

21 SOCIAL

21.1 INTRODUCTION

Social impact assessment (SIA) is a study concerned with predicting and understanding likely consequences of a proposed action on a community. This assessment comprised a desktop study of the demographic and social characteristics of the study area and region as well as community consultation to define current social values and lifestyles. The assessment focuses on the development of a proposed coal seam methane (CSM) water supply pipeline (the proposed pipeline) between the Wandoan Coal Project (the Project) and the Condamine Power Station located approximately 93 km to the south.

The study of the existing social environments was conducted concurrently with the SIA of the Project. This information and consultation with stakeholders and the community related to this overarching project, has helped inform the understanding of existing environment and potential impacts of the proposed pipeline.

21.1.1 DESCRIPTION OF STUDY AREA

For the purpose of this SIA, investigations are based upon the available statistical information for the former Taroom Shire Council and the former Murilla Shire Council. The former Taroom Shire Council area includes the Wandoan Township, the closest population centre to the Project and the northern-most section of the proposed pipeline. The former Murilla Shire Council area includes the township of Miles, the closest population centre to the southern-most point of the proposed pipeline. For the purposes of this report data has been combined and is described as 'the region'. This regional data provides a representation of the wider community demographics and values. Where appropriate, the report also includes data on broader Queensland statistical trends to offer a comparison with the regional trends.

21.2 DESCRIPTION OF PROPOSED DEVELOPMENT

The proposed pipeline involves the construction and operation of a water pipeline from the Condamine Power Station to the Project mine infrastructure area as part of the Project.

It is anticipated that construction of the proposed pipeline would take 9 months and begin in the first year of construction. It would likely be constructed by an approved WJV contractor over multiple, concurrent stages in order to ensure completion by the commencement of Project operations. The construction workforce would depend upon the final construction schedule but is estimated to be up to 50 people.

21.3 METHODOLOGY OF ASSESSMENT

21.3.1 HOW THE STUDY WAS CONDUCTED AND INFORMATION OBTAINED

These studies were conducted to meet the Terms of Reference (ToR) for the Environmental Impact Statement (EIS) for the Project.

The SIA for the proposed pipeline is informed by a desk top study of the existing social environment, analysis of demographic data and community trends and consultation with affected parties, the local community, identified stakeholders and providers of community service and facilities to the study area and the region. These studies were undertaken in conjunction with studies undertaken for the Project.

Information related to this study was gathered from sources including:

- statistical information from a range of sources including Australian Bureau of Statistics (ABS) 1996, 2001 and 2006 Census data, Queensland Planning and Information Forecasting Unit and the Queensland Office of Economic and Statistical Research
- social service providers' websites, including local councils and relevant government websites (including Queensland Health and Department of Education, Training and Arts)
- consultation with the community through activities including face to face meetings and the Project's broader community consultation activities including workshops, surveys and community displays
- consultation with government and non-government stakeholders
- review of technical studies prepared as part of the EIS
- existing XCQ documentation
- case studies and examples of similar projects.

The SIA process also included the identification of potential changes in the community that would result from the development of the proposed pipeline. This information includes:

- workforce requirements
- housing and accommodation requirements and changes
- impacts to local services and facilities
- impacts to community values and lifestyles
- changes to access, amenity, and services
- impacts to affected properties, including property management, property devaluation and compensation, productivity losses, movement and access.

Mitigation measures were identified through desktop research that focussed on management strategies used for communities affected by existing operations of the proponent. Social research associated with the mining industry and the development of associated infrastructure has also been used as a reference for management strategies during the construction and operation of the proposed pipeline.

21.3.2 LIMITATIONS

Council amalgamation

The Queensland Government amalgamated a number of local governments on 15 March 2008. The relevant former shire councils included Taroom Shire (Division 2 – Wandoan), Murilla, Wambo, Tara, Chinchilla shires, and Dalby Town. These were amalgamated to form the Dalby Regional Council.

This report recognises the change in local shire council boundaries. However, statistical data for the region has been modelled on ABS data for the 2006 census, which was obtained for the former Taroom and Murilla Shires. Historical data suitable for the Dalby Regional Council for comparison is not readily available.

ABS introduced random error

Statistics obtained from the ABS include an 'introduced random error' to ensure that any data released does not risk the identification of individuals. The ABS employ a method of randomly adjusting the data provided to avoid this potential identification. When the technique is applied, all cells are slightly adjusted to prevent any identifiable data being exposed. These adjustments result in small introduced random errors. However, the information value of the table as a whole is not impaired.

The totals and subtotals in summary tables are also subjected to small adjustments. These adjustments of totals and subtotals include modifications to preserve the ability to total figures in tables. Although each table of this kind is internally consistent, comparisons between tables which contain similar data may show some minor discrepancies. This feature may be most evident in the statistics of small populations such as the proposed pipeline's identified study area.

Cumulative effects

This assessment has been written to consider the development of a single pipeline, along the preferred alignment. Studies into the potential social impacts associated with the Project have considered cumulative impacts. Aspects of a number of projects influence the potential impacts of the proposed pipeline, particularly in relation to timing, traffic impacts and potential cumulative effects. This SIA is informed by these wider project studies and should be read in conjunction with the relevant technical report.

The Project is the first mine development of its kind in the region and may prove to be a catalyst for similar projects to commence operations. A number of enterprises currently hold exploration permits on properties throughout the region. The Surat Basin Rail, other CSM pipelines, Cockatoo Coal mine, Glebe Weir Raising and Nathan Dam are all potential projects surrounding the study area, which may produce their own individual positive and negative impacts on the study area and the region. The CSM industry already has some key infrastructure throughout the region and the expansion of this industry is likely during the life of the proposed pipeline construction and operation.

This assessment does not consider the individual impacts of each project on the study area. However, overall changes to the region including the potential cumulative effects of changes to the region are provided in Section 21.6.

21.4 DESCRIPTION OF EXISTING SOCIAL ENVIRONMENTAL VALUES

The social environment includes housing, education, recreation, health, emergency services and community support facilities as well as the community values and social interaction and the characteristics of the community.

21.4.1 DEMOGRAPHIC PROFILE

An analysis of the existing study area environment has been conducted by considering its social characteristics, informed by population and demographic data, and its social infrastructure through the types of facilities and support available. This information provides an understanding of baseline conditions with which to measure any changes that may potentially occur.

This section details the socio-economic profile of both the study area and the region through analysis of population, income, education levels and labour participation. The profile highlights age and gender composition and household characteristics of the area and how this aspect has changed over time.

Population

At the time of the 2006 Census the population of the region (Taroom and Murilla statistical areas) was 5,344 persons. This accounted for 0.13% of the total population of Queensland.

Studies of available population data for the region suggest that a decline in population has been occurring since 1996 where the region experienced a loss of 2.2% of the male population and 4.4% of the female population. Overall a 3.3% loss of population was recorded. This decrease in population continued between 2001 and 2006 when the region experienced a loss of 5.0% of the population.

Table 21-1 shows the change in population for males and females between 1996 and 2001 and the change from 2001 to 2006 in the region compared to the Queensland population. Overall the population loss of both genders was high and may be related to the decrease in agricultural activity. Generally the higher proportion of males in the area is typical of remote rural locations.

Table 21-1: Population changes by gender by Census year

	Census 1996	Census 2001	Person Change 96-01	% Change 96-01	Census 2006	Person Change 01-06	% Change 01-06
Region							
Males	2,858	2,794	-64	-2.2%	2,565	-229	-8.2%
Females	2,666	2,550	-116	-4.4%	2,511	-39	-1.5%
Persons	5,524	5,344	-180	-3.3%	5,076	-268	-5.0%
Queensland							
Males	1,673,220	1,775,554	102,334	6.1%	1,935,381	159,827	9.0%
Females	1,695,630	1,810,085	114,455	6.7%	1,969,151	159,066	4.1%
Persons	3,368,850	3,585,639	216,789	6.4%	3,904,532	318,893	8.2%
The region as a percentage of Queensland population in 2006						0.13%	
Study area as a percentage of the region in 2006						18.09%	

Source: Australian Bureau of Statistics, 1996, 2001 and 2006

Between 1996 and 2001 the region lost 64 males (2.2% of males) and 116 females (4.4% of females) and this reduction continued in 2001 with the loss of 229 (8.2%) of males from the area, compared to a loss of just 39 females or just 1.5%. These decreases were not replicated at the State level, where there were more females than males. Over the same time period the population of males in Queensland increased by 9.0% and females by 4.1%.

Future population

In September 2006 the Planning Information and Forecasting Unit (PIFU), in the Queensland Department of Infrastructure and Planning, predicted a continuing decrease in the population of Taroom Shire of -0.4% between 2006 and 2016 and -0.2% in the ten years to 2026.

A small amount of growth in population was expected for Murilla Shire with an increase of 0.1% to 2016. The projections are shown in Table 21-2. However, this forecast does not consider the growth of resource based enterprise in the area. PIFU is currently undertaking studies to ascertain the potential population effects of the resource extraction industries growth in the area.

Table 21-2: Projected population with no resource extraction impact

Shire	2006 Census	Projected average annual population change				
	Population	2006	2011	2016	2021	2026
Taroom	2,389	-1.1%	-0.2%	-.04%	-.03%	-0.2%
Murilla	2,689	0.9%	-0.6%	0.1%	0.1%	0.1%

Source: Planning Information and Forecasting Unit – Queensland Department of Local Government, Planning, Sport and Recreation (September 2006)

Age structure

Those aged 40-44 years represent the largest proportion of the regional population. This age bracket is also the most represented in the state. There are 7.9% of people in the region aged between 40 and 44 and 7.4% of this age group in the State. The population in the region is generally made up of young children and older-middle aged persons. As shown in Table 21-3 there are a high percentage of the population aged under 14 and a similar large number of people aged between 35 and 49. There is just 5.3% of the population in the region aged 15-19 compared to 7.0% in the state. This difference is apparent in the comparisons of those aged 20-24 with 4.5% in the region compared to 6.5% in the state and for those aged 25-29 with 4.7% in the region and 6.8% in the state. This disparity begins to improve in the population aged 30-34 with 6.3% of the regional population compared to 7.1% of the state sharing this age characteristic.

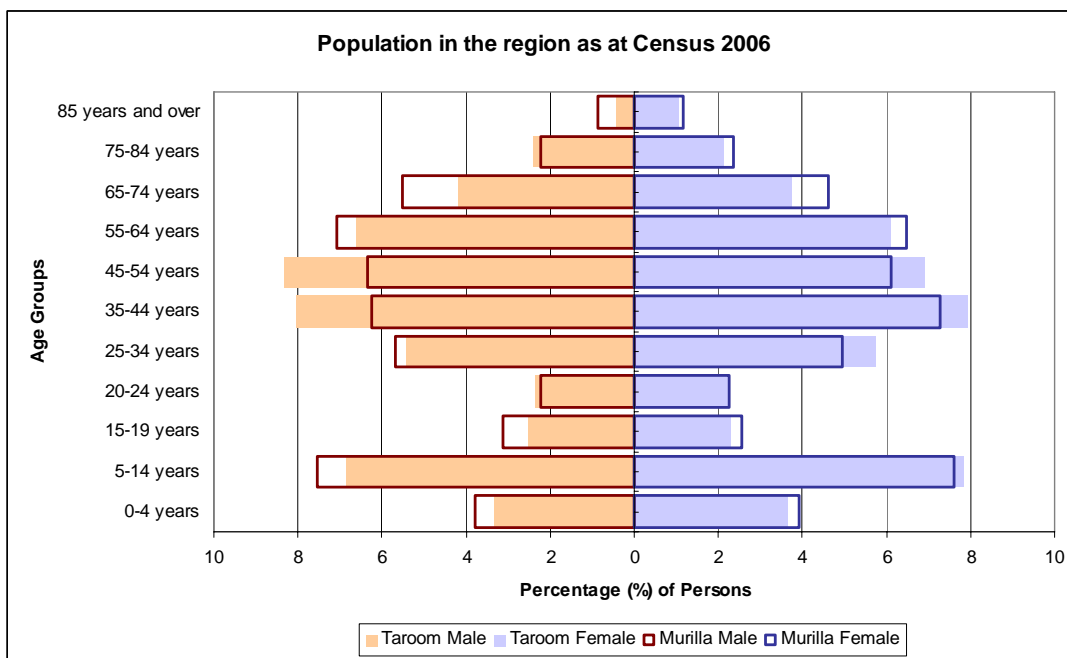
Table 21-3: Age group representation comparison 2006 Census

Age at 2006 Census	Region	Queensland
0-4	7.4%	6.6%
5-9	7.8%	7.1%
10-14	7.2%	7.1%
15-19	5.3%	7.0%
20-24	4.5%	6.5%
25-29	4.7%	6.8%
30-34	6.3%	7.1%
35-39	6.7%	7.3%
40-44	7.9%	7.4%
45-49	7.0%	6.8%
50-54	6.7%	6.6%
55-59	7.1%	5.3%
60-64	6.1%	4.3%
65-69	5.1%	3.5%
70-74	3.9%	3.2%
75-79	2.4%	2.6%

Age at 2006 Census	Region	Queensland
80-84	2.2%	1.6%
85-89	1.1%	0.8%
90-100+	0.8%	0.4%

Source: Australian Bureau of Statistics 2006 Census

The age and gender representation of the population in the region can be seen in Figure 21-1.



Source: Australian Bureau of Statistics 2006

Figure 21-1: Population pyramid of males and females in the study area 2006 Census

While the region has a strong representation of children and teenagers in its population, it features only a small proportion of young adults aged 19-25 years as shown in Figure 21-1. This was in keeping with findings during the consultation process that indicated that many young people leave the region after secondary studies to continue their studies or find suitable work elsewhere.

Ethnicity

The region's indigenous population of 2.5% is the same as the Queensland comparison. The majority of the population in the region were born in Australia, as shown in Table 21-4, with most of the community speaking English at home.

Table 21-4: Study of ethnicity characteristics

	Region	Queensland
Indigenous persons:		
Aboriginal	2.5%	2.5%
Torres Strait Islander	0.3%	0.5%
Both Aboriginal and Torres Strait Islander(a)	0.1%	0.3%

	Region	Queensland
Total	2.9%	3.3%
Birthplace:		
Australia	91.7%	75.2%
Elsewhere(b)	3.5%	17.9%
Language spoken at home:		
English only	95.9%	86.4%
Other language(c)	0.8%	7.8%
Australian citizen	94.2%	86.1%

(a) Applicable to persons who are of both Aboriginal and Torres Strait Islander origin. (b) Includes 'Australian External Territories', 'Inadequately described', 'At sea', and 'Not elsewhere classified'. (c) Includes 'Inadequately described' and 'Non-verbal, so described'.

Source: Australian Bureau of Statistics 2006

Mobility

The community in the region enjoy a continuity of residence with well over half of the population (67.7%) residing at the same address at the time of the 2006 Census as they did five years previously. When compared to the Queensland population, as shown in Table 21-5, there was considerably more continuance of residence in the region with only 45.1% of the Queensland population residing at the same address over this period.

There was very little interstate or international migration to the region during the period between censuses, though nearly 17.0% of the regional population had previously lived elsewhere in Queensland.

Table 21-5: Resident mobility between 2001 and 2006 Census

	Region	Queensland
Total same usual address 5 years ago as in 2006	67.7%	45.1%
Total different usual address 5 years ago	29.3%	47.6%
Question not answered	3.0%	7.3%
Break down of areas		
▪ The same area – but a different address	9.6%	9.2%
▪ Elsewhere in Queensland	16.9%	26.3%
▪ New South Wales	0.7%	3.9%
▪ Victoria	0.7%	1.4%
▪ South Australia	0.3%	0.4%
▪ Western Australia	0.2%	0.5%
▪ Tasmania	0.0%	0.2%
▪ Northern Territory	0.1%	0.4%
▪ Australian Capital Territory	0.0%	0.3%
▪ Other territories	0.0%	0.0%
▪ Overseas	0.3%	4.4%
▪ Area not specified.	0.3%	0.6%

Household structure

Couple households are strongly represented in the region. At the time of the 2006 census there were 1,369 families in the region. Of these families, 42.1% are couple families with children and 47.2% are couple families without children. In comparison, Queensland features slightly more couple families with children at 43.3% and 39.1% without.

There are less one-parent families in the region at 9.1% compared to 15.9% in Queensland. Table 21-6 describes the current family types in the study area, the region and Queensland.

Table 21-6: Family type (percent of total families, 2006)

Family characteristics	Region	Queensland
Couple families with children	42.1%	43.3%
Couple families without children	47.2%	39.1%
One parent families	9.1%	15.9%
Other families	1.6%	1.7%

Source: Australian Bureau of Statistics 2001 and 2006

Relationship status

As well as having a high proportion of couple families, census data indicates a high percentage of people in the region are married. In the region married couples account for 59.6% of the population aged over 15 which is greater than the 49.1% represented in Queensland.

As shown in Table 21-7 the incidence of separation and divorce in the region is considerably lower than the Queensland comparison.

Table 21-7: Marital status (percent of persons, 2006)

Marital status (Population aged 15 years and over)	Region	Queensland
Married	59.6%	49.1%
Never married	24.0%	33.2%
Separated or divorced	8.8%	12.3%
Widowed	7.6%	5.4%

Source: Australian Bureau of Statistics 2006

Dwelling structure and tenure

Separate houses are the most common form of dwelling in the region with a proportion of 86.8%.

The proportion of flats and units in the region was 2.1%. This is considerably less than the proportion of flats and units in Queensland at 13.0%, but is in line with the rural setting and low density of the area. As shown in Table 21-8, census data indicates that 22.2% of the dwellings in the study area are unoccupied. This is substantially higher than the 9.2% of unoccupied dwellings in Queensland as a whole. This high number of vacant dwelling may be representative of the consistent population loss experienced in the region over the last two censuses.

The high proportion of separate houses and the limited number of flats, units and apartments is representative of the area's rural character.

Table 21-8: Dwelling structure (percent of occupied dwellings, 2006)

Dwelling characteristics — private dwellings (includes visitor only and other not classifiable households)	Region	Queensland
Separate house	86.8%	76.5%
Semi-detached, row or terrace house, townhouse etc.	5.3%	7.5%
Flat, unit or apartment	2.1%	13.0%
Other dwellings	5.6%	2.8%
Not stated	0.2%	0.1%
Occupied private dwellings:	77.8%	90.8%
Unoccupied private dwellings	22.2%	9.2%

Source: Australian Bureau of Statistics 2006

As shown in Table 21-9, the region has a substantially higher number of houses which are fully owned at 46.6% when compared to Queensland at 30.4%. At the regional level there are also lower rates of dwellings being purchased at 19.1%, compared to 31.4% in Queensland. Rental rates of 27.5% for the region are slightly less than the Queensland rate of 30.0%.

Median rents in the region are considerably lower than those in Queensland as shown in Table 21-9. Monthly median loan repayments are also considerably lower than Queensland comparisons at \$704.00 in the former Taroom Shire and \$542.00 in the former Murilla Shire compared to Queensland's \$1,300 median loan repayment.

Table 21-9: Dwelling tenure (percent of occupied private dwellings, 2006)

Tenure type Occupied private dwellings	Region		Queensland
Fully owned	46.6%		30.4%
Being purchased	19.1%		31.4%
Rented (includes rent-free)	27.5%		30.0%
Other tenure type	1.9%		1.0%
Not stated	4.9%		7.3%
Median rent and loan repayments	Taroom Shire	Murilla Shire	Queensland
Median rent (\$/weekly)	\$85	\$25	\$200
Median housing loan repayment (\$/monthly)	\$704	\$542	\$1,300

Source: Australian Bureau of Statistics 2006

Employment and industry

Labour force participation

The region has a lower percentage of both males and females who are unemployed and looking for either full time or part time work when compared to Queensland averages. The total labour force participation in the region is shown in Table 21-10.

The total percentage of working females in the region is 29.2% which is slightly greater than state comparison of 28.6%. The total proportion of males employed in the region is 38.3%. This is greater than the 33.3% state comparison. The majority of working males in the region are employed in full time work (31.6%) with only 3.7% working part time. There is a greater proportion of women working full time in the region at 15.5% than in the State (13.5%) however the part time employment comparisons are very similar at 11.5% in the region and 11.9% in the State.

These employment participation figures indicate a high proportion of employment in the region and a very low unemployment rate. In 2006 there were just 0.8% of the male population seeking work and 1.5% of males in Queensland.

Table 21-10: Percentage of labour force participation by gender

	Region		Queensland	
	Male %	Female %	Male %	Female %
Employed, worked:				
Full-time	31.6%	15.5%	24.6%	13.5%
Part-time	3.7%	11.5%	5.2%	11.9%
Employed, away from work	0.8%	0.8%	1.0%	1.1%
Hours worked not stated	1.6%	0.8%	1.0%	0.6%
Total	37.6%	28.6%	31.8%	27.1%
Unemployed, looking for:				
Full-time work	0.5%	0.2%	1.1%	0.7%
Part-time work	0.3%	0.4%	0.4%	0.8%
Total	0.8%	0.5%	1.5%	1.5%
Total labour force	38.3%	29.2%	33.3%	28.6%
Not in the labour force	10.4%	17.3%	12.3%	19.1%
Labour force status not stated	2.3%	2.5%	3.6%	3.2%
Total	51.0%	49.0%	49.1%	50.9%

Source: Australian Bureau of Statistics 2006

Employment by industry

Agriculture, forestry and fishing represent the industries with the highest employment participation at 44.3% in the region. This reflects the rural nature of the area and the dominance of the agricultural industry. Males were the greater participants in this industry at 52.5%, however females still made up a considerable proportion with 33.6% of women in the region working in this industry. There are no other industries with such high participation rates in the region.

As shown in Table 21-11 there are few people in the region who work in administrative and support services, information and media telecommunications or rental, hiring and real estate services.

There is just 4.5% of the population employed in the construction industry and 1.7% in mining in the region. This would likely impact the sourcing for workers in relation to the construction of the proposed pipeline.

Table 21-11: Percentage of employment by selected industry by gender

Industry	Region		
	Males	Females	Persons
Accommodation and food services	2.0%	6.4%	3.9%
Administrative and support services	0.0%	1.9%	0.8%
Agriculture, forestry and fishing	52.5%	33.6%	44.3%
Arts and recreation services	0.3%	0.3%	0.3%
Construction	7.3%	0.9%	4.5%
Education and training	2.2%	12.7%	6.7%
Electricity, gas, water and waste services	0.6%	0.0%	0.3%
Financial and insurance services	0.7%	1.5%	1.1%
Health care and social assistance	0.8%	15.4%	7.1%
Information media and telecommunications	0.3%	0.0%	0.2%
Manufacturing	5.6%	1.8%	3.9%
Mining	2.6%	0.6%	1.7%
Other services	1.9%	1.3%	1.6%
Professional, scientific and technical services	0.3%	1.7%	0.9%
Public administration and safety	8.5%	4.6%	6.8%
Rental, hiring and real estate services	0.3%	0.3%	0.3%
Retail trade	3.9%	10.8%	6.9%
Transport, postal and warehousing	4.7%	2.6%	3.8%
Wholesale trade	3.3%	1.6%	2.6%
Inadequately described	1.4%	1.2%	1.3%
Not stated	1.0%	1.0%	1.0%

Source: Australian Bureau of Statistics 2006

Employment by occupation

In the region, the occupation most represented in the population is that of manager at 25.8% of the population. This is followed by labourers at 11.6% and machinery operators and drivers 6.5% as shown in Table 21-12. The high percentage of managers is consistent with the study area and region’s strong representation in agriculture.

Table 21-12: Employment by occupation

Occupation	Region	Queensland
Managers	25.8%	7.3%
Labourers	11.6%	7.0%
Machinery operators and drivers	6.5%	4.3%
Technicians and trades workers	5.1%	9.0%
Professionals	4.6%	10.1%
Community and personal service workers	4.1%	5.4%
Clerical and administrative workers	5.1%	8.7%
Sales workers	2.6%	6.1%
Other	34.7%	42.1%

Source: Australian Bureau of Statistics 2006

The area profile of the Australian Government Labour Force Regional Data for the Darling Downs region (includes Taroom, Wandoan and Miles but extending further west through Roma and Charleville) shows an average unemployment rate of just 2.8% as at May 2008 which is less than the Queensland rate of 3.8%. The teenage full-time unemployment rate (those aged 15-19) is 16.7% which is greater than the Queensland total of 13.5% however social factors such as employment on the family properties may contribute to this higher rate.

Education

Education completion

Table 21-13 shows the education levels for the population aged 15 years and over who are not currently studying. A large proportion (33.7%) of the regional population has a Year 10 or equivalent education. This is greater than the Queensland proportion of 26.9%.

By contrast the proportion of people in the region who have attained an education level of Year 12 or equivalent is 28.7% in the region which is significantly less than the Queensland average of 41.3%.

Table 21-13: Education attainment to Year 12 for population over 15 years

Persons	Region	Queensland
Year 12 or equivalent	28.7%	41.3%
Year 11 or equivalent	6.9%	8.2%
Year 10 or equivalent	33.7%	26.9%
Year 9 or equivalent	6.9%	5.9%
Year 8 or below	15.9%	7.4%
Did not go to school	0.6%	0.5%
Highest year of school not stated	7.4%	9.9%

Source: Australian Bureau of Statistics 2006

Post-secondary qualifications

The population of the region has similar post-secondary qualifications as Queensland, as shown in Table 21-14. At the regional level 17.0% of the population possess a Bachelors Degree, which is generally less than the Queensland figure of 19.8%. Furthermore, 1.5% of the region possesses postgraduate qualifications. This is lower than the Queensland average of 3.8%.

Diploma and Advanced Diploma qualifications in the region (13.4%) are at comparable levels to Queensland's 13.1% of the population. Certificate level of education is also similar to Queensland's (35.5%) with 35.7% in the region having attained this certification.

Table 21-14: Education attainment to Year 12 for population over 15 years

Characteristic	Region	Queensland
Postgraduate Degree	1.5%	3.8%
Graduate Diploma and Graduate Certificate	2.5%	2.3%
Bachelor Degree	17.0%	19.8%
Advanced Diploma and Diploma	13.4%	13.1%
Certificate	35.7%	35.5%
Level of education not stated	29.9%	22.7%

Source: Australian Bureau of Statistics 2006

Income and earnings

Household earnings

As detailed in Table 21-15, the median individual weekly income is \$442.00 in the Taroom Shire, \$34 less than the Queensland median, and \$392 in Murilla Shire, \$84 less than the Queensland median.

Table 21-15: Income characteristics of the study area and region

Characteristic	Taroom	Murilla	Queensland
Median individual income (\$/weekly)	\$442	\$392	\$476
Median household income (\$/weekly)	\$810	\$697	\$1,033
Median family income (\$/weekly)	\$1,017	\$957	\$1,154

Source: Australian Bureau of Statistics 2006

21.4.2 SUMMARY OF DEMOGRAPHIC PROFILE

During consultation, the community identified a steady decline of the population in the region over the past decade. This is evident in analysis of the region's demographic data. The loss of population could be attributed to impacts on rural lifestyle and enterprise (such as the drought, increased farm running costs and steadily increasing fuel prices) which may have affected the availability of employment and enterprise opportunities. These impacts may have contributed to the migration of families from the area, as they move away to seek other opportunities, and are not being replaced. The regional populations would not be expected to increase based on historical population patterns and the current trend of rural decline.

There is a strong sense of family and unity in the region. A high number of the population identify themselves as couple families with children. Population characteristics identify that most of these families would consist of married, middle aged parents with primary school aged children.

The proportion of young people in the study area and the region tends to decrease as children reach their mid to late teens. This trend is often associated with the lack of education opportunities in remote areas where children need to move away to further their education. The proportion of young people aged between 20 and 29 continues to decrease often due to travel, tertiary education or the pursuit of employment opportunities.

Retirement tends to create a drop in population in the region for those aged over the age of 60. As people employed in agriculture and farming age, they retire and leave the area.

Mobility in the population was limited with communities in the region having a high percentage of the population living at the same address as five years previous. Of those at a different address the majority were again in the region or in the state. There was very little interstate or international migration in either area.

The majority of the population of the region are Australian born and speak English as their only language.

Houses are the dominant dwelling structure in the region and with a high percentage of fully owned properties or those in the process of being purchased. This again indicates a low rate of mobility. Rental rates are in line with Queensland comparisons. However, mean weekly rental rates for the region are considerably lower, as are the mean monthly loan repayments.

There is a low rate of unemployment in the region with over half the population identified as in the labour force. Less than one percent of the population in the region identified themselves in the 2006 Census as seeking employment. This can often indicate that people have moved from the area in search of work.

The agricultural component of the area is again highlighted by the prominence of occupations such as managers, labourers and machinery operators and drivers.

Income levels in the region are less than the Queensland median and reflect the prevalence of one income families. A mix of part time and full time employment may also be contributing to the majority of household incomes.

In line with identified rural trends, a large proportion of the population, in the study area and region, have left school before Year 12. Post secondary education in the region and the study area show that Certificate level qualifications are the most prevalent, which is in keeping with Queensland comparisons.

21.4.3 SOCIAL AMENITY, VALUES, VITALITY AND LIFESTYLES

Social amenity can be described as the attributes that a community sees as adding comfort, attractiveness, enjoyment or value to their everyday lives. Community values also consider the principles, standards and ideals that a community expects from the people who live in it.

The description of the social amenity of the region has been derived from studies undertaken for the Project and the associated community consultation activities undertaken, as well as through meetings with property owners potentially affected by the proposed pipeline. The communities identified that they:

- enjoy a quiet, rural lifestyle
- live in a close-knit, community minded area
- have close social connections with friends and family in the area
- feel high levels of personal security and safety
- enjoy a low cost of living
- consider the area ideal for raising a family.

Generally the people who participated in consultation activities identified a number of key issues for the community including the:

- impact of drought and ongoing access to water
- lack of suitable employment opportunities
- lack of skilled employees for business
- need to keep people in the community, especially the young.

Community members enjoy a busy but relaxed lifestyle and often find the time to participate in community and recreational activities. Employment is often home/property based and relatively flexible, though often dictated by the season, weather or availability of resources such as equipment or labour.

During the consultation process community members provided feedback outlining their satisfaction with the quality of services currently available. However, they indicated that the quantity and variety of services available was limited. When describing what they do not like about living in their area, the majority of responses suggested that the lack of access to services (education, health, and community) posed an ongoing issue for the community. This view was also associated with the lack of employment opportunities available to residents and the difficulty some employers have in finding suitable employees. The lack of education opportunities and employment for young people was also noted in responses.

21.4.4 COMMUNITY IDENTITY

The communities in the region identify themselves as being rural focussed, and people value the contribution that rural property owners make to the area. The community has expressed enjoyment in their 'clean, green' natural environment, particularly in relation to the lack of noise and pollution. They take pride in their community and feel the area's rural history is important. Community members value the fresh air, the quality grazing land, rural landscapes and the country lifestyle they enjoy.

21.4.5 SOCIAL CONNECTIONS AND RURAL ISOLATION

Regional communities are able to enjoy a rural lifestyle with an income producing property, without the need to travel extensively between properties or to the nearest town. Throughout the consultation activities, the community expressed their strong family and social connections with many families having multiple generations living in the region. Local events are important within the community and offer opportunities for people to come together.

21.4.6 CURRENT LAND USE

The region generally comprises rural allotments of varying size which are used for predominantly agricultural activities including cropping and live-stock grazing. A number of homesteads (residences) and associated out-buildings are located in the proposed pipeline corridor particularly in the central and southern portions. These buildings are associated with good quality agricultural land and the townships of Miles, Columboola and Condamine.

21.4.7 RECREATION, LEISURE AND SPORTING FACILITIES

Social interaction through sport, leisure and recreational activities is an important feature of the region particularly. Examples of organised sporting and leisure groups in the community include:

- tennis –Wandoan Tennis Club
- golf –Wandoan Golf Club
- gymnastics – Wandoan Gymnastics Club
- bowls – Taroom Bowls Club, Wandoan Bowls Club
- polocrosse – Wandoan Polocrosse, Taroom Polocrosse Club
- netball – Miles Junior Netball Association
- cricket – Taroom/Wandoan Cricket Club, Miles Cricket Club
- rodeo and camp-drafting – Wandoan Campdraft and Rodeo Association
- jockey and pony clubs – Wandoan Pony Club
- football – Wandoan Junior Rugby League, Condamine Cods Rugby Union Club; Miles & District Touch Football; Miles & District Junior Rugby League
- shooting – Wandoan Clay Target Association.

The region supports a number of gardening clubs, arts and craft groups, as well as social service focussed groups such as Apex, Lions and the Country Women's Association groups in Miles, Dulacca and Wandoan. LandCare and the Wildlife Preservation Society are also active in the community.

21.4.8 CULTURE AND HERITAGE

Discussion on Indigenous cultural heritage is included in Chapter 20A.

A full analysis of the region's non-indigenous cultural heritage is included in Chapter 20B.

21.4.9 TOURISM

The area is not considered a prominent tourist destination and few formal tourist sites and facilities are located along the preferred alignment. Tourists tend to be on extended journeys with the region being a stop-off point along the way rather than being a specific destination. This is particularly relevant to the older travellers who embark on caravan holidays through the region.

Dogwood Crossing at Miles on the Warrego Highway is a tourist and community based space, which is home to a library, art gallery and IT facilities.

21.4.10 BUSINESS AND ENTERPRISE

The study areas feature a number of small, locally run businesses operating in the town centres throughout the region. Throughout the study areas there are a number of businesses open for limited hours or days during the week. These businesses are often run as a second business, with the main focus on farming activities, or as shared services where an office exists in each location and are staffed on a set routine. At the time of these studies there were a number of vacant shopfronts on the main street of Wandoan. There were no visible vacant shopfronts in Miles.

The closest major shopping precinct is located in Toowoomba, approximately 280 km away from Wandoan.

21.4.11 EDUCATION

The schools closest to the northern end of the proposed pipeline are Wandoan State School, a co-educational state school catering for students in preparatory year through to Year 10 and Grosmont State School, a small enrolment primary school.

The southern section of the proposed pipeline is primarily serviced by Condamine State School, Miles State School and Miles State High School.

Access to schools is mostly via local school bus runs with as many as 250 primary school children and almost 100 secondary school children living in the region, depending on local bus school buses.

Primary and secondary education facilities located in the region are shown in Table 21-16.

Table 21-16: Education centres in the region as at July 2008

School name	Years catered	Current enrolment
Grosmont State School	Prep-7	13
Guluguba State School	Prep-7	12
Peek-A-Doo State School	Prep-7	8
St Mary's Primary School (Taroom)	Prep-7	28
Wandoan State School	Prep-10	126
Condamine State School	Prep -7	52
Drillham State School	Prep -7	33
Dulacca State School	Prep -7	40
Miles State High School	8-12	168
Miles State School	Prep-7	215

Source: Queensland Department of Education, Training and the Arts Schools Database 2008

Higher education opportunities

Higher education opportunities including technical and trade studies in the region are limited. The closest campus, the Southern Queensland Institute of TAFE, has campuses at Chinchilla (115 km or approximately 1.5 hours drive from Wandoan) or Roma (165 km or approximately two hours drive from Wandoan). The campus is a shared facility with Education Queensland and students can undertake TAFE certificates across a range of industry areas in combination with their Senior Studies subjects. Central Queensland Institute of TAFE has campuses north of the study area in Biloela (260 km or approximately three hours drive from Wandoan) and Rockhampton (362 km or approximately 4.5 hours drive from Wandoan). Both institutes offer courses in vocational

education and training, traineeships and apprenticeships across a number of key industry areas including:

- business
- children's services
- construction
- engineering
- general education
- hospitality
- information technology
- rural studies.

Distances to University campuses are also considerable with the university campuses situated in areas such as Brisbane, Toowoomba, Rockhampton, Townsville and Maroochydore. Access to a selection of these universities is available via distance education.

Childcare services

Discussions with childcare service providers in the region indicate there is one Kindergarten/Childcare service operating. This service is open on Tuesday and Thursday from 9 am til 2.30 pm. There are 20 children who attend each day and they are aged between 3 and 5 years. The centre employs two staff. Other childcare facilities described as operating in the study area includes three mothers who offer day-care services from their homes.

There are limited full time childcare centres operating in the region. The Murilla Family Day Care Scheme operates outside of Miles and provides in home care of children. The Murilla Long Day Care centre offers long-day day care (from 6 am to 6 pm). Both of these organisations are accredited by the National Childcare Accreditation Council.

21.4.12 HOUSING AND ACCOMMODATION

Residential housing

Dwellings with in the region are mainly single storey structures of either timber or brick. During consultation community members identified the lack of easy and affordable access to construction and home maintenance supplies, and services such as builders and electricians.

Housing availability in the region has been static for a number of years. However, demand in the region has increased steadily, particularly since the announcement of Project pre-feasibility studies and the development of a number of resource extraction projects around Miles.

The average house price in the area has increased over the last few years and is described by real estate agents as being "driven by speculative investment purchases" by people who have bought with the intention of capitalising on the accommodation requirements of the Project and other activities in the area.

The ABS provides information on rental prices from 2006 that shows the median rent paid per week in the region is low when compared to the state. In Taroom Shire the Median rent was \$85 per week and Murilla Shire has a median rent of just \$25 per week, which is considerably lower than the Queensland median rent per week of \$200. Houses in the area

are sometimes provided at reduced rental rates or as part of a salary package for those who work and manage agricultural properties for the owners.

Community housing

Discussions with representatives of the Department of Housing indicate there are 34 department properties in the region. The Department indicates that there are few families in the region that are currently identified as requiring government funded housing.

A number of houses in the area are supplied by government employers such as Queensland Police and the Queensland Ambulance Service who are required to provide or subsidise accommodation for their employees.

Temporary accommodation

Short-term accommodation in the region is comparable to similar rural areas. However, availability has increased since the announcement of pre-feasibility studies commencing for the Project and the increase in resource extraction activities at the southern-most end of the proposed pipeline. Since the Project announcement, one motel has been constructed in Wandoan and facilities at the Wandoan Accommodation Park have been upgraded. Dalby Regional Council indicated that at least one development application for hotel accommodation had been submitted for Council consideration in 2008.

Since the announcement of the Project and the initiation of pre-feasibility studies, the Wandoan based accommodation facilities are regularly booked-out by project related staff and other visitors.

21.4.13 PROPERTIES DIRECTLY AFFECTED BY PROPOSED PIPELINE

The proposed pipeline alignment has been selected to minimise the amount of the pipeline required to be developed within private allotments. The pipeline is therefore predominantly developed within road reserves of local government and State-controlled roads and existing transmission line easements that are located within private properties.

The proposed pipeline alignment travels through a number of properties, with a total of six directly affected property owners. These properties are predominately used for agricultural purposes including stock grazing and cropping activities. These properties are typically single family households. The alignment does not impact the residential areas of the properties.

Further information about the issues and concerns of affected property owners can be found in Chapter 4 Community Consultation.

21.4.14 EMPLOYMENT AND TRAINING

Centrelink services are available in Miles and employment agencies for the region operate in Miles and Roma. There are a number of issues relating to employment in the region including the need for up-skilling the under-employed and long-term unemployed. This would provide better opportunities for potential employment.

Employment and training opportunities for local youth are limited in the region and young people often need to move away to seek suitable employment opportunities. The Queensland Government Department of Education, Training and the Arts currently operates a mobile customer service centre which visits Wandoan, Miles and Taroom. This service provides free support and advice on addressing skilling solutions, including providing information on training and career opportunities and information on registered

training organisations, including those with the ability to provide recognition of prior learning advice.

21.4.15 HEALTH

Health facilities in the region are reasonable for current demand. However demand is increasing. There is only one doctor in the area. The doctor is available in the Wandoan Outpatient Clinic twice a week for one hour per day. The Wandoan Outpatient Clinic offers a 24 hour accident and emergency service, a pathology service for private pathology, community palliative care and domiciliary nursing. There is a traditional alliance with Taroom to service Wandoan's medical needs.

The Wandoan Outpatient Clinic has a podiatrist and private physiotherapist visit weekly, with another physiotherapist visiting fortnightly. The mental health service for children and adults is provided from Miles fortnightly. An occupational therapist, speech therapist, social worker and a Mobile Women's Health Nurse visit the clinic every four to six weeks. The Aged Care Assessment Team (ACAT) visit monthly and the Rural Allied Health Team (RAHT) visit the clinic every six weeks. The optometrist visits the Wandoan Outpatient clinic every two months.

Community health facilities available for the study area include child health, which provides immunisations for both infants and school children in Wandoan and Taroom, health promotion and education, a school based youth health nurse (one day per fortnight), ante-natal shared care, and pre-admission clinic.

Taroom Health Service has 30 staff, including visiting staff, and provides accident and emergency, medical, surgical, general admissions, and an outpatients clinic. Other clinics available include antenatal and dental. Allied health services provided in Taroom include optometry, podiatry, physiotherapy, radiography and an Outreach Rural Allied Health Team (dietetics and occupational therapy). The Taroom Health Service is currently seeking to recruit more staff.

Taroom Health Service also provides part time Community and Child Health (visiting child health nurse) and a specialist flying doctor.

Aged care facilities accommodate long stay patients, respite patients and provide community care packages.

The distance from Taroom Health Service to Toowoomba hospital is 330 km and it is 320 km to Rockhampton hospital. There is no service available for community members who require admission to hospital but do not have access to, or are unable to use, private transportation. Suitable public transport for accessing hospital services is also unavailable.

The Miles Health Service is a Level Three Accident and Emergency facility with 59 permanent staff and 20 casual staff. The hospital provides services such as medical and surgical, outpatients, accident and emergency, palliative care, maternity care, aged care (State Government Nursing Home), operating procedures, carer respite and mental health services. The Miles Health Service also provides an antenatal clinic, women's health clinic and a visiting breast screen clinic.

Other aged service provisions in Miles are respite, Meals on Wheels, Home and Community Care, Blue Care, Community Aged Care packages, the Carinya Independent Living Units and Hostel.

Allied health services provided through the Miles Health Service are physiotherapy, dietetics, radiography, the Rural Allied Health Team (RAHT), the Aged Care Assessment Team (ACAT), speech therapy and podiatry.

There is also the provision of specialist services such as obstetrics, gynaecology and surgical at Miles through the hospital which has recently undergone an extensive upgrade.

21.4.16 EMERGENCY SERVICES

Queensland Ambulance Services (QAS) has one ambulance officer operating in Wandoan, two officers in Taroom and four in Miles. These officers provide pre-hospital emergency care and pre-hospital routine support.

Discussions with QAS representatives indicate that their services have the capacity to manage some growth related to the Project. However, they indicated that it can take approximately 12 months to recruit an ambulance officer as QAS has to provide housing for new employees and that they frequently experience difficulties in attracting staff to the Wandoan area due to its remote location.

The Wandoan police station currently employs two police officers' whose main service is preventing, targeting and reducing crime amongst the local community and carrying out general policing duties including highway patrol and traffic enforcement. The Wandoan station currently has room for some population growth associated with the Project. There are five police officers currently servicing Miles. All offices are currently working at capacity but have room to grow as population increases.

The study area is located in the South Western Region of the Queensland Fire and Rescue Service and is part of their rural operations. The region runs from Toowoomba in the east, west to the South Australian border and south to the New South Wales border. The region's major city is Toowoomba. The service usually has two officers looking after rural towns with a large number of volunteer rural fire-fighters on hand to assist, particularly with bush fire emergencies.

21.4.17 PUBLIC AND COMMUNITY TRANSPORT

There is limited public transport available to the region. This issue was identified by the community during the consultation process.

Private bus services to the study area are available three-times per week via Toowoomba and Rockhampton.

The Westlander train service, operated by Queensland Rail, runs twice a week to Miles.

The closest regional airport is located in Roma. The closest international airport is located in Brisbane. There is a small airport in Taroom and a small grass strip to the north of the Wandoan Township.

21.4.18 COMMUNITY SERVICES AND INFRASTRUCTURE

Residents are able to access some Queensland Government services such as Queensland Transport and Births, Deaths and Marriages, through a small dedicated agent in the Wandoan Township. The agent employs two staff and is open from Monday to Friday. The community also regularly access these services through a larger agent in Miles.

Counselling and community support services for the study area are also offered through Miles Community Inc. in Miles and are well used by both the Miles community and those in the study area to the north. These offices also act as Centrelink and Family Assistance offices and offer advice and access to government services involving pensions and benefits. The service employs over 60 staff over all its services including the provision of childcare services.

Taroom has a Youth Development officer available who can help young people with information on available services, referrals and counselling.

Medicare claiming facilities in the region are operated out of local pharmacies including the Wandoan, Taroom and Miles pharmacies.

21.4.19 SUMMARY OF EXISTING SOCIAL ENVIRONMENTAL VALUES

The community has a strong connection with the region's agricultural history and the land itself. They are very community focussed with strong social connections and a healthy enjoyment of the rural lifestyle they share. Community members are family focussed and many have expressed their belief that the region is an excellent place to raise children.

The community expresses their strong connections through a robust provision of volunteer support to community services, groups and activities.

The properties in the region are used for agricultural purposes, usually a mixture of cattle and crops. Areas in close proximity to local townships are residentially focussed with some properties extending to rural residential settings on slightly larger properties.

There are opportunities for farming families to live close to a town which helps to manage the isolation rural lifestyles produce including the ability to work off-farm and participate in social and sporting recreational activities. A number of organised sporting and leisure groups operate in the community and rely heavily on local volunteers.

The area's non-indigenous cultural heritage associated with agriculture is held in high regard and the community bases much of its tourism activities on this heritage as well as the area's connections with the travels of Leichhardt in the 1840's.

Retail facilities in the study area and the region are typical of regional settings with businesses catering for local needs. Businesses common in the region include pharmacies, post offices, service stations, hair dressers and small grocery stores. The nearest major shopping centre precinct is located in Toowoomba.

Access to local schooling in the region is good, though enrolment numbers for some schools in the area are small. There is only one high school in the region, which is located in Miles. Access to higher education opportunities is limited, with considerable travelling distances required to access the nearest TAFE and university campuses.

Rental prices in the area are relatively low when compared to Queensland averages. However, demand for these properties is growing steadily. Housing prices seem to have already been impacted by the growth in resource extraction industries in the region and the potential for that industry to grow in the coming years. Some of this growth can be attributed to speculative purchases by investors. There are a high number of properties in the region which are currently unoccupied. There is little demand for community housing in the area at this time.

Short-term accommodation in the study area is currently under-going growth with the development and improvement of a number of motels since Project announcement.

Properties directly impacted by the proposed alignment are generally used for agricultural purposes with a focus on cattle grazing. Some of these properties have experienced an impact by other projects undergoing studies in the region such as the proposed Surat Basin Rail alignment.

Services such as employment and training services and health are available in the study area and are adequate based on current demand. Basic access is available to most services required though many are only available on rotation with other areas in the region. Sourcing suitable employees, particularly in health service position can prove difficult due to the area's remote rural location. Emergency services for the area are considered adequate based on the community's needs though recruiting suitable employees can also be difficult.

21.5 POTENTIAL IMPACTS TO EXISTING SOCIAL ENVIRONMENT

The following section identifies the potential impacts which the communities in the region may experience as a result of construction and operation of the proposed pipeline.

21.5.1 IMPACTS ON DEMOGRAPHIC PROFILE

Based on the current population, and unemployment rates in the study areas and future workforce requirements, it is anticipated this workforce cannot be sourced in full from the local community. As such, there would be a requirement to source the necessary workforces from outside the region and potentially Queensland. Construction workforces would be sourced primarily from contractors and would be primarily transient as they maintain residences in other areas.

The proposed pipeline is unlikely to cause ongoing impact on the demographic profile of the study area and the region. The changes to the population and its characteristics primarily occur during construction when crews, staffed predominantly by males between the ages of 20 and 35 move temporarily to the area. The proposed pipeline would require a workforce of up to 50 people during construction and it is likely any ongoing maintenance staff would either be sourced from within the region or brought into the area on short-term contracts.

On completion of construction works it is expected that very few of the construction crew would choose to remain in the region without an employment in other projects in the area. There is not expected to be a permanent change to the population associated with the operation of the proposed pipeline.

21.5.2 SOCIAL AMENITY, VALUES, VITALITY AND LIFESTYLES

It is likely that the biggest impact to the social amenity of the study area would be experienced during construction of the proposed pipeline. An increase in activity on rural roads through the continued supply of materials to pipeline construction sites, as well as the increase in unfamiliar people and construction noise and dust would affect those in the community who are used to living in relative seclusion, on large properties with limited through traffic. Rural lifestyles are enjoyed by the community, who have spoken of their feelings of safety and security and the suitability of the area for raising children. These

feelings may be challenged by the initial activity related to the construction of the proposed pipeline. However, overall, it is not expected to diminish the values the community share.

The proposed corridor and the properties adjacent to or impacted directly by it may potentially be impacted by other projects in the area. It is likely that any impacts faced by the local community in relation to the construction of the proposed pipeline may either be overshadowed by these other projects or alternatively, the potential may be amplified due to these other activities.

Generally the impacts associated with construction would be experienced by directly affected property owners. The wider community is likely to experience few, if any impacts to their social amenity as a result of the proposed pipeline construction. There is expected to be little ongoing impact to the community after the completion of the construction and throughout the proposed pipeline's operation.

21.5.3 SOCIAL CONNECTIONS AND RURAL ISOLATION

The social connections in the region may be impacted if road safety and access issues are not appropriately managed during construction of the proposed pipeline. Negative perceptions of safety and accessibility of neighbouring properties or local community destinations may increase the likelihood of residents choosing to stay at home rather than venturing out.

The community may have negative perceptions about the way construction crews are likely to behave. However, Project proponents and their contractors have demonstrated a low tolerance for staff displaying anti-social behaviour and current employment protocols and employee benefits help to promote appropriate behaviour from their workforces.

Those whose properties directly impacted by the proposed pipeline corridor would have the most contact with crews during construct. The construction crew and the property owners would need to communicate openly to ensure that issues which could potentially affect the other are known and addressed.

21.5.4 NOISE IMPACTS

There may be a number of factors contributing to increased noise that may be experienced by the community; however these impacts would be predominantly experienced during construction. Once buried and operational, the proposed pipelines would not generate any noise.

Construction of the proposed pipeline may also cause temporary nuisance to surrounding community. These impacts would likely be attributed to increased road noise through the increase of both light and heavy vehicles to construction points along the alignment. There would also be an increase in machinery noises during construction as well as general construction noise.

Properties directly affected by the proposed pipeline corridor, and to some extent, those neighbouring the corridor, would experience the most direct noise impacts during construction.

Noise may be expected from the any pump stations located along the proposed pipeline; however, the extent of acoustic emission and potential nuisance caused would depend upon pump station design and separation distance from noise sensitive receivers. This would be determined in detailed design.

Further information on noise impacts is located in Chapter 15 Noise.

21.5.5 DUST IMPACTS

Impacts relating to dust and air quality are most likely to be experienced during the onset of construction works, particularly due to the pipe being located underground. Equipment would be required to dig trenches for the proposed pipeline. The resultant dust from these earthworks is likely to affect properties either directly affected by the proposed pipeline corridor or located adjacent to it. There are less likely to be impacts on the wider community. These impacts associated with dust would be expected to cease during operation.

Further information on dust impacts is located in Chapter 13 Air Quality.

21.5.6 LIGHT IMPACTS

Light impacts would be experienced primarily during the construction phase of the proposed pipeline with no impact expected during operation of the proposed pipeline. Any lighting impacts would be experienced by those residing in close proximity to the proposed pipeline corridor, such as those on directly affected properties and properties adjacent to the corridor. Construction lighting impacts would be most likely experienced if a multiple shift construction program is implemented to fast-track construction.

21.5.7 VISUAL AMENITY

The proposed pipeline is proposed to be constructed underground and therefore it is not expected to contribute to on-going visual amenity impacts. However, vegetation clearing would be required in order to facilitate construction of the proposed pipeline and such works may have visual amenity impacts. The proposed alignment has been chosen to have the least impact on vegetation.

During construction there would be some impact to visual amenity with construction camps, storage areas, stock piles and construction equipment visible, particularly on those properties directly affected and those adjacent to the proposed pipeline corridor. It is expected these areas would be returned to their original state on completion of construction activities.

While it is expected that construction impacts would be temporary, suitable mitigation strategies should be employed to minimise the visual disruption, as discussed in Chapter 19 Visual Amenity.

21.5.8 CURRENT LAND-USE

The agricultural uses of the properties affected by the alignment would experience limited impacts to their existing land use. Agricultural activities such as grazing cattle and farming crops would initially be impacted during construction of the proposed pipeline. However, once operational their existing activities would continue although with limited exceptions.

Generally the land use impacts would include restrictions to:

- construction of dams and water ponds near the proposed pipeline
- construction over the proposed pipeline, including fencing.

The property owners in the alignment have noted concerns about the construction of the proposed pipeline. These concerns include:

- potential water leakage and contamination
- the spread of weeds such as Parthenium
- impacts caused by the depth of the proposed pipeline on cultivation areas and its potential restrictions
- impacts to stock caused by the proposed pipeline, particularly the air release points and the stocks potential impact on those points
- the use of the corridor once acquired for other services and infrastructure such as powerlines and rail
- the fragmentation of properties.

21.5.9 EXISTING LIFESTYLES

The regional community has indicated they enjoy their healthy, rural based lifestyle as well as the peaceful and quiet atmosphere. Residents also enjoy the clean environment, which is free from industrial pollution. The construction and operation is not expected to produce impacts on these existing lifestyles.

21.5.10 RECREATION, LEISURE AND SPORTING FACILITIES

There is little likelihood that recreation, leisure and sporting facilities would experience major changes during either construction or operation of the proposed pipeline. Depending on the shift arrangements employed by WJV contractors during construction and the length of construction some workers may seek interaction with the community in the form of sporting or recreational activities.

21.5.11 CULTURE AND HERITAGE

It is unlikely the culture and heritage of the communities would be impacted by either construction or operation of the proposed pipeline.

Information on cultural heritage impacts can be found in Chapter 20A Indigenous Cultural Heritage and Chapter 20B Non-Indigenous Cultural Heritage.

Access to culturally important areas and landscapes outside of the Project area are unlikely to be affected by the Project.

21.5.12 TOURISM

Tourism in the area is focussed on farming heritage as well as being associated with the travels of Leichhardt the explorer. There would be little impact on existing tourist operations as a result of the Project. However, the availability of short-term accommodation may be impacted during the initial construction stage should construction workforces increase demand for rooms.

21.5.13 ACCOMMODATION

There is a considerable amount of short-term accommodation options available in both the northern and southern sections of the alignment however there is limited accommodation between the two points. Much of this accommodation is experiencing increased demand due to the project activity in the region.

Any impact on accommodation and housing stock would most likely be driven by the choices of the proposed pipeline construction workforce. There may be some impact to accommodation which will be dependant on the choices made to house the workforce during construction however as the workforce is likely to be relatively small this is not expected to be significant or ongoing. If the construction workforce chooses to move to the region with their families, there may be some increased demand for local property. This demand would be expected to decrease on completion of construction unless other employment opportunities for the workforce are available in the region.

21.5.14 COMMUNITY HOUSING

The construction and operation of the proposed pipeline is not expected to directly impact the need for community housing in the region. The proposed alignment does not require the purchase or resumption of any

21.5.15 EDUCATION

Impacts to local schools are not anticipated as a result of construction or operation of the proposed pipeline. The crews associated with construction are likely to be contractors and live externally to the project and are not likely to bring families into the region. Increased traffic, particularly of wide and long roads may result in decreased road safety issues in relation to school busses. Traffic access and management for construction may cause some road delays which may also impact student transport during construction.

21.5.16 CHILDCARE SERVICES

Childcare services are not expected to be affected by the development of the proposed pipeline. The crews associated with construction are likely to be contractors and live externally to the project and are unlikely to bring families into the region.

21.5.17 HEALTH SERVICES

The proposed pipeline is not anticipated to impact negatively on general health services within the region. The relatively small construction crew would establish workplace health and safety procedures for illness and emergencies. With Miles being the closes hospital in relation to the proposed pipeline it is likely that any injuries would be initially treated by this service. These facilities have the capacity to handle this increased demand if required.

21.5.18 EMERGENCY SERVICES

The main contributions to impacts on emergency services would potentially be through road accidents as the number of vehicles on local roads increases with the development of the proposed pipeline. There will be an increased number of wide and long load trucks carrying equipment and materials to the site which would need to be suitably managed. There are adequate facilities within the region to deal with these potential impacts however the WJV and their contractors would need to implement robust traffic management plans

and liaise directly with local authorities to ensure that these services are adequately informed and prepared for the onset of construction.

21.5.19 SOCIAL SERVICES

There is not expected to be an increased demand for social services as a direct result of the proposed pipeline. Property owners directly impacted by the alignment on their properties may experience increased stress levels as a result of the valuation and negotiation process.

21.5.20 BUSINESS AND ENTERPRISE

The construction of the proposed pipeline may encourage some increase in local business from construction workers and other pipeline related personnel. This increase is only anticipated to be minor and would likely diminish after the project reaches operation stage and construction crews leave the area. There are not expected to be ongoing impacts experienced after construction of the proposed pipeline though there may be very minor positive impacts from crews employed in the ongoing maintenance work.

21.5.21 ROADS

Much of the proposed pipeline alignment runs along the Leichhardt Highway and other local and state controlled roads. Construction of the proposed pipeline would be expected to produce some impacts to these roads and travellers. Drivers would likely experience some time delays due to construction works particularly in relation to equipment movement and traffic control for worker safety. There would also be an expected increase in traffic along those roads related to pipeline construction and movement of workers, equipment and materials. This could impact negatively on the safety of these roads and travellers. There is not expected to be ongoing impacts to roads on completion of construction with the exception of minor traffic and access impacts possible during general maintenance of the proposed pipeline.

21.5.22 ROAD SAFETY

Road safety is likely to be the greatest during construction due to the increase in commercial traffic, especially heavy vehicles. This impact would peak during the construction period and may result in the potential for an increase in traffic incidents. Once the proposed pipeline is operating there is expected to be no ongoing impacts to roads. The general maintenance work conducted on the proposed pipeline during its operational life may generate short-term road safety issues and will need to be appropriately managed.

21.5.23 PUBLIC AND COMMUNITY TRANSPORT

It is not anticipated that there will be any impacts to the supply or service of public and community transport. However, some activities along the highway may impact travel times.

21.5.24 LOCAL EMPLOYMENT AND TRAINING

There is a relatively high rate of employment identified within the region which may reduce the capacity of existing residents to provide labour to the proposed pipeline construction workforce. Displacement from existing industries or the need to introduce employees to

the study area and region would result during construction. During operation it is likely that maintenance crews will either be sourced locally, or be bought into the region on short-term contractors by the identified maintenance contractor.

21.5.25 PROPERTIES DIRECTLY AFFECTED BY THE PROPOSED PIPELINE

The negotiation of access rights over private property for construction of infrastructure can introduce issues such as increased cost for the proponents, increased community anxiety and increased complexity in the negotiation process if a large number of property owners are involved. The proposed pipeline corridor is deliberately located in local and state administered road reserves (such as the Leichhardt Highway) in order to reduce potential impact to local landholders and reduce the complexity and cost issues associated with the establishment of easements.

Those properties affected by the alignment are primarily used for cattle grazing with some cultivation activities. There is a general distress and distrust in the process apparent in consultation with affected property owners. Some concerns discussed during initial meetings with the project team included:

- property severance and access, particularly during construction
- existing infrastructure being affected, such as dams
- proposed pipeline alignment impacting upon farming and grazing land and particularly land that is awaiting harvesting or planting
- pipeline leaks and potential contamination of land due to high salt content of CSM water
- potential of co-use of easement and concern that the corridor will be used for future infrastructure such as rail or power.

These concerns would need to be allayed or impacts mitigated through the pre-feasibility study period.

21.5.26 POTENTIAL CUMULATIVE EFFECTS

The WJV and a number of other project proponents in the region are investigating the potential for other resource extraction and associated infrastructure projects developed in association with the Project such as the Surat Basin Rail, or independent of the Project. The proposed pipeline is one of these associated infrastructure projects.

It is anticipated that some of these projects would commence in similar timeframes to the Project, or in five to ten years of the Project's operation, which would lead to a sharp increase of activity in the region. This activity would include the movement of traffic on regional roads, an increase in rail transportation activities, an increase in transient population into the area, a change in demographics from a predominance of agricultural industry workers to a shared demographic between agricultural industry workers and mining and resource workforces. The populations in the region are also anticipated to increase slowly, but steadily, which would increase the demand on housing, education and social infrastructure.

These combined projects would, in the long term, generate new opportunities for local communities especially in relation to employment and education/training opportunities.

Many of the potential impacts attributed directly to the proposed pipeline, particularly any adverse impacts, would likely be intensified activities associated with these other projects.

21.5.27 SUMMARY OF POTENTIAL IMPACTS TO EXISTING SOCIAL ENVIRONMENT

Overall the construction of the proposed pipeline would have little impact, either negative or positive, for the regional community in the long term. In the short term the impacts experienced would be consistent with interruptions and affects of construction activities.

While the wider community will experience minor impacts, those properties directly affected or adjoining the proposed corridor would experience a range of construction orientated impacts from noise, dust, access and lighting as well as potentially ongoing restrictions to some agricultural activities once the proposed pipeline is operational.

Nearby residents may experience some of these adverse affects of construction such as equipment noise, road noise, dust and potentially lighting. These impacts would not continue during operation of the proposed pipeline; however, some noise may be emitted from pump stations. Impacts to tourism, cultural heritage and recreation and sporting facilities are not anticipated as a result of the construction or operation of the proposed pipeline.

The construction workforce is unlikely to be sourced locally and a crew of up to 50 workers would be required. This quickly increasing and primarily transient labour force would be within the region for just 9 months and are not expected to form ongoing social connections with the regional community and while participation in local community activities is possible, they are not expected to be significant contributors to the social amenity of the region.

Additional traffic, including heavy vehicles and wide and long load trucks, would be generated during the construction period. The increase in traffic and construction of the proposed pipeline adjacent to local and state controlled roadways may increase travel times for commuters as well as create access issues properties located adjacent to the corridor. Impacts to road safety and condition may also be experienced. There may be some impact to accommodation which will be dependant on the choices made to house the workforce during construction however as the workforce is likely to be relatively small this is not expected to be significant or ongoing.

The visual amenity impacts would be expected through the construction period particularly during the initial clearing of vegetation. These impacts are expected to be minimal.

There is not expected to be an increased demand on local services such as health, education, training, childcare or social services. Impacts on housing and accommodation requirements may be experienced. Local business may experience some benefits from the increased spending of the workforce in the area during construction

21.6 MITIGATION MEASURES

This section aims to provide a selection of measures to manage any potential negative impacts of the proposed pipeline on the social character and infrastructure on the region. Strategies have also been developed to enhance the potential benefits to the local communities. XCO as part of the WJV have a number of existing policies in relation to social and community engagement, sustainability, employment, environment, climate

change, hazard and risk, and health and safety. It is expected that any contractor to the WJV will have similar policies in place. These mitigation and enhancement strategies are developed to work with those existing policies but are targeted specifically to the proposed pipeline. However, due to the number of potential projects proposed for the region there are some methods which have been suggested to mitigate the effects of cumulative impacts on the community.

Mitigation of potential social impacts and the maximisation of benefits to the community are crucial to the development of the proposed pipeline. However, the responsibility for meeting and managing these requirements extends beyond the responsibility of the proponent. All measures implemented require the full support, participation and commitment of the employed construction contractors, local communities, service providers and government agencies to ensure ongoing success. It is the WJV's responsibility to effectively facilitate their involvement to ensure coordinated action.

21.6.1 COMMUNICATION

Effective two-way communication between the WJV, its contractors and the local community, particularly property owners directly impacted along the length of the proposed corridor is crucial. The cumulative affects of the many resource extraction and related infrastructure projects in the region is likely to cause anxiety in the community as changes to their existing environment occur. Confusion or misinformation in the community would only increase this anxiety. Therefore, effective communication channels and procedures need to be established between all parties, with information shared between all projects, to ensure accuracy and validity of information provided to the public.

21.6.2 COMMUNITY CONSULTATION

The activities associated with the development of the proposed pipeline will be included in the ongoing community consultation activities proposed for the Project. A strong link between the projects is required to provide the community with a single, easily accessible source of dependable information. Ongoing community engagement opportunities are also required to ensure that feedback from the community is able to be managed and actioned where necessary by the WJV.. The WJV has committed to engage a community liaison representative (CLR) for the Project and it expected that this role would also manage community contacts for the proposed pipeline.

This role would help ease ongoing community anxiety and would act as an intermediary between the WJV and the communities, and encourage active engagement through proactively addressing questions and concerns during construction and operation. Information about the construction and operation of the proposed pipeline would also benefit from inclusion in any continued Community Reference Group meetings as well as ongoing inclusion in community workshops planned for the Project.

21.6.3 SOCIAL AMENITY, VALUES, VITALITY AND ASPIRATIONS

The WJV is supportive of its workers and contractors participation in local activities and embracing the local communities.

Social integration is important and helps develop a sense of community which has flow-on effects of increased feelings of safety and community well-being. In any tender process for contractors, the WJV will take into consideration how potential companies propose to

maintain and enhance community connections and manage workforce behaviour and community interaction during construction.

21.6.4 IMPACTS TO SOCIAL ORDER

Strategies will be implemented to manage potential impacts associated with anti-social behaviour. Many of these issues would need to be managed internally by the WJV and its contractors to ensure an appropriate induction and establishment of expectations of behaviour.

Behaviour protocols will be established for employees either working under contract or as employees of the WJV or its contractors, particularly during the construction of the proposed pipeline. These guidelines are imperative to the ongoing maintenance of good social order and it is recommended that these be included in a robust site induction process.

The provision of an advertised contact point for the community is encouraged and the point of contact offered for the Project may be an appropriate contact. This would enable the community report any anti-social behaviour, should it occur.

21.6.5 CONSTRUCTION IMPACTS

The WJV will undertake appropriate mitigation measures as identified in EIS technical studies in relation to light, dust and noise impacts associated with construction. A point of contact will be provided for the community should they wish to alert the Project to dust or light impacts caused by the project.

21.6.6 VISUAL AMENITY

The impacts to visual amenity will be managed through the choosing of the best possible pipeline alignment, particularly one which features the least amount of vegetation clearing necessary. Providing the community, and particularly property owners directly impacted by the alignment, an accurate understanding of what to expect during construction through a robust consultation process is recommended.

The stockpiling of equipment and materials for construction will be managed and maintained to reduce the impact on the corridors scenic identity.

21.6.7 PROPERTIES DIRECTLY AFFECTED BY THE PROPOSED PIPELINE ALIGNMENT

Ongoing communication with affected property owners is required to ensure the least amount of negative impact on their lifestyles and in particular, their agricultural activities, is experienced. Suitable notice and practical arrangements for the movement of stock from paddocks in the alignment will be required as well as the implementation of suitable livestock protection barriers around any access points or breathing holes located along the length of the alignment, such as cattle-proof fencing.

Suitable notice of access to the proposed easement will be required as well as a detailed briefing on the type of activities occurring on these properties as well as any potential restrictions to access which residents are likely to encounter .

The WJV will seek to engage with property owners to decrease the potential impacts on agricultural activities during construction. This would include early negotiation to consider

construction schedule impacts on seasonal activities such as cultivation, planting and/or harvesting to ensure the least amount of impact on crop yields. It may also be necessary to discuss stock movement with affected property owners, particularly in relation to stud cattle management during breeding cycles. Suitable compensation for economic loss caused by unavoidable effects on crop yields or livestock will be considered.

21.6.8 CURRENT LAND USE

A robust environmental restoration process will be implemented to restore land affected by the construction of the proposed pipeline. This restoration will include any gates, fencing or access tracks which be affected during construction. During operation any access points or 'breathing holes' included for pipeline maintenance will be fenced off to reduce any impact on stock.

21.6.9 ACCOMMODATION

Extended stays in local accommodation facilities such as hotels and motels located near the MLA areas for the proposed pipeline construction workforce will be discouraged to decrease the potential supply versus demand issues possible as a result of the cumulative impacts of projects in the region. It may be more appropriate to house construction workforce in or around Miles.

The WJV and its contractors should actively engage with government stakeholders and departments to devise ongoing strategies for management of accommodation needs to ensure activities do not displace members of the community.

21.6.10 EDUCATION

The WJV will work with contractors who value the provision of training and experience and who may consider entering into partnerships with local schools and training institutions. This may extend to provision of trade experience to local apprentices or allowing the use of mechanical equipment to provide 'hands-on' experience.

21.6.11 HEALTH SERVICES

While impacts to health services are expected to be limited, it is recommended that where possible, WJV and its contractors provide support to existing providers.

The WJV will work with local health providers and government agencies to plan for future health service needs (refer Volume 1, Chapter 28 Summary of Commitments and Mitigation Measures).

21.6.12 EMERGENCY SERVICES

The WJV will work with emergency service providers in the region, and their associated government agencies, to ensure robust emergency management plans are determined and implemented. These plans should consider the ongoing need for staff versus the current difficulty in obtaining staff in suitable timeframes. The ongoing need for equipment and specialised services in relation to mining operations will need to be considered.

The WJV will work closely with the local police force particularly in relation to traffic management and associated road safety issues. The policing of driver behaviour is recommended.

21.6.13 LOCAL EMPLOYMENT AND TRAINING

The WJV will maintain an open dialogue with its contractors and regional employment and training agencies, particularly those funded by the Queensland Government. This would ensure that employment requirements and opportunities are managed from within the region. Contractors for construction work will be encouraged to include a facet of how well they are able to utilise local employees and training providers.

21.6.14 ROADS AND TRANSPORT

The increase in heavy vehicles on regional roads will need to be managed by WJV, its contractors, local authorities, Queensland Transport and the Department of Main Roads, particularly during construction. Road safety sessions for local schools, community information sheets and the provision of a free-call community hotline number are recommended to educate and inform the local communities as is ongoing consultation with the Department of Main Roads and local councils.

21.6.15 CUMULATIVE EFFECTS

The WJV will work proactively with other project proponents in the area to work on plans to mitigate the cumulative effects of projects proposed for the region. The WJV will work with local service providers and government agencies to ensure ongoing management and mitigation of cumulative social impacts from projects in the region are proactively managed.

Throughout construction it is recommended that proponents work closely with Queensland Transport to develop robust traffic management plans particularly in relation to road safety, health, education, training and housing.

21.7 CONCLUSIONS

The communities in the region attribute much of their identity, social values and amenity to the rural atmosphere and agriculturally-based lifestyles. There is unlikely to be a dramatic change to the area's demographics as a result of the proposed pipeline. There may be a temporary increase in young adult males moving to the area during the nine month construction period; these workers are not expected to remain in the region permanently.

Construction itself would cause the most impacts for the community, and particularly those residing on properties directly affected by or adjoining the proposed pipeline corridor. These impacts are expected to be easily managed and in some cases mitigated with the development of detailed construction and traffic management plans and a consistent and informed communication and consultation process. These impacts would include noise, dust and potentially lighting impacts associated with construction, traffic delays and road and safety impacts due to the corridor's proximity to the road reserve.

Impacts on accommodation supplies in the area may be impacted by the accommodation choices favoured by the construction contractors.

Mitigation strategies are focussed on providing proactive solutions to possible impacts and reducing the stress and anxiety that may be felt by the community during construction and operation of the Project. In summary these mitigation strategies include:

- effective and focussed communication of project activities to those affected by the proposed alignment particularly in relation to potential interruptions to farming activities and changes to access requirements
- continued inclusion of information in community consultation activities, particularly those related to the Project
- traffic and access management plans with appropriate monitoring guidelines
- detailed construction management plans with appropriate monitoring guidelines to decrease construction impacts such as noise and dust
- reducing the potential impacts associated with housing the construction workforce by choosing accommodation located in or around the southern end of the proposed pipeline rather than near the Project MLAs.

The implementation of mitigation strategies recommended in the other technical studies is also encouraged. Managing the impacts of construction and operation in these ways would assist in ensuring the community has confidence in the project, the WJV and its contractors. This would assist in reducing community stress and anxiety and help manage impacts to the social character and infrastructure of the region.