



# Design fact sheet

## Woolgoolga to Ballina Pacific Highway upgrade

Roads and Maritime Services | July 2019

The Australian and NSW governments are jointly funding the Woolgoolga to Ballina Pacific Highway upgrade. Roads and Maritime Services, Pacific Complete and its contractor partners are working together to deliver the project.

### Designing the highway – where are we now?

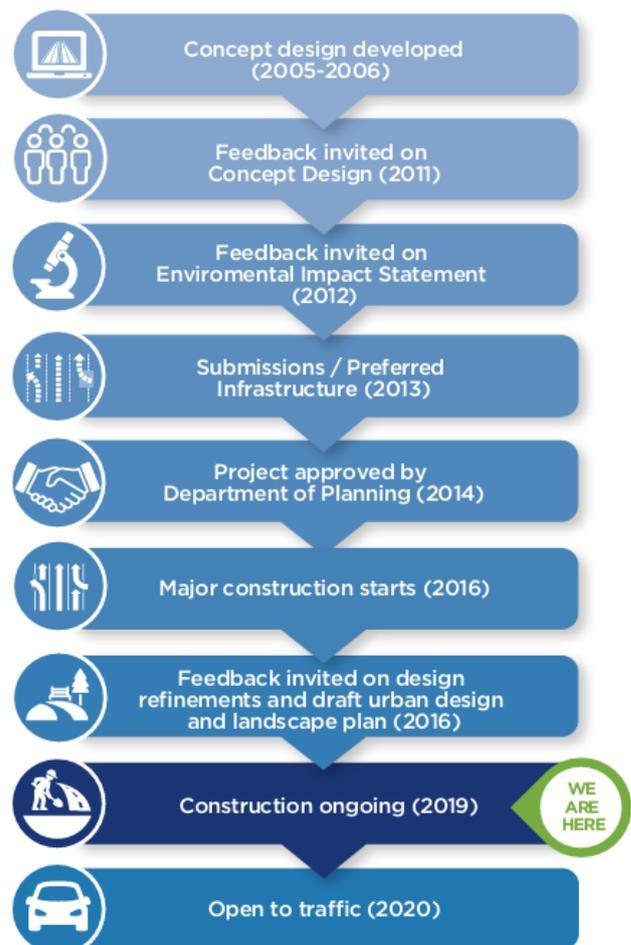
The concept design for the Woolgoolga to Ballina upgrade was first developed more than ten years ago. Since then, the design for the upgrade has been refined to deliver a balance of engineering, safety, environment and community outcomes.

Through the design process, Roads and Maritime has:

- considered community feedback provided throughout the development of the project
- ensured the design is consistent with the criteria and principles in the project’s environmental impact statement
- ensured the project’s approval conditions have been met

With construction of the upgrade ongoing, key design features are confirmed and most detailed design work has been finalised.

This fact sheet provides an overview of the design process and key features that have been considered in planning the upgrade.



## Urban design and landscaping

Urban design and landscape plans (UDLPs) have been developed for the Woolgoolga to Ballina upgrade between Glenugie and Ballina:

- Glenugie to Maclean
- Maclean to Devils Pulpit
- Bridge over Clarence River at Harwood
- Devils Pulpit to Richmond River
- Bridge over Richmond River at Broadwater
- Richmond River to Pimlico

The plans outline the proposed visual identity for the project including information on the urban design and landscaping for bridge design, road furniture, lighting and vegetation types along the alignment.

### Community feedback

We invited feedback from the community in August 2016 on the proposed urban design and landscaping for the upgrade between Glenugie and Ballina. Thank you to everyone who took time to review the plans and provide comments. Community feedback has been considered in finalising the urban design and landscaping for the upgrade.

Consultation reports have been prepared which outline the comments received and Roads and Maritime's responses. These are available as part of the urban design and landscape plans.

### Next steps

The urban design and landscape plans have now been finalised and approved by the Department of Planning and Environment.

The plans are available to view at [pacifichighway.nsw.gov.au/document-library](http://pacifichighway.nsw.gov.au/document-library) by searching 'urban design and landscape plan'.

Work to install landscaping elements is one of the last steps in building the new highway and will be finished in 2020.



Artist's impression of the Coolgardie interchange looking north

## Design refinements update

Roads and Maritime invited community feedback in August 2016 on proposed design refinements before major work started to build the upgrade.

The proposed refinements included changes to wildlife connectivity measures, pedestrian and cyclist facilities, flood mitigation and drainage, local road access and other design elements.

Feedback from the community was considered in finalising the proposed changes. A consultation summary report is available to view at [pacifichighway.nsw.gov.au](http://pacifichighway.nsw.gov.au) which outlines the proposed changes and community feedback received.

## Key design features

Designing the highway involves more than road pavement and line markings. There are many different features that will influence how people use the upgraded Pacific Highway.

### Road classification and standards

Depending on its features, sections of the new highway will be classified either motorway (Class M) or arterial road standard (Class A).

Key features of both classifications include:

- two lanes in each direction
- a wide median to accommodate future upgrading to three lanes in each direction
- grade-separated interchanges (overpasses and underpasses)

Where there is direct access to the new highway and at-grade intersections, it is classified as arterial road standard.

Sections of the upgrade that are motorway standard will have a posted speed limit of 110km/h. Where it is arterial road standard, the posted speed limit will be 100km/h or 110km/h depending on the road environment.

## Rest areas and service centres

Between Glenugie and Ballina, the new highway will have rest areas at:

- Pine Brush, Tucabia
- Mororo (southbound only)
- Devils Pulpit (Bundjalung rest area northbound only)
- New Italy

Roads and Maritime's highway service centre policy identifies possible sites for highway service centres at Maclean and Ballina. For more information visit [pacifichighway.nsw.gov.au/highway-operations](http://pacifichighway.nsw.gov.au/highway-operations).

## Turnaround facilities

U-turn bays will be provided at some locations on the new highway to provide access to local roads. Emergency crossover and U-turn facilities are provided to allow U-turns by Roads and Maritime Services, police and emergency vehicles and to divert traffic in the case of an emergency.

## Bus stops and pullover areas

Bus stop locations and design have been finalised in consultation with bus companies and in line with Roads and Maritime's standards to make sure they comply with safety requirements.

Sections of the highway that are motorway standard will have bus stops and pullover areas on local roads and service roads with close access to the highway. This is for safety reasons to avoid local traffic and bus stop users interacting with high speed traffic on the highway.

## Directional signs

Roads and Maritime has consulted with the community and key stakeholders to determine the locations and wording for signage on the new highway and local roads, including directional, tourism and services signs.

The directional signage plan has been developed in line with Roads and Maritime guidelines to make sure destinations are appropriately signposted from the new highway while reducing distractions for motorists.

## Wildlife connectivity

Roads and Maritime's wildlife connectivity strategy for the Woolgoolga to Ballina upgrade builds on more than 20 years' experience in managing ecologically sensitive environments along the Pacific Highway.

Connectivity structures allow native animals to cross the new highway and may include culverts (tunnels under the road), bridges with underpasses and arboreal (tree) crossings. The types and locations of wildlife connectivity structures for the Woolgoolga to Ballina upgrade are outlined in the project's Fauna Connectivity Strategy.

## Flood management and drainage

With the new highway crossing the major regional floodplains of the Clarence and Richmond rivers, flood management and drainage infrastructure is a major design consideration for the Woolgoolga to Ballina upgrade.

In 2017, hydrological mitigation reports were finalised for the sections of the upgrade from Glenugie to Devils Pulpit and Devils Pulpit to Ballina. The reports were developed in consultation with NSW Government agencies and consider flood impacts to properties, access and infrastructure and proposed flood mitigation measures.

The project team is continuing to work closely with local property owners and emergency services about drainage and flood management.

## Operational noise

The Woolgoolga to Ballina upgrade will be a source of traffic noise for nearby communities once complete. This is what we call operational noise.

When designing the upgrade, Road and Maritime considers measures to help minimise traffic noise. This includes road design and geometry, quieter pavement surfaces and noise mounds, barriers and walls, as well as at-house treatment for some properties.

An Operational Noise Review was completed in 2018 which outlines the locations identified for at-source noise mitigation measures in line with NSW Government guidelines.



Artist's impression of the Woodburn interchange looking north

## Pedestrian and cyclist access

In planning the upgrade, Roads and Maritime has consulted with local Councils and the community to ensure that appropriate access is provided for pedestrians and cyclists within the project area.

For safety reasons, no pedestrian access is provided to the main highway. Cyclists are permitted to use the road shoulder under current NSW legislation.

Access for pedestrians and cyclists to cross the new highway is generally provided by the road shoulders on overpass bridges.

Dedicated pedestrian and cyclist facilities are provided in some locations. These have been identified in consultation with Councils due to expected future demand.

- A shared user path is provided under the highway at Jubilee Street, Maclean
- Footpaths are provided on a number of overpass bridges:
  - Iluka Road, Mororo interchange
  - Woodburn interchange
  - Woodburn-Evans Head Road
  - Broadwater-Evans Head Road
  - Coolgardie interchange
  - Whytes Lane, Pimlico.

Pedestrian and cyclist facilities outside the project area are not within the scope of the Woolgoolga to Ballina upgrade and are provided by Councils.

## Want to know more?

For more detail about the upgrade, including some of the features mentioned in this update, we have tools and information available on our website at [pacifichighway.nsw.gov.au](http://pacifichighway.nsw.gov.au).

- Our collaborative mapping tool can be used to turn on different layers of the design depending on what features you'd like to see, including bridges, interchanges, rest areas, turnaround bays and more.
- We also have links at key locations available as part of the collaborative mapping tool, including artist impressions, 3D models, 360 degree videos or detailed interchange maps to assist in understanding how you can access the new highway.
- All the reports, plans and strategies mentioned in this fact sheet are available to view and download in the documents library on our website at [pacifichighway.nsw.gov.au/document-library](http://pacifichighway.nsw.gov.au/document-library).

If you have any questions or if you're not sure where to find what you're looking for, you can contact the project team on 1800 778 900 (dial 1) or email [w2b@pacificcomplete.com.au](mailto:w2b@pacificcomplete.com.au).

## Contact us

If you have any questions or would like more information, please contact the project team:

 1800 778 900

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If you need help understanding this information, please contact the Translating and Interpreting Service on 131 450 and ask them to call us on 1800 778 900.