



This page is intentionally blank

Summary

The social impact assessment has analysed the potential impact of the Queensland Coke and Power Plant Project (the Project) on existing and future social factors and community infrastructure, including on employment, housing, public realm, community services and facilities in Local Government Areas (LGAs) in close proximity to the project site. Social impacts on the Gladstone region were mostly excluded from the impact assessment due to the limited development proposed at Fisherman's Landing and the extent of the large industrial developments already in existence.

Community Consultation

Consultation with advisory agencies, members of the public and other stakeholders has formed an integral part of the EIS process. The community consultation process for the project aims to ensure clear, transparent, two-way communication between the proponents and stakeholders (including advisory agencies and community members) through listening, recording and responding to issues relating to the project as they arise. The consultation process provides the proponents with opportunities to impart information to the stakeholders regarding the project and obtain valuable local knowledge. It also provides stakeholders with an opportunity to express their views about the project and be actively involved in the EIS process.

A comprehensive consultation program was planned in the early stages of the project approval process from February 2005, and has been conducted throughout the impact assessment and EIS compilation phase. A variety of communication tools were identified as appropriate and have been adopted by the proponents throughout the planning stages of the project to inform, and receive feedback from, stakeholders. These tools included meetings, newsletters, advertisements and media releases, website updates, workshops, public displays and a public enquiry system using a freecall telephone number, facsimile number, e-mail and reply paid system. Up to July 2005, there has been:

- 374 responses to stakeholder enquiries;
- 198 attendees at workshops and information sessions; and
- Approximately 40,000 newsletters delivered to the local area and Rockhampton, and made available online through the Internet.

Feedback from the consultation process has been incorporated in the Project's development where applicable.

As part of the overall community consultation program a consultation study was also conducted by Central Queensland University in May 2005 involving semi-structured interviews of individuals representing households and local businesses in Stanwell, Kabra and Gracemere. In addition, a number of authorities in the relevant LGAs were also interviewed. This study was conducted as part of the social impact assessment to confirm issues identified by the wider consultation process in relation to social factors. Whilst by far most respondents from households and local businesses (out of 57) were in favour of the Project, most benefits were expected by respondents to occur at the regional level, then the

community level, and only to a lesser extent at a personal level. No respondents expected negative regional impacts and most expected negative impacts at the community level (though to a lesser extent in the personal sphere).

After the failure of the AMC project, many respondents did not believe a coke plant and power plant will be established in Stanwell. Of those people who did have confidence in the Project, many hoped to secure employment at the Project and be able to earn back the money they had invested in the AMC project. For the community in general, the potential for jobs outweighed pollution concerns.

Employment and Skill Shortage

While demand for labouring-type positions is generally being met in the region, there is a distinct lack of available semi-skilled and skilled labour. Department of Employment and Workplace Relations labour force statistics for the March quarter 2005, report a state-wide shortage of carpenters, bricklayers, plumbers, electricians, skilled metal workers and fitters. The skill shortage across Queensland is also particularly evident for civil engineers experienced in water, roads and structural engineering. Consequently, the proponents aim to recruit up to 40% of the Project's overall staffing requirements through local sources, although this may only be achieved by paying higher wages and attracting workers from existing jobs. A flow-on effect is that the project construction and development may increase local wage levels and exacerbate existing skill shortages. However, the proponents will seek to recruit the remaining 60% of the workforce from outside the region. This may result in a softening of any potential impacts on local wages and demand for skilled workers. This may also be the case as skilled workers may choose to be employed in full-time permanent employment rather than over the construction life of the project.

This study has assumed that one third (33%) of the construction workforce will be recruited locally. The proportion of local involvement may be lower than the proposed 33% should the labour market remain very tight, but could be higher if the construction period is extended. In either case, the flow-on effects will mean that a large proportion of locals gaining employment will need to be replaced, generating a population influx into the region. Assuming that there would be replacement effects for all workers apart from labourers, the expected number of replacement workers at a 33% local take-up rate would be 277 persons. Due to the existing skills shortage in the region, the direct impacts of the Project during operations are expected to be positive. A net impact of 200 workers is anticipated. Approximately 60% of operational workers are expected to locate in Rockhampton, 15% in Gracemere, 15% at the Capricorn Coast and the remainder in the wider region. There will be longer-term demographic impacts resulting from the upstream and downstream economic development.

Accommodation/Housing

A number of local authorities indicated that there is more than enough land available for people moving to the area to build homes, however, there is a shortage of available rental properties. A possible impact of population growth due to the Project would be an increase in rental prices as the rental market tightens further, resulting in low income families being forced out of the private rental market. This would be compounded by both the shortage of public housing and the fact that, when rental markets have tightened

in other Central Queensland communities, this group has gravitated to Rockhampton because of its availability of low rental housing.

There is potential for additional demands on the housing market to increase rental and house prices, which can also have some beneficial effects in terms of increasing wealth and stimulating investment back into the housing market. The direct demands on housing in the Rockhampton region from the Project are anticipated to be 350 rental and sale houses needed for the construction stage and 200 sale or new houses needed for operation of the Project. If the total construction period extends beyond a consecutive two years, then a higher proportion of construction workers are expected to settle in the Rockhampton area, which will generate a greater demographic and economic impact.

The issue of accommodation for the construction workforce, the majority of whom is expected to be recruited from other areas, is undergoing careful consideration by the proponents. The non-residential construction workers are expected to be housed in a suitably located accommodation village at Gracemere. The key advantages of these arrangements are that impacts created by demands for housing in the region can be minimised. The key disadvantage is that a grouped accommodation arrangement tends to limit the economic impact of those workers on the local economy. There will be some direct stimulus for businesses providing food and cleaning services, but most disposable income will flow back to the area of residence. Where possible, the proponents will provide input into any housing plans or initiatives by the Local or State Government to assist in developing solutions to housing shortages in the region affected by the Project.

Community Dislocation and Social Isolation

Another potential major social impact resulting from the regions' strong housing market growth and the increased population influx for the Project is altered regional migration patterns leading to community dislocation and social isolation. Recent and non-project related regional migration of families in search of affordable housing has resulted in increased community dislocation and social isolation within Central Queensland. The proponents will remain active members of the community and monitor any community dislocation or social isolation issues created as a result of the Project. Where possible, the proponents will offer support to employees and provide input into government or private sector initiatives for developing strategies to alleviate community dislocation or social isolation in the region.

12.1 Introduction

The aim of social impact assessment is to analyse the impact of the Project on existing and future social factors and community infrastructure, including impacts on employment, housing, public realm, community services and facilities. The social assessment for the Project was undertaken by the Institute for Sustainable Regional Development (ISRDR) at Central Queensland University (CQU).

The social impact assessment for the Project focuses on potential impacts for LGAs (Rockhampton City, Fitzroy Shire, Livingstone Shire and Mount Morgan Shire) all of which are within close proximity to the project site and are most likely to experience any potential impact. Social impacts on the Gladstone region were mostly excluded from the impact assessment as the Project will have very little effect due to

the limited development proposed and the extent of the large industrial developments already in existence. Wider social impacts for Central Queensland and Queensland have also been reported. The complete social impact assessment report is provided in Appendix K with key findings reported here.

A number of factors underlie the Project social impact assessment. Firstly, the most recent coke ovens constructed in Australia, of the type being investigated for the Project (although with no heat recovery), were constructed by the Illawarra Coke Company at their Coalcliff Coke Works in 1960 and at their Corrimal Coke Works in 1962. Older generation coke plants have often been associated with pollution issues and health risks. The advanced cleaner technology of the proposed Coke Plant is superior in that most pollutants are destroyed in the coking process and waste heat is re-used for the generation of electricity. A second underlying factor is that the area immediately surrounding the project site is only lightly populated, suggesting that direct impacts on the local population could be expected to be minimal compared with high population density areas. Thirdly, the Project will occur against a background of an increase in mining activity across the Bowen Basin, which has resulted in a regional skilled labour shortage. Finally, since the project site is that of the failed AMC project (Dames & Moore, 1999), community attitude toward the Project may be complex. This section of the EIS discusses the relevance of these factors to the Project.

Some social impacts associated with increased population in the Rockhampton region as a result of the Project have the potential to be significant. This is because some of the key impacts may exacerbate existing issues such as reduced housing affordability, with impacts particularly on lower socio-economic groups. The focus of this social impact assessment is on predictive social impacts. The interactive and consultative elements will be strengthened by other elements of the EIS process, including the community consultation process (Appendix B) and the public comment phases of the EIS process. In this assessment a combined approach of desktop analysis and community consultation has been used to predict social impacts and perceptions. The tasks undertaken included an overview of the general outlook for the region, consultation with relevant government bodies and local communities, analysis of socio-economic data and analysis of anticipated social impacts.

12.2 Description of Environmental Values

12.2.1 Regional Social Context

Rockhampton is the regional hub of Central Queensland, with Gladstone and Emerald also being important centres. Agriculture (beef cattle, cropping, cotton and horticulture), mining and tourism are primary export earners for the region, with some processing (abattoirs and cotton gins) to provide value adding. Rockhampton is a central hub for service industries, as well as providing important transport and education facilities. Despite the growth in agriculture and mining industries in the region, Rockhampton has not grown as fast in recent decades as other regional centres in Queensland. To compare it with close neighbours, Gladstone to the south has developed into a major industrial centre and port facility, while Mackay to the north has developed into a major service centre for mining and port facilities.

Since 2004, substantial investment coupled with increases in coal production in the region has generated improvements in employment and economic conditions in the Rockhampton region. Queensland's coal production is predicted to increase significantly over the next decade, and regional Queensland is expected to benefit from substantial increases in regional income, output and employment. With the bulk of Queensland's export coal coming from Central Queensland's Bowen Basin, Rockhampton and the Central Queensland region is well positioned to benefit from this growth. Whilst rapid growth provides economic opportunities, efficient planning is required to ensure that:

- The region's infrastructure and service industry providers are appropriately equipped to facilitate this growth;
- Adjustment problems such as shortages in the skilled labour market and congestion of rail and port infrastructure are addressed;
- Economic benefits accrue, both directly and indirectly, within the Central Queensland economy; and
- Environmental and social impacts are appropriately managed.

Direct impacts will be realised through employment and purchase of goods and services from local businesses. Indirect benefits will result through the flow-on effects of an increase in spending and employment.

12.2.2 Demographic Profile

The broad demographic features of the current population in the communities close to the proposed site are illustrated in Table 12.1. This information was compiled using data from the 2001 Census conducted by the Australian Bureau of Statistics (ABS, 2002).

Projected Population Growth

The estimated resident population in the Rockhampton region comprising Fitzroy, Mount Morgan, Rockhampton City, and Livingstone was 98,164 in 2004 according to the Department of Local Government, Planning, Sport and Recreation (DLGPSR) (DLGPSR, 2005). Projections prepared by DLGPSR indicate that by 2011, the population is expected to increase to between 104,400 and 108,500 people. By 2026 this is expected to increase to between 111,800 and 132,200 people. The median age of the region's population is projected to increase by six years, from 35 years in 2001 to 41 years in 2026.

Table 12.1 General Demographic Characteristics

Characteristic	Fitzroy LGA		Rockhampton LGA		Livingstone LGA		Mount Morgan LGA		Rockhampton SSD		Calliope LGA		Gladstone LGA		Queensland	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
General																
2001 Population	9,554	100.0	58,382	100.0	27,017	100	2,776	100	61,019	100	15,091	100	26,835	100.0	3,655,139	100.0
Residency Rate*	5,081	53.24	27,005	46.26	11,865	43.92	1,424	51.30	27,820	45.59	6,561	43.48	11,437	42.61	1,584,873	43.36
Males	4,659	48.82	28,433	48.70	13,774	50.98	1,386	49.93	29,693	48.66	7,744	51.32	13,671	50.94	1,807,730	49.46
Females	4,894	51.28	29,949	51.30	13,243	49.02	1,390	50.07	31,326	51.34	7,347	48.68	13,164	49.06	1,847,409	50.54
Aboriginal Origin	310	3.25	2,591	4.44	641	2.37	279	10.05	2,816	4.61	307	2.03	751	2.80	87,322	2.39
Born Overseas	475	4.98	3,696	6.33	2,615	9.68	236	8.50	3,706	6.07	1,774	11.76	2,672	9.96	616,168	16.86
Labour Force																
Persons 15+ Years	6,941	72.73	45,554	78.01	20,857	77.20	2,227	80.22	47,457	77.77	11,102	73.57	20,117	74.97	2,884,181	78.9
Labour Force	4,370	45.79	26,754	45.83	11,149	41.27	800	28.82	28,281	46.35	6,878	45.58	13,292	49.53	1,709,612	46.77
Persons Employed	4,068	42.62	24,277	41.58	10,196	37.74	614	22.12	25,703	42.12	6,357	42.12	12,033	44.84	1,568,864	42.92
Unemployment Rate		7.0%		9.3%		8.6%		23.4%		9.11%		7.7%		9.5%		8.2%

Source: 2001 Census (ABS, 2002).

Notes: *Indicates the number of persons residing at the same address 5 years prior

LGA – Local Government Area

SSD – Statistical Sub District

Age Structure

The 2001 Census shows the age structure of the population in the regions local to the project site varies slightly from that of the State as a whole (ABS, 2002). Apart from Mount Morgan LGA, all areas show a higher proportion of the population in the 0 to 19 year age groups. The 20 to 29 year age bracket shows Gladstone and Rockhampton with a proportion higher than the State, while Fitzroy, Livingstone, Mount Morgan and Calliope show significantly lower populations for this age group. This illustrates a trend for young single people to reside in larger urban areas. Livingstone and Mount Morgan have significantly high proportions of population in the 50 to 79 year age groups relative to the State population, suggesting that these LGAs are popular migration targets for retirees. The population figures show a higher proportion of children below the age of 10 years and adults in the 30 to 50 year age bracket in the Fitzroy, Calliope and Gladstone LGAs, when compared with the data for Queensland, indicating a higher population of families with young children residing in these areas.

Sex Structure

The 2001 Census shows that the Fitzroy LGA has a lower ratio of men to women than Queensland as a whole, while the figures within the Rockhampton region are similar to those for the State (ABS, 2002). As is the case across Queensland, most of the regions examined show a higher population of women than men in the 20 to 49 year age groups, with the exception of Calliope and Livingstone LGAs, which show a higher population of men in most age groups.

Population Size and Distribution

Rockhampton is the major population centre close to the proposed project site at Stanwell and provides a large proportion of the services to the area. The 2001 Census showed Rockhampton LGA supported a population of 59,732 with 96% residing in Rockhampton City and suburbs (ABS, 2002). The 2001 Census showed that the Fitzroy Shire supported a population of 9,554, Livingstone Shire supported a population of 27,017 and the Mount Morgan Shire supported a population of 2,776. The communities located within 10 km of the project site support a population in the order of 4,800 with Gracemere accounting for around 93% of this. Stanwell and Kabra are minor contributors both with populations less than 200 recorded during the 2001 Census (ABS, 2002).

The LGA of Gladstone is the major population and support centre located close to the Fisherman's Landing port facilities supporting a population of 26,835 with the adjacent Calliope Shire, in which the facilities are located, supporting a population of 15,091 during the 2001 Census (ABS, 2002). Detailed ethnicity, sex and age distribution data for the region are included in Appendix K.

Population Growth

The population growth within the Rockhampton, Fitzroy, Livingstone and Mount Morgan areas has averaged in the order of 0.9% per annum over the 10 years from 1991 to 2001, well below the Queensland average of 2.2%. The distribution of growth between these LGAs is highly variable with the Livingstone and Fitzroy shires supporting strong growth resulting from an apparent influx of retirees and

the Rockhampton and Mount Morgan LGAs recording negative population growth over the period, due primarily to outward migration of people less than 24 years old and older than 55 years old, (National Economics, 2005). The Gladstone and Calliope LGAs have shown an average increase in population of 1.96% over the 1991 to 2001 period, which is marginally lower than the Queensland average.

Length of Residency

An indicator of mobility/stability of residents in a region is the percentage of the population that has remained in the same residence for two consecutive Census periods. Census data from 2001 indicates that the Fitzroy (53.24%) and Rockhampton (46.26%) regions have a slightly higher percentage of population with residency greater than five years when compared to the State (43.36%). This illustrates a relatively stable population. Mount Morgan and Fitzroy in particular have a stable population, with greater than 50% of population remaining at the same address for more than five years.

Educational status

Based on the 2001 Census, the Rockhampton, Livingstone, Fitzroy, Mount Morgan, Gladstone and Calliope LGAs all had lower proportions of population with a bachelor degree or higher than the Queensland average (ABS, 2002). The Fitzroy and Mount Morgan LGAs in particular showed a significantly smaller proportion of the population with a diploma/advanced diploma or above. Gladstone, Livingstone and Calliope LGAs all showed a higher proportion of their populations with Certificate III/Certificate IV level qualifications, and Livingstone showed a higher population with post-graduate qualifications, when compared with the State.

12.2.3 Existing Industries and Labour Force

The 2001 Census shows the Rockhampton labour force at 28,281 people (46.35% of the total population). This is comparable with the State proportion of 46.77%. Gladstone recorded a somewhat larger labour force at 49.53% of its population. Overall, the region has a slightly lower proportion of its population in the workforce when compared to the figures for Queensland (ABS, 2002).

The structure of industry in the region has been significantly influenced by Rockhampton's development as a service centre for the Central Queensland area. This is illustrated by the existing sectors of transport and storage, education, retail trade, health and community services. These sectors all show higher employment levels than the corresponding Queensland levels. The retail trade holds particular significance, employing 17.1% of the working population, which equates to more than three times the State level. Manufacturing, wholesale trade and hospitality-related services have employment levels similar to those across Queensland. Major industry employment figures for Fitzroy LGA are similar to those for the State, apart from the Agriculture, Forestry and Fisheries sector which accounts for 10.7% of employment in Fitzroy, compared to 4.9% across Queensland. Almost a quarter of employment in Calliope LGA is attributed to the manufacturing industry.

2001 Census data for the Rockhampton region shows a smaller proportion of occupations to be managers and administrators when compared with State figures. Intermediate clerical, sales and services workers

(18.3%) and labourers and related workers (12.5%) for Rockhampton are higher than the corresponding State proportions (16.9% and 9.7% respectively), while other categories show similar proportions to the State levels.

When compared to Queensland, Fitzroy LGA shows greater proportions of employment in the categories of managers and administrators (11.6%), tradespersons and related workers (14.9%), intermediate production and transport workers (10.8%), and labourers and related workers (13.7%). Fitzroy shows a much lower proportion of professionals than State figures (9.7% versus 16%). Mount Morgan LGA has a relatively higher percentage of labourers at 16.3%, which is 6.6% more than the State average. Calliope and Gladstone LGAs show higher proportions of intermediate production and transport workers (16.9% and 15%) when compared to the State levels (8.5%).

The Rockhampton region registered an unemployment rate of 9.11% for the 2001 Census. This was 0.9% higher than the level for Queensland. Rockhampton City, the largest population centre in the region, had a slightly higher rate (9.3%). Livingstone and Gladstone LGAs were also slightly higher than the State level, while Fitzroy and Calliope LGAs were significantly lower at 7.0% and 7.7% respectively. Mount Morgan's unemployment rate of 23.4% is a significant anomaly (ABS, 2002).

Income

The Rockhampton region distribution of weekly income showed a higher than average number of people on very low incomes, especially in the \$1-\$299 per week groupings. There was also a significant proportion of households in the region with negative or nil income (5.5% compared to the State average of 0.8%). Calliope and Gladstone LGAs showed a higher proportion of households earning \$800-\$1,999 per week when compared to the other areas and to the State.

12.2.4 Labour Market Characteristics

The existing local and regional population of the Fitzroy region encompasses major centres such as Rockhampton and Gladstone, and surrounding areas such as Banana, Bauhinia, Calliope, Duaringa, Emerald, Fitzroy, Jericho, Livingstone, Mount Morgan and Peak Downs. Employment in the Fitzroy region grew from 84,340 in 1998 to 97,957 people employed in 2001. However, employment fell to 89,349 over the following three year period to 2004. This is most likely due to a number of factors including the closure of the Lakes Creek meatworks in 2002, reductions in employee numbers, changed shift work patterns and moves toward contract labour in the Bowen Basic coal industry, effects of drought on agricultural production, and flow-on effects of these impacts on the general economy.

From 1998 to 2004 the population increased by 0.9% in the Fitzroy region. It is expected that with an increase in population, there will be an increase in employable people. In this case, the population growth rate is higher than the employment growth rate, which in turn is much lower than the rate of decrease in unemployment. This suggests that a growing proportion of people are either moving into retirement and/or giving up the search for paid employment.

Accessibility to Employment

The accessibility to employment factor combined with the industry corrected factor (Appendix K) shows that Fitzroy, along with other regions in Queensland, such as Mackay, Wide Bay, and North Queensland, has a reasonably low rating in access to employment. The scores are given out of 1,000 and Fitzroy attained less than 150. Fitzroy was ranked 49th out of the 64 regions in Australia.

Fitzroy has a relatively low score of 110 out of 1,000 for the global knowledge factor, implying that there are fewer knowledge jobs in the region for residents. This is because the Fitzroy region encompasses resource-based, rural and agricultural areas affecting the nature of employment of the population and the use of global knowledge or technology.

In the Fitzroy region, there are more jobs necessitating approximately 100 minutes (one way) of travel (33,586) than there are jobs requiring either 30 or 60 minute commuting times (13,330 and 16,191 jobs respectively). This is a reflection of lifestyle choices, where many people choose to live at the Capricorn Coast and commute to work. As shown in the “State of the Regions Report 2004 – 2005” (National Economics, 2005), there is a significant decline in the number of people accessing employment beyond a 40 minute travel time. In effect, the 40 minute point represents a serious point of inflection in peoples’ behaviour. As congestion increases, and the number of jobs that can be accessed within this 40 minute window falls, the capacity of a local region to remain optimally employed is reduced. The congestion exposure risk factor (measured out of 100) for the Fitzroy region is relatively low at 3. This implies that there is less congestion, as residents are willing to live further away and travel longer distances to work.

Labour Utilisation

The labour utilisation indicator measures how well the region is utilising the total available workforce hours in the region and the total hours of paid work provided by the population. The labour utilisation indicator can help identify potential pools of under-utilised labour. A low rate reflects lower levels of total income and spending within the region which will constrain local economic growth prospects. In contrast to the national average of 59.4%, the labour utilisation is very high for the Fitzroy region (i.e. Banana, Bauhinia, Calliope, Duarina, Emerald, Fitzroy, Gladstone, Jericho, Livingstone, Mount Morgan, Peak Downs and Rockhampton) at 62.3% and ranked 14th out of 64 in Australia. This indicates that there is limited potential to source additional labour.

Infrastructure

The infrastructure indicator measures the completion rate for commercial infrastructure periods and establishes the rate at which the current stock is being replaced, which is a proxy for short-term growth expectations. The higher the indicator, the more likely the immediate prospects for employment growth. The Fitzroy infrastructure value is 0.44 which is below the national average of 1.53, implying that low or insufficient infrastructure is available. Fitzroy is ranked 63rd out of 64 in Australia.

Household Prosperity Potential

The household prosperity potential indicator is a forward-looking measure that attempts to gauge an area's economic growth potential based on socio-demographic features. When certain socio-demographic characteristics are in place, particular economic outcomes can be expected. As a general rule, areas that encompass a greater degree of diversity, as opposed to homogeneity, have a greater level of prosperity potential. The household prosperity potential value for Fitzroy region is 72%, which is below the national average of 100%. The region is ranked 41st out of 64 in Australia.

Knowledge Intensity

As knowledge intensity of economic activity increases, superior economic outcomes at the regional level are generated. To support knowledge intensive industries, there must be an adequate supply of requisite skills and smooth knowledge flows. A region needs access to certain types of skills in order to support the proliferation of high growth and value-adding industries. The number and type of skills available within a region will define a region's capacity to support particular industries and consequently its outlook for economic growth.

The global knowledge flow indicator is the proportion of workers identified as global knowledge flow workers out of the entire workforce. A region with a high indicator can be an effective knowledge transfer centre integrated into the global information economy. This indicator shows a region's connectedness to global flows of knowledge and its innovative capacity. Regions that are ranked high for knowledge driven growth potential are best positioned to participate in the 'new economy'. Regions where the requisite skills base and knowledge capacity are in place are more likely to attract industries that will lead to more dynamic economic outcomes. The Fitzroy region has a knowledge driven growth potential value of 0.45 which is lower than the national average of 0.67. The region is ranked 44th out of 64 regions in Australia.

12.2.5 Existing Infrastructure and Services

Rockhampton LGA

Health and Medical Facilities

The Rockhampton region is well serviced by health and medical facilities with three hospitals within the Rockhampton City area. The Rockhampton Base Hospital is the largest in the Central Queensland region providing a range of specialist medical services. There is an additional 85 general practices, 34 specialist medical facilities, 20 dental practitioners, 4 specialist dental services and 6 nursing homes within Rockhampton.

Educational Facilities

Rockhampton's educational requirements are well catered for with 22 pre-schools, 27 primary schools and 11 high schools. Tertiary facilities include the Central Queensland Institute of TAFE (CQIT) and Central Queensland University (CQU).

Cultural and Recreational Facilities

The city of Rockhampton is a major regional service centre and possesses a wide array of facilities and services to meet recreational and cultural needs. Recreational and sporting facilities include two Olympic-sized swimming pools, a cycling velodrome, water-ski gardens, rowing venues, day and night tennis courts, skating rink and indoor sports venues. Organised sports include all codes of football, bowls, golf, water skiing, fishing, tennis, soccer, hockey, basketball, cricket and a variety of indoor sports. A race track provides a venue for horse and greyhound racing.

A variety of community facilities exist in the city including libraries, museums, an art gallery, an arts centre, theatre, botanic gardens, zoo, Dreamtime Cultural Centre, service clubs and places of worship. There is a strong sense of community in the region, illustrated by the number of festivals and community events that take place. These include regional festivals and shows, multicultural events, art shows, musical festivals, regular and special markets and other community events. The success of these events demonstrates the region's commitment to "community" and its recognition of the importance of culture and recreation to a community's wellbeing.

Emergency Services

Emergency services in Rockhampton include:

- The Queensland Police Service with Regional Headquarters (Central Region) and two police stations, a Criminal Investigation Bureau (CIB) and Juvenile Aid Bureau;
- Queensland Ambulance Service (QAS) with two ambulance stations in Rockhampton; and
- Queensland Fire and Rescue Services with two fire stations located in Rockhampton.

QAS Central Region provides coverage to the people of the region through permanent and honorary ambulance stations based across the region. QAS Central Region also services the region's industrial sector through commercial arrangements, providing pre-hospital care, and servicing mines and other major industrial sites. There are rescue helicopters based in Rockhampton and Mackay, and Royal Flying Doctor Service fixed wing aircraft based in Rockhampton. QAS works closely with both of these facilities to provide rescue and emergency services to the region. The Capricorn District Office for Counter Disaster and Rescue Services and the Regional Office for the Department of Emergency Services are both based in Rockhampton.

Community and Welfare Services

Rockhampton has a range of community and welfare services, including child care, community and individual support programs, youth programs and disability programs. The Queensland Department of Communities administers many of these services, as well as licensing private child care providers. Counselling and similar services in Rockhampton are also delivered by a range of private providers.

Livingstone LGA

Health and Medical Facilities

Yeppoon has both a public (Yeppoon Hospital) and private (Mater Hospital Yeppoon) hospital. The number of persons admitted to Yeppoon Hospital increased 1.0% in 2002-03 from the previous year with an annual average growth rate of 5.1% in the 10-year period since 1992-93 (OESR, 2005). Community health services available in Yeppoon include a child health clinic and community nursing services. Health care needs in Livingstone LGA are also serviced by the private sector with general practice facilities and dental practices.

Emergency Services

Police services in the Livingstone LGA are concentrated on the coast with two police stations incorporating a CIB unit and a water division. There are two permanent fire stations, based in Yeppoon and Emu Park, and these are complemented by a number of auxiliary rural fire services. An ambulance service is provided for in Yeppoon. The community of Marlborough at the northern extremity of the LGA has its own police and ambulance service and is serviced by a rural fire brigade.

Educational Facilities

There are 13 State primary schools across the Livingstone LGA, six of which also offer preschool facilities. This is further complemented by two non-state primary schools both offering preschool facilities. Secondary schooling is provided by one State and two non-state schools, all of which are located in Yeppoon.

Cultural and Recreational Facilities

The Livingstone LGA comprises the communities of Yeppoon, Emu Park, Keppel Sands, Great Keppel Island, Byfield, Cawarral and Marlborough. With Yeppoon being the major town centre of the Livingstone LGA, the region boasts a full complement of service clubs and organisations including, Queensland Country Women's Association, Returned Services League, Lions and Rotary Clubs, sporting organisations as well as the Capricorn Coast Tourist Organisation and the Capricorn Coast Chamber of Commerce. The region also has a number of natural attractions including Great Keppel Island, rainforests at Byfield, caves and wetlands. Other attractions include a crocodile farm, fish farm and Australia's largest coffee plantation. Churches of a range of denominations are present across Yeppoon and Emu Park. Multicultural groups and the region's strong ties to the Southsea Islanders are well recognised with representative groups active in the area.

Community and Welfare Services

The Community Development Centre in Yeppoon provides a venue for a range of community services ranging from youth, family and aged support services through to craft and self-help courses. Other community health services include a child health clinic, community nursing services, counselling services, home and community care co-ordinator, volunteer co-coordinator services and a nursing service.

Visiting services include psychologists, Relationships Australia, Breakeven counsellor, drug and alcohol services, mental health service and child and youth mental health counsellors.

Fitzroy LGA

The facilities and services in the Fitzroy LGA discussed here focus on the township of Gracemere due to its proximity to the Project and its proposed use as a domicile for a proportion of the project construction workforce.

Health and Medical Facilities

Gracemere, the most populated township of the Fitzroy LGA, is serviced by three general medical practitioners and a nursing home. Public and private hospital facilities are located in Rockhampton.

Emergency Services

Fire and police services exist in the Gracemere township, while ambulance services are provided for by either Rockhampton or Mount Morgan.

Educational Facilities

Fitzroy LGA has 11 primary schools, with one State and one private primary school situated in Gracemere. Westwood and Stanwell also host State primary schools. Secondary schooling is available in Rockhampton with some schools being serviced by a daily school bus service. Tertiary education is available in Rockhampton through the CQIT and CQU.

Cultural and Recreational Facilities

Gracemere's recreational needs are met by a wide range of community organisations including Scouts, Lion's Club, music associations, community halls, and a sports complex. Organised sporting activities include an international cart racing track, motor cross, tennis, lawn bowls, croquet, golf, cricket and most codes of football. A number of parks and gardens provide further venues for recreation while Port Alma, at the southern tip of the LGA, provides facilities for recreational boating, fishing, crabbing and other water-related activities. The Gracemere Saleyards is the largest in the southern hemisphere and is well renowned for its stud sales, conducting the largest sale of this type in Australia. The community's religious needs are well catered for with a multitude of churches of various denominations across the LGA.

Community and Welfare Services

There are several child care centres located in Gracemere. Anglicare CQ, although based in Rockhampton, provides a range of community services in Gracemere. Other community and welfare services are available in Rockhampton.

Mount Morgan LGA*Health and Medical Facilities*

Mount Morgan is serviced by at least one private practice general medical practitioner, a hospital and a Blue Care Nursing Service. The number of persons admitted to Mount Morgan Hospital increased 37.1% in 2002-03 from the previous year but experienced a ten year annual average decline of 4.4% (OESR, 2005).

Emergency Services

Police, ambulance and fire emergency services are provided for in Mount Morgan.

Educational Facilities

The educational requirements of Mount Morgan's community are met by one state primary school and a secondary school.

Cultural and Recreational Facilities

Given the historical mining significance of Mount Morgan, the LGA offers a number of tourist attractions that include the original mine site, a historical rail complex, a museum and a number of buildings and structures of historical significance. The community's recreational needs are met by a sporting complex that offers an outdoor pool and an indoor heated pool with a range of organised associated water sports and a number of other activities. This complex also includes a youth centre that provides a range of activities for young people of all ages. Indoor and outdoor bowls, a golf club and an arts and crafts group further complement the range of recreational activities in Mount Morgan.

12.3 Potential Impacts and Mitigation Measures

Impacts of the demographic changes are likely to occur in several ways. Increased numbers of people in the region means the potential for more pressure on infrastructure and services, and may change the social fabric of the region in both positive and negative ways. The two key areas where increased demands have the potential to 'ripple' through the rest of the economy are the employment and housing sectors, where current buoyant conditions mean that additional demands may add to current pressures.

In order to track the impact of the Project on the local community and services, the proponents will continue with an active community consultation program throughout the life of the Project. When required, the proponent's representatives will be made available to the community through local meetings and representations on committees, workshops, etc.

12.3.1 Community

A study was conducted in May 2005 involving semi-structured interviews of individuals representing households and local businesses in Stanwell, Kabra and Gracemere. The main aim of this study was to explore the attitudes of residents and business owners/employees toward the Project. The data should be seen as indicative of the range of community perceptions but not necessarily of how many people hold any particular view.

The sample size of 57 was large enough to reflect important variations in the population. Most respondents (34) were interviewed at home while 23 people were interviewed at their workplace. Most business respondents (18) live in the town where they work, while four people live in Rockhampton and one in Emu Park. Full details of the responses are provided in Appendix K with a summary of responses provided below.

In addition to this study, a community consultation program was commenced in the early stages of development of the EIS to provide an opportunity for the proponents to impart information to the stakeholders regarding the Project and obtain valuable local knowledge from community groups. It also provided stakeholders with an opportunity to express their views about the Project and be involved in the EIS process. This community consultation program is discussed in Appendix B.

Summary of Responses

Whilst by far most respondents for this study are in favour of the Project, most benefits are expected by respondents to occur at the regional level, followed by the community level, and only to a lesser extent at a personal level. For negative impacts no respondents expected negative regional impacts and most expected negative impacts at the community level (though to a lesser extent in the personal sphere).

Whilst there was a lot of support for the Project during the EIS community consultation program, some residents did highlight concerns in relation to environmental impacts of the Project on the surrounding community and standard of living. These concerns included the air emissions from the Project and additional rail and road traffic in the area.

After the failure of the AMC development, many respondents do not believe a coke plant and power plant will be established in Stanwell. This view could have resulted from the fact that people lost money when the AMC project collapsed. Of those people who did have confidence in the Project, many hoped to secure employment at the Project and be able to earn back the money they had invested in the AMC project.

For the community in general, the potential for jobs outweighed pollution concerns and those people who were opposed to the Project were found not to be taking proactive measures to express their opposition to the Project. The concern about water supply and quality (i.e., absence of town water, high rates, pollution of ground water, and rain and drinking water collected in tanks) were not, for the most part, directly related to the Project.

The proponents will take an active role in consulting with the local community on environmental matters associated with the Project. As outlined in Appendix B, the proponents initiated an active community consultation program and it is planned to continue this throughout the life of the Project. In addition to public and one-on-one meetings with the community, the proponents will continue to provide updates through their websites, newsletters, media briefings and the release of key project documents. During consultation, stakeholders will be provided with opportunities to put forward any concerns, issues or feedback that they may have about the Project. The proponents will then review any issues, complaints or potential concerns associated with the Project and address them as outlined in the relevant Environmental Management Plans (Section 16) for the Project.

12.3.2 Government Agencies and Other Service Providers

While the majority of government and community facilities and services in the area of the Project are provided by Rockhampton City (the major urban centre local to the site), the surrounding LGAs also service the region as discussed above. Government and community facility and service providers within the Rockhampton, Fitzroy, Mount Morgan and Livingstone LGAs were approached to establish the capacity in the region to manage the population increase predicted as a result of the Project. Gladstone and Calliope LGAs were approached because of these regions' previous experience with industrial growth, and to assess the impact that the increased port activity resulting from the Project may have on the Gladstone and Calliope regions.

Local, State and Federal Government agencies were also consulted during the EIS community consultation program in order to pre-empt any issues they may have about the Project. The agencies that were contacted and a summary of the issues raised are detailed in Appendix B and addressed throughout other sections of this EIS.

Health and Medical Facilities

Although contacted for feedback and information during this assessment, no response was received from Qld Health, however, Qld Health did provide feedback during the community consultation program for the EIS which focussed on health issues associated with the proposed workforce accommodation facilities (such as water ponding, food service, camp noise, dust generation, transport of employees and water issues). Such issues will be addressed through consultation and the development approvals process for the accommodation facilities.

Emergency Services Facilities

In the case of an emergency, the services in Rockhampton and Gracemere will respond. The expectation is that there will be on-site facilities as part of the Project's workplace safety and risk management strategies, or that arrangements will be in place to share the facilities and services already in place at the Stanwell Power Station (SPS). The proponents, in conjunction with the relevant legislative bodies, will develop appropriate emergency response plans that include staff training and regular inspections to ensure the maintenance of plans and equipment.

Education Facilities

Only one school in the Rockhampton, Gracemere and Livingstone LGA areas is operating at capacity. Problems coping with any potential influx of students will only arise if the entire group of workers and their families are housed in the same area. Impacts are more likely to be experienced from the increased mobility of lower socio-economic groups that may be displaced due to rises in home rental prices. Schools are affected by this, with students in these situations often coming to school hungry, being unable pay for books and excursions, and exhibiting symptoms of increased stress at home. Another issue of concern for schools is the location of worker accommodation. As it is likely that the workforce for the Project will not be located in the one area, the impacts on education facilities will be spread throughout the region. If Education Queensland is provided with reasonable notice of a population influx, plans can be implemented to provide additional facilities in a timely manner to overcome potential capacity problems.

Cultural and Recreation Facilities

It is not anticipated that the influx of population due to the Project will have an adverse impact on sport and recreation facilities in the region (S. McCosker, pers comm., 2005; K. Rose, pers comm., 2005). It is anticipated that families settling in Gracemere will continue to travel to Rockhampton for children's sporting activities, as the current population does. However, the operation of some facilities may need to change to accommodate the working hours of project staff, should shift work arrangements be implemented. The proponents will remain active within the local community to monitor the impacts of the Project on cultural and recreational facilities and provide assistance and/or representation where necessary.

Community and Welfare Services

The welfare of families moving to the region for work was raised as an issue by a number of interviewees. Issues discussed include the isolation of families moving to a new area, access to counselling services that are already stretched, and the need to focus services on the area where families will be living, rather than where the income earner is working. There is concern that low income families within the region may become displaced if the Project causes rent and house prices to increase. Many low income families will need to relocate if rental prices are too high. If these families move to a low rental region that can't provide the services needed to support them, the situation will become more complex.

The construction of workforce accommodation has been considered by the proponents to alleviate social impacts related to rental and housing price increases in the area and to avoid the displacement of low income families. It is also expected that the provision of workforce accommodation will reduce the need for families to relocate to the region which results in additional pressures on local counselling services. Throughout the life of the Project the proponents will remain active within the community to gauge any impacts on local community and welfare services and provide assistance where necessary.

12.3.3 Employment

Consultation with a number of employment agencies within Rockhampton revealed that at present, the strength in the Rockhampton labour market lies within the unskilled labour sector. Where demand for labouring-type positions is generally being met, there is a distinct lack of semi-skilled and skilled labour, such as qualified truck drivers and trades persons. This localised skill shortage can largely be attributed to the high salaries and working conditions offered as attraction and retention incentives by mining companies as a result of recent growth in this sector. Since local industry is generally unable to compete with these enhanced employment conditions, localised wage rates have thus far remained relatively unaffected.

While it is considered that the construction phase of the proposed Project may provide some employment to the local unskilled market, there is some perception that the operational phase may present greater opportunity for both the local unskilled and skilled labour market. It can further be anticipated that this will increase the drain of local skilled personnel through the attraction of local tradespersons. It is possible that the industry with the greatest potential to lose unskilled/semi-skilled employees to the Project will be the meat processing factories. The Project may increase the drain of local skilled people, however, this may be offset by the proponents' plan to recruit a significant proportion of the workforce from outside the region.

Consultation with the regional training body confirmed observations of a regional skill shortage of trades persons and further suggested a decline in numbers of support service personnel. It is envisaged that the majority of personnel required for the construction phase of the Project would be sourced externally to the region. However, it is anticipated that staffing requirements for the operational phase of the Project would provide the greatest opportunity for local employment seekers and consequently training services. Existing training infrastructure and services has the capacity to meet training requirements.

The proponents are collaborating with training providers to identify the predicted skill set requirements to enhance the ability of training providers to meet requirements in a timely manner. The proponents will also develop corporate recruitment and training plans to ensure mechanisms are in place to actively manage and implement government policy on workforce recruitment and the encouragement of local industry in Central Queensland.

Skill Shortage

Department of Employment and Workplace Relations (DEWR) labour force statistics for the March quarter 2005, report a state-wide shortage of carpenters, bricklayers, plumbers, electricians, skilled metal workers and fitters. The skill shortage across Queensland is particularly evident for civil engineers experienced in water, roads and structural engineering (DEWR, 2005). Although this information does not provide a clear indication of the current skill shortages, the data provided identifies the Project's significant need for skilled labour. The greatest proportion of the direct employment impacts reported in this analysis will be net additions to the regional workforce. However, flow-on employment is likely to occur, particularly in the construction sector, as necessary to support consequential growth in the region.

Appendix K presents the number of unemployed people and the unemployment rate for the previous 12 months to the March quarter 2005 across the four LGAs in the region (DEWR, 2005). An increase in the labour force across three of the four LGAs has been met with a corresponding decrease in the unemployment rate. A decreasing unemployment rate is indicative of a tightening labour market and is consistent with the shortage of skilled labour that presently exists in the region.

It is important to recognise that the current skill shortage is a pre-existing issue. A key challenge exists for government and training providers to build partnerships with the industry sector to develop a co-ordinated approach to addressing skill shortage problems facing industries in the region. The provision of co-ordinated, efficient strategic actions that address these skill shortages in a timely matter will be a key factor in the capacity of the region to realise continued economic growth and development.

Due to the significant skill shortage which has been identified as an issue for the region, the proponents aim to potentially recruit up to 40% of its staffing requirements through local sources, although this may only be achieved by paying higher wages and attracting workers from existing jobs. A flow-on effect is that the project construction and development may increase local wage levels and exacerbate existing skill shortages.

Construction Phase

The occupational groups projected by the proponent to be required during the construction phase of the Project are tradespeople, bricklayers, engineers, managers, foremen and office staff, followed by trade assistants/labourers, plant/crane operators and skilled metal trade workers. Details of the specific occupations that make up these summary figures are listed in Appendix K. Should construction occur at the maximum rate anticipated, an average of 1,180 people is expected to be needed for an 18 month period (Stage 1). The peak construction workforce for limited periods of time is anticipated to be a maximum of 1,650 people. Due to labour shortages in the region it is possible that the construction period will be extended to 5 years (Stage 1 and 2) requiring a reduced workforce of an approximate average of 800 and peak of 1,000. It is likely that the construction at Fisherman's Landing can be undertaken with existing labour forces currently employed in similar work.

A key issue is the extent to which workers from the local region would be available for construction, and how many workers will need to be sourced from the rest of Queensland or elsewhere. Some of the additional issues under consideration include the following:

- Some construction jobs require specialised skills which may not be available locally;
- Substantial growth in coal mining in 2004/5 has already generated some skills shortages in the region;
- Many potential workers may be reluctant to engage in a short-term project with 18 months or less of work;
- There is a substantial population base in the region, with a declining but still high rate of unemployment; and

- The attraction of skilled labour from existing jobs may cause downstream effects on the ability of other businesses to retain and attract skilled labour.

Investigations show that the construction stage of the Project will require a modest proportion of the local workforce. The areas where the largest proportion of the available workforce in the Rockhampton statistical division would be needed are tradespersons and related workers (15% of the available workforce), and labourers and related workers (11% of the available workforce).

It is very unlikely that the full construction workforce could be supplied from the local region, although there are substantial pools of labour available in the neighbouring local government areas of Gladstone and Calliope (Table 12.2). Evidence from similar developments in the region suggests that the bulk of the construction workforces tends to come from outside the region. While the local component of the construction workforce could be as high as 40%, there are also arguments that it could be lower, or that the flow-on effects on the labour supply for other industries in the region mean the net increase in jobs is lower.

Table 12.2 Estimate of Workforce during the Construction Stage

Occupation	Required		Available						
	Percentage of Total (%)	Approx Average	Fitzroy LGA	Rockhampton LGA	Livingstone LGA	Mt Morgan LGA	Rockhampton SSD	Calliope LGA	Gladstone LGA
Managers and Administrators	16.9	200	473	1,157	949	27	1,169	549	571
Professionals			393	3,852	1,606	49	3,962	762	1,555
Associate professionals			370	2,968	1,281	78	3,091	683	1,397
Tradespersons and related workers	43.2	510	608	3,183	1,337	93	3,468	1,120	2,247
Elementary clerical and service workers			109	685	345	11	725	173	353
Intermediate clerical and service workers			661	4,438	1,655	103	4,699	752	1,692
Intermediate Production and Transport workers	10.2	120	441	1,854	761	74	2,042	1,076	1,806
Labourers and related workers	29.7	350	556	3,028	1,148	101	3,245	633	1,084
TOTAL	100	1180	4,071	24,275	10,198	618	25,703	6,351	12,034

Source: Project proponents and 2001 Census data (ABS, 2002).

In this assessment it is assumed that 33% of the construction workforce (400 jobs) will be sourced from the region, while 66% (800 jobs) will be sourced from the rest of Queensland and interstate. The proportion of local involvement may be lower if the labour market remains very tight, but could be higher if the construction period is extended to a three years or longer. In either case, the flow-on effects will mean that a large proportion of locals gaining employment will need to be replaced, generating a

population influx into the region. Assuming that there would be replacement effects for all workers apart from labourers, the expected number of replacement workers at a 33% local take-up rate would be 277 persons.

Operational Phase

The operational phase of the Project will involve increases in long-term employment in the Coke Plant and Power Plant, as well as flow-on effects into transport, coal production, equipment maintenance and service industries. The key direct employment effects can be estimated as follows:

- Coke Plant – 122 positions (including materials handling workforce);
- Power Plant – 23 positions;
- Port – approximately 12 positions; and
- Railways – approximately 20 positions.

Comprising some 40% of the total labour requirement, the greatest skill requirement for the operations phase is clearly tradespersons and related workers. This is followed by labourers at 20.5%, intermediate production and transport workers at 12%, and professionals and associate professionals at 10% and 10.5% respectively. The impact on the local labour market will not be of limited significance, with most pressure expected in the tradesperson and related workers, and intermediate and production workers classes. While there will be a significant proportion of labourers required, the current surplus of labourers in the regional job market means these demands should be easily satisfied.

A total of 250 to 300 additional jobs are expected to be created covering the Coke Plant, Power Plant, rail operation, port facilities and direct contracts. Investigations have shown that it should be possible to fill positions from the existing labour pool, although the back-fill effects will still result in more people moving to the region as additional jobs are created. The net demographic effect will depend on factors such as the:

- Strength of the local economy as the Project moves into operation;
- Strength of the labour market as the Project moves into operation, and
- Potential for education and training programs to provide the required skills to local workers.

Due to the existing skills shortage in the region, the direct demographic impacts of the Project are expected to be positive. For the purposes of this study, a net demographic impact of 200 workers is adopted (allowing for 50 labourers and other workers to be employed without backfilling). Likely areas of residence for the operational workers suggests that approximately 60% will locate in Rockhampton, 15% in Gracemere, 15% at the Capricorn Coast and the remainder in the wider region. There will be longer-term demographic impacts resulting from the upstream and downstream economic development. These are outlined in more detail in Section 13 - Economic Environment.

While skill shortages have already been realised within the region, the potential for local enterprise to experience further skill shortage during the construction and operation of the Project is not anticipated to be significant. Qualitative analysis following consultation with community and key training providers identified issues relating to local employment and training in the region. In order to address skills shortages, where possible the proponents will:

- Develop a close working relationship with local agencies and employment providers through forming a skills/employment working party that would include the project proponents, training providers, State government agencies, regional development groups and local government authorities;
- Utilise local networks and closer consultation with relevant agencies regarding employment and training; and
- Utilise government apprenticeship and training programs.

The proponents will also consider a number of government funded strategies which are aimed at addressing skill shortage issues that include:

- SmartVET;
- Skilling Solutions; and
- Training in Communities.

SmartVET is the Queensland Government's strategy to target the power of its strong and vibrant vocational education and training sector squarely at the skill needs of industries that are critical to Queensland's economy. Skilling Solutions Queensland provides a revolutionary new integrated training and employment service that will fast track the employment prospects of Queenslanders and help industries facing skills shortages to acquire suitable workers on demand. The Training in Communities Program provides funding to organisations to provide training and related assistance to people who are least competitive in the labour market or marginalised from learning or training opportunities. The focus of the program is to boost the skills of Queenslanders and improve their chances of employment.

12.3.4 Housing and Accommodation

Current Rental and House Markets

A review of the Rockhampton and surrounding LGA housing and rental markets indicates a tightening market in 2004/2005 not too dissimilar to the rest of Queensland. For the December quarter of 2004, the vacancy rate for all types of residential rental accommodation in Queensland was 2.6%.

Surveys of Rockhampton in April 2005 suggests the Rockhampton rental housing market is approaching capacity, with an average vacancy rate of approximately 2.2%. Units and flats are slightly higher at 3% while housing is around 2%. The vacancy rate 12 months previous was 3.5% for houses and 6% for units,

as compared to 2.5% and 7% respectively 24 months previous. At the time of the survey, no rental properties were available in Gracemere and only one in Mount Morgan, indicating housing is already tight in these areas.

The rental market has also experienced moderate growth from March 2003 to March 2005 with the median rent on three-bedroom housing increasing from \$155 per week to \$170 per week in Rockhampton (10% increase) and \$170 per week to \$185 per week along the Capricorn Coast (9% increase). The median rent on four-bedroom houses increased from \$200 per week to \$240 per week (20% increase) in Rockhampton and \$220 to \$240 per week along the Capricorn Coast. Whilst significant, these increases are still smaller than the increases experienced in Mackay and Brisbane. Appendix K provides the median weekly rents paid for the Rockhampton, Livingstone, Mackay and Brisbane LGAs from March 2003 to March 2005.

The Queensland Residential Tenancies Authority (RTA) activity statement for April 2005 indicates a significant increase in the monthly number of new rental bonds being received in Queensland from 2003-2004 to 2004-2005 and a much smaller increase in the number of bonds being finalised, indicating an increase in demand and reduction in rental vacancies throughout Queensland.

In line with the housing boom across Australia, house prices within the project area have substantially increased from 2000 to 2004. The level of increase ranges from 40% in the Rockhampton and Fitzroy LGAs to 72% in Mount Morgan LGA. The annual increase in the median sale price for houses peaked in 2003 in the Gladstone, Livingstone, Mount Morgan and Calliope LGAs. In Rockhampton and Fitzroy Shires, the single largest annual increase in median sale prices for housing (21% and 14% respectively) occurred in 2004, and house price increases are more modest, suggesting that the demand for housing in Rockhampton may not yet have peaked.

As is the case for most of Queensland, demand for housing within the project area is experiencing a period of strong growth. Historically low vacancy rates (estimates ranging from 0-2% for housing) have contributed to significant increases in both median weekly rent and median house sale prices between 2000 and 2004.

Within the Fitzroy statistical division the total number of households is expected to increase by an estimated 47% from 2001 to 2026. Appendix K provides the projected change in household type for the Fitzroy region. The data suggests that dramatic increases in the number of couples, single parent families and single persons will substantially increase demand for housing between now and 2026.

Housing Supply

Regionally, the number of new building approvals recorded for the LGAs of Livingstone, Fitzroy, Mount Morgan and Rockhampton remain slightly below the peaks experienced during 2004. Appendix K provides a summary of the number and cumulative value of new residential dwelling units approved for each LGA for the year ending March 2005, and housing approvals since 1995, indicating a total number of 629 approved residential dwelling units valued at \$123.5 million. Rockhampton City and Livingstone Shire accounted for 89% of these new dwellings and 90% of their total value.

Research shows that there are enough existing approvals or approvals close to completion to ensure that land for housing is readily available. Fitzroy Shire Council has approximately 200 residential blocks available for people to submit plans to Council (L. Harman, pers comm., 2005), Rockhampton City Council has approximately 2,500 allotments planned (R. Palmer, T. Upton and G. Steel, pers comm., 2005) and house and land packages available in North Rockhampton and Calliope Shire Council comprise five areas with potential for 20 housing lot divisions, and the potential to accommodate 200 families (R. Schuller, pers comm., 2005). Mount Morgan Shire Council anticipates having around 200 residential blocks, including 3-5 acre blocks, ready for development in the near future (G. Hinch and P. Swindle, pers comm., 2005).

Despite the availability of land in the region for new housing, the initiation of the Project could trigger a surge in the rental and house price market due to timing, cyclical and structural reasons. There would be a short turnaround between project approval and the start of construction, which makes it difficult for private investors to meet any shortfall. Also, the Project might come at the peak of a substantial demand for property, where rental and housing markets are already tight due to the current upturn in the housing market, which is driven by the current upturn in the mining industry, the relocation of people to the Capricorn Coast, and the spill-over effects from South-east Queensland. In addition, structural factors mean that rent prices may have to increase further before a stimulus for private investors to increase housing stocks is effective.

Affordable and Crisis Housing

The first potential major social impact resulting from the regions' strong housing market growth is impact on affordable and crisis housing. The Rockhampton rental housing market has traditionally been one of the most affordable in the Central Queensland region. Rapid population increases in response to regional mining and industrial growth combined with regionally high levels of disposable income in Gladstone, Mackay and the Central Highlands has forced many low income families and retirees to move to centres offering affordable housing. For those wishing to remain in Central Queensland, Rockhampton has been the only real affordable housing alternative during the last five years. As a result, affordable housing in Rockhampton and along the Capricorn Coast is at capacity.

Housing Queensland has reported a 30% increase in the number of families seeking subsidised housing in Rockhampton from January 2005 to April 2005 (B. O'Rourke, pers comm., 2005). During the same period, the number of vacant Departmental houses in Central Queensland declined from approximately 100 to 30. Requests for crisis housing through Housing Queensland's Rockhampton office have increased to 10 families per week. At the time of interview (April 2005) Housing Queensland had no available crisis housing and was referring families to local caravan parks with sufficient funds to secure temporary housing (e.g. self-contained cabins).

Housing Queensland has indicated that it has no immediate plans to construct any additional dwellings in response to Rockhampton's increased demand for affordable housing. At the time of interview, 40 units under construction were the only major capital works reported by Departmental staff (B. O'Rourke, pers comm., 2005). Another scheme available through Housing Queensland is a bond loan scheme designed to allow low income families to enter the private rental market. Demands for rental assistance have been

increasing slightly over time as rental prices have gone up, with most increases occurring for Rockhampton residents and for older people. Support required for younger people has decreased, possibly because this group has increased employment.

Community Dislocation and Social Isolation

The second potential major social impact resulting from the regions' strong housing market growth is altered regional migration patterns leading to community dislocation and social isolation. Evidence has emerged during stakeholder interviews to suggest that recent regional migration of families in search of affordable housing has resulted in increased community dislocation and social isolation within Central Queensland. Community dislocation is occurring as families move from one town/city to another in search of affordable housing and in some instances as families move from one suburb to another within Rockhampton.

Education Queensland has indicated that as rent increases from \$130 per week to \$150 per week, low-income families are forced to relocate (L. Foley, pers comm., 2005). In Rockhampton over the six months from October 2004 to March 2005, an increasing number of families removed their children from State schools in the south of Rockhampton and placed them in northern Rockhampton State schools where the housing is more affordable. Education Queensland is expecting this trend to continue as rental prices in southern Rockhampton continue to increase.

Families that are moving also experience social isolation which manifests itself in a number of ways including as:

- Increased levels of anxiety in parents and children struggling to establish new social and support networks;
- Learning difficulties in children as they adjust to new schools, friends and routines;
- Increased incidence of abusive parents identified during parent/teacher meetings;
- Eroded levels of social capacity within communities (e.g. decreased parent participation in sporting events or parent and citizens meetings);
- Increased incidence of hungry children at school as struggling families become more isolated from extended families that would normally provide assistance during difficult periods. Education Queensland reports that charity groups now operate 10 breakfast clubs across Rockhampton State schools in response to hungry children arriving at school; and
- Families where the primary income earner is forced to work away from home for long periods of time.

Summary

The majority of those people interviewed believed that housing will be impacted by the Project. While some local authorities indicated that there is more than enough land available for people moving to the area to build homes, there is a shortage of available rental properties. There was concern for lower socio-economic groups, currently living in lower priced private rentals. A possible impact of population growth due to the Project would be an increase in rental prices as the rental market tightens further, resulting in low income families being forced out of the private rental market. This would be compounded by both the shortage of public housing and the fact that, when rental markets have tightened in other central Queensland communities, this group has gravitated to Rockhampton because of its low rent housing availability.

There is potential for additional demands on the housing market to increase rental and house prices, which can also have some beneficial effects in terms of increasing wealth and stimulating investment back into the housing market. The direct demands on housing in the Rockhampton region from the Project are anticipated to be as follows:

- Construction stage – 350 rental and sale houses needed; and
- Operation stage – 200 sale or new houses needed.

If the total construction period extends beyond a consecutive two years, then a higher proportion of construction workers are expected to settle in the Rockhampton area, which will generate a greater demographic and economic impact.

The issue of accommodation for the construction workforce, the majority of which is expected to be brought in from other areas, is undergoing careful consideration by the proponents. The non-residential construction workers are expected to be housed in a suitably located accommodation village at Gracemere. The key advantages of these arrangements are that impacts created by demands for housing in the region can be minimised. The key disadvantage is that a grouped accommodation arrangement tends to limit the economic impact of those workers on the local economy. There will be some direct stimulus for businesses providing food and cleaning services, but most disposable income will flow back to the area of residence.

The location of the workforce accommodation village has been discussed at various community consultation meetings and through numerous discussions the proponents have had with the Fitzroy Shire Council. The concerns of the community and other Government agencies are being taken into consideration for the siting of this accommodation. The availability of after-hours recreational services was raised as important in ensuring shift-workers will be catered for. It was suggested that community expectations need to be managed with regard to the level of participation that workers were likely to have within the community.

Affordable Housing Strategies

A number of solutions to the shortage of affordable housing in Rockhampton were identified by stakeholders. These include:

- Development of a whole-of-government housing plan for Rockhampton similar to that developed for Gladstone (i.e. the Gladstone Coordination Group Housing Action Plan) during its housing crisis. Stakeholders from Livingstone Shire Council, Rockhampton City Council, Department of Communities and Housing Queensland promoted the need for this model during stakeholder interviews;
- Development of an affordable housing trust/conglomerate involving Housing Queensland and the Rockhampton, Fitzroy and Livingstone Councils. The trust would operate in a similar fashion to the Brisbane Housing Company Ltd (<http://www.brisbanehousingcompany.com.au/>) and would operate two housing businesses. The first would provide houses to the private rental market in strategic locations. The profits from this business would be used to subsidise housing for low income families and pensioners elsewhere in the Rockhampton, Livingstone, Fitzroy and Mount Morgan region; and
- The construction of single persons' quarters in such a way that these facilities could be used/converted to aged care units once construction was completed (e.g. modular housing). Participants in a housing trust could be responsible for the refurbishment and relocation of these facilities to a more desirable location on completion of construction.

Where possible, the proponents will provide input into any housing plans or initiatives by the Local or State Government to assist in developing solutions to housing shortages in the region affected by the Project.

Strategies to Combat Community Dislocation and Social Isolation

A number of strategies were identified by stakeholders to minimise the incidence of community dislocation and social isolation. These include:

- The development of a coordinated whole of government approach to assist families in coordinating and planning moves within the region. This may involve trying to direct families to areas where employment opportunities and affordable housing coincide;
- Expanding community service provision to under-resourced regions. A successful model promoted by Livingstone Shire Council (N. Jeffers, pers comm. 2005) was the establishment of the Department of Community, Development and Support (DCDS). The DCDS is a partnership between the Queensland Department of Communities and Livingstone Council and is intended to strengthen family connections particularly amongst families suffering community dislocation and/or social dislocation;
- Providing relocating families with a list of key community contacts for the region they are moving to;

-
- Encouraging large employers within regions to offer employee assistance packages where counselling services are provided to employees through private providers such as Relationships Australia as part of their employment package; and
 - A concerted effort by government and community service providers to monitor demographic shifts within regional communities to ensure sufficient social support mechanisms are in place to satisfy changing community demands.

The proponents will remain active members of the community and monitor any community dislocation or social isolation issues created as a result of the Project. Where possible, the proponents will offer support to employees and provide input into government or private sector initiatives for developing strategies to alleviate community dislocation or social isolation in the region.

12.3.5 Transport/Traffic

Transport infrastructure with the potential to be affected by this Project include rail infrastructure to the project site and to the new port facility at Fisherman's Landing, and road infrastructure that will be used for the trucking of materials to the site during the construction phase.

Discussion with Queensland Rail (QR) indicated that there would be little difficulty in moving scheduled containerised freight from its delivery point in Rockhampton to the project site. The containers would need to be trucked into the site as the current rail loop can only be used to transport material from areas away from Rockhampton. Further discussion with QR indicated that there may be a need for additional rolling stock to accommodate the additional load, both for the supply of coking coal to the site and for hauling the end product to the port. Discussion with both QR and Queensland Transport indicated that there was not expected to be an increase in risk of collisions or derailments.

An area of concern for Queensland Transport stems from level crossings and the increase of trucks on the Capricorn Highway between Rockhampton and Stanwell. Current statistics (Qld Transport, pers comm. 2005) put traffic movements at approximately 2,200 per day of which 500 are trucks. Capacity is 20,000 traffic movements, indicating that while there may be additional pressure on road safety, it will not be at unmanageable levels. QR indicated that if coking coal was to be sourced from a region other than Central Queensland there could be transport problems. In addition, most LGAs indicated that if the coal and coke needed to be transported by road rather than rail, problems would arise.

The other issue to be considered for where the construction workers might be located, are the implications for traffic congestion. The location of the Project means that local workers from Fitzroy, Rockhampton and Mount Morgan LGAs will be easily able to access the site. Workers from Livingstone, Gladstone and Calliope LGAs will also be able to access the site, but it will not be as practical. Currently the approximate breakdown of the place of domicile of the SPS operational workforce is as follows:

- Gracemere area - 11%;
- Yeppoon Coast area - 11%;
- Mount Morgan area - 1%;

-
- Local Stanwell/Kabra area - 3%; and
 - Rockhampton - 74%.

Traffic issues were also raised during other interviews in relation to proximity of schools to the routes that are likely to be used to access the site. Others voiced concern of the pressure increased population would put on roads in and around residential areas, and on both routes to the Capricorn Coast. The key advantages of the proposed workforce accommodation arrangements are that traffic impacts can be minimised through the use of buses to the site, and particular needs of the workers can be addressed with tailored services.

In addition to the provision of transport services for the workforce, the proponent's review of the construction schedule will assist in alleviating the increase in traffic volumes and the potential for traffic congestion. As the revised schedule proposes a longer construction period with the need for fewer workers and less raw materials at any one time on site, this will also assist in alleviating problems with traffic and transport infrastructure.

The impact of the Project on the regions transport infrastructure and traffic volumes is discussed in Section 14 - Transport Infrastructure. In response to impacts which the Project may create on local road infrastructure, a Road Use Management Plan is provided in Section 16 – Environmental Management Plan.

12.3.6 Direct Community Impacts and Mitigation Strategies

Potential direct community impacts that need to be considered in relation to the Project are those on people residing/working in close proximity to the site of the Project. In the area directly adjacent to the project site, it is estimated that four properties and their owners/residents will be affected by the development. Of these surrounding properties, only one is occupied by the property owners, another residence is rented but is currently unoccupied, one property has no residents and the other property is owned by SCL. On-farm activities on these properties are restricted to grazing, cropping and a seed orchard joint venture between SCL and the Department of Primary Industries. It is not anticipated that the Project will have a major impact on the viability of these properties or the incomes of the property owners and their employees.

Environmental Impacts

There are a small number of people who live in close vicinity to the project site, including the residents of Stanwell and Kabra and a number of rural residents on surrounding land. Any adverse impacts on these people could be expected to reduce their standard of living, and may also potentially impact on property values. For this reason, several potential direct impacts have been considered in more detail below.

Noise Emissions

The proposed project site is situated within the Stanwell Energy Park (SEP) which is a designated industrial development area. The project site lies adjacent to the SPS and to the south of the Stanwell

township. As part of the investigations for the EIS, noise monitoring was undertaken to determine existing levels in the area. Full details on this monitoring are provided in Section 9 – Noise and Vibration. Noise modeling was completed in order to predict noise levels from all aspects of the Project, and specifically addressed the impacts on sensitive receptors such as the residents of Stanwell. The representative noise levels provided a design noise level spectrum for ongoing detailed design of the Coke Plant and Power Plant and it is considered that these levels would be readily obtained through standard design mitigation measures such as machinery guarding and other health and safety related control measures without any need for further environmental noise control.

It was found that the Project complies with the noise level goals at noise sensitive receptors for most of the noise criteria. Although it is not anticipated that noise from the Project will impact the local community, an ongoing community consultation program will monitor any issues which may arise. Furthermore, noise management strategies are addressed in Section 16 through the Environmental Management Plan. Additional mitigation measures will also be considered if operational experience indicates that additional noise control measures are necessary.

Air Emissions

As part of the investigations for the EIS, modeling of the local airshed was undertaken to determine existing emissions in the area and the potential impacts of emissions from the Project (Section 7 – Air). This modeling specifically addressed the impacts on sensitive receptors such as the residents of Stanwell. Dispersion modelling was conducted to determine compliance with ambient air quality guidelines for human health. The predicted impacts from operation of the Project will satisfy air quality guidelines for human health for nitrogen dioxide, particulate matter, carbon monoxide, volatile organic compounds, poly aromatic hydrocarbons and metals. Predicted combined impacts of sulphur dioxide from the Project and SPS indicate that under worst case conditions one exceedance of the 10-minute air quality guideline may occur in a year, while the 1-hour and annual average guidelines are met at existing residential locations.

Photochemical smog impacts are not currently a problem in the Stanwell region. The operation of the Project will add slightly to the existing situation but will not reach or exceed recognised guideline levels. The odour impacts have also been assessed as outlined in Section 7 - Air. Comparing the predictions to the odour guidelines shows that these guidelines are satisfied for the 99.5th percentile value, thus odour nuisance on surrounding areas would not be expected due to operation of the Project.

Although it is not anticipated that emissions from the Project will impact the local community, ongoing air quality monitoring and the community consultation program will monitor any issues which may arise. The local community will be kept informed of environmental matters of the Project through communications such as the proponents' web sites and community newsletters. Furthermore, air emission management strategies are addressed in Section 16 - Environmental Management Plan. Additional mitigation measures will also be considered if operational experience indicates that additional emission control measures are necessary.

The project activities at Fisherman's Landing (coke handling and ship loading) may generate low levels of dust. However due to the screening of the coke at Stanwell, the coarse grained nature of the coke and the distance to receptors (>1.5 km) these activities are not considered to be the source of significant impact.

Water Related Issues

The project site at Stanwell is within the Neerkol Creek catchment, an ephemeral creek system influenced by agricultural and industrial practices. The SPS currently discharges combined power station blowdown and stormwater into Quarry Creek, a tributary of Neerkol Creek on a continual basis which has led to more consistent overall flow conditions. As discussed in Section 5 – Water Resources, potential surface water impacts have been considered both for the Project at Stanwell and the wharf at Fisherman's Landing on the Curtis Coast.

Recreational values of local watercourses are considered to be very limited. Neither Quarry nor Neerkol Creeks are navigable and few locations are suitable for swimming. Although recreational fishing has been observed on Neerkol Creek, none of the large species commonly associated with angling are present or have been observed in the past. Abstractions from Neerkol Creek for agricultural purposes are extensive, largely for irrigation and stock-watering.

The sustainability of water use will be addressed through water re-use options as far as possible (Section 5 – Water Resources). Some impacts on the flow regime of local creeks may be caused under certain plant configuration scenarios due to releases of water from the Power Plant. Any increase in flows associated with additional blowdown from the Power Plant may lead to a larger and more reliable downstream water flow regime. Any additional discharge is expected to be of a similar quality to that currently discharged from SPS. As such, the impact on water quality would be minimal. Any reduction in flows associated with the use of some SPS blowdown water by the Project will also be relatively minor and should not create any major impact on downstream water users.

Specific surface water management strategies are detailed in Section 5 - Water Resources and in the site Environmental Management Plan (Section 16).

Visual Amenity

The Project is proposed to be constructed on a cleared site that was formerly proposed for the AMC project. The village of Stanwell is located approximately 1 km north of the site with extensive tree cover along Neerkol Creek providing visual screening to views of the site from the village. This tree cover also provides screening of potential views of the site from the section of Capricorn Highway and railway line that runs generally east-west through Stanwell village. The existing SPS is a visually prominent, large scale industrial complex located within a generally rural landscape. However, a large proportion of the SPS is screened from views from Stanwell village and the sections of Capricorn Highway and railway line running to the north of the development, with only the top portions of the main stack and cooling towers visible from the village, highway and railway line.

Investigations for the EIS outlined in Section 3 - Land Characteristics has assessed the overall potential visual impact of the Project as generally being low. A number of mitigation measures have been identified that could further reduce the potential visual impacts for the few viewing situations where potential visual impacts could occur.

The visual impact of the facility at Fisherman's landing is considered to be negligible considering the surrounding infrastructure and industrial nature of the area. Therefore, no visual impact assessment has been conducted for this area.

Local Land Values

The predominant land use in the Fitzroy Shire is agriculture, primarily grazing (CRC for Coastal Zone Estuary and Waterway Management, 2003) with the majority of the land surrounding the SEP and Stanwell being flat to gently sloping. Much of this land which has been cleared and developed for grazing and other agricultural pursuits (Fitzroy Basin Association, 2004).

As detailed in Section 3 - Land Characteristics, the project area is designated for Special Industry and the SEP is recognised as a major regional opportunity for large scale industry. The development of the Project at the site is considered to generally be consistent with future intentions for development in the area and should therefore not have any major impact on land values in the area.

As the areas proposed for the Project within the SEP were significantly cleared for the AMC project, limited constraints will be imposed on the future use of land in the area. Most of the land surrounding the project area is freehold land owned by SCL. However, the land to the immediate north of the site is privately owned. The potential rail spur, which will be the responsibility of the rail infrastructure provider, runs through privately owned freehold land to the north of the project site between Brickworks Road and the Capricorn Highway. In addition, the rail spur will cross the edge of some unallocated State land before merging with the existing rail line (Section 3 - Land Characteristics).

Depending on the final alignment chosen by the rail infrastructure provider, the rail spur through Lot 214/P4047 will result in the loss of a small area of modified pastoral grassland including a small area of irrigated cropping. The impact of the rail spur on local properties will be addressed through the development approvals process to be undertaken by the rail infrastructure provider.

Also to the north of the project site is Stanwell township, zoned Rural/Village Balance Precinct K under the Fitzroy Shire Planning Scheme (Fitzroy Shire Council, 2005). Due to the existence of the SEP designation, it is not anticipated that there will be any direct land use or property value impacts associated with the Project on land zoned Rural/Village Balance Precinct K, apart from the development of the rail spur.

The Fisherman's Landing wharf site is freehold and leasehold, controlled in part by the Central Queensland Port Authority. The development of this area is consistent with the development objectives of the Port of Gladstone.

Potential Impacts on Indigenous People

This Project is likely to have several positive impacts for Indigenous people, which will largely be transmitted through increased employment opportunities. The increase in numbers of semi-skilled jobs in the area as a result of the Project, when compared to previous developments, will provide more opportunities for Indigenous employment. The potential for increases in the rental and housing market to reduce effective income for families on welfare may also have a negative impact on some Indigenous people.

Community Consultation

Details of the community consultation program conducted to date and proposals for future consultation are detailed in Appendix B - Community Consultation. This program was instigated early in the life of the Project to help ensure that:

- The environmental impact assessment process incorporates local knowledge about social conditions, processes and likely impacts;
- Attitudes and perceptions towards proposed change can be identified;
- Subjective and cultural impacts such as how people perceive change in their local environment may be identified;
- Appropriate mechanisms to involve different groups in the decision-making process may be identified;
- The outcomes of the social impact assessment and the views of the public may be incorporated at the project design stage and used to maximise benefits rather than simply to compensate the community following implementation;
- Potential alternatives may be identified and adequately assessed; and
- Conflict over projects may be minimised by ensuring that as many interests as possible are considered in decisions and appropriate mitigation strategies are put in place.

As outlined in Appendix B, the program for regular community consultation will continue throughout the life of the Project. The purpose of this program will be to keep the local community informed about the Project, including environmental management programs which have been implemented. It will also aim to monitor community perception, address the matters outlined above in this section and any other issues local residents may have about any aspect of the Project in a timely manner.