

16.1 Description of Environmental Values

This social impact assessment (SIA) was undertaken in accordance with the EIS TOR. The SIA:

- describes the existing social values that may be affected by the ECMP;
- considers the project's impact, both beneficial and adverse, on the local community;
- suggests mitigation and enhancement strategies; and
- recommends practical monitoring regimes.

The SIA has been carried out with reference to the social values and social indicators provided in the TOR, but also with reference to best practice guidelines and principles including Social Assessment: Theory, Process & Techniques (Taylor, *et al.*, 2004) and Participative and Analytical Social Impact Assessment (Burdge, 2004), as well as references from the Sustainable Resource Communities Policy: Social impact assessment in the mining and petroleum industries (Queensland Government, 2008). The Central Queensland Strategy for Sustainability (CQSS2) guidelines were taken into account during the process. The complete Social Impact Assessment Report is provided in Appendix N.

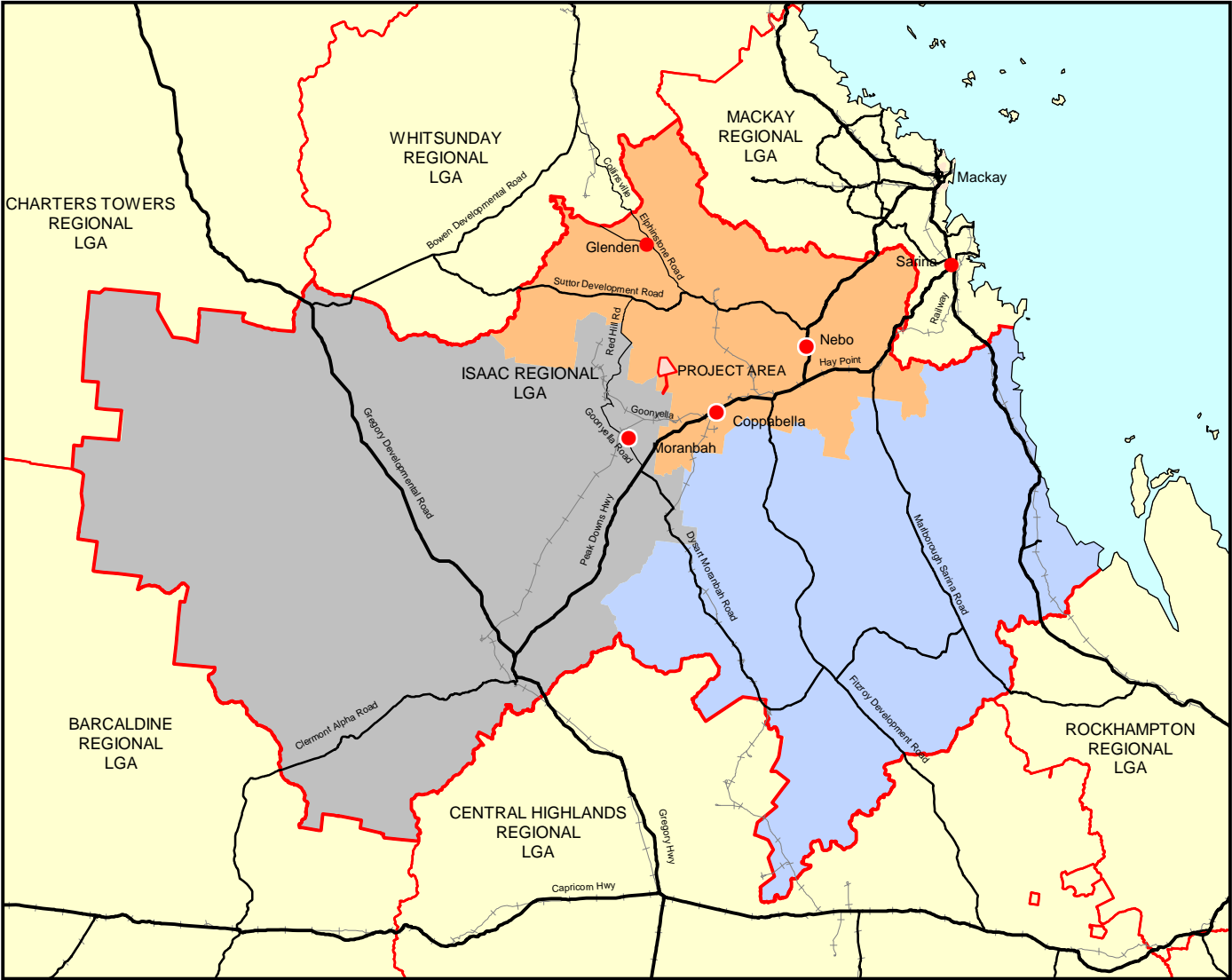
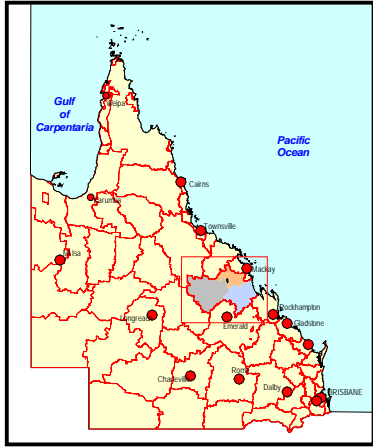
16.1.1 Baseline

In order to assess the potential impacts associated with the project, a study area was defined and baseline conditions identified and recorded. The primary study area was determined to be the community of Moranbah, and the IRC (see Figure 16.1.1). The wider study area used for comparison to Moranbah included the neighbouring communities of Nebo, Coppabella and Glenden. When referencing the local area, this includes the community being discussed plus the surrounding area that uses that community as their services centre. This varies from community to community, and is generally wider in rural areas where there are considerable distances between communities, and various sized communities offering different services.

The SIA focussed on the community of Moranbah as this community was identified by the IRC as positioned for expansion. As a result, Vale shifted focus from a predominantly workers camp based workforce accommodation model, to a split of 2/3 living in Moranbah, 1/3 living in area camps. Of the 2/3 of the workforce living in Moranbah, 1/2 were anticipated to be bringing families and the other 1/2 would be singles and fly-in, fly-out or drive-in drive-out (FIFO/DIDO) employees. Glenden and Coppabella were assessed as a comparison to the Moranbah area, as the camp accommodation would be in the MAC Camp near Coppabella and Glenden is a mining town in the local area.

Much of the assessment focus was placed on qualitative data collected from site interviews and observations between October 20 and 24, 2008, supplemented with quantitative data from the Australian Bureau of Statistics (ABS) and other sources. This approach allowed for a more thorough understanding of the real and perceived community needs, and more concise interpretation of the quantitative data. Information from the community also helped understand the magnitude of the current housing issue in Moranbah, and its effect on all other social issues. As a result, all of the identified social issues in the Moranbah community could be linked back to the shortage and high cost of local housing and accommodation as the primary sources of interruption of community services.

It should be noted that in May 2008 there was a change in the local government boundaries across Queensland. This resulted in the ECMP and the townships of Moranbah, Nebo and Coppabella being incorporated within the IRC Local Government Area (LGA), also known as the IRC statistical local area (SLA). Prior to the amalgamation, the ECMP and these townships were divided between the Nebo and Belyando Shires. Due to the recent nature of these changes, there is limited data available for the IRC LGA. As a result many of the comparisons are based on the former Nebo and Belyando SLAs. Figure 16.1.1 shows how the former Nebo, Belyando and Broadsound Shires relate to the new IRC.





0 125 250km
Scale 1:10 000 000 (A4)

This product incorporates data which is:
Source: ©Commonwealth of Australia (Geoscience Australia) 2004.

- Nebo Shire Council (pre March 2008)
- Belyando Shire Council (pre March 2008)
- Broadsound Shire Council (pre March 2008)
- Railway
- Highway
- Major Road
- Minor Road

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 	Client Project ELLENSFIELD COAL MINE PROJECT ENVIRONMENTAL IMPACT STATEMENT	Title PROJECT REGIONAL LOCATION AND LOCAL GOVERNMENT AREAS
	Drawn: VH Approved: RS Date: 22-06-2009 Job No: 42626093 File No: 42626093-g-521b.wor	Figure: 16.1.1

16.1.1.1 Population and Demographics

The Whitsundays, Hinterland and Mackay (WHAM) Region, which includes the northern Bowen Basin mining communities and the Whitsundays tourist area, was the fastest growing Queensland region in the period between the 2001 and 2006 censuses, with an average annual growth of 3.1%. (DIP, 2008).

Table 16.1.1 examines the estimated resident population (ERP) as well as the non-resident workers in the study area to give an idea of the size and scale of workers camps in the area. The result is a full-time equivalent (FTE) population estimate for the area which, in Moranbah, equates to a 25.1% higher population than is recorded in the statistics for the ERP. It is very difficult to project FTE population estimates forward with any degree of reliability due to volatility in the size of the non-resident worker component, and the numerous company policies that dictate employment accommodation and transportation options. Regardless, ABS' ERP figures will continue to form the basis of all LGA population projections (DIP, 2008). Between 30 June 2006 and 30 June 2007 the percentage of non-resident workers contributing to the FTE workforce dropped in all comparable localities.

Table 16.1.1 Estimated Resident Population and Non-resident workers in the project area

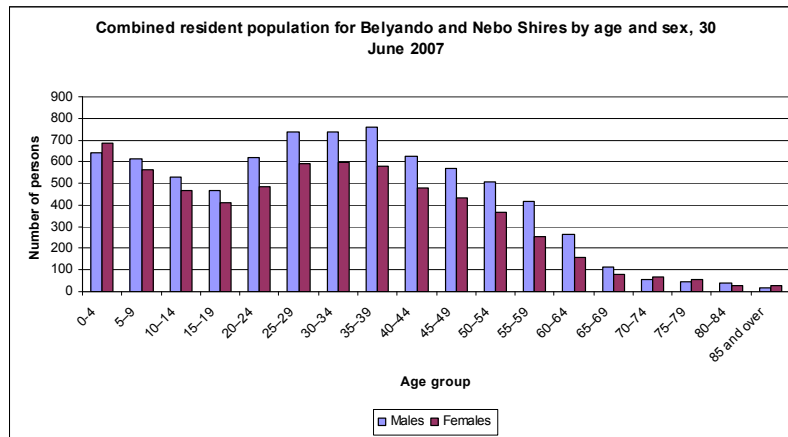
Locality	June 30, 2006				June 30, 2007				Change in ERP 2006-2007
	ERP 30/6/06	Non-res workers 30/6/06	FTE 30/6/06	Percentage of FTE non-resident workers	ERP 30/6/07	Non-res workers 30/6/07	FTE 30/6/07	Percentage of FTE non-resident workers	
Moranbah	7,628	1,915	9,543	20.1%	7,822	1,717	9,539	18.0%	-0.04%
Glenden	1,177	1,877	3,054	61.5%	1,180	1,463	2,643	55.4%	-13.5%
Coppabella	n.a.	n.a.	n.a.	n.a.	538	712	1,250	57.0%	n.a.
Nebo	301	691	992	69.7%	323	693	1,016	68.2%	2.4%
Nebo(s)	2,682	3,137	5,819	53.9%	2,716	2,868	5,584	51.4%	-4.0%

Source: DIP, 2007

Table 16.1.1 also examines the changes from 2006 to 2007 in population and ERP to FTE persons. The trend shows that more people were moving into the communities over this time period.

Figure 16.1.2 highlights the proportion of males to females in Belyando and Nebo shires. The shire level assessment was used to highlight the trend throughout the area, as opposed to Moranbah specifically. This is a reflection of the mining industry employment reality, where males are proportionally over represented in the workforce. Although traditionally almost exclusively a male industry, the mining community, both domestically and internationally, has attempted to be more inclusive for female employees; however there are many factors that are maintaining the large divide, both real and perceived. As a result, the mining industry is still mainly male, but with more female representation than in the past.

Figure 16.1.2 also highlights the population trends in the area. There are a lot of young families in the area, with a large number of young children. Many children go to boarding school outside the area in their teens, or go to college or university after completion of high school, which is reflected in the decline in the 10-14 and 15-19 age groups, before rebounding in their early twenties. Also evident, is the lack of people remaining in the area post retirement and as a result there is a lack of aged care and senior services



Source: ABS, Cat.No. 3235.0, Population Estimates by Age and Sex at 30 June 2007, Queensland by Geographical Classification [ASGC 2007]

Figure 16.1.2 Combined resident population for Belyando and Nebo shires by age and sex, 30 June 2007

The Indigenous population of Belyando and Nebo shires represent approximately 62.0% of Indigenous persons in the IRC area (Broadsound Shire data was not included and represents the remaining 38.0% of Indigenous persons in the IRC area). This Indigenous population is proportionally smaller than many rural communities. There were 260 persons identifying as Indigenous in the Shires of Belyando and Nebo at the 2006 Census, or approximately 2.0% of the total population. This is significantly less than the Mackay Whitsunday regional proportion (3.8%) and the Queensland state proportion (3.3%).

Table 16.1.2 shows the projected IRC population under three potential growth scenarios. The Department of Infrastructure and Planning (DIP) suggested using the medium series for IRC, but at the time of discussions (October 2008) suggested that given the then level of activity and proposed projects that the area will likely progress into a high series. Considering the current economic climate that is being experienced in the Australia and in the mining sector in particular this would now be considered unlikely in the short term.

Table 16.1.2 Population projections, Isaac Regional Council

Projection Scenario	ERP	Projected Resident Population					Average Annual Growth	
	2006	2011	2016	2021	2026	2031	No.	%
High	21,113	24,786	28,840	32,487	35,425	38,514	696	2.4
Medium	21,113	24,131	27,436	30,289	32,432	34,580	539	2.0
Low	21,113	23,496	26,172	28,415	29,958	31,444	413	1.6
Medium Series Comparisons								
Mackay-Whitsunday	159,800	185,103	211,289	231,658	244,941	255,614	3,833	1.9
Queensland	4,090,908	4,567,713	5,040,325	5,478,715	5,884,439	6,273,885	87,319	1.7

Source: Planning Information and Forecasting Unit, Queensland's future population 2008 edition (based on 2008 ASGC)

Medium series projections predict a population increase for the IRC averaging 2.0% or 539 people annually. The high series averages an increase of 2.4% or 696 people annually. Given that there are many variables that can impact on these values, this study has assessed the medium series as instructed by DIP, but remained cognisant of the high series as well.

When compared to the Mackay-Whitsunday and Queensland projections for the same period, it is apparent that IRC is expected to remain booming for the next 25 years (see Table 16.1.2). Population increases are expected to primarily be a consequence of mining activity in the Bowen Basin; however,

some current developments and policies in the area may reduce this likelihood. For example, some companies operating in the Moranbah area have recently introduced daily flights for workers living in Townsville and Mackay (ABC News, 2008c). This was introduced for many reasons including to reduce fatigued drivers on the Peak Downs and other highways, but some unions see it as a means of stagnating, and possibly reversing community development and growth in the area (ABC News, 2008b).

16.1.2 Employment

Table 16.1.3 presents the employment data by industry in the study area. For the Moranbah area, mining is the predominant industry as seen in Table 16.1.3. As a result, all other industries are generally under represented in the community. For the indigenous population, there was a higher level of involvement in the mining industry and other labour positions, with almost no representation in the other sectors. In Belyando Shire, mining employment made up 40% of Indigenous employment, with agriculture, forestry and fishing being 11%, construction 9%, transport, postal and warehousing 9%, professional, scientific and technical services, and arts and recreation 4%. The Indigenous population was at or below all other industries (ABS Census, 2006).

Higher pay is associated with mining and other industry employment. As a result, there is a significant gap between the “haves” and the “have-nots” in the community. This gap helps highlight the housing issues, given that a significant portion of the population can afford a lot more than the rest. In light of the fact that people in the higher income range are also those more likely to receive housing subsidies from their employer, it becomes more evident how disproportionately wealth is distributed throughout the community.

Nearly 45% of the working population has a gross income over \$1,000/wk in Moranbah. By contrast, nearly 35% of the lower earning group has a gross income of less than \$600/wk. In a community where average rentals are close to \$1,100/wk the financial difficulties become apparent (pers. comm., ELAM, 2008). Nearly 20% of the working population has a gross income of over \$2,000/wk. Although the actual income of this last group is not known (how much above \$2,000/wk) it does highlight the gap between the income levels in the community.

Table 16.1.3 Employment by industry in the study area

Sector	Moranbah	Glenden	Nebo	Coppabella (CD* 30520040)	Belyando Shire	Belyando Shire Indigenous	Nebo Shire	Nebo Shire Indigenous	Queensland
Agriculture, forestry & fishing	0.6%	0.0%	3.9%	22.5%	9.0%	11.0%	12.4%	0.0%	3.4%
Mining	46.8%	49.5%	30.3%	12.3%	37.7%	40.0%	32.3%	20.0%	1.7%
Manufacturing	1.9%	2.7%	6.5%	1.2%	2.2%	4.0%	2.7%	0.0%	9.9%
Electricity, gas, water & waste services	0.4%	0.0%	1.9%	0.0%	0.7%	0.0%	0.4%	0.0%	1.0%
Construction	6.5%	3.3%	8.4%	7.1%	6.1%	9.0%	6.9%	9.0%	9.0%
Wholesale trade	2.9%	2.7%	0.0%	2.4%	2.5%	0.0%	1.4%	0.0%	3.9%
Retail trade	7.4%	7.6%	9.0%	0.0%	7.8%	6.0%	5.3%	0.0%	11.6%
Accommodation & food services	6.9%	12.5%	3.9%	14.6%	6.0%	6.0%	11.2%	29.0%	7.0%
Transport, postal & warehousing	3.3%	1.3%	2.6%	26.5%	3.5%	9.0%	7.5%	9.0%	5.1%
Information media & telecommunications	0.3%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	1.4%
Financial & insurance services	0.6%	0.5%	0.0%	0.0%	0.6%	0.0%	0.3%	0.0%	2.9%
Rental, hiring & real estate services	1.4%	1.1%	1.9%	0.0%	1.3%	0.0%	0.7%	0.0%	2.1%
Professional, scientific & technical services	1.9%	0.5%	0.0%	2.4%	1.5%	4.0%	1.0%	9.0%	5.6%
Administrative & support services	2.0%	0.5%	3.9%	4.7%	1.9%	0.0%	1.5%	17.0%	3.1%
Public administration & safety	2.2%	3.4%	18.7%	1.2%	2.6%	0.0%	4.3%	0.0%	6.7%
Education & training	5.3%	6.4%	3.9%	1.2%	5.6%	0.0%	4.5%	0.0%	7.6%
Health care & social assistance	3.8%	1.8%	0.0%	0.0%	4.6%	5.0%	1.5%	0.0%	10.2%
Arts & recreation services	0.4%	0.7%	0.0%	0.0%	0.3%	4.0%	0.2%	0.0%	1.3%
Other services	3.0%	2.7%	5.2%	0.0%	3.3%	0.0%	2.4%	0.0%	3.7%
Inadequately described/Not stated	2.4%	2.5%	0.0%	4.0%	2.4%	4.0%	3.3%	9.0%	2.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0	100.0%	100.0%	100.0%

Note - * CD = collection district Source: ABS Census 2006, Basic Community Profile B42, Cat No. 2001.0

16.1.3 Recreational, cultural, leisure and sporting facilities

There are twenty-nine sporting associations registered in Moranbah (Moranbah Online, 2008). Sporting activities and facilities available in Moranbah include Rugby League, Rugby Union, Australian Rules, Soccer, Bowls, Golf, Hockey, Netball, Basketball, Volleyball, Tennis, Squash, Touch Football, Gymnastics, Gymnasium, BMX, a Skate Park, Boxing Club, Offroad Club, a Horse and Pony Club, Rodeo Grounds, Race Club, Pistol Shooting, Bowhunters and Swimming pools (50 m and heated 25 m).

16.1.4 Local Businesses - Moranbah

There are 252 businesses identified in Moranbah at the time of the October site assessment (Moranbah Online, 2008). In general Moranbah's business community has significant worker shortages and high turn-over. Miner's spouses and youth make up a large portion of the community workforce, as the cost of housing severely limits non-mining families or singles from living in Moranbah.

16.1.5 Education

There is a kindergarten, two long day care and early childhood education centres, and two primary schools (prep. to year 7) in Moranbah. Space in the kindergartens and long day care and early childhood education centres is limited as a result of staffing issues compounded by State legislation on staff qualification requirements. As a result, there is a significant shortage of spaces relative to the current population. In October 2008, a long day care and early childhood education centre had recently opened and was still accepting registrations. This may help relieve some of the pressure on available spaces.

There is a State high school in the community. However, many students attend private schools outside the area. The exact number leaving the areas for high school was not known at the writing of this report but, based on primary school enrolments, the number is quite high: there were 1,025 primary school students and 519 high school students. The high school also has several additional services including vocational education and training certificates, and the Coalfields Training Excellence Centre (CETC).

There are also TAFE and other training courses available at various training institutions in the community as well as at the youth centre.

16.1.6 Health

The Moranbah Hospital has 30 full and part time staff (11 FTE), though no full time permanent physician. There are currently two general practitioners in Moranbah who have private businesses that also make time available for Moranbah Hospital. There are 16 beds for emergency and out patients, with no long stay or aged care on site. There is an aged care facility in Clermont, as well as 16 aged care services around Mackay (Mackay Regional Council, 2008). This makes it difficult for family support when the elderly have to move to a different community, and is reflected in the Moranbah population statistics, which show a large working age demographic, compared to retirees.

The biggest issue the hospital contends with is attracting and retaining staff with the cost of housing and rental prices being the largest detracting factor. Other detracting factors include Moranbah's small size, its distance to the ocean (unlike other towns to the east), child care is expensive and it is difficult to register children in child care (due to limited spaces) and work rotations. Additionally, qualified hospital staff have been lost to the mine site jobs in the past.

Many of Moranbah's potential health issues revolve around alcohol, smoking and obesity. As a result, coronary heart disease (CHD), stroke, chronic obstructive pulmonary disease (COPD), depression and lung cancer are the major health concerns (Queensland Health, 2004).

There is a fully staffed ambulance service in Moranbah which currently has five permanent attendants. To have a fully staffed Moranbah ambulance service is unusual due to skilled staff shortages, however four new staff have recently been hired (pers. comm., Moranbah Ambulance, 2008). Attendants work 8 days on and 6 days off. One crew is on duty all week and on Monday there is overlap so two crews are on duty at the same time. This means that if there are two ambulance requests at the same time on any day except Monday, an ambulance needs to be sourced from another community. The source of the

ambulance depends on the emergency and availability of other ambulances but could be from Coppabella (~50 km), Nebo (~100 km) or Mackay (~190 km).

16.1.7 Crime and Policing

Moranbah has eight uniformed and two plain clothed (criminal investigations) officers. The police are responsible for all policing in the Moranbah police jurisdiction, including the MAC and other worker camps around Moranbah and Coppabella (Coppabella is actually in Nebo police jurisdiction, as is the Ellensfield Coal Project but there is a verbal agreement between Moranbah Police and Nebo Police for policing Coppabella). The Moranbah Police feel they are already under staffed and have requested additional officers to cope with the population increases and the FIFO/DIDO employees.

Traffic offences including speeding, drink driving, seat belt violations, and vehicle accidents made up the vast majority of policing activity. There is low property crime and most is committed by juveniles. The local workers camps generally don't affect the community, though there have been incidences of mischief and vandalism. However, camp workers generally do not report or press charges (for example in relation to assaults).

Alcohol was identified as the leading factor in most police issues. Drugs are prevalent but are not as big an issue as alcohol. This is similar to most of rural Queensland, but is perceived by many social service providers and the police to be abnormally prevalent in Moranbah as a result of the rural and mining cultures. Financial stresses from living in Moranbah were also cited as potential contributors to the alcohol issue. The police use pressure on local pubs (liquor licences) to try and keep alcohol related issues in check.

16.1.8 Housing Availability, Property Values and Development

According to the Social Sector Reference Group for the WHAM region, at June 2006, the resident population of the IRC was 21,178 people, an increase of 14% over the five years from 2001. Population growth within SLAs over the five years from 2001 to 2006 were 12% in Belyando, 13% in Broadsound and 28% Nebo. The population in the IRC area is projected to increase by 7,499 over the 20 years to 2026, an increase of 35%. The population increases are projected to be 56% in Belyando SLA, 15% in Broadsound SLA, and 5% in Nebo SLA. Most of the population increase is expected within the next 5 years (Social Sector Reference Group, 2008).

There are 10 accommodation providers in Moranbah, not including workers camps (see Table 16.1.4). Accommodation with these providers needs to be booked weeks in advance as they are fully booked almost year round. The majority of people staying at this accommodation are miners and contractors. This trend has been occurring for 3 to 10 years depending on the service provider according to interviews with accommodation providers in October/November 2008.

Table 16.1.4 Moranbah Accommodation

Accommodation Providers	
Black Nugget Hotel/Motel	Coal Country Caravan Park
Drovers Rest Motel	Grosvenor Village Accommodation
Moranbah Motor Inn	Moranbah Accommodation Centre
Moranbah Outback Motel	Curtin House
Western Heritage Motel	Moranbah Caravan Village

Source: Moranbah Online, 2008

Accommodation and housing is a serious issue in Moranbah. Every group and organisation interviewed during the site assessment in October 2008 identified it as the single greatest influence on the effective delivery of services to the community, and the single most pressing socio economic constraint on the community. There are several influences on the Moranbah housing and rental market which are contributing to the current crisis witnessed in October 2008.

Housing demand is the largest contributor to the current purchase and rental prices. In Moranbah there is not enough supply to meet current demand. Discussions with Moranbah Real Estate management determined that they had not had any listings for houses and available rental properties between July and October of 2008. Other realtors also had very few to no listings for the same period, with most residences being listed and sold within days (and occasionally hours). News reports in February/March 2009 indicated the supply to demand ratio has increased since October 2008, indicating houses are coming on the market, and remaining unsold. This is a result of the round of lay-offs experienced in the Moranbah area at several mines as a result of the global financial crisis.

Wages also compound the issue, with mining industry employment paying substantially higher wages than most other businesses and service providers. On average miners earn 4 to 5 times more than some service providers (pers. comm., ELAM, 2008). ELAM and other social service providers indicated that rank (position) in the mining hierarchy had also impacted on students and apprentices working for some mining companies. There were cases of apprentices and students being displaced from camp accommodation to allow space for contractors or permanent staff. This resulted in increased housing stress, overcrowded student rental units, and occasionally individuals being forced to camp in tents or live in cars for a period of time while still being employed at a mine in the area.

Another reason the housing issue is such a burden on the community is because of the historic reluctance of Council to approve different types of housing according to some people interviewed in October 2008. The vast majority of the community comprises detached houses, while the current demand amongst lower income groups is for units and apartment style housing (IRC, 2008). The caravan parks traditionally helped offset this imbalance, but recent changes to the accommodation types have resulted in all the parks being renovated. This has seen the eviction of many residents as changes are made at the parks. During the site assessment, all the parks were undertaking renovations, and almost all park residents had been temporarily or permanently evicted while the renovations were occurring. In some instances, long-term residents were being forced to dismantle their homes because they did not fit the new code implemented by the caravan park owners (pers. comm., ELAM, 2008).

Belyando SLA houses 11,185 residents which constitute 53% of the IRC population. The Planning Information and Forecasting Unit (PIFU) projects that Belyando SLA will receive 45% of its projected 56% increase in population by the year 2011. This is a different timeframe than the Social Sector Reference Group is predicting, but still predicts a significant population increase. A draft report to IRC estimates that an extra 4,700 people may choose to reside in Moranbah in the next five years, taking the population from 7,432 to over 12,000. Based on this expectation, the Social Facilities Infrastructure Audit Report (SFIA) is predicated on the assumption that future major growth will occur in Moranbah (Social Sector Reference Group, 2008).

In addition to its residential population, the IRC area provides accommodation to 7,197 EFT non-resident workers, which represents an extra 34% of potential clients of local services above the residential population. These non-resident workers live principally in single persons' quarters whilst they work in the mining industry, and return to their homes, in larger towns and cities such as Mackay, Rockhampton and Brisbane on their rostered days off. The non-resident workers draw on social services provided in the major towns of the regional council area, and increase the need for selected facilities infrastructure in those towns (Social Sector Reference Group, 2008).

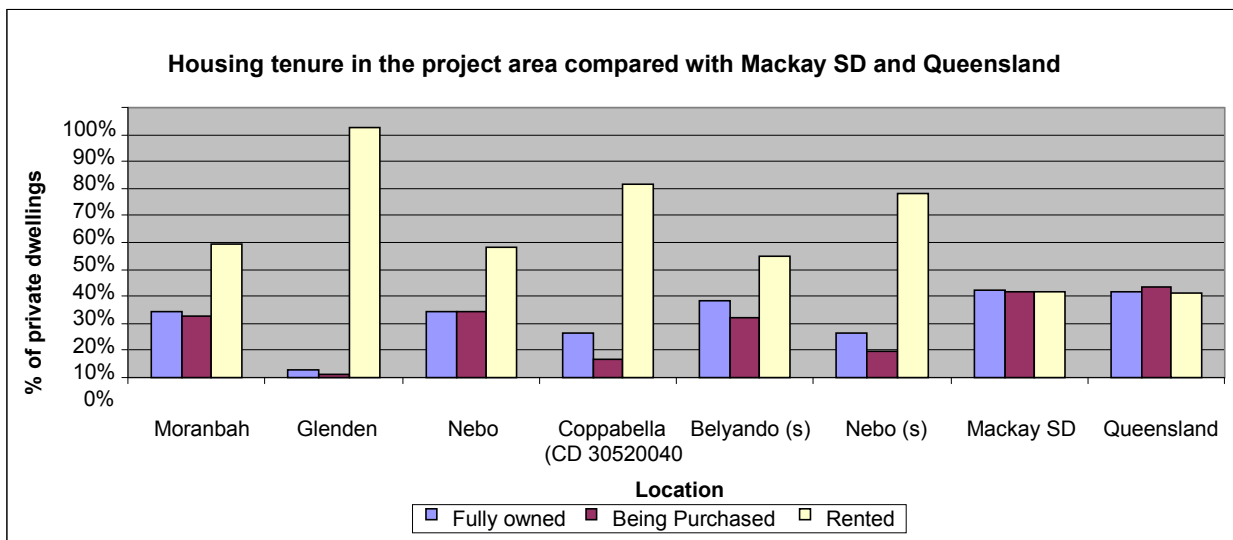
Council is currently releasing residential building lots for development at the eastern end of Moranbah (Isaac Views Residential Development) and has plans for a large scale development across the Goonyella Road to the west in an attempt to rapidly expand Moranbah. Even with restrictions on the numbers of lots, companies are able to bid for each staged lot release and whole stages of the developments are being sold almost as soon as they come on the market. Mining companies are diversifying options for accommodating their employees, but competition for lots is still maintaining pressure on the housing market.

At the time of drafting this report, the Department of Housing, now Department of Communities (DoC), did not have any services in Moranbah. They identified 96 employer tenancy properties which the Department owned and leased to the various mines, of which 86 are 3 bedroom houses and 10 are 4 bedroom houses. They also had 12 guaranteed rental properties which they owned and leased to the Department of Education, now Department of Education and Training (DET) of which 10 are 3 bedroom houses and 2 are 4 bedroom houses. There are 76 public rental houses, of which 9 are 1 bedroom senior units, 15 are 2 bedroom houses, 48 are 3 bedroom houses, and 4 are 4 bedroom houses. The vacancy

rate is mostly zero due to the demand whenever places become available. The Department also indicated that the home ownership rate has increased 235% in the last 3 years, and rentals during the same time have increased by over 200%. The Department has no plans for future development in the community (pers. comm., Department of Housing, 2008).

There are currently 150 people or families on the waiting list for rental properties in Moranbah through Moranbah Real Estate alone (pers. comm., Moranbah Real Estate, 2008).

Figure 16.1.3 shows housing tenure for communities in the study area and for Queensland. A vast majority of housing tenure in the study area is rentals, showing a correlation between the prominence of mining in a community and higher percentages of rental housing. This is because workers are less likely to be tied into the community and thus less likely to invest in property in the area, and because many mining companies subsidise housing for their staff which promotes renting over owning. This is particularly so when employees have contracts which require them to work at the mine for several years (generally more than five according to Moranbah interviews) before they can out-right own their subsidised home. Many people elect to rent rather than buy and be contractually obligated to remain with the company and home for several years.



Source: ABS, 2006.

Figure 16.1.3 Project area housing tenure

The townships of Moranbah, Nebo and the Belyando Shire are more balanced in their housing tenure type compared to the other communities and shires in the study area (see Figure 16.1.3). Moranbah is more balanced due to the private and public service industries and because the community is the regional council administrative centre. Belyando Shire is more an agricultural community which results in a more balanced distribution of housing tenures. Nebo has more community services than Glenden and Coppabella which result in a more even distribution. Glenden however, is almost exclusively a mining community which is why it has so many rentals.

In the study area, the principal landlord type is 'other landlord type' (see Figure 16.1.5). This is a reflection of the high numbers of employer landlords active in the area. This can include mining companies, as well as government, education, health, and social service providers renting to their employees. This option is used as an incentive to entice employees and their families to live in the area since geographical location, the rural environment, and the high cost of local housing make attracting employees difficult for many services and businesses.

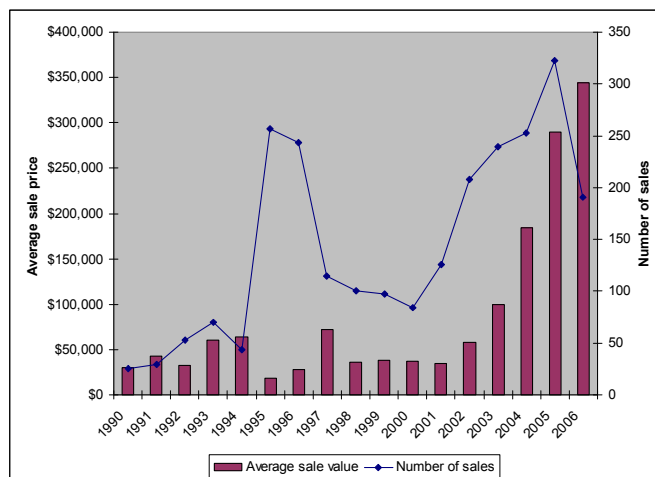
Table 16.1.5 Landlord type in the project area compared to Mackay SD and Queensland

Landlord Type	Moranbah	Glenden	Nebo	Coppabella (CD 30520440)	Belyando (shire)	Nebo (shire)	Queensland
Real estate agent	13.8%	3.2%	17.4%	0.0%	13.8%	3.8%	50.9%
State or Territory housing authority	8.6%	1.1%	8.7%	3.1%	7.8%	2.5%	11.1%
Person not in same household (c)	6.3%	2.9%	26.1%	6.3%	9.8%	6.8%	26.2%
Housing co-operative/ community/ church group	0.9%	0.0%	0.0%	0.0%	1.1%	1.4%	2.3%
Other landlord type (d)	67.1%	87.8%	37.0%	80.2%	62.1%	77.5%	6.6%
Landlord type not stated	3.3%	5.0%	10.9%	10.4%	5.5%	8.1%	2.9%

(c) Comprises dwellings being rented from a parent/other relative or other person.
 (d) Comprises dwellings being rented through a 'Residential park (includes caravan parks and marinas)', 'Employer-government (includes Defence Housing Authority)' and 'Employer-other employer' (private).

Source: ABS Census 2006, Basic Community Profile B32, Cat No. 2001.0

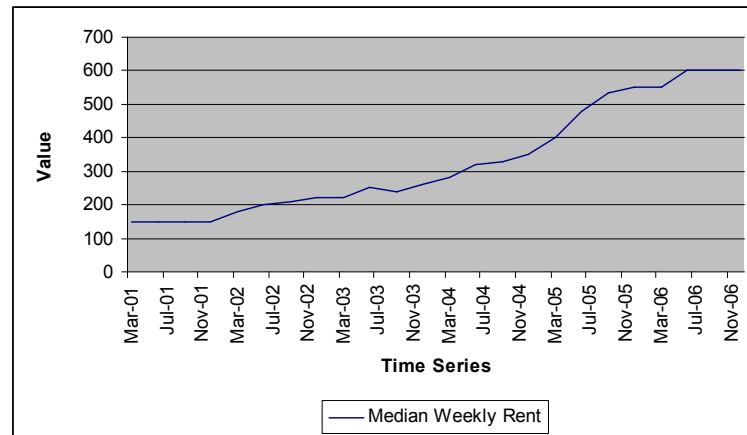
Ad hoc research corroborated data is presented in Figure 16.1.4 for Moranbah housing sales value. House sales averaged \$380,000 for slab houses and \$520,000 for raised houses, with the highest priced house selling for \$675,000 (pers. comm., Moranbah Real Estate, 2008). Based on market activity disclosed by Moranbah Real Estate, the number of sales appears to have decreased since 2006.



Source: Rolfe, 2007

Figure 16.1.4 Moranbah Housing

Rent for slab houses ranged from \$750/wk to \$800/wk while raised houses ranged from \$1,000/wk to \$1,700/wk (pers. comm., Moranbah Real Estate, 2008). This corroborates the upward trend seen in Figure 16.1.4. This was with the result of the high level of mining and exploration activity in the area, which compounded the pressure on rentals from companies and government organisations providing services (*ad hoc* research, 2008).



Source: Rolfe, 2007

Figure 16.1.5 Moranbah Median Rent

Following are some other external factors that may impact the housing and rental market in Moranbah in the future.

- The present economic crisis which could reduce exploration and slow development of new projects.
- Rapid new housing developments in Moranbah which could increase supply and meet or surpass demand.
- Construction of duplexes and apartment units which could provide options for singles and small families which are currently not available.
- A decrease in the mortgage interest rate which could make home purchase an option for more people in Moranbah.
- Increased availability of workers camp accommodation.

The Councils non-release of land for development is a key factor in Moranbah, as it is in most of urban Australia. The relatively high cost of housing in Australia is a direct consequence of this approach and it is compounded in Moranbah by extremely high demand. IRC (and Belyando Shire Council before) have recognised this in the Belyando Shire DRAFT – Planning Scheme and moved to increase housing supply (October, 2005).

In addition, *ad hoc* research and interviews with key community opinion leaders found that the lack of housing opportunities for middle and low income individuals and families is seriously inhibiting the ability of the community to expand. The impact assessment examines how the ECMP could potentially further marginalize this group.

Most people employed in the services industry in Moranbah currently do not earn enough per week to provide for the rental of a property on their own. As a result most are either forced to share accommodation, are married to someone employed directly or indirectly by a mining company or have lived in the community for a long time and already have accommodation.

The Moranbah MAC Camp is currently at full capacity, and averages 95-100% full occupancy throughout the year. The camp is unable to expand outwards due to land availability around the property, and is unable to expand upwards due to height restrictions from council (pers. comm., Moranbah MAC Camp, 2008). Vale is currently commissioning an accommodation assessment for the project to better determine the options available, and its strategy forward.

16.1.9 Community and Social Services

Within the IRC area, the SFIA did not identify any current shortfalls in sub-regional facilities. Within Belyando SLA, there were shortfalls in district facilities for aged care services (Clermont), neighbourhood centres (Moranbah and Clermont), and for a youth centre (Clermont).

The following additional or expanded district facilities for services on their existing sites/premises are projected for Belyando SLA.

- Aged care services and senior's activities.
- Cemetery/crematorium.
- Community health.
- Fire and rescue.
- Housing support.

In addition the following new district facilities for social services are expected to be required over the next 20 years for Belyando.

- Caravan parks.
- Neighbourhood/community support centres.
- Youth services.

Current shortfalls in local social infrastructure facilities were identified as including out-of-school hours child care in Moranbah and Dysart, a neighbourhood centre in Moranbah, and a medical service in Nebo. Expanded and new local facilities were projected principally for the current and anticipated growth areas of Moranbah and Broadsound Coast (Social Sector Reference Group, 2008). This means that based on Moranbah's anticipated rate of growth as outlined in the Social Sector Reference Group (2008), Moranbah will require expansion of current facilities, and the creation of new facilities to accommodate the increase in demand.

16.1.10 Local Community Values, Vitality and Lifestyle

Moranbah is a rural town deeply entrenched in the mining culture. There are many pros and cons associated with the mining culture which have been discussed throughout the report. There is a close relationship with friends and family, but a reduced sense of community outside most groups' inner circles. This was reflected by most interviewees during the site assessment, particularly those involved in social services.

The introduction of the workers camps resulted in a change in the community. This was apparent in Moranbah, which 20 years ago was a family town. However, after the economic downturn in the 1990s the camps were established and the area changed (pers. comm., Simply Sunshine Childcare Service, 2008). This sentiment was shared throughout the community, with mixed appreciation of the rationale behind the camp decision, but a general consensus that the status quo was not working in the best interests of the community.

The rural culture is also reflected in the community, particularly given the reality that most mine employees could live in major cities along the coast and be transported to work by their employer if they chose. Simply stated, if you want the rural life, you live in Moranbah, whereas if you want the city or coastal life you move there and commute to / live in the work camps. Some people made the decision to leave during the downturn in the 1990s and either never returned or chose the commute option. As a result, the rural aesthetics are maintained because they are part of the lure to the area (pers. comm., ELAM, 2008).

With the interaction between the rural culture and the mining culture some serious negative social issues have arisen, including:

- drug and alcohol abuse;
- poor diet / nutrition;

- domestic violence;
- real or perceived xenophobia; and
- depression.

The obvious potential problems associated with these issues are compounded when they occur together, with drugs and alcohol being a major factor in most other issues. This is not to say that Moranbah is rampant with social dysfunction, but rather is recognition of the serious issues that the community faces. Every interview conducted with a social service provider mentioned the effects of drugs and alcohol on the community. This was particularly true for alcohol, which has become a standard for many adults at almost all social events from men's sports to children's events according to interviews with social service providers in October 2008. It is a large part of many community members' social scene, and was linked to almost all other significant issues in the community. There was no visible evidence that alcohol consumption was out of control or an extreme negative influence on society during the October 2008 site assessment. However, *ad hoc* research found that much of the alcohol consumption occurred in private. During the work rotations, miners tended to drink a lot less due to work place regulations.

16.2 Potential Impacts and Mitigation Measures

16.2.1 Construction

A construction workforce of approximately 160 contractors will be required at the peak of the 28 month ECMP construction. Where practical the construction workforce will be sourced locally. The workforce will be accommodated at the Coppabella camp which is currently undergoing an expansion. However, if the expansion is not completed on time, approximately 20% of the construction workforce will be accommodated in the Nebo camp.

The construction workforce will work on a day shift only 7 days a week basis. The construction workforce will be transported between the camps and site by buses to be provided by the Proponent.

16.2.2 Operation

An operational workforce of approximately 280 permanent employees and 60 full-time equivalent (FTE) contractors will be employed over the LOM. During longwall moves, approximately 30 contractors will be employed for an 8 week period. The operational workforce will be either accommodated at MAC Coppabella or within the proposed housing development to the south of Moranbah. The camp will be operated and managed by an independent third party.

The operational workforce will work on a seven day, two or three staggered shifts, rotating roster. There will be two or three shifts in a 24 hour period that is approximately 80 to 120 persons per shift. The operational workforce will be transported between the camp or housing development and site by bus.

Vale expects that one-third of the operations workforce (approximately 86) will reside in houses in Moranbah with their families. One-third will reside in high density housing in Moranbah, and one-third will reside in one of the area's camps. The housing is planned to be a development with combined dwellings, townhouses and units. Vale is currently bidding on lots as they become available in the council development on the eastern edge of Moranbah (Isaac Views Residential Development). It is expected that all contractors not resident within the locality, will reside in the worker's camps.

16.2.3 Potential Impacts

The potential impacts for the ECMP are presented and discussed in Table 16.2.1. Mitigation measures to address the potential impacts and reduce or eliminate any adverse effects where possible positive impacts are identified.

Table 16.2.1 Potential project impacts and mitigation

Social Component	Potential Impact	Mitigation
Demographic Change	Population increase of < 5%	None required as workforce and families already match the current community demographics.
Provision of social services	Increased demand on social service providers	Vale will work with local service providers to identify ways to enhance services and track project effects on the delivery and demand for such services.
Demand for housing and accommodation	Increase demand for housing	Vale will work with ELAM and the Moranbah and District Support Services to develop current trends prior to the operational phase of the project. Vale will establish a set of indicators with ELAM and the Moranbah and District Support Services, and a reasonable reporting schedule to track changes. Vale will work with area workers camp accommodation providers, IRC and ELAM to determine viable housing solutions, as predicting hypothetical future housing requirements is not possible when IRC is currently developing options to double the amount of lots in the community. Purchase of new lots and building of houses to accommodate workforce. Diversify housing options in Moranbah and camps to reduce local impact.
Incidences of crime	Increase in incidents of crime	Vale will explore options with the local police to lobby for recognition of the camp workforce in determining police staffing requirements. Vale will implement a drug and alcohol testing policy. Vale will work with the local police to identify employees breaking the law on company time and develop policies to address such incidences.
Traffic	Increased road incidences	Vale will work closely with the Moranbah police, as well as local vehicle safety awareness groups including the Road Accident Action Group (RAAG) through all phases of the project. Vale will work with Main Roads to determine effective traffic management strategies.
Business sector	Increase in revenue	None required - positive impact. Vale will explore the potential to procure some supplies through local businesses.
Education and training	Increased education and training opportunities	None required – positive impact. Vale will work with local training companies and educational services to determine suitability for training opportunities. Vale is developing a training centre in Mackay for their operations in the area.
Community values and liveability	Increase negative attributes of the community and its liveability	Vale will support local services like Alcoholics Anonymous and counselling in Moranbah. Vale is also keen to be a member of the community, and will provide sponsorship funds accessible to groups and organizations within the community to access. Vale will also work with ELAM, the Moranbah and District Support Services and IRC to track community changes and determine acceptable mitigation or enhancement options.

16.2.4 Demographic Change

During the construction phase there is not anticipated to be a demographic change because the entire workforce is to be housed in area worker's camps. This will reduce the impact on the community as the construction workforce will be short-term and not likely to become part of the local community.

The operational workforce is also not anticipated to create a noticeable demographic change on the wider community. As identified in the baseline information, mining is already a major component of the community, constituting nearly 50% of the local employment. The current demographic is largely focused toward the mining community, indicating that although all new mine developments in the area may increase the local population, they would also merely perpetuate the demographic status quo.

ECMP will be responsible for a 5.2% increase in the number of mine and industrial workers in the project area. Two-thirds of those workers are expected to reside in Moranbah. Assuming the one-third with families represents a household and that the average size of a household is three persons (as measured in the ABS 2006 Census), this will result in an increase in the population of Moranbah of 344, representing a 4.4% increase on the estimated resident population at 30 June 2007 of 7,822.

16.2.5 Provision of Social Services

As previously discussed, during construction the workforce will be housed in area worker's camps. These camps are self contained and generally include a gym, a common area, a recreation room, a shop, a cafeteria, walking trails and a licensed bar (pers. comm., MAC Camp Coppabella, 2008). As a result, the construction workforce is not anticipated to have an impact on the provision of social services. In cases of an emergency, ambulances or helicopters have been dispatched to the camps, but these are not regular events, and the project construction workforce is not anticipated to significantly increase such occurrences.

During operations, Moranbah may experience impacts on the provision of social services. Community interviews in Moranbah identified the social services as already significantly stressed, primarily due to the following factors.

- Difficulty in finding affordable accommodation, including:
 - attracting and retaining people from outside the area;
 - no accommodation currently available;
 - increasing house and rental prices keeping people out of the housing market or forcing people out of the rental market; and
 - council restrictions on building types not allowing for apartments and units to be built for small families, singles and lower income earners.
- Attraction of high paying mine jobs luring local services employees away.
- Lack of skilled workers within the local workforce.
- Difficulty attracting social service professionals from outside the area (due to the location, cost of housing and the perceived negative nature of the community).

The largest influence is housing and accommodation costs. Some services, like health and education, are better insulated because of the employer subsidies, available employer housing, and a large number of potential workers to rotate in from outside the area as part of their rural service credits. However, even with those incentives and relative insulation from the accommodation issues, the health and education services still experience stresses from being in Moranbah.

Vale will work with all social service providers in the community to assess how it can help to enhance local services, and determine formulae for effectively tracking project specific effects on these service providers.

16.2.6 Demand for Housing and Accommodation

There is no anticipated impact on the demand for housing and accommodation as a result of construction because the workforce will be housed in area worker's camps. Current work camp residents will not be displaced as a result of the ECMP construction.

During ECMP operations, demand for housing and accommodation will mainly occur in Moranbah. The construction workforce numbers at the workers camps will be replaced by operations workers, although in smaller numbers. Overlaps can be assessed as they occur and options will be discussed with local accommodation providers and stakeholders.

Table 16.2.2 highlights the key housing and income statistics for the study area. As discussed previously, the median weekly rent is misleading, and is actually more reflective of the subsidized employees in the area. As a result, reliance was placed on qualitative data collected during the October 2008 site assessment. Assuming median rent for a detached house is now over \$1,100/wk in Moranbah, rent consumes 116% of the median individual's weekly income, 43.3% of a median family's income, and 44.4% of a median household's income. Comparable figures for the Indigenous population of Belyando Shire are 217% of the median Indigenous individual's weekly income and 69% of a median Indigenous household's weekly income, indicating that though Moranbah is financially difficult to live in for the majority of residents, there is significant additional financial difficulty faced by Indigenous people living in the area. For a family or household from a lower socioeconomic standing, the cost of rent and basic needs would constitute the majority of their weekly budget. This would result in very little to no remaining disposable income. For individuals the cost of rent and basic needs means that the vast majority are unable to afford rent on their own, and are required to share accommodation. Since Moranbah is predominantly detached dwellings, housing options are limited.

Table 16.2.2 Study area housing and income

Income Profile	Moranbah	Nebo	Glenden	Coppabella (CD 3052004)	Belyando (shire)	Nebo (shire)	Queensland
Median individual income (\$/weekly)	948	653	1,007	713	711	809	476
Median family income (\$/weekly)	2,541	1,571	1,964	1,635	2,131	1,834	1,154
Median household income (\$/weekly)	2,479	1,299	1,908	1,630	1,910	1,744	1,033
Median rent (\$/weekly)	70	90	30	52	68	30	200

Source: ABS Census 2006, Basic Community Profile B02, Cat No. 2001.0

There are 362 new lots available in the Isaac Views Residential Development in Moranbah including:

- one marked for town houses;
- one market for a unit development;
- three unmarked; and
- one designated for commercial businesses.

The remainder are zoned as single residential dwellings per lot, typical of the Moranbah community. Vale is planning to have houses with a combination of rental and ownership with buyback options in Moranbah. Vale is not planning to own large numbers of houses and will acquire the services of a specialist provider and financier to manage its properties, similar to what other companies are doing in the community.

The Isaac Views Residential Development should help relieve some of the current market demand; however many lots are already being purchased by mining companies. In order to prevent mine specific neighbourhoods from forming (as has occurred in the past), and to limit the amount of units owned by mining companies, council has placed limits on any one company bidding on lots to 20 for each of the four development stages. Vale has already bid on 20 lots in Stage 2 and only won 11, indicating the demand for lots is high, and they are selling quickly.

In addition to the Isaac Views Residential Development, IRC also has plans for an expansion of the town on the western side of the Goonyella Road south of Grosvenor Creek. This development could potentially double the number of housing lots in the community, with initial discussions for a potential 500 lot development. Further discussions between IRC, the State Government and potential developers is ongoing, but could potentially further relieve much of the current housing demand issues. Other potential variables that may cause changes in demand in Moranbah are:

- Moranbah airport expansion / new airport development;
- daily flights to and from Moranbah;
- additional mines approved in the area;
- current economic downturn;
- change in interest rates;
- full occupancy at workers camps in the area;
- changes in coal prices and international demand for coal; and
- Local, State or National politics.

In order to monitor and mitigate any potential impacts the project may have on vulnerable groups in Moranbah having access to housing, Vale will work with ELAM and the Moranbah and District Support Services to review current trends prior to the operational phase of the project, Vale will establish a set of indicators, and a reasonable reporting schedule to track changes. A methodology will be determined to assess external influences that may cause changes in the community so that Vale, ELAM and the Moranbah and District Support Services can properly measure the project's effects. The details of this arrangement will be determined during the ECMP construction phase, assuming project approval is gained.

Should Vale require additional housing for the project, it will work with area workers camps, IRC and ELAM to determine viable housing solutions: predicting hypothetical future housing requirements is not possible when IRC is currently developing options to double the amount of lots in the community.

The IRC has \$8.25M earmarked for the Moranbah Affordable Housing Project in the 2008/2009. Vale will explore options to determine ways in which it can enhance the outcomes from the Moranbah Affordable Housing Project and may include additional funding, support services, administrative assistance and/or land donations.

It is important to reiterate that Vale would not have considered housing staff in Moranbah had IRC:

- not developed additional lots in Moranbah;
- not asked Vale to consider housing some project employees in Moranbah; and
- not had plans to potentially double the number of lots in Moranbah with a future development west of town.

Without these initiatives and assurances from Council, the project would have certainly added increased pressure on the community, and likely forced prices up as demand further outstripped supply. However, conversely, Vale would not have considered housing in Moranbah had Council not promoted the Moranbah expansion.

16.2.7 Incidence of Crime

Interviews with the Moranbah police, as well as the MAC Camps in Moranbah and Coppabella did not indicate mine workers or contractors increased crime in the local or neighbouring communities. The police did indicate however, that they are already under staffed, when factoring in the unrecorded camp workforce numbers in the area population estimates. Vale will explore options with the local police to lobby for recognition of the camp workforce in determining police staffing requirements.

Vale will implement a drug and alcohol testing policy as part of its safety management system (SMS), and will work with the local police to identify employees breaking the law on company time. Policies will be developed by Vale to deal with such incidents.

16.2.8 Traffic

A detailed traffic assessment had been compiled and included in the EIS. The following provides key details from that assessment in areas to examine potential social effects as a result.

The total traffic generated during the construction phase is estimated to be 76 movements per day (refer to the Transport Section of the EIS, Section 8.2.1).

During construction there will be an estimated 600 heavy vehicle movements both in and out of site over an 11 month period. After the longwall mining equipment is purchased, there will be another 400 movements. This works out to an average of 4 heavy vehicle trips a day in the worst case scenario (all 1,000 trips occur in the same 11 month period). This is not a significant number of traffic movements, but it will be compounded locally due to the number of heavy vehicle movements on the Peak Downs Highway due to other active mines in the area.

Vale intends to transport its camp workforce by bus to and from the site. The camps at Coppabella and Nebo (if necessary) are likely to be used for the construction workforce. The site access road lies between the Moranbah turn-off and Coppabella on the Peak Downs Highway. There are already several buses that operate from the camps travelling along the same route at key times throughout the day, and the inclusion of 28 additional bus trips may have a slight disruption to the local population. However, area's residents are aware of shift change times and avoid highway travel during the period if practical.

There will be increased local area traffic, both in terms of the new residents, and those commuting to and from site during operations at shift change. The 12 bus trips per day are unlikely to impact the community.

Vale will work closely with the Moranbah police, as well as local vehicle safety awareness groups including the Road Accident Action Group (RAAG), through all phases of the project to:

- minimize traffic incidents;
- educate their workforce;
- inform the public of their major movement activities; and
- help raise awareness about road safety in the community.

Vale is also aware that vehicle activity at the intersection of the Peak Downs Highway and the ECMP site access needs to be monitored. As part of the EIS transport study (Section 8.4) the intersection was assessed for safety and it was determined that no upgrading works would be required.

16.2.9 Business Sector

The project is anticipated to increase the local population by < 5% which is not likely to overwhelm local businesses, or for the business sector in Moranbah to experience significant change as a result of the project. The business community currently is able to survive in the difficult business climate in Moranbah (high competition for skilled staff and extremely low unemployment). Although the project could further drain skills, it is unlikely since other mines in the area are constantly looking for employees and are still sourcing outside the area to fill these vacancies due to a lack of local applicants and skilled personnel. Conversely, the increase in population associated with the project could result in more skilled and unskilled people moving to the area to fill non-mining employment vacancies (spouses/partners and family).

The project is not anticipated to procure many supplies from local businesses, and the workers camps have their own supply sources. Spouses of miners and their children could provide additional workers for local businesses, and the increased residential lot availability, as a result of council plans, should provide some accommodation relief for local business employees or those seeking additional employees. In addition, the minor increase in population may assist local businesses by adding additional revenue, although this is likely to be marginal at best.

In order for Vale to try to increase economic benefit to the area, it will explore the potential to procure some supplies and services through local businesses.

16.2.10 Education and Training

The project is expected to have a positive impact on education and training. There are several training service providers in the community that are already used by other mining operations in the area where appropriate. Vale will use these service providers for specific training. The details and timing will be determined once the project is approved, with most training likely occurring during operations.

16.2.11 Community Values and Liveability

The decision by Vale to house two-thirds of its operational workforce in Moranbah would have severely impacted the community without the IRC releasing the Isaac Views Residential Development. As a result, the project will be able to house some of its workforce in Moranbah, and is currently assessing accommodation options in detail as part of a study outside the EIS. That report will assess options available and potential housing strategies for Vale in the future.

Since the ECMP is another coal mining project in a very active coal mining region, the impact on community values will be negligible: the mining culture is already prevalent in the community, from its roots as a purpose built mining town to its modern inclination. In order not to compound current social issues in the community, Vale will support local services like Alcoholics Anonymous and counselling in Moranbah. Vale is also keen to be a member of the community, and will provide sponsorship funds accessible to groups and organizations within the community. As discussed previously, Vale will also work with ELAM, the Moranbah and District Support Services and IRC to track community changes and determine acceptable mitigation or enhancement options.

16.2.12 Cumulative Effects

Given the size of the workforce and the amount of coal production, the project is a large underground operation when compared to others. When compared to all mines, it is a mid-sized mine in terms of workforce and production.

Other projects under study or development may increase the negative project effects. The Incitec Pivot Ammonium Nitrate Plant is situated in Moranbah and if it proceeds will likely have its work force housed in the community. The BMA Daunia and Caval Ridge mines could have additional impacts on the project and the study area. BMA has many options to reduce pressure on the local housing market including increased FIFO activity. The draft TOR for the BMA current EIS's includes:

- A new open cut: Daunia Mine;
- A new open cut: Caval Ridge Mine;
- A large expansion of the existing open cut and underground Goonyella Riverside Mine; and
- Construction of a new larger capacity airport in the vicinity of Moranbah.

The Moranbah airport component proposes an airport with the capability to accommodate Boeing 737's. This would allow direct flights from all major Australian east coast cities. It is difficult to assess the potential impacts of BMA's proposed plans in the study area without the details of the project. The implications of this airport development for the communities of Moranbah and the study area, as well as Mackay are vast. Mackay could potentially no longer be a transportation hub for FIFO workers in the area. Moranbah could potentially see an increase in population as Moranbah became more accessible, or it may see a decrease in population as more people move to other centres and choose the FIFO option because it is easier. The daily flights for FIFO employees by BMA is already being debated in the

community and the media (ABC News, 2008a), but with no substantial evidence that one scenario or the other will occur it is difficult to assess the cumulative impacts.

What can be assessed is the increased impact all the projects listed Table 16.2.3 will have on the community of Moranbah and the study area's housing and accommodation supply. When included in the study area, and taking into account there is already a severe housing and accommodation concern, it is unlikely that the Isaac Views Residential Development alone can increase housing supply to meet demand. The planned expansion of Moranbah to the west will be capable of significantly reducing demand by drastically increasing supply. In light of the current evidence, Vale will work with Isaac Regional Council to help expedite the process to ensure project housing needs are met while, reducing the potential adverse impact on the Moranbah community by increasing demand. Vale will aim to form relations with other mining companies operating in the area to try and come up with viable solutions to the issues facing the study area that benefit industry, local government and the community.

Table 16.2.3 Other projects currently operating or planned in the study area

Mine	Number of Employees	Production (Mtpa)
Existing		
North Goonyella (U)	502	2.308
Burton	311	5.451
Goonyella / Riverside	1 420	17.629
Broadmeadows (U)	394	3.571
Moranbah North (U)	303	4.682
Isaac Plains	79	2.800
Carborough Downs (U)	194	3.000 (planned)
Broadlea North	45	0.381
Millenium	132	0.920
Poitrel	159	1.663
Hail Creek	431	10.335
South Walker Creek	295	4.366
Coppabella	463	5.068
Moorvale	175	2.297
Peak Downs	1 215	15.367
Sub-total Existing	6 118	74.902
Under Study or Development		
Caval Ridge and Daunia	500	10.000
Olive Downs		1.000
Moranbah South (U)		3.500
Eagle Downs		7.000
Incitec Pivot Ammonium Nitrate Plant	100	N/A
Sub-total under study or development	600 (known)	At least 21.500
Total	6 718	~96.402

Note – Mtpa = million tonnes per annum, (U) = underground mine

Source: Queensland Mines and Quarries, Safety Performance and Health Report, 1/7/2006 – 30/6/2007, December 2007, Queensland Department of Mines and Energy. Queensland Coal Projects. ABARE List of Minerals and Energy Projects, 2008.