

Chapter 1

Introduction

1 Introduction

This chapter provides an overview of the major civil construction work between The Bays and Sydney CBD (this proposal) as part of the broader Sydney Metro West project, including the strategic planning context, key features, and the purpose and structure of this Environmental Impact Statement.

1.1 Overview of Sydney Metro

The Sydney Metro West project forms part of the broader Sydney Metro network which includes:

- **The Metro North West Line** – Opened in May 2019 with driverless trains running every four minutes in the peak in each direction between Tallawong Station in Rouse Hill and Chatswood
- **Sydney Metro City & Southwest** – A new 30-kilometre metro line extending the new metro network from the end of the Metro North West Line at Chatswood, under Sydney Harbour, through the Sydney CBD and south-west to Bankstown. It is due to open in 2024 with capacity to run a metro train every two minutes each way under the centre of Sydney
- **Sydney Metro West** – A new 24-kilometre metro line that will connect Greater Parramatta with the Sydney CBD. Confirmed stations include Westmead, Parramatta, Sydney Olympic Park, North Strathfield, Burwood North, Five Dock, The Bays, Pyrmont and Hunter Street (Sydney CBD). This infrastructure investment will double the rail capacity of the Greater Parramatta to Sydney CBD corridor with a travel time target between the two centres of about 20 minutes
- **Sydney Metro – Western Sydney Airport** – A new metro line that will service Greater Western Sydney and the new Western Sydney International (Nancy-Bird Walton) Airport forming the transport spine of the Western Parkland City.

The Sydney Metro program of work is shown in Figure 1-1.

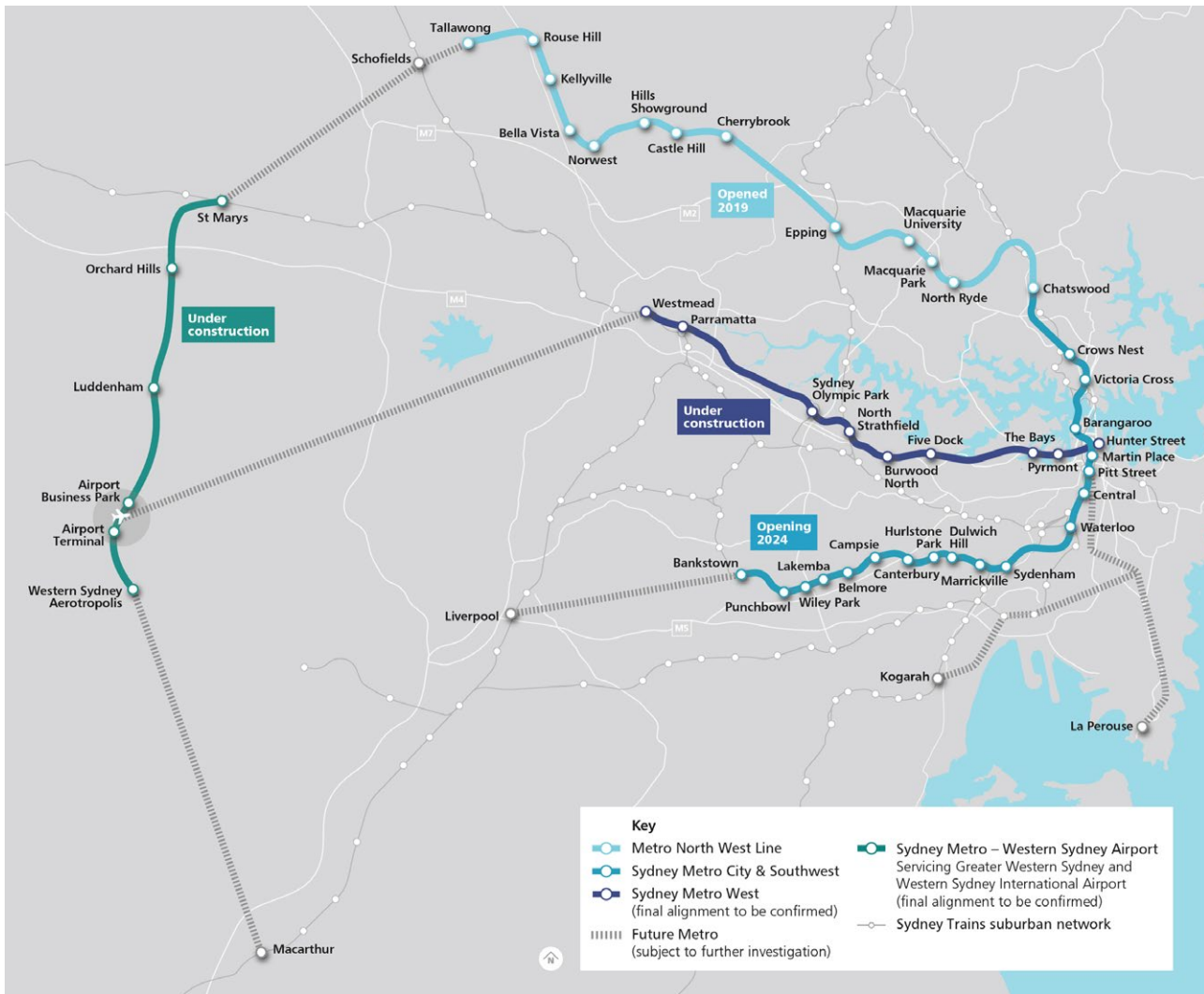


Figure 1-1 Sydney Metro network

The key benefits of Sydney Metro West are detailed in Section 2.4 of the *Sydney Metro West Environmental Impact Statement – Westmead to The Bays and Sydney CBD* (Sydney Metro, 2020a). This proposal is a subsequent stage within the approved Concept, and would be a key step in the delivery of the overall Sydney Metro West project. The key benefits associated with the Sydney Metro West Concept include:

- **Transport benefits** – Namely increasing transport network capacity, which would increase accessibility to key centres, the reach and use of the public transport network and improve travel times
- **Productivity benefits** – Particularly job growth through job creation within the corridor, enhancing international competitiveness
- **City-shaping** – Namely supporting planned growth and expanding 30-minute cities to deliver associated benefits to social equity, sustainability and health.

1.1.1 Staged planning approval

The planning process for Sydney Metro West is being assessed as a staged infrastructure application under section 5.20 of the *Environment Planning and Assessment Act 1979* (EP&A Act).

The Sydney Metro West Concept and major civil construction work for Sydney Metro West between Westmead and The Bays (Stage 1 of the planning approval process for Sydney Metro West), application number SSI-10038, were approved on 11 March 2021.

The Concept is described in Chapter 6 of the *Sydney Metro West Environmental Impact Statement – Westmead to The Bays and Sydney CBD* (Sydney Metro, 2020a) and includes:

- Construction and operation of new passenger rail infrastructure between Westmead and Sydney CBD, including:
 - Tunnels, stations (including surrounding areas) and associated rail facilities

- Stabling and maintenance facilities (including associated underground and overground connections to tunnels)
- Modification of existing rail infrastructure (including stations and surrounding areas)
- Ancillary development.

Major civil construction work for Sydney Metro West between Westmead and The Bays (Stage 1 of the planning approval process) is described in Chapter 9 of the *Sydney Metro West Environmental Impact Statement – Westmead to The Bays and Sydney CBD* (Sydney Metro, 2020a) and includes:

- Tunnel excavation including tunnel support activities between Westmead and The Bays
- Station excavation for new metro stations at Westmead, Parramatta, Sydney Olympic Park, North Strathfield, Burwood North, Five Dock and The Bays
- Shaft excavation for services facilities
- Civil work for the stabling and maintenance facility at Clyde.

Stage 2 of the planning approval process (this proposal) includes all major civil construction work including station excavation (at the Pyrmont Station and Hunter Street Station (Sydney CBD) construction sites) and tunnelling between The Bays and Sydney CBD.

Future planning applications for Sydney Metro West will include tunnel fit-out, construction of stations, ancillary facilities and station precincts, and operation and maintenance of the Sydney Metro West line, between Westmead and Sydney CBD. The associated potential impacts of the future stage would be assessed in the future Environmental Impact Statement for 'Sydney Metro West - Rail infrastructure, stations, precincts and operations' (Stage 3 of the planning approval process for Sydney Metro West).

1.2 Overview of Sydney Metro West

Sydney Metro West will double rail capacity between Greater Parramatta and the Sydney CBD, transforming Sydney for generations to come. The delivery of Sydney Metro West is critical to keeping Sydney moving and is identified in a number of key strategic planning documents including the *Greater Sydney Region Plan: A Metropolis of Three Cities – connecting people* (Greater Sydney Commission, 2018a).

The once-in-a-century infrastructure investment will have a target travel time of about 20 minutes between Parramatta and Hunter Street in the Sydney CBD, link new communities to rail services and support employment growth and housing supply.

The main elements of Sydney Metro West are shown in Figure 1-2.

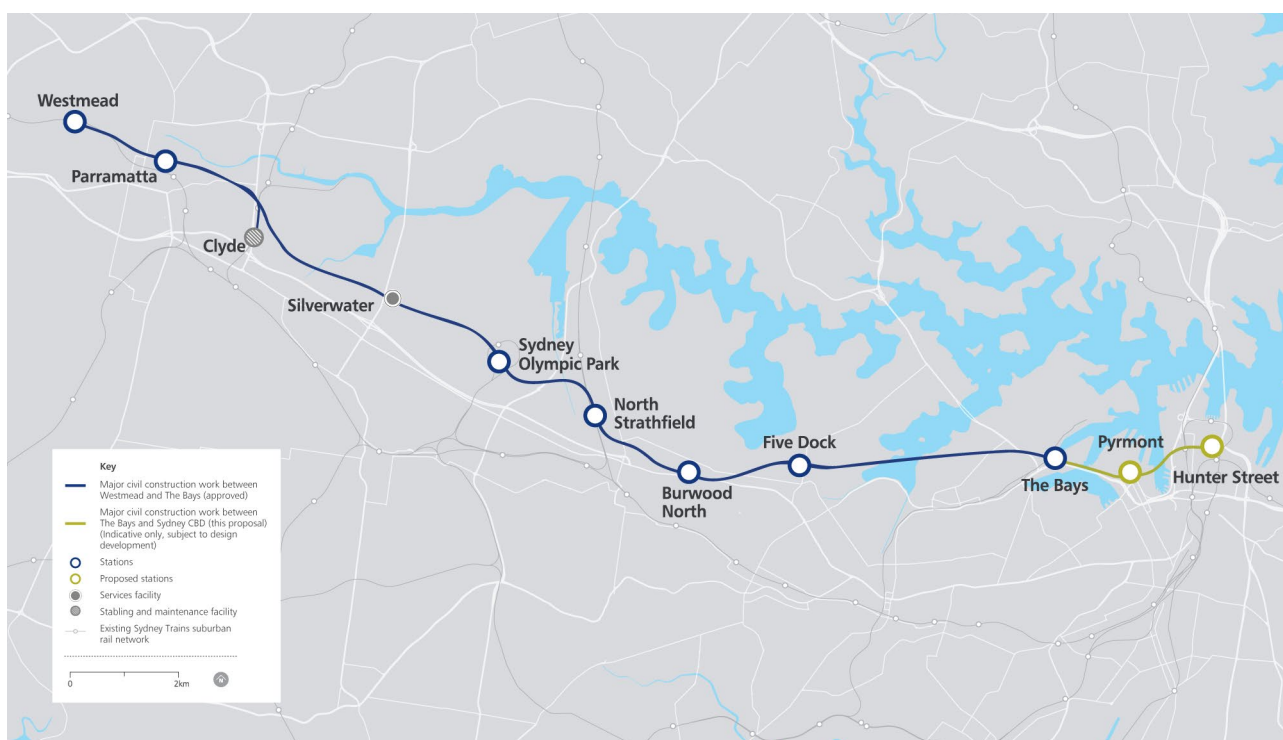


Figure 1-2 Sydney Metro West

1.2.1 Strategic context

The strategic context for Sydney Metro West is outlined in Chapter 2 of the *Sydney Metro West Environmental Impact Statement – Westmead to The Bays and Sydney CBD* (Sydney Metro, 2020a). Sydney Metro West, in its full configuration, would assist in addressing a variety of transport and land use challenges that Sydney faces now and into the future. This includes population and economic growth, and transport capacity, accessibility and reliability.

The approved Sydney Metro West Concept is consistent with key NSW and Australian Government planning strategies, including *Building Momentum: NSW State Infrastructure Strategy 2018–2038* (Infrastructure NSW, 2018), and *Greater Sydney Region Plan: A Metropolis of Three Cities* (Greater Sydney Commission, 2018). The approved Sydney Metro West Concept is also consistent with the NSW strategic transport infrastructure policy, including *Future Transport 2056* strategy. This proposal, the major civil construction work between The Bays and Sydney CBD, falls under the approved Sydney Metro West Concept and is therefore also consistent with these strategies and policies.

1.2.2 Objectives of Sydney Metro West

Sydney Metro West's objectives are separated into network and corridor objectives. The network objectives represent the outcomes to be achieved by Sydney Metro West in its full configuration, including potential western and eastern extensions. The corridor objectives include the specific plans and needs of the geographic area between Greater Parramatta and the Sydney CBD.

This proposal facilitates the achievement of the network and corridor objectives of the Sydney Metro West project.

Sydney Metro West network objectives

The Sydney Metro West network objectives are:

- Ensure transport services are meeting the needs of customers
- Deliver outcomes that align with and support key strategic land use and transport frameworks including the Smart Cities Plan, Greater Sydney Region Plan, Future Transport Strategy and the relevant District Plans
- Boost Sydney's international competitiveness, productivity and employment growth by supporting new and existing strategic centres
- Support future housing needs by increasing housing supply, choice and affordability
- Improve liveability and provide a catalyst for positive change by enabling urban renewal opportunities, enhancing housing supply and supporting productivity of centres
- Improve access to and resilience of the transport network through integrated land use and transport planning, including integration of Sydney Metro West with other transport modes
- Ensure value for money and a sustainable and deliverable solution.

Sydney Metro West Greater Parramatta to Sydney CBD corridor objectives

The Sydney Metro West Greater Parramatta to Sydney CBD corridor objectives are:

- Contribute towards the vision for a three cities metropolis established by the Greater Sydney Commission including the '30-minute city' concept
- Support additional housing supply and employment growth opportunities and support urban renewal initiatives within the Greater Parramatta to Sydney CBD corridor including key government precincts such as the Greater Parramatta and Olympic Peninsula and The Bays
- Achieve customer outcomes including relieving congestion on the busy T1 Western Line and T2 Inner West and Leppington Line, increased rail patronage and mode shift, reduced travel times between key destinations, providing new access to mass transit rail and relieving bus and road congestion in the western corridor.

1.3 Overview of this proposal

This proposal would be located largely underground in twin tunnels. Indicative locations of the proposed alignment and stations are shown in Figure 1-3.



Figure 1-3 Overview of Sydney Metro West between The Bays and Sydney CBD

The proposed major civil construction work between The Bays and Sydney CBD would include:

- Enabling work such as demolition, utility supply to construction sites, utility adjustments, and modifications to the existing transport network
- Tunnel excavation including tunnel support activities
- Station excavation for new metro stations at Pyrmont and at Hunter Street, in the Sydney CBD.

Components of this proposal are subject to further design and construction planning, and changes may be made during the ongoing design which take into account the outcomes of community and stakeholder engagement and environmental field investigations.

1.4 Purpose and structure of this report

The purpose of this Environmental Impact Statement is to support Sydney Metro's application to the Minister for Planning and Public Spaces for approval of the project as critical State significant infrastructure under section 5.15 of the *Environmental Planning and Assessment Act 1979*. It addresses the Secretary's Environmental Assessment Requirements of the Department of Planning, Industry and Environment dated 7 July 2021 (refer to Appendix A), and the requirements for an Environmental Impact Statement in Schedule 2 of the Environmental Planning and Assessment Regulation 2000.

This Environmental Impact Statement is presented in two volumes. Volume 1 contains the main Environmental Impact Statement (this report) and the initial appendices. Volume 2 provides the technical papers that form the technical basis of the information in Volume 1. The structure and content of this report are outlined in Table 1-1, and the structure of the appendices and technical papers are outlined in Table 1-2.

Table 1-1 Structure and content of this report

Chapter	Description
Chapter 1 (Introduction) (this chapter)	Outlines the key elements of Sydney Metro West and the purpose of this report
Chapter 2 Development and alternatives)	Provides an overview of the development process and the strategic transport alternatives and options considered for Sydney Metro West
Chapter 3 Planning and assessment process)	Provides an outline of the statutory approvals framework, including applicable legislation and planning policies
Chapter 4 Stakeholder and community engagement)	Outlines stakeholder and community engagement carried out to date, including during the preparation of this Environmental Impact Statement
Chapter 5 Project description)	Provides a description the proposal, including likely construction techniques, and identifies the location and function of the main construction sites
Chapters 6-22 Environmental assessment)	Provides an assessment of the potential direct and indirect impacts that may result during this proposal, including cumulative impacts where relevant, which are addressed within each environmental impact assessment chapter
Chapter 23 (Synthesis of the Environmental Impact Statement)	Provides a technical summary of the Environmental Impact Statement and consolidated list of mitigation measures
Chapter 24 (Environmental risk analysis)	Provides an environmental risk analysis for this proposal, taking into account the potential impacts and mitigation measures identified in Chapters 6 to 22
Chapter 25 (Project justification and conclusion)	Provides a conclusion to the report, including justification of this proposal and if it has achieved the objectives of Sydney Metro West and has met the objectives of the <i>Environmental Planning and Assessment Act 1979</i>
Chapter 26 (References and terminology)	Provides a list of references and defines abbreviations and key terms used throughout the report

Table 1-2 Structures of appendices and technical papers

Appendices	Technical papers
<ul style="list-style-type: none"> Appendix A (Secretary's Environmental Assessment Requirements) and where these are addressed in the Environmental Impact Statement Appendix B (Overarching Community Communications Strategy) Appendix C (Construction Environmental Management Framework) Appendix D Construction Traffic Management Framework) Appendix E (Construction Noise and Vibration Standard) Appendix F (Environmental risk analysis results) Appendix G (Cumulative impacts assessment methodology) 	<ul style="list-style-type: none"> Technical Paper 1 (Transport and traffic) Technical Paper 2 (Noise and vibration) Technical Paper 3 (Non-Aboriginal heritage) Technical Paper 4 (Aboriginal cultural heritage assessment report) Technical Paper 5 (Landscape and visual impact assessment) Technical Paper 6 (Social impact assessment) Technical Paper 7 (Hydrogeology) Technical Paper 8 (Contamination) Technical Paper 9 (Hydrology, flooding and water quality)