1 Introduction

1.1 The project

The Roads and Maritime Services (RMS) is seeking approval under Part 3A of the *Environmental Planning and Assessment Act 1979* for the upgrade of 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 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. This would improve road safety and traffic efficiency, including for freight, on the NSW south coast.

The project comprises 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, an 18 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 and fauna 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 12770.
 - 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 13700.
 - Property access underpass between the Tindalls Lane interchange and the northern interchange for Berry in the vicinity of chainage 15100.
- Modifications to local roads, including Toolijooa Road, Gembrook Lane, Austral Park Road, 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 interchange, the extension to Austral Park Road 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.

The project would be funded by the NSW Government, with \$9 million allocated to continue the planning and preconstruction activities for the project in the 2012-2013 State Budget. Construction of the project is anticipated to commence in late 2014 and is expected to take three years to complete.

An overview of the project is shown in **Figure 1-1**. A detailed description of the project is in **Chapter 4.**

1.2 Project location

The project is located in the Illawarra and NSW South Coast regions within the Kiama and Shoalhaven local government areas (LGAs). The regional context of the project is shown in **Figure 1-2**.

The northern end of the project is at the junction of Toolijooa Road and the Princes Highway around five kilometres west of Gerringong. The southern end of the project is located at Mullers Lane, around 1.3 kilometres south of Berry.

The project follows the existing highway alignment near Toolijooa Road before deviating towards the south over Toolijooa Ridge, where it bypasses Foxground bends and crosses Broughton Creek three times. The alignment rejoins the existing highway north of Austral Park Road.

The project then continues to generally follow the existing highway alignment until just north of Berry, close to the David and Alexander Berry memorial to bypass Berry to the north. At this point the alignment begins to bypass Berry to the north with a bridge over Broughton Mill Creek, Bundewallah Creek and Connollys Creek. The project would be close to North Street, Berry until it curves southwards passing under Kangaroo Valley Road, to re-join the existing highway alignment.

To the north and west of the project are the Illawarra and Cambewarra Ranges, which contain a number of nature reserves and a National Park. These include the Barren Grounds Nature Reserve, the Rodway Nature Reserve, the Cambewarra Range Nature Reserves, and, further to the west, the Budderoo National Park. Broughton Creek (and its tributaries), Broughton Mill Creek, Connollys Creek and Bundewallah Creek all commence within these ranges.

To the east of the project lies the South Coast Rail Line, which extends from Waterfall in southern Sydney to Bomaderry, located south of the project. From Kiama, there is a single line that is not electrified. A station is located at Berry, off Railway Street.

A ridge that starts at Currys Mountain in the north and extends to Toolijooa Ridge, Moeyan Hill and eventually to Coolangatta Mountain to the south separates the project from the flat coastal areas. Coomonderry Swamp, a wetland protected by *State Environmental Planning Policy No.14 – Coastal Wetlands*, Foy's Swamp and Seven Mile Creek National Park are located along the coastline.

Urban settlements, in addition to Berry, within the vicinity of the project are largely concentrated along the coastline and include Kiama, Gerringong, Gerroa and Shoalhaven Heads. The largest urban centre in the vicinity of the project is located around thirteen kilometres to the south at Nowra/Bomaderry, located alongside the Shoalhaven River.



Figure 1-1 Overview of the project



Figure 1-2 Regional context of the project

1.3 Structure of the environmental assessment report

The environmental assessment is presented in two volumes. It responds to the requirements issued by the Director-General of the then NSW Department of Planning (refer to **Appendix A**).

Volume 1 has the following structure:

- Executive summary Summarises the findings of this environmental assessment.
- Chapter 1 Introduction provides a broad overview of the project and a general description of the project location.
- Chapter 2 Strategic and project justification provides the strategic context of the project and outlines the need for and objectives of, the project.
- Chapter 3 Project alternatives and design options reviews the alternatives and options considered in developing the project and outlines the preferred option.
- Chapter 4 Project description provides a detailed description of the project including route alignment, design standards and key design features and construction methodologies.
- Chapter 5 Assessment process outlines the statutory requirements and explains the steps in the assessment and approval process.
- Chapter 6 Consultation describes the consultation strategy, objectives and consultation undertaken as part of project development and environmental assessment and summarises the issues raised.
- Chapter 7 Assessment of key issues identifies the key environmental issues, assesses the impacts and proposes environmental management measures.
- Chapter 8 Other issues identifies other environmental issues that were not identified as key issues, assesses the impacts and proposed environmental management measures.
- Chapter 9 Environmental risk analysis describes how the environmental issues for the project were identified through an environmental risk analysis process, and outlines the findings of the process.
- Chapter 10 Draft statement of commitments outlines how the environmental impacts of the project would be avoided, minimised, managed, mitigated, offset and/or monitored.
- Chapter 11 Justification and conclusion presents the justification for the project and summarises the main environmental issues and how they would be managed.
- Chapter 12 References.
- List of tables.
- List of figures.

Volume 2 contains the following appendices:

- Appendix A Director-General's requirements, checklist and cross reference table.
- Appendix B Minister's order under Part 3A of the *Environmental Planning and* Assessment Act 1979.
- Appendix C Community consultation.
- Appendix D Technical working paper: Traffic and transport.
- Appendix E Technical working paper: Noise and vibration.
- Appendix F Technical working paper: Terrestrial ecology.
- Appendix G Technical working paper: Aquatic ecology and water quality management.
- Appendix H Technical working paper: Surface water, groundwater and flooding.
- Appendix I Technical working paper: Urban design (including landscape character and visual amenity).
- Appendix J Technical working paper: Aboriginal heritage.
- Appendix K Technical working paper: Non-Aboriginal (historic) heritage.
- Appendix L Property access impacts.
- Appendix M Technical working paper: Socio-economic.
- Appendix N Technical working paper: Air Quality.

The working papers in Volume 2 document in detail the methodologies and results of the specialist environmental studies that have been undertaken for this environmental assessment. The key findings from the working papers are presented in the relevant environmental assessment chapters in Volume 1.