Chapter 13. Project justification and conclusion

13.1 Achieving the objectives

13.1.1 Project objectives

As noted in chapter 5, the project would meet the specified strategic objectives as follows:

» Enhance public transport along an established and growing corridor of travel demand by:
  – Directly linking the North West region and 'global arc' centres of Sydney, including the Sydney CBD;
  – Increasing access to the rail network across Sydney; and
  – Providing a spine for integrated public transport in North West Sydney.
» Provide local focus for employment and population growth patterns by:
  – Improving public transport access to centres, including Castle Hill, the Norwest Business Park, and Rouse Hill Regional Centre; and
  – Facilitating transit-oriented development and reducing urban sprawl.
» Improve public transport service quality by:
  – Reducing journey times;
  – Providing an 'all-day' service;
  – Increasing passenger comfort and service reliability;
  – Provide rail network congestion relief in the morning peak with a transfer of up to 3,000 passengers from the Richmond Line and a transfer of up to 8,000 passengers from the Western Line;
» Support positive changes to travel behaviour by:
  – Reducing car dependency; and
  – Providing opportunities to walk to rail stations.

13.1.2 Project need

The environmental assessment has demonstrated that the project meets the needs identified in chapter 5, including:

» Responding to the need for services and infrastructure caused by the rapid increase in the population of North West Sydney, and the projected future growth as a result of land releases and development of the North West Growth Centre;

» Responding to the need for access to employment in North West Sydney (particularly in centres such as Castle Hill and Norwest) and the global arc (areas such as Macquarie Park and the Sydney CBD), for residents of North West Sydney, and residents of other areas needing to access employment opportunities in North West Sydney;

» Improving the capacity of transport infrastructure in North West Sydney (public transport and roads) to meet the predicted population and employment growth;

» Reducing car dependency and the number and length of car journeys - residents of North West Sydney have the highest levels of car ownership per household in the Sydney metropolitan area;

» Reducing journey times and vehicle kilometres travelled - the patronage study undertaken by Parsons Brinkerhoff (2005) concluded that with the project, the average distances that people have to travel to a rail station in North West Sydney would decrease by approximately 50%, and the time that people take to reach their ultimate destination would reduce by up to 30 minutes. This would be an important factor in moderating the growth in vehicle kilometres in North West Sydney.

13.1.3 Government policy objectives

The project would support the Sydney Metropolitan Strategy by:

» Providing infrastructure that would assist in protecting and strengthening the role of economic centres and corridors;

» Providing effective public transport to existing development areas in North West Sydney;

» Providing a major public transport link to the Rouse Hill, Castle Hill and Norwest Business Park centres;

» Linking North West Sydney to major centres of employment within the global arc;

» Supporting land releases;

» Providing a link to health, education, recreation and cultural facilities; and

» Reducing car dependency and lowering vehicle kilometres travelled.

13.2 Sustainability

Clause 6 of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* outlines the requirements of an environmental assessment, including:

> *'The reasons justifying the carrying out of the development or activity in the manner proposed, having regard to biophysical, economic and social considerations, including the principles of ecologically sustainable development'*

The Regulation lists the principles of ecologically sustainable development as:

*a) the **precautionary principle**, namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.*

(b) ***inter-generational equity**, namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations.*

(c) ***conservation of biological diversity and ecological integrity**, namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration.*

(d) ***improved valuation, pricing and incentive mechanisms**, namely, that environmental factors should be included in the valuation of assets and services.*

The following provides an assessment of the project against the above criteria, and takes into account the findings of this environmental assessment.

13.2.1 Precautionary principle

The assessment of the potential impacts of the project is considered to be consistent with the precautionary principle. It is considered that the impact assessments presented within this environmental assessment are consistent with rigorous scientific and professional methodologies, and have been undertaken in collaboration with key stakeholders and relevant statutory and agency requirements.

As noted in chapters 3 and 9, a large number of specialist studies (including environmental investigations) have been undertaken to assess the various aspects of the project over the last eight years. The current concept plan has evolved over this time to reflect the findings of these studies.

Seeking a concept plan approval for the project is consistent with a precautionary approach in that an assessment of risk of environmental harm can be undertaken without postponing the project and associated environmental management investigations and measures.

13.2.2 Intergenerational equity

The project has identified no long-term impacts associated with the operation or construction of the proposed facility that would lead to the degradation of the environment. This, in concert with the proposed management and mitigation measures, would ensure that the potential for any long-term impacts are significantly decreased.

It is recognised that construction of large rail infrastructure such as the project, in a developed urban area like Sydney, would involve activities that have the potential to lead to some environmental and social disturbance. In particular, the main construction work site (at Balmoral Road) would remain operational for some time, and the project would result in the clearance of remnant vegetation. However, the potential for environmental and social disturbance as a result of the construction of the project should be balanced against the long-term social, environmental and economic benefits.

The project has been designed as far as practicable (incorporating features such as large tunnel sections) to ensure that the community would not be significantly disadvantaged over the long term, and that overall environmental and urban quality would be maintained. The project also provides advantages for future generations in both existing and new residential areas (including

the North West Growth Centre) in terms of access to public transport in an area that is currently poorly served by dedicated public transport facilities.

The recommended mitigation and management measures that form the statement of commitments for the project, together with the long-term social, environmental and economic benefits of improved public transport infrastructure, would ensure that the health, diversity and productivity of the local and regional environment is maintained for future generations.

13.2.3 Conservation of biological diversity and ecological integrity

The area in which the project would be located has been significantly modified as a result of urban development. Although there is the potential for some localised impacts as a result of the clearance of some areas of vegetation along the proposed alignment and at construction sites, overall biological diversity would not be impacted.

Studies conducted in conjunction with this environmental assessment have identified that there would be no significant impacts on threatened or endangered species as a result of the project. Mitigation measures, where identified to be beneficial to the environment and flora and fauna species, are recommended during both the construction and operation phase of the project to ensure adequate protection and conservation.

13.2.4 Improved valuation and pricing of environmental resources

This environmental assessment has identified the environmental and other consequences of the project and identified mitigation measures where appropriate to manage adverse impacts. The construction and operation of the project would be required to be in accordance with relevant legislation and the construction and operation environmental management plans.

Requirements imposed in terms of implementation of proposed management measures represent a cost to the proponent and any contractors. The implementation of these measures would also increase the capital and operating costs of the project, signifying that environmental costs have been appropriately valued as part of the impact assessment process.

Detailed design of the project would ensure that a minimal environmental footprint would be created by the project, ensuring that it is developed with an environmental objective and imperative in mind.

13.3 Suitability of the corridor

As described in chapter 6, a number of route alternatives were considered in developing and assessing the proposed concept plan. Numerous studies have been undertaken to define the most suitable horizontal and vertical alignment, and other components of the concept plan.

The corridor (as shown in Figures 11.1 to 11.6) has been informed by the planning and development of Sydney's north west, particularly the North West Growth Centre, Rouse Hill Regional Centre and Balmoral Road Release Area, and the requirement to provide transport to this growing population. The review and refinement of the project has been driven by the need to balance social, environmental, economic and engineering issues. The development of alternatives for the project also involved community consultation. Alternative options were

considered (or rejected) in response to issues raised during consultation with the local community, other State government departments, local government and other stakeholders.

The proposed corridor between the Northern Line and Rouse Hill is considered to be the most suitable, in the context of the range of operational, engineering and environmental issues considered.

13.4 The public interest

Public transport infrastructure plays a significant role in ensuring the sustainable functioning of large urban areas. By providing equitable access to employment, services and facilities, public transport contributes to quality of life and the social sustainability of the community it serves. The provision of public transport can reduce car dependence, which in turn has a positive impact on the environment and amenity of urban areas.

Efficient and effective transport infrastructure is also critical for economic development at local, state and regional levels. The Metropolitan Rail Expansion Program, of which the project forms part, is considered to be important to the future economic development of Sydney, and in particular, the centres in the global arc. The Metropolitan Strategy recognises the role that transport infrastructure such as the project plays in protecting and strengthening the role and functioning of Sydney's economic corridors and employment centres: 'The recent announcement regarding the new rail lines connecting the North West and South West, and across the harbour through the global economic corridor, are all about strengthening the role of centres as locations for economic activity and connecting the labour force with jobs.' (pg.106)

The project would be located in an area that is currently poorly served by dedicated public transport facilities. Residential and commercial development in North West Sydney will lead to significant increases in population and employment, with associated increases in travel demand. Whilst the project is mainly required to service established urban areas in North West Sydney, it would also service the transport needs of the future growth areas.

In the context of the above, the project is considered to be in the public interest.

13.5 Conclusion

This environmental assessment has considered the potential impacts of the concept plan for the proposed construction and operation of the North West Rail Link. The environmental assessment has been prepared by GHD on behalf of TIDC to assist the Minister for Planning in assessing the project.

The environmental assessment has been prepared in accordance with the provisions of Part 3A of the *Environmental Planning and Assessment Act 1979* and the requirements of the Director-General of the Department of Planning and issues raised by other statutory agencies.

It provides an assessment of the potential environmental impacts of the project, considering both the potential positive and negative impacts of the project, and recommends management and mitigation measures to protect the environment where required.

Overall, the project would:

» Improve access to employment and services for residents of North West Sydney, and other people needing to travel to North West Sydney;

» Improve the capacity and efficiency of the existing transport system, by relieving the pressure on the local and regional road network and other rail lines;

» Improve air quality by reducing vehicle kilometres travelled;

» Support the efficient functioning and further development of key economic centres and corridors; and

» Assist in realising the objectives of the Sydney Metropolitan Strategy.

The environmental assessment has examined a number of key issues surrounding the project, including the identification of a number of negative impacts. Potentially adverse environmental impacts would be largely confined to temporary disruption during the construction period. The main potential impacts requiring management during the construction period are:

» Noise-related impacts associated with construction activities;

» Visual impacts of construction activities, particularly on construction work sites;

» Temporary road closures and diversions;

» Temporary use of public land for construction work; and

» Management of surface water, run-off, erosion and groundwater.

These impacts would be mitigated through further consideration during the design development process, the selection of appropriate construction methodologies, and the implementation of the environmental management practices.

Further investigations would be also undertaken prior to seeking project approval and the commencement of construction. The results of these investigations would assist in further reducing the potential for significant adverse construction and operational impacts.

13.5.1 The next steps

TIDC is seeking approval from the Minister for Planning for the concept plan for constructing and operating the proposed North West Rail Link.

Subsequent steps in the process are as follows:

» Exhibition of the concept plan and environmental assessment for a minimum of 30 days and invitation for the community and stakeholders to make submissions;

» TIDC prepares a submissions report and, if required, a preferred project report and final statement of commitments;

» The Director-General of the Department of Planning provides an assessment report on the concept plan to the Minister for Planning, who then determines the concept plan and, if approved, sets conditions for further assessment and/or further approvals required.

Following concept approval (if received), TIDC would continue project development, including assessing the staged delivery of the project, further design work and any environmental assessments required. Tenders could then be sought for detailed design and construction of the project.

Consultation with the community and stakeholders would continue throughout the further assessment, design and construction phases.

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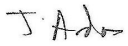
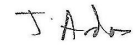
Document Status

Rev No.	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
	A Raleigh	J Ardas		J Ardas		7/11/06