

13. Justification

13.1 Need and benefits of the proposal

The Quakers Hill to Vineyard Duplication Project is an essential component of the development of the North West Growth Centre (NWGC) in providing efficient and reliable public transport for the expected increase in population associated with the planned development. The Project is needed to meet a range of strategic, operational and environmental objectives. As discussed in Section 5.2, the Proposal is a significant feature of the master plan for the NWGC, which aims to develop transit-oriented towns located on either side of the existing Richmond Branch Line. The Richmond Branch Line is strategically located in the centre of the NWGC and would provide an opportunity to support sustainable land release through the provision of additional rail services to the region.

Proceeding with the Quakers Hill to Vineyard Duplication would not preclude the development of the NWGC as the precinct plans released to date have been developed around the delivery of Project (GCC 2008a, 2008c, 2009a). Development within the Alex Avenue, Riverstone and Riverstone West precincts has been planned to integrate with components of this Project (refer Section 3.1.3), which will form a key element of the transportation network planned for these precincts (2008a, 2008c, 2009a).

The Project would create an opportunity for public transport to be more attractive to the community by providing more frequent rail services and allowing for the greater integration of other modes of public transport, through the creation of bus interchange facilities at the new Schofields and Vineyard stations. The provision of an attractive, integrated and accessible public transport link for existing and future residents in this area would help to reduce the already high reliance on private cars as the main mode of transport for journeys to and from the area and would thus assist in achieving Priority S6 of the State Plan (i.e. to increase the share of peak hour journeys on public transport).

The Project would also aid in achieving the appropriate levels of urban consolidation and commercial development around established and reliable transport nodes. In achieving these levels of urban consolidation, the objectives of the Metropolitan Strategy relating to the provision of housing choice could also be achieved.

Specifically, the Project is needed to:

- increase service frequency for the existing and future populations of the area (increased demand for rail services are expected as a result of predicted growth in patronage, substantial population increases as a result of the development of the NWGC, and a mode shift from private vehicles to rail transport resulting from increased transport prices)
- aid the Growth Centres Commission (GCC) to facilitate sustainable and integrated land release by improving the existing mass transit corridor early during the development of the NWGC, to serve the planned regional centre; thereby making higher density development within the region more attractive and viable
- improve accessibility at stations through design of easy access provisions
- provide for commuter car parking, kiss-and-ride facilities, and pedestrian/cycle access at new Schofields and Vineyard Stations

- improve the ability of operations to recover during disruptions through reducing the extent of single track sections on the Richmond Branch Line
- achieve the following objectives of the Rail Clearways Program:
 - improved service reliability on the Richmond Branch Line
 - additional peak hour train services
 - increased rail capacity of the Richmond Branch Line
 - reduced station congestion
 - reduced number of bottlenecks on the rail network
 - reduced service delays on other rail lines on the CityRail network
- achieve Priority S6 of the State Plan (i.e. to increase the share of peak hour journeys on public transport).

These needs have been the key drivers for the Project, and have informed the development of the Project objectives (refer Section 5.1). The consequences of not proceeding with the Project (i.e. the 'do nothing' option) are discussed in Section 5.3.

The Project is anticipated to provide the following key regional benefits:

- increase service frequency on the Richmond Branch Line for the existing and future populations of the NWGC
- improve accessibility to train stations through the development of bus interchange, car parking and taxi and kiss-and-ride facilities at Schofields and Vineyard stations
- improve access to existing and future employment, educational and cultural facilities
- reduce the increase in road congestion/pressure on state and regional roads (such as Garfield Road, Riverstone Parade and Railway Terrace) that is anticipated to occur as a result of the development of the NWGC (development of the NWGC will generate additional traffic on the road network that is expected to be in excess of any reductions in traffic provided by the Project)
- aid GCC to facilitate sustainable land release by improving the existing mass transit corridor early during the development of the NWGC, to serve the planned regional centre; thereby making higher density development within the region more attractive and viable
- reduce motor vehicle costs (fuel and operating costs) due to potentially less reliance on cars, particularly as fuel costs rise and private vehicle transport becomes increasingly more expensive
- reduce negative externalities associated with motor vehicle use, such as accidents, noise/air pollution, greenhouse gas emissions and energy consumption, due to the anticipated reduction in the mode share of car usage
- reduced net travel times for car, bus and rail commuters.

13.2 Achieving the objectives

The Project can be justified on the basis of its ability to meet the adopted project objectives (refer Section 5.1). These objectives, outlined in Section 5.1, were developed for the Project based on the objectives for the Rail Clearways Program, which aims to improve the capacity and reliability of the CityRail network and facilitate passenger growth on the Sydney metropolitan rail network (refer Section 1.1).

The specific objectives of the Quakers Hill to Vineyard Duplication comprise:

- improve service reliability by reducing the amount of single track running on the Richmond Branch Line (affecting services all the way to Berowra)
- increase the capacity for morning peak services from four (comprising two from Richmond and two from Quakers Hill) to up to eight trains per hour in the Up (city-bound) direction (two from Richmond and six from Vineyard), with an equivalent increase in the afternoon peak
- assist in catering for an increased patronage demand on the Richmond Branch Line as a result of future population growth within the NWGC
- provide greater operational flexibility and robustness.

Through undertaking the proposed works described in Chapter 6, the Quakers Hill to Vineyard Duplication would provide a significant improvement to the existing services on the Richmond Branch Line by increasing train frequency and reliability, thereby attracting increased patronage to rail transportation in the region. The increased rail capacity would also assist in catering for future increased patronage demand expected as a result of the development of the NWGC, and would also see interest from surrounding areas with less frequent rail services (e.g. Mulgrave). With the rising cost of fuel, the Project is also likely to provide a more economically feasible option for commuters currently travelling by private vehicle.

13.3 Overview of the adverse environmental, social and economic impacts

As summarised in Section 5.1, the Project is expected to have environmental, social and economic benefits for the North West region of Sydney as well as for the wider metropolitan area. Notwithstanding this, some adverse impacts are unavoidable due to the nature of the proposal. The key potential environmental, social and economic impacts of the Project comprise:

- *Permanent impacts on directly affected properties and land uses* – These would include the locations of the new Schofields and Vineyard stations and associated car parks and bus interchanges, the new Schofields Substation, the widened rail corridor and utility corridor (refer Section 8.1). These properties would be acquired (in full or in part) in accordance with the *Land Acquisition (Just Terms Compensation) Act 1991*. In the context of the proposed future development of the NWGC, this impact is not considered to be significant.
- *Construction phase impacts on adjacent land uses* – This would include noise and vibration amenity (refer Section 8.4), visual amenity (refer Section 9.1), social disruption (refer Section 8.3), traffic/transport amenity (refer Section 8.2) and business impacts (refer Section 8.3). These issues are considered to be manageable with the effective implementation of standard construction environmental management measures.
- *Construction phase impacts on local and regional traffic* – Impacts to traffic would be associated with heavy vehicle traffic, increased traffic on local roads, potential traffic diversions and full (Westminster Street overbridge only) and partial road closures (refer Section 8.2). These impacts are considered manageable with the effective implementation of standard mitigation measures.

- *Social impacts, including immediate impacts on residential amenity, community severance and concern over relocation/acquisition* — Overall, these socio-economic impacts (refer Section 8.3) would be manageable in the long-term as the area is developed and the new stations are integrated with the wider NWGC development.
- *Noise impacts associated with construction and operation of the Project* – Short-term impacts associated with the construction of the Project (refer Section 8.4) are considered manageable with the implementation of standard noise mitigation measures. Long-term impacts resulting from the operation of the Project would be mitigated. This could include a range of at-source, at-corridor and at receiver mitigation measures.
- *Direct and indirect impacts on non-Indigenous historic heritage items* — These impacts are considered to be manageable with the implementation of proposed management measures.
- *Impacts to threatened biodiversity listed under the Environment Protection and Biodiversity Conservation Act 1999* – the impacts to the Cumberland Plain Woodland and to *Pultenaea parviflora* are not considered significant (refer Section 8.6 and Technical Paper 5 in Volume 2). Impacts to the Shale Gravel Transition Forest would be minimised where possible.
- *Impacts to threatened biodiversity listed under the Threatened Species Conservation Act 1995* – all threatened biodiversity listed under the TSC Act (and its habitat) in the study area occur in certified areas. The heads of consideration (as detailed in the draft *Guidelines for Threatened Species Assessment*, DEC 2005) did not identify any significant impacts to threatened biodiversity likely to result from the Project. However, offsets determined in accordance with the biodiversity certification order for the *State Environmental Planning Policy (Sydney Regional Growth Centres 2006)* will be required if the Project is to improve or maintain biodiversity outcomes.
- *Impacts to water quality and hydrology* – impacts to water quality during construction would be avoided or minimised through the implementation of standard construction mitigation measures. Potential flooding impacts as a result of the construction of the new track would be avoided by design (track levels) and replacement or extension of some existing culverts.
- *Impacts to Indigenous heritage items* – the Project would directly impact seven aboriginal heritage items and ten areas of Potential Archaeological Deposit (PAD). The Project would impact on the full extent of PAD S2 and PAD V1. All other PADs would be partially impacted by the Project. The Project is likely to encounter undisturbed and/or partially disturbed archaeological remains within the areas of PAD identified as Q1, Q2, Q3, Q4, QVP, S1, S2, V1, V2 and V3 (refer Section 8.8 and Technical Paper 4 in Volume 2). These impacts would be managed through application of the proposed mitigation measures.

Overall, the benefits of the proposal are considered to outweigh the adverse impacts, considering the proposed implementation of management commitments, mitigation measures and safeguards by Transport Infrastructure Development Corporation (TIDC) during the further design, construction and operational stages.

13.4 Ecologically sustainable development

The NSW Government is committed to ensuring that its projects are undertaken in a manner that is consistent with the principles of ecologically sustainable development (ESD), and these principles are incorporated into its Project Management System.

The Project is an important factor in the development of sustainable communities in the NWGC. Efficient, reliable transport systems enable passengers to travel in more sustainable ways.

TIDC ensures that its projects are designed and assessed in accordance with the principles of ESD, including:

- the precautionary principle
- intergenerational equity
- conservation of biological diversity and ecological integrity
- improved valuation and pricing mechanisms.

Throughout the development of the Project, a broad range of sustainability principles and objectives have been considered. A detailed analysis of how ESD principles have been adopted into the design or will be considered during detailed design and construction is provided in Section 11.3. The ESD principles and objectives will be continuously assessed throughout each phase of the project as more information becomes available.

13.5 Public interest

The Project has been developed as part of the Rail Clearways Program, a series of upgrades to the existing metropolitan rail network designed to improve the capacity and reliability of the CityRail network and facilitate passenger growth on the Sydney metropolitan rail network (refer Section 1.1). The Project would benefit the public, specifically the existing and future residents within the NWGC, through providing increased rail services to employment, education, health and other services outside of the local area, and thereby would support the expected population and economic growth within north-western Sydney. The benefits of the Project to the public would grow as the new residential areas are developed and as the population increases.

While there would be localised impacts for some property owners and business operators within the vicinity of the Project, the provision of additional capacity and reliability of the CityRail network within a future high growth area would be of benefit to the wider north-western region of Sydney. The Project would aid GCC in achieving the planned levels of urban consolidation and commercial development specified in the *State Environmental Planning Policy (Sydney Region Growth Centres) 2006*, referred to as the Growth Centres SEPP (refer Section 2.3).

13.6 Consequences of not proceeding

The consequences of not proceeding with the Project (i.e. the 'do nothing' option) have been discussed in Section 5.3. In summary, the following consequences would be likely to occur should the Project not proceed:

- Richmond and City services using the track would remain limited. As the population within the NWGC increases over the next 25 years, these services would become unsustainable in terms of the capacity and frequency of services.
- Existing station infrastructure, such as platform width and parking, would not be able to handle increased demand as a result of the significant population growth expected within the NWGC.
- With the existing transport system unable to meet the needs of the growing population, the use of private cars would dominate increasingly more as the main mode of transport journeys to and from the NWGC. This would lead to a significant increase in traffic congestion and major impacts on accessibility as the NWGC develops.
- Public transport patronage demand could exceed service capacity and limit accessibility of another form of transport for many.
- The planned levels of urban consolidation and commercial development specified in the Growth Centres SEPP (refer Section 2.3) would not be met.
- There would be increased congestion pressure on key access roads, including Garfield Road, Riverstone Parade and Railway Terrace, as more commuters would choose to drive in response to increased congestion on the existing rail network.

Undoubtedly, not proceeding with the Project would avoid short to medium term localised amenity (i.e. noise and visual impacts), social and property impacts. In the long-term however, the consequences of not proceeding with the Project are likely to outweigh the short to medium term environmental, social and economic impacts associated with the construction and operation of the Project. The adverse consequences of not proceeding with the Project in the long-term would include:

- increased road network congestion and associated air pollution
- potentially unsustainable land release and development
- poor accessibility to educational, cultural and employment opportunities potentially resulting in stagnating and disadvantaged populations.

13.7 Conclusions and next steps

13.7.1 Overall conclusions

This Environmental Assessment has confirmed that the Project has a strong justification for proceeding, considering the significant regional transport, social and economic benefits the Project would produce in a key growth area of Sydney.

The Project forms part of the Rail Clearways Program, which aims to improve the capacity and reliability of the CityRail network and facilitate passenger growth on the Sydney metropolitan rail network (refer Section 1.1). The adverse consequences of not proceeding with the proposal would be significant in the long-term in terms of the capacity of the rail

network and road network congestion, poor accessibility and potentially unsustainable land release and development (refer Section 5.3).

A number of impact assessments, with a focus on the key issues identified in the Director-General's Environmental Assessment requirements (refer Appendix A), were prepared and documented in this Environmental Assessment.

The Project is expected to have significant environmental, social and economic benefits for the North West region of Sydney as well as the wider metropolitan area. Notwithstanding this, some adverse impacts, including some significant impacts, are unavoidable due to the nature of the Project. Noise, visual and social impacts are expected to reduce in the long-term as the area is developed and land use planning integrates with the Project. Other direct impacts of the Project, such as biodiversity and land use/property impacts, also need to be considered in the context of the wider development planned for the NWGC.

Various measures and commitments are recommended to avoid, remedy and manage the identified impacts associated with construction and operation of the Project, that would be incorporated in the construction and operational Environmental Management Plans, as the design for the Project is developed further. This is reflected in the Draft Statement of Commitments in Chapter 12 (refer Table 12-1).

Provided that the measures and commitments specified in Chapters 8 and 9 are applied during the construction and operational phases of the Project, the Quakers Hill to Vineyard Duplication could proceed.

13.7.2 Next steps

The next steps for the Project are as follows:

- exhibition of the Environmental Assessment for a minimum of 30 days and invitation for the community and stakeholders to make submissions
- preparation of a Submissions Report and final Statement of Commitments
- Director-General of the Department of Planning provides an Assessment Report on the Environmental Assessment to the Minister for Planning, who then makes a decision on the Project and, if approved, sets Conditions of Approval.