

15. Socio-economic environment



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This chapter describes the existing socio-economic environment that may be affected by the Project, and the potential impacts and mitigation measures. The assessment addresses the following:

- Description of the community profile, providing information on the following characteristics:
 - Demography and family structure
 - Housing
 - Economic stability
- Description of the communities in the area potentially affected by the Project.
- Description of community infrastructure and services.
- Description of the character and basis of the local and regional economies.
- Summary of the environmental values associated with the site and lands in proximity that may be potentially impacted by the Project.
- Identification of the potential impacts and mitigation measures.
- Identification of measures for monitoring, auditing and managing socio-economic impacts associated with the construction and operation of the Project.

It should be noted that discussion relating to rural properties, cane lands, crop lands and grazing areas is provided in Chapter 4.

15.1 Methodology

15.1.1 Context

Social impact assessment focuses on the social changes and community impacts that are likely to occur. Such changes could be a result of a particular development, changes to a planning scheme or other relevant government policy or initiative.

The International Association for Impact Assessment defines social impact assessment as:

"the processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, 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, Special Publication Series No 2 - Social Impact Assessment International Principles, 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.

It is therefore an important process to gather information on all aspects of the existing social environment. Such information has included population and socio-economic data and general social and economic conditions identified in recent documents prepared by organisations such as the Mackay Whitsunday Regional Economic Development Corporation (MWREDC), Office of Economic and Statistical Research (OESR) and the Department of Local Government, Planning, Sport and Recreation (DLGPSR).

This social impact assessment is based on a desktop review of existing available published material, field investigations and Sarina Shire environmental and land use studies.

15.1.2 Defining the study area

The main study area for the purposes of the social impact assessment is Sarina Shire Local Government Area (LGA). This is considered to be the primary catchment in terms of workforce for the proposed development, and is likely to be the area subject to any potential project impacts and social change.

The secondary catchment is considered to be the Mackay Statistical Division (SD), as determined by Australian Bureau of Statistics (ABS) statistical data. The Mackay SD is also known as the Whitsunday Hinterland and Mackay (WHAM) region under the WHAM Regional Plan. Figure 15.1 shows the location of Sarina Shire in relation to the Mackay SD/WHAM region. The Mackay SD/WHAM region both comprise of the following LGAs:

- Sarina Shire
- Mackay City
- Mirani Shire
- Nebo Shire
- Broomsound Shire
- Belyando Shire
- Bowen Shire
- Whitsunday Shire

Sarina Shire is a coastal LGA centrally located in the WHAM region and is situated immediately to the south of the City of Mackay.

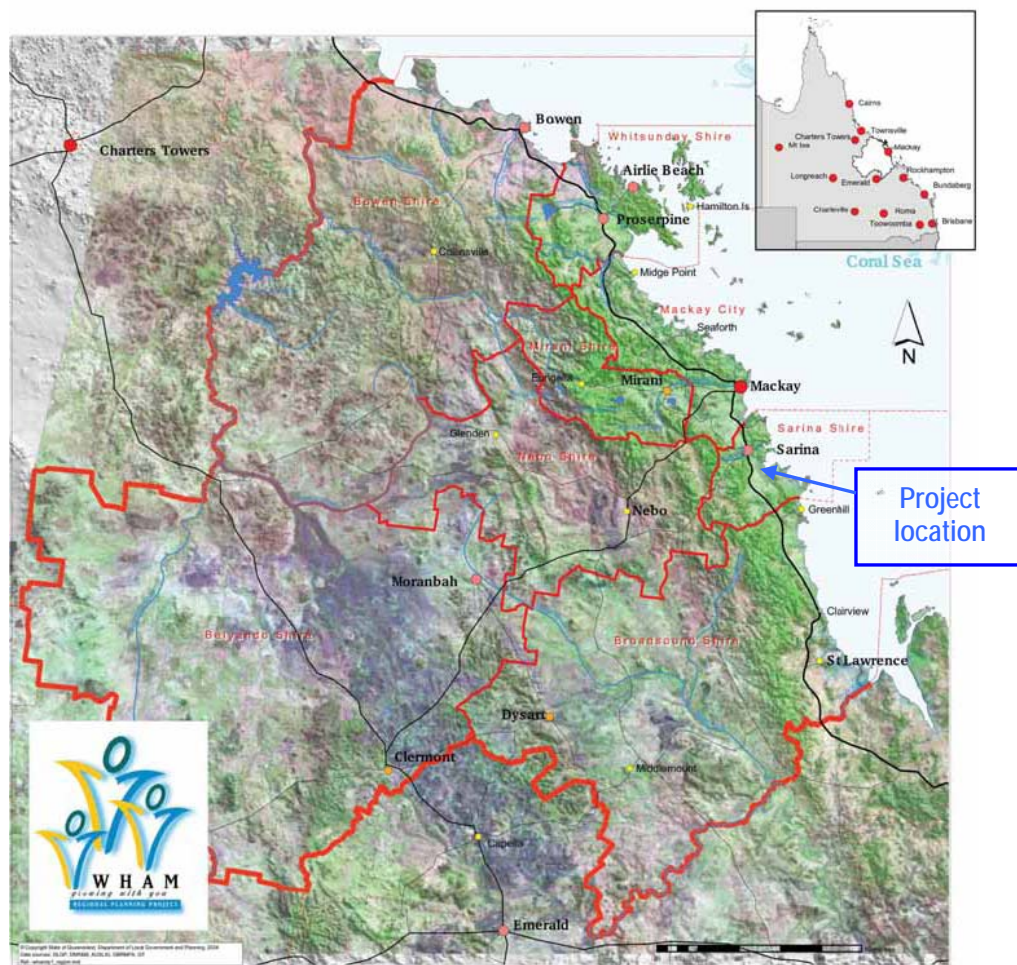


Figure 15.1 WHAM region

Note: WHAM region is also known as the Mackay SD (for the purposes of the ABS Census data)

Source: DLGSR, Whitsunday Hinterland and Mackay Regional Plan, June 2006

Within Sarina Shire, the primary catchment area contains the urban centres of Sarina and Koumala, and the seaside communities of Armstrong Beach, Sarina Beach, Campwin Beach, Grasstree Beach, Salonika Beach, Half Tide Beach and Hay Point.

Sarina is the administrative centre in the Sarina Shire and the Project is located in the Jilalan locality located approximately 2.5 km south of the Sarina township. Sarina Shire is bounded by Mackay City to the north, Nebo Shire to the west, Broadsound Shire to the south and the coast to the east.

For comparative purposes and to provide a “benchmark” for the statistical analysis, the data for the study area has been compared to Queensland and the Mackay SD/WHAM region. It should be noted that the term Mackay SD and WHAM region is used interchangeably depending on the source of the data (eg ABS or other source).

Note that the Shire boundaries are expected to change in 2008 as Sarina Shire is expected to be incorporated into the new Mackay Regional Council.

15.1.3 Sources of information

It should be noted that a limitation to establishing the existing social environment is that some of the latest published data is based on the 2001 Census (eg industry and employment). The first release of the 2006 Census data has been used where possible to provide up-to-date information and a comparative to establish change since the 2001 Census. In addition, the Planning and Information Forecasting Unit (PIFU) last updated its Population and Housing Fact Sheets in March 2007.

It is acknowledged that since 2001, the coal industry has increased its presence in the Mackay region, the full extent of which may not have been captured in published material.

It should be noted that both Queensland and the Mackay SD/WHAM region has been used in some data tables for comparative purposes to identify trends in the study area.

In addition to the ABS data, other key sources of information for the analysis include:

- DLGPSR, Whitsunday Hinterland and Mackay Regional Plan (hereby referred to as the WHAM Regional Plan), June 2006
- OESR Local Government Area Profile – The Sarina Region, May 2007
- Mackay Whitsunday Regional Economic Development Corporation website (refer to the various reports in the references list)
- DLGPSR Population growth – highlights and trends – the Whitsunday, Hinterland and Mackay Region 2005
- DLGPSR Household projections Queensland Local Government Areas 2007
- Department State Development, Trade and Innovation Queensland Government Population Projections to 2051: Queensland and Statistical Divisions, 2006
- Department of State Development, Mackay Whitsunday Region – an economic powerhouse
- RP Data Information Services website – for median house price
- Population and Information Forecasting Unit (PIFU) Population and Housing Fact Sheet, March 2007
- Families, Youth and Community Care Queensland (FYCCQ) April 2000

15.2 Description of existing socio-economic environment

15.2.1 Community profile

The community profile of the Sarina Shire is outlined below in terms of:

- Population and age structure (including population projections)
- Cultural diversity

- Family/household structure and housing
- Economic (employment, income)

The data for Sarina Shire has been compared to Mackay SD/WHAM region and Queensland.

Population and age structure

The population data takes into consideration the current and projected population for the study area, the demography of the affected community (including size, age structure and gender composition), and considers population change (eg through natural increase and migration).

Table 15.1 Age profile 2006

Local area or region	Age group							Median age
	0-4	5-14	15-24	25-54	55-64	65+	Total	
<i>Region:</i>								
Sarina Shire	749	1,659	1,284	4,602	1,371	1,056	10,720	37
Mackay SD	10,455	22,382	19,765	67,012	15,772	14,790	150,175	35
Queensland	257,077	549,455	539,206	1,638,354	437,550	482,891	3,904,532	36
<i>Local area:</i>								
Sarina	371	741	632	1,896	521	568	4,730	35
Sarina Beach	112	174	120	595	209	128	1,340	39
Koumala	37	126	101	322	83	72	743	39
Hay Point	82	213	150	653	193	97	1,386	36
Grasstree Beach	33	77	65	228	93	47	544	40
Freshwater Point	9	22	11	74	33	15	163	46
Armstrong Beach	36	84	58	257	101	40	576	38
Alligator Creek	74	217	153	576	134	89	1,243	36
Total (for local areas)	754	1,654	1,290	4,601	1,367	1,056	10,725	n/a
Proportion (Sarina Shire)	7.0%	15.5%	12.0%	42.9%	12.8%	9.9%	100%	n/a
Proportion (Mackay SD)	7.0%	14.9%	13.2%	44.6%	10.5%	9.8%	100%	n/a
Proportion (Queensland)	6.6%	14.1%	13.8%	42.0%	11.2%	12.4%	100%	n/a

Source: Australian Bureau of Statistics, 2006 Census QuickStats

Table Note: Data excludes overseas visitors

General population characteristics

The age profile for the study area in 2006 indicates the following trends:

- There is a slightly higher proportion of the 0 to 4 year age group (7.0%) in both Sarina Shire and Mackay SD in comparison to Queensland (6.6%). There is also a higher proportion of the 5 to 14 year age group in Sarina Shire (15.5%) in comparison to both Mackay SD (14.9%) and Queensland (14.1%).
- There is a lower proportion of the 15 to 24 year age group in both Sarina (12.0%) and Mackay SD (13.2%) in comparison to Queensland (13.8%).
- There is a lower proportion of the 25 to 54 year age group in Sarina Shire (42.9%) in comparison to Mackay SD (44.6%), but slightly higher in comparison to Queensland (42.0%).
- There is a higher proportion of the 55 to 64 year age group in Sarina Shire (12.8%) in comparison to both Mackay SD (10.5%) and Queensland (11.2%).
- There is a considerably lower proportion of the 65+ year age group in both Sarina Shire and Mackay SD (9.9% and 9.8% respectively) in comparison to Queensland (12.4%).

Within the Sarina Shire the largest local area in terms of population is the township of Sarina (44% of the Shire population), followed by Hay Point (12.9%), Sarina Beach (12.5%) and Alligator Creek (11.6%).

It is noted that the Freshwater Point local area contains the lowest population in the Sarina Shire district (containing 1.5% of the Shire population or 163 people). It is further noted that the Project is located in the Freshwater Point local area.

Median age

The 2006 Census QuickStats data indicates the following median age trends:

- The median age in Sarina Shire is 37 years, slightly higher than for Queensland (36 years) and Mackay SD (35 years).
- The local areas of Sarina Beach and Koumala (both 39 years), Grasstree Beach (40 years), Freshwater Point (46 years) and Armstrong Beach (38 years) have a higher median age than Sarina Shire.
- The local areas of Sarina, Hay Point and Alligator Creek have a lower median age in comparison to Sarina Shire.

The median age in Sarina Shire in 2001 was 35 years and is projected to increase to 41 years by 2026 (PIFU 2007). The median age in Sarina Shire has increased by 2 years between 2001 and 2006.

Gender composition

In terms of the composition of males and females in the Sarina Shire, the 2006 Census indicates the following:

- There is a higher proportion of males overall in the Sarina Shire (51.4% male and 48.4% female). Similar gender compositions are noted in the local areas of Sarina Beach and Armstrong Beach.
- In comparison, the Sarina township has a more even gender composition with 50.8% males and 49.2% females, with similar compositions at Freshwater Point (49.1% male and 50.9% female) and Grasstree Beach (49.8% male and 50.2% female).
- The gender composition is less even in Hay Point (with 52.2% males and 47.8% females), Alligator Creek (53.6% males and 46.4% females) and particularly in Koumala (54.1% male and 45.9% female).

The gender composition of the population in Mackay SD is 51.9% male and 48.1% female (similar to Sarina Shire). In comparison to both Mackay SD and Sarina Shire, the gender composition for Queensland contains more females than males, with a composition of 49.6% male and 50.4% female.

Population change

Table 15.2 summarises the age profile change between 2001 and 2006.

Table 15.2 Age profile change 2001- 2006

Age Group (year)	Sarina Shire 2001	Sarina Shire prop'n % 2001	Sarina Shire prop'n % 2006	Mackay SD 2001	Mackay SD prop'n % 2001	Mackay SD prop'n % 2006	QLD prop'n % 2001	QLD prop'n % 2006
0-14	2,328	24.2	22.5	16,592	21.5	21.9	21.3	20.1
15-24	1,096	11.4	12.0	9,177	11.9	13.2	14.1	13.8
25-44	2,652	27.6	26.6	23,696	30.7	29.7	29.8	28.1
45-64	2,466	25.7	29.1	19,912	25.8	25.4	23.2	25.0
65+	1,068	11.1	9.9	7,895	10.2	9.8	11.6	12.4
Total	9,610	100	100	77,272	100	100	100	100

Source: Australian Bureau of Statistics Census, 2001 Census and 2006 Census QuickStats

Table Note: Data excludes overseas visitors

In 2001, Sarina Shire contained 12.4% of the Mackay SD population. Due to the significant population growth that has occurred within the Mackay SD, this proportion has decreased between 2001 and 2006, with Sarina Shire representing 7.1% of the Mackay SD population in 2006.

Between 2001 and 2006, the population in Mackay SD increased by 94.3% and Sarina Shire by 11.5%. In comparison the population in Queensland increased by 8.9%.

In 2006, the population of Sarina Shire consisted of a high proportion of the 45 to 64 year age group (29.1%), the 25 to 44 year age group (26.6%) and the 0 to 14 year age group (22.5%). As indicated in Table 15.1, 15.5% of the 0 to 14 year cohort consists of the 5 to 14 year age group indicating the presence of a small proportion of infants. Whilst these general proportions in population are similar to 2001, it is evident that the population is ageing in the Sarina Shire with a decrease in the 25 to 44 year age group and an increase in the 45 to 64 year age group between 2001 and 2006.

In 2006 the Mackay SD and Queensland both contained a higher proportion of 15 to 24 year and 25 to 44 year age groups and a lower proportion of 0 to 14 year and 45 to 64 year age groups in comparison to Sarina Shire.

The population changes between 2001 and 2006 have been identified as follows:

- Between 2001 and 2006 in Sarina Shire, the proportion of the 0 to 14 year age group decreased by 1.7%, however, overall this age group increased in number by 80 people. In comparison there has been a slight increase in this age group in Mackay SD (0.4%) and a 1.2% decrease in Queensland.
- In Sarina Shire, the 15 to 24 year age group increased by 0.6% or 188 people. In comparison there has been an increase by 1.3% in Mackay and a 0.3% decline in Queensland.
- In Sarina Shire there has been a 1.0% decline in the 25 to 44 year age group. This is consistent with both Mackay SD and Queensland which have also decreased by 1.0% and 1.7% respectively.
- In Sarina Shire there has been a 3.4% increase in the 45 to 64 year age group. In comparison, this age group decreased in the Mackay SD by 0.4% and increased in Queensland by 1.8%.
- Overall, the 65+ year age group decreased in both Sarina Shire and Mackay SD, however the decrease was greater in Sarina Shire (by 1.2% or 12 people).

The growth in population between 1995 and 2006 is provided in Table 15.3.

Table 15.3 Estimated resident population 1995 to 2006

Area	Estimated resident population at 30 June							Population change 1995-2006
	1995	1997	1999	2001	2003	2005	2006	
Sarina Shire	8,962	9,511	9,726	9,808	9,914	10,188	10,316	15.1%
WHAM region	130,443	134,524	135,580	137,539	141,729	147,894	151,572	16.2%
Queensland	3,265,109	3,394,671	3,501,421	3,628,946	3,801,039	3,977,052	4,053,444	24.1%

Source: DLGPSR, PIFU Population and Housing Fact Sheet, March 2007

The PIFU data indicates that Sarina Shire has experienced continued annual growth since 1995, with an overall population change between 1995 and 2006 slightly lower than for the WHAM region (by 1.1%). However, in comparison to Queensland, both the Sarina Shire and WHAM region have not grown as significantly, with a lower population change of 9% and 7.9%, respectively.

In the year between 2005 and 2006 the population in Mackay increased by 2.5% and in Queensland by 1.9%. Within the WHAM region, Mirani Shire (3.7%), Whitsunday Shire (3.2%), Belyando Shire (3.0%) and Mackay City (2.8%) recorded the strongest population growth between 2005 and 2006 (MWREDC, 2006).

From the DLGPSR data, the preliminary estimated resident population of Sarina Shire at 30 June 2006 was 10,316 people, an increase of 128 people or 1.3% over the past year. In Sarina Shire there has been an increase of 5.2% between 2001 and 2006, compared to 10.2% for the WHAM region and 11.7% for Queensland.

The recent release of the 2006 Census QuickStats for the Sarina Shire however, indicates the total population on Census night (8 August 2006) was 10,720 people, indicating an actual increase of 532 people since 2005, which equates to an increase of 5.2%.

In the year to June 2005 natural increase (births minus deaths) accounted for an increase of 71 people while assumed net migration resulted in a gain of 122 people in Sarina Shire. The proportion of natural increase and migration trends between 1996 and 2005 is shown in Figure 15.2.

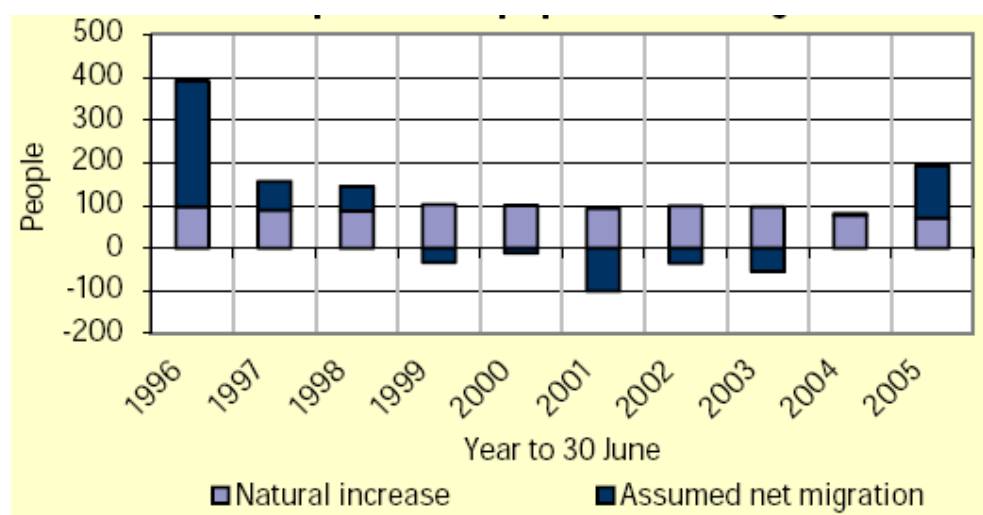


Figure 15.2 Components of population change 1996 to 2005, Sarina Shire

Source: DLGPSR, PIFU Population and Housing Fact Sheet, March 2007

Figure 15.2 indicates that assumed net migration has fluctuated in Sarina Shire, with assumed net migration occurring pre-1999 and with a more recent trend of growth occurring since 2005. However, there was a period where population decreased as a result of assumed net migration between 1999 and 2003, with the greatest decrease occurring in 2001.

Population projections

Projections prepared by the DLGPSR indicate that by 2011 the expected population of Sarina Shire will be between 11,000 and 11,400 people. By 2026 this is expected to change to between 12,300 and 14,800 people (low and high series). The projected population increase based on the medium series is provided in Table 15.4 and is compared with the City of Mackay, the WHAM region and Queensland.

Table 15.4 Population projections to 2026 (medium series)

Area	Projected population					Population change (%) 2006 to 2026
	2006	2011	2016	2021	2026	
Sarina Shire	10,344	11,166	11,971	12,668	13,289	28.5
Mackay City	84,096	91,980	101,517	109,376	116,979	39.1
WHAM region	150,976	168,568	183,430	195,814	207,415	37.4
Queensland	4,041,368	4,428,138	4,823,408	5,211,995	5,583,956	38.2

Source: DLGPSR, PIFU Population and Housing Fact Sheet, March 2007

The projected population increase to 2026 in Sarina Shire is lower than that projected for Mackay City and the WHAM region by 10.6% and 8.9%, respectively. Population change in Sarina Shire is also 9.7% lower than the expected Queensland rate.

Mackay City is projected to experience a 0.9% greater population growth increase in comparison to Queensland, whilst the WHAM region is expected to experience a slightly lower population increase in comparison to Queensland.

The projected change in age distribution for Sarina Shire is shown in Figure 15.3.

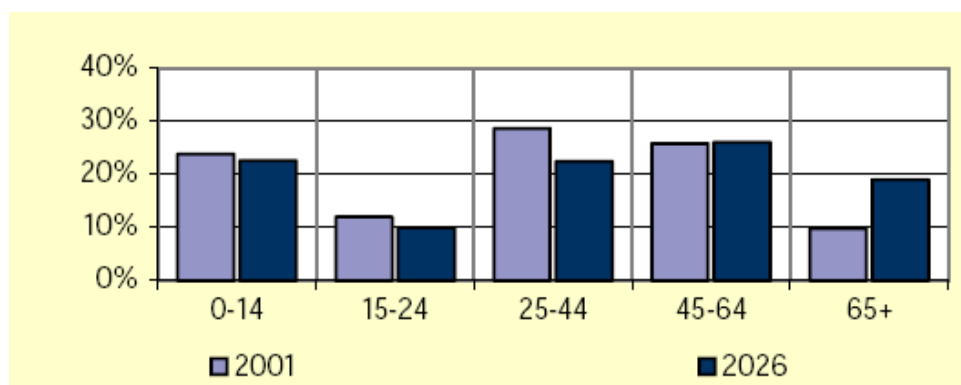


Figure 15.3 Projected age distribution 2026, Sarina Shire

Source: DLGPSR, PIFU Population and Housing Fact Sheet, March 2007

The key changes expected include a significant increase in the 65+ year age group, a decrease in the 25 to 44 year age group and minor decrease in both the 0 to 14 year and 15 to 24 year age groups. The 45 to 64 year age group is expected to remain relatively stable, as a proportion of the total population.

The median age of Sarina Shire's population is also projected to increase by 5 years from a median age of 36 years in 2001 up to a median age of 41 years in 2026. This compares with Mackay City and the WHAM region, which are both expected to have an increase in median age by 4 years to a median age of 38 years by 2026. For further comparison, the median age for Queensland is expected to increase from a median age of 35 years in 2001 to 41 years in 2026.

Cultural diversity

Cultural diversity refers to any diversity of culture or origin within a specified area. The 2006 Census indicates the following characteristics in Sarina Shire:

- 89.6% of the population are Australian citizens with 7.5% born overseas.
- The majority of the population are born in Australia (84.4%), with 2.0% (or 215 people) born in England and 1.7% (or 178 people) born in New Zealand. Other countries of origin include Germany, Philippines and Scotland.
- English is the only language spoken at home for 91.8% of the population.
- 4.4% of the population are of Indigenous descent.

In comparison to Queensland in 2006, 86.1% of the population are Australian citizens with 17.9% born overseas. It was also indicated that 86.4% of the population spoke only English at home and that 3.3% of the population are of Indigenous descent.

In comparison, the 2001 Census indicated that the Sarina Shire consists of 87% of persons born in Australia and 7.4% born overseas. At the time of the Census, 5.6% were indicated as either overseas visitors or were persons that did not state their place of birth. It was also indicated that 93.6% of the population spoke English at home.

Also at the time of the 2001 Census, the Sarina Shire contained 379 persons of Aboriginal or Torres Strait Islander origin and comprised 3.9% of the total Sarina Shire population. This compared to 3.1% for Queensland. There has been a 0.5% increase in the Indigenous population in Sarina Shire between 2001 and 2006.

Family/household structure

The family structure of the local community can be established by the marital status of the population and the household structure.

The marital status of the population in 2006 is shown in Table 15.5.

Table 15.5 Marital status 2001 to 2006

Area	Marital status (% of total)			
	Married	Separated or divorced	Widowed	Never married
Sarina Shire 2001	57.5	11.4	5.2	25.9
Queensland 2001	51	11.7	5.8	31.5
Sarina Shire 2006	54.4	12.1	4.3	29.2
Mackay SD 2006	51.4	11.6	4.7	32.3
Queensland 2006	49.1	12.3	5.4	33.2

Source: Australian Bureau of Statistics Census, 2001 and 2006 Census QuickStats

The Census data indicates the following trends:

- In 2006, the majority of people in Sarina Shire are married (54.4%) or have never married (29.2%).
- The proportion of married people in Sarina Shire has decreased by 3.1% between 2001 and 2006. In comparison, in Queensland the proportion of married people decreased by 1.9%.
- The proportion of people that have never married in Sarina Shire has increased by 3.3% between 2001 and 2006. In comparison, in Queensland the proportion of people that have never married increased by 1.7%.
- In Sarina Shire, between 2001 and 2006 the proportion of people that are separated or divorced has increased by 0.7% and the proportion of widowed people has decreased by 0.9%.

- In 2006, Sarina Shire in comparison to Mackay SD has a higher proportion of married people and separated or divorced people and a lower proportion of widowed and people that have never married.
- In 2006 and in comparison to Queensland, in Sarina Shire there is a lower proportion of people that are divorced, widowed and never been married and a higher proportion of residents that are married.

Household structure indicates the type of households represented within the Sarina Shire and broader Mackay area, providing an indication of the broad social fabric in the area. The household structure within Sarina Shire and Mackay SD is indicated in Table 15.6.

Table 15.6 Household type – occupied private dwelling, 2006

Household type	Sarina Shire 2001	Sarina Shire 2006	Mackay SD 2006	Queensland 2006
Family household	72.8	73.2	66.1	67.1
Lone person household	19.4	16.4	18.1	21.0
Group household	1.3	2.2	3.1	4.2

Source: Australian Bureau of Statistics, 2001 Census QuickStats and 2006 Census QuickStats

The data indicates the following characteristics in Sarina Shire:

- Sarina Shire primarily contains family households and the proportion of this type of household has increased by 0.4% between 2001 and 2006.
- In Sarina Shire, the proportion of lone person households decreased by 3.0% and the proportion of group households increased by 0.9% between 2001 and 2006.
- In 2006 in Sarina Shire, there is a higher proportion of family households in comparison to both Mackay SD and Queensland by 7.1% and 6.1%, respectively.
- In 2006, in Sarina Shire there is a lower proportion of lone person households and group households in comparison to both Mackay SD and Queensland.

Median income

Table 15.7 indicates the median income for the Shires located within the Mackay SD.

Table 15.7 Median Income, 1991 to 2001

Shire	Median income (\$)			
	1991	1996	2001	% change 1991 - 2001
Belyando	365.48	409.69	602.46	64.8
Bowen	248.18	272.27	356.32	43.6
Broadsound	386.66	419.78	679.84	75.8
Mackay City	256.29	311.39	388.62	51.6
Mirani	241.53	312.25	331.51	37.3
Nebo	388.41	573.76	898.21	131.3
Sarina	228.81	274.07	351.17	53.5
Whitsunday	304.86	364.95	473.76	55.4
Mackay region	271.48	321.87	416.07	53.3
Queensland	251.90	295.10	398.30	58.1

Source: ABS Census 2001, 1996 and 1991 and AEC Economics

Nebo recorded the highest median weekly income in the Mackay SD/WHAM region in 2001 of \$898.21. Belyando and Broomsound Shires also recorded median weekly incomes in excess of \$600.00 reflecting a high number of mine employees (MWREDC 2006).

Further data released from the ABS indicates that Broomsound and Belyando Shires had the highest average weekly income in the State in 2003-04 of \$1,104.06 and \$1,072.90 per annum respectively. In comparison the Mackay SD/WHAM region's average weekly income was \$769.25 in 2003-04, which is higher than the Queensland average of \$690.89 (MWREDC 2006).

Cost of living

The OESR has indicated that the overall cost of living is higher in both Mackay City and the Whitsunday Shire than in Brisbane (1.8% and 4.8% higher than the Brisbane index base of 100 respectively). This is comparable to Townsville but is higher than in Gladstone.

The living costs in Mackay City have grown at a faster rate than in Brisbane in the past 5 years (3.8 percentage points higher than the base index), driven by strong growth in housing costs and the cost of food, alcohol, groceries and tobacco relative to Brisbane (MWREDC 2006).

Housing

Dwelling approvals

Dwelling activity decreased in Sarina Shire in the year ending December 2006 with 63 approvals, all of them for separate houses. This compares to 84 approvals in the previous year, representing a decrease of 25% in dwelling activity.

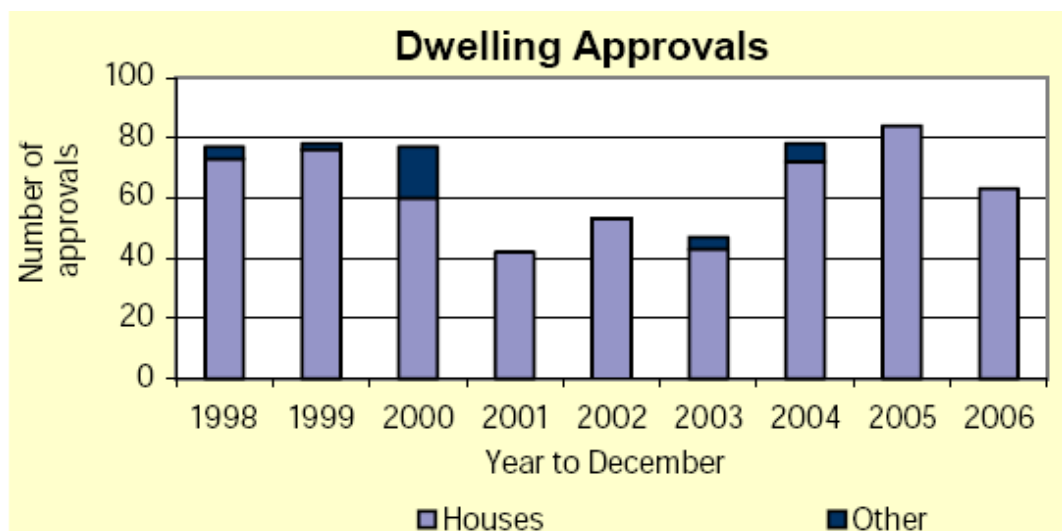


Figure 15.4 Dwelling approvals, Sarina Shire

Source: DLGPSR, PIFU Population and Housing Fact Sheet, March 2007

In 2001, the ABS Census data indicated that Sarina Shire contained a high proportion of separate houses (87.6% or 3,146 dwellings) followed by unit or apartments (5.1% or 182 dwellings). Only a small proportion of semi-detached, row or terrace houses/townhouses exist within the Sarina Shire (0.5% or 18 dwellings). In comparison, within Queensland 77% of all dwellings were separate dwellings, 12.1 % were flat, unit or apartments and 6.7% were semi-detached, row or terrace housing.

In the year ended December 2006, the 63 residential dwelling unit approvals in the Sarina Shire were valued at \$16.7 million and represented 0.2% of the overall total for the State. In comparison, the value of non-residential building approvals in the Sarina Shire in the year ended December 2006 was \$16.1 million, representing 0.3% of the value of these approvals in Queensland (OESR May 2007).

Furthermore, the value of residential building approvals in the Sarina Shire for the December 2006 quarter was \$4.1 million, compared with \$2,413.3 million in Queensland. Between the December 2004 quarter and the December 2006 quarter, the value of new residential building approvals ranged between \$3.2 million and \$6.7 million (OESR May 2007).

It is noted that in the adjoining Mackay City LGA, there were 882 residential building approvals in Mackay City in the year ended December 2006, 31.1% more than in the year ended December 2005. Whilst the number of new house approvals declined by 3.0% over the year, this was offset by a significant increase (up 161.8%) in the number of other dwellings approved (MWREDC December 2006). Some major accommodation developments in Mackay include East Point, The Beach, Beach Tourist Park Caravan Park Redevelopment, Lanai Apartments, Sea Fresh and Rivage.

Dwelling tenure

The 2006 Census tenure data provides an indication of the size of the rental market, the number of households residing in fully owned dwellings and dwellings being purchased at the time of the Census. This data is provided in Table 15.8.

Table 15.8 Tenure and landlord type by dwelling structure by household, Sarina Statistical Local Area (SLA), 2006

Tenure	Separate house	Semi-detached, row or terrace house, townhouse	Flat, unit or apartment	Other dwelling (d) total	Dwelling structure not stated	Total	Proportion (%) total households
Fully owned	1,200	6	13	45	0	1,264	35.0
Being purchased	1,257	7	9	12	4	1,289	35.7
<i>Rented:</i>							
Real estate agent	323	0	88	0	9	420	(44.4)
State housing	49	0	11	0	0	60	(6.3)
Person not in same household (a)	247	0	29	8	0	284	(30.1)
Housing cooperative/ community/church group	17	0	16	0	0	33	(3.5)
Other landlord type (b)	51	0	8	35	0	94	(9.9)
Landlord type not stated	39	0	9	6	0	54	(5.7)
Total rented	726	0	161	49	9	945	26.1
Other tenure type (c)	15	0	3	0	0	18	0.5
Tenure type not stated	74	3	10	11	0	98	2.7
Total	3,272	16	196	117	13	3,614	100

Source: Australian Bureau of Statistics, 2006 Census

Table Notes:

- (a) Comprises dwellings being rented from a parent/other relative or other person
- (b) Comprises dwellings being rented through a "Residential park (includes caravan parks and marinas)", "Employer-Government" (includes Defence Housing Authority) and "Employer-other (private)"
- (c) Includes dwellings "Being occupied under a life tenure scheme"
- (d) Other dwelling includes caravan, cabin, houseboat, improvised home, tent, sleepers out, house or flat attached to a shop, office etc

The proportions provided for the rented tenure types represent the proportion of the total rented accommodation

The 2006 Census data indicates the following housing tenure characteristics for Sarina SLA:

- The majority of private occupied housing in Sarina SLA comprise separate houses, with 35.0% being fully owned and 35.7% being purchased (a total of 70.7% of all housing).
- A total of 26.1% of private occupied dwellings are rented. Of this total, the majority of dwellings are rented from real estate agents (44.4%), a person not in the same household (30.1%) or other landlord type (9.9%).

In comparison, the 2006 Census QuickStats indicate that for Queensland the proportion of private dwellings fully owned or being purchased is 30.4% and 31.4%, respectively (a total of 61.8%) and the proportion of dwellings that are rented is 30.0%. It is also indicated that in comparison to Mackay SD, the proportion of dwellings fully owned or being purchased is 31.1% and 28.1%, respectively (a total of 59.2%) and the proportion of dwellings that are rented is 30.2%.

This demonstrates a higher level of home ownership in the Sarina SLA in comparison to both Queensland and Mackay SD.

A further comparison with Freshwater Point (the local area of the proposed Project) indicates that 37.3% of dwellings are fully owned and 29.9% of dwellings are being purchased (a total of 67.2%, which indicated an overall decrease in owner-occupied dwellings in comparison to Sarina SLA). It was further identified that 19.4% of private dwellings in the Freshwater Point local area are being rented, which is significantly lower than for Sarina SLA (by 6.7%).

Some seasonal fluctuations are associated with the Plane Creek Sugar Mill. A total of approximately 200 people are employed by the mill during the crushing season in cane transportation, sugar production, maintenance and administration (CSR Sugar). However, the population would appear to be relatively stable given the high proportion of dwellings that are fully owned or being purchased and the high proportion of family households.

Rental accommodation and housing costs

The size of the rental accommodation market has been identified in Table 15.8, with the rental tenure comprising 26.1% of all occupied private dwellings in Sarina SLA. As indicated previously, the proportion of rental dwellings in Freshwater Point local area is 19.4% of all private accommodation.

The dwelling characteristics for Sarina Shire and the local areas within Sarina Shire in terms of median rent and median housing loan repayments is detailed in Table 15.9.

Table 15.9 Dwelling characteristics of occupied private dwellings, 2006

Local area or region	Median rent (\$/weekly)	Median housing loan repayment (\$/monthly)	Average household size	Average number of persons per bedroom
<i>Region:</i>				
Sarina Shire	165	1,200	2.7	1.1
Mackay SD	160	1,300	2.7	1.1
Queensland	200	1,300	2.6	1.1
<i>Local area:</i>				
Sarina	150	1,127	2.7	1.1
Sarina Beach	220	1,408	2.7	1.1
Koumala	43	1,127	2.7	1.2
Hay Point	220	1,300	2.7	1.1
Grasstree Beach	200	1,083	2.5	1.1
Freshwater Point	160	1,083	2.5	1.0
Armstrong Beach	200	1,170	2.6	1.2
Alligator Creek	150	1,213	2.9	1.2

Source: Australian Bureau of Statistics, 2006 Census QuickStats

The following dwelling characteristics have been identified:

- Sarina Shire has lower median weekly rent than Queensland, but is marginally higher than in Mackay SD. However, the median housing loan is higher in Mackay SD than in Sarina Shire.
- The median rents fluctuate between local areas throughout Sarina Shire with higher rents generally found in the coastal local areas, the highest being in Sarina Beach and Hay Point (\$220 which is higher than the median rent of \$165 for Sarina Shire).
- The lowest median rents are in the local areas of Sarina, Alligator Creek and Freshwater Point, which are lower than the median rent for Sarina Shire. There is also an unusually low median rent identified at Koumala (\$43 per week).
- Within Sarina Shire, the local areas containing the highest median housing loan repayment is Sarina Beach and Hay Point (\$1,408 per month and \$1,300 per month), which is equal to or greater than the median housing loan repayment for Mackay SD.
- The average household size is comparable between Sarina Shire, Mackay SD and Queensland. Within Sarina Shire, the average household size is slightly less at Grasstree Beach and Freshwater Point and slightly higher at Alligator Creek.
- The average number of persons per bedroom is also comparable between Sarina Shire, Mackay SD and Queensland (all are 1.1 persons). Within Sarina Shire, the number of persons per bedroom is slightly higher in Koumala, Armstrong Beach and Alligator Creek (1.2 persons), but slightly lower at Freshwater Point (1.0 person).

A search of the www.realestate.com.au website on 16 August 2007 indicated that about 65 properties were available for purchase in Sarina. The majority were for detached housing within the Sarina township. Other properties available for purchase in Sarina include rural residential properties and a few vacant blocks. For housing in Sarina, the asking price ranges from \$185,000 to \$495,000.

Social housing

As the mining industry generates significant economic growth for the region there are concerns low to middle income earners will be pushed out of the housing market, as more middle to high income earners move to the region (Queensland Department of Housing 2007).

According to the WHAM 2015 Regional Planning Social Infrastructure report (2001) prepared by the WHAM Regional Planning Advisory Committee, social housing may refer to any of the following components:

- Housing subsidies (rent and purchase)
- Public housing
- Supported accommodation
- Accommodation for special needs, including disability and aged care
- Community housing

The WHAM Social Infrastructure Assessment (March 2001) prepared by Bea Rogan Community Planning Services (for the Department of Local Government and Planning) indicates that all of the above forms of social housing are evident within the WHAM region. Some of the identified social housing issues include:

- Lack of response to families and individuals in housing crisis in some areas.
- Fluctuating populations within Whitsunday and Bowen areas causing stress on already inadequately resourced services.
- 'The Renewing Supporting Accommodation Assistance Program (SAAP) Initiative' identified the Mackay-Whitsunday area as having 'medium capacity and low demand'. However, there are concerns that the region will be overlooked for future funding (FYCCQ April 2000).

As indicated in Table 15.8, the 2006 Census identified that of all rented housing, 6.3% is State housing and 3.5% is housing cooperative/community/church group housing.

More specifically, within Sarina in May 2007 the Department of Housing had 50 tenants in public housing, with 12 tenants or 24% paying market rent. There are 38 applications registered on the public housing waiting list, with no construction or dwelling sales planned in 2007-08. The average allocation period (from when a prospective tenant submits an application, to the first day of the tenancy agreement) is 2.4 years (Queensland Department of Housing 2007).

Figure 15.5, shows the number of persons registered on the Sarina public housing waiting list since September 2005. As of 30 June 2007, 37 persons were waiting to be allocated a public housing residence, 26 people less than in September 2005.

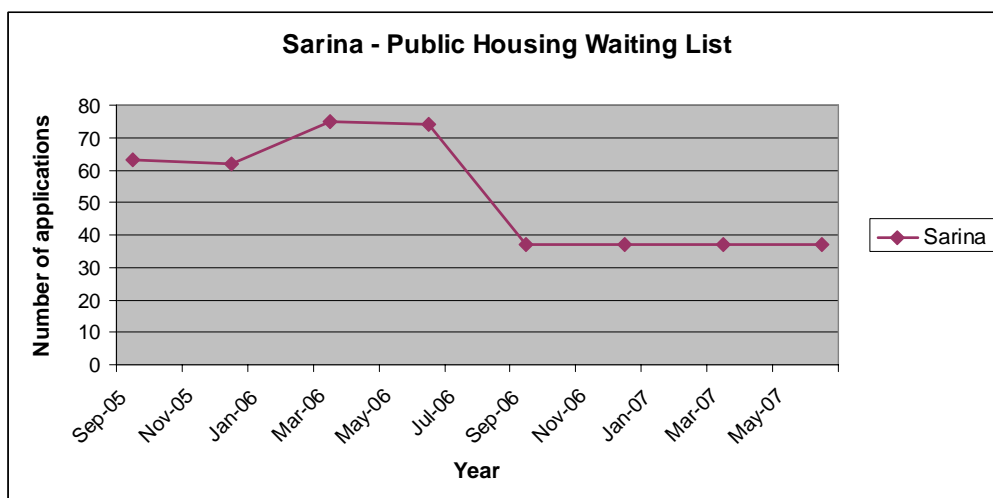


Figure 15.5 Public housing waiting list

Source: Department of Housing, 2007

In 2006-07, the State government allocated funding to provide ongoing housing and housing related services to support low-income families and individuals in Mackay-Whitsunday including:

- \$9.42 million for new and upgraded public housing
- \$5.06 million for community housing programmes and services to address long-term and crisis, transitional and long-term housing needs
- \$2.26 million for the Aboriginal and Torres Strait Islander housing rental programme

Median house price

The capital growth in median housing prices and the median housing purchase cost in the region is shown in Table 15.10.

Table 15.10 Median house price

Local area or region	Capital growth in median prices (%)					Median house purchase cost (\$) May 2007
	2003	2004	2005	2006	2007	
<i>Local area:</i>						
Sarina	7.2	15.4	40.0	36.2	14.5	357,500
Sarina Beach	37.3	39.4	25.9	25.4	-1.3	350,000
Koumala	3.1	-24.0	89.5	40.3	56.9	272,500
Hay Point	5.8	51.5	27.6	8.0	20.5	610,000
Grasstree Beach	11.8	43.1	37.5	9.5	33.6	307,500
Freshwater Point	128.6	34.9	10.3	49.9	-37.4	430,000
Armstrong Beach	-3.6	51.9	36.6	19.1	-7.3	462,500
Alligator Creek	80.4%	35.6%	-2.5%	11.5%	-35.6%	470,000
<i>Comparatives:</i>						
Mackay	18.5	43.8	31.6	9.1	10.6	398,000
Marian	9.8	4.1	84.2	7.3	12.3	231,500
Mirani	27.3	16.8	57.4	11.8	20.2	343,750

Source: RP Data Ltd, 2007

The data indicates the following trends:

- The median house purchase price is highest at Hay Point (\$610,000), Alligator Creek (\$470,000), Armstrong Beach (\$462,500), Sarina Beach (\$350,000) and Sarina (\$357,500).
- Koumala and Grasstree Beach have the lowest median house purchase cost in the Sarina Shire in 2007. However, the RP data indicates that these local areas also experienced the greatest capital growth between 2006 and 2007.
- Capital growth has been greater in Sarina (14.5%), Koumala (56.9%), Hay Point (20.5%) and Grasstree Beach (33.6%) local areas within Sarina Shire in comparison to Mackay (10.6%) between 2006 and 2007.
- Capital growth changes between 2003 and 2007 indicate consistent growth among all local areas with some minor fluctuations. Between 2006 and 2007, median prices have declined at Sarina Beach (by 1.3%), Freshwater Point (37.4%) and Armstrong Beach (7.3%). However, it is noted that median prices are generally based on number and value of sales and therefore median price can be distorted if there are very few sales in a particular local area.

Land availability

Due to a lack of historical data, a "Total Residential Land Activity Fact Sheet" for the Sarina Shire is not currently available by the PIFU. This fact sheet would provide information relating to allotment approval, registration, consumption and land sales to provide an indication of land development activity in the Sarina area.

The Sarina Shire Council Planning Scheme (May 2005) contains strategies relating to the location of residential development:

"1.4 Broad Strategies for Sarina Shire

- (1) Residential, commercial, industry, community and recreation uses are:
 - (a) primarily located in Sarina town, Koumala, and the beachside communities at Louisa Creek, Half Tide, Salonika Beach, Grasstree Beach and Grasstree, Campwin Beach, Sarina Beach, Armstrong Beach and Freshwater Point; and
 - (b) only located outside these areas where they cannot be practicably located in the towns due to their nature, scale, effects or necessary relationship to other activities, particularly cultural heritage features, natural features, resources or infrastructure.
- (2) Sarina town is the main commercial and community centre in the Shire.
- (4) Rural residential development is encouraged in the north-eastern part of the Shire in locations which avoid productive rural lands and ecological assets, do not intrude on the long term economic role of the Hay Point facility, and are located within reasonable distance of necessary community facilities.

1.5 Strategies for Sarina Town

- (1) Residential, commercial, community and recreation uses and tourist facilities are located within the existing town area, except that residential expansion is encouraged in the northern part of the town (between the Bruce Highway and Sarina Beach Road).
- (5) Residential uses provide a range of housing opportunities which comprise:
 - (a) mostly houses on separate residential allotments;
 - (b) a variety of multiple dwelling development; and
 - (c) specialised housing to meet community needs."

The Sarina Shire Council Planning Scheme also outlines the strategies for the beach communities in terms of future residential development. The strategies for these communities are detailed below:

"1.6 Strategies for Beach Communities and Koumala

- (1) Sarina Beach is the main focus for tourism development in beachside areas, with commercial oriented tourist facilities in its core area and holiday accommodation located and designed to be compatible with the existing character of the northern section.
- (2) The other beachside suburbs are primarily residential communities, with some tourist facilities primarily oriented to day trip visitors; the exception to this is Salonika Beach which provides tourist accommodation facilities.
- (3) Urban expansion in Louisa Creek particularly higher density residential development is not supported due to its limited services, low lying land and incompatibility with adjacent port operations.
- (4) Residential expansion at all beachside communities is relatively modest and restricted to ensure development does not occur in areas subject to flooding, storm surge, or areas of ecological value.
- (5) Koumala will remain a small rural service centre with its commercial activities focused on the Bruce Highway frontage of Brown Street.

1.7 Strategies for Rural Area

- (3) Urban residential expansion is encouraged for the rural area immediately adjoining the northern part of Sarina town, between the Bruce Highway and Sarina Beach Road.
- (4) Rural residential expansion is to occur in discrete locations within the rural part of the north-eastern section of the Shire."

Figure 15.6 shows the potential land availability within the Town Zone and Village Zone. It also shows the location of some of the Rural Residential Zone areas within the Sarina Shire.

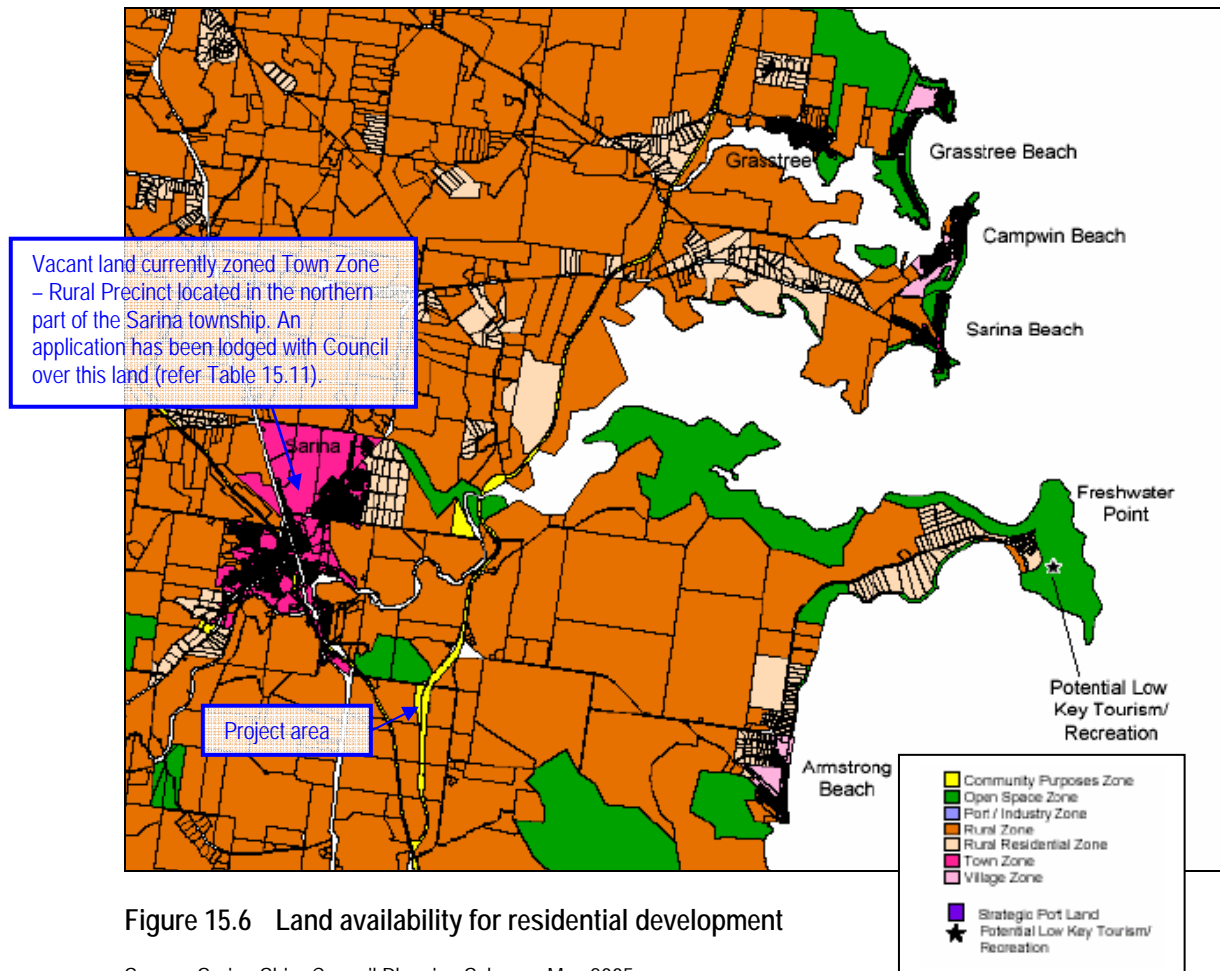


Figure 15.6 Land availability for residential development

Source: Sarina Shire Council Planning Scheme, May 2005
(Primary source is Department of Natural Resources and Mines)

Within the Sarina township, land is currently vacant within the Town Zone in the sector of land bounded by the Bruce Highway to the west, Brooks Road to the south, Sarina Beach Road and Cemetery Road to the east, and Homebush Road/Cemetery Road to the north. The size of this currently vacant land is approximately 133.1 ha. This area will be able to accommodate future residential development in the Sarina township. Further residential development could be accommodated by some infill development within the Sarina township, particularly to the south, south-west, and eastern peripheries of the township.

As shown in Figure 15.6, some land is also available within the Village Zone at Armstrong Beach, the northern part of Grassree Beach and southern part of Campwin Beach. There also appears to be some capacity for rural residential development between Sarina and Sarina Beach and north of Armstrong Beach. There are also pockets of larger rural residential lots within areas north-east of Sarina and east and north of Alligator Creek (these areas are not shown in Figure 15.6).

Expansion of residential development within the smaller seaside communities is more restricted than in Sarina to ensure development does not occur in areas subject to flooding, storm surges, or impact on areas of ecological value. Development restriction is particularly noted at Louisa Creek, which contains low-lying land, has limited services and potential incompatibility with the nearby Port activities.

The Sarina Shire Council has provided information relating to current approvals and development applications for residential development. The applications involving a larger reconfiguration of a lot development (eg creating 10 lots or more) are summarised in Table 15.11.

Table 15.11 Reconfiguration of a Lot applications, Sarina Shire

Approval date/status	DA ref no.	Address	Zone	Land size (ha)	No. of additional lots	Status
14/6/06 Stage 1	DA3021.3	Lot 7 on RP732441, Bally Keel Road, Alligator Creek	Rural Residential	17.59	14 (note: Stage 2 has 18 lots)	Survey plan to be lodged
16/6/06	DA899.3	Lot 6 of SP168708, West Street, Sarina	Town Zone - Residential	2.627	17	Survey plan to be lodged
19/9/06	ROL00010	Lot 12 on RP817036, Fenech Avenue, Alligator Creek	Rural Residential	26.76	22	Survey plan to be lodged
7/11/06	ROL00006	Lot 1 on SP121699 Campwin Beach Road, Campwin Beach	Village	2.835	26	Survey plan to be lodged
14/12/06	ROL00034	Lot 10 on RP894717, West Street, Sarina	Town Zone - Residential	1.723	12	Preliminary approval
28/3/07	ROL00007	Lot 10 on RP866583, Arthur Street, Sarina	Town Zone – Rural	38.77	270 (with 256 lots for residential)	8 stages. No survey plan lodged
In progress	ROL00031	Lot 1 on rp739714, Pacific Drive, Salonika Beach	Village	4.66	42	Application active (info request stage)
In progress	ROL00037	Lot 76 on RP744493, Bruce Hwy and Sarina Beach Road, Sarina	Town Zone - Rural	69.4	74	Application active (info request stage)
In progress	ROL/MCU 00056	Lots 4 and 57 on SP181270, Manon Street, Armstrong Beach	Rural	11.56	65	Application active (public notification stage)
In progress	ROL/MCU 00061	Lot 20 on SP173368, Burnell Drive, Sarina	Rural	81.08	62	Application active (decision making stage)
In progress	ROL/MCU 00001	Lot 206 on SP189458, Hill Street, Sarina	Town Zone - Residential	3.2	18	Application active (info request stage)
In progress	ROL/MCU 00084	Lot 95 on C12973 and Lot 1 on C12847, Coleshill Drive, Alligator Creek	Rural Residential	16.79	22	Application active (info request stage)
In progress	ROL00093	Lot 15 on RP86934, 728 Armstrong Beach Road, Armstrong Beach	Village	1.083	10	Application active

Source: Sarina Shire Council, 2007

From the development applications either approved or currently lodged with Council since May 2006, 658 lots will potentially be available in the future for primarily residential purposes. These lots consist of a mix of township lots and rural residential lots in Sarina and the local areas of Alligator Creek, Campwin Beach, Salonika Beach and Armstrong Beach.

In addition, from the information received from Sarina Shire Council there has been several development applications approved by Council since January 2006 to create between one and eight additional lots per application. This will provide a total of 66 approved additional lots in Sarina Shire for primarily residential purposes. In April 2007, Council also approved an application to create 33 industrial lots in Sarina.

Discussions with Sarina Shire Council have been undertaken by the proponent to identify potential sites to develop workers accommodation to accommodate the expected construction workforce. Five sites have been suggested by Council, which are located on the periphery of the Sarina township. The proponent is considering these sites to develop for workers accommodation.

Discussion relating to the proposed workers accommodation is provided in Section 15.3.

It is noted that according to the MWREDC Sarina Shire LGA Profile (December 2006), heavy investment in accommodation/housing is expected in Sarina in the short term, given the port expansion projects at the Port of Hay Point. These projects are expected to bring approximately 300 people to the region over a four year period.

Economic stability

Employment status

Employment prospects remain strong in Sarina Shire with the trend labour force increasing by 2.7% in the September Quarter 2006 when compared to the September Quarter 2005, while trend employment grew 4.8% over the period. The number of unemployed also decreased to 243 representing a 24.2% drop in annual terms (MWREDC December 2006).

The overall unemployment rate in Sarina Shire at the time of the 2001 Census was 9.4%, compared with 8.2% for Queensland. The participation rate for Sarina Shire was 58.2%, lower than that recorded for Queensland (63.1%). Sarina Shire had 0.2% of Queensland's employed persons and 0.3% of Queensland's unemployed persons (OESR, May 2007 based on ABS, 2001 Census).

Given that the estimated resident population as at June 2006 is 10,316 (refer Table 15.3), approximately half of the Sarina Shire residents are participants in the labour force. Table 15.12 indicates that the unemployment rate has decreased in Sarina Shire to 4.5% over the past year to September 2006.

Table 15.12 Trend employment indicators, Sarina Shire 2005-2006

	Sarina Shire		Mackay SD	
	September Quarter 2006	% change on September Quarter 2005	September Quarter 2006	% change on September Quarter 2005
Labour force (no.)	5,388	2.7	83,115	2.4
Employed (no.)	5,153	4.8	80,754	4.5
Unemployed (no.)	243	-24.2	2,783	-28.3
Unemployment rate (%) ^(a)	4.5%	-1.5	3.3%	-1.5

Source: MWREDC, Sarina Shire LGA Profile, December 2006

Table Note:

- (a) The change in the unemployment rate is in percentage point terms. This data is derived through trending the unsmoother series from DEWR. Primary source is DEWR Small Area Labour Market Surveys, AEC group.

In comparison, the unemployment rate in the Mackay SD for the December quarter 2006 was 3.3% and is lower than that recorded for Queensland (4.7%). The OESR (May 2007) identified that in the December quarter 2006, the highest unemployment rates in the Mackay SD were recorded in Bowen Shire (5.9%) and Sarina Shire (4.5%) and the lowest unemployment rates were in Nebo Shire (0.4%) and Broomsound Shire (1.0%).

Education

At the time of the 2001 Census, of persons aged 15 years and over with a qualification in the Sarina Shire, 4.3% had a bachelor degree or higher (311 persons) compared to 10.8% (305,628 persons) in Queensland (OESR May 2007).

Occupation

The highest degree of specialisation in the Sarina Shire occurred in the intermediate production and transport workers and inadequately described occupations. Of persons employed in the Sarina Shire, 19.8% were employed in the intermediate production and transport workers occupation compared with 8.5% for Queensland.

The occupation of residents is provided in Table 15.13.

Table 15.13 Occupation, Sarina Shire, 2001

Occupation	Sarina Shire proportion %	Mackay SD proportion %	Queensland proportion %
Managers and administrators	10.3	12.6	8.5
Professionals	9.2	9.9	16.0
Associate professionals	8.3	9.6	12.0
Tradespersons and related workers	15.8	14.5	12.8
Advanced clerical and service workers	2.7	2.5	3.5
Intermediate clerical, sales and service workers	12.2	11.5	16.9
Intermediate production and transport workers	19.8	16.9	8.5
Elementary clerical, sales and service workers	7.1	7.4	10.0
Labourers and related workers	11.6	12.7	9.7
Inadequately described	1.0	0.8	0.8
Not stated	2.0	1.6	1.3

Source: Australian Bureau of Statistics Census, 2001

Within Sarina Shire, the following trends have been identified:

- Mackay SD contains the highest proportion of managers and administrators and labourers and related workers in comparison to both Sarina Shire and Queensland.
- Sarina Shire contains a higher proportion of intermediate production and transport workers (11.3% more), labourers and related workers (1.9% more) and managers and administrators (1.8% more) compared to Queensland.
- A higher proportion of Queensland residents work in the fields of professionals (6.8% more than Sarina and 6.1% more than Mackay SD), associate professionals (3.7% more than Sarina and 2.4% more than Mackay SD), intermediate clerical, sales and service workers (4.7% more Sarina and 5.4% more than Mackay SD) and elementary clerical, sales and service workers (2.9% more compared to Sarina Shire and 2.6% more than Mackay SD).

Industry

In summary, Queensland contains a higher proportion of “white collar” occupations compared to Sarina Shire’s more ‘service’ driven industries.

In 2001, the major industries of employment in Sarina Shire include:

- Agriculture, forestry and fishing (485 persons or 13.2%)
- Transport and storage (445 persons or 12.1%)
- Retail trade (433 persons or 11.8%)
- Manufacturing (432 persons or 11.7%)
- Construction (275 persons or 7.5%)
- Health and Community Services (244 persons or 6.6%)
- Property and Business Services (217 persons or 5.9%)
- Education (212 persons or 5.8 %)

The highest degree of specialisation in the Shire occurred in the mining and agriculture, forestry and fishing industries. Of persons employed in the Sarina Shire, 3.8% were employed in the mining industry compared with 1.2% for Queensland. The proportion of persons employed in the agriculture, forestry and fishing industry was 13.2% while the proportion for Queensland was 4.9%.

In 2001 for the Mackay SD, the major industries of employment were retail trade (14.3%), agriculture, forestry and fishing (10.6%) and manufacturing (8.7%). For the Mackay SD it has also been identified that between 1996 and 2001, the most significant growth was recorded in the number of persons employed in property and business services (up 20.9%), retail trade (up 15.7%) and health and community services (up 14.0%). There were also increases in the number of persons employed in the mining industry.

Mobility

Sarina Shire is well connected to the national highway network, through the Bruce Highway, which traverses the centre of town.

The 2001 Census data shows that only a small proportion of households (5.2%) do not own a vehicle, considerably less than the Queensland average of 9.9% (ABS Census, 2001, Sarina LGA).

15.2.2 Community infrastructure and services

Educational facilities

Sarina Shire offers four public primary school/preschools, one private primary school/preschool, one high school and a kindergarten/day care facility. These facilities are outlined in Table 15.14.

Table 15.14 Educational institutions

School	Enrolled students 2006	Enrolled students 2007
Primary Schools		
Sarina State Primary School	471	466
Koumala State Primary School	121	93
Alligator Creek Primary School	371	455
Swayneville State Primary School	116	111
St Anne's Catholic Primary School	168	196
High School		
Sarina State High School	549	608
Preschool		
Rainbow Kids Educare Centre	na	na

Source: Education Queensland Schools Directory, 2007 (for the 2007 enrolled student numbers) and MWREDC, Mackay Whitsunday Regional Statistical Profile – Education, February 2006 (for the 2006 enrolled student numbers)

These facilities are located as follows:

- Sarina State Primary School, located in Broad Street, Sarina
- Koumala State Primary School, located 15 minutes drive south of Sarina
- Alligator Creek Primary School, located 15 minutes drive north-east of Sarina
- Swayneville State Primary School, located 10 minutes drive west of Sarina
- St Anne's Catholic Primary School, located in Range Road, Sarina
- Sarina State High School, located in Anzac Street, Sarina

Table 15.15 shows the number of primary and secondary school students within the Mackay SD.

Table 15.15 School students by local government area in Mackay SD, December 2006

Local Government Area	Government school students			Non-government school students			Total school students
	Primary	Secondary		Primary	Secondary		
	Years 1-7	Years 8-12	Total (a)	Years 1-7	Years 8-12	Total (a)	
Belyando (S)	1,122	680	1,975	116	-	123	2,098
Bowen (S)	978	748	1,849	209	-	249	2,098
Broadsound (S)	764	314	1,185	-	-	-	1,185
Mackay (C)	6,267	3,368	10,545	2,741	2,645	5,605	16,150
Mirani (S)	704	648	1,444	-	-	-	1,444
Nebo (S)	209	55	304	-	-	-	304
Sarina (S)	1,043	585	1,770	165	-	182	1,952
Whitsunday (S)	1,151	843	2,150	329	90	479	2,629
Mackay SD	12,238	7,241	21,222	3,560	2,735	6,638	27,860
Queensland	284,726	165,285	489,295	104,705	94,925	209,786	699,081
Region as % of Queensland	4.3	4.4	4.3	3.4	2.9	3.2	4.0

Source: OESR, Queensland Regional Profiles Mackay Statistical Division (Primary source: Queensland Department of Education, Schools Census, Unpublished data).

Table Notes:

- (a) includes special and ungraded students

In the 12 months to 31 December 2006, there were 27,860 students in Mackay SD and a total of 1,952 students in Sarina Shire (or 7.0% of students in Mackay SD). The LGA in the region with the largest number of school students was Mackay City with 16,150. This was followed by Whitsunday Shire (2,629), Bowen Shire and Belyando Shire (2,098) and then Sarina.

Tertiary education

The Central Queensland Institute of TAFE Mackay Campus and Central Queensland University (CQU) are the closest tertiary education facilities located within Mackay, approximately 30 km north of Sarina and offer a variety of courses.

The CQU is constantly increasing its enrolment numbers and developing new facilities and courses to cater for its students (MWREDC, February 2006). Courses offered include business, communication and media studies, education, engineering, health and recreation, humanities and social sciences, information technology, primary industries and environment, sciences and tourism.

The Central Queensland Institute of TAFE (CQIT) has more than 11,550 enrolments per year and offers degree-orientated courses, block training for apprentices, adult community education courses and others. Key teaching areas include hospitality, engineering, tourism, chemical (sugar) laboratory techniques, office studies, information technology, building and construction, fashion and accessories studies.

The vision of the CQIT is to support the economic and social objectives of the Queensland Government and to operate within a demand-driven training market (MWREDC, February 2006). The aspects to achieve this vision of most relevance to the Project include:

- Deliver innovative responses to the policy interests of government, and the training needs of individuals, industry, enterprises and the community.
- Contribute to the government's highest priority – job creation and lowering of unemployment rates.
- Be the dominant public providers of vocational education and training, recognised for roles in educational leadership, regional and community development and social justice.

The State government is also providing funding to develop a specialist trade campus at the Central Queensland Institute of TAFE in Mackay.

Health services

Health care services within the Sarina Shire include one hospital, specialist services, medical centre and an aged care hostel. The nearest referral hospital is the Townsville Hospital located approximately 420 km to the north.

The Sarina Hospital and Primary Health Care Centre is the only hospital within the primary catchment area and is equipped to manage a variety of medical services including emergency situations, palliative care and surgical procedures.

The hospital supplies 16 beds and provides allied services such as physiotherapy, occupational therapy, social work, community health programmes such as midwifery services, antenatal education, mental health, dental services, child care health clinics, and alcohol and drug detoxification and rehabilitation. Aged care services are also provided in hospital through nursing home type care and respite care. Patient activity within the Sarina Hospital is provided in Table 15.16.

Table 15.16 Sarina Hospital patient activity, 1993 to 2006

Year	Admitted patients	Non-admitted activity
1993/1994	988	11,080
1994/1995	936	16,954
1995/1996	1,106	16,271
1996/1997	1,052	17,989
1997/1998	1,187	17,854
1998/1999	1,016	16,400
1999/2000	1,530	19,524
2000/2001	1,189	16,021
2001/2002	1,066	15,685
2002/2003	1,023	17,507
2003/2004	1,045	17,499
2004/2005	1,080	15,988
2005/2006	1,368	19,146

Source: Health Services, Queensland Health, May 2007

Data on patient activity at Sarina Hospital indicates that the number of admitted patients increased since 1993/1994 peaking to 1,530 in 1999/2000. However, since 1999/2000, admitted patient numbers have somewhat declined and then increased again in 2005/2006 to 1,368 admitted patients. Non-admitted activity in comparison has fluctuated, ranging from 11,080 in 1993/1994 and peaking to 19,524 in 1999/2000. Whilst numbers decreased since this peak, there was a significant rise in non-admitted activity between 2004/2005 and 2005/2006.

The Sarina Aged Residential Home is the only aged care facility within the Sarina area. A helicopter service is also available for transportation of seriously ill patients to larger hospitals.

The State government is also increasing health expenditure within the WHAM region (Queensland Government, Regional Budget Statement 2006/07) to include:

- \$2.19 million to construct a community-based rehabilitation facility in Mackay
- \$1.7 million to develop the Mackay Base Hospital Annex to provide more beds
- \$1.04 million to support community mental health services by employing additional specialist mental health staff
- \$495,000 for enhanced cardiac services

State-wide commitments (Queensland Government, Regional Budget Statement 2006/07) that will be of benefit to Mackay/WHAM region include:

- \$70 million for new health technology equipment
- \$69.3 million to meet the increasing cost of providing existing health services
- \$25.4 million in increased funding for workforce training and recruitment initiatives for medical, nursing and allied health staff
- \$12.3 million to improve access and meet growing needs for renal services
- Expenditure on new and upgraded emergency facilities and staffing (eg 144 new ambulance officers across Queensland)

Shopping facilities

The main shopping and commercial area within Sarina includes the strip shopping/commercial development along Broad Street and Central Street within Sarina and the shopping centre located along Sarina Beach Road on the northern periphery of the Sarina township. A list of local businesses is provided in Appendix O.

Recreation, sport and open space

Sarina Shire contains facilities and clubs for most sporting facilities including rugby league, golf, tennis, cricket, basketball, netball, touch football, soccer, lawn bowls, swimming, squash, skating, BMX riding and pony club.

Open space and recreational facilities are an important part of regional social goals and strategies.

The Sarina Shire Sport and Recreation Facility Needs Study undertaken by Sport and Recreation Queensland identified that there are adequate amounts of open space within the Shire, however a portion of this land will need to be developed to meet the evolving sport and recreation needs of the community.

The vision statement for the Sarina Shire is:

"There is a range of appealing, accessible and affordable sport and recreation facilities, service and programs, to encourage community participation and cater for the changing needs of Sarina Shire's town, beach and rural communities."

Whilst it is recognised that sport, recreation and open space are of importance to a regional community, it is also a mechanism for potentially developing social cohesion between the community, workers and residents.

Transport services

Mackay Transit Coaches provide Sarina Shire with school, chartered and general route services. The Sarina train station provides connections to northern Queensland and south to Brisbane and other connecting national services.

Emergency services

Sarina Shire offers emergency services including police, ambulance and fire brigade services. As the Shire has tropical climatic conditions, emergency response services also exist for cyclone emergencies, namely the Cyclone Preparation Unit, Department of Emergency Services, State Emergency Services and the Bureau of Meteorology (Sarina Shire Council website, <http://www.sarina.qld.gov.au/council/Economic%20Development/ShireGrowth.shtml>, 2006).

As indicated in the Department of Emergency Services Corporate Plan 2006 – 2010, the changing workforce presents challenges as it ages and becomes more mobile, with people increasingly working on a part-time, casual and contractual basis. Competition for skilled labour is increasing as the economy strengthens. It further states that the department is challenged to develop innovative staff and volunteers, especially in rural and remote areas.

15.2.3 Local and regional economic characteristics

Regional overview

The economy of the region is primarily dependant upon mining, agricultural and tourism industries. The region is rich in natural resources which contribute to the nation's economy through exportation of coal, beef, sugar and grain.

The Mackay/Whitsunday Regional Economic Report prepared by the Mackay Whitsunday Regional Economic Development Corporation (December 2006) provides an overview of the regional economy.

Of the total 90,340 km² of land area within the region, the dominant land use is agriculture and grazing which accounts for approximately two-thirds of the total land area.

The beef cattle industry is the largest individual user of land. The western areas of the region including Belyando, Broadsound, Bowen and Nebo Shires, are the prime livestock producing areas. The region holds approximately 5% of the State's total area and accounts for 12% of the State's beef cattle herd.

However, seasonal conditions and export prices contribute to deviations in the amount of cattle within the region. An abattoir at Baker's Creek is quite substantial producing up to 1,100 head per day. Further, 85% of the meat product is exported to over 20 different countries.

Whilst mining and urban land uses make a significant contribution to the region's economy, these activities use relatively small portions of the region's total land area. The main mining towns of the region include Moranbah, Dysart, Middlesbrough, Clermont, Glenden and Nebo. The mining industry has provided the region with income, investment, employment, and infrastructure such as roads, railways and ports.

The Whitsunday Island cluster, the Great Barrier Reef and the neighbouring Lindeman and Brampton Islands are important tourist destinations within the region which contribute significantly to the regional, State and National economy.

The commercial fishing fleets of Sarina, Mackay and Bowen also make significant contributions to the region's economy. Furthermore, these fishing fleets generate approximately 10% of Queensland's total industry product.

Table 15.17 provides an overview of the key economic indicators for the Mackay region and indicates the changes between 2005 and 2006.

Table 15.17 Key economic indicators, Mackay region, 2005 to 2006

Indicator	2006	2005	% change 2005-2006
Gross Regional Product (\$ billion)	\$13.3	\$9.3	42.5%
Population			
Population	151,572	147,894	2.5%
Projected Population (a)	208,263	n.a	1.6%
Employment			
Labour Force	83,115	81,197	2.4%
Employment	80,754	77,267	4.5%
Unemployment	2,783	3,884	-28.3%
Unemployment Rate (%) (b)	3.3%	4.8%	-1.5%
Job Ad Survey	5,079	5,625	-9.7%

Indicator	2006	2005	% change 2005-2006
Commodities			
Sugar Cane Crushed (Mt)	9.7	9.8	-0.9%
Saleable Coal Production (Mt)	86.0	90.6	-5.1%
Coal Exports (Mt)	94.5	97.1	-2.7%
Commodity Trade (t)	2,348,387	2,278,872	3.1%
Tourism			
Total Visitors	2,289,802	2,181,533	5.0%
Room Occupancy Rates			
Mackay (b)	72.0%	64.5%	7.5%
Whitsunday Mainland (b)	75.7%	72.5%	3.2%
Whitsunday Island (b)	62.9%	62.5%	0.4%
Takings from accommodation (\$M)	\$179.0	\$157.6	13.6%
Airport Passengers			
Mackay Airport	695,298	623,233	11.6%
Great Barrier Reef Airport	473,222	398,486	18.8%
Whitsunday Coast Airport	221,312	226,593	-2.3%
Property Investment			
Number of Dwelling Approvals	1,591	1,453	9.5%
Value of Dwelling Approvals (\$M)	\$420.8	\$370.3	13.6%
Median House Price	\$339,200	\$273,400	24.1%
Median Unit / Townhouse Price	\$251,400	\$202,000	24.4%
Median Vacant Urban Land Price	\$195,400	\$133,600	46.2%
Commercial Investment			
Value of Non-Residential	\$209.8	199.1	5.4%
Building Approvals (\$M)			
Median Industrial Land Value	\$340,600	\$304,100	12.0%

Source: MWREDC, Mackay/Whitsunday Regional Economic Report, December 2006

Table Note:

- (a) The current figure reported in this table is the projected 2026 population figure. The % change figure reported in this table is the average annual growth rate from 2006 to 2026. (b) The % change figure reported in this table is a percentage point difference.

Sugar industry

The coastal region surrounding Mackay is a traditional sugar cane growing area and is the largest sugar-producing region in Australia. Mackay produces between 330,000 and 360,000 tonnes per annum or one third of total refined sugar in Australia. Refined sugar is sent predominantly to the domestic market with between 70,000 and 100,000 tonnes exported per annum (MWREDC 2006). Short term, the refinery located in the Mackay region has the potential to produce more sugar, but the competitive nature of the international market makes predicting future market growth difficult.

The Mackay Regional Advisory Group (MRAG) has developed a regional plan for the sugar industry, identifying reform and business improvement strategies which seek to secure a viable and sustainable sugar industry. The *Sugar Industry Strategic Plan Central Region 2005 to 2009* (hereby referred to as the SISPCR) was developed in August 2005 in accordance with the terms of reference under the Federal Government's Sugar Industry Reform Program 2004 (SIRP 2004).

The SISPCR seeks to encourage “a globally competitive, economically and environmentally sustainable industry based on sugar cane in the Central Region”. The SISPCR describes:

- The profile of the Central Region's sugar industry and its contribution to the region's economy
- A vision for the sustainable future of the Central Region sugar industry
- The challenges confronting the sugar industry in the Central Region
- The broad strategies proposed by the RAG for the region's sugar industry
- A description of a range of programmes to deliver desired outcomes

The MRAG identified that the Central Region's sugar industry is viable in the medium term at a sugar price of \$260 per tonne, provided the initiatives set out in the SISPCR are successfully implemented.

Cane growing is organised around three milling groups:

- Mackay Sugar Cooperative Association Limited (Mackay Sugar), which operates four sugar mills
- CSR Sugar Limited, which operates the Plane Creek Sugar Mill (located at Sarina)
- Proserpine Cooperative Sugar Milling Association Limited, which operates the Proserpine Sugar Mill

In 2004 the six sugar mills in the Central Region produced 1.3 million tonnes of raw sugar from 9 million tonnes of sugar cane harvested from 118,000 ha by 1,170 growers. The average farm size is 101 ha. Table 15.18 shows the level of production in comparison to other regions.

Discussion relating specifically to the Plane Creek Sugar Mill is provided in Section 15.3.

Table 15.18 Queensland production statistics 2004

	Area harvested (ha)	%	Cane crushed (t)	%	Sugar (t IPS)	%	Yield (t/ha)	CCS
Northern	88,097	22.2%	7,377,279	21.3%	985,051	19.5%	83.7	13.24
Herbert-Burdekin	130,722	33.0%	13,578,799	39.2%	2,040,337	40.4%	103.9	14.49
Mackay Proserpine	118,105	29.8%	9,021,914	26.0%	1,339,027	26.5%	76.4	14.41
South Queensland	59,630	15.0%	4,695,072	13.5%	685,645	13.6%	78.7	14.47
Queensland	396,555	100.0%	34,673,064	100.0%	5,050,060	100.0%	87.4	14.20

Primary source: Australian Sugar Milling Council (2005)

Secondary source: Mackay Regional Advisory Group, Mackay Regional Advisory Group - Sugar Industry Plan 2005-2009 (August 2005)

The SISPCR (August 2005) identified that over the past decade the Central Region has contributed on average just under 30% of the area of cane harvested and the total tonnage crushed in Queensland. Over the last five years, however, the volume of sugar cane crushed in the Central Region has been significantly below average. This was due to adverse disease and drought/rainfall events which reduced the size of the cane crop.

Furthermore, the SISPCR identified that sugar cane growing is a dominant feature of the Central Region's landscape and is an important component of the regional economy. The sugar industry accounts for 22% of direct and indirect employment, and nearly 20% of the income within the Mackay SD.

However, the SISPCR has recognised that the economic profile of the Central Region is changing and the regional economy is less reliant on agricultural industries, such as sugar, than it has been in the past. Growth in local services, tourism and mining has given the region a more diversified income base. Notwithstanding this, the sugar industry has been identified as an important part of the regional economy and were the industry to reduce in size, there would be significant regional socio-economic dislocation.

A characteristic of the sugar industry is that the financial returns tend to fluctuate. Financial returns in 2004 were compressed by below average cane production and low prices. The financial returns were barely sufficient to keep existing industry participants afloat, and were far short of that necessary for the industry to be viable in the medium term (MRAG 2006). Whilst there has been recent improvement in yield and financial performance, there are increasing challenges of competition from countries such as Brazil and Thailand.

Low world sugar prices are not expected to increase. The SISPCR recognises that if the Central Region sugar industry is to become viable and sustainable it needs to focus on improving the agronomic productivity of the growing sector, and the productivity and cost performance of each part of the value chain from growing through to milling.

Through the SISPCR, MRAG seeks to achieve a medium-term sustainability for each growing and milling sector against an external market forecast of a world raw sugar price of \$260 per tonne. However, should sugar prices fall to \$250 per tonne, the productivity improvements forecast in the SISPCR would not be sufficient to provide for a fully sustainable return, including a commercial return to all capital invested in the industry (MRAG 2005).

Sarina Shire local economy

The Sarina LGA Profile prepared by the Mackay Whitsunday Regional Economic Development Corporation (December 2006) provides an overview of the local economy.

The Sarina Shire offers a diverse range of attractions and services and is home to the largest coal exporting facility in the southern hemisphere at the Port of Hay Point. Sarina Shire is also a major sugar provider with associated industries such as the CSR Plane Creek Sugar Mill and Queensland's largest ethanol plant located in the town.

Sugar milling, cane farming, and alcohol distilling are other major sugar industry practices in the area. Other rural activities in the Shire include cattle grazing, dairying, tropical fruit growing, horticulture, aquaculture and fishing. Additionally, tourists and residents are attracted to the numerous fishing spots along the Shire's coastline and estuaries.

According to the Sarina Shire Council, the Shire is experiencing population growth generated by persons relocating for employment in the Bowen Basin Coal Fields, or those wanting a 'sea change'.

Whilst the population growth has caused an increased demand for services, facilities and housing, many businesses including the building and service industries are experiencing significant growth generated from the increased demands. A list of existing local businesses, services and community clubs/groups is provided in Appendix O.

High resource growth has created a need for expansion works within both the coal rail infrastructure and ports at Hay Point. These expansions, estimated at a cost of \$2 billion are expected to provide employment for over 800 people for up to 3 years (Sarina Shire Council website, <http://www.sarina.qld.gov.au/council/Economic%20Development/ShireGrowth.shtml>, 2006).

The Sarina Shire Council website identifies the following developments in the Shire:

- Investigations into eco tourism projects
- Land subdivision and business projects
- New industrial seaport development and expansions to the CSR Ethanol Distillery, Oonooie Facility (boosting bio fuel production for the State)

It is also identified that the Shire's sugar industry is going through a recovery stage which is based on making optimal use of productive land for growing sugar, while at the same time diversifying its agricultural base as a means to widen and strengthen its economic fabric.

The Sarina Shire Council has commenced work on an Economic Development Strategy which will guide its efforts over the next 10 years to achieve social, community and economic development for the Shire. The strategy is to draw information from the Shire's Tourism Development Strategy, Health Workforce Strategy and Senior Citizens Policy in conjunction with community consultation to identify the strengths and opportunities available for development in the Shire.

Key industries

The key industries in the Sarina Shire are described in Table 15.19.

Table 15.19 Key industries

Industry	Description
Sugar	The Plane Creek Sugar Mill, owned by CSR, is located in Sarina Shire and has been crushing sugar since 1893. The mill also features a 60 ML ethanol production plant which produces product for a variety of uses. In 2006, there were 1,418,669 tonnes of cane crushed at the Plane Creek Sugar Mill, accounting for 14.6% of all cane crushed in the Mackay region.
Other Agriculture	The Shire produces a variety of fruits, including mangoes, lychees, star apples, avocados, five corners, sapodillas, Jak fruit, logans and white sapote. The aquaculture industry is growing in Sarina Shire with a prawn hatchery at Grasstree Beach and an established aquaculture facility at Campwin Beach. Dairy production is also a significant industry, with 36% of all milk supplied to the Port Curtis Dairy Farm in Mackay originating from Sarina Shire.
Coal	Sarina Shire plays an integral role in the transportation of coal produced in the nearby Shires of Belyando, Nebo and Broadsound. Coal terminals located on the coast of Sarina Shire at the Port of Hay Point export over 88 million tonnes of coal annually.

Source: Mackay Whitsunday Regional Economic Development Corporation, December 2006

As previously mentioned, sugar is an important industry to the regional economy as well the Sarina local economy with the Plane Creek Sugar Mill located in Sarina. The Plane Creek Sugar Mill has a total contract area of 20,198 ha under the present Cane Supply Agreement (Canegrowers Association, 2007). Table 15.20 shows the Plane Creek Sugar Mill production between 1992 and 2006.

Table 15.20 Plane Creek Sugar Mill production

Year	Tonnes harvested	Ha harvested (excluding fallow)	CCS (sugar context of cane)	Yield cane (tonnes per hectare)	Yield sugar
1992	883,318.41	13,002.21	14.88	67.94	10.11
1993	1,148,903.22	14,542.13	13.75	79.01	10.87
1994	1,489,156.96	15,970.93	14.60	93.24	13.61
1995	1,373,386.05	16,545.08	13.26	83.01	11.00
1996	1,504,016.63	17,148.4	13.94	87.71	12.23
1997	1,646,815.75	18,578.42	15.24	88.64	13.51
1998	1,547,075.58	16,303.12	12.18	94.89	11.56
1999	1,764,717.65	19,872.57	13.62	88.80	12.10
2000	1,129,049.48	20,234.78	13.04	55.80	7.28
2001	1,161,888.77	19,985.78	15.27	58.14	8.88
2002	1,173,093.87	19,488.25	15.07	60.19	9.07
2003	959,665.17	18,828.38	14.13	50.97	7.20
2004	1,371,459.87	18,362.2	14.18	74.69	10.59
2005	1,398,664.1	17,627.88	13.86	79.34	11.00
2006	1,418,669.3	17,348.19	14.21	81.78	11.62

Source: Mackay Canegrowers Limited, 2007

As shown in Table 15.20 the area and the tonnes harvested has fluctuated between 1992 and 2006.

Major projects

Current major projects in the Sarina Shire are described in Table 15.21.

Table 15.21 Major projects

Industry	Description
Dalrymple Bay Coal Terminal Expansion	Stage 7 involves a three-phase expansion of the terminal to take capacity from 59 Mtpa to 85 Mtpa by 2009. It includes construction of a third inloading and outloading stream, including a third ship-loader and a fourth berth, plus upgrading of the existing coal handling equipment and an increase in stockpile capacity. Estimated cost of the development is \$1.1 billion.
Hay Point Coal Terminal Expansion	\$32 million to increase capacity at Hay Point Services Coal Terminal
Dalrymple Bay Coal Terminal Third Rail Loop	Construction is underway on an \$83 million third rail loop to service the third unloader being constructed by QR to improve staging and operations at the port.
Port of Hay Point	This \$70 million project will involve capital dredging to increase the allowable draft of departing vessels. The project will involve increasing existing ship manoeuvring apron areas and creating a 9.5 km long, 300-500 m wide departure path to the open ocean.
Goonyella System Rail Upgrade	Rail lines between Coppabella and Hay Point, including Dalrymple Bay, are being upgraded and 17.8 km of track is being added between Coppabella and Gregory. The \$11.4 million project commenced in 2002 and was due for completion in mid 2007.

Source: Mackay Whitsunday Regional Economic Development Corporation, December 2006.

Heavy investment in accommodation housing is expected in Sarina in the , given the combined expansion projects at the Port of Hay Point are likely to bring approximately 300 people to the region over a four year period.

15.2.4 Community and environmental values

Some of the broader community and stakeholder values have been determined through the preparation of the Whitsunday Hinterland and Mackay (WHAM) Regional Plan, which involved comprehensive public consultation.

Consultation with the community and key stakeholders has commenced. The consultation undertaken as part of the Project is summarised in Section 1.6 and in Appendix D. The key issues raised to date that are of relevance to the social impact assessment are discussed in Section 15.3.1, together with strategies to mitigate potential impact.

WHAM Regional Plan

Context

The WHAM Regional Plan establishes integrated policy and provides a strategic framework to guide growth and development of the WHAM region over the next 15 to 20 years. The WHAM Regional Plan is the culmination of six years of collaborative input by Government, industry and community stakeholders. The Regional Plan focuses on the comparative strengths of the region and establishes a broad policy framework to advance the identified strengths based upon principles of ecological sustainability and social justice.

The WHAM Regional Plan recognises that the region's economic strength is from its wealth of natural resources, with coal mining and export growth, agriculture, manufacturing and tourism providing the wealth and infrastructure which underpins the needs of the region and its growing communities.

The WHAM Regional Plan was developed through a consultative and cooperative process involving all stakeholders in a comprehensive assessment of the region's values and the long-term needs and aspirations of the region's communities to protect key values and maintain the lifestyle cherished by the community.

The WHAM Regional Plan is a non-statutory document and implementation is reliant on a cooperative approach between all three levels of government, together with key business and industry and community stakeholders to support, implement and promote the Plan outcomes. The WHAM Regional Plan has been formally endorsed by local government and the Queensland State Cabinet.

Detailed below is the regional vision and the key integrated regional goals and strategies relating to the social and economic elements of the WHAM region. This will highlight the policy direction of local government and other key stakeholders in the WHAM region.

Integrated regional goals and strategies

The WHAM Regional Plan was developed around seven integrated regional goals and strategies in the areas of:

- Regional identity, leadership and management
- Environment and natural resources
- Economic development
- Social infrastructure
- Settlement pattern
- Infrastructure
- Transport

The WHAM region is a significant growth area outside of the South East Queensland region. Further, the region is a significant contributor to the State's economy through its mining, agriculture and tourism industries. Therefore, the economy of the area is reliant upon the quality and availability of the region's natural resources and environment.

The key goals and strategies of relevance to economic development are detailed below.

3.3 Goal – Sustainable Industries

To maximise sustainability of business and industry.

- (1) Develop a regional sustainable industry study to assist industries achieve long-term environmental, social and economic sustainability.*

3.6 Goal – Mining and Manufacturing

To support and enhance the region's mining and manufacturing industry by maximising economic benefits while managing social and environmental impacts.

- (1) Protect access to extractive and mining resources for existing or future use.*
(2) Establish strong links between regional representatives of mining industries, local state and government agencies, business and industry and other stakeholders to ensure future industry needs are met in a timely manner, and to foster cooperative relationships and alliances to undertake initiatives to maximise the associated benefits for the region.
(5) Investigate viable options for multi-use of mining infrastructure, transport and service facilities that do not compromise mining industry efficiencies.
(6) Encourage the mining industry to collaborate and assist government and local communities to develop sustainable opportunities for employment and training and address accommodation, transport and business generation issues."

3.12 Goal – Management and Workforce Skills

To establish, attract and retain a skilled labour force to strengthen economic opportunities and social infrastructure in the region and improve regional business performance.

- (1) Enhance skills of relevance to the regional economy by facilitating the development of a range of flexible regional and sub-regional education and training infrastructure and programs that are accessible to the whole community including under-represented groups.*

The growth of mining and manufacturing, but also the promotion of sustainability, management and workforce skills is encouraged and recognised for its contribution to Queensland and to the well-being of the general community, including local residents in the WHAM region. However, there is also an acknowledgement of the need to balance economic and social attributes.

The goals and strategies of relevance to social infrastructure are detailed below.

4.2 Goal – Collaborative Planning

To ensure decision-making structures and collaborative planning mechanisms are in place to achieve regional planning objectives and outcomes.

- (1) Strengthens links between government human services agencies and the community sector to enable the development of appropriate mechanisms that will encourage coordinated planning, and effective provision of services.*

4.3 Goal – Services and Facilities

To meet the current and future needs of regional communities through coordinated and timely planning and provision of social infrastructure services and facilities.

- (5) Identify and support innovative ways of providing or maintaining desired levels of social infrastructure services to small rural and remote communities in the region, including strategies to halt and reverse declining services.*

(43) Develop a regional Recreation and Sporting strategy to identify needs and opportunities for co-location and/or cooperation between groups, as well as to investigate expansion and diversification of sporting and recreation opportunities and facilities at the regional and sub-regional levels for all groups, including the aged and people with disabilities, within the region's communities.

4.4 Goal - Social Impact Assessment

(2) Undertake an assessment of impacts of development and change to ensure that negative impacts, which have the potential to undermine people's quality of life, are identified and managed and positive impacts enhanced.

15.3 Potential impacts

This section considers the social and community impacts of the Project, in terms of impacts on:

- Demographic, social, cultural and economic profiles
- Local residents, current land uses, existing lifestyles, enterprises and values
- Adjoining landowners/occupiers
- Local and State labour markets with regard to the source of the workforce and competing projects by occupational grouping
- Housing demand and the rental market
- Community services
- Other industries

For the identified impacts, this section will identify mitigation and enhancement strategies and monitoring regimes in accordance with the TOR.

The analysis of the existing social environment described in Section 15.2 and information gathered from initial consultation forms the basis for the analysis of the potential impacts and identification of mitigation measures. Consultation undertaken as part of the Project is summarised in Section 1.6 and in Appendix D.

Identifying the potential impacts of the proposed development involves a level of prediction and forecasting across different stages of the proposed development (ie planning, construction, operation and decommissioning).

The assessment phase involves assessing the differences between the profile projections with and without the development and determining whether the potential social impacts arising from the proposed development are significant given the priorities, policies and programmes of all levels of government, and the degree to which these potential impacts can be mitigated.

15.3.1 Design

To understand the potential impact of the Project it is important to understand the need for the Project and the key issues identified by stakeholders and the community. This enables a more balanced view of the impacts to be assessed taking into account the overall benefits of the project and the available methods to mitigate potential negative impacts.

Project overview

A description of the Project is provided in Chapter 2, which outlines the proposed works, the location, the construction activities and programme, and operation activities. In summary, these activities include:

- Two bypass tracks totalling approximately 12 km
- Two provisioning tracks totalling approximately 10 km

- Upgrade and modernisation of rail systems
- New wagon maintenance tracks totalling approximately 12 km
- Construction of provisioning, locomotive, maintenance, wagon maintenance, crew change, administrative facilities and various other existing yard works
- Major upgrades to adjoining public roads, bridges and crossings

There is an overarching economic need for the Project with the increased capacity of both the Dalrymple Bay Coal Terminal and the Hay Point Services Coal Terminal once construction works are complete (refer to Table 15.21). This has led to the need for greater rail investment to efficiently transport coal from the coal mines to the terminals for export, in particular to expand the capacity of the Goonyella System and improve infrastructure at the Jilalan Rail Yard.

The works associated with the Project are expected to significantly improve the efficiency of the existing Jilalan Rail Yard, as well as directly contribute to an increase in overall capacity of the rail system which will be of economic benefit to the region, the State and nationally.

Whilst the Project will have regional, State and national benefit, there are local concerns that need to be considered.

Consultation overview

Consultation has been undertaken with the following stakeholder groups:

- State and Local Government agencies
 - Sarina Shire Council
 - Department of Main Roads
 - Environment Protection Agency
 - Department Primary Industries and Fisheries
 - Department of Natural Resources and Water
 - Department of Local Government Planning, Sport and Recreation
- Local community and industry
 - Adjoining landowners
 - Mackay Canegrowers Limited
 - CSR Ethanol Distillery, Oonooie Facility
- Traditional owners

Information has also been gathered from the Department of Housing and the Department of State Development.

The main issues/concerns raised at the early stages of the Project which are of relevance to this Chapter include:

- Property acquisition and loss of cane growing land.
- Accommodation issues, particularly during construction, are of a major concern. Impacts relating from this issue focus on tourism, local housing, social behaviour and project workforce segregation, availability of adequate amenities, socio-economic impacts and future property development.
- Specific accommodation related issues:
 - Concerns over accommodation village behaviour, previously this style accommodation has created anti-social behaviour (dry camps may be preferred).
 - Sarina Shire Council prefers to retain worker accommodation in Sarina Shire jurisdiction.
 - Accommodation needs to be integrated into the existing community.
 - Short term construction work accommodation is acceptable but long term strategies need to be explored ie holiday parks (tourism benefits).

- Alligator Creek (near the showgrounds) is a potential work camp location (with approximately 250 lots and 79 lots in Stages 1 and 2) but need to consider carparking issues.
- Construction activities are absorbing all rental property in the community.
- Minimal areas left within the Shire to redevelop.
- Community benefits from accommodation village (eg local employment and business).
- Donger style accommodation is discouraged.
- Tourism facility is an option (ie upgrade existing caravan park).
- Workers are to have access to local shops and not be isolated. Integrate workers but have minimal impact in the community (ie traffic impact).
- Development concerns for local businesses (eg golf course, canegrowers).
- CSR/canegrowers are looking at avenues to develop the local cane industry further within the project area.
- Property impacts – concerns over the loss of cane land and the financial implications for the local industry and additional pressure placed on the mill transport system.
- Visual impact concerns of the Project on adjoining properties.

The issues raised have been considered as part of the assessment of potential impacts.

The proponent is proposing to develop workers accommodation for the proposed construction workforce and housing impacts are discussed below under the subheading Housing Availability.

Issues relating to the take-up of cane land, including the potential impact and mitigation measures are discussed in Chapter 4. This chapter also addresses the State Planning Policy (SPP) 1/92 on Development and the Conservation of Agricultural Land. However, some discussion relating to the economic situation of the sugar industry is provided below.

Chapter 4 identifies that the Project is compatible with SPP 1/92 as the proposed use is not incompatible with existing and future rural uses. Furthermore, it is identified that the impact of the loss of agricultural land within the project area is minimised due to the proposed rail expansion being located adjacent to an existing rail yard. To mitigate the loss of Good Quality Agricultural Land (GQAL) within close proximity to the Plane Creek Sugar Mill, QR will upgrade the existing at-grade intersection of Oonooie Road with the North Coast Line to an above grade intersection with an overpass. This will provide 24 hour unrestricted access to CSR Ethanol Distillery, Oonooie Facility and the cane lands along Gurnetts Road.

As stated in Section 4.8.3, the Project complies with SPP 1/92 as there is an overriding need for the Project in terms of public benefit, which includes rail infrastructure.

Visual and lighting impacts including landscape character are discussed in Chapter 14.

15.3.2 Construction

Impacts on demographic, social, cultural and economic profiles

As identified in Section 15.2, Sarina is an area that has experienced steady population growth. The potential impacts of the Project on the demographic profile of the study area include the following:

- The Project will contribute to a population increase in Sarina Shire, especially during the construction phase with a peak workforce of up to 300 workers.
- For construction workers, there may be a higher proportion of lone person households or households with either nil or fewer children in comparison to the operational workforce.
- Population growth will generally occur in urban areas, including those areas within commuting distance of the Project.

- Depending on where the construction workforce is sourced, some workers may commute to the Project from areas outside Sarina Shire, in particular Mackay which is the regional centre for the WHAM region and within a comfortable commuting distance of the Project.
- There may be additional pressure for development within the coastal communities.
- Greater employment opportunity may further reduce the unemployment rate in the Sarina Shire which has the second highest unemployment rate in the WHAM region.

Social and cultural

The increased population may impact on access to services, facilities and lifestyle if not appropriately managed.

Perceived adverse impacts may include:

- Potential increased demand on community services and facilities.
- Increased public transport demand between Mackay and Sarina.
- Potential difficulty in attracting key occupations to service any increase in demand for key services and facilities (refer to the skilled labour discussion below).
- Potential erosion of the environmental lifestyle qualities of the area, particularly if there is increased pressure for development in the smaller coastal communities which may not have the capacity to sustain significant growth.

Potential benefits may include:

- Increased demand for a greater range of retail, community services and facilities and sporting facilities for use by the local community providing greater choice.
- Existing services may expand and new enterprises may be attracted to the region to service the growing population with a resultant reduction in products and services being purchased from outside the Sarina area.
- With a greater range of services and facilities in Sarina, potentially less dependence on Mackay to obtain certain services and facilities and therefore reduce the need to travel.
- Increased employment within Sarina Shire.

The potential impact on services and facilities will be dependent on where the construction labour is sourced. If workers are sourced from the local area or Mackay, there may be minimal change to the existing services and facilities. If labour is sourced from outside the area, construction workers may choose to live in the Sarina area for lifestyle benefits as housing may be considered to be more affordable in Sarina than areas such as Mackay.

It should be noted that Sarina Shire is experiencing population growth. Being a coastal Council, Sarina is seen to be strategically located as a place to live for people seeking a "sea change" and for miners working in the Bowen Basin Coal Fields (Sarina Shire Council website 2007).

Whilst the population growth has caused an increased demand for services, facilities and housing, many businesses including the building and service industries are experiencing significant growth generated from the increased demands (Sarina Shire Council website 2007). Furthermore the Sarina Shire Council website states that this population growth and demand is generating a development boom with both business and property developers eager to meet such demand.

The potential impacts from a cultural heritage perspective are discussed in Chapter 13 and impacts on current land uses are discussed in Chapter 4.

Existing lifestyles, enterprises and values

The core values of the community are captured in the strategic planning for the WHAM region through the WHAM Regional Plan and the strategic direction outlined in the Sarina Shire Planning Scheme. Many policies within these documents seek to achieve social wellbeing.

Whilst social wellbeing can be an ill-defined concept, it seeks to indicate the health, vitality and harmony of a community and can assist in defining a region's liveability.

A number of indicators can be used to reflect social wellbeing based on four key lifestyle values associated with:

- Wealth and affordability
- Personal health and fitness
- Diversity and learning
- Safety and public health

In terms of wealth and affordability, the Project will provide greater employment opportunities and will provide the opportunity to supplement agricultural incomes if required. It will also provide the opportunity to further reduce the unemployment rate in Sarina Shire, which currently has one of the highest unemployment rates in the Mackay SD.

Currently, the median weekly rental in the urban areas of Sarina Shire generally ranges between \$150 per week at Sarina and Alligator Creek and up to \$220 at Sarina Beach and Hay Point. The median housing loan repayments in Sarina Shire range from \$1,083 at Grasstree Beach and Freshwater Point to \$1,408 at Sarina Beach. These housing costs are comparable to Queensland which has a median weekly rent of \$200 and a median loan repayment of \$1,200. Similar to other areas throughout Queensland, capital growth in median prices for housing in Sarina Shire is also increasing.

In relation to the Project, a potential increase in housing costs (eg rent) and median house prices are likely to affect up to approximately 30% of Sarina Shire's existing households. This is based on 70.7% of households in Sarina Shire residing in a dwelling which is either fully owned or being purchased. Private rental accommodation is relatively low in the Sarina Shire with 420 dwellings or 11.6% of all dwellings being privately rented through a real estate agent.

However, workers accommodation is proposed as part of this Project to accommodate the construction workforce, which is expected to mitigate potential impact on housing.

It should be noted that other factors may increase demand for housing in Sarina Shire without the proposed Project. This includes:

- A projected increase in population of 28.5% by 2026.
- A potential increase in people residing in Sarina Shire rather than areas such as Mackay with a perception of more affordable housing options.
- Population increases and demand for housing due to the proximity of Sarina to the coal mines within the Bowen Basin and Mackay, and the expected increase in coal mining activity.

In terms of the overall prosperity of the Mackay region, Table 15.17 indicates a 42.5% increase in gross regional product, and increases in labour force participation and employment, commodity trade, takings from tourism, airport passengers and property investment.

Other values that contribute to lifestyle include:

- Convenient access to services and facilities
- Access to employment and job opportunities

- Management of noise, dust and other nuisances
- Visual amenity

The potential impact on accessibility to services and facilities will be dependent on where labour is sourced. If labour is successfully sourced from Sarina Shire or other urban centres within commuting distance of the Project, the impact on services and facilities is expected to be minimal. However, if the majority of the workforce needs to be imported, this may place pressure on the quality and convenient access to existing services and facilities.

A potential benefit from this demand however, may include a greater range of services and facilities being provided in Sarina which will provide greater choice to the community.

As previously discussed, issues relating to visual amenity are discussed in Chapter 14, air environment in Chapter 9, and noise and vibration in Chapter 10.

Economic

The Project will potentially improve urban infrastructure in the region by attracting outside investment and therefore a greater range of services and facilities. More tangible and immediate benefits will be the increased employment opportunities directly related to construction and operation of the Project.

A direct impact from construction of the Project will be the loss of cane land adjacent to the existing rail yard (approximately 101 ha of cane land). There are 13 land parcels affected by the Project which are owned by five private land owners.

As previously discussed, the Plane Creek Sugar Mill has a total contract area of 20,198 ha under the current Cane Supply Agreement. Therefore the potential removal of approximately 101 ha of cane land will result in a small loss of 0.5% of the contract area of the Mill or 0.6% of the average area of cane land harvested between 1992 and 2006 (17,589.22 ha).

As discussed, there is also an overriding need for the Project to support the coal industry which will have regional, State and national benefit.

Notwithstanding this, the sugar industry is an important commodity for the WHAM region and the impact on the sugar industry and the livelihood of the affected canegrowers needs to be considered.

Sugar cane land is generally under considerable development pressure for urban uses adjacent to urbanised areas, particularly during times when world sugar prices are down. The future of the sugar industry has been considered by both the MRAG (through the SISPCR as previously discussed) and the Sugar Industry Oversight Group (SIOG).

The SIOG in their *Strategic Vision for a Commercially Vibrant Sustainable and Self-reliant Industry in Australia* (February 2006) identified the need for greater efficiencies in the sugar industry to offset the expected price downturn and to manage the cyclical market volatility. It is further noted that:

"There is a long-term downward trend in real prices for raw sugar and all costs need to be continually reviewed and adjusted for Australia's industry to attempt to equal the cost of production of the market leader, Brazil, and achieve and maintain viability."

To address this expected downturn, SIOG envisages that greater efficiency in costs can partially be achieved through managed scale. Managed scale responds to the fact that the growing of sugar cane in Australia is predominantly undertaken by owner-operated small-scale farming enterprises. Whilst economies of scale are generally achieved by increasing the operating size of an enterprise (eg through growth or acquisition), SIOG states that managed scale provides a less structured alternative.

SIOG (February 2006) identifies that managed scale allows sugar cane growers to achieve the cost profile of a larger entity without requiring changes of ownership. This is achieved by enterprises acting in concert through:

- Cooperation
- Unincorporated and incorporated joint ventures
- Share-farming arrangements
- Joint management agreements
- Farming consortia
- Developing and operating a structure unique to a group of sugar cane growers that allows them to act economically as a larger enterprise and reduce the long-run unit cost of production for all members of the group.

Long-run cost reductions are seen to be imperative as commodity prices decrease in real terms. This approach to reducing operating unit costs associated with the sugar industry through managed scale, demonstrates that there are mechanisms to effectively and viably operate smaller-scale properties. From this perspective, the Project should have little impact on the land value of the immediately surrounding properties.

MRAG recognised the key feature of the Central Region's sugar industry as stated below:

"A feature of the Central Region's sugar industry is the predominance of smaller growers. Some 20% of the region's cane growing entities harvest less than 3,000 tonnes of cane each season, although collectively this represents less than 6% of the total cane grown. A further 22% of growers produce between 3,000 and 5,000 tonnes. It is clear that the returns from sugar cane alone, at this scale of production, are not sufficient for growers to receive a fulltime equivalent wage from sugar cane growing, let alone provide a return to the capital growers have invested in their farms. Recognising this, smaller growers especially are looking to on-farm income diversification or off-farm employment to supplement returns from sugar cane growing. Diversification activities undertaken by the milling sector will also have some potential to supplement the growers' income from raw sugar."

This indicates that many cane growers are currently having to supplement their income due to the size of operations and presumably from the volatility of the world sugar prices. From this perspective, the Project will provide employment opportunities for canegrowers to supplement their income if required.

The SISPCR prepared by MRAG for the Mackay region sugar industry (August 2005) acknowledges the economic future of the milling sector is dependent on the performance of the growing sector and specifically its ability to deliver sufficient volumes of cane to support existing milling facilities. In particular, the SISPCR forecasts an increase in cane production, despite an expected reduction in the number of growers and a continued loss of land area under cane.

Whilst the SISPCR has identified that sugar cane growing is a dominant feature of the Central Region's landscape and is an important component of the regional economy, it also recognises that the economic profile of the Central Region is changing and the regional economy is less reliant on agricultural industries, such as sugar.

The strategic plan in place for the Mackay sugar industry is seeking to improve efficiencies in the operation of the sugar industry to enhance the industry's competitiveness on the world market. The SISPCR is also aware of the realities of a potential reduction in cane land due to competing interests and that the growth in local services, tourism and mining has given the region a more diversified income base. Notwithstanding this, the SISPCR recognises that the sugar industry is an important part of the regional economy and, were the industry to reduce in size, there would be significant regional socio-economic dislocation.

In this instance the Project will result in a loss of 0.5% of the total contract area of the Plane Creek Sugar Mill which is not of a scale to cause socioeconomic dislocation.

Whilst some existing cane farms will be reduced in size as a result of the Project, there are mechanisms identified by the sugar industry to effectively manage smaller operations as discussed previously. As the Project extends to Gurnetts Road, it is not expected that any properties will be severed by the Project.

The Project will have widespread benefit to the local community, as well as the State and national economy by supporting the coal industry. The Project will provide employment through the construction and operational phases and assist in reducing the unemployment rate for Sarina Shire, which has one of the highest rates within the Mackay SD.

The Project provides necessary infrastructure for the coal industry with construction worker housing to be provided by the proponent. Therefore it is not envisaged that the government will need to provide additional infrastructure to support this Project. Given its location adjacent to an existing rail corridor, the Project will not have implications on future land use development in the locality.

Impacts on Local and State labour markets

The timing and source of the workforce, particularly the construction workforce has the potential to impact on the Sarina region. The main potential impact is expected to be its influence on the demand for housing and local services and facilities.

To determine the actual likely impact, consideration needs to be given to the timing of the construction of the Project in comparison to other projects proposed in the Sarina area, the source of the workforce, and staging of development. These aspects are discussed below.

The potential impacts relating to housing, community services and facilities, and sport and recreation are discussed separately under their respective sub-headings.

Construction workforce

A histogram prepared for the indicative workforce is shown Figure 15.7.

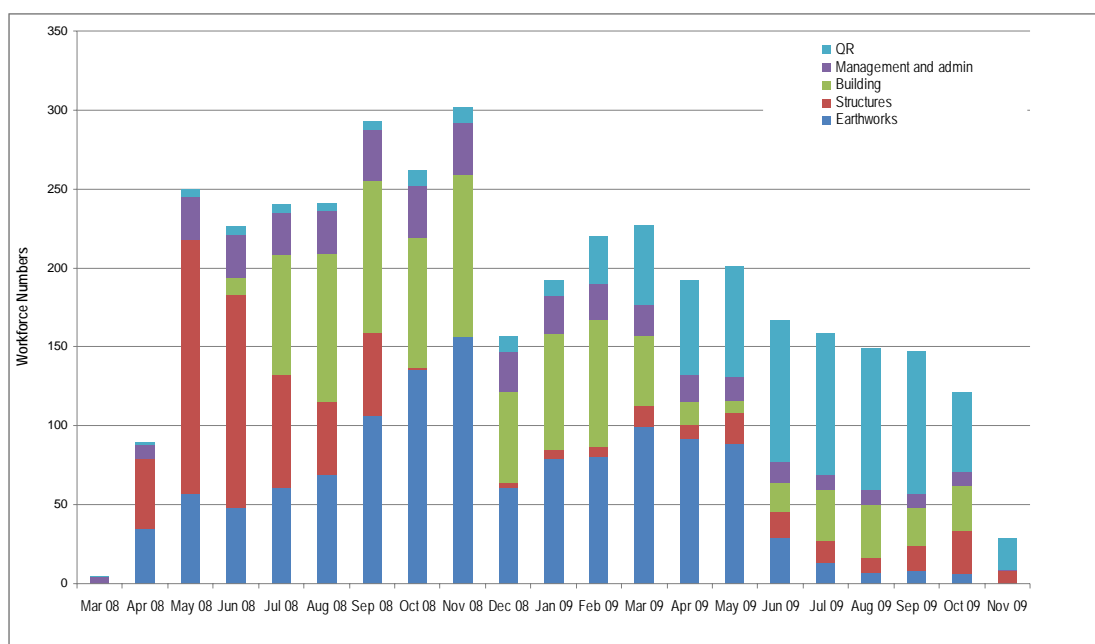


Figure 15.7 Indicative workforce numbers, 2008-2009

The Project will require a workforce with a broad range of skills with the demand on specific skills depending upon the stage of construction. The project construction phase can be divided into four broad groups. The worker numbers will fluctuate depending upon project demand.

- Earthworks
- Structures
- Building works
- Management and administration

Earthworks

The earthworks workforce is anticipated to peak at approximately 100 workers with potential to be as large as 120 workers. Of this it is expected that this will be comprised of 60:40 split between operators of plant and general labourers. Labourers will principally be involved in drainage works and grade checking.

It is expected that there will be a fleet of two to three large dozers, up to six (50 tonne) rear dump trucks, six scrapers and two to three large excavators. Other plant is expected to include graders, loaders and smaller excavators, backhoes and smaller dozers and tip trucks.

Structures

The workforce for these works is expected to be approximately 70 people at peak production and will involve construction of bridges and culverts.

These workers include:

- 25 formworkers
- 15 steelfixers
- 20 labourers
- 10 crane drivers and excavator operators

Building works

The peak workforce for building works is expected to be approximately 65 people. These workers include:

- 15 formworkers
- 8 steelfixers
- 15 labourers
- 6 operators
- 10 riggers
- 10 roofers
- 4 crane drivers
- 20 tradesmen (electricians, mechanical (a/c, piping, hydraulic and systems))
- 15 building trades

These workers are expected to take over from the structures trades later in the project.

Management and administration

In addition to field work numbers, there will also be supervision/administration staff. It is expected that there will be approximately 30 to 35 office/support staff. This will include:

- Project manager
- Construction manager
- 3 engineers
- 6 foremen
- Quality assurance
- Human Resources (OHS)
- 5 administration
- 4 surveyors
- 10 miscellaneous/others

The numbers provided are likely peaks in the individual areas and cannot necessarily be added together to generate the overall size of the workforce as different areas experience their peaks at different stages in the Project.

As discussed in Chapter 2, an analysis of the preliminary Project programme suggests a workforce peaking a little under 300 persons (with QR workers) with the nominal distribution of the labour at any given time illustrated in Figure 15.7. The indicative workforce numbers in Figure 15.7 do not include numbers for the QR workers outside of the Alliance for signalling and other associated activities.

From Figure 15.7, the greatest workforce numbers are expected to occur between May 2008 and November 2008 during construction, with workforce numbers averaging at around 200 over this period. However, the peak workforce is expected to occur in September 2008 and November 2008 with approximately 225 workers.

Source of labour

Labour for construction of the Project will be sourced locally where possible and in accordance with the relevant Government policies including:

- The State Government Building and Construction Contracts Structured Training Policy (the 10% Policy)
- Indigenous Employment Policy for Queensland Government Building and Civil Construction Projects (the 20% Policy)
- Department of State Development, Local Industry Policy

It is recognised that the Mackay region is suffering from an acute skills shortage. For this reason it is estimated that up to 80% of the workforce may have to be sourced from outside of the local area and provided with accommodation during the construction of the Project.

The Alliance Construction Team however, will source the workforce from the local area where possible. To maximize the opportunity, the proponent will liaise with local employment agencies and training providers regarding the provision of suitable training opportunities. Where possible, this will specifically target opportunities for unemployed people.

General skill shortages

A number of professional occupations and trades have been identified as being in demand in Australia. These occupations are indicated on the Migration Occupations in Demand List (MODL) and are summarised in Table 15.22.

Table 15.22 Occupations in demand

Professional	
Business	Accountant
Building and Engineering	Electrical, Mechanical, Chemical, Mining and Civil Engineer, Petroleum Engineer, Architect
Medical/Health	Anaesthetist, Dentist, Dermatologist, General Medical Practitioner, Emergency Medicine Specialist, Medical Diagnostic Radiographer, Obstetrician and Gynaecologist, Occupational Therapist, Paediatrician, Pathologist, Physiotherapist, Podiatrist, Psychiatrist, Radiologist, Nursing, Hospital and Retail Pharmacist, Specialist Medical Practitioners, Speech Pathologist, Surgeon, Sonographer
Specialist	Child-care Coordinator, Computing professional, External Auditor, Quantity Surveyor, Surveyor
Associate Professionals	Chef
Trades Persons	
Automotive	Motor Mechanic, Auto Electrician, Panel Beater, Vehicle Painter
Construction	Bricklayer, Cabinetmaker, Carpenter, Joiner, Plumber, Gasfitter, Fibrous Plasterer, Floor finisher, Painter and Decorator, Wall and Floor Tiler
Mechanical and Fabrication Engineering	Fitter, Metal Machinist, Sheetmetal Worker, Toolmaker, Metal Fabricator, Metal Machinist, Pressure Welder, Welder, Lift Mechanic, Mechanical Services and Airconditioning Plumber,
Electrical/Electronics	Refrigeration and Air-conditioning Mechanic, Electronic Equipment and Electrical Powerline Tradesperson, Electrician
Service	Cook, Hairdresser, Baker, Furniture Finisher and Upholsterer
Other	Aircraft Maintenance Engineer, Boat Builder and Repairer, Drainer, Locksmith, Stonemason

Source: Department of Immigration and Citizenship, 2007.

The potential impact of these skill shortages is that any additional pressure placed on service industries in the Sarina area may result in a potential difficulty to resource these industries resulting in a decline in the quality of service and in some circumstances longer waiting periods for services.

Due to the high shortage of professionals in the medical/health industry it is expected that an increase in permanent residents and a workforce influx in Sarina will increase pressure on this industry.

It should be noted that there is a general shortage nationally of some key occupations which are essential to the functioning of a community, such as doctors, particularly in regional areas. This is an issue that requires a whole of government response and is an issue that is increasingly affecting regional areas with or without new development.

Table 15.13 indicates the key occupations within the Sarina Shire and Mackay SD. The 2001 Census indicated a high proportion of tradespersons and related workers, intermediate production and transport workers, and labourers and related workers with both Sarina Shire and Mackay SD.

Whilst the 2006 Census data is not yet available, the 2001 Census would suggest that a proportion of the labour for the Project could be sourced locally. This however will depend on the availability of the labour and whether people within these occupations have moved into other fields such as the mining industry.

Local labour and businesses will be utilised where possible through targeted strategies which include:

- Specifically target the employment of local and regional professionals, technical, skilled and semi-skilled workers.
- Share resources and promote ongoing employment opportunities through the movement of construction workers from other major projects as they reach completion.
- Coordinate the timing and management of the construction phase of the Project with other projects in the Sarina region to reduce the potential for labour overlap.
- Identify skill shortages in the local area and work with education providers to provide training opportunities to increase the skills of the local workforce, and providing particular assistance to disadvantaged groups.

As there is a general skills shortage both locally and nationally as identified in Table 15.22, some out-sourcing of skilled labour will be required. The following strategies would be implemented:

- Communicate to the broader community and relevant organisations and businesses on the types of workforce positions available during the construction period.
- Liaison with educational institutions in relation to the provision of training programmes for staff with an emphasis on specific construction and safety programmes. The operational workforce may require other programmes tailored to their respective role.
- Due consideration will be given to the Central Queensland Training and Employment Strategy (CQTES) which outlines training initiatives for manufacturing and trade professions. The initiatives outlined in the CQTES could be adapted to this Project's workforce strategy through:
 - Industry-based training initiatives, with contributions from industry
 - An industry competitive apprenticeship and/or traineeship programme, which will also act as a way of attracting staff
 - Providing avenues to "up-skill" existing workers

QR will undertake regular consultation with the Department of Employment and Training, local Councils and construction groups, such as the local chambers of commerce, to advise on potential future skills strategies that are relevant to the construction and operation of the Project.

By using local labour and businesses, the demand for housing and/or temporary accommodation will be reduced, as it is assumed that the local labour force will already have accommodation in commuting distance to the Project. Notwithstanding this, for the purposes of planning for accommodation, the workforce accommodation will accommodate approximately 300 people.

Housing availability (during the construction phase)

Summary of the current housing situation

The description of the existing environment identified the key forms of housing stock available, the anticipated trends and land availability for new housing, and provided comparisons of median house prices and rents.

From the analysis of the existing environment, the key characteristics of the housing situation, relevant to construction and availability of housing, are summarised below:

- Separate house is the dominant form of accommodation with a high proportion of family households (73.2% in 2006 compared to 67.1% in Queensland).
- Dwelling approvals activity declined in the year ending December 2006 by 25%.
- In 2006, the majority of dwellings (70.7%) are fully owned or are being purchased.
- In 2006, approximately 26.1% of dwellings are rental accommodation, with 44.4% of this accommodation rented through a real estate agent.

- There is a higher proportion of home ownership in Sarina in comparison to both Queensland and Mackay SD in 2006.
- In 2006, Sarina Shire contains a high proportion of family households (73.2%) in comparison to Mackay SD (66.1%).
- Freshwater Point (the local area of the proposed Project) contains 19.4% of private rented dwellings, a higher proportion of rental accommodation in comparison to Sarina Shire.
- The average household size is slightly lower in Freshwater Point (2.5) in comparison to both Sarina Shire and Mackay SD (2.7).

Housing affordability

Key findings from the description of the existing environment of relevance to housing affordability is summarised below.

- In 2006, Sarina Shire had a median house price slightly higher than Mackay (\$165 and \$160 respectively) and a lower median rent than Queensland (\$200).
- The local areas within Sarina Shire have a median weekly rent generally ranging from \$150 up to \$220 in the coastal areas of Hay Point and Sarina Beach. The exception is Koumala with a median weekly rent of \$43.
- Median housing loan repayments in Sarina Shire (\$1,200) is less than for both Mackay and Queensland (\$1,300).
- RP Data has indicated that generally there has been a consistent increase in median house prices each of the local areas, however between 2006 and 2007, there has been a decrease in Freshwater Point and Armstrong Beach.
- In 2007, the median house price is lower in Sarina (\$357,500) in comparison to Mackay (\$398,000).

It needs to be recognised that many factors affect housing costs and affordability. These include:

- General investment activity in housing.
- Interest rates.
- Supply of housing.
- Preference and availability for more lifestyle living such as by the coast or on a rural land holding, potentially reducing the demand for housing in urban areas.
- Capacity for development and release of land to occur in a timely manner.
- Capacity of the building industry to meet construction demand.
- Origin of the non-local construction workers, with commuting from further distances generally more acceptable in regional areas (eg up to approximately an hour's drive) and therefore may not require a worker to relocate to Sarina.

In this instance workers accommodation is proposed to be developed to accommodate the construction workforce for the Project. The facility is to be designed to cater for up to about 300 persons at peak capacity. Therefore, the impact of the construction workforce on housing demand is expected to be minimal.

Further details relating to the accommodation facility are discussed under mitigation measures.

Land availability under the Planning Scheme

The Sarina Shire Planning Scheme clearly indicates areas for future residential development and has a reserve of suitably zoned undeveloped residential land.

Whilst an accommodation village is proposed, there is capacity within Sarina and local areas such as Armstrong Beach, Grasstree Beach and Campwin Beach. These areas could accommodate families of workers that may be attracted to the area. However, given the relatively short duration of construction for the Project for different workforce groups demand is expected to be minimal from the construction workforce.

Recreation, sport and open space

Potential impacts/additional facilities required may include:

- A potential increase in demand for access to sport and recreation facilities/clubs.
- Requirement of more informal recreation needs such as boating and fishing facilities, walking tracks and paths, parks, playgrounds and community halls or meeting places for social events.

Generally, recreation and leisure desires of the population may include natural environment recreation opportunities such as local beaches for walking, fishing and boating.

Potential benefits may include:

- Increased participation in some sporting groups/facilities which may enhance operational viability of clubs or facilities, or may result in improvement or expansion of facilities.
- Increased viability for general community recreation facilities to be improved/provided

It should be noted that recreation facilities are to be provided as part of the accommodation village to cater for some recreation needs and this will include a gymnasium and recreation room.

15.3.3 Operation

Once construction is complete, the impacts from the operation of the facility are not expected to be significantly different from the existing social impacts from the existing railway and maintenance yard facility.

Impacts associated with increased rail traffic will be addressed in Chapter 10 – noise and vibration.

Whilst there is expected to be an increase in permanent workforce of about 100 workers, there is sufficient land allocated for future residential development in the Sarina Shire Council to accommodate this growth.

From the development application information received from Sarina Shire Council, a total of 413 lots have been approved by Council since January 2006 for primarily residential purposes. Furthermore there are several applications currently with the Sarina Shire Council for a Reconfiguration of a Lot, which if approved, would provide an additional 293 lots in the Sarina Shire for residential purposes.

The source of the permanent workforce may also come from Mackay, which is a comfortable commuting distance to the Project location.

Monitoring will need to be undertaken through the construction and operation phase of the Project once the availability and source of the labour force is known, and the worker numbers and the proportion of single workers and workers with families required are confirmed.

15.4 Mitigation measures

15.4.1 Impact on cane land and adjoining development

Whilst the Project area is shown to extend eastwards to Gurnetts Road, the Project may not need to utilise all of this land with all new development intended to be kept as far as possible to the west of the project area adjacent to the existing railway line. Any land that is not utilised for the construction of this Project will be retained for cane production. This land could be leased to other canegrowers for harvesting.

It is further understood that the cane industry is obtaining approximately 120 ha of land to the south-east of the project area which is to be planted to cane. This will assist to offset the overall loss of cane land for the Plane Creek Sugar Mill.

The nearest sensitive land uses, such as residential development, which are located outside the project area include dwellings along Gurnetts Road, Armstrong Beach Road and Smyths Road. The mitigation measures associated with land use and buffer distances is addressed in Chapter 4, visual and lighting in Chapter 14, noise and vibration in Chapter 10 and transport impacts in Chapter 12.

QR will upgrade the existing at-grade intersection of Oonooie Road with the North Coast Line to an above grade intersection with an overpass. This will provide 24 hour unrestricted access to CSR Ethanol Distillery, Oonooie Facility and the cane lands along Gurnetts Road.

15.4.2 Labour force

The Alliance Construction Team will source the workforce from the local area where possible. However, to maximise the opportunity, the proponent will liaise with local employment agencies and training providers regarding the provision of suitable training opportunities. Where possible, this will specifically target opportunities for unemployed people.

Should labour need to be imported to the Mackay region, the proposed accommodation village and associated facilities including recreational facilities and transport to and from the Project will reduce negative impacts on the local community.

15.4.3 Proposed construction accommodation village

As previously mentioned, a mitigation measure to reduce the impact of the construction workforce on the local community is to provide an accommodation village.

The proponent is committed to the development of a construction accommodation village in the Sarina Shire and will actively seek a site that is not only practical for project needs but one that offers some potential for a lasting benefit to the community. Given the general labour shortages, it is expected that there may be a high proportion of non-locals in the project workforce. This approach will comply with all of the relevant policies and standards.

For the purposes of planning for appropriate accommodation, and to ensure any potential future needs are met, the accommodation village will accommodate a minimum of 250 workers with a capacity to accommodate up to 300 people.

Common successful practice in the past for the area has been to look for potential to redevelop existing tourism facilities (eg caravan parks, motels) for workers accommodation. This option has been considered by the proponent and it would seem that there are no more sites in the Shire that will meet with the projects needs. Consequently other options are being investigated with the most favourable being a development on undeveloped portions of the Sarina Golf Club. This is one site that has been suggested by Sarina Shire. If this option proves to be viable there may be financial benefits that will flow to the club through rent, green fees and sales of food and beverages and other non-cash incentives.

Preliminary discussions with the Sarina Shire Council have indicated that (assuming the development is in the town area) the Council will be able to provide potable water through a connection to the existing reticulation system without undue stress on the existing infrastructure. The Council have also indicated that there is not sufficient capacity to treat sewage from the facility. Subsequently it is intended that as part of the accommodation village, there will be onsite wastewater treatment. It is intended to use the wastewater for construction purposes on the main project site.

It is proposed that the accommodation village will be constructed and demobilised in stages of 50 to 100 rooms at a time. Each unit will be able to accommodate four people with an ensuite. The facility is also anticipated to provide kitchen and dining facilities, recreation room, gymnasium, storage, laundry and cool room. An application, separate to the EIS process has been prepared for submission to Sarina Shire Council for the accommodation village.

Access will be provided to the accommodation village directly from Armstrong Beach Road so as to minimise the impact on local traffic. This impact will be further mitigated through the provision of buses to and from the site and into the Sarina township reducing the number of vehicles on the road.

The proposed location of the facility adjacent to the Sarina golf course could potentially provide opportunities for the facility to be used for other purposes post construction.

15.5 Conclusion

The potential social impacts associated with the Project are expected to occur during the construction phase of the Project. However, these potential impacts have been mitigated with the proposed accommodation village which incorporates some recreational facilities.

There is also a desire to source labour locally where possible. To maximise the opportunity to source labour locally, the proponent will liaise with local employment agencies and training providers regarding the provision of suitable training opportunities. Where possible, this is to specifically target opportunities for unemployed people.

Should labour need to be imported to the Mackay region, the proposed accommodation village and associated facilities will reduce negative impacts on the local community.

In terms of the operation of the Project, there is sufficient land available in the Sarina Shire to accommodate the anticipated workforce.

Whilst some cane land is proposed to be removed as a result of this project, this is not expected to significantly impact on the Plane Creek Sugar Mill, with the loss resulting in a 0.5% reduction in the potential harvesting of cane land. This relatively minor economic loss balances with the overall economic benefit associated with the Project. The Project will increase the capacity to transport coal from the mines to the Port which has significant economic benefit to the local, State and National economies.