

1 Introduction

This chapter introduces the project, providing a brief outline of its need, scope, and location. It also outlines the structure of this environmental impact statement.

1.1 The proposed project

Roads and Maritime Services (Roads and Maritime) is seeking approval under Part 5.1 of the *Environmental Planning and Assessment Act 1979* to construct and operate a tolled motorway, known as NorthConnex, linking the M1 Pacific Motorway at Wahroonga to the Hills M2 Motorway at West Pennant Hills in northern Sydney (the project). The project does not include ongoing motorway maintenance activities during operation. These would be subject to appropriate assessment and approval. The project would deliver a high standard motorway that integrates with the regional transport network.

The project is needed to provide a safer and more efficient link between the M1 Pacific Motorway and the Hills M2 Motorway that would better service current and future road users. The operation of the project would provide an alternative and more efficient route for travel between the M1 Pacific Motorway and the Hills M2 Motorway, improving access, connectivity and reliability of inter-regional freight across the greater Sydney area. The project would also reduce interaction between freight and other road users, thereby reducing congestion and improving safety and amenity along Pennant Hills Road.

Key features of the project would include:

- Twin motorway tunnels up to around nine kilometres in length with two lanes in each direction. The tunnels would be constructed with provision for a possible third lane in each direction if required in the future.
- A northern interchange with the M1 Pacific Motorway and Pennant Hills Road, including sections of tunnel for on-ramps and off-ramps, which also facilitate access to and from the Pacific Highway.
- A southern interchange with the Hills M2 Motorway and Pennant Hills Road, including sections of tunnel for on-ramps and off-ramps.
- Integration works with the Hills M2 Motorway including alterations to the eastbound carriageway to accommodate traffic leaving the Hills M2 Motorway to connect to the project travelling northbound, and the provision of a new westbound lane on the Hills M2 Motorway extending through to the Windsor Road off-ramp.
- Tie-in works with the M1 Pacific Motorway extending to the north of Edgeworth David Avenue.
- A motorway operations complex located near the southern interchange on the corner of Eaton Road and Pennant Hills Road that includes operation and maintenance facilities.
- Two tunnel support facilities incorporating emergency smoke extraction outlets and substations.
- Ancillary facilities for motorway operation, such as electronic tolling facilities, signage, ventilation systems and fire and life safety systems including emergency evacuation infrastructure.
- Modifications to service utilities and associated works at surface roads near the two interchanges and operational ancillary facilities.

- Modifications to local roads, including widening of Eaton Road near the southern interchange and repositioning of the Hewitt Avenue cul-de-sac near the northern interchange.
- Ancillary temporary construction facilities and temporary works to facilitate the construction of the project.

The key benefits of the project would include:

- Provision of an efficient and effective National Land Transport Network connection through Sydney delivering improved efficiency for national freight carriers and long-distance transport operators.
- Improvements to travel conditions and reliability of Pennant Hills Road for motorists, road-based public transport and cyclists.
- Improvements to local amenity and connectivity for people living, working and travelling along Pennant Hills Road due to decreases in traffic volumes and the associated reductions in noise and air emissions.
- Improvements to road safety along Pennant Hills Road.
- Serve the current and future growth needs of long-distance travel, particularly for freight transport.

The project is based on an unsolicited proposal from Transurban and the Westlink M7 Shareholders to construct, operate and maintain the project. The Australian and State Governments have each committed up to \$405 million to the project. The remainder of the cost of the project would be funded by Transurban and the Westlink M7 Shareholders and would be recouped from tolls on the project and changes to tolling for heavy vehicles on some Sydney motorways. The proposed toll on the project would be generally consistent with the tolling structure on the Hills M2 Motorway. This environmental impact statement has considered the presence of a toll on the project.

Subject to the project obtaining planning approval, construction of the project is anticipated to commence in early 2015 and is expected to take around four years to complete with an additional nine months of commissioning works.

The regional context of the project is shown in **Figure 1-1**. A detailed description of the project is provided in **Chapter 5**.

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1.2 Project location

The project would be located within The Hills, Hornsby and Ku-ring-gai local government areas about 20 kilometres north-west of the central business district of Sydney. The regional context of the project is shown in **Figure 1-1**. The local context of the project is shown in **Figure 1-2**.

The project would span the suburbs of Wahroonga, Normanhurst, Thornleigh, Pennant Hills, Beecroft, West Pennant Hills, Carlingford, North Rocks, Westmead and Baulkham Hills. The project would consist of underground tunnels generally following the alignment of Pennant Hills Road. At the northern and southern ends of the project, interchanges would connect the tunnels to the M1 Pacific Motorway, the Hills M2 Motorway and Pennant Hills Road, and would facilitate access to and from the Pacific Highway.

Pennant Hills Road between the M1 Pacific Motorway and the Hills M2 Motorway forms part of the AusLink National Land Transport Network, a network of roads connecting the mainland states and territories of Australia. Light vehicles (commuters) using Pennant Hills Road between the M1 Pacific Motorway and the Hills M2 Motorway share the road with heavy vehicles transporting freight to, from or through Sydney to major cities and regional centres such as the Central Coast, Newcastle, Brisbane and Melbourne.

This section of Pennant Hills Road between the M1 Pacific Motorway and the Hills M2 Motorway is one of the two remaining sections of the urban National Land Transport Network within Sydney that is not motorway standard.

1.3 Structure of this environmental impact statement

This environmental impact statement has been prepared to address the requirements issued by the Director-General of the then Department of Planning and Infrastructure. The Director-General's environmental assessment requirements (DGRs) for the project were issued on 29 October 2013. The DGRs were re-issued on 11 April 2014 to include the Hills M2 Motorway integration works (refer to **Appendix A**). The environmental impact statement also addresses the relevant provisions of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*.

The environmental impact statement is divided into five volumes, with volume 1 divided into three parts.

Volume 1a has the following structure:

- Executive summary — summarises the findings of this environmental assessment.
- Introduction — provides a broad overview of the project and where it is located (**Chapter 1**).
- Assessment process — outlines the statutory requirements and explains the steps in the assessment and approval process (**Chapter 2**).
- Strategic justification and project need — provides the strategic context, explains the need for the project and identifies the project objectives (**Chapter 3**).
- Project development and alternatives — reviews the alternatives and options considered in developing the project including the consequences of not proceeding (**Chapter 4**).

- Project description — provides a detailed description of the project including the route alignment, design standards, key design features and construction methodologies and staging (**Chapter 5**).
- Consultation — outlines the consultation activities undertaken, issues raised and how these have been addressed (**Chapter 6**).

Volume 1b has the following structure:

- Assessment of key issues — identifies the key environmental issues, assesses the impacts and proposes environmental management measures (**Chapter 7**).

Volume 1c has the following structure:

- Assessment of other issues — identifies other environmental issues, assesses the impacts and proposes environmental management measures (**Chapter 8**).
- Summary of environmental management measures — collates all of the environmental management measures for the project identified through the impact assessment (**Chapter 9**).
- Environmental risk analysis — Details the risk analysis process by which the potential environmental issues for assessment were identified (**Chapter 10**).
- Project justification and conclusion — presents the justification for the project, including consideration of the principles of ecologically sustainable development and the objects of the *Environmental Planning and Assessment Act 1979* (**Chapter 11**).
- References.
- List of tables.
- List of figures.
- Appendix A — Director-General's environmental assessment requirements and checklist.
- Appendix B — *Environmental Planning and Assessment Regulation 2000* checklist.
- Appendix C — Geological long section.
- Appendix D — Community communications framework.

Volume 2 contains the following appendices:

- Appendix E — Technical working paper: Traffic and transport.
- Appendix F — Technical working paper: Noise and vibration.

Volume 3 contains the following appendices:

- Appendix G — Technical working paper: Air quality.
- Appendix H — Technical working paper: Human health risk assessment.

Volume 4 contains the following appendices:

- Appendix I — Technical working paper: Urban design.

Volume 5 contains the following appendices:

- Appendix J — Technical working paper: Biodiversity.

Volume 6 contains the following appendices:

- Appendix K — Technical working paper: Business.
- Appendix L — Technical working paper: Non-Aboriginal heritage.
- Appendix M — Technical working paper: Aboriginal heritage.
- Appendix N — Greenhouse gas methodology and calculations.

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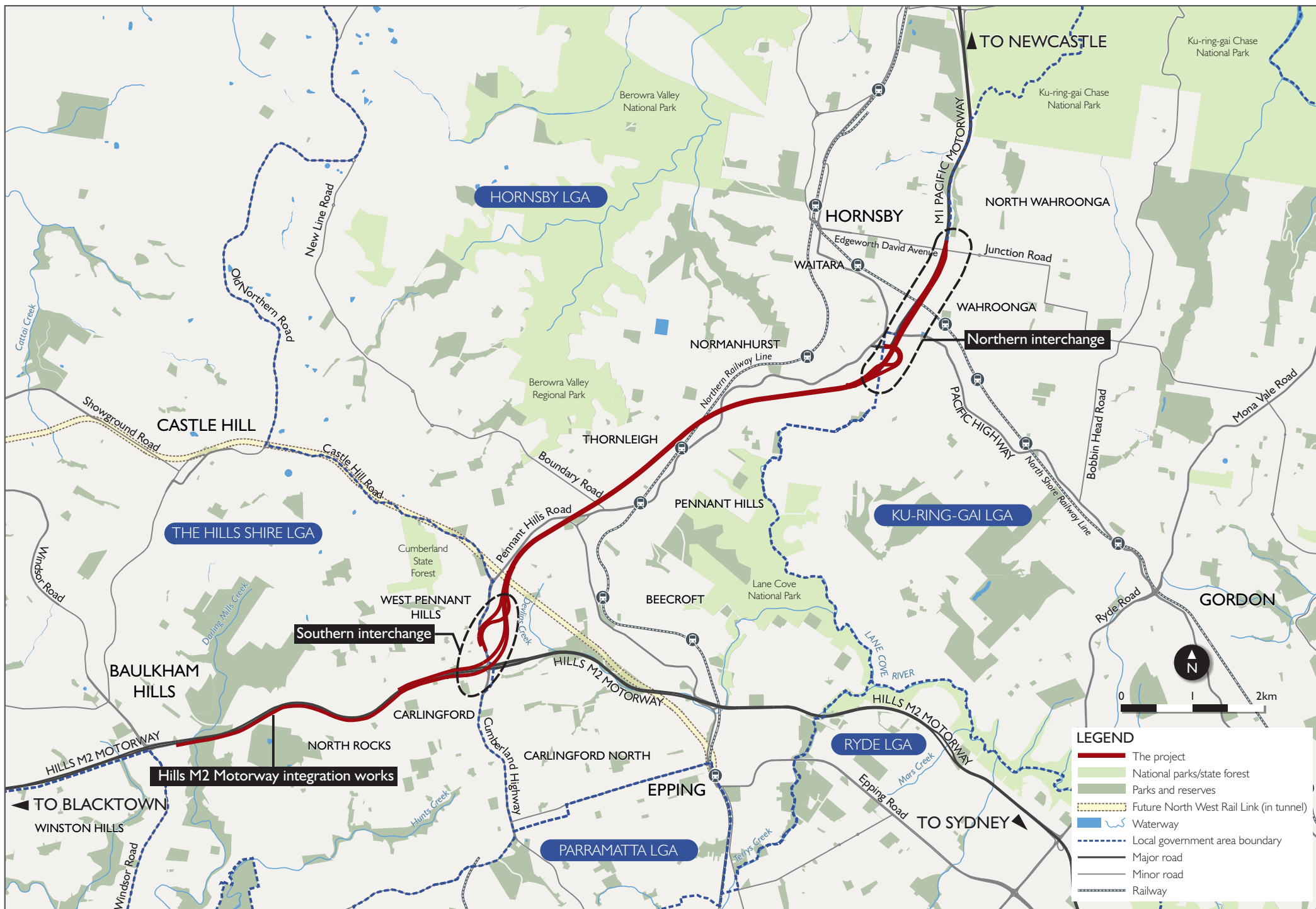


Figure 1-2 Local context of the project

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