



Australian Government

BUILDING OUR FUTURE



Artist impression of new bridge over the Clarence River

Bridge over the Clarence River at Harwood

Woolgoolga to Ballina community update – May 2017

The Australian and NSW governments are jointly funding the \$4.36 billion Woolgoolga to Ballina Pacific Highway upgrade. Roads and Maritime Pacific Highway Office and Pacific Complete are working together to deliver the project. As part of the upgrade, a new bridge will be built over the Clarence River at Harwood.

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Key features of the new bridge

The new bridge over the Clarence River at Harwood is about 20 metres east of the existing bridge, 1.5 kilometres long and is four lanes wide, crossing the Clarence River. The new bridge will provide a safer road for motorists, eliminate the need for the bridge to be raised for maritime users and will support regional development. Work on the new bridge over the Clarence River began in 2016 and is due to open to traffic by 2019, weather permitting.



Safer travel
and reduced travel times



**More consistent and
reliable** travel
with a streamlined journey

Ongoing work

At the site compound

We have recently moved to the new site compound on the corner of the Pacific Highway and Watts Lane, Harwood. The offices, sheds and the main buildings are almost finished. Building of the storage yard and precast facility has started and is due to be finished in mid-2017.

Building the northern and southern bridge approaches

Work has started on the northern bridge approach, which includes treatment of soft soils. Earthwork and soft soil treatment will also start on the western roundabout interchange. Work has also started on the southern approach relocating the Yamba Road to Grafton on-off ramp.

Watts Lane, Harwood

Watts Lane, Harwood will be widened on the southern side to include a turning lane into the site compound designated for construction traffic only, allowing public vehicles to travel past without disruption. Additional work has also started on Watts Lane from Harwood Mill Road extending an existing water main to the new site compound.

Building the Oval Link Road

The new Oval Link Road will wrap around the Harwood cricket oval and will provide a link underneath the new bridge between Morpeth Street and Harwood Mill Road. Early work will include drainage, earthwork and roadwork.

Sometimes our work will be delayed due to the rain. Please be patient with us during this time.

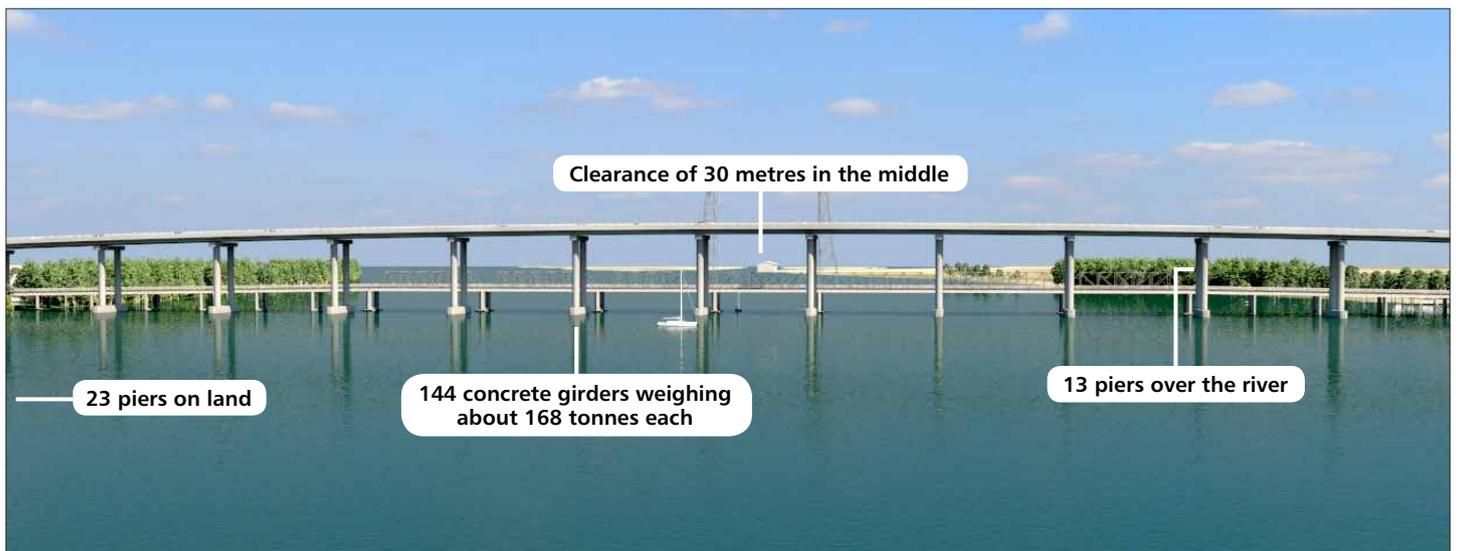
Harwood Bridge maintenance – lift span closure

Roads and Maritime is continuing with essential maintenance on the existing Harwood Bridge. To allow for work to be carried out on the middle section of the bridge, the lift span will be closed between Monday 1 May and Friday 9 June. Roads and Maritime is working with the Harbour Master to ensure river users are aware of the closure.

The bridge maintenance work started in January and includes patch painting, which involves removing corrosion from the bridge using sand blasting and repainting. The work is expected to be completed in November 2017, weather permitting.



An example of the temporary jetty to be used at River Street



Artist impression of the new bridge over the Clarence River

Start of major work

Piling work on the foundations for the new bridge has started and will continue through to the end of 2017.

Land cranes and support vehicles will move materials from the land to the temporary jetty on the river. Supporting marine vessels will transfer the materials from the temporary jetty to the main barges on the water. The main barges will support two to three cranes to insert the piles into the river.

The first permanent pile for the new bridge was successfully driven in April. The test pile had four steel pile casings welded together and was vibrated and hammered about 65 metres into the ground. The test pile confirmed the data from the geotechnical investigations and confirmed the piling depths required to build the bridge. The pile passed through marine clay and gravel and into a harder layer of rock at about 65 metres. The test pile is one of 117 permanent piles for the bridge.

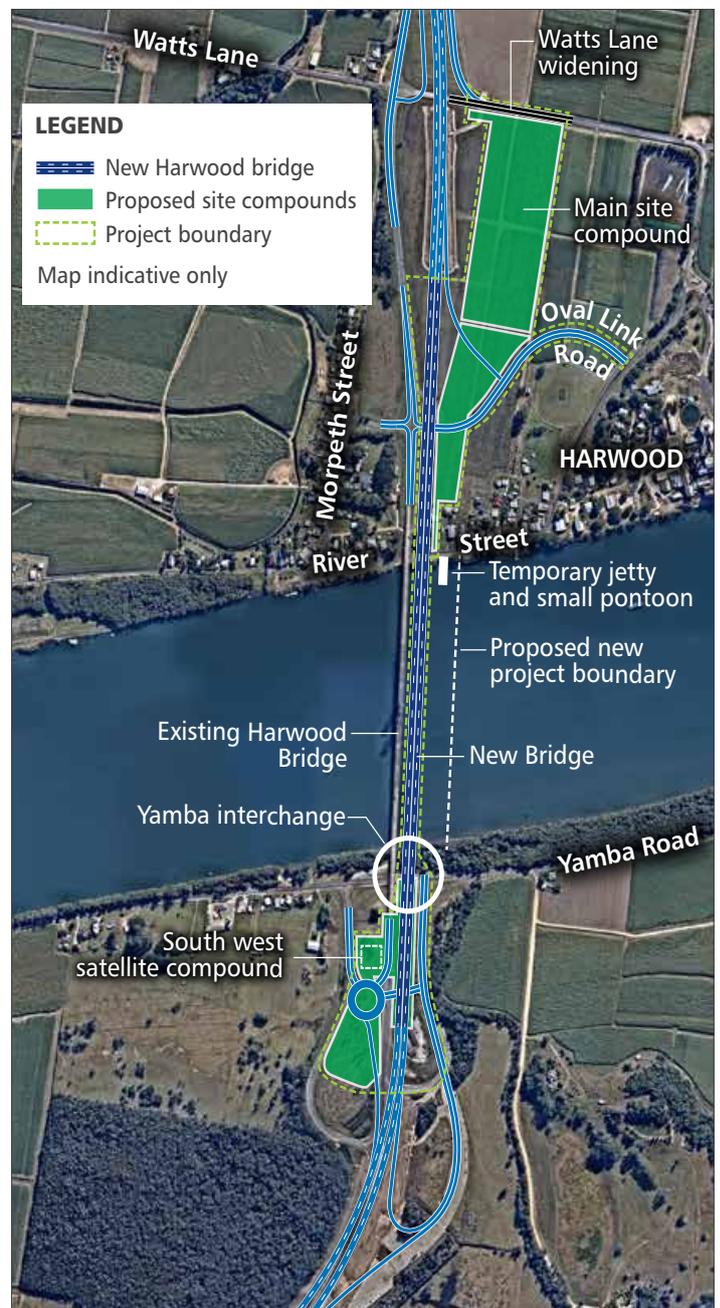


View looking south over the new site compound on the corner of the Pacific Highway and Watts Lane, Harwood

What is piling?

Piling is one of the methods we use to create a stable foundation for bridges, structures and buildings. Piling transfers the weight of the structure deeper into the ground. Piles are large columns generally made from reinforced concrete or steel. Inserting piles into the ground can take between one to two days to complete depending on the length and size. They can vary in length depending on the ground conditions and are driven or bored into the ground using a combination of cranes, piling rigs and vibrating hammers. Land piling will begin on the northern side of the Clarence River in Harwood, and once it reaches the shore, piling will start on the southern side of land over the bridge near the Yamba interchange.

Works associated with the building of the new bridge



Managing noise during piling

Piling can create increased noise and vibration levels. It is likely you will be able to hear piling activities if they are near your property. We will carry out noise and vibration monitoring throughout this work. We will also carry out noise mitigation, where possible, including scheduled breaks for high noise work.

How will the bridge be built?

We will load materials from the land to the water from a temporary jetty. The section of the bridge over the water will be built from various marine vessels and a number of temporary work platforms mounted to the piers as they are constructed. Land piling will start shortly after river piling. The cross sections will help to explain how the bridge will be built.

Frequently asked questions

Can we still use the river while the bridge is being built?

Yes. A navigation channel will be maintained for marine vessels to pass through the construction area under the existing bridge.

A reduced speed limit of four knots and 'no towing' restrictions will be in place about 200 metres upstream and downstream of the existing bridge. Speed restrictions have been agreed to with the Harbour Master and maritime.

A marine notice is on display at jetties and boat ramps in Yamba, Maclean, Harwood and Iluka and was sent to key maritime stakeholders. If you would like to be informed of changes on the water please contact the project team.

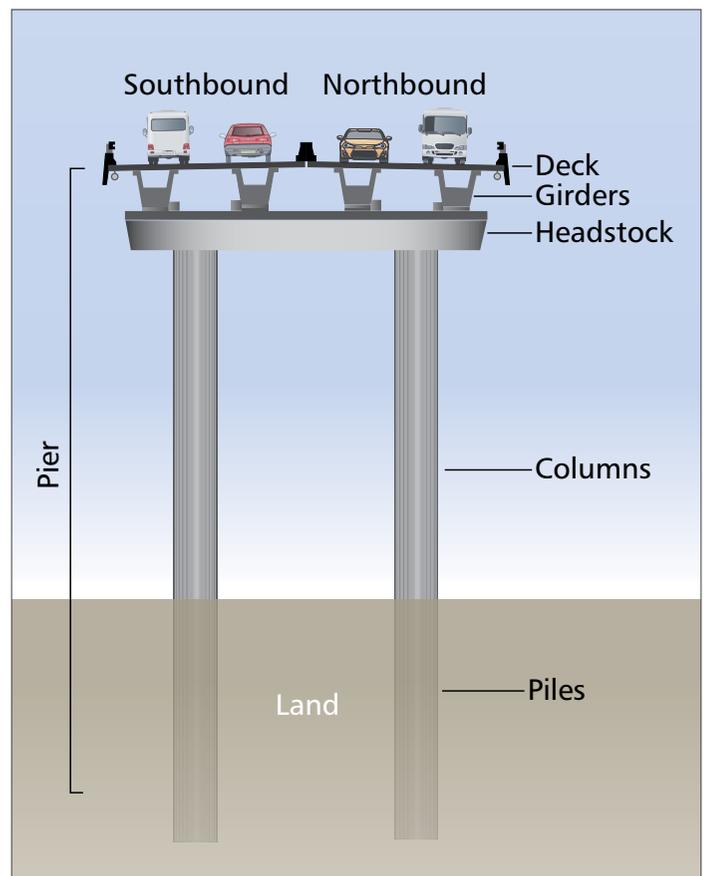
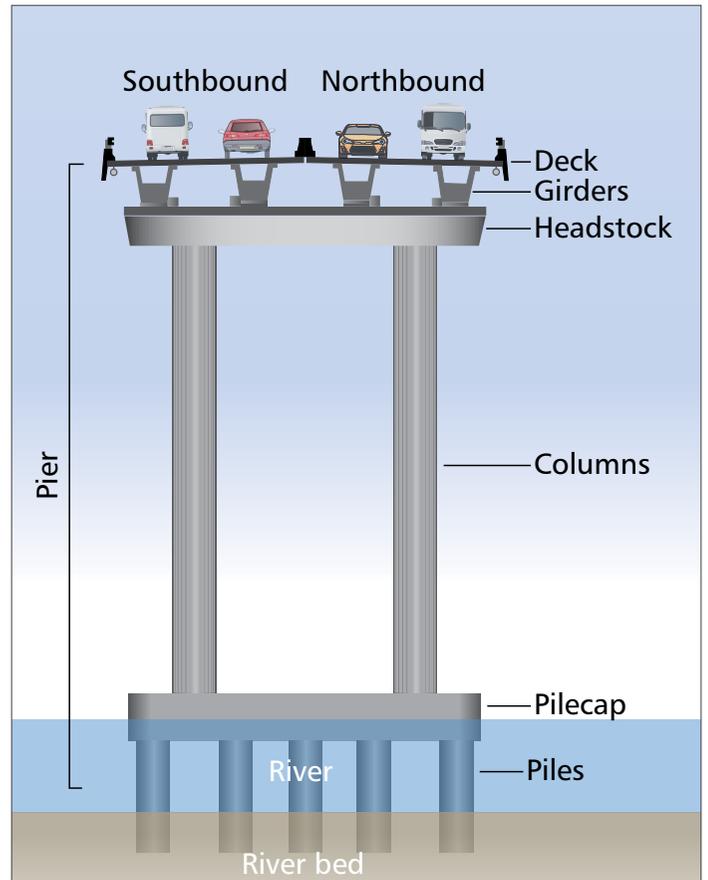
Can we still fish around the existing Harwood Bridge?

Yes. The project team is working with local fishing organisations, maritime and the Harbor Master to minimise the impact of the project on commercial and recreational fishing. We will maintain access wherever possible to prawning sites and enable vessels to travel safely through the project. There will be an exclusion zone around the existing bridge for the safety of marine users and workers. You can fish anywhere outside of the marked exclusion zone.

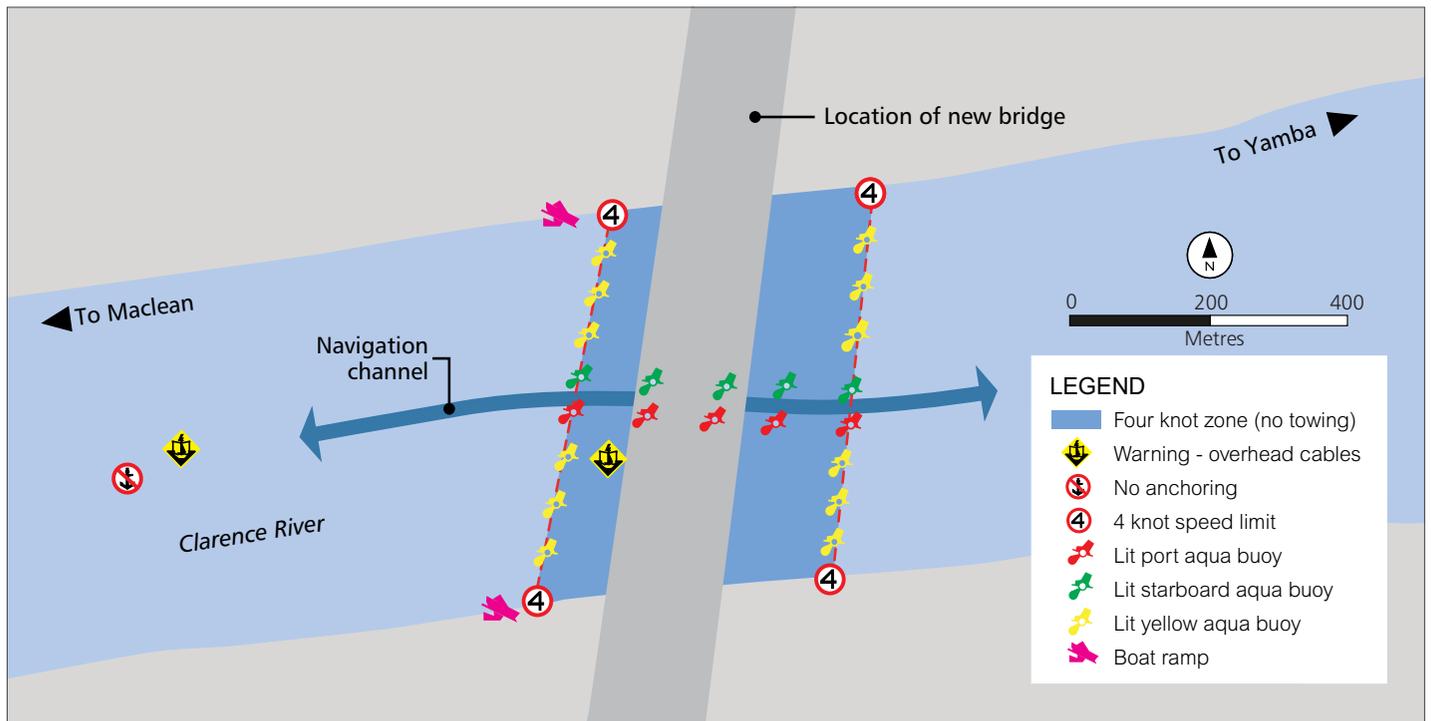
Can we use the temporary jetty and will it be left at the end of the project?

The temporary jetty will not be open for public use and it will be removed when the upgrade is completed at the end of the project.

Cross section of the bridge over the river and cross section of the bridge over land



Navigation channel on the Clarence River, Harwood



Why is the temporary jetty needed and how will it be accessed?

The temporary jetty will be built north of the Clarence River to the east of the existing bridge and will be used for all marine based building activities.

The temporary jetty will be accessed from the project site compound, crossing River Street. Traffic control will be required along River Street from May 2017 to the end of the project. There will be short stoppages while we move materials, equipment and bridge components from the project site to the jetty. Pedestrian access will be maintained.

How big is the temporary jetty?

The temporary jetty is up to 60 metres long, 10 metres wide and will have 12 piles in the river.

The project boundary has increased as additional working space is required in the Clarence River to build the temporary jetty and the new bridge. The extra space over the water will allow the barges to move safely on the river and for the anchors to stabilise marine equipment.

Four temporary piles will also be located to the east of the temporary jetty to allow the barge to dock safely. A small pontoon will also be located to the east of the temporary jetty for the team to access smaller support vessels. The pontoon will not be available for public use.

Will the project team need to use the Harwood boat ramp?

Yes. While the temporary jetty and pontoon are being built, the marine team will use the Harwood boat ramp to load and unload project personnel from the smaller support marine vessels. The boat ramp will be used until the end of July 2017. Project vehicles will park in the area near the boat ramp. Locals will still have access to the boat ramp during this time.

Will this work affect nearby buildings?

We do not expect our work to significantly impact residents and business operators in Harwood. As part of the project, all properties within 200 metres of vibration and piling work are offered a property condition survey. This survey is carried out before work starts and includes an inspection of the interior and exterior of the property, including any external structures such as sheds, driveways, pathways, swimming pools, dams, fences and retaining walls. In the unlikely event damage does occur the survey can help demonstrate if this was a result of activities in the area. All of the property condition surveys for the project have been completed and a copy of the survey provided to landowners.

How is the project managing potential impacts to the environment?

We have a range of mitigation measures in place to minimise impacts to the environment. These include:

- building the temporary jetty over a rock platform in the river
- placing oil booms surrounding the temporary jetty to contain any unexpected spills
- monitoring noise, dust, vibration and water quality
- accessing specialists for advice on specific topics
- inspecting the site regularly and providing information required under our Environment Protection License
- providing a 24 hour toll free number, 1800 778 900.

Changed traffic conditions

There will be some temporary traffic changes while this work is carried out. Reduced speed limits and lane closures will be in place and may affect travel times.

For safety of workers and all road users, speed limits along the Pacific Highway through the Harwood Bridge site will be reduced during construction work hours from 80 kilometres/hour to 60 kilometres/hour until completion of the new Harwood Bridge. Outside working hours the speed limit will

return to 80 kilometres/hour to suit local traffic conditions. Please keep to speed limits and follow the direction of traffic controllers and signs. For the latest traffic updates call 132 701, visit livetraffic.com or download the Live Traffic NSW App.

How this work may affect you

Dust

We will ensure water carts manage any potential dust, sealing some high use areas and reducing vehicle speeds. Dust gauges have been installed along the project alignment and we will monitor dust in line with the project's conditions of approval.

Work Hours



7am – 6pm Monday – Friday
8am – 5pm Saturdays

The approved working hours are between 7am and 6pm from Monday to Friday and from 8am to 5pm on Saturday. Nearby residents will be notified in advance of any activities required outside of these hours.

For more information about the work please contact the project team on:

T 1800 778 900 (toll free)

E W2B@pacificcomplete.com.au

W www.rms.nsw.gov.au/W2B

We apologise for any inconvenience caused and thank you for your patience during this important work.

Privacy

Roads and Maritime Services ("RMS") is subject to the *Privacy and Personal Information Protection Act 1998* ("PIIP Act") which requires that we comply with the Information Privacy Principles set out in the PIIP Act.

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This document contains important information about public transport projects in your area. If you require the services of an interpreter please contact the Translating and Interpreting Service on 131 450 and ask them to call the Woolgoolga to Ballina project team on 1300 761 923. The interpreter will then assist you with translation.

