

# 1. Introduction

## 1.1 Background

In December 2004, the New South Wales (NSW) Government announced a new land release plan for Sydney's South West and North West Sectors as part of its strategy to respond to Sydney's growing population. The release of this land was underpinned by a NSW Government commitment to ensure that the required infrastructure is put in place early in the development of these areas.

In June 2005, the NSW Government exhibited a Draft Structure Plan for the South West Growth Centre (Department of Planning 2005), which was later revised in response to public exhibition of the draft versions. The revised plan shows centres, major road and public transport routes, and future employment areas to accommodate the future population. In total, the plans indicate that the South West Growth Centre could potentially be developed to provide 90,000 to 110,000 dwellings and accommodate 250,000 to 300,000 people.

On 9 June 2005, the NSW Government announced it would invest funds over the next 15 years to develop the Metropolitan Rail Expansion Program, which comprises the following three rail link projects, as shown in Figure 1-1:

- the North West Rail Link — a new rail line to Rouse Hill from Cheltenham via Castle Hill with long-term plans to extend to Vineyard and the Richmond Line
- the CBD Rail Link — a new rail line in tunnel between Central Station and the North Shore Line at St Leonards, including new stations in the Sydney Central Business District (CBD) and the lower North Shore, and extra tracks between St Leonards and Chatswood
- the South West Rail Link (SWRL) — a new rail line to Leppington from Glenfield Station, with long-term plans for a western extension.

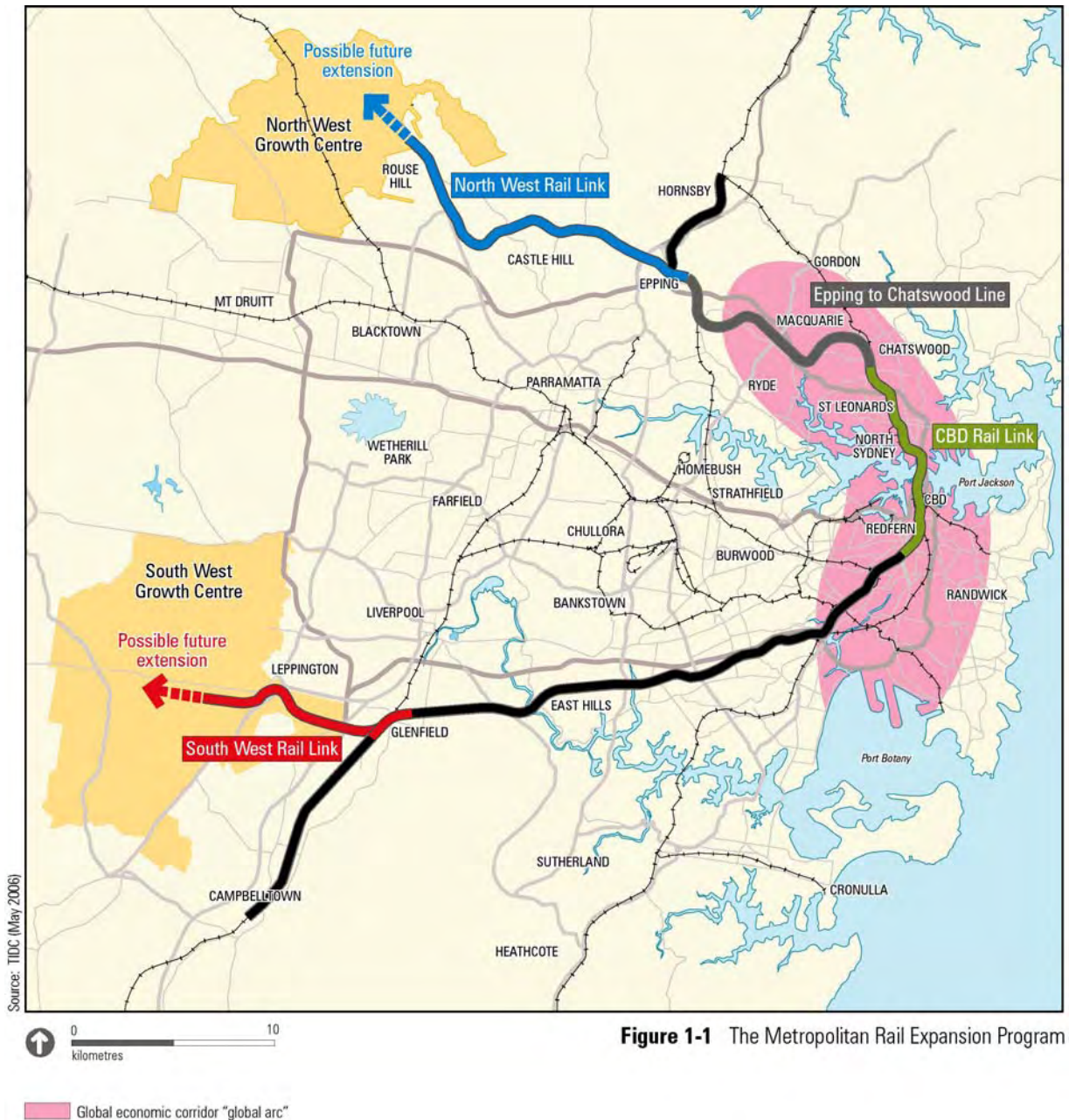
The NSW Government announcement committed to construction of the proposed SWRL in 2009, with the line operational by 2012.

In November 2005, the Transport Infrastructure Development Corporation (TIDC) was directed, by the Minister for Transport, to undertake (amongst other works):

- the necessary technical studies and reviews to confirm and, in some locations, finalise the alignment of the SWRL
- the necessary work and documentation to enable the SWRL to be assessed to allow concept approval to be obtained under Part 3A of the *Environmental Planning and Assessment Act 1979*.

Prior to 2005, project development had previously been undertaken and completed by RailCorp, the former Department of Infrastructure, Planning and Natural Resources (DIPNR) and others. This included public exhibition of the *South West Rail Link Overview Report* (DIPNR 2005) between June and October 2005.

In April 2006, the Minister declared the SWRL to be a project subject to Part 3A of the *Environmental Planning and Assessment Act 1979*.



**Figure 1-1** The Metropolitan Rail Expansion Program

As the first step in the Part 3A planning process, TIDC commissioned Parsons Brinckerhoff (PB) to prepare a Project Application and Preliminary Environmental Assessment for the SWRL. That report was lodged with the Department of Planning and, in accordance with requirements, was released to the public on TIDC’s website on 24 May 2006.

On 3 July 2006, the NSW Minister for Planning authorised submission of a Concept Plan for the SWRL, and on 12 July 2006, the Director General issued Environmental Assessment requirements. The Director General’s requirements are set out in Appendix A.

Under s750(1) of the *Environmental Planning and Assessment Act 1979*, the Minister may give approval for the concept plan for a Part 3A project if the proponent submits a concept plan for the project and the Environmental Assessment requirements with respect to the giving of approval for the concept plan have been complied with.

The purpose this document is:

- to assist with seeking the Minister's approval for the Concept Plan for the SWRL
- to demonstrate that the Director General's requirements for the environmental assessment of the Concept Plan for the SWRL have been satisfied.

## 1.2 SWRL proponent

TIDC is a statutory State-owned corporation under the *Transport Administration Act 1988*, with the principal functions of developing major railways systems and other major infrastructure projects. TIDC is seeking the Minister's approval for the Concept Plan for the SWRL. For that purpose, TIDC has undertaken an Environmental Assessment in accordance with the Director General's requirements for the Environmental Assessment of the Concept Plan for the SWRL. In relation to the SWRL, TIDC currently reports to a Project Steering Group, comprising representatives of TIDC, RailCorp, NSW Treasury, the Department of Planning, the NSW Premiers Department and the Growth Centres Commission.

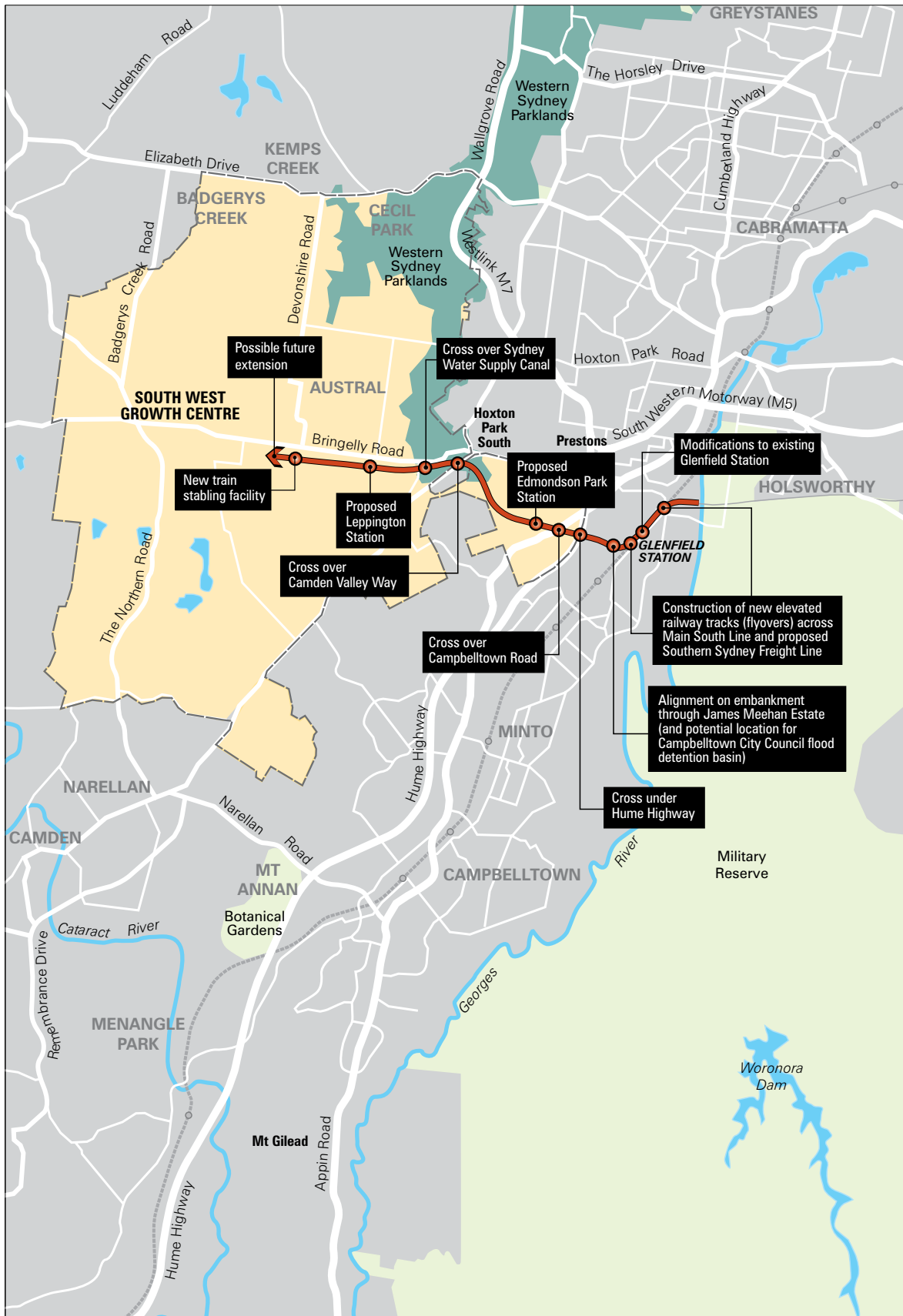
Construction of the SWRL would be carried out by TIDC or another entity, to be determined at a later date. Post-construction, the SWRL would be managed and operated by RailCorp.

## 1.3 Location

The SWRL is located between Glenfield and Leppington in south-western Sydney in New South Wales (NSW) (see Figure 1-2). The proposed SWRL corridor passes through three local government areas (LGAs): Liverpool, Campbelltown and Camden.

The SWRL is proposed to extend as a dual track, electrified railway line, for approximately 13.1 kilometres, between the existing junction of the East Hills and Main South Lines in Sydney's south-west and a new stabling facility to the west of the planned Leppington town centre. The SWRL would also incorporate a reconfiguration and upgrade of Glenfield Station, and two new stations located in cuttings at Edmondson Park and Leppington. A further extension beyond Leppington is also under consideration, but does not form part of this project.

A large proportion of the SWRL project (west of the South Western Freeway/Hume Highway) would be located within the South West Growth Centre of Sydney (also known as the South West Sector), which is an area of land release and significant growth identified in the Department of Planning's (2005b) Sydney Metropolitan Strategy (*City of Cities – A Plan for Sydney's Future*). The Growth Centre is located within the broader South West region of Sydney, which includes the LGAs of Liverpool, Campbelltown, Camden and Wollondilly.



**Figure 1-2** South West Rail Link (SWRL) location and key components

— Proposed SWRL (approximately 13.1 kilometres of dual-track railway within approximate 40 metre corridor)

## 1.4 SWRL objectives

### 1.4.1 Metropolitan Strategy and Metropolitan Rail Expansion Program objectives

The objectives of the SWRL are closely linked with the Sydney Metropolitan Strategy objectives, particularly the objectives and initiatives of the ‘Centres and Corridors’ and ‘Transport’ Strategies (Parts B and D of the Strategy, respectively). The MREP objectives, as noted by the Program Steering Group, are included in Table 1-1.

**Table 1-1 Metropolitan Strategy and MREP objectives**

Policy categories	Broad policy objectives	MREP objectives
Integrated Land Use and Transport Planning	<p><b>Metropolitan Strategy (MS)</b></p> <ul style="list-style-type: none"> <li>▪ Improve transport between Sydney's centres (<i>MS D1</i>): <ul style="list-style-type: none"> <li>▶ Extend the rail and bus networks to connect centres.</li> <li>▶ Extend transport networks to serve (existing and) growth centres.</li> <li>▶ Connect regions and economic gateways within the Greater Metropolitan Region.</li> </ul> </li> <li>▪ Plan and as appropriate, construct the North West-CBD-South West Rail Link (<i>MS D1.1.1</i>)</li> <li>▪ Improve the existing transport system (<i>MS D2</i>): <ul style="list-style-type: none"> <li>▶ Improve accessibility to public transport.</li> <li>▶ Complete major transport infrastructure projects underway.</li> <li>▶ Improve reliability and increase capacity of rail services.</li> <li>▶ Improve the integration of public transport.</li> <li>▶ Improve operational management of existing transport networks.</li> </ul> </li> <li>▪ Concentrate activities near public transport (<i>MS B4</i>): <ul style="list-style-type: none"> <li>▶ Support centres with transport, infrastructure and services.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide a comprehensive public transport system to support urban growth in the north and south west: <ul style="list-style-type: none"> <li>▶ Connecting Major Centres.</li> <li>▶ Improving access to ‘global economic corridor’.</li> <li>▶ Providing a local transport spine.</li> <li>▶ Facilitating urban development around transport nodes.</li> </ul> </li> <li>▪ Provide a ‘major step up’ in capacity into/through the Sydney CBD rail system to address forecast passenger demand exceeding capacity: <ul style="list-style-type: none"> <li>▶ On north south spine of CBD.</li> <li>▶ Between Redfern and North Sydney.</li> <li>▶ At Town Hall and Wynyard.</li> <li>▶ Main Western Line.</li> <li>▶ Improve operational management of existing transport networks.</li> </ul> </li> <li>▪ Improve the whole rail network to achieve efficient and effective metropolitan rail service by: <ul style="list-style-type: none"> <li>▶ Improving network capacity.</li> <li>▶ Improving service reliability.</li> <li>▶ Improve easy intermodal and rail-rail interchange.</li> </ul> </li> </ul>



Policy categories	Broad policy objectives	MREP objectives
Environment and sustainability during construction and operation	<ul style="list-style-type: none"> <li>▪ Influence travel choices to encourage more sustainable travel (<i>MS D3</i>):               <ul style="list-style-type: none"> <li>▸ Implement a metropolitan parking policy.</li> <li>▸ Develop and implement a metropolitan-wide parking policy to encourage use of public transport centres and ensure a consistent approach across centres.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Avoid or mitigate adverse environmental and social impacts.</li> <li>▪ Conserve natural and cultural resources.</li> <li>▪ Integrate sustainability issues into project delivery.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Protect/enhance the physical and social environment.</li> <li>▪ Be consistent with principles of Ecologically Sustainable Development.</li> <li>▪ Be consistent with the Government's Greenhouse Strategies.</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ Meet or better NSW Treasury's fiscal policy objectives.</li> </ul>	
Economic and financial	<ul style="list-style-type: none"> <li>▪ Meet or better NSW Treasury's fiscal policy objectives.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Maximise economic efficiencies and benefit to cost ratios.</li> <li>▪ Facilitate economic growth.</li> <li>▪ Ensure financial sustainability.</li> <li>▪ Maximise asset utilisation.</li> <li>▪ Improve Government's cost recovery ratio.</li> </ul>

#### 1.4.2 SWRL objectives and desired outcomes

The key objectives for the SWRL are to:

- facilitate sustainable development in Edmondson Park, Leppington and the South West Growth Centre by providing for early transit oriented development
- provide a direct transport link to and from the South West region of Sydney, the 'global economic corridor' and key regional destinations (Liverpool)
- provide for the long-term stabling requirements for Sector 2 of the Metropolitan Rail network. (Sector 2 of the network refers to the Airport and East Hills Line, the Main South Line (via Granville), the Bankstown Line, and the Inner West Line.)
- provide congestion relief on the rail network by providing extra capacity on the existing Main South and East Hills Lines
- reduce growth in road network congestion in the South West region of Sydney.

The desired outcomes of the SWRL are to:

- provide direct rail services to the South West Growth Centre's projected population of 270,000 people
- provide competitive rail journey times in comparison to other modes between Leppington Town Centre and Central and to Liverpool and Parramatta.

## 1.5 Guide to approval requirements and the Environmental Assessment

### 1.5.1 What is Part 3A?

On 1 August 2005, the *Environmental Planning and Assessment Act 1979* was amended to introduce Part 3A (Major Infrastructure and Other Projects). Part 3A establishes an assessment and approval regime for ‘major infrastructure projects’ and other development of state or regional significance in NSW. Part 3A applies to development that is declared to be a Part 3A project by either a state environmental planning policy, or a Ministerial Order under Section 75B of the *Environmental Planning and Assessment Act 1979*. The SWRL was declared to be a project to which Part 3A applies by a Ministerial Order on 7 April 2006.

### 1.5.2 What is a Concept Plan?

A Concept Plan outlines the scope, development options and staging of a project for which a proponent is applying for concept approval under Part 3A. It incorporates a Draft Statement of Commitments that is based on the outcomes of an Environmental Assessment prepared in accordance with the Director General’s requirements. The latter outlines the standards, procedures, methods and protocols for identifying and managing the environmental impacts of the SWRL, including any commitments to further assessment and approval. This document comprises the Concept Plan and Environmental Assessment for the SWRL project. The SWRL Concept Plan is detailed in Part E of this document, while the remaining chapters make up the Environmental Assessment. A draft Statement of Commitments is included in Chapter 21. The assessment and approval process is described in detail in Chapter 3 of this document.

### 1.5.3 What is a concept approval?

Part 3A of the *Environmental Planning and Assessment Act 1979* establishes a process for ‘concept approval’ to be obtained for a Part 3A project. Generally speaking, the intention of a concept approval is to provide a proponent with a level of certainty in defining the key parameters of a Part 3A project, while simultaneously allowing the necessary flexibility to further refine aspects of the project as the design develops. Importantly, the concept approval process also enables community involvement earlier in the environmental assessment process, and for community views to be taken into account in the refinement of the project. Concept approvals are of particular relevance to large-scale, complex infrastructure projects (such as the SWRL) for which conceptual strategic planning work has already been undertaken and which require integration of land use and transport planning on a local and regional level.

Approval of the SWRL Concept Plan would establish the framework for more detailed development of the SWRL project.

### 1.5.4 What is TIDC applying for?

TIDC is seeking approval for the Concept Plan for the SWRL under s75O(1) of Part 3A of the *Environmental Planning and Assessment Act 1979*. The relevant provisions of Part 3A are discussed in more detail in Chapter 3. The SWRL, as described and assessed in this document, comprises two stages.

Stage A involves:

- commencement of early works (construction Stages 1 to 4) at Glenfield North Junction and Glenfield South Junction (this excludes the direct interface with the Glenfield Station upgrade works which are part of Stage B)
- establishment and use of construction worksites (including the establishment of access tracks) at Glenfield and the James Meehan Estate.

Stage A is at a fairly well advanced design stage; although some further environmental assessment is required to clarify the impacts of these works.

Stage B comprises the construction and operation of the remaining portions of the SWRL:

- the proposed rail lines and associated infrastructure within a defined 40 metre wide corridor between stations and 60 metres wide at the stations
- Leppington Station, Edmondson Station and the stabling facility west of Leppington Station
- the Glenfield Station upgrade works
- construction sites and ancillary facilities, including power supply, sectioning huts, signalling structures, access roads, and other infrastructure required for the operation and maintenance of rail services and infrastructure.

Stage B of the SWRL is at a less advanced design stage and further environmental assessment of aspects of this stage is needed.

A detailed description of Stage A and Stage B and proposed further environmental assessment is provided in Chapter 20.

## 1.6 Structure and content of this document

This document comprises the South West Rail Link Concept Plan and Environmental Assessment — Volume 1 (Main Volume). The structure and content of Volume 1 (this is document) summarised in Table 1-2.

**Table 1-2 Structure and content of this document**

Part	Chapter/Appendix	Description
Part A – Introduction and need	Chapter 1 - Introduction	Outlines the background to the project, the project proponent, location and objectives, and provides a guide to the approval requirements and the Environmental Assessment
	Chapter 2 – Context and need for project	Outlines the need for the project and the anticipated project benefits
	Chapter 3 – Statutory and planning context	Outlines the planning strategies, policies and legislation that apply to the project
	Chapter 4 – Community and stakeholder involvement	Outlines how the community and stakeholders have been and will be involved in the project development, assessment and construction phases; and summarises the issues raised by the community/stakeholders
	Chapter 5 – Existing and future environment	Outlines the existing biophysical and social environment along the proposed SWRL corridor alignment; and details how this environment is expected to change with planned future development in the South West Growth Centre and other areas within the region



<b>Part</b>	<b>Chapter/Appendix</b>	<b>Description</b>
Part B – Development of the SWRL project	Chapter 6 – Development of the SWRL project and alternatives considered	Explains how the SWRL project developed and the alternatives considered
Part C – The project	Chapter 7 – Physical description	Provides a description of the physical works that make up the SWRL project
	Chapter 8 – Construction and operational requirements	Details the overall proposed construction plan for the SWRL and how the SWRL would operate
Part D – Environmental assessment	Chapter 9 – Environmental risk analysis	Details the risk process by which the key environmental issues for assessment were determined
	Chapter 10 – Land use, property and infrastructure planning	Describes the potential impact of the SWRL concept on land use, property and infrastructure and outlines measures recommended to avoid remedy or mitigate those impacts
	Chapter 11 – Traffic, transport, parking and access	Describes the potential impact of the SWRL concept on traffic, transport, parking and access and outlines measures recommended to avoid remedy or mitigate those impacts
	Chapter 12 – Noise and vibration	Describes the potential impact of the SWRL concept on noise and vibration and outlines measures recommended to avoid remedy or mitigate those impacts
	Chapter 13 – Hydrology and surface water	Describes the potential impact of the SWRL concept on hydrology and surface water and outlines measures recommended to avoid remedy or mitigate those impacts
	Chapter 14 – Biodiversity	Describes the potential impact of the SWRL concept on flora and fauna and outlines measures recommended to avoid remedy or mitigate those impacts
	Chapter 15 – Heritage	Describes the potential impact of the SWRL concept on historic heritage and outlines measures recommended to avoid remedy or mitigate those impacts  Describes the approach undertaken to Aboriginal consultation, provides preliminary identification of cultural heritage values in the vicinity of the SWRL corridor, and describes the requirements for further assessment and management
	Chapter 16 – Visual	Describes the potential impact of the SWRL concept on the visual environment and outlines measures recommended to avoid remedy or mitigate those impacts
	Chapter 17 – Social impacts	Describes the potential impact of the SWRL concept on the social environment and outlines measures recommended to avoid remedy or mitigate those impacts
	Chapter 18 – Economic and business impacts	Describes the potential economic impact of the SWRL concept on local business and regional centres and outlines measures recommended to avoid remedy or mitigate those impacts
Chapter 19 – Other environmental issues	Describes the potential impact of the SWRL concept on other (non-key) environmental issues and outlines measures recommended to avoid remedy or mitigate those impacts	

Part	Chapter/Appendix	Description
Part E – The Concept Plan	Chapter 20 – Scope of the Concept Plan and approval	Describes the SWRL concept for which TIDC is seeking approval  Identifies what SWRL project elements TIDC considers may proceed without further environmental assessment  Identifies what further design and environmental assessment is proposed
	Chapter 21 – Draft Statement of Commitments	Outlines the standards, procedures, methods and protocols for identifying and managing the environmental impacts of the SWRL, including any commitments for further assessment and approval
Part F – Conclusions and next steps	Chapter 22 – Justification of the project	Outlines the SWRL justification for the project proceeding, considering with regard to the project objectives, the significance of the expected environmental impacts, consistency with the principles of ecologically sustainable development, the suitability of the corridor for location of the SWRL, the public interest and the consequences of not proceeding with the SWRL
	Chapter 23 – Conclusions and next steps	Outlines key conclusions of this document and details the next steps
Appendices	Appendix A – Environmental Assessment requirements	Provides a copy of the Director-General's requirements for the Environmental Assessment
	Appendix B – Checklist of issues to be addressed in the Environmental Assessment	Includes a check-list of the issues to be addressed in the Environmental Assessment and the relevant Sections of this document where these issues are covered
	Appendix C – Community and stakeholder consultation details	Includes a meeting register of community and stakeholder meetings undertaken during the Environmental Assessment preparation, feedback from government agencies and print-outs from the project stakeholder feedback database (Darzin)
	Appendix D – Visual assessment approach	Details the approach taken to assess impacts of the SWRL project on the visual environment
	Appendix E – SWRL Route Options Report	Includes a copy of TIDC's (2006) <i>South West Rail Link Route Options Report</i>

Volumes 2 and 3 of this document include a number of Technical Papers that support the Environmental Assessment. These Volumes contains specialist technical assessments/background reports which have been prepared for the purpose of undertaking an assessment of the potential impacts of the project in accordance with the Director-General's requirements. These specialist reports have been informed by the description of the project as set out in Part C of the Environmental Assessment.

The specialist reports have been used to inform the Environmental Assessment contained in Part D of this document. In particular, the mitigation and management measures suggested in the specialist reports have been taken into account in developing the recommended mitigation measures and further investigations for the project as a whole. Mitigation measures to be adopted as part of the SWRL would be subject to further assessment and design development.

The proponent's draft Statement of Commitments with respect to the Concept Plan for the project is set out in Chapter 21 of this document.

Volume 2 (Technical Papers) of the SWRL Concept Plan and Environmental Assessment includes the following Technical Papers:

- Technical Paper 1 – Traffic, Transport, Parking and Access
- Technical Paper 2 – Hydraulic Analysis
- Technical Paper 3 – Biodiversity
- Technical Paper 4 – Urban Design Analysis

Volume 3 (Technical Papers) of the SWRL Concept Plan and Environmental Assessment includes the following Technical Papers:

- Technical Paper 5 – Noise and Vibration
- Technical Paper 6 – Preliminary Assessment of Aboriginal Archaeological and Cultural Heritage Values
- Technical Paper 7 – Assessment of Historical Archaeological and Cultural Heritage Values
- Technical Paper 8 – Social Assessment.

