

Executive summary

What is proposed?

Roads and Maritime Services (RMS) propose to upgrade 11.6 kilometres of the Princes Highway between Toolijooa Road north of Foxground and Schofields Lane south of Berry, in New South Wales (NSW) (the project), to achieve a four lane divided highway (two lanes in each direction) with median separation. The project includes bypasses of Foxground and Berry.

The project would comprise the following key features:

- Construction of a four lane divided highway (two lanes in each direction) with median separation (wire rope barriers or concrete barriers where space is constrained, such as at bridge locations).
- Bypasses of the Foxground bends and the Berry township.
- Construction of around 6.6 kilometres of new highway where the project deviates from the existing highway alignment at Toolijooa Ridge, the Foxground bends and the Berry township.
- Provision for the possible widening of the highway (if required in the future) to six lanes within the road corridor and, in some areas, construction of the road formation to accommodate future additional lanes where safety considerations, traffic disruption and sub-optimal construction practices are to be avoided.
- Grade-separated interchanges at:
 - Toolijooa Road.
 - Austral Park Road.
 - Tindalls Lane.
 - East of Berry at the existing Princes Highway, referred to as the northern interchange for Berry.
 - West of Berry at Kangaroo Valley Road, referred to as the southern interchange for Berry.
- A major cutting at Toolijooa Ridge (around 900 metres long and up to 26 metres deep).
- Six lanes (two lanes plus a climbing lane in each direction) through the cutting at Toolijooa Ridge for a distance of 1.5 kilometres.
- Four new highway bridges:
 - Broughton Creek bridge 1, a four span concrete structure around 170 metres in length and nine metres in height.
 - Broughton Creek bridge 2, a three span concrete structure around 75 metres in length and eight metres in height.
 - Broughton Creek bridge 3, a six span concrete structure around 190 metres long and 13 metres in height.
 - A bridge at Berry, a 19 span concrete structure around 600 metres long and up to 12 metres in height.

- Three highway overbridges:
 - Austral Park Road interchange, providing southbound access to the highway.
 - Tindalls Lane interchange, providing southbound access to and from the highway.
 - Southern interchange for Berry, providing connectivity over the highway for Kangaroo Valley Road along its existing alignment.
- Eight underpasses including roads, drainage structures and fauna underpasses:
 - Toolijooa Road interchange, linking Toolijooa Road to the existing highway and providing northbound access to the upgrade.
 - Property access underpass in the vicinity of Toolijooa Ridge at chainage 8400.
 - Dedicated fauna underpass in the vicinity of Toolijooa Ridge at chainage 8450.
 - Property access underpass between Toolijooa Ridge and Broughton Creek at chainage 9475.
 - Combined drainage and fauna underpass in the vicinity of Austral Park Road at chainage 12800.
 - Combined drainage and fauna underpass in the vicinity of Tindalls Lane at chainage 13320.
 - Dedicated fauna underpass in the vicinity of Tindalls Lane at chainage 13675.
 - Property access underpass between the Tindalls Lane interchange and the northern interchange for Berry in the vicinity of at chainage 15100.
- Modifications to local roads, including Toolijooa Road, Austral Park Road, Gembrook Lane, Tindalls Lane, North Street, Queen Street, Kangaroo Valley Road, Hitchcocks Lane and Schofields Lane.
- Diversion of Town Creek into Bundewallah Creek upstream of its confluence with Connollys Creek and to the north of the project at Berry.
- Modification to about 47 existing property accesses.
- Provision of a bus stop at Toolijooa Road and retention of the existing bus stop at Tindalls Lane.
- Dedicated u-turn facilities at Mullers Lane, the existing highway at the Austral Park Road, the extension to Austral Park Road, interchange and Rawlings Lane.
- Roundabouts at the southern interchange for Berry and the Woodhill Mountain Road junction with the exiting Princes Highway.
- Two culs-de-sac on North Street and the western end of Victoria Street in Berry.
- Tie-in with the existing highway about 75 metres north of Toolijooa Road and about 440 metres south of Schofields Lane.
- Left in/left out only provisions for direct property accesses to the upgraded highway.
- Dedicated public space with shared pedestrian/cycle facilities along the southern side of the upgraded highway from the playing fields on North Street to Kangaroo Valley Road.
- Ancillary operational facilities, including permanent detention basins, stormwater treatment facilities and a permanent ancillary facility site for general road maintenance.

Why is it needed?

The project is one of a series of upgrades to sections of the Princes Highway which aims to provide a four lane divided highway between Waterfall and Jervis Bay Road, Falls Creek. It is one of the remaining sections to be upgraded and would add to the road safety and traffic efficiency benefits provided by the other Princes Highway upgrades.

The Princes Highway between Toolijooa Road and Schofields Lane generally consists of two lanes (undivided) with horizontal and vertical alignments that result in lower speed limits and traffic inefficiency, particularly near Toolijooa Ridge, Foxground and Broughton village. There are limited overtaking opportunities, many at-grade junctions with rural roads and numerous private accesses. The highway runs through the town centre of Berry, creating conflicts between through traffic, local traffic and pedestrians and reducing the amenity of Berry.

There is a need to provide a highway that meets RMS network planning targets and minimises conflicts for current and future road users. If the highway is not upgraded, the efficiency, safety and amenity along the highway and within Berry would continue to deteriorate as traffic volumes increase over time.

How would the project satisfy this need?

The project would provide a safer and more efficient road network to better serve current and future road users by:

- Addressing the high crash history and poor road safety record of this section of the Princes Highway and delivering immediate road safety benefits.
- Ensuring compliance with current design, safety and traffic efficiency requirements of RMS.
- Removing through traffic from Berry town centre, improving the amenity of the town and road safety of the local road network.
- Delivering improved traffic efficiency by catering for projected traffic volumes in the design year (2037), which is 20 years after the project becomes operational.
- Delivering a highway design consistent with that of the majority of the remainder of the highway between Waterfall and Jervis Bay Road.

What alternatives and options were considered?

Alternatives

The following alternatives were addressed:

- Base case ('do nothing').
- Upgrade of the Princes Highway.
- Upgrade of the 'Sandtrack'.
- Upgrade of the South Coast Railway.

An upgrade of the Princes Highway was identified as the preferred alternative as it would improve road safety and efficiency. It would also support regional and local economic development, and provide beneficial effects for Berry by removing highway traffic from the town centre via the bypass.

Route options

Route options for the project area were identified and evaluated as part of a broader route options process for the Princes Highway upgrade between Gerringong and Bomaderry. This process was undertaken in consultation with the community and took into account the key environmental, social and economic constraints associated with the study area.

The project covers the section of the initial route options selection study area between Toolijooa Road and Schofields Lane. A number of different route options were considered for this section, including options that were developed through a value management process and options that were developed in response to community feedback.

Access options

The upgraded highway would connect to the local road network at a number of locations. The following describes the off-ramp options from and on-ramp options to the upgraded highway that were considered.

The distinguishing features of the off-ramp options into Berry were:

- Option B1 provided a northbound off-ramp that connected to an existing roundabout in Huntingdale Park Estate.
- Option B2 provided a northbound off-ramp under the proposed Kangaroo Valley Road overbridge, rounding in a loop to the left to join with Kangaroo Valley Road opposite Huntingdale Park Estate.
- Option B3 provided a northbound off-ramp under the proposed Kangaroo Valley Road overbridge, then curved to the left onto North Street to join Kangaroo Valley Road.
- Option B4 provided a southbound off-ramp that connected directly to Alexandra Street.
- Option B5 provided a southbound off-ramp that connected to the existing highway around 400 metres north of Tannery Road.

The distinguishing features of the on-ramp options from Berry were:

- Option B6 provided a northbound on-ramp at Woodhill Mountain Road.
- Option B7 provided a northbound on-ramp that connected to the existing highway around 500 metres north of the property 'Mananga' and required a bridge over the proposed alignment.
- Option B8 provided a southbound on-ramp at the western end of Queen Street.
- Option B9 provided a southbound on-ramp at Alexandra Street.

Other access options also considered included the provision of flood free access for Berry, the need for a second northbound off-ramp and the feasibility of splitting the location for the southern interchange for Berry.

Preferred option

The preferred option was identified as:

- A combination of the pink and modified orange route options.
- A combination of access options B5 and B7 to form the northern access interchange, providing an exit from Berry for traffic travelling to the north and access into Berry for traffic travelling from the north.
- An all-movements interchange at Kangaroo Valley Road, allowing access into and out of Berry from the north and south.

The preferred option was considered to provide the best outcome for the local environment and community. It performed the best against the project objectives of providing value for money, supporting regional and local economic development, traffic efficiency and maximising the benefits to the local social environment and road safety.

A number of design refinements were also considered as part of the community consultation undertaken for the project. These refinements were generally focussed around the bridge at Berry and the North Street corridor but also included other aspects of the project such as a heavy vehicle rest area.

The key design refinements included:

- Moving the bridge at Berry around 95 metres to the north and lowering it by around 6.4 metres.
- Moving the alignment further north of Berry and providing a buffer of around 40 metres between North Street residents and the project.
- Lowering the embankment along North Street by up to two metres, reducing the height of the noise barriers required relative to North Street and minimising the visual impact of the project.
- Removing a proposed heavy vehicle rest area near Austral Park Road from the project.
- Revising the arrangement of the southern interchange for Berry, mainly focussing on the alignment of the northbound off-ramp.

The project alternatives and a detailed description of the options selection process are provided in **Chapter 3**.

How did the community participate in selecting the preferred option?

Throughout the project, RMS has considered meaningful and engaging community consultation to be essential. As such the community have been involved in each phase of the project development. Consultation commenced in March 2006 and will continue throughout the environmental assessment, detailed design and construction of the project.

The initial development of route options involved community information sessions, meetings with Local Aboriginal Land Councils, interest group workshops, meetings with Kiama Municipal Council and Shoalhaven City Council and specialist information sessions.

Following the establishment of route and access options, the preferred option was developed through value management workshops. This involved representatives from key government agencies, local councils, the emergency services, the Aboriginal community and the Berry urban and rural communities. The value management workshops developed key assessment criteria and evaluated the potential options. The workshops assessed and weighted the options against the project objectives (refer to **Section 2.3**) as well as functional, social and economic criteria.

In August 2011, RMS commenced a review into the preferred route north of Berry in consultation with the community. This followed a request by the local member for Kiama to consider the community's concerns relating to the potential noise and visual amenity impacts of the preferred option.

A Berry community review group (CRG) was established as part of this review, and met on seven occasions before the consultation with the wider community was undertaken between 1 December 2011 and 14 December 2011. The development of the revised preferred option continually evolved through the CRG meetings and workshops.

Between January and August 2012, RMS held a number of working groups to review community and design issues. These groups each focussed on specific areas of the project. As well as these groups, RMS also conducted a review of the bypass of Berry which included a detailed cost analysis of both a northern and southern bypass option.

Further information on options selection is provided in **Chapter 3** and community consultation is discussed in detail in **Chapter 6** of this environmental assessment.

What are the main beneficial outcomes expected?

Beneficial outcomes resulting from the project would consist of:

- Improved road safety, including reduced crash rates from providing a divided road and preventing traffic turning to and from minor roads across fast-moving two-way traffic.
- Improved efficiency, including higher safe travel speeds, shorter travel time and improved level of service on the highway and at intersections.
- Improved road safety of the local road network in Berry due to the removal of conflicts between highway and local traffic movements within Berry.
- Improved amenity within Berry due to the removal of heavy vehicles, including improved air quality, reduced noise levels and improved visual amenity along Queen Street. The reduced conflict between pedestrians and heavy vehicles along the main street would improve safety and the character of Berry.
- Improved access to the existing tourism industry on the South Coast.
- Improved access to markets and raw materials in Sydney and the Wollongong-Kiama area for industries in the Nowra area due to reduced travel times and increased road safety.
- Increased turnover for non-highway reliant businesses.

Refer to **Chapters 7 and 8** of this environmental assessment for further details.

What are the main adverse outcomes expected?

The project would result in a number of short term adverse outcomes during the construction of the project. These would include increased noise levels and reduced traffic efficiency caused by narrowing of lanes, speed reductions, temporary road closures and increased heavy vehicle and light vehicle movements along the network.

The project would result in some adverse outcomes in the longer term, including:

- Changed access arrangements and modifications to local roads and properties. Local roads and accesses would be restricted to left-in and left-out movements due to a central median and safety barrier fencing and some local roads would have highway connections closed. This would increase travel times and redistribute some local traffic but there would be a safety benefit.
- Increased noise levels. A small number of sensitive receivers would be exposed to noise levels above the relevant operational noise criteria. However, none of these receivers would be significantly affected by the project.
- Potential direct and indirect impacts to around 57.1 hectares of native vegetation. This includes the loss of 2.9 hectares of the endangered ecological community (EEC) River-flat eucalypt forest on coastal floodplains of the North Coast, Sydney Basin and South East Corner bioregions.
- The permanent diversion of Town Creek.
- Increased road runoff through drainage infrastructure due to a greater area of impervious surfaces.
- Intrusion of the project on the existing landscape character and visual environment, especially large cuttings and bridges. Loss of some visual connection between Berry and the escarpment.
- Partial impact to 18 and full impact to eight sites, items or objects of Aboriginal heritage significance.
- Partial impact to six and full impact to 13 sites, items or objects of non-Aboriginal heritage significance.
- The acquisition of 112 hectares of land currently outside the existing corridor some of which has already been acquired by RMS.
- Impacts on community cohesion between Berry and west Berry due to the severance of North Street.
- Economic impacts such as the loss of viable agricultural land and reduced turnover for highway reliant businesses.

Refer to **Chapters 7 and 8** of this environmental assessment for further details.

How will the likely adverse impacts be managed?

This environmental assessment examines the likely consequences of the project. As part of this assessment, measures to mitigate or manage each likely impact have been proposed. The mitigation measures developed for the proposed upgrade aim to remove or minimise potential impacts through design in the first instance. Where a potential impact is unable to be mitigated through design, management measures are outlined.

The environmental, social and economic impacts and measures identified to minimise those impacts are discussed in **Chapters 7 and 8** of this environmental assessment. A draft statement of commitments, which lists the desired outcomes and the actions to be implemented by the RMS or its contractor to achieve these outcomes, is provided in **Chapter 10** of this environmental assessment.

How can I comment on the proposal and/or the environmental assessment?

The NSW Department of Planning and Infrastructure will make the environmental assessment publicly available for a minimum period of 30 days. During this period, it will be available for inspection at the Department of Planning and Infrastructure website www.planning.nsw.gov.au, on the RMS project website www.rta.nsw.gov.au/roadprojects/projects/princes_hway/foxground_berry_bypass/index.html, at selected RMS offices, and at various displays in the region.

The environmental assessment will be available for viewing at the following locations:

- Kiama Municipal Council, 11 Manning Street, Kiama.
- Kiama Library, 7 Railway Parade, Kiama.
- Shoalhaven City Council, 44 Bridge Road, Nowra.
- Nowra Library, 10 Berry Street, Nowra.
- Office of Gareth Ward MP Member for Kiama, 125 Terralong Street Kiama.
- Gerringong upgrade Community Display Centre, 446 Princes Highway, Gerringong.
- RMS Wollongong office, 90 Crown Street, Wollongong.
- RMS North Sydney office, Level 9, 101 Miller Street, North Sydney.
- Berry project office, (Broughton Court) shop 3/113 Queen Street, Berry NSW.
- Department of Planning and Infrastructure Information Centre, 23-33 Bridge Street, Sydney.
- Nature Conservation Council of NSW, Level 2, 5 Wilson Street, Newtown.

Staffed displays and stakeholder / community meetings will be held during the exhibition of the environmental assessment. A project information line will be available throughout the exhibition period – 1800 506 976 (toll free).

A person may make written submissions to the Director-General of the Department of Planning and Infrastructure during the exhibition period. All submissions received will be placed on the Department of Planning and Infrastructure's website. Submissions should be made to:

Director – Infrastructure Projects
Department of Planning and Infrastructure
GPO Box 39
Sydney NSW 2001
email: plan_comments@planning.nsw.gov.au
or online at: <http://majorprojects.planning.nsw.gov.au>