base layer granular pavement material continued.
- Final trimming on the base course layer commenced.
- The first 1.5 kilometres section of prime seal between middle and northern end of the project was completed.
- The first 1 kilometre section of emulsion seal was completed in the middle section of the project.
- Landscaping and topsoiling of the completed batters and medians continued.
- Fauna and stock fencing continued and 60% of fauna and stock fencing was completed at various creek crossings.
- Installation of steel wire rope barrier posts continued.

* The road is broken up into a number of specified layers. The top layers are classified as 'base' and 'sub base' layers. The next level down is classified as a 'select material zone' (SMZ), which is a selection of material from the site that has higher strength qualities. The 'upper zone of formation' (UZF), includes the 'select material zone' and the next layer below, which is often called the 'capping layer'.

Glenugie upgrade



Installation of Geofabric material and the placement of select material over the drainage blanket rock north of Glenugie Creek



Importing of granu base pavement material



Prime sealing of the base pavement in the southbound lane at the middle section of the project



Placing of the granular pavement base pavement material at the southern end near Franklins Road



Creek and culvert fauna and stock fencing

Ballina bypass

Upgrading the Pacific Highway

UNDER CONSTRUCTION

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

Form of contract: Alliance design and construct contract

Workers on site: 158

Pieces of large plant: 62

Start date of major construction: May 2008

Expected completion date: mid 2012
(weather permitting)

Project value: \$640 million

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. The project is being opened in two stages. The first stage from Cumbalum to Ross Lane was opened on 1 March 2011. The second stage from the Bruxner Highway to Cumbalum interchange will be open by mid 2012 (weather permitting).

Key construction activities during July 2011

- Low embankment pavement works between Teven Road Bridge and Emigrant Creek Central Bridge continued.
- Piling started for the McLeay box culverts south of Teven Road.
- Removal of surcharge between McLeay box culverts and Teven Road Bridge was completed.
- Started removal of surcharge south of Emigrant Creek adjacent to the Bruxner Highway and temporarily stockpiled north of Teven Road.
- Placement of materials on the side of the road south of Cumbalum continues.
- Teven Road Bridge and landscaping of Teven Road Bridge approaches were completed.
- Deck construction in progress for Cumbalum flood relief plank bridge.
- Installation of planks started for the plank bridge on the Old Pacific Highway at Sandy Flat.
- Construction of the Teven Road Tie-in continued.
- Widening works of the road formation at the Bruxner Tie-in continued.
- Completed the sealing and line marking of all local roads and property accesses associated with the section from Cumbalum to Ross Lane.
- Hosted two community site tours and presentations on Thursday 14 July with 84 attendees. Feedback was positive from all attendees.
- Hosted a site tour and presentation for the Ballina Island Ladies Probus Club on Monday 18 July.



Teven Road Gateway to Ballina (Teven Road interchange)

Ballina bypass



Low embankment strategy between Cumbalum and Teven Road



Ballina Bypass southern tie-in



Teven Road Site Compound which is proposed to be developed into the Ballina Rest Area



Plank erection at bridge on Tamarind Drive at Sandy Flat



Prime seal applied between Flood Relief Bridge 3 and Emigrant Creek Central Bridge

Banora Point upgrade

Upgrading the Pacific Highway



UNDER CONSTRUCTION

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

Form of contract: Alliance design and construct contract

Workers on site: 174

Pieces of large plant: 114

Start date of major construction: December 2009

Expected completion date: Late 2012
(weather permitting)

Project value: \$359 million

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 July 2011

- Super-T girders have been erected in the Southern Valley.
- Handover of retaining wall works to construct abutments and girders at the north east side of the project.
- Controlled blasting started in the main cutting at Sexton Hill.
- Realignment of the highway northbound on the Pacific Highway on Sexton Hill.
- Super-T girder has been erected on the bridges over Minjungbal Drive.
- Electrical works have been completed.



Progress of works at the northern roundabout

Banora Point upgrade



Southern valley girder installation

Safety improvement works

Upgrading the Pacific Highway

UNDER CONSTRUCTION

Contractors: RTA Road and Fleet Services

Workers on site: 19

Pieces of large plant: 9

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 \$3.65 billion commitment to upgrade the Pacific Highway over the next five years to mid 2014 as part of the Nation Building Program and the Building Australia Fund.

While most of this 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 that is not being upgraded to dual carriageway as part of the current five year program.

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 construction activities during July 2011

- Drainage works were completed on the realignment of the Pacific Highway at Blackadder Creek near Corindi Beach. Placement of general fill is 30% complete on top of bridging layer.
- All drainage works and new pavement works have been completed on the Martells Road widening project. Asphalt overlay over full width of highway has also been completed.



One of 6 sets of culverts throughout the alignment at Blackadder



Placing the general fill material over the bridging layer at Blackadder

Safety improvement works

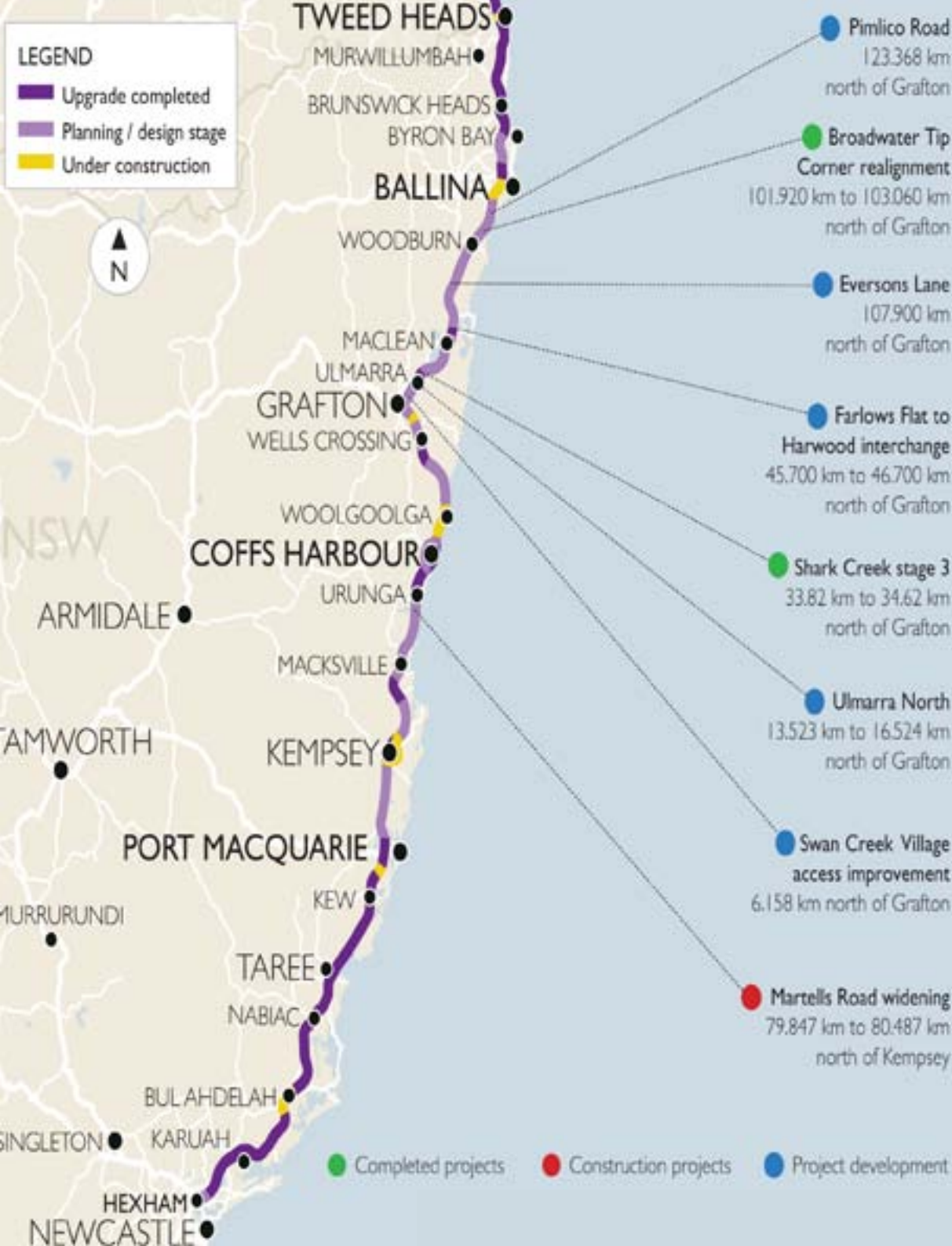
As of 31 July 2011, two safety improvement projects under this program have been completed, one is under construction and a further five are in various stages of development.



New widened pavement at Martells Road junction prior to asphalt overlay across full width



Shoulder widening and new kerb with full width asphalt overlay in southern section of Martells Road project



Environment

Upgrading the Pacific Highway

FAUNA RESCUE ON THE SAPPHIRE TO WOOLGOOLGA UPGRADE

Contractors: Leighton Fulton Hogan Joint Venture

Form of contract: Design and construct contract

Workers on site: 281

Pieces of large plant: 197

Start date of major construction: August 2010

Expected completion date: early 2014
(weather permitting)

Project value: \$705 million

The Sapphire to Woolgoolga, project team has taken on a new initiative to salvage native bees part of the fauna rescue procedures during clearing. An expert in native bees was engaged to assist in the process.

Commercial honey bees (*Apis mellifera*) are not native to Australia. They were introduced from Europe in about 1822. There are over 1500 species of Australian native bees. Of these about 14 species are social native bees which form hives (genera *Trigona* and *Austroplebeia*) and do not sting. Native bees are also important pollinators of Australia's unique wildflowers and are a vital part of our Australian bushland. Native bee honey is a delicious bush food.

The government has recently released information on methods proposed to be used to combat varroa mites which is a threat to the future of honey bee industry if it establishes in Australia. One of the recommendations is to expand the use of alternative pollinators or crops such as native bees.

The native bee expert inspected areas prior to clearing and located trees containing hives. Where possible, the hives were salvaged and bees rescued.

The project team is sponsoring an environment information initiative for five high schools in the area. To raise awareness of native bees and their importance, the project team will lease a beehive to the schools for six weeks in order for students to gain a better understanding of the native 'stingless' bees. The project team and the native bee expert have compiled an education program which talks about their importance environmentally and to the Aboriginal culture.

Two schools have received the education program to date. Recently a presentation was given to 60 science students at one of the local high schools and was so well received that the teachers have asked for a further program to be conducted amongst the Year 11 science students.



Native bee prior to fauna rescue



Temporary bee hive after being salvaged



Temporary native bee hive

The \$3.65 billion plan (2009/10 to 2013/14)

Upgrading the Pacific Highway

