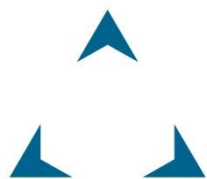


**Broome Community Profile**  
*Shire of Broome*

**Final Draft Report**  
**November, 2012**



**AECgroup**  
Outcome Driven

# Document Control

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Job ID: 16592  
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Document Name: AECgroup - Broome Community Profile REVISED - Final Draft Report  
Last Saved: 22/11/2012 4:51 PM

Version	Date	Reviewed PM	Approved PD
Draft v1 0	2/11/12	SH	
Final Draft	16/11/12	SH	SS

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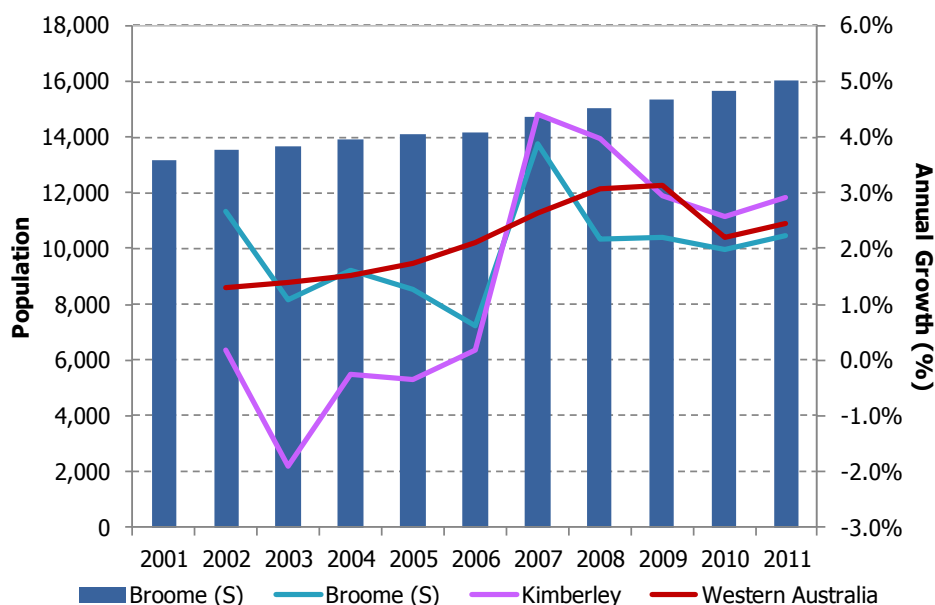


# Executive Summary

## Community Overview

Broome’s population has demonstrated growth consistent with the state average over the last decade, averaging 2.0% per year compared to 2.2% at the State level. Growth peaked in 2007 at 3.9%, which contributes to the above average results over the decade.

**Figure E.8.1 Historic Permanent Resident Population, Broome (2001-2011)**



Source: ABS (2012a)

In 2011 there were 16,031 people in Broome, which is roughly 5% lower than the pre-census estimated enumerated population (16,792). The need to plan for the total service population (i.e. permanent resident population plus visitors and transient workers) is important. In addition to identifying the total service population on an annual basis, there is also a need to understand the seasonal nature of the tourism sector in Broome. During peak visitation times, the number of visitors could be 75% higher than during non-peak times, causing the total service population to swell to 40% above the permanent resident population.

Additionally, the potential Browse LNG project could have significant impacts on the future service population of Broome. AECgroup has provided four different future population scenarios to provide insights into differing levels of future population.

**Table E1 Broome Population Scenarios**

Population Scenario	Description
Scenario 1 (permanent residential population only)	WA Tomorrow medium population projections No inclusion of visitors or transient workers
Scenario 2 (permanent residents and visitors)	WA Tomorrow medium population projections Projected future visitors (i.e. tourists)
Scenario 3 (permanent residents, visitors and 35 Mtpa LNG operations)	WA Tomorrow medium population projections 35 Mtpa LNG operations, running up to 10 LNG trains Projected future visitors (both leisure and business travellers)
Scenario 4 (permanent residents, visitors and maximum LNG development)	WA Tomorrow high population projections 50 Mtpa LNG operations, running up to 14 LNG trains Doubling of expected growth in future leisure visitation and increases business visitation from LNG activities

Note: WA Tomorrow projections have historically proven to not accurately estimate the population growth in Broome. LNG scenarios based on Browse LNG Precinct Strategic Impact Assessment developed by WA Department of State Development and input from Woodside. Tourism forecast for scenario 2 is based on Tourism Research Australia forecasts. Tourism forecasts for scenario 3 and 4 include increase in business visitation as observed from similar regions that have undergone major resource projects. Leisure tourism forecasts in scenario 4 are based on a doubling of growth from the Tourism Research Australia forecasts. Mtpa – Million tonnes per annum.

Source: AECgroup

The first population projection scenario would see 24,441 permanent residents in Broome by 2031, a growth rate of 2.1%. Scenarios two, three and four could see a total service population of between 30,251 to 34,893 by 2031. Ensuring services can be provided for the varying levels of population growth will be important for Broome.

Using the ABS's SEIFA index (from 2006 Census)<sup>1</sup>, which uses a variety of statistics to identify levels of socio-economic disadvantage, Broome has pockets of affluence and extreme disadvantage, which can greatly impact the social fabric of the community and community identity. These areas of disadvantage can be generally described as populations having low skill and education levels, high unemployment and low incomes.

Broome also has a large indigenous population, making up roughly a third of the total permanent resident population. Many of the indigenous communities are small and located in remote or regional areas, far outside the main settlement in the town of Broome.

Housing in Broome has a higher median price when compared to WA averages. In 2011, Broome recorded a median multiple for housing affordability of 6.6 which means that it would take almost 7 years of income to purchase a home. In comparison, Western Australia recorded a median multipliers of 6.33, suggesting Broome is mildly less affordable than the rest of the state.

## Issues and Opportunities

### Issues

- **Servicing the entire service population:** Given the nature of the economy in Broome, there is a dramatic difference between the permanent residential population and the service population. This difference and the potential future split between permanent residents and the total service population is critically important for future infrastructure provision. Planning should be focused on servicing the needs of the total service population and ensure high standards of service provision for permanent residents. The large variance in peak and off-peak visitors to Broome should also be considered, so ample supply of facilities is available during the height of Broome's tourism season.
- **Meeting future population demand:** There is a dramatic difference in future population projections, depending on which scenario is realised. Planning for the maximum total service population will assist in facilitating growth. Infrastructure impediments or a lack of infrastructure can impact on the community's ability for recreation opportunities.

<sup>1</sup> SEIFA index information for 2011 Census was not available at the time of writing this report.

- **Pockets of disadvantage:** There are pockets of extreme disadvantage in Broome. In order to promote future community cohesion and equality, efforts need to be made to increase the standard of living for all residents, particularly those that are socially and economically disadvantaged. Ensuring high levels of community identity and pride are important. Failure to address these issues could create a community of 'haves' and 'have nots' as well as a potential tear in the social fabric of the community.
- **Housing affordability:** In order to facilitate population increases, ensure quality of life and increase local wealth, housing affordability must be addressed.
- **Indigenous population:** Given the large indigenous population in Broome, programs to engage with and encourage indigenous participation in the community and economy are important, particularly given the remote and regional nature of many of the small indigenous settlements. It will be important to build capacity and empower these communities.

### **Opportunities**

- **Population growth:** Given the potential population impacts of the Browse LNG Precinct, there is a genuine opportunity to transition transient workers into permanent residents. Growing the permanent resident component of the total service population is important as these residents can then participate in broader community activities and increase the financial sustainability of Council. To date Broome has not achieved the permanent population growth envisioned in WA Tomorrow, however, there is the potential to increase population growth in the future, particularly in light of the proposed Browse LNG Precinct and opportunities to diversify the economy.
- **Servicing the future population:** Based on different future service population scenarios, a varying degree of services will be required. Furthermore, given the character of settlements across the Shire (i.e. Broome is the largest settlement and there are various small, remote and regional settlements), unique strategies are needed to ensure that the local government can provide services to its future population across the Shire.
- **Addressing disadvantage:** With investment and new jobs comes the opportunity for income and wealth generation. Key aspects to unlocking this potential is effective engagement with business and the community as well as targeted educational programs to provide needed skills in order to participate in future jobs. Not all jobs in the future will require high skills, so there will be opportunities across the range of skills spectrum.

## **Future Considerations**

In order to manage the issues identified above and take advantage of the opportunities the following strategies are proposed for future consideration, including:

- **Housing strategy:** Given the volatility of housing prices and affordability issues, a review of the existing housing strategy is required that investigates the key drivers to the lack of affordable housing and puts forward activities and steps to rectify the situation. The process would include financial analysis of residential development and the identification of significant barriers as well as strategies to encourage a diverse and affordable housing mix.
- **Addressing disadvantage:** A clear strategy and action plan for addressing socio-economic disadvantage would increase community wellbeing and cohesion significantly. Programs would focus on skills, education, awareness and pairing future jobs with local disadvantaged persons. Close coordination with educational providers and other government agencies would be critical to ensure no doubling of efforts.

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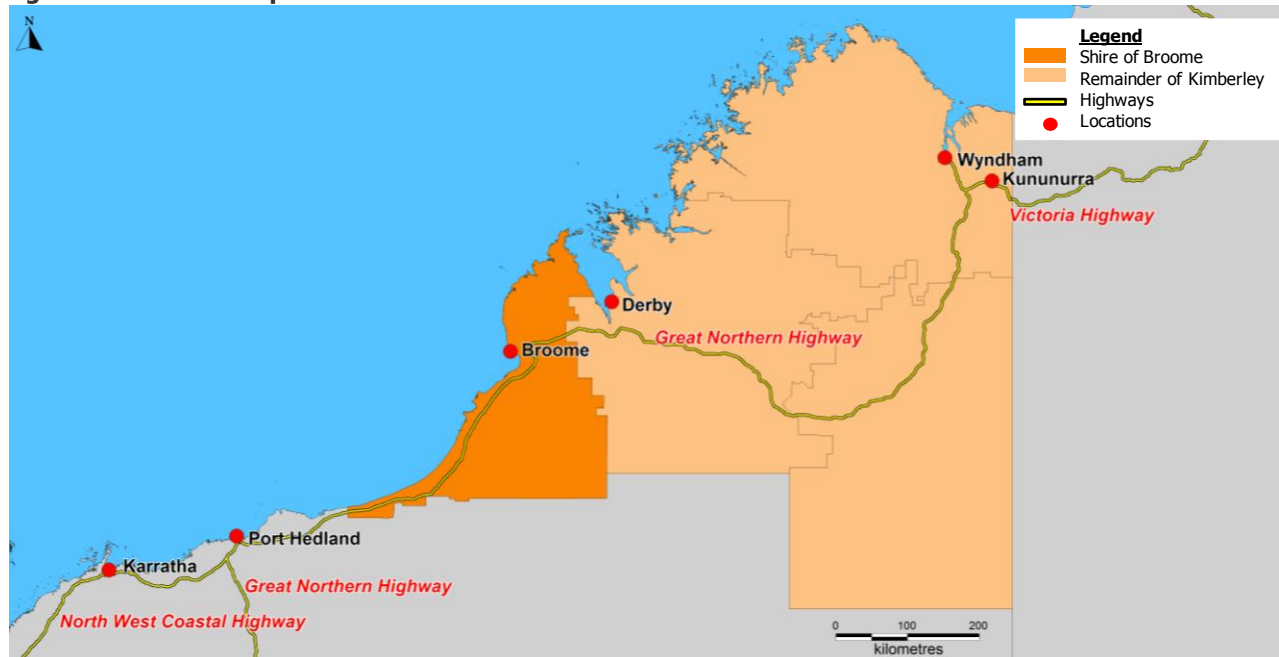


# 1. Introduction

The Shire of Broome (Broome) is situated in Western Australia's Kimberley region in the north west of the State and encompasses 56,000 square kilometres. Broome has a permanent resident population of 16,031 residents (2011), the majority of whom are located within the Broome Locality in the centre of the Shire.

Broome is the service centre for the broader Kimberley region and functions as the gateway to the region. Broome is the largest settlement in the region and the key seat of government offices for the region.

Figure 1.1 Broome Map



Source: AECgroup

Shire of Broome is currently crafting a new Local Planning Strategy (LPS). According to the WA Planning Commission, there are five key principles for land use development and planning:

- **Environment:** To protect and enhance the key natural and cultural assets of the State and deliver to all West Australians a high quality of life which is based on environmentally sustainable principles.
- **Community:** To respond to social changes and facilitate the creation of vibrant, safe and self-reliant communities.
- **Economy:** To actively assist in the creation of regional wealth, support the development of new industries and encourage economic activity in accordance with sustainable development principles.
- **Infrastructure:** To facilitate strategic development by making provision for efficient and equitable transport and public utilities.
- **Regional Development:** To assist the development of regional Western Australia by taking account of the special assets and accommodating the individual requirements of each region.

In order to better understand the current population and demographic trends, an overview of recent policies, strategies and the community is required.

This document provides a summary of the current population and demographics, key issues and opportunities as well as providing key strategies and recommendations for future planning consideration. This review coincides with the development of an economic profile (Broome Economic Profile), which focuses on economic trends and considerations. The two documents should be read in the context of each other.

## 2. Key Planning Studies & Strategies

There are numerous existing strategies and policy documents that will impact the future community in Broome, as highlighted in the table below.

**Table 2.1 Relevant Strategic and Policy Documents**

Strategy Name	Strategy Description	Effect on Broome
Shire of Broome Local Planning Strategy 2010	The Broome Local Planning Strategy is a 10-15 year plan, reviewed every year, the main aims being to: <ul style="list-style-type: none"> <li>• Assist in the implementation of regional plans and policies</li> <li>• Protecting and enhancing the natural environment</li> <li>• Protects heritage and culturally significant areas</li> </ul>	Provide a foundation of expectation for new construction planning in Broome
Shire of Broome Local Housing Strategy 2009	Strategy to help deal with the shortfalls in the availability and supply of new land and the provision of sufficient and appropriate housing within the Shire.	Increase the affordability of housing in Broome and ensure all residents have access to a range of housing
Access and Inclusion Plan 2007-2012	Broome's Access and Inclusion Plan is designed to assist residents within Broome who have disabilities. The plan sets out to ensure council venues, services and facilities are accessible to people with disabilities.	Ensure every resident has access to community infrastructure
Broome Local Commercial Strategy 2007	The Local Commercial Strategy was designed to ensure that current and future residents of Broome have access to sufficient and sustainable retail and commercial services.	Ensure that the community has access to retail and commercial amenities
Shire of Broome Strategic Plan	Broome's Local Community Strategy is designed to guide the development of the Shire, targeting strategic goals, strategies and outcomes for the Shire.	Overarching strategic plan to provide for the community in the future

Source: AECgroup

### **Key Insights**

In order to ensure high levels of community wellbeing, the underlying policy and strategic context need to provide a robust framework to address community issues and desires in the future. These documents should provide clear direction from the community on the desired future state as well as highlight how the Shire will provide for this future vision.

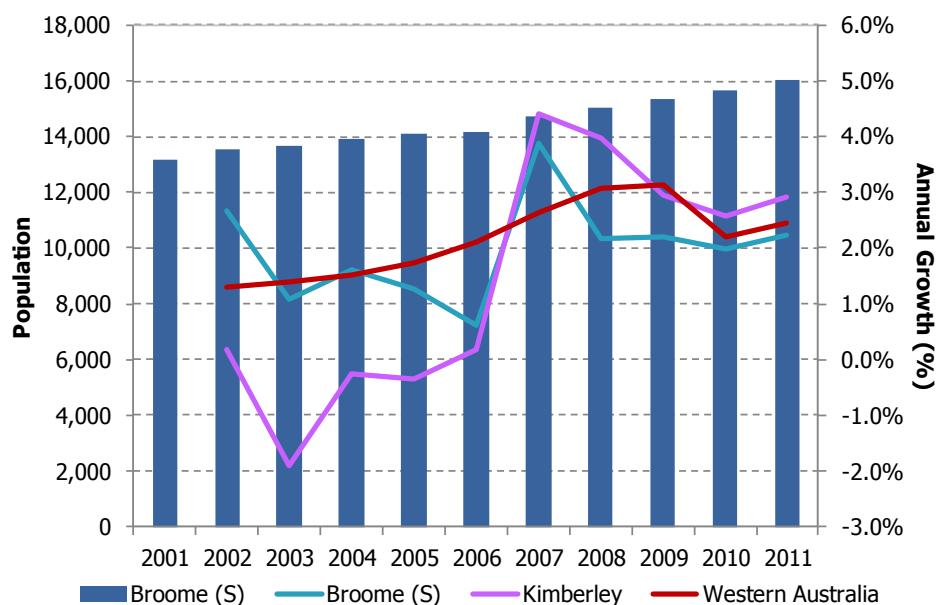


## 3. Population

### 3.1 Current & Historic Population

Broome has experienced volatile annual growth in resident population over the past 10 years. Between 2001 and 2006 Broome recorded average population growth of 1.4% per annum. In 2007 population growth in Broome spiked, increasing by 3.9% for the year. Population growth has since averaged approximately 2.5% per annum between 2007 and 2011. Over the last ten years, Broome has averaged 2.0% growth per year, compared to just 1.4% in the Kimberley region and 2.2% at the state level.

**Figure 3.1 Historic Permanent Resident Population, Broome (2001-2011)**



Source: ABS (2012a)

**Table 3.1 Broome Historic Permanent Resident Population**

	2001	2006	2011
Broome Population	13,196	14,175	16,031
Broome 5 year Av. Ann. Growth	N/A	2.5%	2.0%
Kimberley 5 year Av. Ann. Growth	N/A	3.4%	1.4%
Western Australia 5 year Av. Ann. Growth	N/A	2.7%	2.2%

Source: ABS (2012a)

**Table 3.2 Major Broome LGA Settlements, 2011**

Urban Centre/Locality	Population	Dwellings
Broome	12,766	4,464
Ardyaloon/One Arm Point	334	96
Djarindjin - Lombadina	245	73
Beagle Bay	285	89
Bidyadanga	595	116
Rural	1,806	329

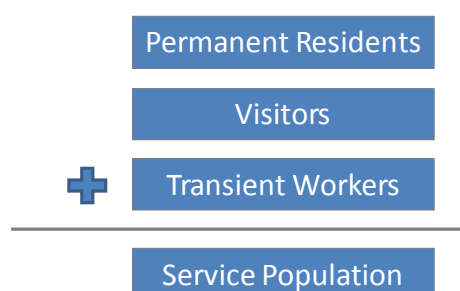
Source: ABS (2012a), ABS (2012f)

### 3.1.1 Permanent Resident Population vs. Service Population

Based on the 2011 Census (Place of Enumeration<sup>2</sup>), Broome had 21,655 people staying in the LGA on Census night, which is considerably larger than the 16,031 estimated resident population. The discrepancy (5,624 persons) means that on Census night at least 35% of people in Broome were not permanent residents (this proportion may have been higher if not all permanent residents were in Broome on Census night).

The additional persons are likely to be visitors (i.e. tourists) to the region or transient workers that happen to be in the area, which together with the permanent resident population form the total service population. It is important to understand these groups and consider them in future planning. While any given tourist or a transient worker may not be in the area for an extended period of time, the cumulative impact of both tourists and transient workers needs to be incorporated into future planning because on an annual basis, these groups still utilise local infrastructure and amenities, including roads, airports, retail premises and accommodation.

**Figure 3.2 Composition of Service Population**



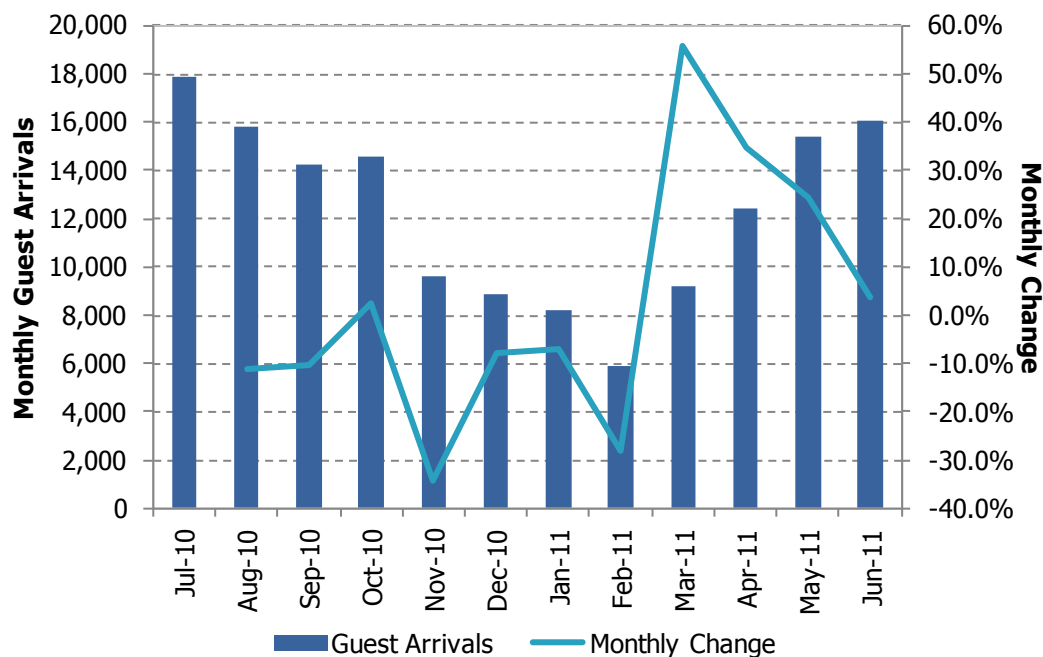
Source: AECgroup

The tourism sector in Broome is highly seasonal, as highlighted in the *Broome Economic Profile*. While it is important to consider the total number of visitors on an annualised basis, in the peak season, there will be a higher number of visitors in Broome. Therefore, the peak tourism season could actually see a service population above the average annual levels. During these peak times, the number of visitors as part of the total service population, could increase by up to 75%, putting even further strain on infrastructure. Figure 3.3 presents the 2010-11 monthly variance in guest arrivals within the Shire of Broome, demonstrating the highly seasonable tourism market.

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<sup>2</sup> Place of enumeration refers to a person's location on Census night, which may not be their place of residence or place of work.

**Figure 3.3 Monthly Guest Arrival Variation, 2010-11**



Source: ABS (2011b)

### 3.2 Population Projections

AECgroup has developed four population projections for Broome, in order to prepare the foundation for future service levels.

Under the lowest population growth scenario (scenario 1), *WA Tomorrow* projections of permanent population have been used, without the inclusion of the total service population. Scenarios 2 and 3 incorporate the total service population and differ based on the size of LNG operations as well as the level of tourism visitation. The highest scenario (scenario 4) assumes a maximum production level of 50 Mtpa of LNG and a doubling of the anticipated future tourism visitation.

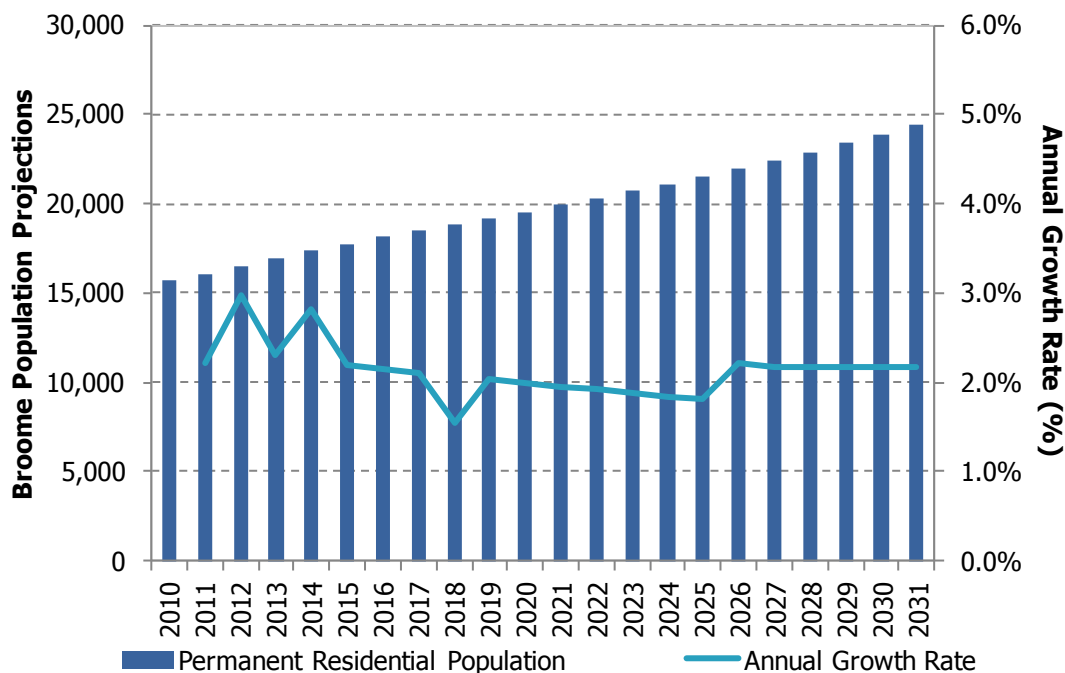
**Table 3.3 Broome Population Scenarios**

Population Scenario	Description
Scenario 1 (permanent residential population only)	WA Tomorrow medium population projections No inclusion of visitors or transient workers
Scenario 2 (permanent residents and visitors)	WA Tomorrow medium population projections Projected future visitors (i.e. tourists)
Scenario 3 (permanent residents, visitors and 35 Mtpa LNG operations)	WA Tomorrow medium population projections 35 Mtpa LNG operations, running up to 10 LNG trains Projected future visitors (both leisure and business travellers)
Scenario 4 (permanent residents, visitors and maximum LNG development)	WA Tomorrow high population projections 50 Mtpa LNG operations, running up to 14 LNG trains Doubling of expected growth in future leisure visitation and increases business visitation from LNG activities

Note: WA Tomorrow projections have historically proven to not accurately estimate the population growth in Broome. LNG scenarios based on Browse LNG Precinct Strategic Impact Assessment developed by WA Department of State Development and input from Woodside. Tourism forecast for scenario 2 is based on Tourism Research Australia forecasts. Tourism forecasts for scenario 3 and 4 include increase in business visitation as observed from similar regions that have undergone major resource projects. Leisure tourism forecasts in scenario 4 are based on a doubling of growth from the Tourism Research Australia forecasts. Mtpa – Million tonnes per annum.  
Source: AECgroup

Based on scenario one, the population is expected to grow at a modest rate over the timeframe from 2010-2031. By 2031, it is expected that Broome's population will grow to 24,441, an average annual increase of 2.1%, based on *WA Tomorrow's* population projection estimates.

**Figure 3.4 Broome Population Projections, Scenario 1 (2010-2031)**

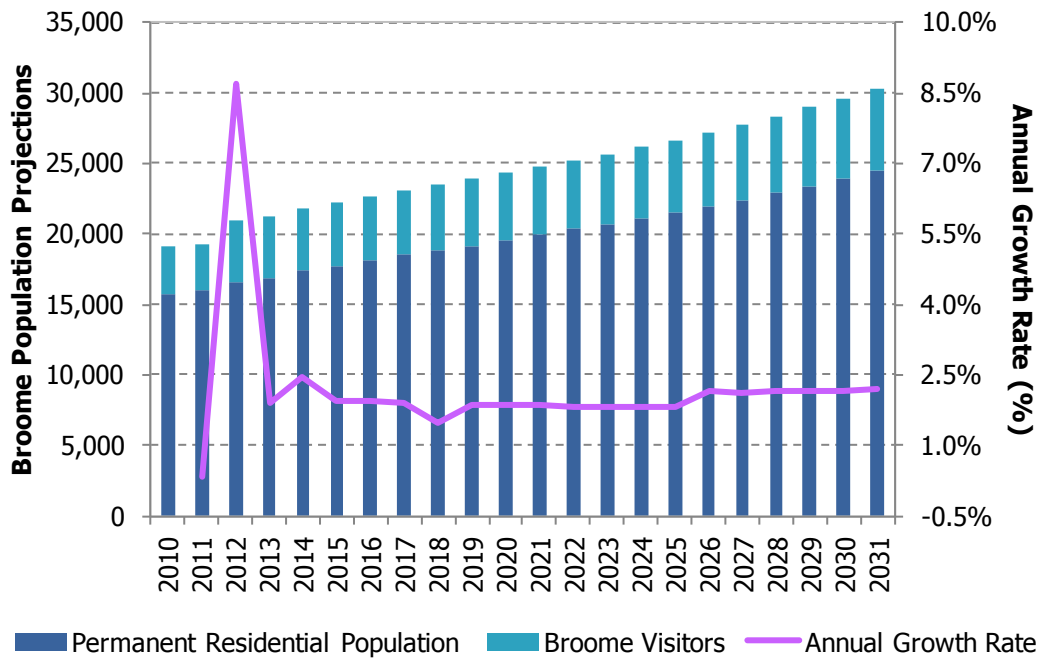


Note: Estimated residential population projections  
Source: DPI (2012), AECgroup

Scenario’s two, three and four utilise the average number of visitors within Broome over the course of a year. These population projections do not take into consideration the differences between the peak and off-peak tourism seasons. Based on historic tourism data, the actual number of off-peak visitors in Broome may fall by as much as 40% and 60% of the estimated daily number of visitors. In contrast, during the peak season, the actual number of visitors may be as much as 70% to 90% greater than the annualised number of visitors. This large difference between the Shire of Broome’s peak and off-peak visitation numbers must be considered when making infrastructure decisions, to account for the large spikes in visitation to the region.

The population projection scenario 2 represents scenario 1 with the addition of the number of average annual visitors within Broome, on any given day. This gives an indication to the typical service population which should be accounted for, including the projected population and the average number of daily visitors to the region. It should be noted that seasonal variations in daily visitors will increase the daily population in Broome during the peak season.

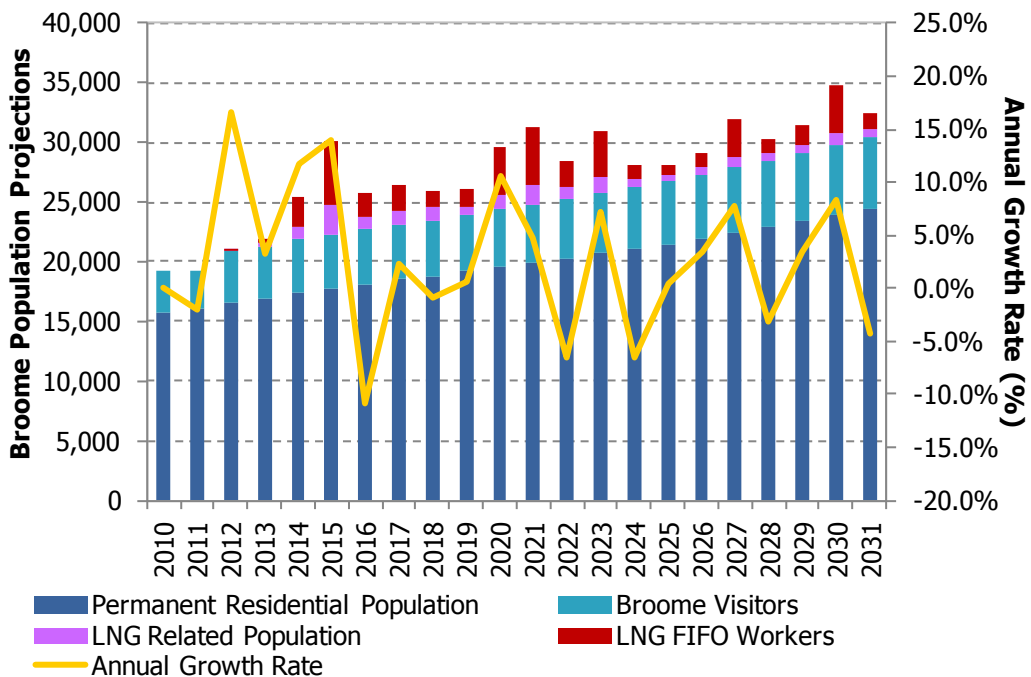
**Figure 3.5 Broome Population Projections, Scenario Two (2011-2031)**



Note: Estimated residential population projections and average number of visitors per day  
Source: DPI (2012), TRA (2011), AECgroup

The scenario 3 population projections incorporate the total service population, including the estimated residential population, visitors to the region and the potential fly-in, fly-out (FIFO) workforce. Under this scenario, Broome is projected to have a total service population of 32,412 people by 2031, incorporating 24,441 permanent residents with 5,953 visitors (on an annual basis<sup>3</sup>), as well as the impact of the potential James Price Point LNG facility, including an estimated 1,255 FIFO workers and 764 residents who were projected to move to the region as a result of the proposed LNG Facility.

**Figure 3.6 Broome Population Projections, Scenario 3 (2011-2031)**

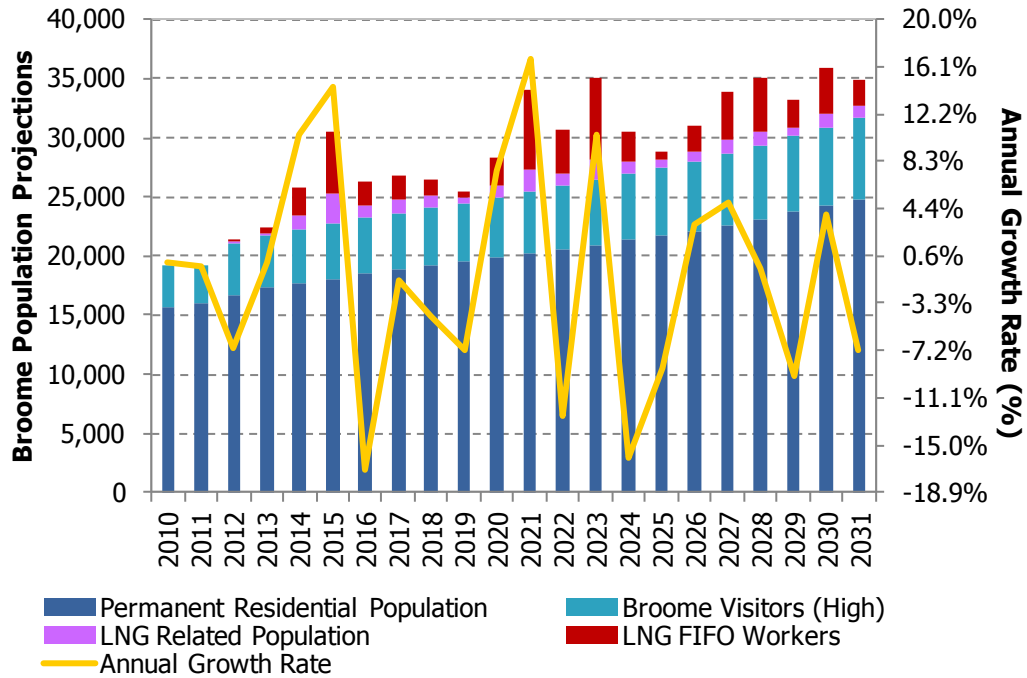


Source: DPI (2012), DSD (2009), TRA (2011), AECgroup

<sup>3</sup> Annualised visitors translate to one visitor per day for 365 days.

Under scenario 4, the total service population reaches 34,893 by 2031. This population incorporates the 'high' population projections from WA Tomorrow, plus the associated population impacts associated with the Browse LNG Facility operating at 50Mtpa and strong growth in future visitors. The strong future tourism growth is based on the assumption of increases in tourism product, enriching of tourism experiences and targeted investment in tourism infrastructure.

**Figure 3.7 Broome Population Projections, Scenario 4 (2011-2031)**



Source: DPI (2012), DSD (2009), TRA (2011), AECgroup

**Table 3.4 Average Annual Growth, All Scenarios**

Scenario	2011 Population	2031 Population	Average Annual Change	Absolute Growth
Scenario 1	16,031	24,441	2.1%	8,410
Scenario 2	19,232	30,251	2.3%	11,019
Scenario 3	19,232	32,412	2.6%	13,181
Scenario 4	19,232	34,893	3.0%	15,661

Source: DPI (2012), DSD (2009), TRA (2011), AECgroup

### **Key Insights**

Broome services a much larger population than just its estimated resident population of 16,031. The 2011 Census identified an enumerated population that was approximately 35% larger than the resident population, which included tourists and transient workers. It is the total service population, including permanent residents, tourists and transient workers that should influence the future planning for the Shire of Broome. On an annual basis, visitors and workers utilise much of the same infrastructure as permanent residents, so service levels need to cater to this larger population.

The seasonality of the tourism industry also means that there are significant fluctuations between the number of visitors in Broome during the peak season and the low season. This fluctuation translates to an additional 2,617 visitors in Broome every day during the peak season, on top of the average annual 3,488, thereby increasing pressure on existing infrastructure.

The development of the Browse LNG Precinct near James Price Point could have a dramatic impact on the future population of Broome. **By 2031, Broome could have a future service population of between 30,000-35,000**, including all permanent residents, tourists and transient workers (although during peak times the Broome visitor population may be up to 75% higher than annualised estimates). It should be noted that in scenarios 3 and 4, the population reaches in excess of 35,000 persons in 2026 and 2021, respectively. Planning should seek to provide for a total population of 45,000.

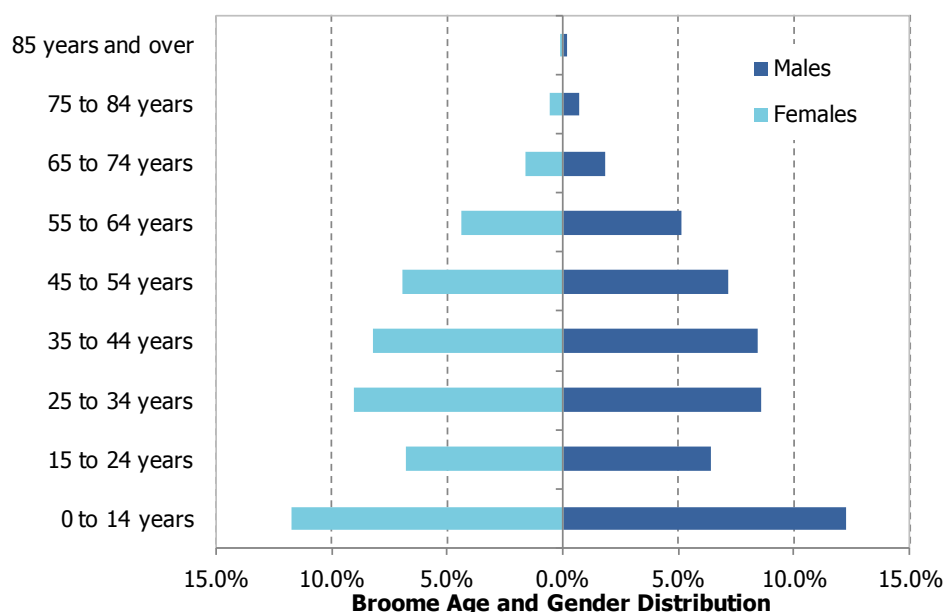
Over the short-term, the combination of the potential Browse LNG development and an increase in tourism could have a number of impacts on infrastructure, housing and local services, particularly the need to house temporary construction workers. These movements in total service population are important for future planning.

## 4. Demographics

### 4.1 Age & Sex

Broome contains a high proportion of residents aged between 25 and 44 and a very low proportion of retirement aged residents (i.e., 65 years and over). In 2011, Broome contained a higher proportion of males (50.6% of the population) compared to females (49.4% of the population). The middle aged nature of the Broome population also explains the high proportion of children aged between 0 and 14 in the Shire. Broome's age structure indicates that there is a good supply of young labour available within the area and differs greatly from most locations in regional Australia that have much higher proportions of older demographics.

**Figure 4.1 Broome Age and Sex Distribution (2011)**



Source: ABS (2012b)

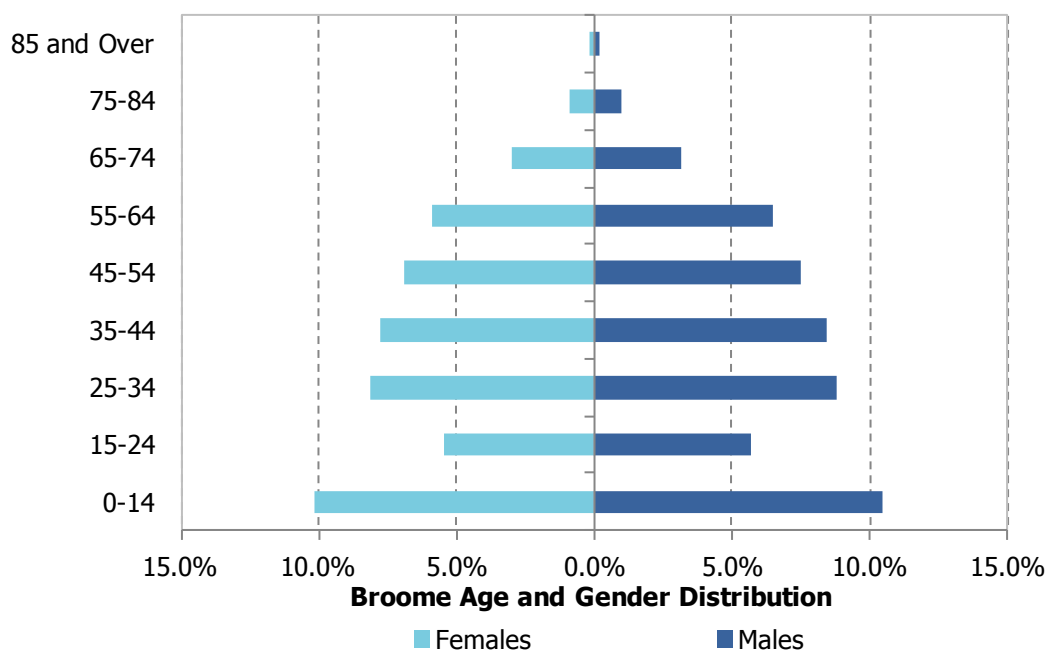
It is projected that by 2027 Broome's permanent population will have aged relative to the 2011 age distribution. Although still containing a middle aged population, with a high proportion of residents aged between 25 and 44, the 2027 age distribution is forecast to contain a slightly older age distribution.

It is projected that Broome will still have a relatively similar distribution of males and females, with 51.7% of the population males and 48.3% females, however this could change given the potential LNG facility and the subsequent male dominated occupations which are associated with the construction and operation.

The 2027 age and sex distribution indicates that moving into the future, Broome will continue to have ample supply of young labour to meet the labour demands of future economic growth. However, planning for and accommodating an older demographic may be needed, though some of the aged residents of Broome may choose to leave the region to seek alternative lifestyles (i.e. become grey nomads) or move to larger service centres to receive the desired level of aged care services.



**Figure 4.2 Broome Age and Sex Distribution (2027)**



Source: DHA (2007)

## 4.2 Education & Skills

Broome had a much higher proportion of its population aged 15 and over that had completed year 12 (48.4%) in 2011 than the Kimberley region (41.8%), though this was below the State average (54.3%). Broome had a higher proportion of residents that left school after completing year 10 or 11 (27.3% after year 10 and 14.4% after year 11) than the Western Australian average (24.7% after year 10 and 11.1% after year 11), indicating a higher proportion of residents leaving school early to pursue careers in various trades and services.

**Table 4.1 Highest Year of Schooling Achieved (persons aged 15 years and over), Broome (2011)**

Highest Year of Schooling Achieved	Broome	Kimberley	Western Australia
Year 12 or equivalent	48.4%	41.8%	54.3%
Year 11 or equivalent	14.4%	14.1%	11.1%
Year 10 or equivalent	27.3%	27.4%	24.7%
Year 9 or equivalent	5.1%	7.3%	4.8%
Year 8 or below	4.0%	7.0%	4.5%
Did not go to school	0.7%	2.3%	0.7%
<b>Total</b>	<b>11,085</b>	<b>25,645</b>	<b>1,734,783</b>

Source: ABS (2012c)

**Table 4.2 Non-School Qualifications (persons aged 15 years and over with a qualification), Broome (2011)**

Non-School Qualifications	Broome	Kimberley	Western Australia
Postgraduate Degree	3.7%	4.1%	6.4%
Graduate Diploma and Graduate Certificate	4.0%	4.2%	3.6%
Bachelor Degree	26.0%	25.5%	28.9%
Advanced Diploma and Diploma	16.9%	16.1%	18.0%
Certificate	49.4%	50.0%	43.1%
<b>Total</b>	<b>4,839</b>	<b>9,367</b>	<b>811,793</b>

Note: Excludes 'inadequately described' and 'not stated'  
Source: ABS (2012c)

## 4.3 Socio-Economic Conditions

Broome is largely a middle income town, with a higher proportion of residents within the middle to high income earning brackets (from \$600 per week and over) than the average across Western Australia, with the exception of individual incomes above \$2,000 per week. Combined with a lower proportion of lower income earners compared to Western Australia, Broome recorded a higher average weekly wage rate in 2011. The broader Kimberley region would appear to have lower incomes on average than Broome. Income levels can be directly related to quality of life and living standards.

**Table 4.3 Weekly Individual Income Distribution Broome (2011)**

Income Levels	Broome	Kimberley	Western Australia
Negative/Nil income	6.9%	7.3%	9.1%
\$1-\$199	5.9%	6.9%	7.7%
\$200-\$299	10.0%	14.6%	9.6%
\$300-\$399	8.4%	9.3%	9.2%
\$400-\$599	8.9%	8.5%	11.3%
\$600-\$799	11.0%	10.0%	9.9%
\$800-\$999	10.4%	8.9%	8.6%
\$1,000-\$1,249	11.4%	9.9%	9.0%
\$1,250-\$1,499	8.3%	7.5%	6.8%
\$1,500-\$1,999	10.4%	9.2%	8.7%
\$2,000 or more	8.4%	7.9%	10.1%
<b>Average Weekly Income</b>	<b>\$889</b>	<b>\$822</b>	<b>\$841</b>

Source: ABS (2012d)

The ABS SEIFA index is a composite measurement of socio-economic standings across regions of Australia. It considers a range of economic and social factors, such as employment, income, housing status and other statistics. A lower score indicates that an area is relatively disadvantaged compared to an area with a higher score. To enable easy recognition of high and low scores, scores across Australia have been standardised to have a mean of 1,000 and a standard deviation of 100 across all collection districts<sup>4</sup> in Australia.

Broome as a whole (i.e. the entire local government area) scores 977 in the index, indicating that the area is slightly more disadvantaged than the Australia average (mean 1,000), Perth, by way of comparison, scores 1,105. Areas scoring below 1,000 have relatively lower levels of income, education and skills and higher levels of unemployment.

**Table 4.4 SEIFA Index, Broome and Perth (2006)**

Index	Shire of Broome	City of Perth	Highest Score	Lowest Score
Socio-economic Advantage and Disadvantage	977	1,105	1,127	583
Socio-Economic Disadvantage	928	1,046	1,107	341
Economic Resources	942	983	1,142	405
Education and Occupation	976	1,159	1,059	765

Note: Not available for 2011 at time of publication of this report.

Source: ABS (2007b)

Beyond the index, SEIFA scores are also ranked in order to provide a further basis for comparison. All areas are ordered from the lowest to highest score throughout Australia, then the area with the lowest score is given a rank of 1, the area with the second lowest score is given a rank of 2 and so on. In some of the sub-indices, Broome ranks as the 20<sup>th</sup> lowest in Western Australia.

<sup>4</sup> A collection district is the smallest geographic area covered by the Census, usually 200 households.

**Table 4.5 SEIFA Index Rankings, Broome and Perth (2006)**

Index	Shire of Broome	City of Perth
<b>Socio-economic Advantage and Disadvantage</b>		
Rank Within Western Australia	99	135
Ranking Within Australia	485	637
<b>Socio-Economic Disadvantage</b>		
Rank Within Western Australia	20	124
Ranking Within Australia	141	595
<b>Economic Resources</b>		
Rank Within Western Australia	20	53
Ranking Within Australia	143	361
<b>Education and Occupation</b>		
Rank Within Western Australia	74	136
Ranking Within Australia	458	645

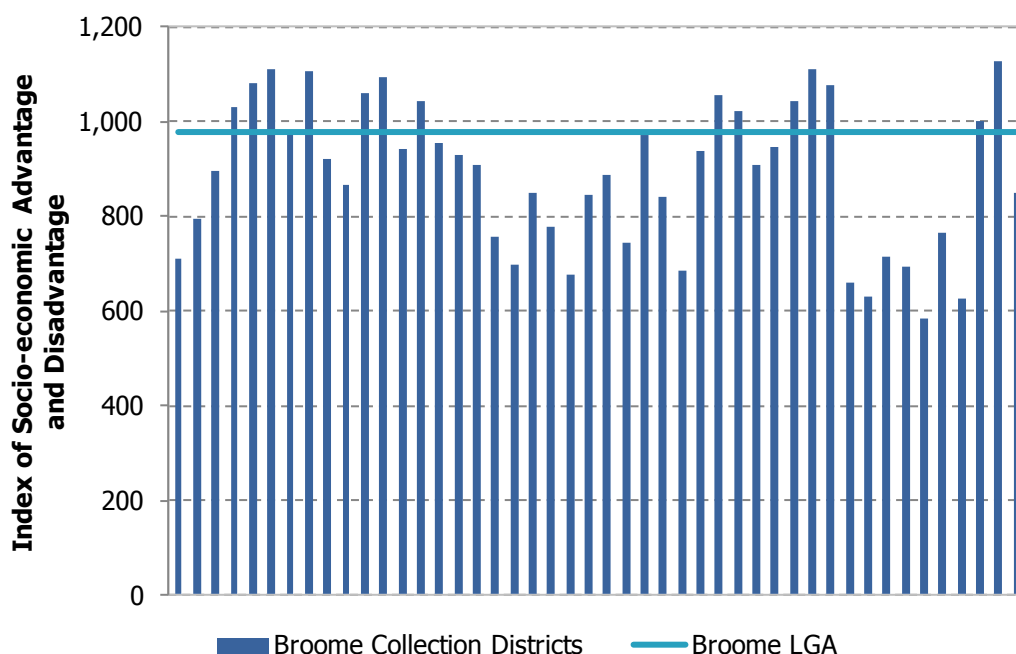
Note: The lower the rank, the higher the level of socio-economic disadvantage.

Note: Not available for 2011

Source: ABS (2007b)

However, as observed in Figure 4.3, there are numerous parts of Broome that fall below the median score for Australia (1,000) and the Broome average, highlighting that there are pockets of high socio-economic disadvantage in Broome. Generally speaking, areas of high disadvantage have high levels of unemployment and low levels of skills, income and education.

**Figure 4.3 Index of Socio-economic Advantage and Disadvantage, Shire of Broome Census Collection Districts (2006)**



Note: Collection districts are the lowest level at which Census records data and is usually defined as the number of households that one surveyor can reach in one day, which is approximately 200 households.

Note: Not available for 2011

Source: ABS (2007b)

Inside the Shire, Broome has some of the highest ranking areas in terms of the index (signalling very affluent neighbourhoods) as well as some of the lowest ranking in Australia, highlighting some of the most disadvantaged communities in the country. This highlights the considerable diversity of communities within the Broome LGA.

## 4.4 Indigenous

Almost a third of Broome’s population is indigenous which, despite being significantly higher than the average indigenous population across Western Australia, is a smaller proportion than the average across the Kimberley region. It should be noted that indigenous population statistics, within regional and remote Australia, are subject to a range of data quality concerns due to the small population size, dispersion of the Indigenous population, the manner in which Indigenous persons are identified in statistical collections, and cultural considerations. Therefore, the proportion of indigenous population in Broome could be larger than what is reported. The indigenous population in Broome often live outside the major settlement in small, remote and regional areas and therefore are not reported.

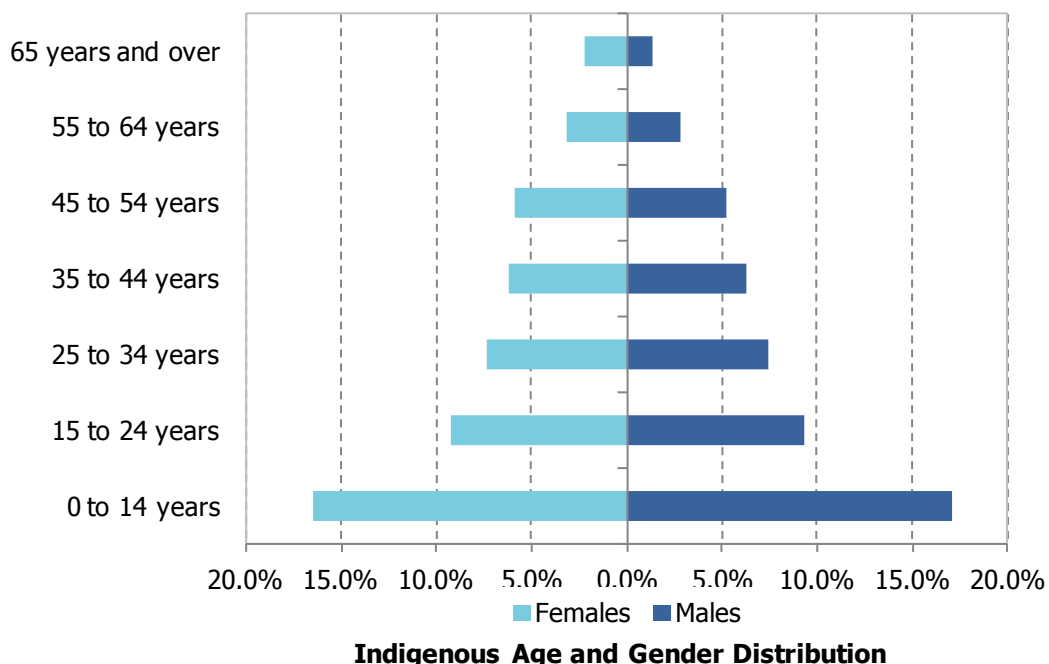
**Table 4.6 Broome Indigenous Population (2011)**

Region	Indigenous Population	Proportion of Indigenous Residents
Broome	4,365	31.9%
Kimberly	13,920	43.5%
Western Australia	69,666	3.3%

Source: ABS (2012e)

The Broome indigenous population differs from the age and gender distribution in section 4.1. Broome contains a higher proportion of females (50.6% of the indigenous population) compared to males (49.4% of the indigenous population). Broome’s indigenous population is young in comparison to the overall Broome population, with over 52% of the indigenous population under the age of 24.

**Figure 4.4 Indigenous Age and Sex Distribution, Broome (2011)**



Source: ABS (2012e)

### **Key Insights**

Broome's population is relatively young and dominated by working age people, which is unique in contrast to many regional Australian communities, where an aging population puts pressure on the local workforce and reduces spending in local catchments. Broome has a sizeable middle aged demographic, indicating the presence of young families, which not only provides for a future workforce but can increase local spending as well.

On a skills basis, the workforce demonstrates characteristics more in line with those of primary and secondary industries. There is also a significant indigenous population in Broome (as well as in the broader Kimberley region).

While Broome has some affluent neighbourhoods, there are pockets of significant socio-economic disadvantage. These areas likely include high levels of unemployment as well as low levels of education, income, skills and access to services.

Ensuring that all aspects of the community, both indigenous and non-indigenous, can prosper in the future will be important to increasing community wellbeing. There is a need to address the disparity amongst the community as well as to build capacities and empower local communities to progress.

## 5. Housing<sup>5</sup>

### 5.1 Dwelling Types/Mix

Both Broome and the Kimberley region have a vastly higher proportion of dwellings falling under the 'other dwellings' dwelling structure type (which includes caravans, cabins and houseboats, improvised homes, tents and sleepers out and houses and flats attached to a shop) than the state average. Broome and the Kimberley region also have a low proportion of separate houses relative to the Western Australian average as a result of the high proportion of other dwellings. These results are largely reflective of the prominence of tourists and transient workers and the presence of several indigenous communities living within the region.

**Table 5.1 Dwelling Structure, Broome (2011)**

Dwelling Structure	Broome	Kimberley	Western Australia
Separate house	71.3%	75.1%	81.2%
Semi-detached, row or terrace house	10.2%	7.7%	10.7%
Flat, unit or apartment	7.7%	5.6%	8.0%
Other dwellings	10.9%	11.6%	0.1%
<b>Total</b>	<b>4,587</b>	<b>9,243</b>	<b>794,159</b>

Note: Other dwellings includes caravan, cabin and houseboat, improvised home, tent and sleepers out and house or flat attached to a shop.

Source: ABS (2012f)

### 5.2 Household Composition and Size

Table 5.2 shows that the composition of Broome households largely follows the Western Australian average. The most significant difference is within the proportion of group households in Broome, which are larger compared to the average proportion across the state. This is again reflective of the visitors and transient workers in Broome.

**Table 5.2 Household Composition, Broome (2011)**

Household Composition	Broome	Kimberley	Western Australia
Couple family with no children	25.7%	24.9%	27.7%
Couple family with children	31.1%	30.2%	32.9%
One parent family	12.9%	14.4%	10.3%
Other family	1.3%	1.9%	1.3%
Lone person household	22.6%	23.2%	23.8%
Group household	6.4%	5.4%	4.0%
<b>Total</b>	<b>4,587</b>	<b>9,244</b>	<b>794,159</b>

Source: ABS (2012f)

According to the latest census, the average household size in Broome is 2.8 persons per household, which is larger than national average of 2.6 persons per household and the State average of 2.6. Housing density has a significant impact on the requirement for dwellings. In the future, the average household size is expected to decrease due to the aging of the population and the trend of fewer children per family.

**Table 5.3 Household Size, Broome (2011)**

Dwelling Type	Broome	Kimberley	Western Australia
Separate Houses	3.2	3.4	2.7
Semi-detached, row or terrace houses, townhouses	2.1	2.1	1.9
Flat, unit or apartment	2.9	2.6	2.4
Other Dwelling	2.0	2.0	1.7

Source: ABS (2012g)

<sup>5</sup> Dwelling statistics are for occupied private dwellings only. According to 2011 Census there were 5,167 private occupied and unoccupied dwellings.

## 5.3 Housing Tenure

Broome contains a very high proportion of dwellings being rented relative to Western Australia, and a lower proportion of dwellings being fully owned or in the process of being purchased. The high proportion of rented properties in Broome may be a reflection of high property prices in the area.

**Table 5.4 Housing Tenure, Broome (2011)**

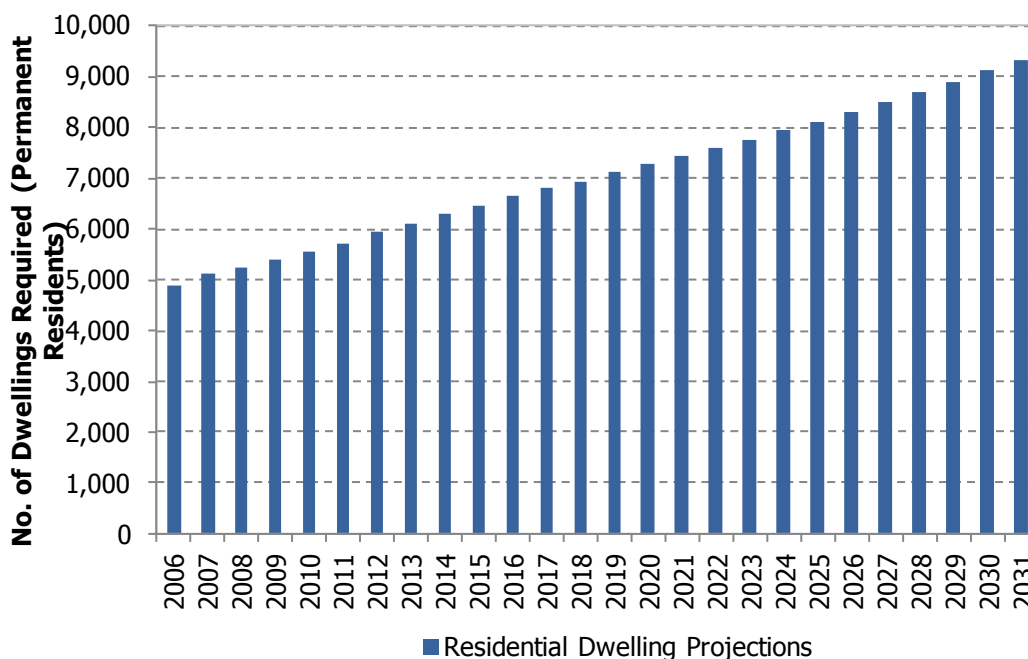
Tenure Type	Broome	Kimberley	Western Australia
Fully Owned	16.7%	15.3%	30.2%
Owned with a mortgage	22.3%	17.5%	38.7%
Rented	59.7%	65.7%	29.9%
Other Tenure Type	1.4%	1.5%	1.1%
<b>Total</b>	<b>4,587</b>	<b>9,243</b>	<b>794,159</b>

Source: ABS (2012h)

## 5.4 Dwelling Projections

It has been estimated that Broome will require a total of 9,341 dwellings to accommodate its future permanent residential population. The population will require approximately 1,723 new permanent dwellings between 2011 and 2021 (to a total of approximately 6,771 total dwellings), up to approximately 3,616 new permanent dwellings by 2031 (approximately 9,300 total dwellings). This increase in dwellings is in response to the permanent residential population growth Broome is expected to experience over the coming 20 years.

**Figure 5.1 Permanent Residential Dwellings, Broome (2011-2031)**



Source: AECgroup

These projections do not take into consideration the additional service population for Broome, with the potential LNG facility and higher numbers of visitors to the region. Future transient worker accommodation (TWA) and visitor accommodation will need to be provided in order to house these elements of the future population.

**Table 5.5 Demand for Dwellings, Broome (2011-2031)**

Indicator	2011	2016	2021	2026	2031	Average Ann. Growth
Permanent Population	16,031	18,130	19,943	21,947	24,441	2.2%
Permanent Residential Dwellings Required	5,725	6,648	7,448	8,299	9,341	2.6%
Additional Population	3,201	4,461	4,542	4,682	4,861	1.7%

Source: AECgroup, ABS (2011a)

## 5.5 Housing Affordability

During 2011 Broome recorded a median multiple<sup>6</sup> for housing affordability of 6.6<sup>7</sup>. Markets with median multiples of 3.1 to 4 are classified as moderately unaffordable, 5.1 and above are classified as seriously unaffordable. In contrast, Western Australia<sup>8</sup> recorded a median multiplier of 6.33. As a result, housing affordability within Broome is less affordable compared to the rest of Western Australia. Housing affordability in Broome has increased since 2007 as housing prices have fallen significantly and incomes have increased. However, it is worth noting that since 2011, median house prices have risen significantly (30%) in Broome, which will put considerable pressure on housing affordability.

The Social Health Atlas of Australia (PHIDU 2011) defines mortgage stress as the households in the bottom 40% of income distribution which spends more than 30% of their weekly income on mortgage repayments. Using this definition and median incomes, housing prices and current lending rates, approximately 6.6% of households with a mortgage in Broome were classified as experiencing mortgage stress in 2011. In the same year, rental stress (using the same definition) was applicable to 11.0% of renting households. High levels of rental stress are also apparent when other areas of Western Australia are examined.

According to REIWA (2012), median rental prices in the Broome urban area are significantly higher than those for the Perth Metropolitan area. The median house rental price in the Broome Urban Area was \$730 in the September quarter 2012, almost \$300 per week higher than in Perth Metropolitan area. Unit rents are similarly unaffordable in the Broome Urban area at \$550 compared to \$425 in the Perth Metropolitan area. As depicted in Figure 5.2, Broome rental prices have been consistently higher than those in the Perth Metropolitan area since 2007.

<sup>6</sup> Median Multiplier is an indicative benchmark used to assess housing affordability. The benchmark is calculated by working out the number of years' of median income that are required to pay for a median priced dwelling, with the higher the multiple, the lower the affordability.

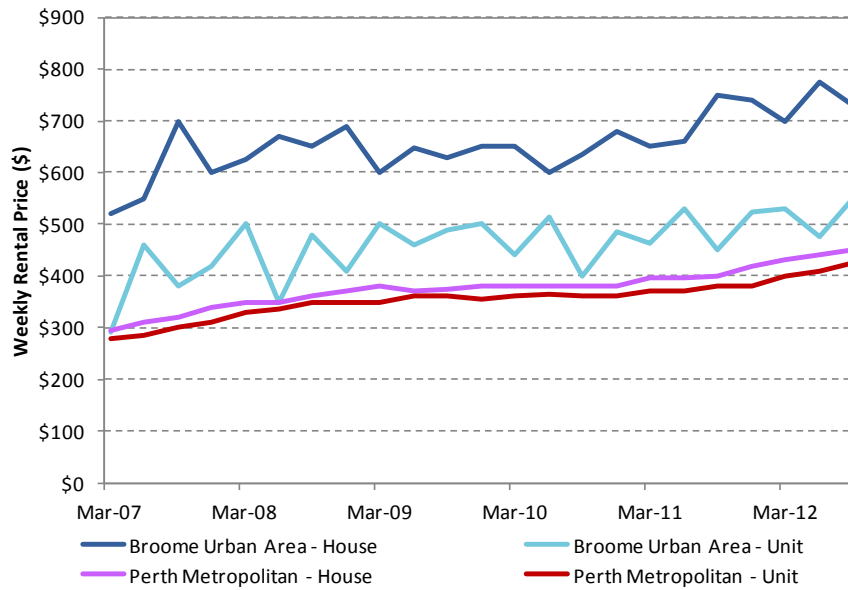
<sup>7</sup> Source of Data: Real Estate Institute of Western Australia (2011), WA Regional Centre Profiles, <http://reiwa.com.au/Research/Pages/Regional-centre-profiles.aspx?profile=urban>, accessed 23/12/2011.

Australian Bureau of Statistics (2011), Wage and Salary Earner Statistics for Small Areas, Time Series, 2003-04 to 2008-09, Cat. No. 5673.0, ABS, Canberra

<sup>8</sup> Uses an average of Metro and Regional Western Australian house prices.



**Figure 5.2: Rental Price Comparison**



Source: REIWA (2012)

**Key Insights**

The high prevalence of renting together with relatively high housing prices indicates that the market provides fewer opportunities for residents to become home owners. Recent improvements have been made in terms of housing affordability in Broome, but as the housing market continues to be volatile in terms of pricing, housing affordability issues could be sustained and the social and economic impacts from housing affordability remain a concern.

The housing mix also appears to be somewhat limited, with a considerable share of housing stock classified as 'other', indicating that it is neither detached dwelling nor a unit or flat. This housing mix is likely related back to the housing affordability issues as well as the significant indigenous population, which often live in dwellings that are difficult for the ABS to classify.

Based on the analysis conducted, the Shire of Broome will need to almost double the number of permanent residential dwellings based on the population projections from *WA Tomorrow* (increasing to approximately 9,300 total permanent residential dwellings by 2031). These figures do not include accommodation for a potential workforce arising from the proposed LNG Facility or potential increase in visitors.

## 6. Community Infrastructure

Based on established community infrastructure benchmarks (Syme Marmon and Co. (2008), Department of Infrastructure (2007), Hornsby Shire Council (2000), City of Rockingham (WA) (2011), Port Stephens Council (2006), Table 6.1 provides a detailed assessment for Broome's community based infrastructure utilising the Broome Community Facilities Assessment, the current 2011 population of 16,298, plus the associated infrastructure requirements for increases in population.

Based on Broome's Preliminary Community Facilities Assessment, it can be observed that Broome has an undersupply of infrastructure for its existing permanent resident population. Tourists and transient workers place additional demands on this infrastructure, though not all visitors and transient workers use all types of community infrastructure.

Ensuring there is sufficient quantity and quality of community infrastructure is important to cater for the community's recreational needs.

**Table 6.1 WA Benchmarks for Community Infrastructure, Permanent Residents**

Amenity	Provision Ratio	Current Provision	Current Demand	Future Demand				
				20,000	25,000	30,000	40,000	45,000
<i>Passive Open Space</i>								
Local Park (See Figure 9 in Part 1)	1:1,000 (350 houses)	13	13	20	25	30	40	45
Neighbourhood Park (See Figure 9 in Part 1)	1:2,000 (700 houses)	3	6	10	12	15	20	22
District Park	1:5,000 (3,800 houses)	2	2	4	5	6	8	9
<i>Active Open Space</i>								
Regional Sporting Complex	1:25,000	0	0	0	1	1	1	1
District Sporting Complex	1:15,000	1	1	1	1	0	0	1
Sub-District Indoor Recreation Centre	1:15,000	1	1	1	1	0	0	1
Sub-District Ovals	1:5,000	2	1	2	2	3	4	5
Swimming Centre	1:15,000	1	1	1	1	2	2	2
Tennis Court	1:1,000	8	8	10	12	15	20	22
Hard Courts (Basketball/Netball)	1:2,000	12	8	10	12	15	20	22
Lawn Bowls	1:10,000	1	1	2	2	2	2	2
Skate Park	1:10,000	1	1	2	2	3	4	4
District Golf Course	1:20,000	1	1	2	2	2	3	3
Boat Ramps	1:4,000	3	3	3	4	5	7	8
<i>Community Facilities</i>								
District Library	1:30,000	1	1	1	1	1	2	2
Community Facility	1:7,500	2	2	2	3	4	5	6
Youth Centre	1:10,000	2	1	2	2	3	4	4
<i>Social/ Entertainment</i>								
Regional Cultural/Performing Arts Centre	1:20,000	1	0	1	1	1	2	2
Neighbourhood Cultural/Performing Arts Centre	1:10,000	1	1	2	2	3	4	4
Museum	1:20,000	1	0	1	1	1	2	2

Source: Syme Marmon and Co. (2008), Department of Infrastructure (2007), Hornsby Shire Council (2000), City of Rockingham (WA) (2011), Port Stephens Council (2006), AECgroup

## 7. Key Issues & Opportunities

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This desktop analysis of population and demographic statistics of Broome has identified numerous issues and opportunities for the future, including:

### Issues

- **Servicing the entire service population:** Given the nature of the economy in Broome, there is a dramatic difference between the permanent residential population and the service population. This difference and the potential future split between permanent residents and the total service population is critically important for future infrastructure provision. Planning should be focused on servicing the needs of the total service population and ensure high standards of service provision for permanent residents. The large variance in peak and off-peak visitors to Broome should also be considered, so ample supply of facilities is available during the height of Broome's tourism season.
- **Meeting future population demand:** There is a dramatic difference in future population projections, depending on which scenario is realised. Planning for the maximum total service population will assist in facilitating growth. Infrastructure impediments or a lack of infrastructure can impact on the community's ability for recreation opportunities.
- **Pockets of disadvantage:** There are pockets of extreme disadvantage in Broome. In order to promote future community cohesion and equality, efforts need to be made to increase the standard of living for all residents, particularly those that are socially and economically disadvantaged. Ensuring high levels of community identity and pride are important. Failure to address these issues could create a community of 'haves' and 'have nots' as well as a potential tear in the social fabric of the community.
- **Housing affordability:** In order to facilitate population increases, ensure quality of life and increase local wealth, housing affordability must be addressed.
- **Indigenous population:** Given the large indigenous population in Broome, programs to engage with and encourage indigenous participation in the community and economy are important, particularly given the remote and regional nature of many of the small indigenous settlements. It will be important to build capacity and empower these communities.

### Opportunities

- **Population growth:** Given the potential population impacts of the Browse LNG Precinct, there is a genuine opportunity to transition transient workers into permanent residents. Growing the permanent resident component of the total service population is important as these residents can then participate in broader community activities and increase the financial sustainability of Council. To date Broome has not achieved the permanent population growth envisioned in WA Tomorrow, however, there is the potential to increase population growth in the future, particularly in light of the proposed Browse LNG Precinct and opportunities to diversify the economy.
- **Servicing the future population:** Based on different future service population scenarios, a varying degree of services will be required. Furthermore, given the character of settlements across the Shire (i.e. Broome is the largest settlement and there are various small, remote and regional settlements), unique strategies are needed to ensure that the local government can provide services to its future population across the Shire.
- **Addressing disadvantage:** With investment and new jobs comes the opportunity for income and wealth generation. Key aspects to unlocking this potential is effective engagement with business and the community as well as targeted educational programs to provide needed skills in order to participate in future jobs. Not all jobs in the future will require high skills, so there will be opportunities across the range of skills spectrum.

## 8. Key Strategies

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In order to manage the issues identified above and take advantage of the opportunities the following strategies are proposed for future consideration, including:

- **Housing strategy:** Given the lack of affordable housing, a review of the existing housing strategy is required that investigates the key drivers to the lack of affordable housing and puts forward activities and steps to rectify the situation. The process would include financial analysis of residential development and the identification of significant barriers as well as strategies to encourage a diverse and affordable housing mix.
- **Addressing disadvantage:** A clear strategy and action plan for addressing socio-economic disadvantage would increase community wellbeing and cohesion significantly. Programs would focus on skills, education, awareness and pairing future jobs with local disadvantaged persons. Close coordination with educational providers and other government agencies would be critical to ensure no doubling of efforts.

## References

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- Australian Bureau of Statistics (2007a), 2006 Census of Population and Housing, Non-School Qualification Level of Education by Age by Sex based on place of usual residence, Cat. No. 2068.0, ABS, Canberra
- Australian Bureau of Statistics (2007b), 2006 Census of Population and Housing, Socio-economic Indexes for Areas (SEIFA), Data Cube, Cat. No. 2033.0, ABS, Canberra
- Australian Bureau of Statistics (2011b), Wage and Salary Earner Statistics for Small Areas, Time Series, 2003-04 to 2008-09, Cat. No. 5673.0, ABS, Canberra
- Australian Bureau of Statistics (2011c), Tourist Accommodation, Small Area Data, Cat. No. 8635.0, ABS, Canberra
- Australian Bureau of Statistics (2012a) *Regional Population Growth*, Australia, Cat. No. 3218.0, ABS, Canberra
- Australian Bureau of Statistics (2012b) 2011 Census of Population and Housing, Age by Sex, Cat. No. 2001.0, ABS, Canberra
- Australian Bureau of Statistics (2012c), 2011 Census of Population and Housing, Highest Year of School Completed by Age by Sex based on place of usual residence, Cat. No. 2001.0, ABS, Canberra
- Australian Bureau of Statistics (2012d), 2011 Census of Population and Housing, Gross Individual Weekly Income by age by sex based on place of usual residence, Cat. No. 2001.0, ABS, Canberra
- Australian Bureau of Statistics (2012e), 2011 Census of Population and Housing, Indigenous Status by Sex based on place of usual residence, Cat. No. 2001.0, ABS, Canberra
- Australian Bureau of Statistics (2012f), 2011 Census of Population and Housing, Dwelling Structure by Household Composition and family Composition, Cat. No. 2001.0, ABS, Canberra
- Australian Bureau of Statistics (2011g), 2011 Census of Population and Housing, Dwelling Structure Count of occupied and unoccupied private dwellings and persons, Cat. No. 2001.0, ABS, Canberra
- Australian Bureau of Statistics (2012h), 2011 Census of Population and Housing, Tenure and Landlord Type by Dwelling Structure, Cat. No. 2001.0, ABS, Canberra
- City of Rockingham (WA) (2011). Community Infrastructure Plan 2011/12 - 2020/21.
- Commonwealth Government Department of Health and Ageing, Projected Resident Population for Statistical Local Areas 2007-2027, ABS, Canberra
- Department of Infrastructure (2007). South East Queensland Regional Plan 2005-2026 Implementation Guideline No. 5 Social Infrastructure Planning. Queensland Government.
- Hornsby Shire Council (2000). Hornsby Leisure Strategic Plan - Demand Supply and Service Gap Analysis. Report Prepared by Recreation Planning Associates.
- Port Stephens Council (2006). Review of Standards Guiding the Provision of Council's Community and Recreational Facilities.
- Public Health Information Development Unit (2011), Social Health Atlas of Australian Local Government Areas 2011, PHIDU, Adelaide
- Real Estate Institute of Western Australia (2011), WA Regional Centre Profiles, <http://reiwa.com.au/Research/Pages/Regional-centre-profiles.aspx?profile=urban>, accessed 23/12/2011.
- Real Estate Institute of Western Australia (2012). <http://reiwa.com.au/Research/Pages/Market-indicators.aspx>. Accessed 19/11/12, REIWA, Perth

Syme Marmon and Co. (2008). Community Facilities Plan. Report prepared for Shire of Augusta Margaret River by Syme Marmion and Co., West Perth.

Tourism Research Australia (2011), Forecast 2011, Issue 2, Department of Resources, Energy and Tourism, Canberra.

Western Australia Government Department of Planning and Infrastructure (2012), *WA Tomorrow Population Report No. 7*, Western Australian Government, Perth.

Western Australia Government, Department of State Development (2009), Browse LNG Precinct Strategic Social Impact Assessment, Western Australian Government, Perth.

Western Australian Planning Commission (2006). *State Planning Policy No. 1*. Perth.

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