1 Introduction

This chapter provides a brief overview of the proposed New M5 project, including its location and key features, and outlines the benefits of the project. This chapter also describes the purpose and structure of this environmental impact statement (EIS).

1.1 Project overview

NSW Roads and Maritime Services (Roads and Maritime), is seeking approval to construct and operate the New M5 (the project), which would comprise a new, tolled multi-lane road link between the existing M5 East Motorway, east of King Georges Road, and St Peters. The project would also include an interchange at St Peters and connections to the existing road network. The regional context of the project is shown in **Figure 1-1**.

Approval is being sought under Part 5.1 of the *NSW Environmental Planning and Assessment Act 1979* (EP&A Act). The project is declared to be State significant infrastructure (SSI) under section 115U(2) of the EP&A Act by reason of the operation of clause 14 and Schedule 3 of the *State Environmental Planning Policy (State and Regional Development) 2011*. Accordingly, the project is subject to assessment under Part 5.1 of the EP&A Act and requires the approval of the Minister for Planning. An EIS is therefore required. For the purpose of this planning application for the project, Roads and Maritime is the proponent.

Roads and Maritime is seeking the project to be declared by the Minister for Planning as State significant infrastructure and critical State significant infrastructure under sections 115U(4) and 115V of the EP&A Act.

The project is a component of the wider WestConnex program of works, which is a proposal to provide a 33 kilometre motorway linking Sydney's west and south-west with Sydney Airport and the Port Botany precinct. The WestConnex program of works is shown in **Figure 1-1**. The component projects of the WestConnex program of works are:

- M4 Widening – Pitt Street, Parramatta to Homebush Bay Drive, Homebush (planning approval granted on 21 December 2014 and under construction)
- M4 East – Homebush Bay Drive, Homebush to Parramatta Road and City West Link (Wattle Street) at Haberfield (planning application lodged and subject to planning approval)
- New M5 – (the subject of this EIS)
- King Georges Road Interchange Upgrade (planning approval granted on 3 March 2015 and under construction)
- M4-M5 Link – Haberfield to St Peters (undergoing concept development and subject to planning approval)
- Sydney Gateway (is the subject of further investigations by the NSW Government and would be subject to separate planning approval).

Separate planning applications have or will be lodged for each component project. Each project will be assessed separately, but the impact of each project will also be considered in the context of the wider WestConnex program of works.

A proposed Southern extension from Arncliffe to Kogarah is currently being investigated by the NSW Government, separately to the WestConnex program of works. The Southern extension would connect the New M5 to the southern and bayside suburbs of Sydney, and the proposed Gateway to the South project.

The WestConnex Delivery Authority (WDA) was established by the NSW Government to manage the delivery of the WestConnex series of projects for Roads and Maritime on behalf of the State. The WDA was a public subsidiary corporation of the Roads and Maritime. Following the achievement of early milestones for the WestConnex program of works, the NSW Government took the opportunity to evolve this early governance model.

On 1 October 2015 transfer of the project delivery functions of WDA to Sydney Motorway Corporation (SMC) was finalised, forming a single decision-making entity to finance and deliver the WestConnex program of works. SMC is a private corporation, the shareholders of which are the Minister for Roads, Maritime and Freight and the Treasurer, with a majority independent board of nine directors.

Roads and Maritime is the Government client agency for the WestConnex program of works. In that capacity Roads and Maritime will enter into contractual arrangements with SMC subsidiary entities which will design, build, own and operate the motorway on behalf of Roads and Maritime. Roads and Maritime and SMC are working together to manage the planning approval process for the project. However, for the purpose of the planning application for the project, Roads and Maritime is the proponent.

1.2 Project location

The project would be located within the Canterbury, Hurstville, Rockdale, Marrickville, Sydney and Botany Bay local government areas. The project is located from about five to 20 kilometres to the south and south-west of the central business district of Sydney. The project would traverse the suburbs of Beverly Hills, Kingsgrove, Bexley North, Earlwood, Bardwell Park, Bardwell Valley, Arncliffe, Wolli Creek, Tempe, Sydenham, St Peters, Alexandria and Mascot. At the eastern extent of the project, the boundary of the project footprint would extend to the suburb boundary between Erskineville and Alexandria, but would not extend into Erskineville.

1.3 Project features

The project would comprise the construction and operation of the following key features (shown on **Figure 1-2**):

- Twin motorway tunnels between the existing M5 East Motorway (between King Georges Road and Bexley Road) and St Peters. Each tunnel would be around nine kilometres in length and would be configured as follows:
  - Between the western portals and Arncliffe, the tunnels would be built to be three lanes wide but marked for two lanes as part of the project. Any change from two lanes to three lanes would be subject to future environmental assessment and approval
  - Between Arncliffe and St Peters, the tunnels would be built to be five lanes wide but marked for two lanes as part of the project. Any change from two lanes to any of three, four or five lanes would be subject to future environmental assessment and approval
- Tunnel stubs to allow for a future connection to the M4-M5 Link and a future connection to southern Sydney via a future Southern extension
- Surface road widening works along the M5 East Motorway between east of King Georges Road and the new tunnel portals
- A new road interchange at St Peters, which would initially provide road connections from the main alignment tunnels to Campbell Road and Euston Road, St Peters
- Two new road bridges across Alexandra Canal which would connect St Peters interchange with Gardeners Road and Bourke Road, Mascot
- Closure and remediation of the Alexandria Landfill site, to enable the construction and operation of the new St Peters interchange
- Works to enhance and upgrade local roads near the St Peters interchange
- Ancillary infrastructure and operational facilities for electronic tolling, signage (including electronic signage), ventilation structures and systems, fire and life safety systems, and emergency evacuation and smoke extraction infrastructure
- A motorway control centre that would include operation and maintenance facilities
- New service utilities and modifications to existing service utilities
- Temporary construction facilities and temporary works to facilitate the construction of the project
- Infrastructure to introduce tolling on the existing M5 East Motorway

- Surface road upgrade works within the corridor of the M5 East Motorway.

The project does not include ongoing motorway maintenance activities during operation. These would be subject to separate assessment and approval as appropriate.

Construction activities associated with the project would generally include:

- Commencement of enabling and temporary works, including site surveys, geotechnical investigations, construction power, water supply, ancillary site establishment, demolition works, property and utility adjustments and public transport modifications (if required)
- Construction of the road tunnels, interchanges, intersections and roadside infrastructure
- Haulage of spoil generated during tunnelling and excavation activities
- Fit-out of the road tunnels and support infrastructure, including ventilation and emergency response systems
- Construction and fit-out of the motorway control centre and ancillary operations buildings
- Upgrades to surface roads and construction of bridges
- Implementation of environmental management and pollution control facilities for the project.

Subject to the project obtaining environmental planning approval, construction of the project is anticipated to commence around mid-2016 and is expected to be completed in late 2019.

A detailed description of the project is provided in **Chapter 5** (Project description) and **Chapter 6** (Construction work).

(blank page)

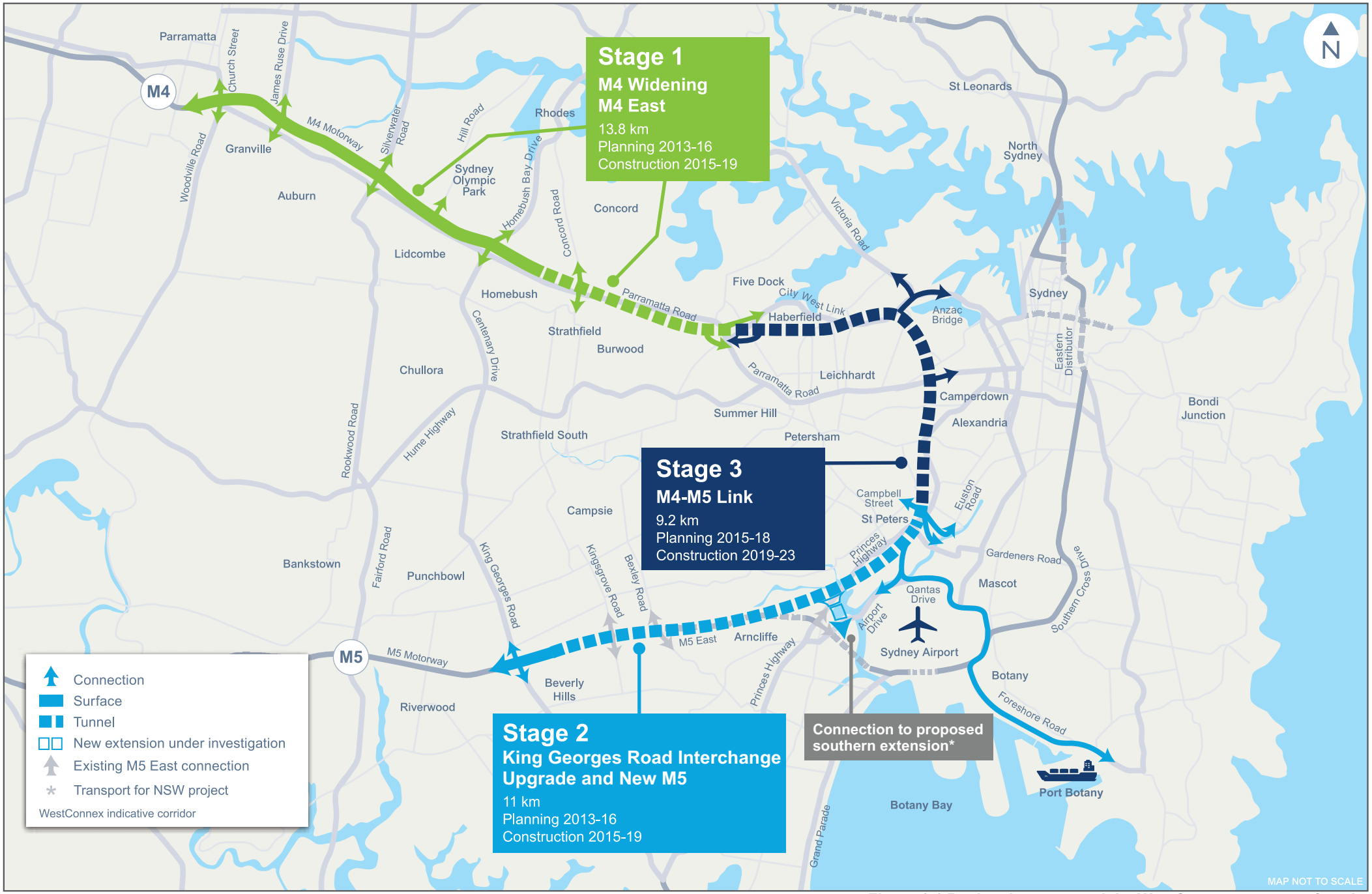

Figure 1-1 Regional context and the WestConnex program of works

(blank page)

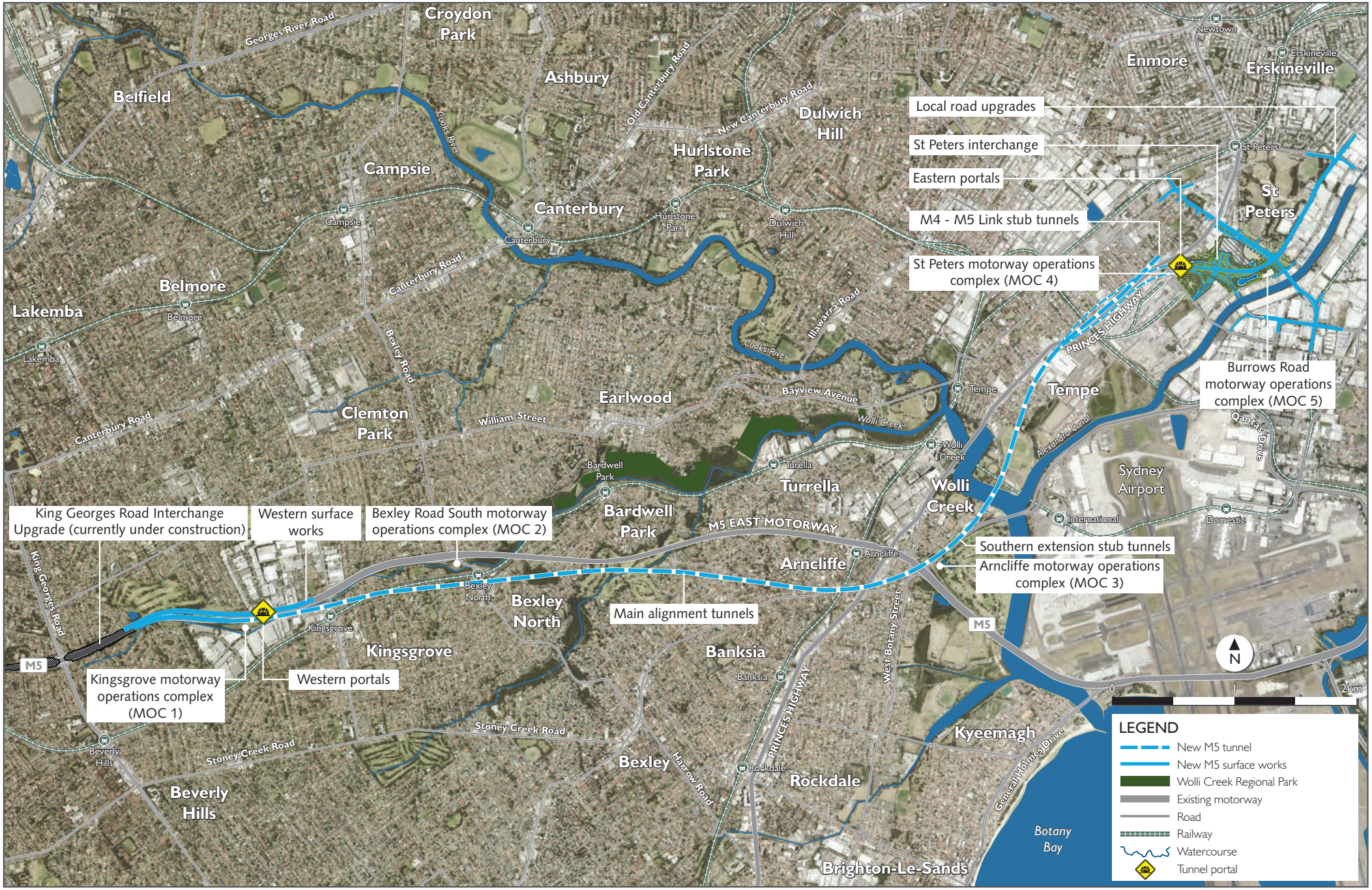

Figure 1-2 Key features of the project

(blank page)

1.4 Project benefits

The M5 Motorway corridor (the M5 East Motorway and the M5 South West Motorway) is the main passenger, commercial and freight corridor between Port Botany, Sydney Airport and south-west Sydney. Traffic demands on the M5 East Motorway currently exceed the design capacity of the roadway, and as a result, present a significant bottleneck to the M5 Motorway corridor with motorists experiencing heavy congestion and unreliable journey times. The project is needed to provide additional capacity along the M5 Motorway corridor, and would allow for a more robust and reliable transport network.

The key benefits of the project would include:

- Quicker, more reliable trips between Western Sydney and the Sydney Airport / Port Botany precinct to support Sydney's urban freight movements by providing additional motorway capacity within the M5 Motorway corridor
- Improvements to connections between employment and population centres along the M5 Motorway corridor and beyond to cater for existing and future demand. This would include a direct connection to employment zones within Sydney's global economic corridor generally, and specifically near Sydney Airport and Port Botany via the St Peters interchange.

1.5 Purpose of this environmental impact statement

This EIS has been prepared in accordance with the relevant provisions under the EP&A Act and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

It addresses the environmental assessment requirements issued by the Secretary of the Department of Planning and Environment on 26 August 2015, the relevant provisions of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*, and the *Guidelines for preparing Assessment Documentation relevant to the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) – WestConnex New M5 Project (EPBC 2015/7520)*. The Secretary's Environmental Assessment Requirements (SEARs) include the requirements of the Commonwealth Department of the Environment, under the EPBC Act.

In accordance with the EP&A Act, this EIS presents an assessment of all relevant environmental issues identified during the planning and assessment of the project. It also includes assessment of potential impacts on the relevant matters of national environmental significance in accordance with the EPBC Act. The assessment considers the areas directly or indirectly affected by construction and operation of the project.

Public exhibition of the EIS gives the community, government agencies and other interested parties an understanding of the project and provides the opportunity to comment on it. Roads and Maritime would consider this feedback in the further development of the project.

1.6 Structure of this environmental impact statement

The EIS is divided into two volumes, with volume one divided into three parts, and volume two divided into eight parts.

Volume 1A has the following structure:

- Executive summary – summarises the findings of this EIS
- Introduction – provides a broad overview of the project, its location and scope (**Chapter 1**)
- Assessment process − outlines the statutory requirements and explains the steps in the assessment and approval process (**Chapter 2**)
- Strategic context 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 and key design features (**Chapter 5**)
- Construction work – describes the construction methodologies and staging (**Chapter 6**)
- Consultation – outlines the consultation activities undertaken, issues raised and how these have been addressed (**Chapter 7**).

Volume 1B has the following structure:

- Overview of environmental issues – identifies the environmental issues that are assessed in this EIS (**Chapter 8**)
- An assessment of potential impacts and proposed mitigation measures for the following environmental issues:
  - Traffic and transport (**Chapter 9**)
  - Air quality (**Chapter 10**)
  - Human health (**Chapter 11**)
  - Noise and vibration (**Chapter 12**)
  - Land use and property (**Chapter 13**)
  - Visual impact and urban design (**Chapter 14**)
  - Social and economic (**Chapter 15**).

Volume 1C has the following structure:

- An assessment of potential impacts and proposed mitigation measures for the following environmental issues:
  - Soils and water quality (**Chapter 16**)
  - Contamination (**Chapter 17**)
  - Flooding and drainage (**Chapter 18**)
  - Groundwater (**Chapter 19**)
  - Non-Aboriginal heritage (**Chapter 20**)
  - Biodiversity (**Chapter 21**)
  - Greenhouse gas (**Chapter 22**)
  - Aboriginal heritage (**Chapter 23**)
  - Construction resource use and waste minimisation (**Chapter 24**)
  - Climate change risk and adaptation (**Chapter 25**)
  - Hazard and risk (**Chapter 26**)
- Cumulative impacts – assesses the impacts which the project coupled with other projects in the region would have on the community (**Chapter 27**)
- Sustainability – outlines how the project would be delivered in a manner that meets sustainability requirements throughout its planning, construction and operation, including consideration of the principles of ecologically sustainable development (ESD) (**Chapter 28**)
- Environmental risk analysis – details the risk analysis process by which the potential environmental issues for assessment were identified (**Chapter 29**)
- Summary of environmental management measures – collates all of the environmental management measures for the project identified through the impact assessment (**Chapter 30**)
- Project justification and conclusion – presents the justification for the project and consideration of the objectives of the EP&A Act (**Chapter 31**)

- A full list of references used in preparing the EIS is provided (**Chapter 32**)
- A full list of tables and a full list of figures are provided in **Chapter 33** and **Chapter 34** respectively.

Volume 2A contains the following appendices:

- **Appendix A** Secretary's Environmental Assessment Requirements
- **Appendix B** *Environmental Planning and Assessment Regulation 2000* checklist
- **Appendix C** Geological long section
- **Appendix D** Properties affected by acquisition
- **Appendix E** Draft community consultation framework
- **Appendix F** Alexandria Landfill closure management plan

Volume 2B contains the following appendices:

- **Appendix G** Technical working paper: Traffic and transport.

Volume 2C contains the following appendices:

- **Appendix H** Technical working paper: Air quality
- **Appendix I** Technical working paper: Human health risk.

Volume 2D contains the following appendices:

- **Appendix J** Technical working paper: Noise and vibration.

Volume 2E contains the following appendices:

- **Appendix K** Technical working paper: Landscape character and visual impact
- **Appendix L** Urban design report
- **Appendix M** Technical working paper: Social and economic
- **Appendix N** Technical working paper: Surface water.

Volume 2F contains the following appendices:

- **Appendix O** Technical working paper: Contamination.

Volume 2G contains the following appendices:

- **Appendix P** Technical working paper: Flooding
- **Appendix Q** Technical working paper: Groundwater assessment
- **Appendix R** Technical working paper: Non-Aboriginal heritage.

Volume 2H contains the following appendices:

- **Appendix S** Biodiversity Assessment Report
- **Appendix T** Biodiversity Offsets Strategy
- **Appendix U** Detailed greenhouse gas calculations
- **Appendix V** Technical working paper: Aboriginal heritage
- **Appendix W** Climate change risk assessment framework.

(blank page)