

3.3 Socio-economic environment

The Quakers Hill to Vineyard rail line traverses predominantly through the Blacktown LGA (refer Figure 2-3). The northern end of the Project is located within the Hawkesbury LGA (refer Figure 2-3). The only work proposed within the Hawkesbury LGA is the upgrading of the existing substation at Mulgrave; however, through the provision of improved services and reliability, the Project is likely to have a positive impact on residents within this LGA who live in the vicinity of Vineyard Station.

'Primary communities' are defined as communities directly affected by a project. For the purposes of this assessment, primary communities were assumed to be within 500 metres of the Quakers Hill to Vineyard rail corridor. 'Secondary communities' are defined as communities located between 500 metres and 2.5 kilometres from the Quakers Hill to Vineyard rail corridor.

The existing socio-economic environment of the Blacktown and Hawkesbury LGAs, including the primary and secondary communities that surround the corridor, and key social services and infrastructure, are profiled below. This information is based on Australian Bureau of Statistics (ABS) 2006 Census Data and the *Blacktown Social Plan* (Blacktown City Council 2007a).

The socio-economic impacts associated with the Project are discussed in Section 8.3.

3.3.1 Regional characteristics

The North West region showed one of the largest population increases in metropolitan Sydney between 1991 and 2004, with a growth rate of 2.5% (Transport and Population Data Centre 2006). This rate of population growth is expected to continue in the North West region over the next 25 years.

The North West region of Sydney has one of the highest rates of private vehicle ownership and usage in Sydney. The Department of Planning's (2007) *North West Draft Subregional Strategy* states that 25% of travel in the North West region is for work-related trips. In 2006, 60% of commuters from the North West region recorded the use of a motor vehicle as their sole means of transport to work (2006 Census Data, North Western Sydney Statistical Region). Social and recreational trips within the North West region represent 20% of travel in the area, which is the lowest in the Sydney metropolitan subregions (NSW Department of Planning 2007), while passenger-related trips (such as dropping children at school) represent 21% of all trips made on an average workday, which is notably higher than the Sydney average of 17% (NSW Department of Planning 2007).

3.3.2 LGA characteristics

Blacktown LGA

The Blacktown LGA is characterised by a mixture of established suburbs and new development areas, with a range of residential, commercial and industrial land uses. Large-scale urban development and the development of new estate areas have led to the establishment of 47 suburbs in the Blacktown LGA. The Blacktown LGA consists of some bushland and undeveloped areas in the western part of the LGA; however, it is, overall, a densely populated area.

In 2006, the total population of the Blacktown LGA was 271,710, increasing from 232,455 in 1996. This marks a growth rate that is significantly higher than the overall Sydney growth rate over the same period. The Blacktown LGA currently has the highest population of any LGA in NSW and the third highest in Australia. According to the 2006 Census, 24.6% of residents in the Blacktown LGA are aged less than 15 years, compared to 19.5% of the Sydney Statistical Division, which indicates a high proportion of young families. While the majority of residents in the Blacktown LGA are born in Australia, a significant proportion of residents come from a non-English speaking background — the main non-English languages spoken at home are Arabic, Tagalog (Filipino) and Chinese. Employment rates in the LGA increased slightly from 2001 to 2006, attributable to the steady growth in population and the influx of young families. Blacktown is identified as a 'major centre' in the Sydney Metropolitan Strategy.

The major facilities in the Blacktown LGA include:

- the Schofield Aerodrome Defence site (in the Schofields-Colebee area)
- radio transmission services (in Shanes Park)
- open space (parks and reserves)
- leisure activities (sporting facilities, shopping areas, Eastern Creek International Raceway and Parklea Markets)
- industrial purposes (industrial estates and business parks)
- government facilities (sewage treatment plant, waste services depot and Parklea Prison)
- health and education services (including Blacktown and Mount Druitt hospitals, the University of Western Sydney and the Western Sydney Institute of TAFE).

Hawkesbury LGA

The Hawkesbury LGA borders the northern end of the Project area. It is largely rural with a mixture of established suburbs and new residential areas. High population growth in the North West region has seen development increase and open rural land increasingly subdivided (Hawkesbury City Council 2008). However, the LGA still comprises a significant rural landscape, which forms a large part of its community character. The major features of the area relate predominantly to open space and outdoor activities (including gardens, parks and reserves), and educational facilities (including a campus of the University of Western Sydney and schools). According to the 2006 Census, the Hawkesbury LGA had a total population of 60,561, a significant portion of which is under 20 years of age. A drop in unemployment rates from 2001 to 2006, coupled with a very high increase in family income, indicates an increase in socio-economic status in the LGA over this period.

3.3.3 Existing social environment

Demographic data from the Project area was obtained from the ABS 2006 Census. Data was not available for each individual area; Schofields was combined with Rouse Hill, and Riverstone and Vineyard were combined. All three centres are contained (Vineyard only partially) within the Blacktown LGA. There is a significant difference in size between the three towns, with Quakers Hill being the largest residential centre. With a total population of 25,057, Quakers Hill is a larger centre than either Schofields-Rouse Hill (4,212) or Riverstone-Vineyard (6,204).

Unemployment in these three centres is below the average unemployment for the greater Blacktown city area, which is about 6.9%. Quakers Hill, Schofields and Riverstone/Vineyard had unemployment levels of 4.7%, 3.4% and 6.2% respectively.

The predominant type of housing within the area is a one family household living in homes they either own or are purchasing. Home ownership increases stability within a community, with a generally positive effect on social cohesion and family health.

Primary communities

Four primary communities are located along the Quakers Hill to Vineyard section of the Richmond Branch Line, which are centred on the four rail stations within the Project area: Quakers Hill, Schofields, Riverstone and Vineyard. These communities are described below.

Quakers Hill

Quakers Hill is an established suburb that is predominantly characterised by residential land use. The suburb also contains a number of open space/recreational and special use areas (i.e. schools, retirement village and community services) with a commercial centre around Quakers Hill Station on both sides of the rail corridor (refer Figure 3-1). The Richmond Branch Line is located within the centre of Quakers Hill, with access across the rail corridor provided via Quakers Hill Parkway, Quakers Hill pedestrian level crossing and the unpaved pedestrian overbridge at Quakers Hill Station.

Quakers Hill functions as a community centre for the surrounding, less developed suburbs such as Schofields. Quakers Hill town centre provides a number of community services, including educational and childcare facilities (such as the Nirimba Education Precinct), community hall, Police Station and commercial premises (such as local shops). The key community services within 500 metres of the rail corridor are shown in Figure 3-1.

Schofields

Schofields is an established suburb that is predominantly characterised by rural-residential land use, with a distinct residential centre clustered around Schofields Station (refer Figure 3-1). The suburb also contains a number of community services and special land uses, including a rural fire station, primary school and doctor's surgery, as well as a number of commercial premises detailed in Section 3.3.5.

The Richmond Branch Line is located within the centre of Schofields, with vehicle and pedestrian access across the rail corridor provided via Westminster Street Bridge. Pedestrian access across the rail corridor is also provided via a pedestrian level crossing at Schofields Station.

Community services in Schofields are predominantly focused within the town centre, with most located within 500 metres of Schofields Station. Key community services within 500 metres of the rail corridor are shown in Figure 3-1. However, the majority of community services for Schofields are provided in the larger town centres of Quakers Hill and Riverstone.

RailCorp conducted a survey of rail commuters at Schofields Station on Tuesday 14 August 2007, and Wednesday 2 July and Thursday 3 July 2008 to determine typical commuter patterns at this station. Table 3-13 shows the number of commuters entering and exiting Schofields Station over a given time period. This data shows that the majority of commuters use Schofields Station during the morning and evening peak periods (6 am to 9.30 am and 3 pm to 6.30 pm respectively).

The 2008 survey included interviews with a sample of rail commuters to determine the nature of commuter activity, including frequency of use of the station by rail commuters. Table 3-14 shows that of the 140 respondents, 66% travelled by train four or more days per week, and 24% travelled by train one to three days per week.

Of the respondents interviewed, more than half were travelling to and from work. Travel to educational institutions and for shopping purposes were the other main reasons for travel (refer Table 3-15).

Table 3-13 Commuters entering and exiting Schofields Station

Time period	2007 ¹		2008 ²	
	Entry	Exit	Entry	Exit
6 am to 9.30 am	399	22	415	27
9.30 am to 3 pm	85	73	90	69
3 pm to 6.30 pm	38	306	55	322
6.30 pm to 11 pm	2	59	2	109
TOTAL	524	460	562	527

Notes: 1: The survey was undertaken on Tuesday 14 August 2007.
2: The survey was undertaken on Wednesday 2 July 2008.

Table 3-14 Frequency of rail travel

Travel frequency	2008 ¹
Less than 1 day a month	5.0%
1 to 3 days a month	5.0%
1 to 3 days a week	23.6%
4 to 7 days a week	66.4%
TOTAL	100.0%

Notes: 1: The survey was undertaken on Wednesday 2 July 2008.

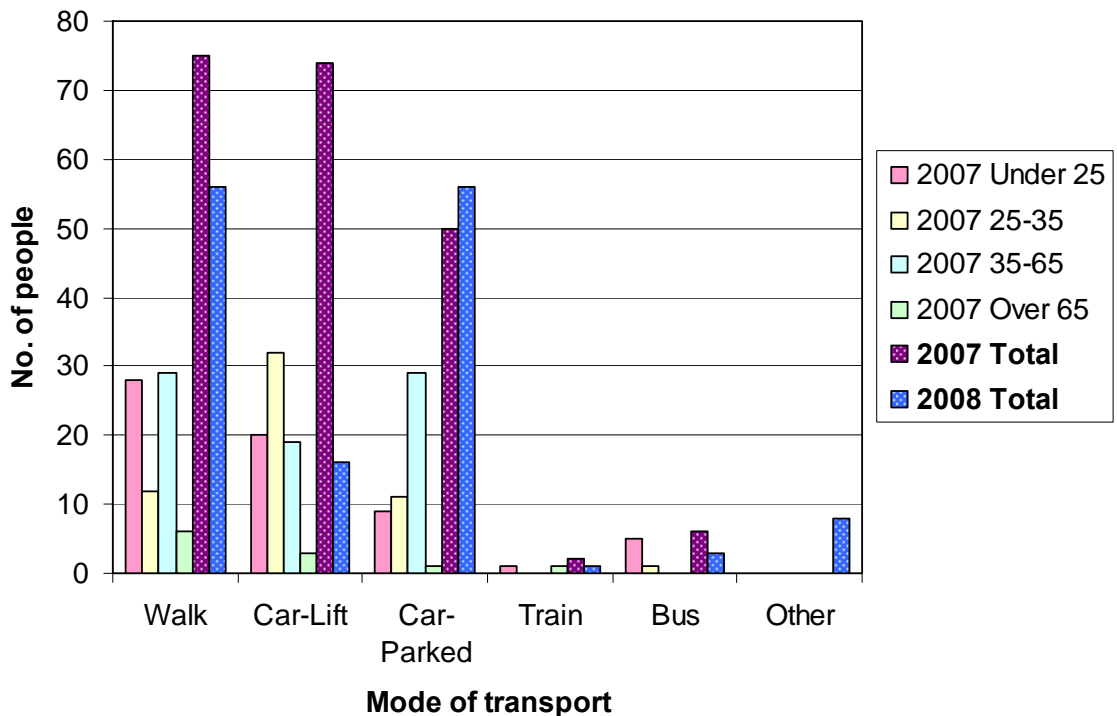
Table 3-15 Purpose for travel

Purpose for travel	2007 ¹	2008 ²
Education	19.3%	10.0%
Other	17.9%	19.3%
Shopping	9.7%	10.0%
Work	53.1%	60.7%
TOTAL	100.0%	100.0%

Notes: 1: The survey was undertaken on Tuesday 14 August 2007.
2: The survey was undertaken on Wednesday 2 July 2008.

Figure 3-13 shows a breakdown of commuters based on age and mode of transport to the station from RailCorp's 2008 survey. Walking and kiss-and-ride were the most common modes of transport used to get to and from Schofields Station. Of the 11 people aged over 65 years (approximately 8% of the total) that were interviewed as part of the survey, six walked to the station. The results of the survey indicate that very few commuters currently access the station via bus.

Commuters were also interviewed regarding their place of origin of travel. Of the 104 respondents (2007 survey) and 56 respondents (2008 survey) that walked to Schofields Station, the majority came from Advance Street and Bridge Street. Overall, the main origins for those walking to the station were all within Schofields and were: Advance Street, Bridge Street, Station Street, Carman Street, Hunt Street, Argowan Road, Grange Avenue, Westminster Street and St Albans Road. All of these streets (except for the northern end of St Albans Road and Westminster Street, and the southern end of Grange Avenue) are within 800 metres of the existing Schofields Station. The average distance walked to the station (as provided by respondents of the 2008 survey) was 561 metres.



Source: RailCorp commuter survey (2007 and 2008)

Note: 2008 data was not able to be broken down into age groups as this data was not provided in the RailCorp commuter survey.

Figure 3-13 Mode of transport to and from Schofields Station

Riverstone

Riverstone is an established suburb that functions as a community centre for the surrounding, less developed suburbs of Schofields and Vineyard. The suburb comprises a mix of residential, commercial, rural-residential and industrial land uses, with a distinct residential area extending along the eastern side of the rail corridor between Riverstone Road and Hobart Street (refer Figure 3-1). Riverstone town centre provides a number of community services, including educational and childcare facilities, community centres and facilities (such as scout halls, library and churches), emergency services (Police and Fire stations) and clubs (including the Riverstone Bowling and Recreation Club). Riverstone town centre also contains a distinct commercial centre on the eastern side of Riverstone Station, which serves both Riverstone and smaller surrounding suburbs, such as Schofields and Vineyard. Key community services within 500 metres of the rail corridor are shown in Figure 3-1.

The Richmond Branch Line is located within the centre of Riverstone, with access across the rail corridor provided via the Garfield Road level crossing. Access to the 'Meatworks' site is provided via a level crossing located approximately 450 metres north of Riverstone Station.

Vineyard

Vineyard is a largely undeveloped suburb comprising predominantly rural-residential land. The suburb also contains a significant amount of public utility infrastructure close to the rail corridor, including the Riverstone Sewage Treatment Plant and a number of high voltage transmission lines that cross the rail corridor south of Vineyard Station. The Richmond Branch Line is located within the centre of Vineyard, with vehicle and pedestrian access across the rail corridor provided via the Bandon Road level crossing.

Vineyard contains a limited number of community services, including Vineyard Children's Early Learning Centre and the Tadpole Swim School. Essential community services for the Vineyard community are provided at the Riverstone town centre.

Secondary communities

Secondary communities associated with the Project area are broadly defined as those greater than 500 metres from the four rail stations. They are profiled briefly in Table 3-16.

Table 3-16 Secondary community profiles

Community	LGA	Profile¹
Wider Quakers Hill area	Blacktown	Characterised by largely low density housing, but with a higher level of medium density housing when compared to the Blacktown LGA. Older, established suburb with a high number of two parent families with children and high socio-economic advantage. Community facilities are spread throughout the suburb, with the local shopping centre, and several schools and reserves over 1 kilometre from the station.
Wider Schofields area	Blacktown	Predominantly low density, established residential dwellings and community facilities around the existing rail corridor. The area is characterised by high labour force participation and very low unemployment. A large number of individuals and households have a medium to high range income.

Community	LGA	Profile ¹
Wider Riverstone/ Vineyard area	Blacktown and Hawkesbury	Characterised by low density housing mainly located in rural and semi-rural areas. These areas have higher than average unemployment and high level of the labour force working in blue collar professions. Community facilities and sensitive receptors, such as schools and museums tend to be located within 1 kilometre of the stations. Riverstone and Riverstone West are among the first release areas for the NWGC and are currently under development.

Note: 1: Low density = detached dwellings, Medium density = attached dwellings (e.g. townhouses) and low-rise apartment buildings, High density = high-rise apartment buildings

3.3.4 Future social environment

The development of the NWGC will see approximately 70,000 new homes being built within the next 30 years (refer Section 3.1.3). Riverstone and Riverstone West have been identified as first release precincts. Specifically, Riverstone is expected to accommodate approximately 8,900 new homes (up to 24,000 residences) and Riverstone West (the former Riverstone Meatworks site) has been identified for industrial/employment development. The development of these areas will result in a large influx of additional residents from a range of cultural backgrounds. The addition of these new residents is likely to change the social demographics of the region.

3.3.5 Existing economic profile

Economic and business indicators in North West Sydney

The region of North West Sydney that comprises the LGAs of Baulkham Hills, Blacktown, Blue Mountains, Hawkesbury and Penrith is a fast growing area that has made substantial economic progress in recent decades. Three key economic indicators highlight the economic progress that this region has made prior to the proposed development of the NWGC, as follows:

- The *gross regional product (GRP)* of greater western Sydney, which includes North West Sydney, was estimated at \$71.5 billion in 2004-05 (GWS 2006). This is significant, considering that greater western Sydney's GRP accounts for 40% of Sydney's, and 26% of the State's, total GRP.
- *Incomes* in greater western Sydney are among the highest in NSW and across other Australian states. With the exception of Sydney, greater western Sydney has the second highest weekly individual and household income, ahead of the Hunter and Illawarra in NSW, and Melbourne, South East Queensland and North Adelaide (ABS 2001 Census cited in Greater Western Sydney Economic Development Board 2006).
- *Employment* in the North West region comprises the third highest proportion of jobs in Sydney regions (refer Table 3-17). The North West region also has one of the highest percentage rates of jobs taken by its own residents. That is, 78% of all jobs in the North West region are undertaken by the local population, implying that a large proportion of local and regional economic activity is contained in the North West region.

Table 3-17 Distribution of jobs and workforce by region

	Number of jobs (000's)	Number of jobs %	Total workforce (000's)	Total workforce %	% jobs in the sub-region taken by its residents	% of workforce that live and work within the sub-region
Sydney City	345	20.5%	59	3.3%	10.1%	58.9%
East	112	6.6%	130	7.2%	45.5%	39.1%
South	159	9.5%	284	15.8%	68.6%	38.5%
Inner West	84	5.0%	108	6.0%	33.8%	26.2%
Inner North	198	11.7%	145	8.0%	32.8%	44.8%
North	68	4.0%	118	6.6%	56.0%	32.2%
North East	71	4.2%	112	6.2%	78.9%	49.9%
West Central	264	15.7%	246	13.6%	40.9%	44.0%
North West	203	12.1%	326	18.1%	78.2%	48.8%
South West	102	6.1%	164	9.1%	70.8%	44.1%
Central Coast	78	4.6%	110	6.1%	90.8%	64.3%
Sydney SD ¹	1,684	100%	1802	100%	96.7%	90.3%

Source: Transport and Population Data Centre Trans Figures (2006); ABS (2001).

Note: 1: SD = Statistical Division.

Businesses in the vicinity of the Quakers Hill to Vineyard rail corridor

The following assessment of businesses in the vicinity of the Project is based on site visits and desktop assessment.

Quakers Hill

Quakers Hill town centre is a moderately-sized commercial centre containing a number of small shops and services, including a bakery, real estate agent, small shopping centre, medical centre and restaurants/take away shops. The main shopping street is Douglas Road, with some smaller shops and the Quakers Inn located along Railway Drive/Nirimba Drive. The only commercial premises on the eastern side of the rail corridor in proximity to Quakers Hill Station are the Police Station, and the pre-school and childcare centre (refer Figure 3-1).

Schofields

The suburb of Schofields is centred around Schofields Station. There are no commercial premises on the western side of the rail corridor in Schofields. Seven shops are located directly opposite the station on the eastern side of Railway Terrace. These shops are shown in Figure 3-14 and comprise the following premises:

- The Naked Grill take away
- Schofields General Store
- 3D Paint and Colour hardware store
- Schofields Newsagency
- Simply Bakery
- Schofields Pharmacy

- Scissor Scene hairdressers
- Harry's Liquor
- Schofields Medical Surgery (also a community facility listed below).

There are two community facilities within Schofields village:

- Schofields Medical Surgery, located opposite the station (also a commercial premises listed above)
- St. Joseph Catholic Church, on Grange Street approximately 400 metres from the station.

The commuter survey conducted by RailCorp on Thursday 3 July 2008 provided an indication of the number of commuters who used the local shops on their trip to and/or from the station. The survey was conducted between 6 am and 8.30 pm, during which time 492 people were observed exiting the shops. Of these people, 50 travelled from the shops to the station and 12 travelled from the station to the shops. This data indicates that, on that day, up to 13% of patrons of the Schofields village shops were also rail commuters, and 87% of patrons that used the shops were not doing so on the way to or from the station. The data suggests that as a whole, the shops primarily service a local population and are only partially reliant on commuter trade. However, the survey does not indicate which shops were frequented by rail commuters. It is likely that commuter trade belongs primarily to the bakery, newsagent, pharmacy and general store, and less likely to the other shops that are associated less with day-to-day retail.

The closest larger commercial centre is Riverstone, approximately 2.5 kilometres to the north-west and easily accessible via road (along Railway Terrace) or train.



Figure 3-14 Businesses located in Schofields village

Riverstone

Riverstone is a busy commercial centre for the local area. The majority of commercial premises are located on the eastern side of the rail corridor and the main shopping street is Garfield Road East. Commercial premises include a florist, café, real estate agent, hamburger shop and hairdressers (refer Figure 3-15). A Franklins supermarket is located on Market Street, near Riverstone Station.

The Riverstone Sportsman Hotel and a veterinary hospital are located on the western side of the rail corridor.

The industrial area of Riverstone is located north of Riverstone Station, primarily between Hobart Street and Victoria Street on the eastern side of Riverstone Parade, and on the western side of Riverstone Parade between Church Street and Victoria Street (this area is known as the Meatworks industrial estate).

Riverstone town centre serves as a moderately-sized commercial centre for the surrounding suburbs, including Schofields and Vineyard, and also plays a large role in commercial trade associated with the industrial area and passing heavy vehicle trade.



Figure 3-15 Businesses located in the Riverstone Town Centre

Vineyard

The Vineyard Children's Early Learning Centre and the Tadpoles Swim School (refer Figure 3-16) are located approximately 250 and 500 metres from Vineyard Station respectively. These are the only businesses located within 500 metres of Vineyard Station.



Figure 3-16 Businesses located within the vicinity of Vineyard Station

3.3.6 Future economic environment

The development of the NWGC will result in significant changes to the current economic environment within the region. A number of areas within the growth centre would be zoned for industrial and commercial development, including the Riverstone West precinct (the former Riverstone Meatworks site). In addition, Rouse Hill is currently being developed as a regional commercial centre, and the Norwest Boulevard is a major business park. The completion these new commercial/industrial zones would result in significant economic changes within the region.

3.4 Noise and vibration

The existing noise environment adjacent to the Quakers Hill to Vineyard section of the Richmond Branch Line varies along the rail corridor with a range of commercial, industrial, suburban and rural land uses surrounding the Project area (refer Section 3.1.1). Transport-related noise (both road and rail) is the predominant noise source in the Project area, with the Richmond Branch Line located at the centre of the Quakers Hill, Schofields and Riverstone town centres, and a number of key roads (including Quakers Hill Parkway, Riverstone Parade, Railway Terrace and Garfield Road) traversing the Project area.