



A New South Wales Government Initiative



Gerringong to Bomaderry

Princes Highway upgrade

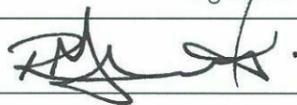
ROUTE OPTIONS DEVELOPMENT REPORT
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Appendix P	Preliminary Climatic Assessment Report
Appendix Q	Preliminary Cumulative Effects Report
Appendix R	Road Safety Audit - Stage 1, Route Options - Preliminary Concept Design

Not used

Executive summary

Not used

Executive summary

Introduction

Due to the significant changes in land use and population in the region and a review of current planning, traffic and safety conditions, the NSW State Government has committed to upgrade the Princes Highway north of Gerringong at Mount Pleasant to Moss Vale / Cambewarra Road at Bomaderry. No preferred option has been identified at this stage.

The RTA has set out several objectives for the Princes Highway. Generically these include:

- Provide a flowing highway alignment that is responsive and integrated with the landscape.
- Protect the natural systems and ecology of the corridor.
- Protect and enhance the heritage and cultural values of the corridor.
- Respect the communities and towns along the road.
- Provide an enjoyable, interesting highway with strong visual connections to the Pacific Ocean, immediate hinterland and the mountains to the west.

Objectives for this project have been determined as follows:

- Improving road safety by improving alignment and improving standards in new road design and construction.
- Improve efficiency of the Princes Highway between Gerringong and Bomaderry.
- Support regional and local economic development.
- Provide value for money.
- Enhance potential beneficial environmental effects and manage potential adverse environmental impacts.
- Optimise the benefits and minimise adverse impacts on the local social environment.

Study area characteristics

Preliminary investigations have been carried out in order to facilitate the choice of options for further evaluation. Significant constraints are listed below:

- Sub-standard road geometry of the existing highway, particularly in the Foxground area.
- Floodplains and soft soil conditions located generally in the south and east of the study area.
- The South Coast railway.
- Agricultural industry including dairy.
- An approved housing development in Berry.
- The Eastern Gas Pipeline.
- Indigenous and non-Indigenous cultural heritage at various locations across the study area.
- Hilly terrain (generally found to the northwest of the study area with ridges extending south and east).
- Colonies of Endangered Ecological Community and threatened plant species.
- Residences.

With the exception of the approved development application for housing in Berry, none of these characteristics lead to any potential route from being discarded in its own right. However, combinations of desirable and non-desirable attributes of routes lead to their recommendation or discard as a feasible route.

Route options selection process

The identification of a short list of route options which best meet the objectives of the project was undertaken using the generally recognised route options development process.

The development of the route options from a long to a short list is based on a qualitative assessment of the relative impacts of each one. Subsequent to further and more detailed analysis of each of the short listed options, a more refined and quantitative assessment is carried out to determine the preferred route.

The short listing process of route options for this project followed four phases:

- *Determination of a long list of options.*

A long list of options was developed using routes examined as part of previous studies and verified using rudimentary engineering and route selection principles.

- *Preparatory assessments.*

Each of the potentially feasible routes was reviewed in detail in relation to many specific evaluation categories. This established a preliminary understanding of how routes performed relative to the project objectives. The evaluation categories comprised:

- | | |
|---|------------------------|
| - Community values. | - Climate. |
| - Urban and visual landscape. | - Utilities. |
| - Alignment, staging and access. | - Planning and zoning. |
| - Socio-economics. | - Land use. |
| - Water quality and aquatic ecology. | - Noise and vibration. |
| - Flooding and drainage. | - Terrestrial ecology. |
| - Indigenous and non-Indigenous heritage. | - Ground conditions. |
| - Air quality. | - Cost. |
| - Sustainability. | - Traffic. |

- *Route options development workshop.*

This process involved a qualitative assessment of how well each of the long list of options best met the project objectives. The evaluation categories were assigned the same weighting and the workshop debated each scenario. The short list of feasible route options were subsequently identified as ones that performed better than others, having considered all the constraints.

- *Conclusion and next step.*

The outcome of the route options development workshop process was a short list of feasible route options. These are presented in this report and displayed to provide the community with an opportunity to comment on the route options.

Community engagement

Objective

Community and stakeholder input is considered in conjunction with the project's specialist studies into social, economic, environmental and engineering factors. Appreciation of community priorities and concerns is further understood through investigation of the social and cultural environment in the study area.

The RTA is committed to enabling opportunities for all stakeholders to be consulted, informed and involved in an open and transparent process across all phases of this study.

Community engagement objectives are to:

- Support and strengthen the current RTA community engagement process.
- Ensure an open accountable and transparent community engagement process.
- Ensure all potentially affected property owners and interested stakeholders are provided with sufficient information about the project and the likely impacts so that they can provide informed input.
- Ensure appropriate and direct communication with property owners in relation to access to, and investigations on, landholdings within the study area by study team members and/or the RTA representatives.
- Encourage community support and involvement in the project to facilitate better and more generally accepted outcomes through innovative communication methods.
- Provide a range of accessible opportunities for stakeholders, interested groups and the wider public to contribute to the project through issues identification, information provision, and options evaluation.
- Build an ongoing relationship between the RTA, its contractors, and stakeholders in order to gain long term support for the project and in particular the preferred route.

To date

Key community engagement activities conducted during the project familiarisation and route options development phases have comprised:

- The distribution of community updates in March 2006, September 2006, January 2007, April 2007 and July 2007.
- Workshops and information stands in May 2006.
- A planning focus meeting with representatives from various agencies and stakeholder groups in September 2006.
- Property access letters for field investigations sent in January 2007.
- Community information sessions in February 2007.
- An interest group workshop in April 2007.
- Individual meetings with local councils, local Aboriginal representatives, Chambers of Commerce, and other local interest groups.
- Specialist information sessions in August 2007.
- A project office was opened in Berry in July 2007.
- Establishment of a 1800 free call number.
- Establishment of a project email address.
- Establishment of a project web page.

Ongoing consultation

Community updates will continue to be distributed quarterly to maintain open and regular communication with the community. The project site office and the 1800 number will remain operational for the foreseeable future and the website will continue to be updated when important information is available.

The community will be provided with ongoing opportunities to input into the project. Key future phases in the project which involve the community comprise:

- Public display of the short listed route options.
- Value management studies.
- Public display of the preferred route.
- Various consultation activities during the concept design and environmental assessment of the preferred route stage.

Route options

General

The study area has been divided into four sections to facilitate the assessment of the long list of options. These sections are as follows:

- Section A - Mount Pleasant to south Gerringong.
- Section B - south Gerringong to north Berry.
- Section C - Berry Township.
- Section D - south Berry to Bomaderry.

Some route options straddle Sections B and C. These have been grouped as "Section B/C".

The study area presents a complex array of constraints influencing benefits and disadvantages of each of the long list of options. Only in a few instances did a particular feature lead to a route or routes being directly discarded. The emerging short list of routes scored well overall with regards to the project objectives and vice versa with regards to the discarded routes.

Description of short listed route options (from north to south)

Section A - Mount Pleasant to south Gerringong

One route has been short listed for Section A. The Red route follows the existing highway alignment subject to relatively minor adjustments to meet the required design and safety parameters.

Section B - south Gerringong to north Berry

Three route options emerged as being better than others within Section B.

The Pink route generally follows the existing highway alignment except for the section past Foxground. The existing highway alignment is particularly poor in this location and has to be improved to meet the required design and safety parameters.

The Green route is the same as the Pink route apart from the section between Toolijooa Road and Thompsons Road. The Green route follows a more direct alignment and passes under the Toolijooa ridge "north saddle" in a 350 metre long tunnel.

The Yellow route follows an alignment parallel to the South Coast railway line until just past the dwellings at Toolijooa. The route then turns to follow a north-west alignment. It passes under the Toolijooa ridge "south saddle" in a 350 metre long tunnel before meeting and following the existing highway corridor for the remainder of Section B.

Section C - Berry Township

Two route options emerged as being better than others within Section C.

The Blue route follows a circular arc bypassing Berry to the north. Due to developments to the west of Berry, the Blue route passes Berry close to the western edge of the main town. The Blue route then follows the existing highway alignment until the southern end of the section at Croziers Road.

The Orange route provides an upgrade of the existing highway alignment north of Berry and then follows the North Street corridor as it bypasses Berry. North Street itself would remain a local road. At the western end of North Street, the route turns to the south to follow the existing highway until the southern end of the section.

Section B/C - south Gerringong to south Berry

There is one short listed route that traverses Sections B and C. This route is identified as the Brown route and runs along the western side of the railway line from south of Gerringong to the north of Berry. It heads westwards from the David Berry hospital and crosses the existing highway, Broughton Mill Creek and Woodhill Mountain Road. It then continues along the North Street corridor and from Kangaroo Valley Road it follows the existing highway to Croziers Road. North Street would remain a local road.

Section D - south Berry to Bomaderry

One route has been short listed for Section D. The Purple route follows the existing highway alignment subject to relatively minor adjustments to meet the required design and safety parameters.

Next steps

The proposed upgrade of this section of the Princes Highway is being developed considering social, environmental and economic objectives in a way that achieves the best functional and community outcome.

Different permutations of the routes in each section have been combined to form a short list of seven options from one end of the study area to the other. The short list of options will be presented to the community, including workshops with specialists available to discuss details. At the same time potentially affected landowners will be offered an opportunity for an individual meeting with the RTA.

The feedback from the above consultation will be used in the value management studies to assist in the determination of the preferred option. Participants in these studies will include technical and non-technical representatives from a range of government, council and community interests. A preferred overall option will be determined by considering the following:

- The community's feedback and response to the short listed options.
- Further and more detailed analysis of physical characteristics and impacts of the options.
- The findings of a value management process performed to review the above information together with all the information and data which has been collected or determined from this and previous studies.

Following the announcement of the preferred option, a concept design will be carried out and this will be the subject of more detailed environmental assessment and community input. On completion of the environmental assessment, the project can move into detailed design and construction. It is likely that the overall upgrade will be constructed in a number of discrete sections.

Not used