



Australian Government

BUILDING OUR FUTURE



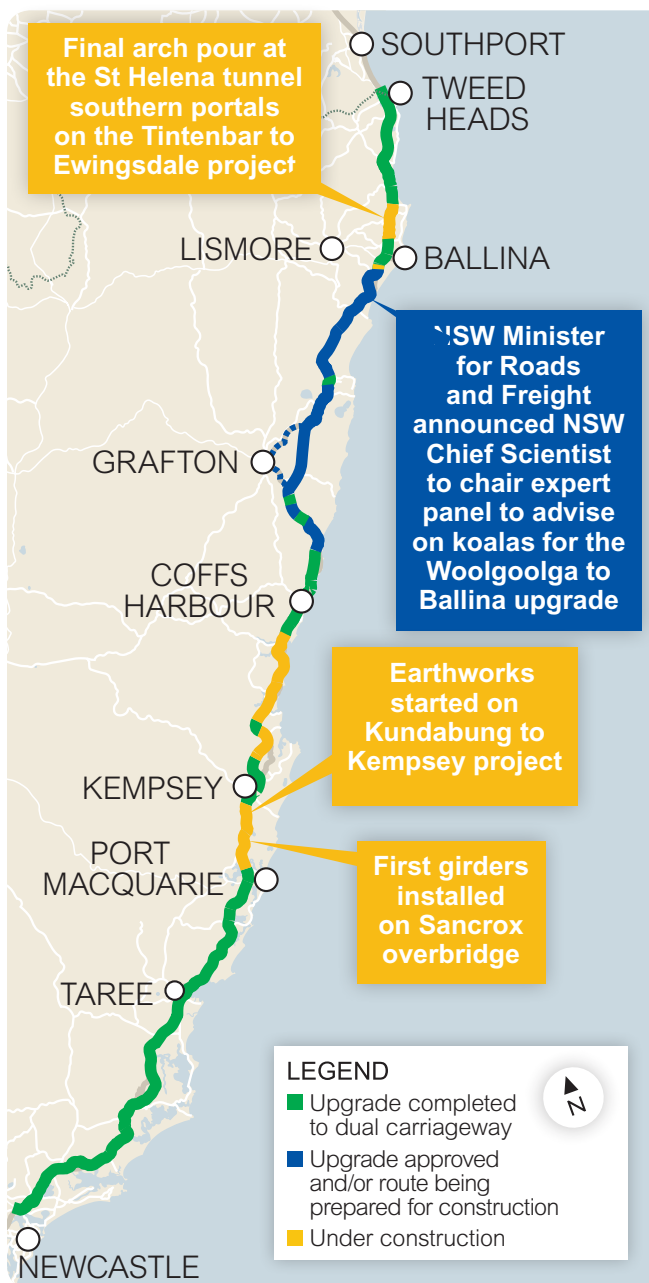
The new state
of business



Pacific Highway upgrade

Achievement report **January/February 2015**

An aerial view of the south-east roundabout and Sancrox overbridge, looking north



Pacific Highway upgrade

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

As of 28 February 2015, 397 kilometres are four lane divided road and about 123 kilometres are being built. The remaining sections of two lane highway are being prepared for major work.

About 60 per cent of the final highway length is now four lane divided road.



123 km of highway under construction during January/February 2015.



An average of 2302 construction workers on site.



For overall upgrading strategy refer to the second last page.

Port Macquarie to Coffs Harbour – projects being built

Contractors:

Lend Lease

Form of contract:

Design and build

Workers on site: 355 **

Pieces of large machinery: 69 **

Start date of major construction:

October 2014

Expected completion date:

2017 (weather permitting)

Project value: \$820 million

Australian Government contribution:

\$542.4 million *

NSW State Government contribution:

\$277.6 million *

* Contribution amounts may vary from year to year.

** Two-month average.



Preparation for a temporary roadway to allow for the building of the new Blackmans Point interchange

Oxley Highway to Kundabung upgrade


Background

The Oxley Highway to Kundabung project is the southern section of the Oxley Highway to Kempsey upgrade, which was approved by the NSW Minister for Planning and Infrastructure in 2012 and the Federal Department of the Environment in January 2014.

It involves building 23 kilometres of four lane divided road, including bridges over the Hastings and Wilson rivers.

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

Key construction activities during January/February 2015

16.5 days were lost to wet weather during this time. 

- Design work continued, with most design packages at “Issued for Construction” status
- Community information displays were held at the Telegraph Point and Westport Park boat ramps to advise river users of the changes to navigation on the rivers due to bridge construction work
- Clearing and mulching continued across the project and was almost 50 per cent complete
- Suitable hardwood timber from ex-Forest NSW land on the project was processed by Forest NSW for supply to local timber mills
- Consultation with affected property owners continued
- Topsoil stripping and earthworks continued around Blackmans Point turnoff and Cooperabung Range
- Installation of temporary traffic barriers continued
- Boundary fencing continued
- Areas of wick drains and concrete injected columns were installed into the floodplain north of the Hastings River. Soft soil monitoring instrumentation installed
- Completed areas of soft soil treatment on the floodplain south of the Wilson River and south of Glen Ewan Road
- Telstra utility relocation work carried out in a number of locations to remove telecommunication assets from the new highway footprint
- Planning continued for the major bridge building work on the Wilson and Hastings rivers
- Installation of drainage and animal underpasses started between the Hastings River and Blackmans Point Road
- Opened community display centre
- Started micro tunnelling to install a underpasses north of Cooperabung Drive.

Oxley Highway to Kundabung upgrade



Preparation of the base for an animal crossing and drainage culvert north of Hastings River



Scrapers working in tandem to remove earthwork material from a cutting near the new Blackmans Point interchange



Soft soil instrumentation installed on the Hastings River floodplain



Wet weather in late January and February impacted progress across the site. These photos illustrate the impact of the rain on the same area on the Wilson River floodplain. The photo on the left was taken in February, while the photo on the right shows Telstra relocation work being carried out at the same spot in December 2014

Port Macquarie to Coffs Harbour – projects being built

Contractors:

Ferrovial Agroman

Form of contract: Build only

Workers on site: 59 **

Pieces of large machinery: 26 **

Start date of major construction:
August 2014

Expected completion date:
Mid 2015

Project value: forms part of the Oxley Highway to Kempsey upgrade

** Two-month average.



Installing girders for the Sancrox bridge, looking east

Sancrox interchange

Background

The Sancrox interchange is early work for the Oxley Highway to Kempsey project.

It includes building local service roads and a bridge over the Pacific Highway at Sancrox about 600 metres south of the existing Sancrox Road intersection.

Key construction activities during January/February 2015

22 days were lost to wet weather during this time. 

- Earthworks continued, including on new access road
- Drainage work continued
- Backfilling for centre bridge pier
- Concrete pour for centre bridge pier
- Building temporary sidetrack continued
- Sancrox overbridge substructure completed
- Installed girders for Sancrox overbridge.

Sancrox interchange upgrade



An aerial view of the service road to the quarry, looking north



Sancrox Pacific Highway temporary sidetrack, looking north



Earthworks being carried out on the Fernbank Creek Road roundabout



Looking north along the main cut

Port Macquarie to Coffs Harbour – projects being built

Contractors:

McConnell Dowell OHL joint venture

Form of contract:

Build only

Workers on site: 142 ****Pieces of large machinery:** 46 ****Start date of major construction:**

November 2014

Expected completion date:

2017 (weather permitting)

Project value: \$230 million**Australian Government contribution:**

\$115 million *

NSW State Government contribution:

\$115 million *

* Contribution amounts may vary from year to year.

** Two-month average.



Clearing work being carried out south of Old Station Road, looking south

Kundabung to Kempsey upgrade

Background

The Kundabung to Kempsey project is the northern section of the Oxley Highway to Kempsey upgrade, which was approved by the NSW Minister for Planning and Infrastructure in 2012 and the Federal Department of the Environment in January 2014.

It involves building 14 kilometres of four lane divided road, including a new interchange at Kundabung and new rest areas.

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

Key construction activities during January/February 2015

22 days were lost to wet weather during this time. 

- Clearing work continued
- Earthworks started
- Project signs installed along project route
- Offsite pre-casting of box culverts
- Preparation work for culverts
- Utility relocations continued
- Installation of erosion and sedimentation controls continued.

Kundabung to Kempsey upgrade



Possum in its home behind the heavy vehicle inspection bay on Wharf Road



A green thighed frog relocated at Maria River



Working on a culvert near Mingaletta Road



Stripping of topsoil in the Maria State Forest, looking south at Middle Gate Road



Clearing work being carried out south of Old Station Road, looking north



Progress at Middle Gate Road

Port Macquarie to Coffs Harbour – projects being built

Contractors:

Thiess Pty Ltd

Form of contract:

Design and build

Workers on site: 405 **

Pieces of large machinery: 150 **

Start date of major construction:

August 2013

Expected completion date:

2016 (weather permitting)

Project value: \$675 million

Australian Government contribution:

\$337.5 million *

NSW State Government contribution:

\$337.5 million *

* Contribution amounts may vary from year to year.

** Two-month average.



Scraper and dozer team working a cutting, south of Barraganyatti Hut Road overbridge, looking south

Frederickton to Eungai upgrade

Background

The Frederickton to Eungai project is the second stage of the Kempsey to Eungai upgrade, which was approved in 2008. The Kempsey bypass was the first stage and opened to traffic in March 2013.

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

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

Key construction activities during January/February 2015

37 days were lost to wet weather during this time. 

- Bulk earthworks mostly completed. The scraper fleet continued to remove areas of excess fill used as surcharge loading in soft soil areas and the final cuttings in the area of the former Pacific Highway alignment near Barraganyatti Hut Road
- Concrete paving continued at the southern end of the project and near the future rest areas near Cooks Lane, with 15 per cent of the total amount of 213,000 cubic metres placed as of the end of February
- Bridgework continued and was 62 per cent complete
- Building work for the Kems Access overbridge was almost complete
- Pile driving restarted and abutment work started at the

bridges over the Collombatti Creek and floodplain and at the bridge over Seven Hills Road

- Bored pile installation started at the bridge over Johnsons Creek, just south of the new Cooks Lane rest area
- Building of culverts and other drainage structures continued and was 84 per cent complete
- Installation of boundary and fauna fencing continued
- Off site manufacture of precast concrete components, such as bridge girders, continued
- Work continued on the former Pacific Highway alignment adjacent to the recent traffic switch of Pacific Highway traffic onto the future alignment of Macleay Valley Way.

Frederickton to Eungai upgrade



Pouring concrete for bored piles on the bridge over Johnsons Creek, looking north



Paving south of the Cooks Lane overbridge, looking north



Concrete paving work, north of the Mill Lane overbridge, looking south



Pouring concrete for the bridge abutment on Seven Hills Road overbridge, looking south



Flood water inundation of the working platform beneath the bridge over Collombatti Creek, looking north-west



Drainage work being carried out south of the Seven Hills Road overbridge, looking south

Port Macquarie to Coffs Harbour – – projects being built

Contractors: Acciona Ferrovia joint venture

Form of contract: Design and build

Workers on site: 151 **

Pieces of large machinery: 16 **

Start date of major construction:
December 2014

Expected completion date:
Late 2017 (weather permitting)

Project value: \$830 million

Australian Government contribution:
\$415 million *

NSW State Government contribution:
\$415 million *

* Contribution amounts may vary from year to year.

** Two-month average.



Initial clearing and grubbing work at the quarry access

Warrell Creek to Nambucca Heads

Background

The Warrell Creek to Nambucca Heads project is the second stage of the Warrell Creek to Urunga upgrade, which was approved by the NSW Minister for Planning and Infrastructure in 2011. The Federal Minister for the Environment approved this upgrade in December 2014.

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 North Coast railway line.

Key activities during January/February 2015

12 days were lost to wet weather during this time. 

- Detailed design work continued
- Started boundary and clearing limit flagging
- Started clearing and boundary fencing
- Project team moved into main site office at Warrell Creek
- Additional geotechnical investigations progressed
- Process to install at-resident noise treatments continued
- Completed installation of flagging to protect sensitive environmental areas
- Identification of utilities continued
- Started relocation of utilities
- Removal of houses continued
- Completed consultation about the proposed northern site compound and batch plant
- Building erosion and sedimentation controls continued
- Completed installation of dust deposition gauges and weather stations
- Started pest management
- Started installing site access gates on local roads
- Completed archival record of European heritage structure
- Detailed site survey to support design continued
- Developed speed zone strategy for construction of the project
- Opened community display centre
- Translocation of threatened plants 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**

Warrell Creek to Nambucca Heads under construction



Looking south at permanent fencing installed near Quarry Road, south of Macksville



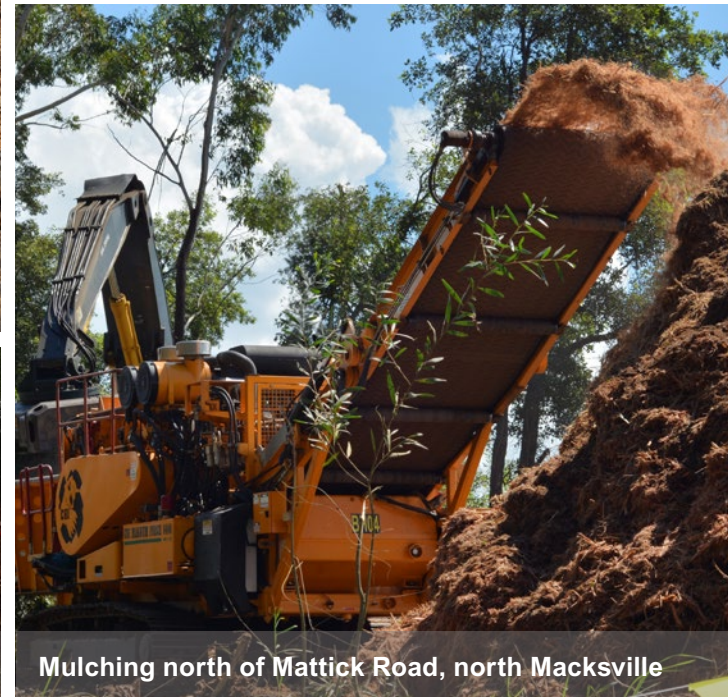
Excavator working on building an erosion and sediment basin north of Mattick Road



Installation of frog fence on the southern bank of Upper Warrell Creek



The first basin to be built in the northern zone, partially-excavated



Mulching north of Mattick Road, north Macksville

Port Macquarie to Coffs Harbour – projects being built

Contractors:

Lend Lease

Form of contract:

Design and build

Workers on site: 827 ****Pieces of large machinery:** 259 ****Start date of major construction:**

November 2013

Expected completion date:

End 2016 (weather permitting)

Project value: \$780 million**Australian Government contribution:**

\$390 million *

NSW State Government contribution:

\$390 million *

* Contribution amounts may vary from year to year.

** Two-month average.



Work on the twin bridges over the Kalang River

Nambucca Heads to Urunga upgrade

Background

The Nambucca Heads to Urunga project is the first stage of the Warrell Creek to Urunga upgrade, which was approved by the NSW Minister for Planning and Infrastructure in 2011. The Federal Minister for the Environment approved this upgrade in November 2013.

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.

Key construction activities during January/February 2015

20 days were lost to wet weather during this time 

- Detailed design work continued
- Field investigations continued
- Drainage installation and bulk earthworks activities continued
- Implemented Ballards Road traffic switch
- Bridge building at Deep Creek continued
- Realignment of Cow Creek continued
- Installation of road drainage continued
- Short Cut Road bridge deck poured
- Blasting of major cut continued
- Haulage of materials over Kalang River temporary bridge continued
- Kalang River temporary bridge removed during flooding
- Continued work on concrete structures for the Deep Creek and Kalang River bridges
- Consultation started with Transport for NSW and Busways about final routes at Burkes Lane
- Removal of existing Ballards Road started
- Completed girder installation for Kalang River and North Coast rail line bridges
- Started preparing the foundations of the new alignment for concrete paving.

Nambucca Heads to Urunga upgrade



Concrete batching plant at the Ballards Road site compound



Ballards Road open after traffic switch in January



Installing girders on the twin bridges over the Kalang River



A girder being placed over the North Coast rail line



Boggy Creek bridge and creek realignment



Inspecting work north of Ballards Road during a site tour

Woolgoolga to Ballina – projects being prepared for major work



Existing highway at Shark Creek

Woolgoolga to Ballina

Background

The Woolgoolga to Ballina upgrade was approved by the NSW Minister for Planning in June 2014 and the Federal Minister for the Environment in August 2014. The 155 kilometre project will provide a four lane divided road from the northern end of the Woolgoolga Bypass to the southern end of the Ballina Bypass.

The project is jointly funded by the Australian and NSW governments. Roads and Maritime is engaging a delivery partner for the project from the private sector. The delivery partner will work closely with Roads and Maritime's Pacific Highway Office to manage multiple contracts in delivering the design and construction of the Woolgoolga to Ballina upgrade.

Activities underway during January/February 2015

- Relocating utilities in Section 5 (Maclean to Iluka Road) continued
- Aboriginal salvage work continued in sections 7 (Devils Pulpit upgrade to Trustums Hill), 8 (Trustums Hill to Broadwater National Park) and 9 (Broadwater National Park to Richmond River)
- NSW Minister for Roads and Freight announced membership of independent expert panel. The panel, to be chaired by NSW Chief Scientist Mary O'Kane, will review all environmental information related to koalas in section 10 and make recommendations on measures to protect koalas as part of the upgrade between Broadwater to Coolgardie
- Tenders being assessed for the early work soft soil treatments – Wave 1 (Yamba Road to Chatsworth Road)
- Tenders closed and being assessed for the early work soft soil treatments – Wave 2 (Whytes Lane to Pimlico)
- Tenders closed and being assessed for the delivery partner
- Registration of interest closed and being assessed for design and build contract of the new bridge crossing of the Clarence River at Harwood
- Ongoing monitoring of the trial emu exclusion fencing in Section 3 (Glenugie to Tyndale)
- Comments closed on the updated design for the Tyndale to Harwood section
- Detailed ground surveys continued
- Design of soft soil early work Wave 3 (Shark Creek, Maclean)
- Threatened species baseline surveys continued
- Agreements in place on 89 per cent of land acquisitions, with negotiations continuing on the remainder
- Ecological survey carried out for biodiversity offsets.

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 Glenugie – projects being prepared for major work



Woolgoolga to Glenugie

Background

The Woolgoolga to Glenugie upgrade, which is part of the Woolgoolga to Ballina upgrade, starts about six kilometres north of Woolgoolga and ends about 15 kilometres south of Grafton.

The Woolgoolga to Glenugie upgrade is being built in two sections – Woolgoolga to Halfway Creek (section 1) and Halfway Creek to Glenugie (section 2).

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

Activities underway during January/February 2015

Woolgoolga to Halfway Creek (section 1)

OHL and York Joint Venture will partner to deliver the section of upgrade between Woolgoolga and Halfway Creek.

This section will link the Sapphire to Woolgoolga project in the south and the Halfway Creek to Glenugie project in the north, providing about 14 kilometres of divided road.

The key features of the Woolgoolga to Halfway Creek upgrade include a 300 metre long twin bridge over the Corindi floodplain to allow flood waters to pass under the highway as well as bridges over the highway at Sherwood Creek Road and Kangaroo Trail Road for local road access.

Early work on the project has started and includes:

- Aboriginal heritage salvage and investigations
- Survey of ground levels
- Installation of noise monitors
- Relocation of utilities.

Halfway Creek to Glenugie (section 2)

Civil Mining & Construction will deliver the section of upgrade between Halfway Creek and Glenugie.

The Halfway Creek to Glenugie upgrade is about 12 kilometres long and will join with the existing Glenugie upgrade completed in February 2012. Key features of this section include twin bridges over Halfway Creek and Wells Crossing Creek as well as a wide median to assist animals crossing at Newfoundland State Forest.

Early work on the project has started and includes:

- Survey of ground levels.



Existing highway at Halfway Creek

Woolgoolga to Ballina – projects being built

Contractors: Leighton Contractors

Form of contract: Build only

Workers on site: 64 **

Pieces of large machinery: 11 **

Start date of major construction:
November 2013

Expected completion date:
Mid 2016

Project value: Forms part of the Woolgoolga to Ballina upgrade.

** Two-month average.



Progress on Emigrant Creek Bridge

Pimlico to Teven upgrade

Background

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

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

The Pimlico to Teven project involves building bridges over Duck and Emigrant creeks 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.

Stage three, which provides a four lane divided road, will be completed as part of the larger Woolgoolga to Ballina upgrade.

Key construction activities during January/February 2015

No days were lost to wet weather during this time. 

- Built curtain and wing walls on the south side of the Emigrant Creek bridge
- Completed southern abutment on Emigrant Creek bridge
- Started casting for pier two segments on the north side of the Emigrant Creek bridge
- Completed retaining wall no.2 on the Bruxner Highway
- Started building footings for retaining wall no.1
- Completed embankment building north and south of Duck Creek
- Property adjustment work continued
- Completed construction of major culvert south of Duck Creek
- Started and completed building the pier one headstock at Duck Creek bridge
- Manufactured eight of 21 girders
- Completed backfilling northern abutment at Duck Creek.

For more detailed information visit the project website at www.rms.nsw.gov.au/pacific or call the project information line on 1800 639 842

Pimlico to Teven upgrade



Building the Emigrant Creek bridge north abutment



Placing fill south of Duck Creek



Building the pier two segment at Emigrant Creek bridge



Pouring concrete for a segment on Emigrant Creek bridge



Sheet piles cut off at retaining wall no.2 on the Bruxner Highway



Wing walls being built at Emigrant Creek bridge

Projects being built

Contractors: Lend Lease

Form of contract: Design and build

Workers on site: 221 **

Pieces of large machinery: 181 **

Start date of major construction:
September 2012

Expected completion date:
Second half of 2015 (weather permitting)

Project value: \$862 million

Australian Government contribution:
\$566.1 million *

NSW State Government contribution:
\$295.9 million *

* Contribution amounts may vary from year to year.

** Two-month average.



Freshly planted garden beds looking towards Ewingsdale

Tintenbar to Ewingsdale upgrade

Background

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

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

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

Key construction activities during January/February 2015

22 days were lost to wet weather during this time. 

- Final arch pour at the St Helena tunnel southern portals
- Completed tunnel waterproofing and permanent lining
- Electrical and mechanical work on tunnels continued
- Drainage work across the project continued
- Work on roundabout at Bangalow continued
- Bridge work across the project continued
- Completed paving between Arundel Hill and Bangalow Road Bridge, and Byron Creek and Tinderbox Creek bridges
- Mainline paving and saw cutting continued.

Tintenbar to Ewingsdale upgrade



Paving the sub-base concrete



Final arch pour at the southern tunnel portal



Planting along an access road



Applying hydromulch in front of the headlight screen at the southern end of the project



Preparing the cut for hydromulching

Environment



Aerial view of the widened median, looking south



Aerial view with the widened median at the top of the frame, looking north

Widened medians good for gliders and environment

As part of planning for Pacific Highway upgrade projects, Roads and Maritime Services always investigates opportunities to help animals cross the highway safely.

Roads and Maritime employs a range of measures to assist tree-living animals to cross the highway safely. Glider poles, rope bridges and widened medians, where suitable, are often provided in key areas to assist these animals over the road and to maintain habitat connectivity. These types of measures have been successfully implemented on a number of Pacific Highway projects, including the Bonville upgrade and Kempsey bypass, and more recently the Oxley Highway to Kundabung upgrade.

In 2010, as part of planning for the Oxley Highway to Kempsey upgrade, Roads and Maritime investigated the possibility of providing a widened median for gliders. On Pacific Highway upgrade projects, the median (distance between the edge lines of north and southbound carriageways) is usually 12 metres. Combined with the area required for the road, there can be a gap of between 50 to 70 metres that gliders and other tree-living mammals need to negotiate to cross the highway.

Widened medians can only be effective in locations with suitable characteristics, including tree height, adjacent habitat corridors and a relatively flat landform. Three locations were considered for further investigation on the Oxley Highway to Kempsey project. Following extensive ecology studies, and input from key stakeholders, including the Environment Protection Authority and Forestry

Corporation, one location adjacent to the Cairncross State Forest was found to be suitable.

At this location on the Oxley Highway to Kundabung section of the project, the median width was increased to about 70 metres, giving tree-living mammals the opportunity to glide the much shorter distance – about 20 metres – across each carriageway using the trees retained within the median.

Roads and Maritime and its contractor Lend Lease have put significant planning and design work into the widened median on the project in a bid to minimise clearing in this area and retain as many suitable glider trees as possible. Recent aerial photography of the project demonstrates the outcome of this work and illustrates clearly the smaller construction footprint in this area.

In some parts of the widened median, rope animal bridges will be installed as part of the building work. This will not only ensure the median is able to be used by other tree-living animals, but will also make the sections of the median where the trees aren't yet tall enough for gliding suitable for use by gliders in the meantime.

Roads and Maritime will be conducting monitoring once the road is open to assess how the widened median and associated rope bridges are being used by tree-living animals.

Four-lane divided road status

