Section 13

SOCIAL ENVIRONMENT

13. Social Environment

This Section describes the existing social values that may be affected by the Project, the social amenity and use of the Project area. A community profile was developed and practical measures for protecting and/or enhancing social values described.

13.1 Methodology

Social impact assessment (SIA) focuses on the social changes and community impacts that are likely to occur. The International Association for Impact Assessment defines social impact assessment as:

"the process of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programmes, plan, projects) and any social change processes invoked by those interventions. Its primary purpose is to bring about a more sustainable and equitable biophysical and human environment" (International Association for Impact Assessment, May 2003)".

Social impact is considered to be the effect of a public or private action that may alter the way in which people live, work, play, relate to one another, and organise to meet their needs.

This Section describes the existing social environment that may be affected by the Project, potential impacts and mitigation measures. The social impact assessment addresses the following:

- Description of the community profile (e.g. population, age structure, gender composition, workforce characteristics);
- Description of potentially affected communities in the region;
- Description of community infrastructure and services;
- Description of housing, accommodation and land availability;
- Identification of adverse and beneficial impacts of the Project at the local and district level;
- Nature and extent of the consultation program;
- Summary of key issues raised during consultation; and
- Measures for protecting or enhancing social values.

For the purpose of estimating population changes in this section of the EIS, a maximum construction workforce of 1,350 has been adopted. This is based on an assumed three construction camps having a total capacity of 450 people. Using this estimate is a conservative approach since the actual workforce based on person weeks has been estimated to be closer to 1,000 people (see Section 2.7.1). Using this accommodation capacity of 1,350 as a maximum workforce provides a conservative upper limit approach and it is expected that the actual impact will be lower than this.

In this Section for the purposes of describing the social environment, the term Region has been used to describe an area bounded by the major communities of Wandoan, Taroom, Theodore, Moura, Banana and Cracow.

13.2 Description of Existing Social Values

13.2.1 Demographic Profile

A demographic profile of the region (see Appendix L) has been developed using data from the Australian Bureau of Statistics (ABS) Census of Population and Housing 2006 (refer to Map 29 – ABS Census Collector Districts, Local Government Area Boundaries in the Map Folio) and includes the following information:

- Population and Sex Breakdown;
- Population Trends and Projections;
- Population Stability;
- Age Structure;
- Selected Averages;
- Housing Breakdown;
- Household Composition;
- Birthplace and Citizenship;
- Income;
- Workforce;
- Industry of Employment;
- Occupation;
- Method of Travel to Work; and
- Post-School Education.

13.2.2 Community Profiles

The communities within the region are rural in nature, and therefore their values are notably different to those of their urban counterparts. Throughout the region, a common value held by many in the community relates to the ability to own and manage a property for agricultural pursuits, without being unduly restricted or impeded by external (unnatural) influences. Additionally, the residents within the region value the tight-knit nature of the community (particularly in areas close to the townships), where they know the majority of the people living in the surrounding areas and appreciate the ability to stop and chat with people that they know in the main street of town. The fact that populations across the region are relatively stable, with the exception of Wandoan which recorded a 20% reduction in population between 2001 and 2006, suggests that residents enjoy living in the area, and community spirit and cohesion is strong. The rural lifestyle is enjoyed by the community, and a common value is the ability to live in relative comfort away from the hustle and bustle of everyday life in more urbanised centres.

Many properties in the region are likely to hold sentimental value to the present landowners, as they have often been owned and managed by a number of generations of the same family. There is a distinct connection held by these residents to the land, the landscape and the broad community, based on the generational history of the families in many of these areas. Full community profiles are presented in Appendix L.

Various forms of infrastructure are located within the Dawson Valley (see Section 4.5). Primarily, this infrastructure is centred around the major townships of Biloela, Theodore, Cracow, Taroom and Wandoan.

These townships (nearest the study area) have a number of community facilities and services, which are shown in Map 30 – Social facilities and LGA Boundaries in the Map Folio and include the following:

Medical Services

Medical services in the region are limited; most communities have either limited hospital services or out-patient clinic; some communities have both pharmacies and doctors; other medical services such as dentists and physiotherapists are available but limited to the larger communities; while higher order medical services such as optometrist are extremely limited or not available in the region. Gladstone, Rockhampton and Toowoomba provide higher order services but require at least several hours drive.

Medical services are most limited in the communities closest to the Project work-fronts at Wandoan, Cracow and Banana. This means that the Project will need to be self-sufficient, and must be able to provide initial medical support for accidents that occur on the construction site or in the construction camps.

Further, the additional workforce (estimated at about 1000 workers) will increase demands for medical services in the communities with hospital facilities (at Taroom with a resident population of about 650, Theodore, 500 residents, Moura, 1980 and Biloela, 5750).

Cracow, closest to the construction fronts and construction camps has very limited outpatient facilities only.

Emergency Services

The emergency services of police, fire and ambulance are available in most communities but not at Cracow and Banana. The existing staffing levels and available services will need to be reviewed to determine suitability during the construction phase of the Project. Nearest police to the construction camps and to Cracow may be over 50 km away at Theodore.

Education Facilities

Education facilities include primary schools in most communities (not Cracow) and high schools limited to Moura and Biloela, located at the northern end of the area of interest.

While locating suitable housing and accommodation will be opportunistic, it is reasonable to assume that family units will seek housing and accommodation close to the required educational facilities. That is, families with high school students will seek housing in the two communities with high schools – Moura and Biloela; families with primary school-aged students will seek accommodation in the six communities with primary schools - Wandoan, Taroom, Theodore, Banana, Moura and Biloela.

There are no educational facilities in Cracow.

Sport and Recreation Facilities

Sport and recreational facilities and sports clubs are available but limited in the range of sports specifically catered for.

Public Transport

Public transport is extremely limited which makes motor vehicles the only viable form of transport across the region and to the Central Queensland and Southeast Queensland Region.

It is assumed that buses will be provided to shuttle workers between the construction camps and the work-fronts. However, for other trips, private vehicles will be required. This will include all trips for those workers living off-site and for workers wishing to return to their normal place of residence.

Shopping and Retail Facilities

Shopping and retail facilities are extremely limited within the region with places like Cracow with no outlets at all.

Other Services

Other higher order services are also extremely limited within the region. Services such as banks, Australia Post and legal and financial services are available in only in several larger communities.

From this it is evident that existing community services and facilities are likely to be inadequate for the construction phase of the Project. While this may provide new business opportunities, services requiring public funding will not be able to respond in a timely manner and may be unable to provide the level of service that is required during the peak construction period.

13.3 Community Values

As described in Section 1.9, community engagement has formed an integral part of the Surat Basin Rail Project, helping to inform key decisions and connecting the Project team to the local community and landowners.

Figure 13-1 shows the top ten issues raised during consultation undertaken to date and highlights the social, environmental and economic values held by the community. The subsequent text discusses these further in order of priority.

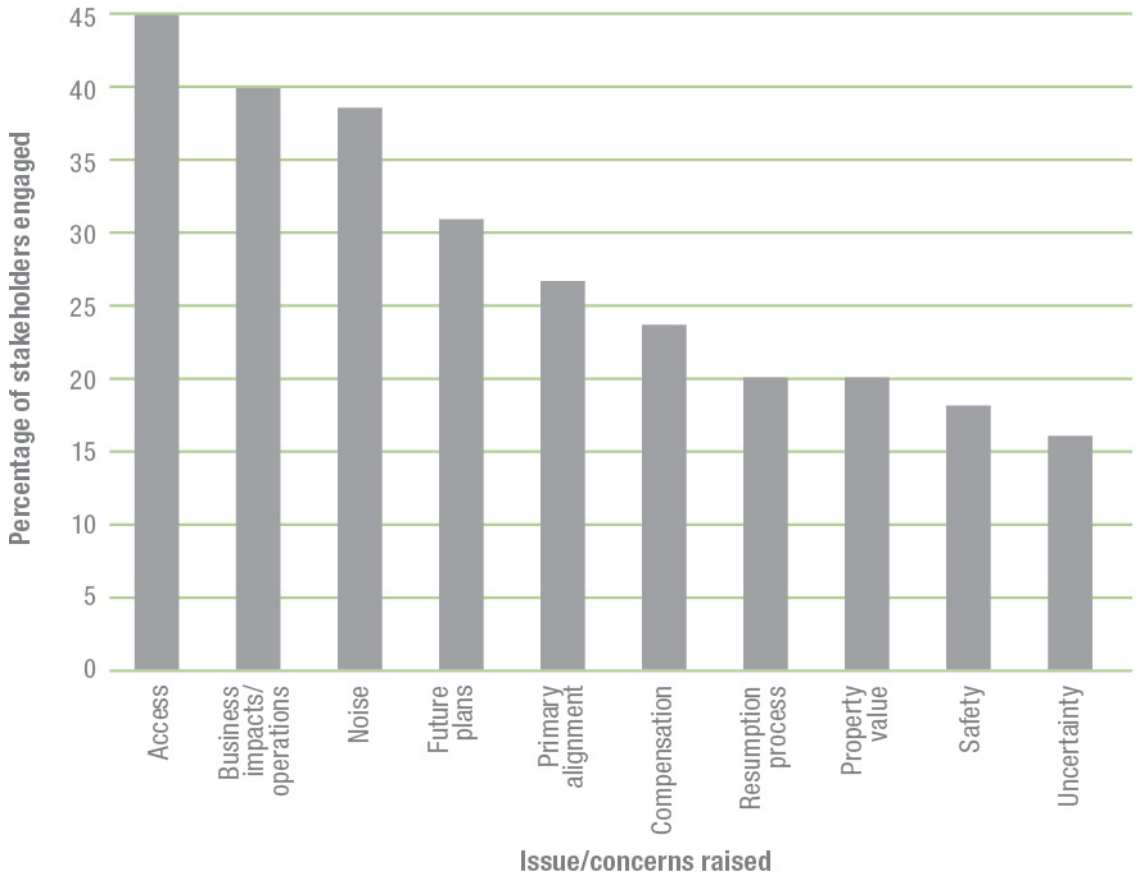

Figure 13-1: Issues and Concerns Raised

Access

The issue of access was raised in 45 per cent of stakeholder interactions by over 100 distinct stakeholders. The significance of access as one of the primary issues reflects the regional context and nature of farming operations within the study area. Landowners noted a number of factors relating to access concerns, including:

- Safe access to properties and general apprehension towards level crossings;
- Isolation due to not being able to cross at a level crossing, particularly as train traffic increases over time;
- Adequate access points not only into properties, but within farms when the preferred alignment traversed well within property boundaries; and
- Concerns over formal title information and landowners' ability to sell/divide the property in future.

Business Impacts/Operations

Second to access, were concerns over the potential Project impact on business operations and future opportunities to landowners. This included logistical concerns relating to the movement of stock and farming machinery, relocation of existing infrastructure, need for new infrastructure, potential impact on existing pipelines and general nuisance during construction. Other issues included the potential

impact on future plans and opportunities, potential loss of income or ability to generate adequate income and time spent on 're-educating' stock and staff as a result of the changes.

Noise

Noise and vibration concerns were noted by potentially directly affected landowners and property owners adjacent to the location of the preferred alignment. Almost 40 per cent of those engaged by the Project team believed noise was a significant concern and were interested in what measures would be taken to limit disturbance and impact on their more quiet country lifestyles.

Preliminary Alignment

During the first round of engaging with landowners, and before their acceptance of the Project going ahead, many had significant concerns about the location of the rail corridor. This particular issue is generally very common with directly impacted landowners affected by major infrastructure projects and forms part of the 'trigger for engagement'. The primary reason for concerns over the preferred alignment related to its impact on landowner properties and their farming operations. The Project team adopted an approach, which featured a strong feedback loop between landowners and the Project design team. Landowners were kept up to date on Project progress and were fully informed about the level of influence they were able to exercise.

Compensation

Across the board, landowners stressed the importance of fair and equitable compensation for the loss of land, inconvenience caused, and need to ensure a workable business solution. Several landowners felt it was also very important to consider future opportunities and lost income as a result of the Project impacting their property.

Resumption Process

Approximately 20 per cent of landowners had concerns about the resumption process, compensation packages and potential timeframes involved. Specifically, their comments related to the need for equity and natural justice, the potential for a drawn out process, consideration of all matters of concern to landowners, the negotiation process, perceived market values and the honouring of commitments later in the rail's life.

Property Value

As an issue, property value brought up a mix of concerning factors including the ability to sell the property, impacts on future plans to develop the property and related business, and impacts on landowner livelihood. Concerns over property value were particularly emphasised by landowners with smaller properties. Further, some anecdotal comments were made suggesting the Project had already decreased their property value and stressed land acquisition packages would have to compensate for this. Others cited that falling property values near the proposed rail and increasing property values elsewhere meant they were not able to fairly relocate, should they wish to do so.

Safety

Safety was a significant concern for the community, particularly landowners with children and those requiring regular access to the school bus. This was also related to a general apprehension towards passive level crossings, even at very low traffic areas.

Uncertainty

Uncertainty is a common concern for potentially directly affected landowners in the early stages of infrastructure projects, while investigations and project design work continue to shape the preferred alignment. Initially, this concern related to the location of the preferred alignment. During the last round of community engagement activities, the issue of uncertainty shifted to concern about the negotiation, resumption and construction processes.

The movement of a large workforce into the region also has the potential to generate broad community apprehension and uncertainty. The region currently has a strong rural identity which may be upset by other people moving into the area who may not share similar values.

13.4 Potential Impacts

13.4.1 Context

Rail infrastructure development such as this Project will result in changes that extend beyond the physical changes to the landscape (as described in Section 4) to include many of the characteristics that define social impact.

These potential social impacts are described below under the headings of:

- Preferred alignment;
- Population;
- Housing and accommodation; and
- Community services and facilities.

Other related impacts such as the opportunities for local businesses and employment are discussed further in Section 14.

13.4.2 Preferred Alignment

The Project, when constructed, will directly impact on a number of landowners and residents. Of the 84 Lots impacted by the preferred alignment, there are 7 government and 77 privately owned lots.

Most of the preferred alignment passes through rural areas avoiding the larger communities identified within the study area. As a result, most of the potential social impacts on the directly affected landowners relate to changes to current farm operations including the loss of farm land, road closures and reduced accessibility within and between some of the directly affected properties, but also include less tangible social impacts resulting from changes to the quality of their life, amenity and environment.

Rail infrastructure projects also have the potential to impact on social amenity through the generation of noise, dust and obtrusive lighting, both during construction and when operational.

13.4.3 Population

In order to predict the total population impact resulting from the project a number of assumptions have been adopted. These assumptions have been derived through analysis of demographic information relating to Moranbah, which is a town in the Bowen Basin that has undergone significant growth over the last six years as a result of the expansion of coal mining operations. These are outlined in Table 13-1.

Table 13-1: Assumptions for Population Projections

Item	Description
Family structure	Percentages taken from ABS Census data for Moranbah
Average family size (couple with children)	3.7
Average family size (couple without children)	2
Average family size (lone parent with children)	2.7
Local workforce	Due to present labour shortages in the region, it is assumed that only 10% of the required workforce can be sourced locally
Support workforce	Total support workforce required to the sustain the workforce which permanently moves to region is 1.5 (employment multiplier for transport related industries) (Queensland Treasury Input/Output Tables for Mining)
% of workforce derived locally	Construction phase workers assumed 10% Operations & Maintenance phase workers assumed 0% Support workers assumed 0%
Construction workers family structure	• Families 35% • Couples No Kids 22% • Single Parent 2% • Single 41%
Operation & maintenance workers family structure	• Families 43% • Couples No Kids 30% • Single Parent 7% • Single 20%
Support workers family structure	• Families 46% • Couples No Kids 28% • Single Parent 5% • Single 21%

So as to enable the definition of population and housing impacts, the towns in the region which are most likely to be affected by such impacts have been identified. These are towns which lie close enough to the proposed preferred alignment to be a viable commute distance and include the following:

- Wandoan (approximate population of 450);
- Taroom (approximate population of 650);
- Theodore (approximate population of 500);
- Banana (approximate population of 627); and

- Cracow (approximate population of 120).

The total population of this defined region is approximately 2,347 persons.

13.4.4 Potential Impact Derived from the Construction Workforce

Initial estimates are that the construction workforce required for the Project will be approximately 1350 employees, however this estimate may fluctuate as the Project engineering is refined.

Whilst four stages of works have been identified, along with an additional major component of work attributed to the construction of the Downfall Creek Bridge, the intention is for four stages to be advanced concurrently (refer to proposed schedule in Section 2.4.2).

It is important to note that it is unlikely that the same personnel will be employed continuously throughout the construction period. Contractors will be employed for specific components of work (such as earthworks for example). These contractors will complete their component of work and then leave the Project. This has implications when estimating the number of construction employees which may permanently re-locate to the region. Estimated population impacts may need to be further refined when more specific information describing the workforce becomes available.

It is expected that all construction staff will be housed, at least initially, in the proposed construction camps. It is estimated that a maximum of 10% of the construction workforce will be able to be sourced locally. Whilst unemployment rates in the region are currently low (3.5%-4.5%) it is envisioned that a number of people (particularly males) currently working on family farming operations may take advantage of temporary employment opportunities. Due to potential access issues and travel distances even this component of the construction workforce may require accommodation in the construction camps. Therefore the total capacity of these camps should be planned accordingly.

It has been assumed that the construction camps will be self contained and relatively isolated and subsequently population impacts upon surrounding towns throughout the construction period are expected to be minimal. Associated with construction camps there are typically some issues relating to increased patronage at hotels and other entertainment and recreational facilities in proximity to the camps and subsequent increased demands placed on services such as police and emergency services along with medical services. It is important that such issues are adequately recognised and appropriate strategies employed to manage their impact.

During construction it is predicted that a proportion of the construction workforce will permanently move to the region. A range of between 5% and 10% of the total construction workforce has been adopted in recognition that multiple factors will impact on the actual number of construction employees who will move to the area. Research recently completed with respect to the social impacts associated with the expansion of mining activity in the Bowen Basin, has found that whilst construction employees typically have a permanent base in regional centres (such as Brisbane, Mackay and Townsville) which they return to when shift schedules allow, a proportion do seek permanent accommodation in proximity to the workplace. This proportion rises when lucrative long term employment opportunities are available (Department of Housing, 2007).

It is estimated that between 5% and 10% of the construction workforce will move permanently to the region. This (relatively high) percentage has been derived in recognition of the catalytic nature of the SBR Project which will open up the coal reserves of the northern Surat Basin and consequently will be the catalyst for a significant expansion in economic activity in the region. It is important to note that the figure of 5–10%, along with the employment multiplier of 1.5 which has been adopted, are

estimates only. There is no universal employment multiplier which can be applied as each region has individual characteristics which either promote or prohibit population growth. In order to accurately predict population impacts, more detailed research needs to be undertaken so as to identify a regionally specific multiplier from which population impacts may be derived.

Additionally, it is difficult to predict with certainty where population growth stimulated by the construction workforce will occur. There are numerous factors which will influence such a decision including housing availability and cost, preferred lifestyle choices (urban or rural) and standards of infrastructure provision, particularly the availability of education and health facilities.

Based on the above discussion and assumptions the population impact derived by the construction workforce has been estimated as follows:

Table 13-2: Estimated Construction Workforce

Peak construction workforce	1,350
Imported construction workforce	1,215
Number of construction employees predicted to move to the region	61-122
Total population increase including partners and families	134-269

The 'service' population is comprised of those people who move to the region to take advantage of the expanding economic opportunities created by the wealth injected into the regional economy as a result of the Project.

Table 13-3: Estimated Service Population

Number of construction employees predicted to move to the region	61-122
Additional (service) employment opportunities created	31-61
Total population increase including partners and families	81-162

The estimated regional population increase derived from the construction workforce is estimated to be between 215-431 persons. It is noted that this estimation of 'permanent' population increase relates specifically to the main construction period (2010-2012) and is dependant upon ongoing economic opportunities being created in the region. If such opportunities do not eventuate then a significant proportion of this predicted population increase will not be realised.

13.4.5 Population Impact Derived from the Operation and Maintenance Workforce

The operation and maintenance workforce will comprise an estimated 44 train drivers and a small number of support and maintenance workers. This estimate is based on two drivers per train with the railway supporting up to 24 train movements per day. This includes the assumed 22 coal train movements and two freight train movements. Freight train movements will be sporadic whereas coal train movements will be 24 hours per day, 320-340 days per year. As a result the freight train component has not been included as contributing to the permanent workforce.

It is anticipated that the train drivers will be permanently based in Gladstone rather than Wandoan. Drivers will complete a journey from Gladstone to Wandoan, stay overnight in hotel style accommodation and then make the return trip to Gladstone on their next shift. It is estimated that the

permanent population impact in Wandoan will be minimal, consisting only of those employed to operate the accommodation facility which may either be purpose built (as typically provided by QR) or an arrangement negotiated with an independent provider. It is estimated that this will create a maximum of two full time positions, subsequently resulting in a total population impact in Wandoan of six persons.

Many of the support and maintenance workforce will not constitute fulltime permanent positions. Jobs such as signalmen and maintenance tasks will either be based outside of the region or be sporadic in nature and likely to be undertaken by contractors already residing in the region. It is subsequently not expected that that this component of the workforce will generate any population impact within the region.

Therefore the total population impact created by the operational and maintenance workforce is estimated to be just six persons upon the railway becoming operational in 2012.

The total estimated regional population increase derived by both the construction and operations and maintenance workforce is estimated to be between 221and 437 persons. This estimated population impact represents an increase of between 9.4% and 18.6% to the defined regional population.

Population increase derived as a result of a project has the potential to impact upon community integrity and identity, particularly when the host community is relatively small. Subsequently it is important for such potential population impacts to be recognised at the earliest possible stage and mitigation strategies identified and implemented. A key initial step is to ensure that these predicted population increases are addressed by local and regional planning processes through a study similar to that which was completed for the Bowen Basin.

It must be recognised that this analysis has not taken into account the fact that the partners and spouses of both project and service employees who move to the area of interest may fill additional employment opportunities which are created. This would reduce the total population impact.

13.4.6 Housing and Accommodation

Construction Workforce

As outlined in Section 2.7.3it is currently anticipated that the entire construction workforce will be housed in the construction camps. Initial estimates in the Preliminary Construction Methodology (Connell Hatch, 2008c) are that there may be three construction camps constructed in the vicinity of the following locations:

- Nathan Road at Bungaban, Twelve Mile Road
- Nathan Road at Pigeon Creek; and
- Defence Road at Castle Creek Road.

The proposed locations for the construction camps are shown in Map 4 – Indicative Construction Camp Locations in the Map Folio.

The final location and number of construction camps will be agreed in partnership with local governments and land owners as the Project engineering is refined. At the time the EIS was written it was envisaged that each construction camp would be designed to accommodate up to 450 workers.

It is considered prudent to plan for the additional capacity in the camps on top of the current workforce predictions as this provides flexibility in accommodation provision allowing for changing demands on individual work fronts and delays caused by environmental events.

An initial demand for temporary accommodation will be generated by the workforce attached to the construction of the Downfall Creek bridge. The proposed camp at Pigeon Creek may require additional capacity to accommodate both the bridge workforce and that attached to the 75-120 km section. Works on the bridge are currently scheduled to start prior to the camp being operational. The options are to set up a short term camp close to the site or use nearby townships as dormitory towns until such time as the camp is operational. There are currently a number of camping facilities in Theodore, Taroom and Wandoan which provide showers and amenities and may provide a suitable short term accommodation option for both the bridge workforce and early works construction workforce. It is estimated that the maximum timeframe for which such accommodation would be required is for six months leading up to the construction camps being operational. Initial assessments indicate that existing services and infrastructure in both Theodore and Taroom have the infrastructure capacity to support this workforce (approximately 50 employees) for this timeframe. It is recognised that utilisation of existing camping facilities may impact on the availability of such accommodation options for tourism purposes and subsequently utilisation would only occur after consultation with relevant stakeholders and negotiation of a suitable arrangement with the Banana Shire Council.

Permanent Housing

As discussed in Section 13.4.4 it is estimated that between 5% and 10% of the construction workforce may wish to permanently move to the region. This will potentially create a demand for permanent housing in Taroom, Theodore, Wandoan, Banana and Cracow. The magnitude of such demand for housing including that derived by the additional service population is estimated to be between 92 and 183 dwellings.

Table 13-4: Housing Availability

Dwelling Structure	Taroom	Wandoan	Theodore	Banana	Cracow	Total
Occupied private dwellings	283	299	188	207	42	1,019
Unoccupied	48	127	49	50	16	280
Separate house	252	280	154	190	38	914
Semi detached	3	0	7	0	4	14
Flat, unit & apartment	11	16	12	0	0	39
Other	14	3	15	17	0	49
Not stated	3	0	0	0	0	3
Total dwellings (including unoccupied)	331	426	227	257	58	1,299

Source: ABS Census data 2006

Occupancy rates at 2006 for the township are as follows:

- Taroom 85.5%
- Wandoan 70.2%
- Theodore 78.4%
- Banana 80.5%

- Cracow 72.4%

Analysis based on the data above would seem to indicate that estimated demand for housing created by the Project could be met by existing supplies as at June 2006 there were 280 unoccupied dwellings and the total maximum regional demand created by the project is 183 dwellings. This is however a very simple level of analysis and does not address important issues such as the standard and location of such existing housing or the type of housing which will be sought by those who move to the region. Additionally it is important to recognise that this is 2006 Census data and therefore was collected prior to the announcement of this Project or the proposed Wandoan Mine Project.

Since the announcement of the mine, private interests have proposed some large housing initiatives in response to predicted escalating demand. A number of development applications are presently being assessed by Council however there are some concerns that these have been lodged by opportunistic local landowners and do not necessarily provide solutions which support local and regional town planning objectives. It is noted that the township of Wandoan is surrounded by a large amount of government owned land which is potentially suitable for residential sub-division. It is anticipated that this land could be released relatively quickly in response to demand for permanent housing. The key issue is that estimates of demand for permanent accommodation is fed into local and regional planning processes at the earliest possible stage so that the optimum public and private sector response may be realised and issues relating to housing availability and affordability avoided.

13.4.7 Community Services and Facilities

As outlined above it is estimated that the Project will result in localised population growth and subsequent demand for permanent housing and infrastructure. The total estimated population increase derived by both the construction and operations and maintenance workforce is between 330 and 561 persons. Such population growth is considered a positive social impact resulting from the Project as it invigorates rural communities which have predominantly been in decline in recent years. In order for such positive impacts to be fully realised and people are attracted to reside in the region, it is important that adequate social infrastructure is planned and delivered to support population growth. In this way existing residents of the region also enjoy the benefits of improved community services and facilities.

As outlined in the Community and Demographic Profiles (Appendix L) there is a hierarchy of townships in the region, with Taroom and Theodore the primary service centres providing a range of community services and shopping and retail facilities. Wandoan is a smaller township which currently provides limited services and a single retail outlet (cut price supermarket). A characteristic of most of the towns in the region is the availability of recreational opportunities. In Wandoan for example, there are numerous sporting clubs and facilities along with access to national parks and fishing opportunities.

Overall social services and infrastructure is limited across the region reflecting that this is a large area with a relatively small population. The greatest social infrastructure shortfall could potentially occur in Wandoan as this is the town most likely to attract a significant proportion of population growth due to it being a termination point for the rail and proximity to proposed mining operations. Core items of infrastructure presently not provided in Wandoan include:

- Hospital;
- Specialist health services (dentist, optometrist, physiotherapy);

- High school (currently only to Year 10);
- TAFE;
- Day care;
- Bank; and
- Community centre.

The current absence of such core social infrastructure items in Wandoan is likely to detract significantly from the ability of the town to support a growing population. Theodore and Taroom are better served in terms of existing infrastructure; however there is no high school, day care or higher education facilities in either town. Whilst the private sector should react to meet some of the demand created for these services, the primary State provided infrastructure items of a Hospital and High School need to be addressed with some urgency in order for growth potential to be realised. A more detailed Planning Study involving a partnership between key State agencies, local government and industry is required to address these issues.

13.5 Mitigation Measures

13.5.1 Directly Affected Landowners

Ongoing consultation will be required with directly affected landowners to minimise potential impacts on a property by property basis. A key component of the consultation process is the establishment of a complaints register and response procedure which will operate throughout the construction and initial operational phases. As stated in Section 1.9.5 a number of issues directly affecting landowners have been identified and are being worked through with relevant staff working on the Project. This process should continue through detailed design, land acquisition and construction. In determining appropriate responses, it may be necessary to go beyond statutory requirements to find solutions that provide satisfactory outcomes.

Many of these issues are the subject of more detailed assessment elsewhere in this EIS. This includes issues relating to safety, with the location of level crossings (see Section 10), air quality and noise impacts (see Sections 7 and 8 respectively).

13.5.2 Population Impacts

As discussed earlier in this Section, the Project will be the catalyst for population increase in a number of towns within the region. Whilst the estimated regional population increase attributed directly to the Project is relatively minor in the context of population growth likely to occur as the result of other projects proposed for the region it is nonetheless important that such increases are recognised and appropriately addressed. The key to effectively addressing population growth is the exchange of relevant information between project proponents and governmental agencies responsible for regional and local planning and development. Exchange of information relating to expected population growth at the earliest possible stage allows the optimum public and private sector response to be derived.

In September 2008 the Queensland Government released the Sustainable Resource Communities Policy. This Policy follows on from the Sustainable Futures Framework for Queensland Mining Towns released in 2007 and builds on the key principles of leadership, collaboration, corporate responsibility, sustainability, communication and community engagement. While the Policy has been developed in response to continuing rapid growth in the Bowen Basin, it will also apply to the expected growth in the Surat Basin and the North West Minerals Province.

The Policy proposes four key initiatives to achieve the goal of building sustainable resource communities:

- Strengthening the State Governments coordination role through establishing a social impact assessment function in Government, developing a Major Projects Housing Policy and the Minister for Regional Development and Industry adopting a leadership role in driving regional development in the Bowen and Surat Basins.
- Improving linkages between social impact assessment and regional planning through accelerating the preparation of relevant regional plans, building local government land use planning capacity and releasing the Coal Infrastructure Strategic Plan.
- Fostering partnerships with local government, industry and community through the establishment of a high level Partnership Group along with Local Leadership Groups.
- Enhancing the regulatory provisions attached to social impact assessment through amending legislation to allow the Minister for Mines and Energy to require the development and implementation of Social Impact Plans, modifying trigger criteria for preparation of Environmental Impact Statements and developing guidelines for the preparation of Social Impact Plans.

So as to assist in achieving the best possible social outcomes with respect to population growth in the Surat Basin, the Project proponent will undertake to actively participate in the planning and partnership initiatives proposed by the Sustainable Resource Communities Policy. An initial step is making available the estimated population impacts associated with the Project so that these may be integrated into local and regional planning responses.

An associated population impact relates to the influx of a large construction workforce into the region for the duration of the temporary construction phase. There are some potentially negative social issues associated with such workforces such as public nuisance and conflict with existing residents. Such issues need to be carefully managed and mitigated through the establishment and enforcement of expected standards of behaviour Protocols along with appropriate shift scheduling and the provision of a range of recreational facilities and opportunities in the camps. There will also be established a complaints register and response procedure which will operate throughout the construction and initial operational phases. Further details relating to the behaviour Protocols and other construction staff management techniques will be provided as part of the social assessment component of development applications submitted for the construction camps.

13.5.3 Housing, Accommodation and Infrastructure Impacts

Whilst adequate accommodation will be provided for all staff associated with the Project, as outlined in Section 13.4.6, it is estimated that the Project may create (maximum) demand for an additional 183 permanent dwellings in the region. This demand is derived by members of the construction workforce that may choose to move permanently to the region either during or following the Project construction phase and by persons who are not directly attached to the Project but move to the area

to take advantage of economic opportunities being created by the influx of wealth to the region (referred to as the service population). It is recognised that those seeking permanent accommodation are likely to have partners and/or children and therefore will seek traditional forms of accommodation rather than single persons quarters. There is subsequently potential for additional demand for such housing to place inflationary pressure on the regional housing market leading to housing affordability issues.

The most effective means by which the Project can contribute to alleviating any potential regional housing affordability issues is to supply the best possible information and analysis to the public and private entities driving local and regional planning and development. The Proponent is committed to working in partnership with such entities in order to allow the necessary planning to occur so that optimum housing solutions may be realised. This includes making information available to initiatives such as the Coal Infrastructure Taskforce, the Sustainable Resource Communities Partnership Group, the Surat Basin Regional Plan or a Regional Housing Program if developed for the Surat region.

As detailed in Section 2.7.3, a number of high quality construction camps will be established to provide accommodation for the construction workforce. These camps will be relatively isolated and self sufficient and provide a full array of recreational opportunities to residents.

Initial demand for temporary accommodation will be generated by the workforce attached to the construction of the Downfall Creek bridge. Accommodation options for this workforce which will consist of approximately 50 employees are to either establish a short term camp close to the site or use nearby townships as dormitory towns until such time as the major camp is operational. If existing facilities at Theodore, Taroom and Wandoan are utilised, then this may impact on the availability of such accommodation options for tourism purposes. This is an issue which needs to be recognised and requires consultation with the operators of such facilities along with representatives of the tourism industry in order to ensure that impacts on tourism are minimised. For example, it may be that a quota of the total available accommodation may only be able to be utilised for the construction workforce.

With respect to social infrastructure and community facilities, it is anticipated that population expansion may place pressure on existing infrastructure and services. It is recognised that the onus is commonly placed on Councils to ensure that service provision is sufficient to meet the needs of a growing population. However, the relatively small Councils affected by resource driven population growth are unlikely to have the capacity to react quickly to the pressures caused by such growth. Most rural Councils have planned for low (or even negative) growth scenarios and simply do not have the resources or professional staff to rapidly re-align their planning to cope with sudden population expansion. This was an issue addressed at the mining summit held in Dalby on 21 November 2008, and by the proposed Sustainable Resource Communities Partnership Group.

Once again, the primary mitigation measure to alleviate the pressure placed on social infrastructure (and the agencies responsible for their delivery) is to ensure that relevant information is presented to the responsible public and private interests so as to enable planning and development to be undertaken at the earliest possible stage. The Project welcomes working in partnership with government agencies and other interests to assist in creating a sustainable region which is adequately supported by social services and facilities.

13.5.4 Local Employment Opportunities

As detailed in Section 13.4.4, it has been assumed that the Project will result in employment opportunities for local residents. This will include permanent and short term positions as well as trades and other specialist support.

This issue is explored in detail in Section 14.

13.5.5 Local Business and Employment

The Project also provides potential opportunities for local businesses and indirect employment opportunities within existing businesses across the region. Mitigation measures to support local business and employment are provided in Section 14.