PART A
Introduction and need for the Proposal

1 Introduction

Chapter 1 provides an introduction to the Environmental Assessment by summarising the Proposal and its relationship to the Revesby Turnback Project, describing the approach to the assessment and the approval process, identifying the structure of the document and listing the key issues that are assessed in detail in later chapters.

1.1 The Proposal

The Kingsgrove to Revesby Quadruplication Project (the Proposal) is one of a series which constitute the Rail Clearways Programme and is part of the overall response of the NSW Government to issues of reliability and passenger growth on the metropolitan rail network. The Transport Infrastructure Development Corporation (TIDC) is responsible for delivering the Proposal on behalf of the NSW Government.

The Proposal forms part of the Kingsgrove to Revesby Upgrading under *State Environmental Planning Policy 63 – Major Transport Projects* (SEPP 63). It relates to Clearway 3, (Campbelltown Express) and Clearway 4, (Airport and South).

The Kingsgrove to Revesby Upgrading is being undertaken as two separate, but inter-related projects:

- The Revesby Turnback Project, which is currently under construction, scheduled for completion in 2008 (the turnback); and
- The Proposal, which is the subject of this Environmental Assessment and, if approved, is scheduled for completion in late 2010.

The Revesby Turnback Project was considered and determined by TIDC as the determining authority under Part 5 of the Act.

The main component of the turnback is a new facility where terminating trains layover before starting the next service. This requires realignment of existing track, construction of new track and crossovers and a new island platform. The turnback also includes a new pedestrian footbridge, installation of three new lifts and works to allow for the subsequent construction of the Proposal. These include a retaining wall and associated earthworks east of the station and a new double track rail bridge over The River Road.

The full benefits of Rail Clearway 3 will only be achieved with the completion of the Proposal when the separation of local and express services will occur between Revesby and the CBD. The Proposal, which is described and assessed in this document, considers the cumulative impacts of the two projects.

The existing East Hills Line between Kingsgrove and Revesby comprises two tracks. The corridor contains four tracks to the east of Kingsgrove as far as Wolli Creek and two tracks westward from Revesby to East Hills and Glenfield. A mix of local (all-station) services

operates on the East Hills Line between Wolli Creek (from the Airport Line) and East Hills Station where trains terminate and return to the Sydney CBD. Express services (limited stops) also operate on the line, mainly running between Campbelltown (or Macarthur) and the City Circle. Express services share the same tracks with the local services between East Hills and Kingsgrove, then use the four-track section to Wolli Creek. Some of the services operate via Sydenham to the CBD while others use the Airport Line.

The terminus for local services on the East Hills Line will be moved eastwards from East Hills to Revesby as part of the Revesby Turnback Project due for completion in 2008. This will allow a more reliable turnback function. However, the need for both express and local services to share the existing two-track section between Revesby and Kingsgrove will remain.

The Proposal involves adding two tracks to the East Hills Line between Kingsgrove and Revesby and a second centre rail turnback at Revesby with a twin island platform configuration. This would allow additional services to start and terminate at Revesby and provide separation from the express Campbelltown and Macarthur services. This would enhance network sectorisation and result in improved on time running reliability. The regional location of the Proposal is shown on **Figure 1.1.**

Reliability would be improved as delays to local services are not likely to affect express services and vice versa. There would also be scope to increase service frequency over the medium and long-term if necessary to meet future demand.

The key components of the Proposal are:

- construction of approximately 7.1 kilometres of Up Main rail tracks serving trains to the city, 7.7 kilometres of Down Main rail tracks serving trains from the city and approximately 600 metres of realigned track between Kingsgrove and Revesby;
- construction of track, crossover and turnouts at Revesby to connect to the current Revesby turnback;
- cutting and embankment formation widening, maintenance access, retaining walls, slope stabilisation, track drainage and culvert extensions;
- construction of noise barriers;
- Revesby Station works including extension of the footbridge (currently under construction as part of the Revesby Turnback Project, overhead concourse including booking office, station staff amenities and public toilet, lift, stairs, communications, lighting and power, security and fencing, Blamey Street realignment and landscape works and associated infrastructure and rail and station systems/services;

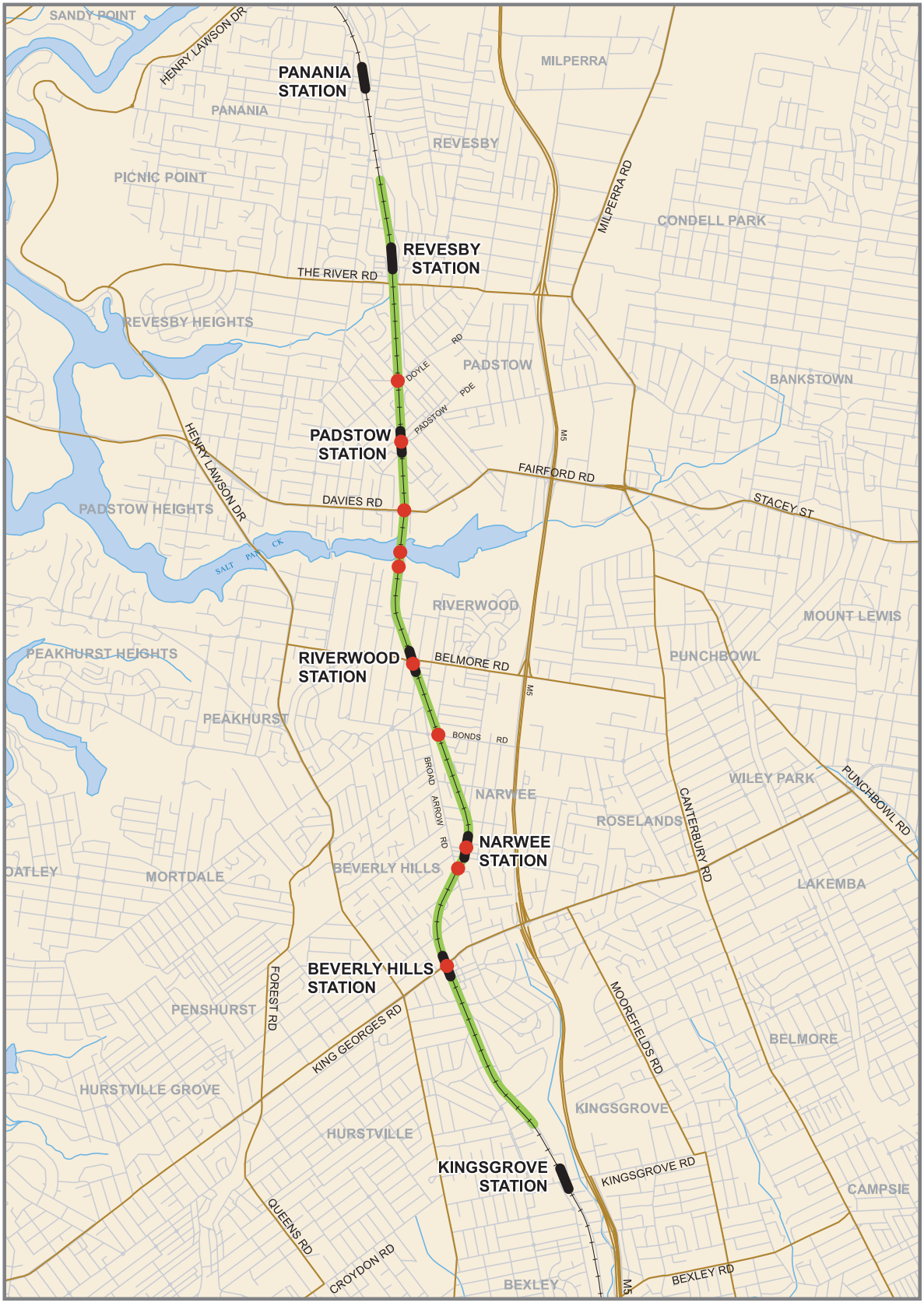

Figure 1.1 **Regional location**

- bridgeworks including:
  - four underbridges over two stormwater canals east of Beverly Hills Station
  - modifications to King Georges Road overbridge at Beverly Hills Station
  - two underbridges over Broad Arrow Road, Narwee
  - underbridge and lengthening of pedestrian underpass culvert at Narwee Station
  - two underbridges at Bonds Road, Riverwood
  - modifications to Belmore Road overbridge at Riverwood Station
  - underbridge over Webb Street, Riverwood
  - underbridge over Salt Pan Creek, Riverwood
  - modifications to Davies Road overbridge, Padstow
  - modifications to Memorial Drive overbridge, Padstow Station
  - modifications to Doyle Road overbridge, Padstow;
- replacement of the existing electrical switchyard at Revesby with a traction supply substation at Revesby;
- relocation of existing signalling infrastructure including signalling supplies and signal huts to suit new track and modifications to overhead wiring and signalling;
- construction of a new 11kV electrical supply system and the relocation of existing overhead high voltage power lines along the route between Kingsgrove and Revesby.
- replacement of the signal maintenance depot at Riverwood with a depot at East Hills or another suitable location;
- utilities adjustment and protection;
- protection of the existing ethane gas pipeline;
- commuter car parking adjustments at Beverly Hills, Narwee, Riverwood, Padstow and Revesby stations.
- RailCorp lease adjustments where required within and adjacent to the corridor and property acquisition at Narwee and at Blamey Street in Revesby;
- landscape works;
- temporary and ancillary works;
- demolition works; and
- all supporting rail systems.

The Proposal turnback lines and platforms have been designed to accommodate eight-car suburban trains. The East Hills Line is only used for freight trains during exceptional circumstances such as possession operations on other lines when maintenance may require short-term closure.

Revesby Station would be configured as two island platforms with an overhead concourse housing the booking office and staff facilities. Works at other stations would be limited to any modifications to achieve compliance with rail alignment changes.

More details of the scope of the Proposal are provided in **Part B-Description of the Proposal**.

The Proposal would be delivered by an alliance comprising TIDC, Leighton Contractors, Maunsell Australia, Sinclair Knight Merz (SKM), MVM Rail and Ansaldo (the Alliance). An alliance is a project delivery method in which the proponent, specialist contractors and their technical advisors come together to form an organisation focussed on realising the Proposal as effectively and efficiently as possible within clearly defined technical and financial parameters.

The Alliance would design and construct the Proposal, managing its various components in compliance with the standards, guidelines and commitments set out in the Environmental Assessment, any subsequent requirements of the approval conditions and all relevant legal obligations. The project, on completion, would be operated and maintained by RailCorp as part of the Sydney metropolitan rail network.

1.2 Environmental Assessment

1.2.1 Role of the Environmental Assessment

The environmental assessment process seeks to ensure that all relevant environmental matters are considered and that community engagement is undertaken during the development of the Proposal and the impact assessment. The process provides the opportunity for stakeholders to convey their views to the Department of Planning as the approval authority.

The Environmental Assessment quantifies and assesses potential adverse impacts and documents the benefits of the Proposal. It also outlines the type of environmental management measures available to reduce adverse impacts and discusses opportunities created by the Proposal that would result in an increase in benefits. The information in the Environmental Assessment also provides a basis for future monitoring of the environmental performance of the Proposal.

The Environmental Assessment of the Proposal must address:

- the environmental assessment requirements of the Director-General of the Department of Planning under Section 75F of the *Environmental Planning and Assessment Act 1979* (the Act) (see **Appendix A**); and
- any guidelines published in the NSW Government Gazette.

The Environmental Assessment has been prepared based on these requirements and a checklist is provided in **Appendix B** which indicates where these requirements are addressed in the Environmental Assessment**.**

The assessment also includes a draft Statement of Commitments (see **Appendix C**) identifying the various environmental management and mitigation measures considered necessary to manage potential environmental impacts. These would be incorporated in the Proposal.

1.2.2 Structure of the Environmental Assessment

The Director-General of the Department of Planning defined the key issues that must be considered in the Environmental Assessment. The assessment also has to satisfy the requirements of the Act to consider all potential environmental issues relating to the Proposal.

The Environmental Assessment is presented in two volumes. Volume One identifies and analyses the key issues based on the requirements provided by the Director-General, outcomes of the community consultation process and the results of the detailed studies. This analysis is supported by five technical papers in Volume Two providing detailed information on the background to the Proposal, assessment methods used and the results of the specialist studies.

Volume One includes the following parts:

- **Part A (Chapters 1 to 4)** provides an introduction to the Proposal and the Environmental Assessment, the statutory planning approval process applying to the Proposal, an overview of community and stakeholder consultation activities and the strategic context and need for the Proposal.

- **Part B (Chapters 5 to 10)** provides the approach to the design concept, a description of the Proposal, the likely construction method, the operation of the Proposal and an outline of the environmental management framework.

- **Part C (Chapters 11 to 17)** provides the impact assessment relating to issues of traffic; transport and access; noise and vibration; biophysical environment (geology and soils; contaminated/hazardous materials and waste; ground and surface water and biodiversity); social environment (Aboriginal heritage; built heritage; visual character; air quality and social factors; land use and property) and other environmental considerations including hazard and risk and energy and demand on resources.

  The consideration of each environmental issue is undertaken in three parts. The first describes the existing environment followed by an assessment of the anticipated impacts of the Proposal on the environment. The third part describes the mitigation and management measures that would be included in the Proposal to eliminate or reduce these impacts to acceptable levels.

- **Part D (Chapter 18)** provides the strategic and cumulative impact assessment, economic evaluation and the justification of the Proposal.

Volume Two includes the following technical papers:

- Technical Paper 1 – Noise and Vibration Assessment
- Technical Paper 2 – Flora and Fauna Assessment
- Technical Paper 3 – Visual impact Assessment and Urban Design Strategy
- Technical Paper 4 – Built Heritage

- Technical Paper 5 – Traffic, Transport, Parking and Access.
- Technical Paper 6 – Hydraulic Assessment of Salt Pan Creek Crossing.
- Technical Paper 7 – Pipeline Risk Assessment.

The issues considered in the Environmental Assessment are outlined in **Table 1.1.**

Table 1.1 Issues for the Environmental Assessment

Issue	Addressed in Environmental Assessment
Community and stakeholders Impacts on the community	Volume One, Chapters 3, 15 and 16
Traffic, transport and access Impacts on traffic movements during construction, station access, public transport interchange facilities, commuter parking and cyclist and pedestrian movements	Volume One, Chapter 12 Volume Two, Technical Paper 5
Noise and vibration Impact of noise and vibration during construction and operation	Volume One, Chapter 13 Volume Two, Technical Paper 1
Geology and soils Impacts on geology and soils, particularly during construction	Volume One, Chapter 14
Contamination and waste Impacts on contaminated materials and waste during construction and operation	Volume One, Chapter 14
Ground and surface water Impacts on ground and surface water during construction and operation	Volume One, Chapter 14
Biodiversity Impacts on species and vegetation and fauna communities of local, regional, state and national significance during construction and operation	Volume One, Chapter 14 Volume Two, Technical Paper 2
Indigenous heritage Impacts on Aboriginal cultural heritage	Volume One, Chapter 15
Built heritage Impacts on built cultural heritage during construction and operation	Volume One, Chapter 15
Visual character Impacts from the operation of the proposal including access, earthworks, additional track and noise barriers	Volume One, Chapter 15 Volume Two, Technical Paper 3
Air quality Impacts of construction operations on air quality	Volume One, Chapter 15
Social effects Impacts on the social environment during construction and operation	Volume One, Chapter 15

Issue	Addressed in Environmental Assessment
Land use and property Impacts on land use and private/public land acquisition during construction and operation	Volume One, Chapter 16
Hazard and risk Impacts of potential hazard and risk associated with construction adjacent to the high pressure ethane gas pipeline and storage and transport of dangerous goods	Volume One, Chapter 17 Volume Two, Technical Paper 6
Energy and demand on resources Impacts of potential energy and resource use during construction and operation	Volume One, Chapter 17
Economic effects Cost benefit analysis of the Proposal	Volume One, Chapter 18

The process undertaken to determine the key environmental issues associated with the Proposal is described in **Chapter 11**. Although T**able 1.1** lists all environmental issues, the key issues identified for the Proposal are:

- Traffic and transport impacts particularly during construction when local roads would need to accommodate delays and diversions and disruptions to bus routes and pedestrian and cyclist movements would be experienced;
- Car parking and access at stations including replacement of commuter parking spaces lost as a result of the Proposal;
- Noise and vibration affecting local residents and other sensitive receivers as a result of increased services on the East Hills Line during operation as well as construction noise impacts;
- Risks associated with construction activities undertaken in the proximity of the existing high pressure ethane gas pipeline within the rail corridor;
- Impacts on flora and fauna particularly in relation to disturbance to mangroves and aquatic biota in the Salt Pan Creek corridor; and
- Potential impacts resulting from the disturbance of contaminated land along the rail corridor during construction.

These issues are addressed in **Chapters 12** to **17**.

1.2.3 Public exhibition and comment

The Environmental Assessment will be placed on public exhibition for a minimum period of 30 days in accordance with the requirements of Section 75H of the Act. It will be available both as a CD-Rom and on the TIDC website. Public authorities, interested groups and organisations and the general community will be invited to make written submissions in response to the assessment.

As far as possible, submissions should include the following, where appropriate:

- The nature of the writer's or organisation's interest in the Proposal.
- Opinion of the Proposal.
- Suggestions for alternatives or improvements to the Proposal.
- Errors or omissions in the information presented in the Environmental Assessment.
- Additional factual information available (and its source).
- Any other aspects considered to be relevant to the Proposal and its determination.

Written submissions on the Environmental Assessment quoting Application Number 07_0008 should be sent to:

Director
Major Infrastructure Assessments
Department of Planning
GPO Box 39
Sydney NSW 2001

All submissions received by the Department of Planning are regarded as public documents and any information contained in them can be published in subsequent assessment documents. The Department may send copies of the submissions received on the Proposal to the proponent and/or other interested parties. If the information is not to be distributed, this should be clearly stated in the submission.

1.2.4 Preparation of a Submissions Report

At the conclusion of the exhibition of the Environmental Assessment, TIDC will review all submissions received by the Department of Planning and prepare a Submissions Report. The report will include consideration of:

- the Environmental Assessment;
- all submissions and responses to the issues raised;
- any new information concerning the Proposal;
- any modifications to the Proposal; and
- a summary of mitigation measures and other commitments made should the Proposal proceed.

1.2.5 Making a decision

Following examination of the Environmental Assessment and the Submissions Report, TIDC will decide whether to proceed with the Proposal (either in the form described in the Environmental Assessment or a modified version) or not to proceed at all.

If it is decided to proceed, TIDC will forward the Submissions Report, together with advice on any adopted modifications to the Proposal and draft Statement of Commitments to the Department of Planning and seek approval of the Minister for Planning. If significant changes are proposed, the Department of Planning may require TIDC to prepare a Preferred Project Report which may be made available to the public.

The Department of Planning will examine all reports submitted by TIDC and prepare the Director-General's report to the Minister. Acting on that report, the Minister for Planning will decide whether or not to approve the Proposal. The Minister may attach conditions to the approval or elect not to grant the approval.

The planning, design and decision process allows for input from public authorities and the community. Assessment of submissions made in response to the exhibition of the Environmental Assessment is an integral part of the assessment process and can result in modifications and improvements to the design of the Proposal in accordance with Part 3A of the Act. Should the Proposal be approved, the relevant agencies and the local community would continue to be involved in the detailed design of the Proposal and during construction.

1.2.6 Post-determination activities

Should the Proposal be approved, TIDC will make the following documents available for public inspection at selected locations:

- The approval of the NSW Minister for Planning.
- The Submissions Report.
- The Preferred Project Report, if required.
- The Assessment Report of the Director-General of the Department of Planning.

The following activities would also be undertaken:

- The local community would be notified of the decision to proceed with the Proposal by correspondence, newspaper notices and/or newsletters. This would include an indication of the anticipated timing of construction works and contact details for further information.
- Property owners affected by acquisition would be notified soon after the announcement of the decision to clarify the likely impacts on individual properties and the anticipated timing and staging of construction. Owners would be kept informed and consulted during the design and construction process.
- A detailed Environmental Management Plan for the construction phase of the Proposal would be prepared before major construction starts.

The Alliance partners have an environmental management system in place, prepared in accordance with the NSW Government *Environmental System Guidelines (1998)*. All approvals are usually subject to conditions. These conditions would be met either directly or through contractual arrangements with the contractor(s).