



Chapter 12.0 - Socio-Economic Impact Assessment

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12.0 Socio-economic Assessment

12.1 Overview

Social impact assessment predicts the potential changes to social conditions that may occur as a result of a particular project, program or policy, enabling DMR to understand in advance the potential consequences on the affected population, or community. Understanding the range of social impacts that may occur allows for risk management, planning to mitigate any negative impacts and the capacity to engender community support for the project, which will positively affect its success.

This chapter assesses the likely socio-economic impacts that the KBP may have and identifies potential mitigation measures that should be implemented to reduce those adverse impacts.

12.2 Approach and Methodology

This chapter is based upon extensive desktop review together with a number of field visits to the area with the aim of identifying potential socio-economic impacts and recommending mitigation measures should the KBP proceed. Extensive stakeholder and community consultation is being undertaken by the DMR as part of the planning phase of the KBP. Key findings from the consultation undertaken to date have been used to help inform and uncover some of the likely issues, opportunities and impacts associated with the construction and operation of the KBP, as discussed in this chapter.

12.2.1 Socio-economic Environment and Impact Assessment

Background information was gathered about the land use of the area, overview of the development history, nature and location of the area's various community groups and social infrastructure facilities, and access to the area by private vehicle, public transport or active transport.

The ABS 2006 Census and other related data was reviewed to describe the basic local community structure and community profile including population structure, household income, dwelling structure, tenure and mobility. Information about the structure of employment and local industry was gained from other ABS surveys. Field visits were undertaken to confirm findings of the desktop assessment and to identify the character and amenity of the area. This work provided a baseline for describing the existing socio-economic environment.

This options development stage has proposed two alternative design options for both the Centenary Motorway interchange and the Moggill Road intersection. Although the connectivity issues may have impacts on the community, those impacts will not be significant in the level of study presented here.

The proposed alignment of the KBP was assessed to determine likely impacts upon the existing socio-economic environment with respect to changes to:

- access to and from residential areas, community facilities(including child care, churches, community halls, parks and schools) and shopping, retail and other businesses;
- loss of community facilities or reduced function of community facilities;
- the character and amenity of the area;
- loss of privacy;
- beneficial and adverse impacts on existing businesses within the study area;
- the potential effects on real property prices;
- transport economic outcomes;
- bus routes; and
- community severance.

12.3 Study Area

The KBP is situated in the southern part of Kenmore, within a preserved corridor extending from the Centenary Motorway, Fig Tree Pocket to Moggill Road, Pinjarra Hills and is approximately three

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kilometres long. A 500 metre band of land either side of the current centreline of the KBP was used to identify the study area for this assessment. This has been chosen on the basis of those properties which are likely to be directly affected by the KBP being developed in their vicinity.

The corridor boundary chosen for the socio-economic assessment is artificial and does not relate to any functional purpose for the suburb other than for the purpose of identifying those households that are likely to be directly affected by the KBP. The boundary does not follow any Census Collection District (CCD) boundaries and consequently whole CCDs which contain land within the 500 metre distance have been used.

The areas surrounding the start and finish of the KBP, that is, where it joins Centenary Motorway to the east and Moggill Road to the west are also likely to be impacted. This impact assessment is not able to readily assess the impacts of the eastern connection as there are a number of design options for the connection with the Centenary Motorway as well as other major road works being planned for the motorway itself. The western connection is subject to two design options which are less complex than the eastern connection options. As a result it is possible to provide an assessment of social impacts and mitigation measures in this western locality.

12.4 Existing Environment

Kenmore is located approximately 10 kms from the Brisbane CBD and is part of the western suburbs of Brisbane. Moggill Road is the main arterial road servicing Kenmore and the suburbs beyond including Pinjarra Hills, Brookfield, Pullenvale, Bellbowrie, Moggill, Anstead, Karana Downs and Mt Crosby. Kenmore itself is predominately a single dwelling residential community which first developed as a suburb from the 1950s. Brookfield and Pullenvale are semi rural suburbs whilst Bellbowrie and Moggill are residential/rural suburbs respectively. Moggill previously consisted primarily as farmland and has only recently commenced development as a residential suburb.

Current access into and out of Kenmore and the suburbs beyond is via the Centenary Motorway and Moggill Road. Much of Kenmore's community facilities, shopping facilities and business are located along Moggill Road. Kenmore has several primary schools, both State and private, and a high school. Apart from home based employment, employment opportunities within Kenmore are limited to those associated with the mixed shopping/commercial and local services. Several major employment nodes are external to but in close proximity to Kenmore, namely, Indooroopilly, Toowong/ Milton, Sumner Park and Brisbane CBD.

In terms of recreation facilities, Kenmore has a large number of parks and playing fields scattered throughout the suburb and has ready access to walking tracks around Mt. Coot-tha, boating ramps on the Brisbane River and equestrian facilities in Kenmore, Fig Tree Pocket and Brookfield.

12.5 Demographic Profile

The study area has a population of 4,828 people (ASG 2006). The median age of the population is 39 years as compared with a Local Government Area (LGA) average of 34 years. Figure 12.1 summarises key social indicators for the study area benchmarked against the Brisbane Local Government Area (LGA).

Within the study area there are 972 persons under 14 years of age and 759 who are 65 years or older. This comprises 20% and 16% of the population respectively. The Brisbane LGA is 18.1% under 14 years of age and 11.8% over 65 years of age respectively. Bearing in mind that the study area is quite small, it is reasonable to suggest that the area exhibits a slight bias to an older community in comparison to Brisbane LGA as a whole.

The median household income for the study area in 2006 was \$1,528 per week with the median family income being \$1696. This compares to the Brisbane LGA of \$1,157 per week median household income and a median family income of \$1403 per week.

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The study area is comprised of approximately 2,700 dwellings of which 5 (less than 1%) only are not single dwellings. In contrast, the Brisbane LGA has approximately 27.2% of the housing stock that are not single dwellings.

The study area has high rates of volunteering in community organisations being 29% compared to the Brisbane LGA of 19%. Rates of volunteering are an indicator of the sense of community which an area may have as participation in community activities promotes a sense of belonging to a community and contributes to the building of the community.

In general, by comparison to the Brisbane LGA, the study area community can be described as:

- slightly older;
- affluent with higher incomes;
- higher levels of families (either couples or sole parents) with children;
- higher levels of home ownership and owner occupiers;
- extremely high levels of single dwellings housing stock;
- higher levels of private vehicle commuting to and from work than use of public transport or active transport;
- having a similar ethnic background;
- longer periods of residence in the same dwelling; and
- high levels of volunteering indicating a strong sense of community.

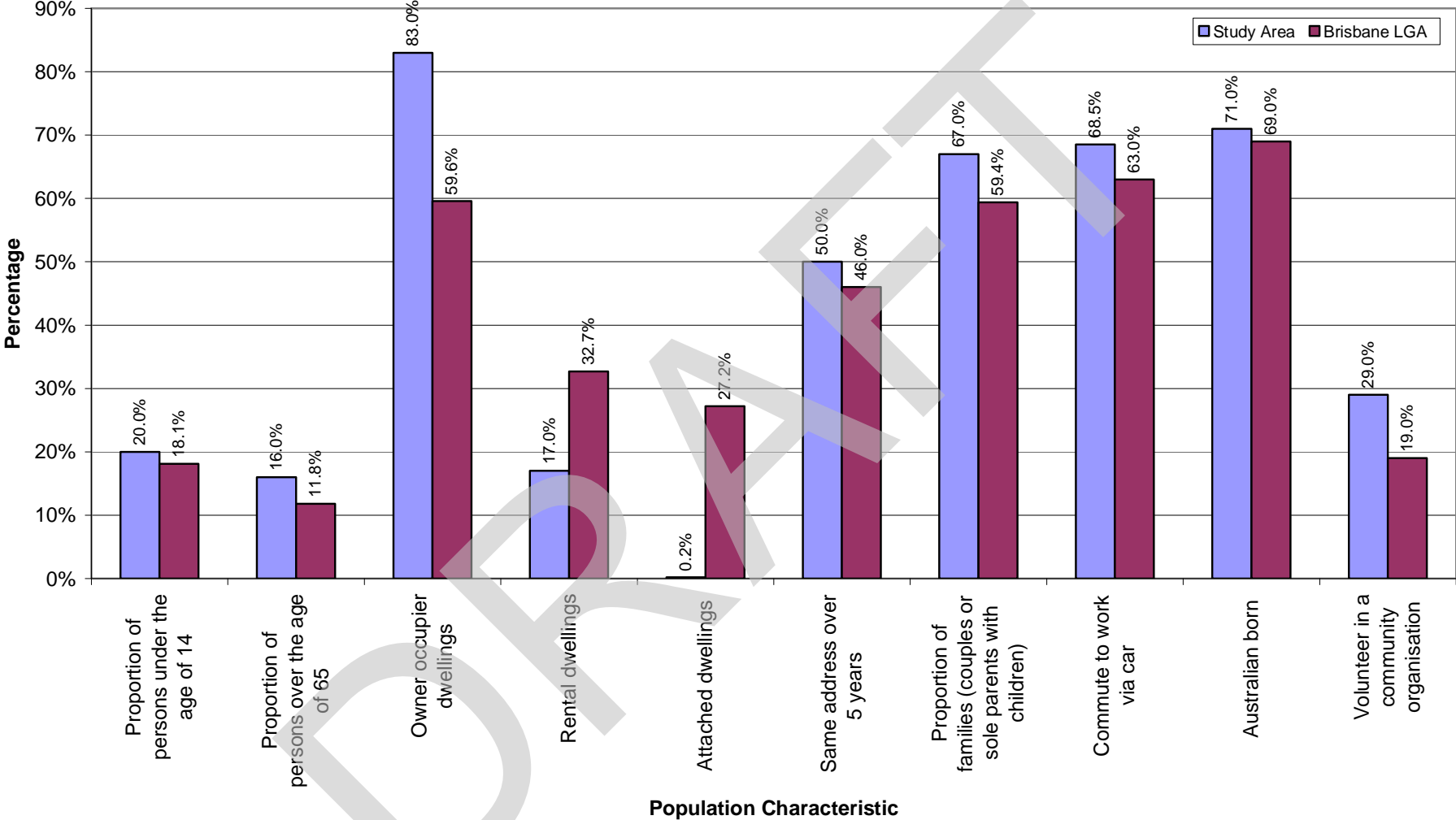


Figure 12.1: Population Characteristic Comparison

12.6 Community Character and Amenity

The study area is generally a residential area developed in the 1960s and 1970s, as represented in Figure 12.2. The area has subsequently been progressively subdivided into residential lots.



Figure 12.2: Single residential dwellings

There are pockets of larger lot residential development found along the southern side of Kersley Road, either side of Kenmore between Sunset Road and the Centenary Motorway and around Yarawa Street and Scenic Road. Other than an ABC Child Care Centre located on Kersley Road, these larger lot areas are residential in character with extensive areas of private open space and vegetation around each house. From field visits, it was noted that Yarawa Street includes land used for a pony club and horse paddocks which also provides views to Moggill Creek and adjoining land. This area has a semirural amenity and the Pony Club facilities do not involve extensive buildings or other structures.

The area has a number of parks (Figure 12.3), some of which are informal open space and local parks whilst sports fields are found at Cubberla Creek Reserve, Kingfisher Park and Yarawa Riding Club area. The parks provide recreation areas for local residents and provide district level sporting facilities for the locality. Kenmore Churches Soccer Club in Kingfisher Park, Gem Road and Yarawa Pony Club, Yarawa Street are likely to draw visitors from outside the locality to the area for sports events generally at weekends. Rafting Ground Reserve is a major recreation reserve with picnic grounds and play equipment situated on Moggill Road, Pullenvale. It is situated near the KBP connection with Moggill Road.



Figure 12.3: Cliveden Park

Other non-residential land uses in the area include Kenmore South Primary School, the ABC Child Care Centre mentioned above and a small convenience shopping centre at the corner of Kenmore

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and Kersley Road. These provide services which support and complement the surrounding residential area.

The preserved corridor itself appears as open space through the study area which is either at a similar level to adjoining properties or set slightly below adjoining properties on its northern side (Figure 12.4). Numerous residences directly adjoin the corridor. Given the green appearance of the corridor it provides additional open space/dog off leash area in this locality.



Figure 12.4: Section of the KBP Corridor

The character of the area is of an established suburb, which has residential amenity, a family area with quiet streets and parkland serviced by a local school and child care centre and neighbourhood shops. Other than Kenmore Road, the local road network is set up for local traffic and does not support through traffic and this is a major contributor to the quiet ambience of the area. The large residential lots with a semi rural feeling further contribute to this quiet ambience.

12.6.1 Property Values

There are approximately 2,700 properties that lie within 500 metres of the KBP. Data on property values of the study area and neighbouring communities have been obtained using the last sale price from commercial data.

This information source was used to provide an estimate of the current market price of properties. The results are provided by suburb and LGA.

Table 12.1 and Figure 12.5 show that house prices in Kenmore have risen at a lower rate than house prices for the rest of Brisbane over the period 1994 to 2008. There are a range of possible explanations for the apparently weaker growth of Kenmore compared to the rest of Brisbane LGA. These include the differences in the range and types of homes being sold in Brisbane. However, most likely, the slower rate of growth reflects changes in the Brisbane market and a certain amount of 'catch-up' to the price of housing in Kenmore rather than any loss of amenity in the local area that has resulted in a weaker growth in home prices.

Table 12.1: Median House Prices in Kenmore and Brisbane 1994 to 2008

Year	Kenmore	Brisbane LGA	Kenmore price as a percentage of Brisbane price
1994	\$160,750	\$133,000	121%
1995	\$165,000	\$136,900	121%
1996	\$160,000	\$133,000	120%
1997	\$166,700	\$140,000	119%

Year	Kenmore	Brisbane LGA	Kenmore price as a percentage of Brisbane price
1998	\$175,375	\$146,900	119%
1999	\$184,250	\$152,000	121%
2000	\$175,000	\$162,500	108%
2001	\$195,000	\$177,000	110%
2002	\$245,000	\$225,000	109%
2003	\$320,000	\$285,000	112%
2004	\$380,000	\$350,000	109%
2005	\$376,500	\$357,000	105%
2006	\$400,000	\$377,000	106%
2007	\$456,500	\$433,000	105%
2008	\$515,000	\$500,000	103%

(Property Data Solutions 2008)

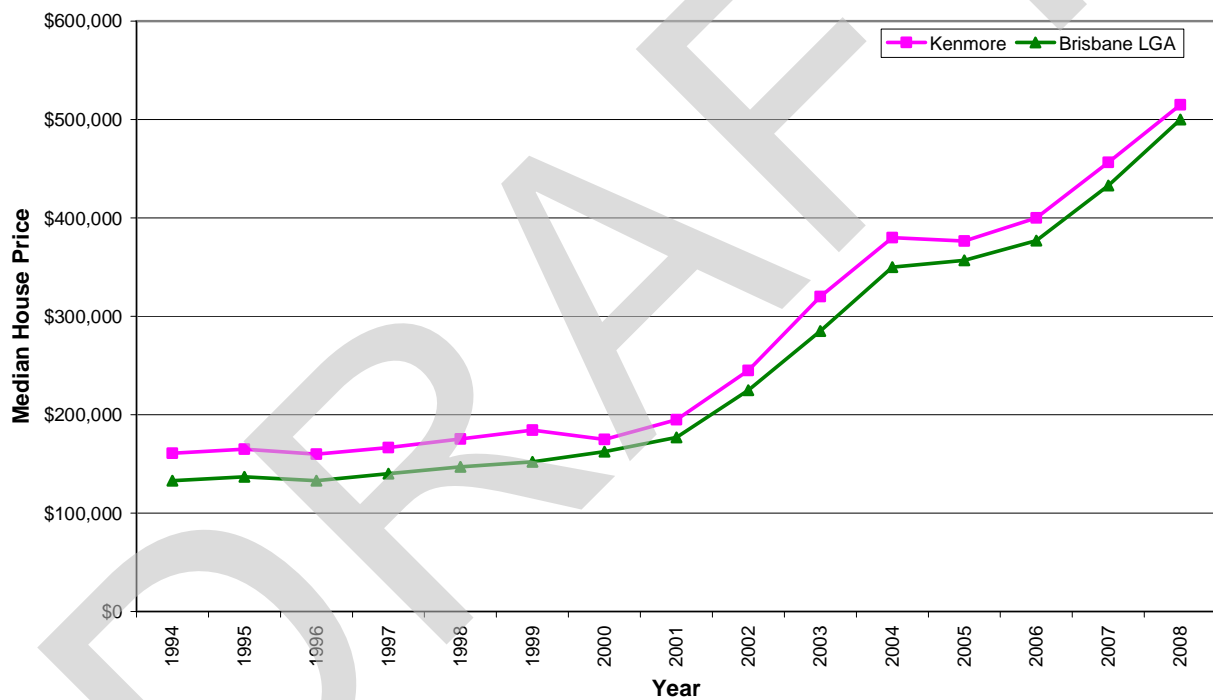


Figure 12.5: Kenmore-Brisbane LGA House Price Comparison (1994 – 2008)

The small amount of commercial land and the absence of industrial land in Kenmore makes it difficult to review commercial and industrial land prices in the area.

12.7 Social Infrastructure and Services

The study area is part of the Kenmore suburb and as such does not have a specific identity separate from Kenmore other than for the purposes of this study. Social infrastructure which services the study area is provided in Kenmore and the adjacent suburbs of Fig Tree Pocket, Chapel Hill, Pullenvale and Brookfield. Residents of the study area are likely to be concerned about any reduction in access (whether vehicular or other) to these various social infrastructure facilities that may arise as a result of the KBP.

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Kenmore South Primary School and the ABC Child Care Centre, both found on Kersley Road, are the only social infrastructure located within the study area. Kingfisher Park is home to the Kenmore Churches Soccer Club and contains a small amenity building.

Figure 12.6 identifies the location and type of facility in the area. Facilities by type are discussed below.

12.7.1 Early Childhood Education and Care

There are 11 child care centres, kindergarten/ preschools in Kenmore and adjacent suburbs. There are 317 children under the age of four within the study corridor who potentially may attend one of these early childhood centres. These centres are listed in Appendix 12-A.

12.7.2 Education

There are four state primary schools in the locality – Fig Tree Pocket, Chapel Hill, Kenmore South and Kenmore primary schools. There are three non State schools- Brisbane Independent School, Pullenvale, Montessori , Fig Tree Pocket and Our Lady of the Rosary Catholic Primary school at the corner of Moggill and Kenmore Road. Whilst the State schools and the Catholic school are likely to service local communities, Montessori and the Brisbane Independent School are likely to not only service local communities but also a broader community who have interests in that particular form of education. There are 518 primary school aged children in the study corridor, many of whom are likely to attend one of these schools.

Kenmore State High School is the only high school in Kenmore and the adjacent suburbs. There are 317 high school aged children within the study corridor, some of whom may attend the local high school.

Kenmore Christian Theological College provides tertiary education for the Christian ministry. This college is likely to draw attendees from a much broader community than Kenmore as it provides specialist education services.

12.7.3 Health

There are no hospitals located in Kenmore or adjacent suburbs. There are several medical centres which service Kenmore and adjacent suburbs and these are predominately situated along Moggill Road.

12.7.4 Emergency Services

An Ambulance station is situated at the corner of Moggill Road and Boblynne Street. A fire station is situated in Cedarleigh Road. Police services are provided from the Indooroopilly Police Station.

12.7.5 Churches

Kenmore and the adjacent suburbs are served by a number of churches including Anglican, Assemblies of God, Baptist, Catholic, Brookfield Centre for Christian Spirituality, Church of Christ, and Uniting.

12.7.6 Other Community Facilities

Indooroopilly provides library services and other BCC customer service facilities. There is also the Kenmore Churches Soccer Club based at Kingfisher Park. Yarrowa Pony Club is located on part of the preserved KBP corridor to the east of Moggill Creek. Sporting facilities for other sports are located in various locations outside of the study corridor.

12.8 Access, Movement and Mobility

The study area is accessed by vehicle by the Centenary Motorway via Kenmore Road, by Moggill Road via Kenmore Road or Marshall Lane/Kersley Road. Bikeways in the area are located in the parks system of Cubberla Creek Reserve and the area is serviced by a number of bus routes including 430, 431, 432, 433, and 446, all of which are BCC bus services. Routes 431 and 433 both use Gem Road and are within the study area. These access, bikeway and bus routes are shown in Figure 12.7.

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Kenmore Road and Fig Tree Pocket Road provide bridged access across Centenary Motorway to Fig Tree Pocket.

Other connector streets within the study area are Gem Road, Twilight and Marland Street. Gem Road and Marshall Lane, (outside the study area) have long stretches of straight alignment which run across ridges and through gullies.

According to the 2006 ABS Census Data, over 60% of local residents aged 15 years and over that were employed, drove to work or were passengers. Most destinations are located outside the study area other than the ABC Child Care Centre and Kenmore South State School, both on Kersley Road.

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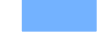
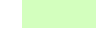
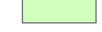













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Date - 13 May 2009



Legend

-  Centenary Motorway
-  Kenmore Bypass
-  Moggill Road
-  River/creek
-  Park and Garden
-  Sporting Ground
-  Golf Course
-  Fire Station
-  Ambulance Station
-  Police Station
-  Shopping Centre
-  Post Office
-  Primary School
-  High School
-  State School
-  Hospital
-  Church
-  Other Business
-  Clubs

Data sources:
Roads, railway, rivers etc - Copyright 2006, MapData Sciences
PTY LTD, PSMA

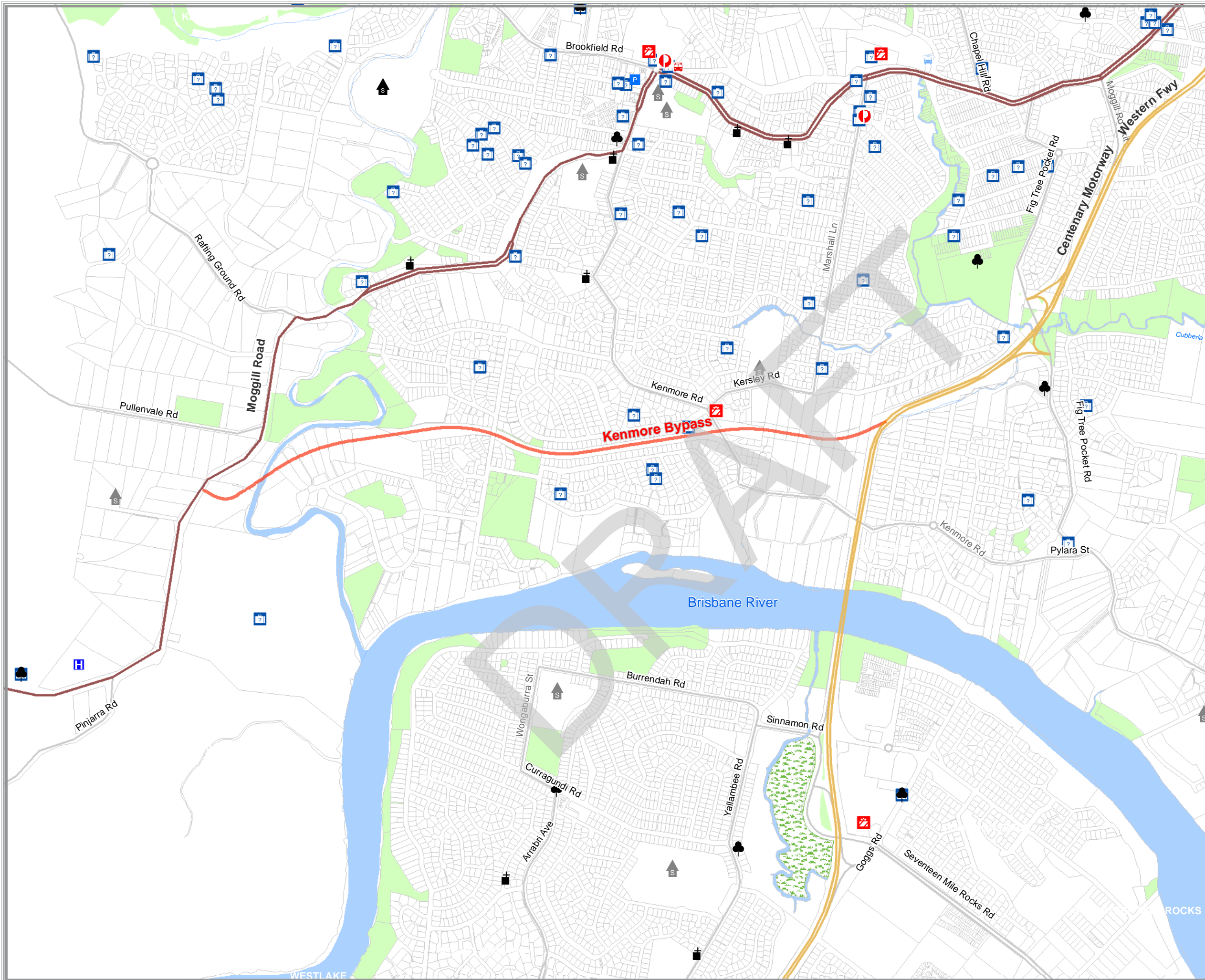
Aerial Imagery:
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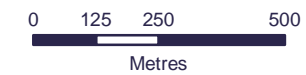
Air Quality Information provided by ENSR Australia,
Brisbane for the Kenmore Bypass Environmental Study.

**KENMORE BYPASS
SOCIO-ECONOMIC**

Local Facilities

Figure 12.6





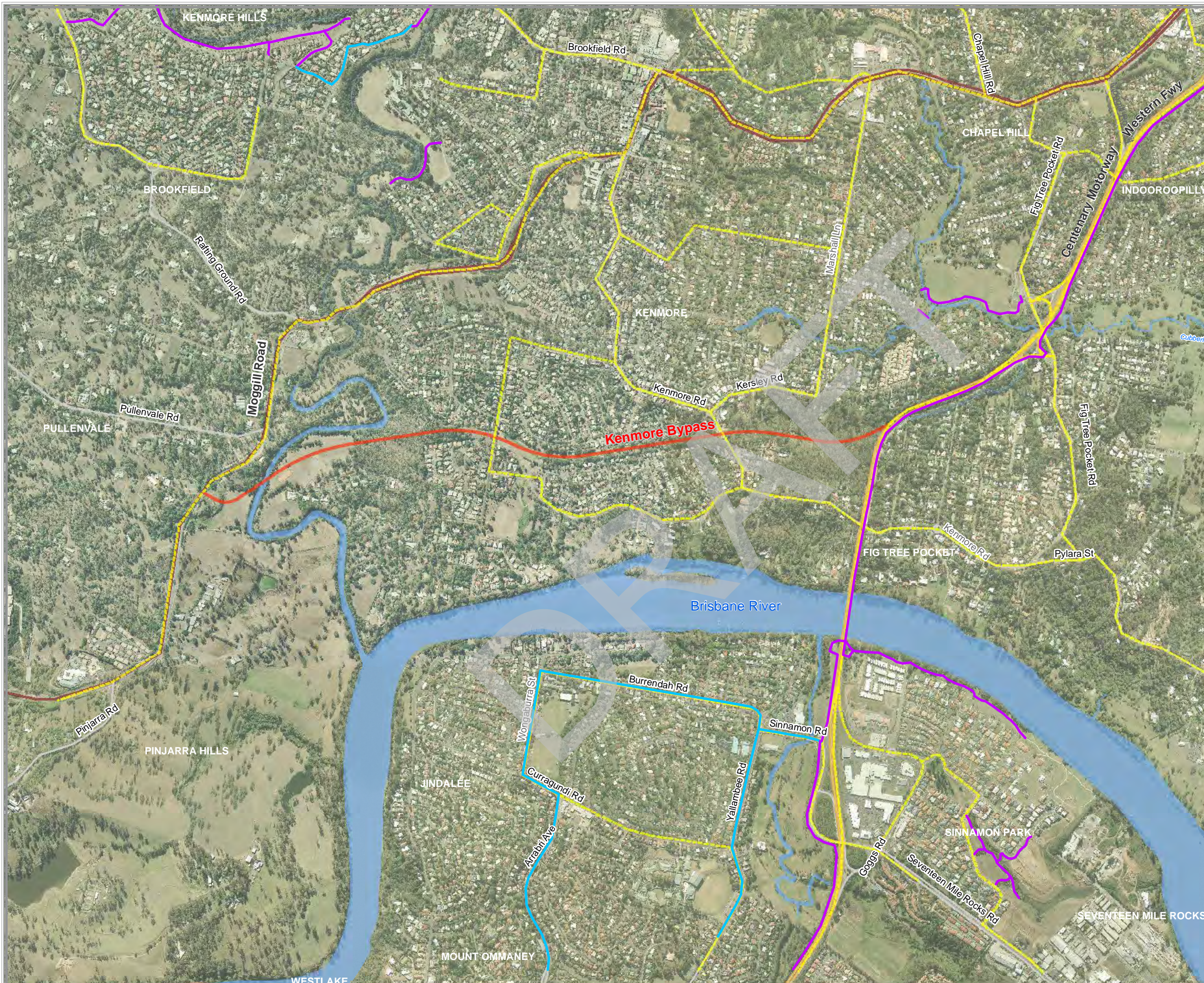
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Legend

- Centenary Motorway
- Kenmore Bypass
- Moggill Road
- River/creek
- Bike way**
- OFF ROAD
- ON ROAD
- Bus Routes**
- Bus Routes



Data sources:
Roads, railway, rivers etc - Copyright 2006, MapData Sciences
PTY LTD, PSMA

Aerial Imagery:
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Air Quality Information provided by ENSR Australia,
Brisbane for the Kenmore Bypass Environmental Study.

**KENMORE BYPASS
SOCIO-ECONOMIC**

Bus Routes and Bikeways

Figure 12.7

12.9 Employment and Businesses

Table 12.2 reviews the size and participation of the local labour. Kenmore appears to have high levels of labour force participation and low rates of unemployment.

Table 12.2: Labour Force Participation (by statistical local areas (SLA))

Labour Force	Kenmore	Pullenvale	Pinjarra Hills	Fig Tree Pocket	BCC
Total Labour Force	4,268	1,497	222	1,698	508,783
Not in Labour Force	2,100	656	101	644	222,687
Employed full-time	59.0%	60.8%	58.6%	59.0%	63.3%
Employed part-time	32.5%	30.2%	36.5%	33.3%	27.3%
Unemployed	3.3%	2.3%	2.3%	2.4%	4.0%
Others	5.2%	6.0%	2.7%	5.3%	5.4%

(ABS 2006)

In terms of occupation, the structure of employment appears to be similar with over half the residents in the areas identifying themselves as either professionals or managers as detailed in Table 12.3. These proportions were at a much higher rate than either the Queensland or National percentages. This indicates that the study area has a predominately white-collar composition.

Table 12.3: Occupation of Employed Persons aged 15 years and over (percentage)

Occupation	Kenmore	Pullenvale	Pinjarra Hills	Fig Tree Pocket	BCC
Professionals	38.7%	36.8%	30.0%	38.8%	26.4%
Clerical and Administrative workers	14.8%	14.6%	13.8%	13.9%	16.7%
Managers	14.0%	23.9%	18.0%	18.8%	12.3%
Sales	9.4%	7.4%	7.8%	8.6%	9.9%
Technicians and Trades	8.0%	6.5%	12.9%	7.1%	11.8%
Community and Personal Service	7.4%	5.1%	7.8%	7.1%	8.5%
Labourers	4.9%	3.1%	6.9%	3.0%	7.9%
Machinery Operators and Drivers	1.7%	0.9%	3.2%	1.0%	4.7%

(ABS 2006)

In terms of the industry that people are predominately employed, the 2006 ABS Census Data indicates that within the Kenmore statistical local areas (SLA), the largest sources of employment were in school education (7.1%) followed by tertiary education (6.0%). Other important industry employment included other professional services in Architecture, Engineering and technical services (3.9%) and Hospitals (3.3%). As a result, most people in Kenmore are likely to travel either to other parts of the suburb or to other areas in Brisbane for work.

12.10 Potential Impacts and Mitigation Measures

Impacts of the KBP need to be considered in terms of construction and operational impacts as well as impacts within and outside the study area. A summary of all the potential impacts and mitigation measures can be found in Table 12.4.

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12.10.1 General

The KBP will not be providing local road access to the study area and access will be provided by Moggill Road and the Centenary Motorway. Ramps and access to the local area have been avoided to minimise rat-running through the area. It is significant new infrastructure to which the immediate local residents have limited direct access to, and which will split the study area community. Residents will however have access to a new shared path along the KBP and benefit from reduced congestion on Moggill Road. Furthermore, the KBP is likely to change the quiet residential character of the area.

The opportunity cost of not investing in the KBP may be summarised as follows:

- higher fuel and travel time costs for completing journeys on and near Moggill Road. This translates into longer time away from family and recreation activities and less disposable income;
- diminishing appeal of Chapel Hill, Kenmore, Pinjarra Hills, Brookfield, Pullenvale, Bellbowrie, and Moggill as a place to live and visit because of increasing access and travel time difficulties;
- reduced property value growth reflecting the reduced access;
- increasing road accident incidence because of unsatisfactory traffic conditions;
- pedestrian safety on Moggill Road;
- diminishing convenience, access and amenity to business and service facilities along Moggill Road; and
- pressure to widen Moggill Road and reduce the number of intersections along Moggill Road which is likely to have significant impacts and be quite costly given the extent and nature of property acquisition that would be required.

12.10.2 Socio-economic Impacts within the Study Area - Construction

The construction of the KBP is likely to have significant impacts upon residents within the study corridor particularly those who live adjacent to the corridor. These impacts are likely to be noise and dust, loss of visual amenity, loss of privacy, perceived loss of security and safety, additional on-road parking from road workers external to the area and construction traffic in and out of the quiet residential area. There may also be other issues of concern to residents at particular stages of the project such as after a rainfall event, there may be concern about stormwater. Many of these matters will be dealt with by an EMP.

The perceived loss of privacy, security and safety and the intrusion of road construction workers and machinery into the corridor is likely to have adverse impacts upon residents, particularly those adjacent to the proposed KBP as the study corridor currently has quiet residential amenity and is generally not subjected to non local traffic. These impacts cannot be avoided; however, they can be partially mitigated by:

- Installation of security fencing with a covering between the road construction site and private properties to provide security and safety of private residences and to screen the private residence from view from the road construction site;
- Provision of a workers car park and construction storage area in locations separated from housing that will not be visible to nearby residences. This will reduce any nuisance created by construction workforce and activities upon local residents. It is further recommended that this be discussed with the affected community prior to construction commencing so as to determine suitable locations for the car park and construction storage areas; and
- Provision of a communications system (telephone hotline/website) to receive any feedback or complaints that community members may have and that a communications officer be made available to address any community concerns and to refer complaints to the appropriate officer for action.

12.10.3 Socio-economic Impacts Outside the Study Area - Construction

The key issue regarding construction impacts outside of the study area relate to the cumulative impacts of this project together with other major road projects planned for western Brisbane and their timing. There are a number of major road projects planned or in construction including the Moggill Road upgrade, Hale Street Bridge, Centenary Motorway Upgrade, Northern Link Tunnel project, the East /West Link tunnel project and projects associated with the Western Brisbane Transport Network

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Investigation (WBTNI). These projects individually have significant construction impacts particularly in terms of traffic management and construction traffic. Consideration needs to be given to the timing of the KBP construction with respect to the timing of other projects in the area so as to effectively manage construction traffic issues. No funding has been allocated for the construction of the KBP and it is anticipated that many of these projects will be completed prior to the commencement of construction of the KBP.

12.10.4 Socio-economic Impacts within the Study Area - Operation

There are a number of residential properties adjacent to the corridor. It is suggested that many of the owners of these properties would be aware of the road corridor given that the corridor was preserved as part of the subdivision of the area. The planning scheme does not zone the preserved corridor but rather shows it as unzoned land in a similar fashion to other streets and roads throughout the scheme area. Basic enquiries would have resulted in responses that the area is proposed for road purposes.

While some residents may not have been fully aware of the future use of the corridor for road purposes, there is likely to be a sense of loss of open space in the suburb. The construction of the KBP will permanently remove informal open space area and will replace it with a road which is highly likely to create impacts such as light spillage, traffic noise and visual impacts. Properties most affected are those fronting Marland and Twilight Streets and those which are adjacent to the corridor. These properties are also likely to experience a loss of privacy. They may already have been subject to price adjustment because of their proximity to the undeveloped corridor, which would have been a benefit for those owners in terms of paying less for their property.

The junction of the KBP with Centenary Motorway is intended to pass at the rear of the large residential lots fronting Kersley Road. These properties may be affected by noise, lighting and adverse visual impacts created by the KBP. As discussed in Chapters 9 and 13, it is recommended that suitable noise barriers be included in the design of the KBP and plantings be provided to reduce any adverse visual impacts.

The KBP will cross two connector roads within the study corridor - Kenmore Road and Gem Road. It is intended that Kenmore Road will be bridged over the KBP to retain access through the locality. It is an important connection as it provides one of two access ways (the other being Fig Tree Pocket Road) across the Centenary Motorway between Kenmore and areas west of the motorway and Fig Tree Pocket. In order to encourage active transport, it is recommended that the bridge design include provision for pedestrian and cycle access. Current planning indicates that KBP will separate Gem Road and it will no longer be a through route.

Kenmore Road, Sunset Road and Gem Road (south) could provide alternative street access for the southern portion of the study corridor, which borders the Brisbane River. The northern portion could be serviced by Kenmore Road, Marland Street Gem Road (north) and Annabel Street. These alternative routes will be servicing local traffic only and it is not anticipated that there will be any increase in nuisance driving through these streets as drivers will most often be local other than those visiting Kingfisher Park. Traffic numbers on Sunset Road are expected to increase by 900 vehicles/day in the event that Gem Road is separated.

The separation of Gem Road is unlikely to create major access problems as alternative access is available for the two areas to destinations external to the study area. It is likely that the new access arrangements will not create any noticeable increases in travel time both to and from the study corridor. Access to shopping areas and community facilities will not be noticeably affected. Emergency services access will not be noticeably affected other than the loss of multiple access points south of the KBP. There may be an issue with having Gem Road function as two separate roads in terms of which part to access. However, this may be dealt with by changing the name of one part of Gem Road or providing suitable signage. Currently, bus services use Gem Road to service the area and will require rerouting and revised bus stop locations if Gem Road is separated. It will be necessary to provide community notice of any proposed changes.

Internal to the study area, there are likely to be various issues associated with the proposed severance of Gem Road. Such issues could include concern regarding Sunset Road being the only

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access road into and out of the area; community dislocation; and the need for some residents to use a more circuitous route to travel from one area to another by car. If Gem Road access cannot be maintained, then consideration should be given to providing safe and secure pedestrian and bike access across the KBP so as to maintain local connectivity. This access should be designed so as to meet Crime Prevention through Environment Design (CPTED) principles. The community should be advised of the reasons for any separation of Gem Road and consulted regarding options for suitable pedestrian and cycle linkages as an alternative.

Road access to Kingfisher Park would be best provided by the southern route of Kenmore, Sunset and Gem Roads. Should this occur, it is important that it be adequately signposted as the park will draw visiting sports players from outside Kenmore who are likely to be unfamiliar with the local road layout.

Impacts on residents for the portion of the corridor from Kenmore Road, east to the Centenary Motorway and the portion across the Moggill Creek Floodplain are not likely to be as pronounced as these areas have not been subdivided in the last 30 to 40 years and therefore consist of large private residential lots with a generally rural residential character. Some land required in these sections of the corridor has not yet been acquired by DMR as part of the broader corridor.

The construction of the KBP will result in the loss of some land currently used by the Yarrawa Pony Club. The Pony Club should be advised of any potential impacts, with sufficient lead time provided to allow the Club to be able to locate suitable alternative land for their activities.

The junction of the KBP with Moggill Road is subject to two design options. While it is difficult to provide detailed commentary about likely impacts, there are some observations related to the social and economic environment to consider when design options are further developed.

The Moggill Road junction design options are located to the south of the Rafting Ground Reserve, which is an important recreation reserve in this locality. Proposed traffic arrangements should be made so as to enhance the safety of drivers, pedestrians and cyclists entering and leaving Rafting Ground Reserve. The Reserve is an important open space area and should the KBP be in close proximity, it will create adverse visual impacts for those using the Reserve. Should this be a risk, it is recommended that additional screen planting be proposed to reduce any visual impact and to maintain/enhance the amenity of the Reserve. Refer to Chapter 13 (Landscape and Visual Amenity Assessment) for further details.

Opposite Rafting Ground Reserve is the Brisbane Independent School and a number of large lot residences. Brisbane Independent School is located on a rear access lot and is likely to draw students from either end of Moggill Road surrounds. The junction of the KBP with Moggill Road should be designed to enhance traffic safety for local residents with property access from Moggill Road in this vicinity and also for the Brisbane Independent School. Care needs to be taken to ensure that existing access arrangements for private properties in the area are not reduced and that road safety conditions and convenient access to and from Moggill Road are maintained and/or improved for these properties.

In order to mitigate against the loss of green space, privacy and visual amenity, landscaping and noise barrier design can be incorporated into the road design. With respect to increased traffic noise, appropriate design measures (such as depth of cuttings, choice of road surface, etc.) may be considered to reduce noise from the source. Furthermore, noise barriers may be provided to reduce traffic noise to acceptable levels. Refer to Chapter 9 (Noise) for further details. Light spillage may be contained by appropriate lighting fixtures.

12.10.5 Socio-economic Impacts outside the Study Area - Operation

Traffic congestion has a monetary cost and impacts upon an area's liveability. Increasing congestion results in time delays accessing employment areas, and increased vehicle operating costs and potential for traffic accidents. It also impacts negatively upon those local businesses that rely upon service from the congested roads as access to markets and clients is an important advantage for business.

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The main economic impact of the project will be the benefits of reduced travel time for commuters and business travel and improved access for businesses and community accessing Moggill Road as well as reductions in vehicle operating costs and potentially accident rates. The reductions in travel time and consequent improved access to employment areas and for businesses is likely to have a positive impact upon prices for residences in the western suburbs and in particular Kenmore, which has experienced a less than equivalent price growth in comparison to Brisbane as a whole.

The reductions of through traffic along Moggill Road will improve the amenity of Moggill Road as a commercial and service area and provides opportunities for local streetscape improvements to improve the pedestrian and cycle access and vehicle movements around the commercial and service areas accessing Moggill Road. These reductions, resulting in improved access, are likely to result in economic benefits for local businesses and service providers.

Properties outside the study area that overlook the KBP may experience a loss of property value due to the potential loss of visual amenity and possibly increased traffic noise. The impact upon property value will be determined by the intensity of impact. This can be reduced by appropriate landscaping and other attractive visual screening and the use of noise barriers.

The key socio-economic issue related to the operation of the KBP, and which is external to the study area, is the linkages which the KBP will facilitate. Earlier studies have identified that inbound and outbound access to the north and to the south from Centenary Motorway and Moggill Road are required. The current design concept provides for this. To reduce the number of connections would adversely impact upon the convenience and usability of the KBP and it is important that the current access arrangements be retained.

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Table 12.4: Potential Impacts and Mitigation Measures

Reference Code	Project Phase	Potential Impact	Trigger	Potential Mitigation Measures
SE 01	Construction	Loss of privacy, visual amenity and loss of security and safety for residential properties adjoining the road construction site.	Construction of road at rear of properties in an area that is currently green space.	Installation of security and screen fencing at the rear of properties adjoining the road construction site.
SE 02		Loss amenity created by uncontrolled parking and construction traffic and storage into a previously quiet residential area.	Uncontrolled parking and construction traffic and storage in the area.	Adequate provision being made for worker parking and construction traffic and storage in areas separate from residential areas where possible. Consultation with the community as to the location of these areas prior to their installation.
SE 03		Resident distress created by impacts of construction activities.	Construction activity impacts such as noise, dust, lighting, hours of operation.	Provision of a hotline/website and communication officer to hear and address community concerns.
SE 04		Major disruption to residents created by the cumulative impacts of multiple road projects and their timing.	Lack of consideration of timing of the KBP project construction with respect to other planned road projects both State and local.	Planning of the commencement of the project take into account the timing and project needs of other road projects in the western Brisbane area.
SE 05		Resumptions adversely affecting the use of residential properties.	Resumptions which cut through existing residential lots.	Design of the road so that areas required for resumption are located on the boundary of affected residential properties rather than through residential lots.
SE 06		Severance of active transport options through bridging of Fig Tree Pocket Road and Kenmore Road.	Bridging design focus upon vehicular traffic and inadequate design focus on active transport options.	Design to provide for safe active transport options as well as vehicular traffic for bridging of Kenmore Road and Fig Tree pocket Road.
SE 07		Splitting of the community into two because of severance of Gem Road.	Due to engineering constraints, Gem Road is severed.	Provision to be made for adequate and safe active transport connections to connect the two areas.

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Reference Code	Project Phase	Potential Impact	Trigger	Potential Mitigation Measures
SE 08	Construction	Inadequate provision is made for the safe and convenient access safety for residents and visitors to the Brisbane Independent School.	KBP design does not accommodate the access requirements of properties in the vicinity of its connection to Moggill Road.	Adequate provision is made in the KBP design for safe and convenient access for residents and visitors to the Brisbane Independent School.
SE 09	Operation	Road carrying traffic through the middle of a quiet residential area which currently experiences principally local traffic.	Planned road corridor to accommodate additional western suburbs traffic preserved whilst the surrounding area and environs develops with residential development and creating further traffic demand.	Road design to be sensitive to its location in a residential area, so as to reduce adverse impacts (noise, dust, lighting spill, loss of privacy, security and safety, loss of visual amenity, reduced access) as far as practicable through design solutions.
SE 10		Loss of green space.	Clearing of vegetation in the road corridor to allow the road to be constructed.	Landscape along the road corridor where possible and practicable.
SE 11		Lack of clarity about alternate access routes should Gem Road be severed.	Due to engineering constraints, Gem Road is severed and alternate access routes via Marland Street and Gem Road/Annabel Street.	Provision to be made for signage and other street improvements to clarify what the access routes are in the area.
SE 12		Inadequate provision for protecting the safety and amenity of visitors to Rafting Ground Reserve.	Recreation and amenity values and visitor needs to Rafting Ground Reserve are not adequately considered in the KBP design.	Safe access to and from Rafting Ground Reserve is protected for vehicular and active transport to the Reserve. Landscaping and buffering of the KBP is provided to minimise any adverse visual impacts that the KBP may have upon enjoyment of the recreation values of the reserve.
SE 13		Changes to existing 431 and 433 bus routes and potential new bus routes.	Separation of Gem Road.	Altered bus routes must continue to service catchment of existing route.
SE 14		Access issues with Gem Road separation.	Separation of Gem Road.	Ensure the Sunset Road access complies with design standards.