



REGIONAL REPORT CARD

Mackay-Isaac-Whitsunday
Five years in focus

2006 - 2011

1 A MESSAGE FROM THE MAYORS

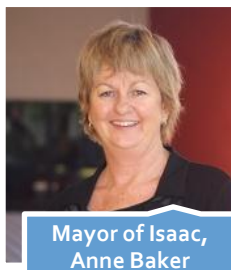


Mayor of Mackay,
Deidre Comerford

The Regional Report Card is a thorough analysis of the economic diversity that has sustained the Mackay-Isaac-Whitsunday region over the past five years. It highlights the fundamental strengths that have guided the economic growth in our communities and has seen Mackay-Isaac-Whitsunday grow to what is now the largest regional economy in Queensland, having the third largest gross regional product in Queensland behind Brisbane and the Gold Coast.

As a region, we should be proud of our achievements since 2007 and recognise the high standard of collaboration and innovation that has sustained the region through two periods of rapid growth. Collectively, we have shown that we can move rapidly to gather the skills, services and investment required to support major industry. The region has achieved this while maintaining a strong social and diverse community.

We congratulate REDC for their efforts in putting together this important document and encourage you, the reader, to use the knowledge contained in these pages to guide you as you plan for the future. This report is an important tool for ensuring the community can weather future periods of growth and the challenges that accompany change.

A handwritten signature in black ink, appearing to be 'Deidre Comerford'.

Mayor of Isaac,
Anne Baker

This report highlights how our region has fared through some of the most challenging periods in our history. The analysis proves we are leaders in our fields and have stepped up to the challenges presented.

However, we acknowledge there still needs to be work undertaken to provide the essential infrastructure, support and community services to ensure economic stability and social fabric is protected. This is an opportunity for all three levels of government to work together in partnership for the common goal of sustaining a major source of Queensland's prospering economy

We believe this report has the ammunition required for decision makers to identify priorities to ensure we can overcome impediments to growth in the coming years.

The report reiterates that we have the skills, experience, leadership and community mindedness to confirm our place as a model region. We now have to make the choice on where we focus our attention over the next five years to ensure our communities continue to thrive. Our people deserve the best planning and vision us, as leaders, can provide.

A handwritten signature in black ink, appearing to be 'Anne Baker'.



The region's reputation as the Economic Powerhouse of Queensland is reaffirmed in this report by the diverse nature of the industries throughout our communities.

While the resources industry has sustained a great part of our recent success, this Regional Report Card identifies opportunities to diversify our economy further.

Tourism, manufacturing, agriculture, coupled with transport and logistics have historically played an important role and we are buoyed by the further opportunities identified in this report.

We hope community and industry leaders take this knowledge seriously and capitalise on the opportunities as they present themselves.

As our region grows and evolves, I am confident it will continue to be a powerhouse of economic and social proportions thanks to the vision of innovative leaders in business, industry, government and the community.

We are on the cusp of change and a new upward growth cycle.

A handwritten signature in blue ink, appearing to read "Jennifer Whitney".

Disclaimer: The Regional Report Card only provides a summary of the subject matter covered without assuming a duty of care. Although the information herein has been derived from sources believed to be reliable, REDC does not guarantee or make any representations as to its accuracy, or completeness, or accept responsibility for any loss or damage occurring as a result of its use.

2 EXECUTIVE SUMMARY

The Mackay-Isaac-Whitsunday region is a prosperous economy, which has sustained two periods of massive growth in a short period of time. The strength of the local mining industry has fuelled a demand for skilled labour, industry support businesses and social infrastructure which have posed both significant opportunities and challenges to the communities within the region. The fundamentals of the region remain solid, and create opportunities for industry diversification. The region is committed to the development and expansion of all industries driven by resources, construction, tourism and agriculture.

2.1 Highlights of this report

Economy

Among the signs of economic prosperity in the region, is the rise in Gross Regional Product (GRP) from \$13.3 billion in 2007 to \$20.6 billion in 2012. This is despite the occurrence of the Global Financial Crisis in 2008. Mackay-Isaac-Whitsunday is the largest regional economy in Queensland, having the third largest GRP in Queensland behind Brisbane and the Gold Coast.

Population

The population of the region grew 7.2% between 2006 and 2011. This population growth does not include any non-resident Fly-in Fly-out (FIFO) workers who often spend up to 50% of their time residing in the region. In the longer term the region's population is projected to grow at a faster rate than the state average, ultimately putting more pressure on the need for infrastructure and services. Adequate planning is essential if the region is support the predicted growth over the next 10 years.

Housing

The report shows more people are choosing to rent within the region with 42.2% of households renting compared to 31.9% in 2007. This figure strongly follows the affordability data for the region which is now showing families must have a combined income of between \$130,000 and \$180,000 to comfortably afford the median house price in the region. Based on household income, 84.4% of households in Mackay, 72.6% in Isaac, and 75.3% in Whitsunday cannot afford to purchase a property at the median house price. Housing prices however have started to decrease with future expectations of further market adjustments, particularly in Isaac.

Employment

There has been significant growth in employment numbers within the mining, transport, postal and warehousing, construction and manufacturing sectors between 2006 and 2011. There was a decrease in the number of people employed by the Agriculture, Forestry and Fishing industry (-13.2%); however the sector has increased its contribution to the region's Gross Regional Product (GRP) by 22.7%, indicating strong productivity gains. The competition for skills from the large mining sector is a factor which has impacted not only on the agricultural sector, but all other sectors' ability to attract and retain staff in this period.

Educational Qualifications

Strong growth in the number of people with post-school qualifications was also seen during this period with an increase of 6 percentage points. This figure is an improvement; however Mackay-Isaac-Whitsunday is still 4 percentage points below the State average. During this

period the region has seen significant investment from CQUniversity with a number of new courses being introduced and new facilities built on the Mackay campus.

Infrastructure

Investment in infrastructure has been strong since 2007, however the region is still suffering from an infrastructure lag which challenges the region to keep up with the population growth.

- Six per cent of energy substations in the region are nearing constraint, with 12% already constrained. Energy supply in a timely manner has been noted as a major challenge for the region, and a long term energy supply strategy is required in order to better plan for growth. The long term supply of Energy remains a challenge, as identified in 2007.
- Gas infrastructure was minimal in the region in 2007 and is now coming to market with major gas pipelines being built that access the abundant gas reserves in the Bowen Basin. Demand for gas storage facilities and services in Australia are likely to increase as the State gas markets expand trading capabilities and become more interconnected. There is an opportunity for gas storage facilities to be located in the region.
- As the population continues to grow, the pressures on water and waste facilities increase. The retraction of State Government subsidies for these assets has shifted the financial impost to Local Government which is struggling to finance these projects from smaller regional rate payer bases. Financial assistance for these types of community assets in resource regions is essential for long term economic returns. The supply of water remains a challenge.
- The rollout of the National Broadband Network (NBN) will bring significant gains to the region particularly in the more regional and remote areas. Given the economic return from this region it is essential that whole of region rollout occurs in the short term in order to assist with productivity gains in our key sectors.
- The Bowen Basin is one of the largest coal reserves in Australia and we have seen a significant increase in new and expanded mines over this period. More recently we have seen a slowdown in investment based on the current economic conditions. Increased royalties and carbon tax have contributed to this slow down, and it is imperative that Government policy and costs in the short term do not have a detrimental effect in the long term. In order to protect jobs into the future the mines need to be built now otherwise the window of opportunity will close, as competition from overseas countries for investment increases.
- The sugar industry in the region has grown over the period and still remains one of the most important industries in the region. Investment in new infrastructure has occurred during this period with the Mackay Sugar Co-Generation Plant opening in 2013, providing diversification within this industry.
- Multimodal transport options for the Agriculture industry are essential, particularly in a time where food security is such an important issue, and the competition for transport options with the highly dominant resource industry have been challenging for this sector and remains so.

- Transport infrastructure has improved over this period; however there has also been a significant increase in the usage of this infrastructure, creating the ongoing need for maintenance and upgrades. Strong investment in Port and Rail assets has supported the growth in the resource sector with future plans for increased investment. The road network needs to be a focus for the region with the Bruce Highway being the major coastal arterial in and out of the region. With the increase in extreme weather events over the period, the Bruce Highway needs to be accessible in order to be able to export and import from and to the region, otherwise the economic cost is significant.
- Strong investment in education has also been seen during this period with major investment in the CQUniversity Mackay Campus and the building of a new high school at the Northern Beaches in Mackay. Investment at the Base Hospital by James Cook University has also occurred, giving the region two higher education options.
- The new Mackay Base Hospital has also seen an improvement in health services in the region, although there is a need for further investment in the regional hospitals. Aged care facilities are not well represented across the region with limited Aged Care facilities in Isaac, and no facilities in Airlie Beach or Cannonvale. In order to retain inter-generational families in the region these facilities are essential.

Industry Sectors

- Across the region many sectors increased regional contribution to the economy. The largest in contribution was the construction sector with a 40.9% increase.
- The sectors which saw a decrease in contribution included:
 - Electricity, Gas, Water and Waste – 28.6%
 - Mining - 26.4%; the decline of regional contribution for this sector correlates with the extreme weather events experienced in Queensland over the last few years which has hampered production.
 - Finance and Insurance – 15%
 - Food Accommodation Services – 9.7%; the high Australian dollar and competitive international market has impacted negatively on the region's tourism industry which contributed greatly to the decline in the food and accommodation sector.
- \$6.94 billion was spent by local industry with local industry in 2012.

2.2 Challenges and Opportunities

Challenges

- Housing prices and availability – prices have slowed but remain high with the average weekly mortgage repayment more than 30% of household income.
- Infrastructure - lags have a significant effect on industry growth in the short term, particularly in the areas of energy and water which are essential for new investment.

- Rising costs - to bring infrastructure to market is a major concern, as the opportunity cost of investment not coming to market in the short term has a long term economic effect, particularly on jobs.
- Adequate planning - is essential if the region is to support the predicted growth over the next 10 years.
- Competition- for skills from the large mining sector is a factor which has impacted on the sectors ability to attract and retain staff in this period.
- The road network - needs to be a focus for the region with the Bruce Highway being the major coastal arterial in and out of the region. With the increase in extreme weather events over the period, the Bruce Highway needs to be accessible in order to be able to export and import from and to the region, otherwise the economic cost is significant.
- Aged care facilities - are not well represented across the region with limited Aged Care facilities in Isaac and Whitsunday. In order to retain inter-generation families in the region these facilities are essential.

Opportunities

- Education and skills development – there has been significant investment from CQUniversity with a number of new courses being introduced and new facilities on the Mackay campus. The proposed Dual Sector facility (with Central Queensland Institute Technology) will boost the offerings available and streamline education in the region.
- Gas storage facilities – demand for these facilities in Australia are likely to increase as the State gas markets expand trading capabilities and become more interconnected. There is an opportunity for gas storage facilities to be located in the region.
- New mining infrastructure -in order to protect jobs into the future the mines need to be built now otherwise the window of opportunity will close.

2.3 About Us

2.3.1 Mackay-Isaac-Whitsunday



Located halfway between Cairns and Brisbane, the Mackay-Isaac-Whitsunday (MACKAY-ISAAC-WHITSUNDAY) Region incorporates the Mackay, Isaac and Whitsunday Local Government Areas (LGAs). The region boasts a resilient and diverse range of business and industry, low unemployment and numerous natural tourist attractions including the Whitsunday Islands.

The opportunities for investment are vast. REDC's latest Regional Development register (RDR) underlines more than \$98.4 billion worth of development either under way or planned for this region.

The Process: The data in this report was gathered from various sources including the Australian Bureau of Statistics and various State and Federal Government Departments. This information has been analysed by the REDC Board which comprises representatives from various industries and the mayors from the three local councils.

2.3.2 REDC

The Mackay Whitsunday Regional Economic Development Corporation (REDC) represents the business, government, and community interests of the three local government areas, which form the Mackay-Isaac-Whitsunday region.

As the peak economic body supporting the region, REDC is committed to working with business, industry, government and investors to achieve the best possible result for the region.



2.4 Acknowledgements

REDC would like to recognise the contribution of various partners in developing this report including:

- The Mackay Office of the Department of State Development Infrastructure and Planning
- The Mackay, Isaac and Whitsunday Regional Councils
- Ergon Energy
- Powerlink
- Queensland Resource Council (QRC)
- National Broadband Network (NBN) Company
- North Queensland Bulk Ports (NQBPs)
- Queensland Health
- CQUniversity (CQU)
- James Cook University (JCU)
- Urban Development Institute of Australia (UDIA) - Mackay
- Queensland Department of Natural Resources and Mines
- Good Shepherd Lodge
- Master Builders
- Canegrowers Mackay

3 TABLE OF CONTENTS

1	A MESSAGE FROM THE MAYORS	2
2	EXECUTIVE SUMMARY	4
2.1	HIGHLIGHTS OF THIS REPORT	4
2.2	CHALLENGES AND OPPORTUNITIES	6
2.3	ABOUT US.....	8
2.4	ACKNOWLEDGEMENTS.....	9
3	TABLE OF CONTENTS.....	10
4	INTRODUCTION	11
4.1	BACKGROUND.....	11
4.2	PURPOSE OF THIS DOCUMENT	11
5	SOCIO-ECONOMIC PROFILE	12
5.1	SUMMARY	12
5.2	DEMOGRAPHIC OVERVIEW	13
5.3	ECONOMIC PROFILE.....	24
5.4	INVESTMENT AND PROPERTY PROFILE	36
6	INFRASTRUCTURE REVIEW	45
6.1	SUMMARY	45
6.2	UTILITIES	47
6.3	INDUSTRY / RESOURCES INFRASTRUCTURE	59
6.4	TRANSPORT.....	65
6.5	AVAILABLE LAND	74
6.6	EDUCATION AND RESEARCH INFRASTRUCTURE.....	78
6.7	HEALTH AND CARE SERVICES	89
7	INDUSTRY PROFILES	91
7.1	SUMMARY	91
7.2	GUIDELINE AND FORMAT OF INDUSTRY PROFILES	92
7.3	AGRICULTURE, FORESTRY AND FISHING	93
7.4	MINING.....	101
7.5	MANUFACTURING.....	106
7.6	ELECTRICITY, GAS, WATER AND WASTE SERVICES	114
7.7	CONSTRUCTION	119
7.8	WHOLESALE AND RETAIL TRADE.....	124
7.9	ACCOMMODATION AND FOOD SERVICES	130
7.10	TRANSPORT, POSTAL AND WAREHOUSING.....	135
7.11	INFORMATION, MEDIA AND TELECOMMUNICATIONS	141
7.12	FINANCIAL AND INSURANCE SERVICES.....	145
7.13	RENTAL, HIRING AND REAL ESTATE SERVICES.....	149
7.14	PROFESSIONAL, SCIENTIFIC AND TECHNICAL SERVICES	154
7.15	ADMINISTRATIVE AND SUPPORT SERVICES.....	157
7.16	PUBLIC ADMINISTRATION AND SAFETY	160
7.17	EDUCATION AND TRAINING	163
7.18	HEALTH CARE AND SOCIAL ASSISTANCE	167
7.19	ARTS AND RECREATION SERVICES	171
7.20	OTHER SERVICES.....	176
8	REFERENCES.....	179
9	FIGURES, TABLES & GLOSSARY	180
9.1	INDEX OF FIGURES	180
9.2	INDEX OF TABLES.....	181
9.1	GLOSSARY/ABBREVIATIONS	182

4 INTRODUCTION

4.1 Background

In 2007, the Mackay-Isaac-Whitsunday Regional Economic Development Corporation (REDC) engaged AEC Group Limited, to conduct an economic review of the region “to identify strategic economic development opportunities across the region in order to help manage and facilitate growth and direct development in an efficient and sustainable manner into the future.” The purpose was to set a baseline against which all future progress could be measured. This report was known as the “Economic Baseline Audit” and was released to the public in 2008. It was based on a range of data collected following the 2006 Australian Census.

Following the release of this audit, REDC committed to preparing and releasing information every five years using the audit as a baseline of comparison. This new report is now known as the Regional Report Card and has been prepared and analysed by REDC in conjunction with input and assistance from the Mackay Office of the Department of State Development Infrastructure and Planning as well as other various government departments, local councils and industry bodies (see acknowledgments on page 9).

The report has been divided into three sections:

1. Socio-economic Profile
2. Infrastructure Review
3. Industry Profiles

4.2 Purpose of this Document

This Regional Report Card (2012) reviews the original 2007 Economic Baseline Audit and provides an analysis of the changes which have occurred over this period. The data collected for the current report is based on the 2011 Census, and future updates will also align with Census releases.

The 2012 Regional Report Card identifies and discusses the key advantages and issues facing the region in the context of its economic structure, available infrastructure, existing and potential industry activity, and overarching influencing factors.

The document provides valuable information to regional stakeholders in order to:

1 Capitalise on Opportunities

2 Mitigate against Risks

3 Facilitate Economic Development

4 Support Regional Advocacy

- *Strategies*
- *Investment Attraction*
- *Diversification*

- *Funding Applications*
- *Policy Input*
- *EIS Input*

5 SOCIO-ECONOMIC PROFILE

5.1 Summary

The Mackay-Isaac-Whitsunday region recorded a 7.2% increase in population between 2006 and 2011. The population recorded for the region does not include any non-resident fly-in, fly-out (FIFO) workers who often spend up to 50% of their time residing in the region. In the longer term the region's population is projected to grow at a faster rate than the state average, ultimately putting more pressure on the need for infrastructure and services. Adequate planning is essential if the region is support the predicted growth over the next 10 years.

The region has a high percentage of families with children, which is consistent with the 2007 results, and highlights the need for planning in the areas of child care and education facilities, as this trend is predicted to continue into the future.

More people are in rental housing, with 42.2% of households within the region renting compared to 31.9% in 2007. This figure strongly follows the affordability data for the region which is now showing that families must have a combined income of between \$130,000 and \$180,000 to comfortably afford the median house price in the region (Mackay \$455,000, Isaac \$520,000, Whitsunday \$369,500). Based on household income, 84.4% of households in Mackay, 72.6% in Isaac, and 75.3% in Whitsunday cannot afford to purchase a property at the median house price.

Gross Regional Product (GRP) for the region has increased by \$7.3 billion from the reported GRP in 2007, with the region's economy estimated at \$20.6 billion in 2011-12. The region's GRP represents 7.3% of the Gross State Product (GSP) for Queensland. The region has seen a 21.9% in the labour force since 2007, with a slight increase in unemployment of 0.9%. Strong growth in employment for *professional occupations* (23.6%) has resulted in the intervening period, as well as *mining related* positions (27%).

There has been consistent growth in employment across all sectors other than Agriculture, which decreased its workforce by 15.1%. However, the GRP for Agriculture has increased by 22.7%, indicating strong productivity gains in the sector. The mining sector has experienced the largest increase in employment of 44.1%. The competition for skills from the large mining sector is a factor which has impacted on the agricultural sectors ability to attract and retain staff.

Strong growth in the number of people with post-school qualifications was also seen during this period with an increase of 6 percentage points. This figure is still 4 percentage points below the State average but is improving. During this period the region has seen significant investment from CQUniversity with a number of new courses being introduced and new facilities on the Mackay campus.

Housing prices have remained stable with only modest increases in Mackay and Isaac. Whitsunday has seen a decrease in housing prices during this period making it an increasingly attractive option for buyers.

Business confidence has decreased between 2007 and 2012 due to changing market conditions driven by the mining industry. The low AUD, low commodity prices, rising costs of production, and rising taxes have all contributed to the uncertainty in the market. As the largest industry in the region the effects have flowed through to the majority of industry sectors.

5.2 Demographic Overview

5.2.1 Population

Between 2006 and 2011 population growth slowed to an average of 1.4% per annum, slightly below the State average of 1.8%. The Mackay-Isaac-Whitsunday region had previously been experiencing stronger population growth (3.1% per annum) between 2001 and 2006, exceeding the State average for this period. Over the long term, the region's population is projected to grow at a faster rate than the State average (1.8% compared to 1.7%).

5.2.2 Estimated Resident Population

- The Mackay-Isaac-Whitsunday recorded an estimated resident population of 171,297 persons in 2011, which was 7.2% more than the population recorded in 2006. The Queensland population grew 9.4% during the same period.
- The Mackay-Isaac-Whitsunday region's population has grown at an average annual growth rate of 1.4% over the past five years, compared to Queensland at 1.8%.
- At the local government area (LGA) level there is evidence of disparate growth outcomes, with Isaac growing at close to 2% per year, while Whitsunday has averaged only 0.7%.
- Isaac was the fastest growing local government area within the Mackay-Isaac-Whitsunday region, recording average annual growth of 1.9% since 2006. This is most likely a reflection of the expansion of economic investment and activity in the region's mining industry.

Table 1: Estimated resident population

	Estimated resident population as at 30 June			Average annual growth rate	
	2001	2006	2011	2001-2006	2006-2011
	-number-			%	
Isaac (R)	18,524	21,113	23,212	3.3	1.9
Mackay (R)	91,084	107,332	115,677	2.7	1.5
Whitsunday (R)	27,931	31,355	32,408	2.2	0.7
M-I-W Region	137,539	159,800	171,297	3.1	1.4
QUEENSLAND	3,628,946	4,090,908	4,474,098	2.4	1.8

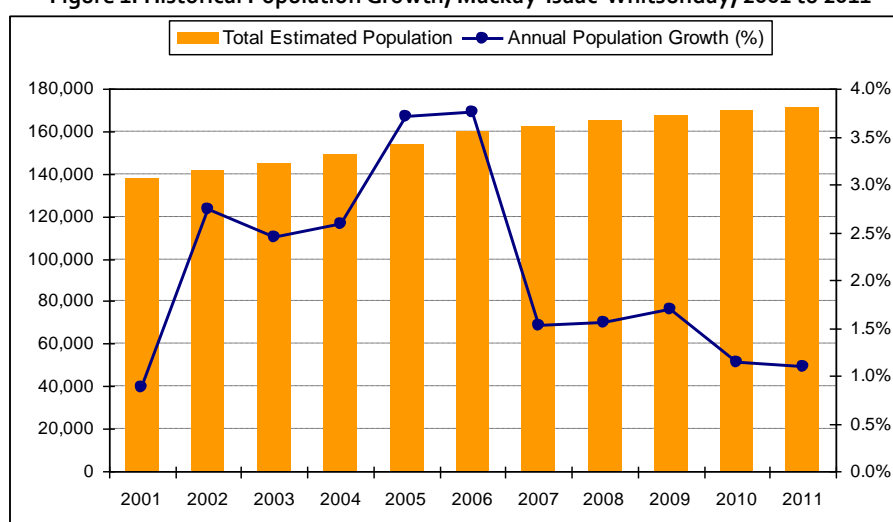
(Australian Bureau of Statistics, Population by Age and Sex, Regions of Australia, 2011, cat. no. 3235.o.)



Resident population does not include non-resident, fly-in fly out (FIFO) workers. The Queensland Treasury and Trade (2012) population study estimates that there were 25,035 non-resident persons residing in the region in 2012. Strong growth in the non-resident workforce has been driven by the resources boom and sustained growth of the mining sector in Mackay-Isaac-Whitsunday.

5.2.3 Historical Population Growth

Figure 1: Historical Population Growth, Mackay-Isaac-Whitsunday, 2001 to 2011



(Australian Bureau of Statistics, Population by Age and Sex, Regions of Australia, 2011, cat. no. 3235.0.)

- **Figure 1** (above) highlights the historical population growth of the Mackay-Isaac-Whitsunday region over the last decade. It can be seen that after strong population growth over the first half of the decade (peaking at just under 4.0% annual growth), the annual population growth rate declined significantly in 2007. After a slight recovery from this decline, the region's annual population growth rate has dipped slightly over the last two years.

5.2.4 Future Population Growth

- Over the long term, the region's population is projected to grow at a faster rate than the state average (**Table 2**).
- In percentage terms the fastest growth will be in Isaac LGA (likely linked to the expected strength in the resources sector in coming years), however in absolute terms most additional persons will reside in the Mackay LGA.

Table 2: Projected population growth (medium series) to 2031

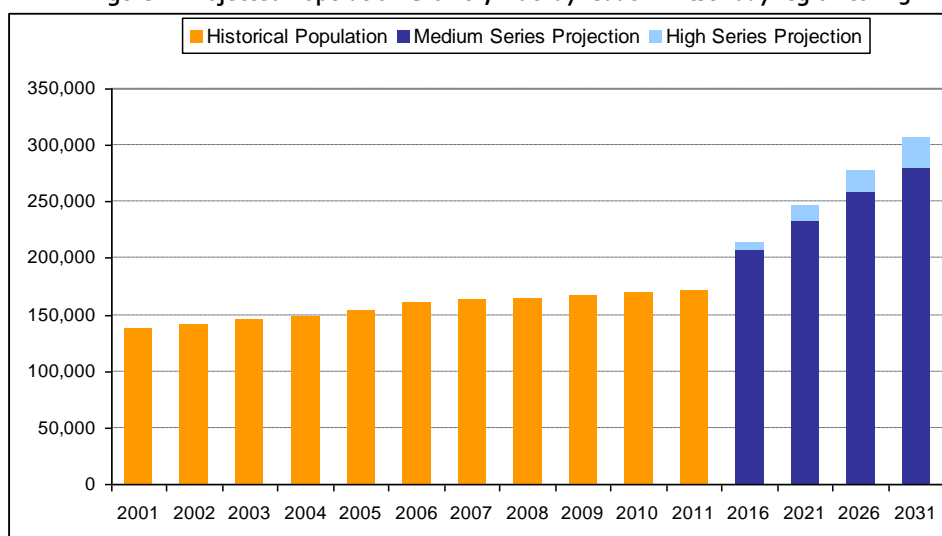
	Projected Population as at 30 June		Average annual growth rate	
	2021	2031	2011-2021	2021-2031
	-number-		%	
Isaac (R)	31,418	37,000	3.0	1.6
Mackay (R)	156,117	187,367	2.5	1.8
Whitsunday (R)	46,008	55,451	2.6	1.9
M-I-W Region	233,543	279,818	2.6	1.8
QUEENSLAND	5,588,617	6,592,857	1.9	1.7

(Source: Queensland Government household and dwelling projections, 2011 edition, Office of Economic and Statistical Research, Queensland Treasury.)

Note: The new edition of the population projections is currently being prepared based on revised estimated resident population and assumptions around future population changes and expected to be released in late 2013.

- **Figure 2** (below) provides an illustration of projected population growth in the Mackay-Isaac-Whitsunday region under both medium and high series projections. According to the high series population projections, the region would experience average annual population growth of around 2.6% per annum over the next 20 years, to reach a total of 279,818 persons by 2031.

Figure 2: Projected Population Growth, Mackay-Isaac-Whitsunday region to 2031



(Source: Queensland Government household and dwelling projections, 2011 edition, Office of Economic and Statistical Research, Queensland Treasury.)



The Mackay-Isaac-Whitsunday region is expected to reach an estimated resident population of 279,818 by the year 2031, around 100,000 persons more than in 2011, with solid growth across all local government areas.

This highlights the need for adequate planning in the areas of infrastructure, housing, effective road transport systems, health services and facilities, schools and education facilities and the provision of social support.

5.2.5 Age Distribution

The Mackay-Isaac-Whitsunday region has a younger population on average compared to Queensland with higher percentages of youth and working aged persons. This is consistent with the 2006 data moving from an average age of 35.3 years to 35.4 years. Our highest age distribution range remains the 0-14 year's bracket representing 20.4% of the population.

- An ageing population poses considerable policy challenges for most developed economies including Queensland. That said the Mackay-Isaac-Whitsunday region is expected to maintain a relatively low share of mature aged persons in coming decades with only 10.5% of the population currently over 65 years, increasing to 15% over the next 20 years.

Table 3: Population structure

	2011			2031		
	Youth ¹	Working Age ²	Mature ³	Youth	Working Age	Mature
	%					
Isaac (R)	25.0	71.2	3.8	23.1	72.4	4.4
Mackay (R)	20.6	68.1	11.2	19.8	63.9	16.2
Whitsunday (R)	16.6	71.3	12.1	16.0	66.0	18.0
Mackay Region	20.4	69.1	10.5	19.5	65.5	15.0
QUEENSLAND	19.8	67.1	13.1	18.3	62.1	19.6

(Source: Queensland Government household and dwelling projections, 2011 edition, Office of Economic and Statistical Research, Queensland Treasury.)

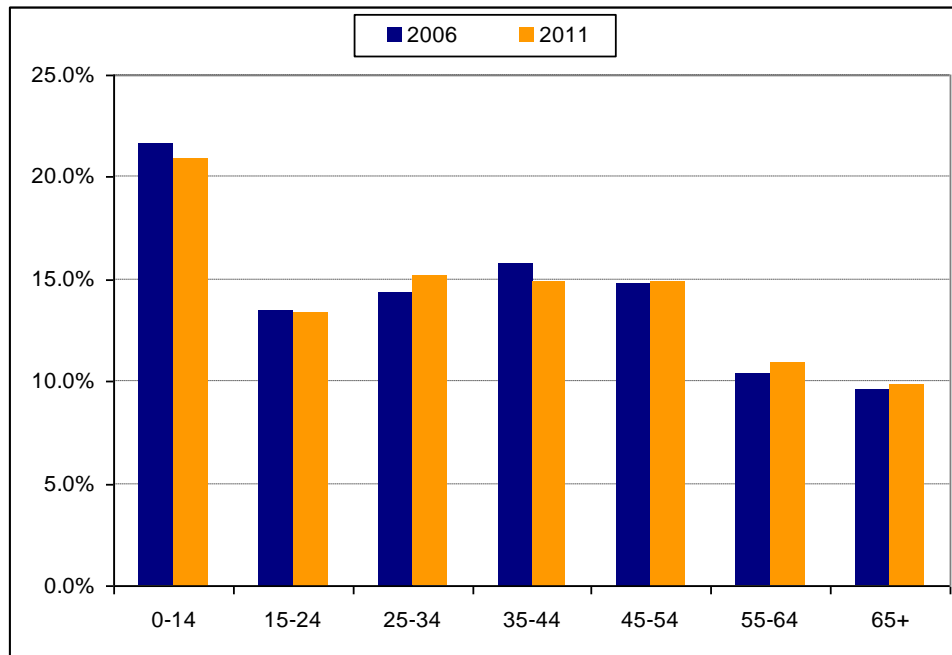
- Population structures differ between local government areas (LGAs), with Isaac having an extremely high share of youth and working aged persons, while Mackay and Whitsunday have a share more comparable to the state average, albeit slightly younger.

¹ Youth = 0-14 yrs Mature = 65+ yrs

² Working Age = 15-64 yrs

³ Mature = 65+ yrs

Figure 3: Age Distribution, Mackay-Isaac-Whitsunday region, 2006 and 2011



(Australian Bureau of Statistics, Population by Age and Sex, Regions of Australia, 2011, cat. no. 3235.0.)

- The most notable increase in median age over the past 15 years has been experienced by the Mackay LGA, increasing from 34.3 years in 2001 to 35.8 years in 2011. Over the same period, the median age in the Whitsunday LGA increased by 1.2 years (36.4 in 2001 to 37.6 in 2011).
- Conversely, the median age in the Isaac LGA actually declined slightly over the last decade, by 0.3 years (31.8 in 2001 to 31.5 in 2011). This trend is possibly a reflection of the job opportunities in the mining industry that attract young singles and families to the region.

Table 4: Median Age, 2001 to 2011

Region	2001	2006	2011
Isaac LGA	31.8	31.3	31.5
Mackay LGA	34.3	35.7	35.8
Whitsunday LGA	36.4	37.4	37.6
Mackay-Isaac-Whitsunday region	34.3	35.3	35.4
Queensland	35.0	36.0	36.6

(Australian Bureau of Statistics, Population by Age and Sex, Regions of Australia, 2011, cat. no. 3235.0.) . Unpublished data.



The Mackay-Isaac-Whitsunday region's median age remained relatively stable between 2001 and 2011, driven by a strong increase in young adults and their families moving to the inland mining areas of the region to take high paying mining jobs.

5.2.6 Household Structure

In Mackay-Isaac-Whitsunday, 47% of households are composed of couple families with children. This is a slight decrease on 2006 (47.6%); however the region remains well above the State average of 42.8%. The highest percentages of couple families with children are in the Mackay and Isaac local government areas.

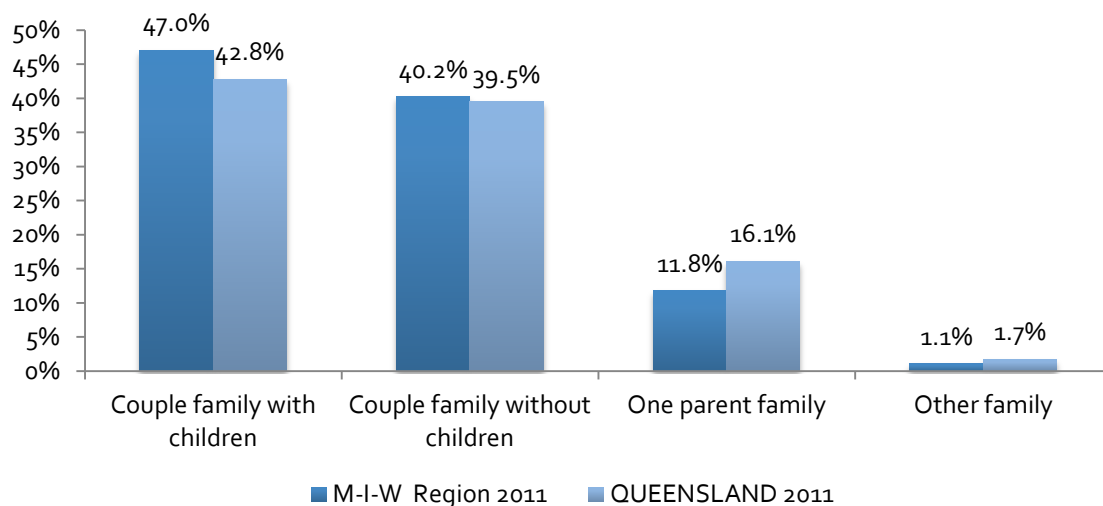
- In 2011, the Mackay-Isaac-Whitsunday region recorded a greater proportion of couple families with children (47%) than Queensland (42.8%) but a lower proportion of one parent families (11.7% compared to 16.1%).
- Despite the proportion of couple families with children remaining above the Queensland proportion, the number of couple families with children has declined slightly over the past five years (0.6 percentage points).
- The Mackay-Isaac-Whitsunday region recorded an average number of persons per household of 2.7 persons in 2011. This was above the average of the State of 2.6 persons per household.

Table 5: Family Composition

	Couple Family With Children	Couple Family Without Children	One Parent Family	Other Family	Persons Per Household
Mackay (R)					
2001	44.40%	40.60%	13.70%	1.30%	2.6
2006	42.70%	43.70%	12.20%	1.40%	2.5
2011	46.40%	39.10%	13.20%	1.40%	2.7
Isaac (R)					
2001	56.80%	35.70%	6.70%	0.80%	3.1
2006	56.40%	35.50%	7.40%	0.70%	2.8
2011	55.80%	35.10%	8.40%	0.70%	2.9
Whitsunday (R)					
2001	50.20%	35.50%	13.30%	1.00%	2.8
2006	48.90%	39.60%	10.60%	0.90%	2.8
2011	38.80%	46.40%	13.70%	1.10%	2.4
Mackay-Isaac-Whitsunday Region					
2001	48.40%	36.80%	13.70%	1.20%	2.8
2006	47.60%	39.50%	11.70%	1.10%	2.7
2011	47.00%	40.20%	11.77%	1.07%	2.7
QUEENSLAND					
2001	44.70%	37.40%	16.00%	1.80%	2.7
2006	43.90%	39.20%	15.20%	1.70%	2.6
2011	42.80%	39.50%	16.10%	1.70%	2.6

(Australian Bureau of Statistics, Census of Population and Housing, 2001, 2006, 2011.).

Figure 4: Family Composition



(Australian Bureau of Statistics, Census of Population and Housing, 2011.)



The high percentage of families with children in the region highlights the need for planning in the areas of child care, primary and secondary schools and higher education to accommodate the future needs of a growing population.

5.2.7 Household Ownership and Finances

The percentage of households in Mackay-Isaac-Whitsunday renting (42.2%) is significantly higher than the State average (33.2%), while the percentage of households with a mortgage is less than the State average (27.3% compared to 34.5%).

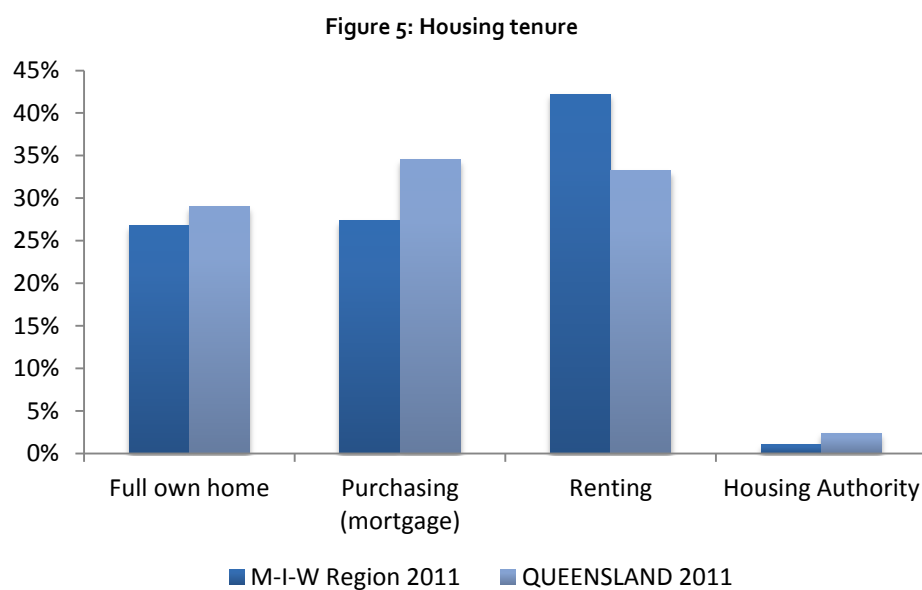
- In 2006, the proportion of households in Mackay-Isaac-Whitsunday who fully owned their own home (32.5%), were purchasing their own home (31.8%) or renting (31.9%) was similar to the Queensland average (31.6%, 33.8% and 31.1%, respectively).
- In 2011, this composition has shifted, with the number of households renting (42.2%) now significantly higher than Queensland (33.2%), and the number of households with mortgages (27.3%) is now well below Queensland (34.5%).
- The greatest proportion of households renting can be found in the Isaac LGA (60.7%) most likely reflecting the transient living conditions of the temporary and semi-permanent mining and construction workforce of these areas.

Table 6: Household Tenure

	% Fully Owning Home		% Purchasing Home		% Renting		% Renting (Housing Authority)	
Mackay								
2001	42.13%		24.30%		23.73%		2.03%	
2006	36.17%		34.60%		25.27%		2.27%	
2011	29.80%	↓	37.30%	↑	29.50%	↑	1.00%	↓
Isaac								
2001	28.73%		10.30%		45.73%		1.67%	
2006	26.20%		13.60%		55.40%		2.50%	
2011	20.90%	↓	14.60%	↑	60.70%	↑	1.50%	↓
Whitsunday								
2001	38.65%		16.85%		30.40%		2.25%	
2006	33.40%		28.35%		33.65%		3.00%	
2011	29.50%	↓	30.20%	↑	36.50%	↑	0.60%	↓
M-I-W Region								
2001	37.80%		21.90%		30.40%		3.10%	
2006	32.50%		31.80%		31.90%		3.40%	
2011	26.73%	↓	27.37%	↓	42.23%	↑	1.03%	↓
QUEENSLAND								
2001	36.60%		25.80%		30.10%		3.50%	
2006	31.60%		33.80%		31.10%		3.40%	
2011	29.00%	↓	34.50%	↑	33.20%	↑	2.40%	↓

(Australian Bureau of Statistics, Census of Population and Housing, 2011.)

Note: totals do not add to 100%, due to exclusion of 'other tenure type' and 'tenure type not stated'.



(Australian Bureau of Statistics, Census of Population and Housing, 2011.)



Mackay-Isaac-Whitsunday continues to experience strong demand for rental housing, with the percentage of households renting well in excess of the state average.

The Mackay and Whitsunday LGAs recorded the highest proportion of households that fully own their own home (29.3% and 29.8%, respectively). However, both these figures are lower than the corresponding figure from 2006, reflecting the decrease in affordability of purchasing a home, driven by price increases in the housing market.

This may also be an indication that some residents are uncertain about remaining in the region longer term. More information will be provided on this issue in the upcoming REDC Liveability Audit.

Table 7: Household Finances

	Median Weekly Home Loan Repayment	% Change	Median Weekly Rent ⁴	Median Weekly Household Income	% Change
Mackay (R)					
2011	\$500	n/a ⁵	\$460	\$1,578	n/a
Isaac (R)					
2011	\$440	n/a	\$500	\$2,579	n/a
Whitsunday (R)					
2011	\$408	n/a	\$350	\$1,165	n/a
M-I-W Region					
2006	\$300	n/a	n/a	\$1,138	n/a
2011	\$464	↑54.7%	n/a	\$1,572	↑38%
QUEENSLAND					
2006	\$300	n/a	n/a	\$1,033	n/a
2011	\$426	↑42%	n/a	\$1,235	↑19.6%

(Australian Bureau of Statistics, Census of Population and Housing, 2006 and 2011)
(RTA Median Weekly Rents, Dec 2012)

- The increase in median weekly home loan repayments and rents in Mackay-Isaac-Whitsunday between 2006 and 2011 was significantly higher than the increase in income for the same period (54.7% compared to 38%).



The median weekly mortgage repayment in Mackay and Whitsunday is more than 30% of the median weekly household income, which indicates housing stress and highlights the need for affordable housing.

A taskforce, led by REDC, is currently working to identify impediments which impact on housing availability and affordability and develop strategies to ensure a strong supply of housing into the future.

⁴ Median weekly rents based on 3 bedroom house

⁵ Due to the change in ABS geographical boundaries, it is not possible to compare LGA level data for 2006.

- The 'Median Multiple' is a method of measuring housing affordability, endorsed by the World Bank, United Nations and Harvard University. It is calculated by dividing the median house price by gross (before tax) income. The resulting housing affordability score indicates the level of affordability, with scores under 3 being considered affordable and scores over 3, ranging from moderately to severely unaffordable.
- According to this standard, housing in Mackay-Isaac-Whitsunday is unaffordable for the majority of residents.
 - Affordable 3.0 or less
 - Mod Unaffordable 3.1 – 4.0
 - Seriously Unaffordable 4.1 – 5.0
 - Severely Unaffordable 5.1 and over

Table 8: Housing affordability matrix, Mackay-Isaac-Whitsunday

Income		House price (\$ '000)																	
Week	Year	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800			
199	10348						<div>Median house prices (3 bedroom) in Mackay-Isaac-Whitsunday sit in this price range.</div> <ul style="list-style-type: none">• Mackay \$455,000• Isaac \$520,000• Whitsunday \$369,500												
299	15548	6.4																	
399	20748	4.8																	
499	25948	3.9	5.8																
599	31148	3.2	4.8																
699	36348	2.8	4.1	5.5															
799	41548		3.6	4.8															
899	46748		3.2	4.3	5.3														
999	51948		2.9	3.9	4.8	5.8													
1249	64948			3.1	3.8	4.6	5.4												
1499	77948			2.6	3.2	3.8	4.5	5.1	5.8	6.4									
1999	103948				2.4	2.9	3.4	3.8	4.3	4.8	5.3	5.8	6.3						
2499	129948						2.7	3.1	3.5	3.8	4.2	4.6	5.0	5.4	5.8				
2999	155948							2.6	2.9	3.2	3.5	3.8	4.2	4.5	4.8	5.1			
3499	181948								2.7	3.0	3.3	3.6	3.8	4.1	4.4				
3999	207948										2.9	3.1	3.4	3.6	3.8				
4499	233948											2.8	3.0	3.2	3.4				
4999	259948													2.9	3.1				
5499	285948															2.8			
% of m-i-w population		7.2 %	14.7 %	7.4 %	13.1 %		9.7 %	13.6 %		7.5 %		3.2 %	4.7 %						

(Australian Bureau of Statistics, Census of Population and Housing, 2011.)
(Regional Economic Development Corporation (REDC), 2013)

Affordable	Moderately unaffordable	Seriously unaffordable	Severely unaffordable
------------	-------------------------	------------------------	-----------------------

- To afford a 3 bedroom house at the median price (Mackay \$455,000; Isaac \$520,000; Whitsunday \$369,500), family household income must be between \$130,000 and \$180,000.

Table 9: Housing affordability, Mackay-Isaac-Whitsunday 2012

	Median price (Sep Qtr 2012)	Weekly repayment ⁶	Income range who can afford (gross annual)	% family households who can afford	% non-family households who can afford	Total % of households who can afford
Mackay LGA						
Unit	320,000	478	\$130,000+	34.2	12.8	28.6
House	455,000	680	\$156,000+	20.1	2.9	15.6
Isaac LGA						
Unit	n/a	n/a	n/a	n/a	n/a	n/a
House	520,000	777	\$182,000+	33.9	6.5	23.9
Whitsunday LGA						
Unit	229,000	342	\$78,000+	58.1	22.4	46.9
House	369,500	552	\$130,000+	31.7	9.6	24.7

(Australian Bureau of Statistics, Census of Population and Housing, 2011.)

(Real Estate Institute of Queensland (REIQ), Market Monitor, 2012)

- Based on household income, 84.4% of all households in Mackay, 72.6 in Isaac and 75.3% in Whitsunday cannot afford to purchase a property at the median house price in their local government area.

5.2.8 Cost of Living

- As of May 2010, the cost of living in Mackay LGA (103.2) is 3.2 percentage points higher than the Brisbane base index of 100, while in Whitsunday LGA (100.7), the cost of living is only marginally above Brisbane (0.7 percentage points). Both these regions have a higher cost of living than the surrounding areas of Townsville (99.1) and Gladstone (98.0).
- The cost of living in Whitsunday LGA declined noticeably (4.1 percentage points) over the same period.

Table 10: Cost of Living

Region	Cost of Living Index, May 2010 ⁷	Percentage Point Change from May 2006
Mackay	103.2	1.4
Whitsunday	100.7	-4.1
Gladstone	98.0	2.2
Townsville	99.1	-2.8

(OESR, Index of Retail Prices in Queensland Regional Centres, May 2010)



The cost of living in Mackay has increased 1.4 percentage points since 2006, driven by the regional pressures placed on the local economy by the rapid growth of the mining sector and supporting industries. REDC is currently investigating the factors that affect cost of living.

⁶ Assumes 30 year loan, principal and interest payments based on interest rate at 5/3/2013.

⁷ Brisbane = 100.0

5.3 Economic Profile

5.3.1 Gross Regional Product

The Mackay-Isaac-Whitsunday region contributed approximately 7.3% of the Gross State Product for Queensland in 2011/12 (\$283.6 billion). The mining industry contributes 50.3% of the region's total Gross Regional Product (GRP).

- The Mackay-Isaac-Whitsunday region continues to rely heavily on the mining industry which accounts for 50.3% of total Gross Regional Product (GRP).
- The largest contributor to GRP in each region is mining. Other top performing industries in Mackay-Isaac-Whitsunday include :
 - Construction (4.4% of total GRP),
 - Manufacturing (4.1% of total GRP),
 - Transport, postal and warehousing (3.6% of total GRP),
 - Wholesale trade (3.4% of total GRP) and;
 - Agriculture, forestry and fishing (2% of total GRP)

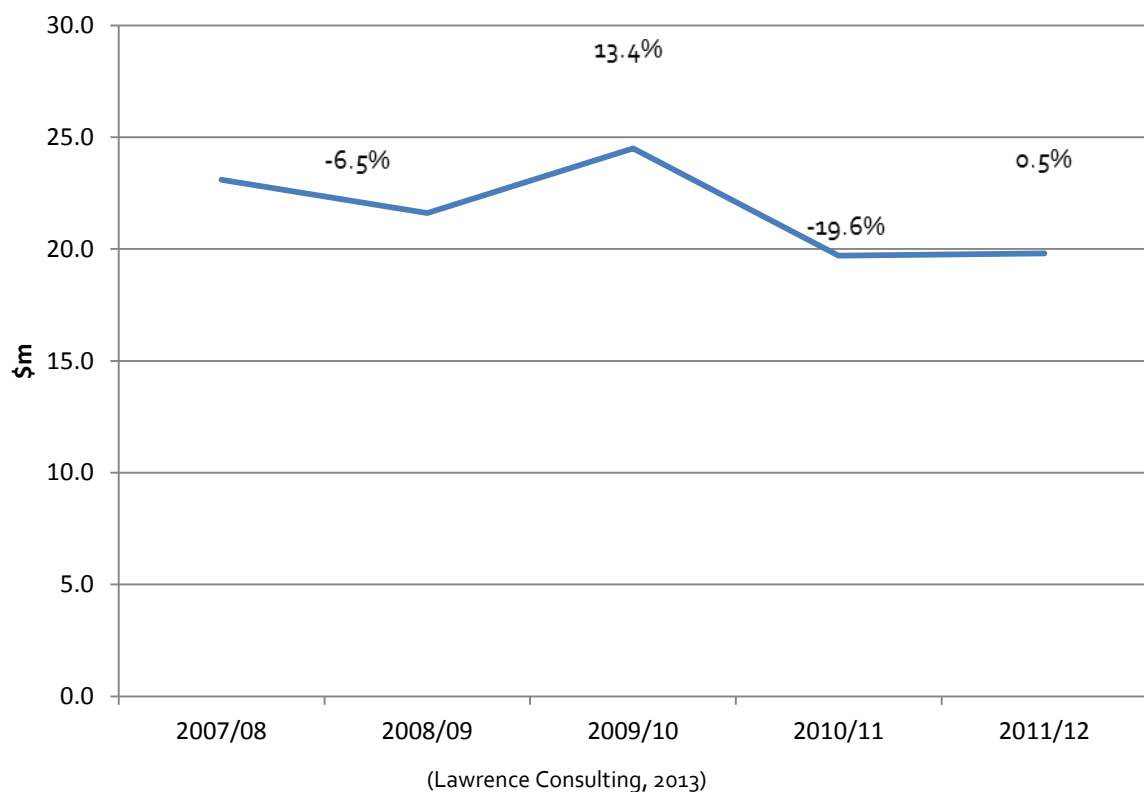
Table 11: Gross Regional Product, 2011-12

	Level (\$m) 2011/12			
Industry	Mackay	Whitsunday	Isaac	M-I-W Region
Agriculture, forestry and fishing	168.4	138.0	100.3	388.4
Mining	957.7	526.7	8,477.3	10,699.9
Manufacturing	632.6	117.1	62.7	774.6
Electricity, gas, water and waste services	78.1	25.0	19.1	138.7
Construction	491.9	159.1	217.1	847.0
Wholesale trade	523.6	79.6	59.2	703.4
Retail trade	334.9	107.0	43.3	488.8
Accommodation and food services	142.6	117.6	52.7	294.6
Transport, postal and warehousing	468.2	169.1	73.4	664.1
Information media and telecommunications	62.1	17.2	6.7	90.8
Financial and insurance services	214.5	53.5	23.6	302.9
Rental, hiring and real estate services	135.5	43.0	26.3	209.8
Professional, scientific and technical services	298.2	60.3	37.3	395.1
Administrative and support services	78.3	38.8	35.5	166.2
Public administration and safety	225.1	59.3	45.9	323.2
Education and training	204.2	52.8	41.2	328.0
Health care and social assistance	317.3	76.4	30.5	434.1
Arts and recreation services	11.0	5.6	1.6	18.6
Other services	156.9	30.7	29.8	215.8
Non classifiable industry	54.1	22.5	16.5	93.7
<i>Total Industry Value Added</i>	<i>5,555.1</i>	<i>1,899.3</i>	<i>9,400.1</i>	<i>17,577.6</i>
Ownership of dwellings	555.5	189.9	940.0	1,769.1
<i>GRP at Factor Cost / Total Factor Income</i>	<i>6,110.6</i>	<i>2,089.2</i>	<i>10,340.1</i>	<i>19,346.7</i>
Taxes less subsidies on production and imports	391.2	133.7	661.9	1,291.8
Statistical discrepancy	23.1	7.9	39.0	-15.2
Gross Regional Product	6,524.9	2,230.9	11,041.0	20,623.2
Gross State Product, Queensland				283,604

(Lawrence Consulting, 2013)

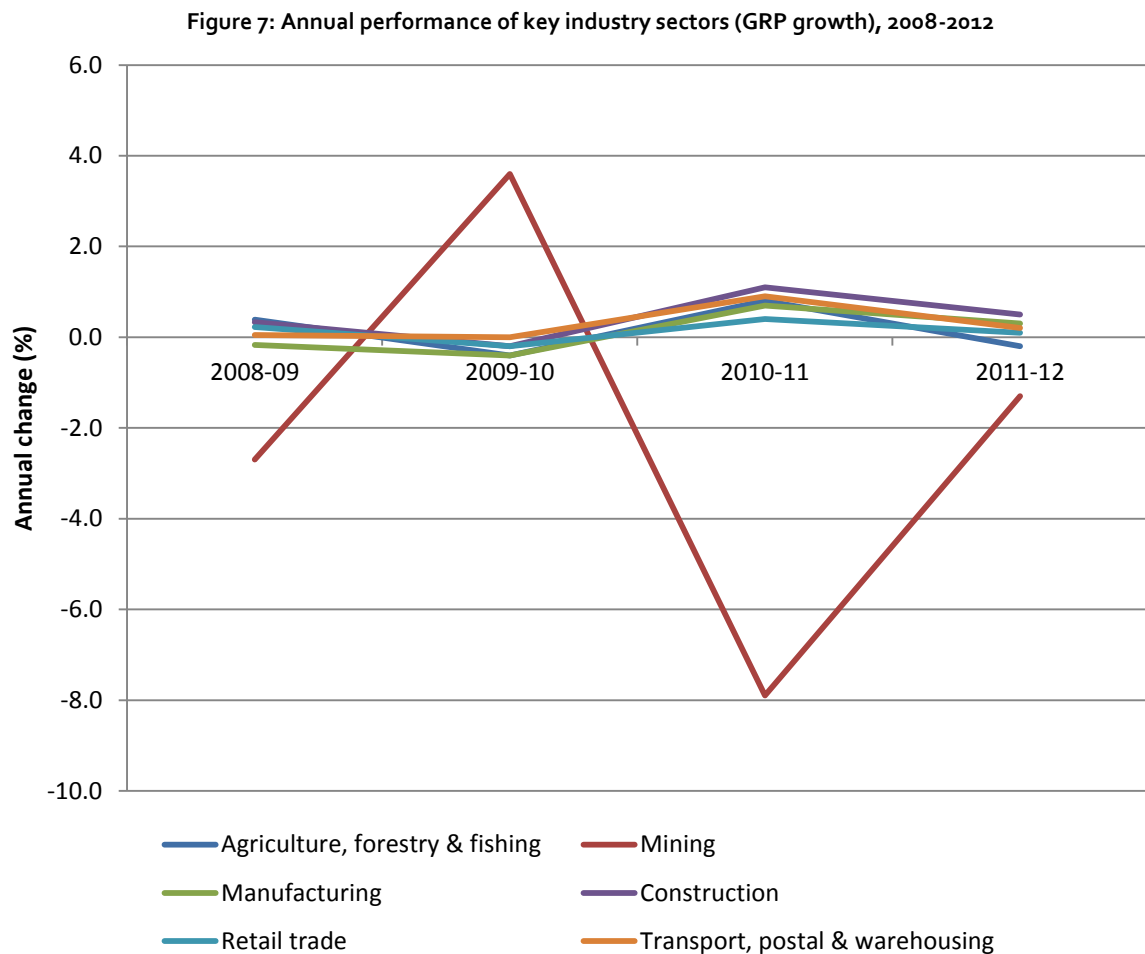
- GRP results are impacted by both cost and volume of production. This has implications for the Mackay-Isaac-Whitsunday region, which is heavily reliant on its export markets (both agricultural and mining).
- Annual fluctuations in Mackay-Isaac-Whitsunday's GRP occur in response to the changing value of the Australian dollar and the volume of production which is susceptible to adverse weather events.
- The decline in GRP growth seen in both 2008/09 and 2010/11 illustrate the effects of severe weather events hampering agricultural and mining production during these periods.
- These factors are quite unique to Mackay-Isaac-Whitsunday and often act as a buffer for the regional economy, with the cost of the Australian dollar often offsetting negative impacts of weather on production and vice versa.

Figure 6: Growth in Gross Regional Product, 2007-2012



Whilst the mining industry offers economic benefits to the Mackay-Isaac-Whitsunday region, it is important not to be too heavily reliant on any one industry. Diversification of the regional economy by strengthening and supporting other sectors is essential to maintaining economic health and stability. Initiatives such as REDC's Cleantech Strategy play an important role in this process.

- The mining industry, although a major contributor to GRP in Mackay-Isaac-Whitsunday, is prone to significant fluctuations (as a result of changing dollar values and production volumes). This highlights the need for diversification of the regional economy.
- Other top performing industries in the region tend to follow a more uniform trend, acting as a buffer for the volatile performance of mining.



(Lawrence Consulting, 2013)



Gross regional product (GRP) is one of the primary indicators used to gauge the health of a region's economy. It represents the total dollar value of all goods and services produced over a specific time period - you can think of it as the size of the economy.

Economic production and growth, what GRP represents, has a large impact on nearly everyone within that economy. For example, when the economy is healthy, you will typically see low unemployment and wage increases as businesses demand labour to meet the growing economy.

5.3.2 Labour Market

The Mackay-Isaac-Whitsunday region's labour force has grown at a rate faster than the State average (21.9% compared to 15.3%). The strongest growth was seen in Mackay LGA (24.8%).

Unemployment levels in some parts of the region are down to "transitional" levels, which can potentially expose regional economies to efficiency and cost of labour issues.

- Mackay-Isaac-Whitsunday's unemployment rate (3.9%) continues to be lower than the state average (5.5%).
- The Isaac LGA has the lowest unemployment rate (1.1%), reflecting the continuing demand for skilled workers by the mining and mining support industries.

Table 12: Labour Market

	Labour Force		Unemployment Rate	
Mackay (R)				
2006	53,622	+ 24.8%	3.5%	+ 0.7 pp
2011	66,905		4.2%	
Isaac (R)				
2006	11,631	+ 19.8%	0.9%	+ 0.2 pp
2011	13,931		1.1%	
Whitsunday (R)				
2006	17,560	+ 14.6%	4.6%	+ 1.8 pp
2011	20,115		6.4%	
M-I-W Region				
2006	82,813	+ 21.9%	3%	+ 0.9 pp
2011	100,951		3.9%	
QUEENSLAND				
2006	2,145,500	+ 15.3%	4.7%	+ 0.8 pp
2011	2,472,900		5.5%	

(DEEWR, Small Area Labour Markets (Smoothed Series), December 2012)



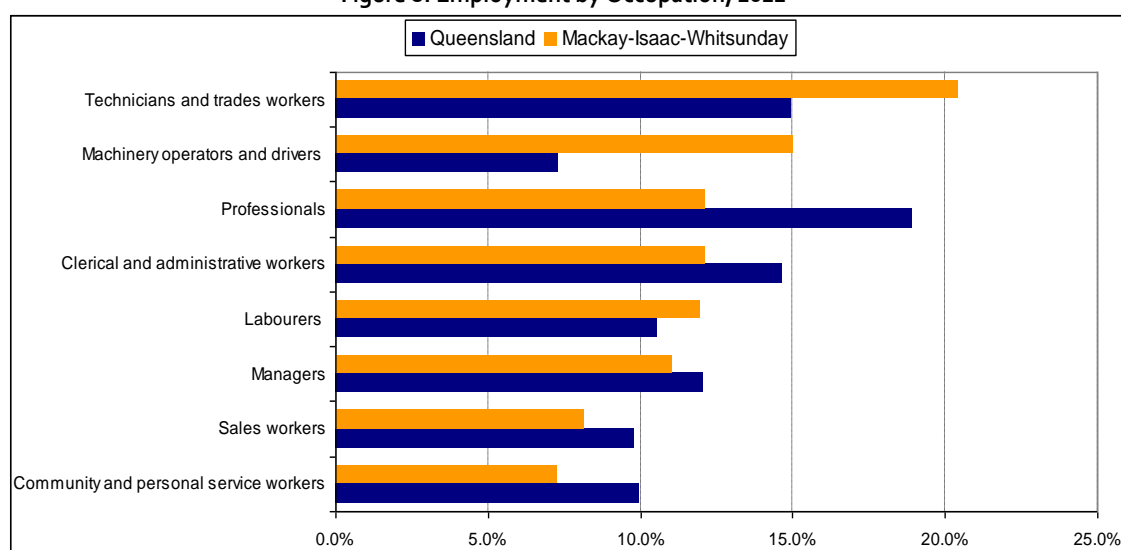
The Mackay-Isaac-Whitsunday region has a strong labour market, with a higher participation rate and lower unemployment rate when compared with the State. The region relies heavily upon the comparative strength of its agriculture, forestry and fishing industry, mining industry, construction industry and transport, postal and warehousing industry for a large percentage of employment positions.

Table 13: Employment by Occupation

		Mackay ⁸	Isaac	Whitsunday	M-I-W Region	% Change
Managers	2006	n/a	n/a	n/a	8,855	n/a
	2011	5,894	1,441	2,064	9,399	6.1%
Professionals	2006	n/a	n/a	n/a	8,346	n/a
	2011	7,403	1,299	1,614	10,316	23.6%
Technicians and Trade Workers	2006	n/a	n/a	n/a	14,204	n/a
	2011	12,147	2,481	2,732	17,360	22.2%
Community and Personal Service Workers	2006	n/a	n/a	n/a	5,153	n/a
	2011	4,100	560	1,500	6,160	19.5%
Clerical and Administrative Workers	2006	n/a	n/a	n/a	8,685	n/a
	2011	7,474	1,152	1,659	10,285	18.4%
Sales Workers	2006	n/a	n/a	n/a	6,450	n/a
	2011	4,958	591	1,370	6,919	7.3%
Machinery Operators and Drivers	2006	n/a	n/a	n/a	10,052	n/a
	2011	7,992	2,927	1,849	12,768	27.0%
Labourers	2006	n/a	n/a	n/a	9,757	n/a
	2011	6,365	1,390	2,400	10,155	4.1%
Total	2006	n/a	n/a	n/a	71,502	n/a
	2011	112,798	22,587	31,428	166,813	133.3%

(Australian Bureau of Statistics, Census of Population and Housing, 2006 and 2011)

- There has been strong growth in employment across all occupations between 2006 and 2011. Compared with the State, the Mackay-Isaac-Whitsunday region has a higher proportion of:
 - Technicians and trades workers (20.4% of total employment);
 - Machinery operators and drivers (15.0%); and
 - Labourers (12.0%).

Figure 8: Employment by Occupation, 2011⁹

(Australian Bureau of Statistics, Census of Population and Housing, 2011, Basic Community Profile - B45.)

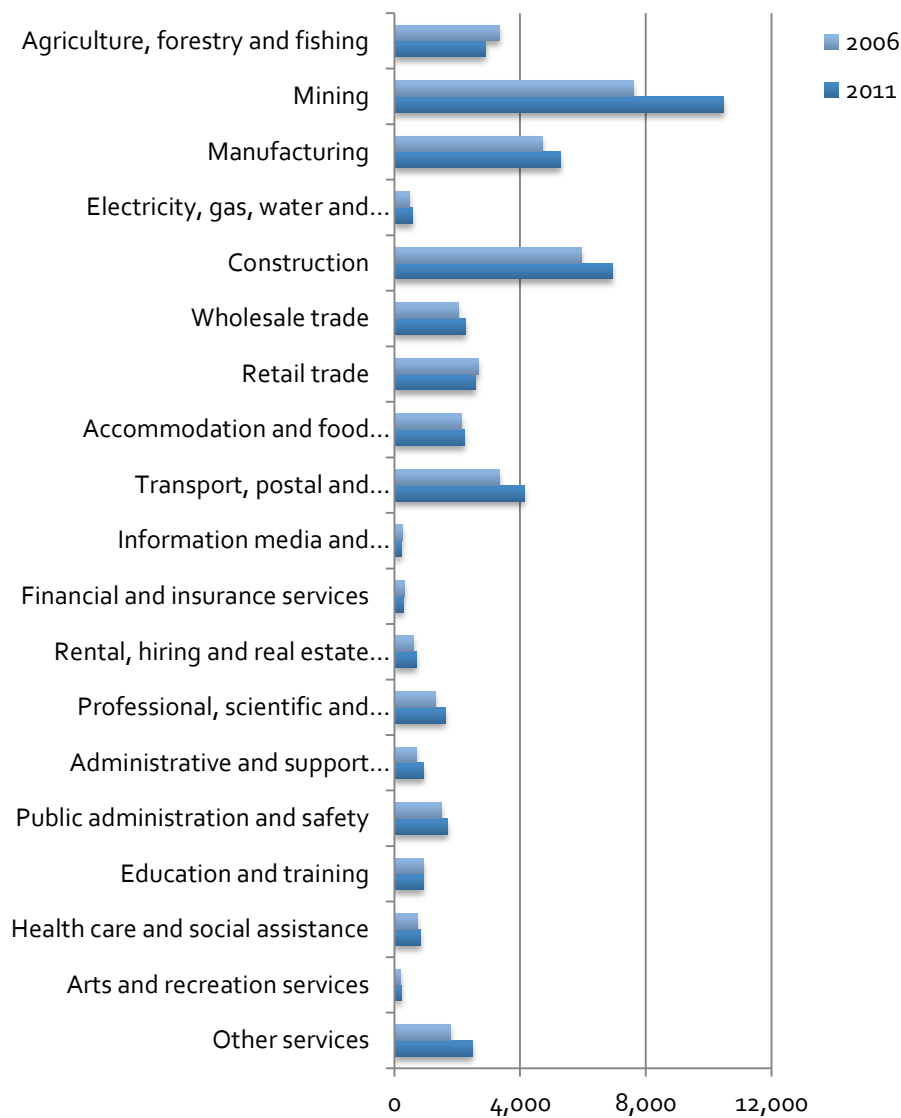
⁸ Due to the change in ABS geographical boundaries, it is not possible to compare LGA level data for 2006.

⁹ Chart does not include 'inadequately defined/not stated'.

5.3.3 Employment by Industry

- Between 2006 and 2011, employment in the Mackay-Isaac-Whitsunday region has seen significant growth in the following areas:
 - Mining (37.8%)
 - Transport, Postal and Warehousing (24.1%)
 - Construction (16.4%)
 - Manufacturing (12.3%)
- Between 2006 and 2011, employment in the Mackay-Isaac-Whitsunday region has declined in the Agriculture, Forestry and Fishing industry (-13.2%), however the sector increased its contribution to gross regional product by 22.7%, indicating a significant increase in productivity.

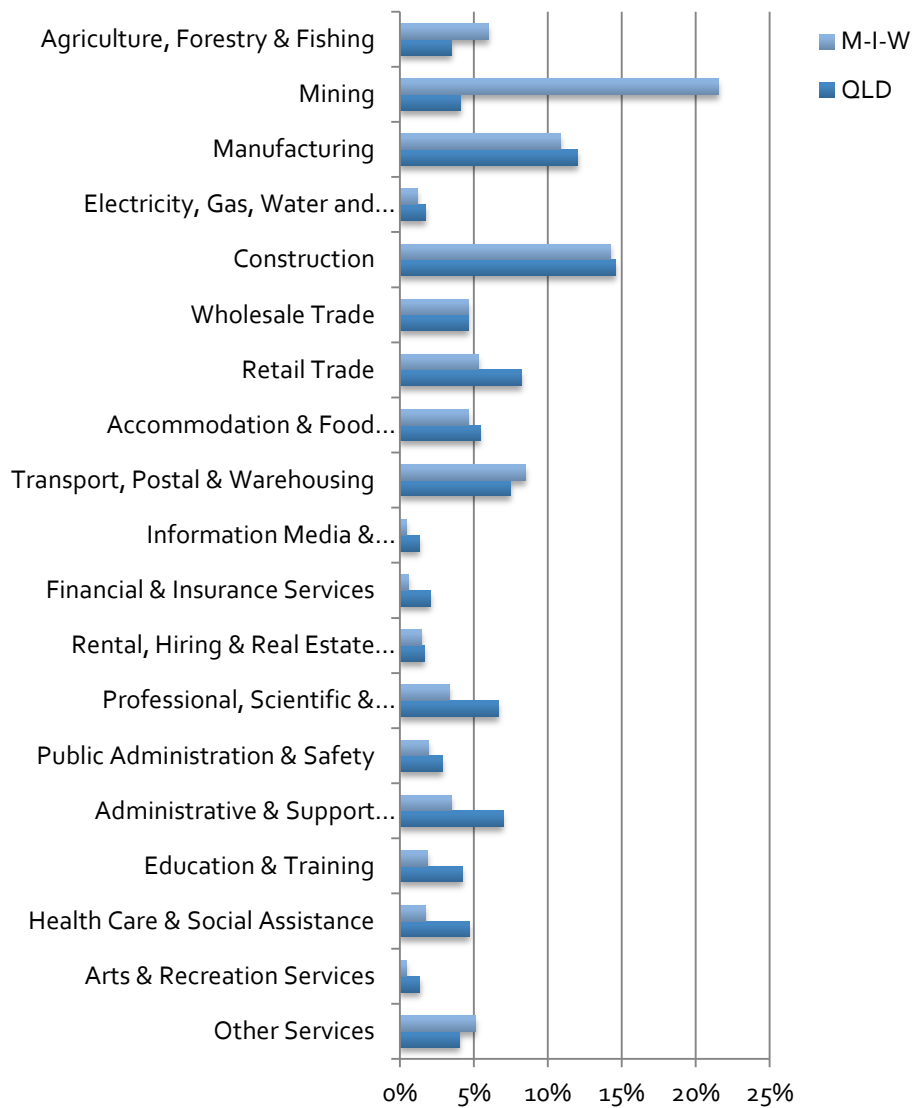
Figure 9: Industry workforce size (number of employees), Mackay-Isaac-Whitsunday 2006-2011



(Australian Bureau of Statistics, Census of Population and Housing, 2011.)

- Compared to the State, employment in the Mackay-Isaac-Whitsunday region has a greater reliance on the industries of:
 - Mining (21.6% compared to 4.1% for Queensland);
 - Agriculture, forestry and fishing (6% compared to 3.5% for Queensland); and
 - Transport, postal and warehousing (8.5% compared to 7.5% for Queensland).

Figure 10: Industry workforce size as percentage of total workforce, M-I-W comparison to QLD



(Australian Bureau of Statistics, Census of Population and Housing, 2011.)

5.3.4 Income by Industry

Consistent with the 2007 baseline, there is still significant disparity between income levels across industries in the Mackay-Isaac-Whitsunday region with individual incomes highest for those working in mining, construction and manufacturing.

Overall, more than half of all full time employees within the region's economy earned less than \$800 a week (consistent with the Queensland average), while just over 20% earned more than \$1,500 a week (compared to 11% of the Queensland economy).

- In 2011, the median individual weekly income of employees in the Mackay-Isaac-Whitsunday region was \$709.
- Based on 2011 Census data, the largest share of the higher weekly income brackets occurred in the mining industry, as well as industries associated with mining (e.g. transport, postal and warehousing; electricity, gas, water and waste services) and highly-skilled industries (e.g. professional, scientific and technical services).
- Conversely, there were a number of industries within the Mackay-Isaac-Whitsunday region economy where the majority of weekly incomes fell within the low-end brackets. These industries, such as retail trade, accommodation and food services, and arts and recreation services, are generally considered as lower-skilled industries and may also have a higher share of part-time employment in comparison with other industries within the regional economy.
- Of those earning \$2,000 per week or more, 38% work in the mining industry, 10.7% in construction, 9.1% in manufacturing and 8.9% in transport, postal and warehousing.

Table 14: Weekly Income Brackets by Industry, Mackay-Isaac-Whitsunday region, 2011

Industry	Weekly Income Brackets (% share of number of persons) ¹⁰							
	\$1- \$299	\$300- \$599	\$600- \$799	\$800- \$999	\$1,000- \$1,249	\$1,250- \$1,499	\$1,500- \$2,000	\$2,000 or more
Agriculture, Forestry and Fishing	9.5%	25.2%	20.6%	14.6%	12.6%	6.9%	5.4%	5.3%
Mining	0.5%	1.6%	2.1%	2.8%	5.5%	7.6%	21.5%	58.3%
Manufacturing	3.3%	11.0%	13.7%	15.9%	15.7%	12.0%	15.7%	12.8%
Electricity, Gas, Water and Waste Services	1.5%	6.4%	7.9%	12.8%	17.1%	14.9%	23.5%	15.9%
Construction	3.6%	11.3%	10.7%	13.7%	16.0%	13.9%	16.0%	14.8%
Wholesale Trade	4.0%	12.0%	17.2%	15.6%	13.5%	9.4%	12.8%	15.4%
Retail Trade	23.1%	30.4%	20.8%	10.7%	6.2%	3.4%	3.1%	2.3%
Accommodation and Food Services	21.0%	31.5%	20.2%	12.8%	7.3%	3.1%	2.4%	1.8%
Transport, Postal and Warehousing	3.0%	11.3%	12.4%	13.5%	14.2%	11.5%	15.9%	18.2%
Information Median and	7.6%	20.0%	16.7%	14.8%	17.1%	8.9%	11.5%	3.3%
Financial and Insurance Services	4.3%	18.0%	17.6%	16.8%	11.0%	9.0%	11.4%	11.9%
Rental, Hiring and Real Estate Services	7.4%	17.5%	17.5%	11.3%	10.3%	9.6%	11.6%	14.8%
Professional, Scientific and Technical Services	6.3%	14.4%	13.1%	12.3%	12.0%	9.7%	13.6%	18.7%
Administrative and Support Services	10.0%	22.9%	17.8%	15.0%	11.5%	7.1%	8.0%	7.7%
Public Administration and Safety	3.3%	9.9%	12.6%	19.0%	20.1%	14.3%	14.6%	6.2%
Education and Training	8.4%	20.6%	13.5%	9.0%	14.7%	13.1%	17.5%	3.1%
Health Care and Social Assistance	6.9%	23.9%	21.9%	14.1%	12.0%	7.7%	7.1%	6.4%
Arts and Recreation Services	21.4%	26.0%	17.2%	11.9%	11.0%	6.4%	3.8%	2.2%
Other Services	9.1%	20.2%	13.7%	11.9%	12.4%	9.0%	12.1%	11.6%
Total *	16.7%	22.5%	12.2%	9.7%	9.3%	7.1%	9.7%	12.9%

(Australian Bureau of Statistics, Census of Population and Housing, 2011 (Based on place of usual residence).)

¹⁰ Total does not include the following income brackets – negative income, nil income, not stated, not applicable

5.3.5 Qualifications

Between 2006 and 2011, the percentage of persons with a post-school qualification increased in Mackay-Isaac-Whitsunday from 33.6% to 39.3%, bringing it just below the state average (43.3%).

The merger between CQUniversity Australia and CQ TAFE (planned for 2014) will set the stage for the creation of Queensland's first dual sector university – a move which will break down the barriers between vocational and higher education and address the region's skills and qualification needs.

- Between 2006 and 2011, the percentage of persons with a post-school qualification increased in Mackay-Isaac-Whitsunday from 33.6% to 39.3%, bringing it just below the state average (**Table 9**).
- Compared with the State (43.3% total non-school qualification), the Mackay-Isaac-Whitsunday region has a lower proportion of persons with non-schooling qualifications, reflecting the comparatively higher proportion of employment in the region in the occupations of technicians and trades workers, machinery operators and drivers and labourers. However, it should be noted that the region has a higher percentage of persons who have attained a certificate when compared with Queensland overall (24.6% and 19.9%, respectively).

Table 15: Post-school qualifications

	Mackay-Isaac-Whitsunday		Queensland	
Level of Education	2006	2011	2006	2011
Bachelor Degree or higher	9,057	11,996	405,904	548,894
Advanced diploma or diploma	5,419	7,240	204,039	260,778
Certificate	24,895	32,354	554,243	686,993
Total ¹¹	57,030	68,690	1,560,868	1,875,323

(Australian Bureau of Statistics, Census of Population and Housing, 2011 (Based on place of usual residence).)

Table 16: Educational Qualifications

Region	% With Non-School Qualifications		% With Diploma or Higher		% With Certificate	
	2006	2011	2006	2011	2006	2011
Mackay LGA ¹²	n/a	39.7%	n/a	14.8%	n/a	24.9%
Isaac LGA	n/a	40.2%	n/a	15.0%	n/a	25.2%
Whitsunday LGA	n/a	37.3%	n/a	13.9%	n/a	23.4%
M-I-W Region	33.6%	39.3%	12.3%	14.7%	21.2%	24.6%
Queensland	37.6%	43.3%	19.7%	23.4%	17.9%	19.9%

(Australian Bureau of Statistics, Census of Population and Housing, 2011 (Based on place of usual residence).)

¹¹ Includes inadequately described and not stated. Data based on ASGC 2011.

¹² Due to the change in ABS geographical boundaries, it is not possible to compare LGA level data.



A shortage of skilled workers and the attraction of the mining industry continue to place wage pressures on employers who, in some cases, are forced to place less focus on qualifications in order to access cheaper labour. This is a possible cause of the lower proportion of persons in the Mackay-Isaac-Whitsunday region with non-schooling qualifications.

This issue raises the question of employability of workers outside of the mining industry and whether qualifications have an effect on productivity.

5.4 Investment and Property Profile

5.4.1 Dwelling Investment

The number of dwellings approved continues to grow, bolstered by high levels of activity in the Mackay and Isaac LGAs. The number of dwellings approved in 2012 (1,735) was on par with the historical levels reached in 2007 (1,754) with intervening years showing lower approval levels.

- In the 12 months ending 30 September 2012, there were 2,174 dwelling units in new residential buildings approved in Mackay-Isaac-Whitsunday with a total value of \$585.3 million. In comparison, the total value of new residential building approvals in Queensland was \$6,530.2 million.
- Within the region, Mackay LGA recorded the largest values of new residential building approvals (\$456.8 million).
- The total value of non-residential building approvals in Mackay-Isaac-Whitsunday in the 12 months ending 30 September 2012 was \$356.0 million. The largest values of non-residential approvals were recorded Mackay LGA (\$221.1 million) and Isaac LGA (\$102.6 million).

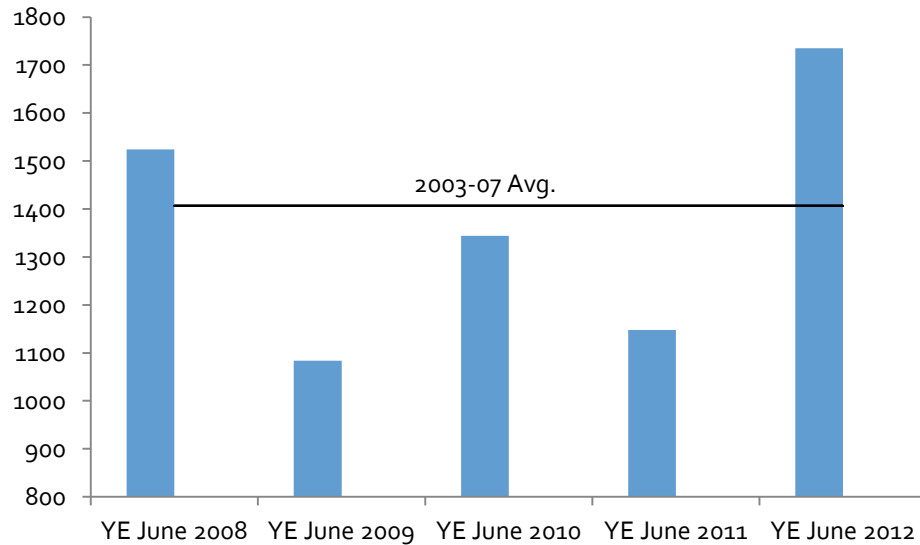
Table 17: Residential and Non-Residential Building Approvals, September 2012

	Dwelling units in new residential buildings (a)	Residential building value (a)	Total residential building value (b)	Total non-residential building value (b)	Total building value (b)	Proportion of total value that is residential (c)
	number		— \$'000 —			%
Mackay	1,587	456,767	491,249	221,128	712,377	69
Isaac	515	108,539	118,878	102,569	221,447	53.7
Whitsunday	72	20,041	26,962	32,263	59,225	45.5
M-I-W Region	2,174	585,346	637,089	355,960	993,049	64.2
Queensland	26,570	6,530,13	7,725,914	5,991,894	13,717,808	56.3
M-I-W as % of QUEENSLAND	8.2	9	8.2	5.9	7.2	

(Australian Bureau of Statistics, Building Approvals Australia, 8731.0, 2012)

- There were 1,735 dwellings approved in 2012, which is amongst the highest recorded number of dwelling approvals for the region, second only to the 1,754 approved in 2007.

Figure 11: Building Approvals 2008-2012



(Australian Bureau of Statistics, Building Approvals Australia, 8731.0, 2012)

Table 18: Residential and Non-Residential Building Approvals 2008-2012

Year To	Mackay LGA	Isaac LGA	Whitsunday LGA	M-I-W Region
YE June 2008	926	127	317	1524
YE June 2009	781	78	225	1084
YE June 2010	1045	100	199	1344
YE June 2011	1022	161	122	1148
YE June 2012	1337	322	76	1735

(Australian Bureau of Statistics, Building Approvals Australia, 8731.0, 2012)

5.4.2 Property Market

Median unit, house and land prices have seen modest increases in Mackay LGA between 2007 and 2012 but have decreased in Whitsunday making it an attractive option for buyers wanting to enter the market.

- In the 12 months ending 30 June 2012, there were a total of 4,185 residential dwelling sales in Mackay-Isaac-Whitsunday comprising 83.8 per cent detached residential dwellings and 16.2 per cent attached residential dwellings.
- The total number of residential dwelling sales in Mackay-Isaac-Whitsunday made up 4.8 per cent of total residential dwelling sales in Queensland.
- Of the 4,185 residential dwelling sales in Mackay-Isaac-Whitsunday, the median sale price was \$410,000.
- Within the region, Mackay LGA recorded the largest volume of sales over the 12 months with 2,693 sales. Isaac recorded the highest median residential dwelling sale price with \$450,000. Whitsunday LGA recorded the lowest median residential dwelling sale price with \$360,000.

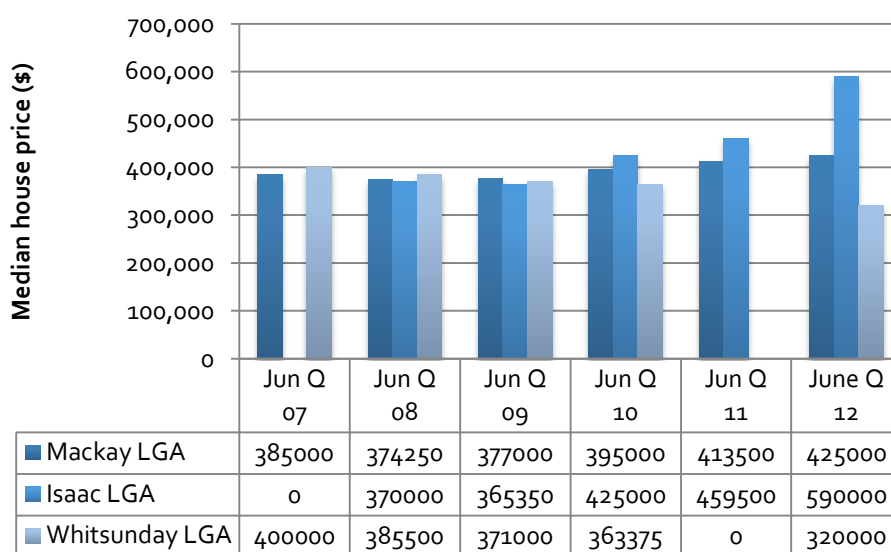
Table 19: Residential dwelling sales, 12 months ending June 2012

	Number of sales			Median sale price		
	Detached dwellings	Attached dwellings	Total dwellings	Detached dwellings	Attached dwellings	Total dwellings
	— number —			— \$ —		
Mackay	2,289	404	2,693	420,000	317,500	409,000
Isaac	945	99	1,044	465,000	330,000	450,000
Whitsunday	273	175	448	415,000	252,000	360,000
M-I-W Region	3,507	678	4,185	422,500	310,000	410,000
Queensland	61,994	26,051	88,045	392,000	345,000	380,000
M-I-W Region as % of QUEENSLAND	5.7	2.6	4.8	n/a	n/a	n/a

(Department of Natural Resources and Mines, Office of the Valuer General, Property Sales)

- Median house prices in Mackay and Isaac LGAs have risen steadily between 2007 and 2012, while prices in Whitsunday have reduced.

Figure 12: Median house price, 2007-2012¹³

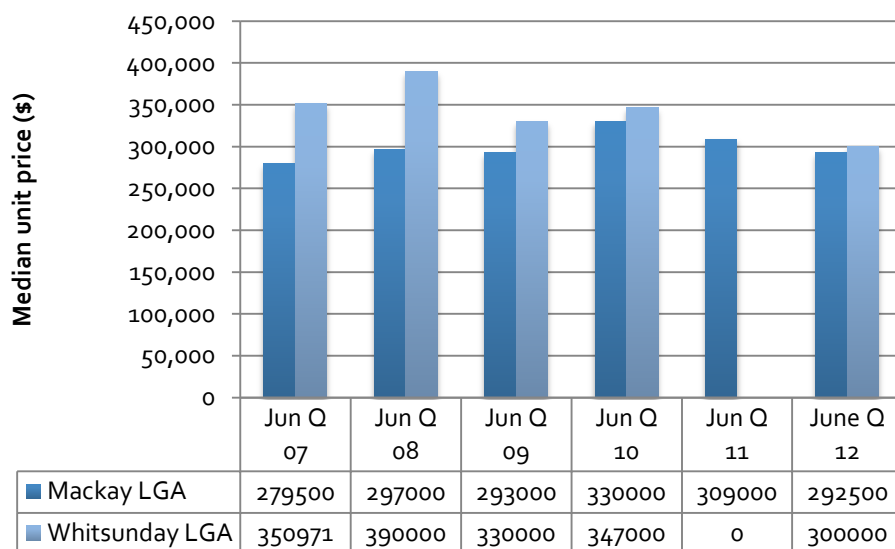


(Real Estate Institute of Queensland (REIQ), Market Monitor, 2012)

- Median unit prices in Mackay LGA increased between 2007 and 2011 before levelling out to \$292,500 in 2012.
- In Whitsunday the median unit price decreased from more than \$350,000 in 2007 to \$300,000 in 2012.

¹³ Whitsunday figure for 2011 and Isaac figure for 2007 not available.

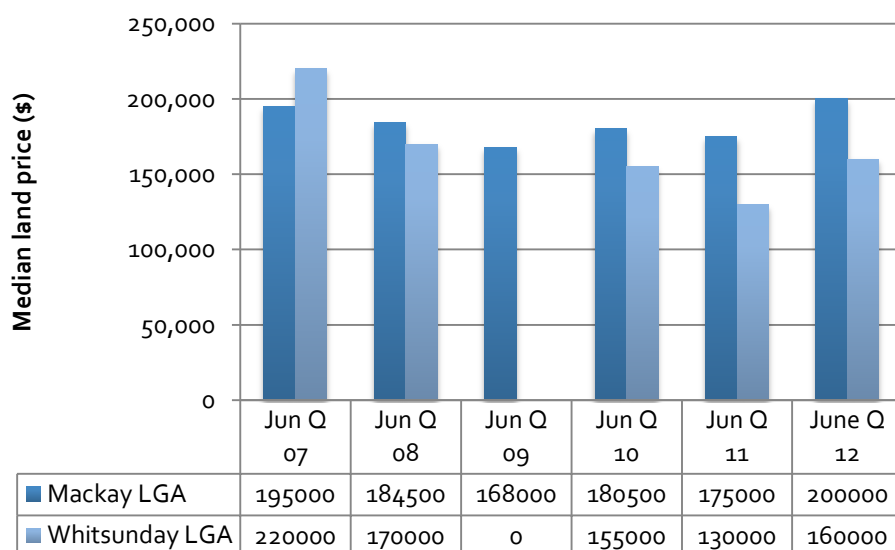
Figure 13: Median unit price, 2007-2012¹⁴



(Real Estate Institute of Queensland (REIQ), Market Monitor, 2012)

- Despite minor fluctuations in the market, the median land price in Mackay LGA remained around \$200,000.
- In Whitsunday the median land price decreased from \$220,000 in 2007 to \$160,000 in 2012.

Figure 14: Median land price, 2007-2012¹⁵



(Real Estate Institute of Queensland (REIQ), Market Monitor, 2012)

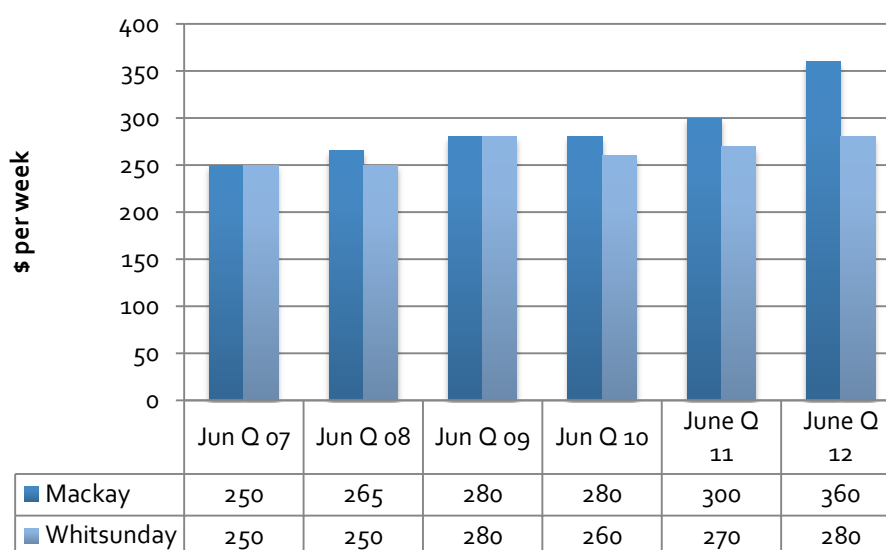
- The median weekly rental price for a 2 bedroom unit in Mackay LGA increased from \$250 in 2007 to \$360 per week in 2012, an increase of 44%.

¹⁴ Isaac LGA data not available.

¹⁵ Isaac LGA data not available.

- In Whitsunday, the median weekly rent for a 2 bedroom unit rose steadily to \$280 per week (12%).

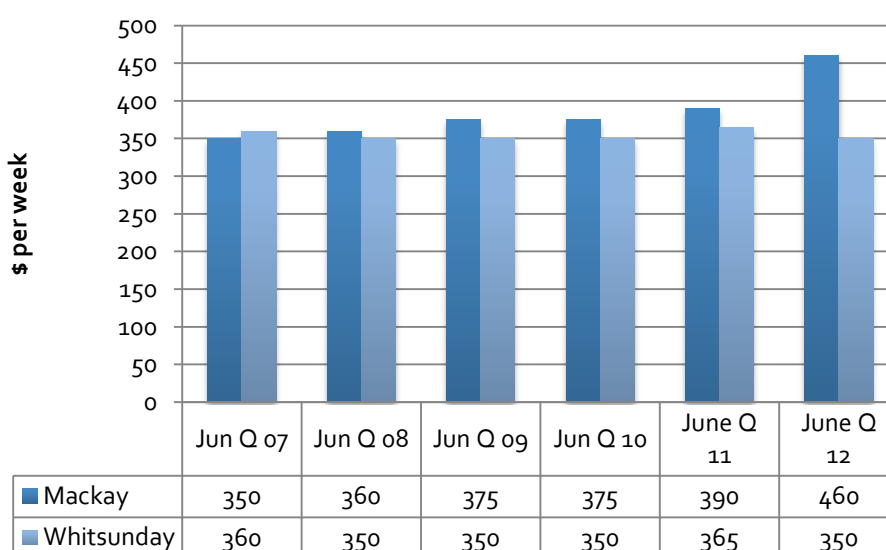
Figure 15: Median weekly rent, 2 bedroom units, 2007-2012



(Residential Tenancy Authority (RTA), Median Weekly Rents, 2012)

- The median weekly rental price for a 3 bedroom house in Mackay LGA increased from \$350 in 2007 to \$460 in 2012 (31.4%).
- The median weekly rent for a 3 bedroom house in Whitsunday remained stable at \$350 per week, only slightly down from the \$360 recorded in 2007 (-2.7%).

Figure 16: Median weekly rent, 3 bedroom houses, 2007-2012

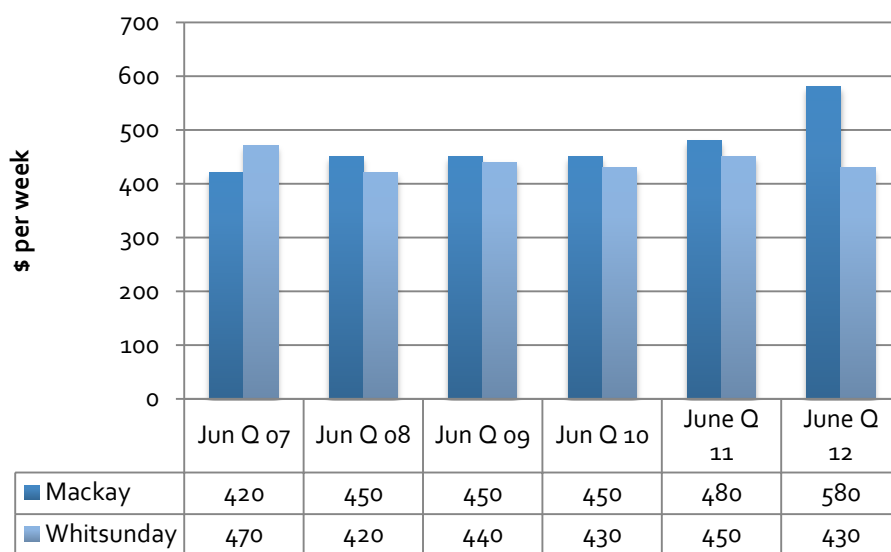


(Residential Tenancy Authority (RTA), Median Weekly Rents, 2012)

- The median weekly rental price for a 4 bedroom house in Mackay LGA increased from \$420 in 2007 to \$580 in 2012 (38.1 %).

- In 2012, the median weekly rent for a 4 bedroom house in Whitsunday was recorded at \$430, down from \$470 in 2007 (-8.5%).

Figure 17: Median weekly rent, 4 bedroom houses, 2007-2012



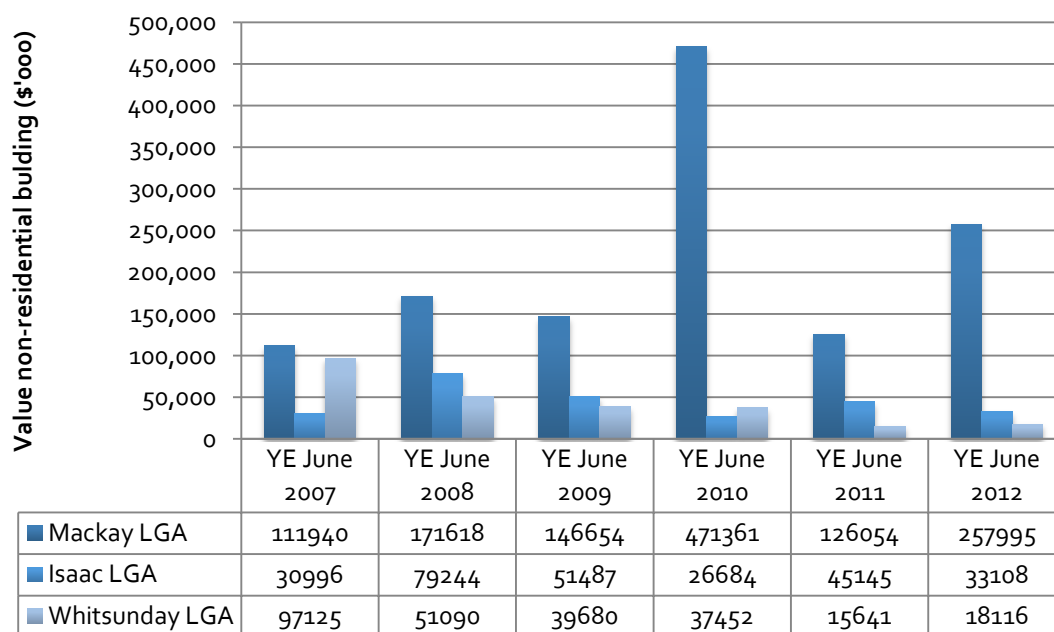
(Residential Tenancy Authority (RTA), Median Weekly Rents, 2012)

5.4.3 Non-Residential Building Investment

During the same period, the total value of non-residential building approvals in Mackay-Isaac-Whitsunday increased by 32%. Between 2011 and 2012, the total value of non-residential building approvals in Queensland dropped by 65%.

- Non-residential building approvals in Mackay LGA have maintained an upward trend between 2007 and 2012, peaking dramatically in 2010.
- In Isaac LGA, non-residential building approvals have fluctuated, peaking in 2008 before levelling off in 2012 to around \$33m – similar to the 2007 level.
- Non-residential building approvals in Whitsunday LGA have been steadily declining; however have remained around \$16-18m in 2011 and 2012.
- Between 2011 and 2012, Queensland's total value of non-residential building approvals dropped by 65%. During the same period, the total value of non-residential building approvals in Mackay-Isaac-Whitsunday increased by 32%.

Figure 18: Non-residential building approvals, 2007-2012



(Australian Bureau of Statistics, Building Approvals, Australia, 2007-2012, cat. No. 8731.0)

5.4.4 Business Confidence

- According to the Chamber of Commerce and Industry Queensland Pulse Survey of Business Conditions, business confidence in the Mackay-Isaac-Whitsunday region is slightly within what is considered to be the poor range.
- Business confidence in Mackay-Isaac-Whitsunday was recorded at 47.8 at the end of June 2012, above that of Brisbane (46.3) and North Queensland (47.1).
- Business confidence across the board is below the level it was in 2007.



We have seen a significant decline in business confidence based on the current challenges within the resource sector. As the dominant sector in the region, a flow on effect from consolidation has been felt across many sectors. The high AUD, low commodity prices, increased production costs and an increasing sovereign risk have all contributed to the changes in the market.

The following guide is useful in interpreting the PBI results into broad indicative performance classifications.

- Very Poor 0 – 29.99 Points
- Poor 30 – 49.99 Points
- Satisfactory 50 – 64.99 Points
- Good 65 – 74.99 Points
- Very Good 75 – 84.99 Points
- Excellent 85 – 100 Points

* A Pulse Index reading of above 50 indicates conditions have improved over the previous quarter. A reading of 50 indicates conditions have remained the same and less than 50 indicates conditions have deteriorated.

Table 20: General Business Conditions Index

	Brisbane	Central Coast (Mackay)	North Queensland
June Q 2007	60.7	57	57.7
June Q 2012	46.3	47.8	47.1

(Commerce Queensland, Pulse Survey of Business Conditions, June Qtr. 2007 and 2012.)

- According to the Chamber of Commerce and Industry Queensland Pulse Survey of Business Conditions, business confidence in Mackay-Isaac-Whitsunday is predicted to remain stable, with average wages, employment levels and capital expenditure all exceeding the results forecast for Queensland.

Table 21: Business Conditions, June Q 2012

	Brisbane	Central Coast (Mackay)	North Queensland
12 Month Outlook – Queensland	48	50	46.2
General Business Conditions	46.3	47.8	47.1
Total Sales/Revenue	47.1	47.6	46.9
Profitability	40.6	35.9	37.5
Average Wages	51.2	58	58.3
Employment Levels	43.8	46.4	39.4
Capital Expenditure	37.8	49.9	45.2

(Commerce Queensland, Pulse Survey of Business Conditions, June Qtr. 2012.)

6 INFRASTRUCTURE REVIEW

6.1 Summary

This section includes a review of existing infrastructure and resources, providing an overview of key infrastructure assets, strengths/ opportunities and weakness/ threats associated with each and developments/changes which have occurred between 2007 and 2012.

The information contained in this section was based on publically available information at the time of publishing this report. We acknowledge that there may be omissions and that this report should be used as a guide only, and does not take into consideration any individual circumstances or situations.

Investment in infrastructure has been strong since 2007; however the region is still suffering from an infrastructure lag which challenges the region to keep up with the population growth. Infrastructure lags also have a significant effect on industry growth in the short term, particularly in the areas of energy and water which are essential for new investment.

Rising costs to bring infrastructure to market is a major concern, as the opportunity cost of investment not coming to market in the short term has a long term economic effect, particularly on jobs.

6% of energy substations in the region are nearing constraint, with 12% already constrained. Energy supply in a timely manner has been noted as a major challenge for the region, and a long term energy supply strategy is required in order to better plan for growth.

Gas infrastructure was minimal in the region in 2007 and is now coming market with major gas pipelines being built that access the abundant gas reserves in the Bowen Basin. Demand for gas storage facilities and services in Australia are likely to increase as the State gas markets expand trading capabilities and become more interconnected. There is an opportunity for gas storage facilities to be located in the region.

As the population continues to growth, the pressures on water and waste facilities increase. The retraction of State Government subsidies for these assets has shifted the financial impost to Local Government who is struggling to finance these projects from smaller regional rate payer bases. Financial assistance for these types of community assets in resource regions is essential for long term economic returns.

The rollout of the NBN will bring significant gains to the region particularly in the more regional and remote areas. Given the economic return from this region it is essential that whole of region rollout occurs in the short term in order to assist with productivity gains in our key sectors.

The Bowen Basin is one of the largest coal reserves in Australia and we have seen significant increase in new and expanded mines over this period. More recently we have seen a slowdown in investment based on the current economic conditions. Increased royalties and carbon tax has contributed to this slow down, and it is imperative that Government policy and costs in the short term do not have a detrimental effect in the long term. In order to protect jobs into the future the mines need to be built now otherwise the window of opportunity will close.

The sugar industry in the region has grown over the period and still remains one of the most important industries in the region. Investment in new infrastructure has occurred during this period with the Mackay Sugar Co-Generation Plant opening in 2013, providing diversification within this industry.

Multimodal transport options for the Agriculture industry are essential, particularly in a time where food security is such an important issue, and the competition for transport options with the highly dominant resource industry have been challenging for this sector.

Transport infrastructure has improved over this period; however there has also been a significant increase in the usage of this infrastructure, creating the ongoing need for maintenance and upgrades. Strong investment in Port and Rail assets has supported the growth in the resource sector with future plans for increased investment.

The road network needs to be a focus for the region with the Bruce Highway being the major coastal arterial in and out of the region. With the increase in extreme weather events over the period, the Bruce Highway needs to be accessible in order to be able to export and import from and to the region, otherwise the economic cost is significant.

Strong investment in education has also been seen during this period with major investment in the CQ University Mackay Campus and the building of a new high school at the Northern Beaches in Mackay. Investment at the Base Hospital by JCU has also occurred, giving the region two higher education options.

The new Mackay Base Hospital has also seen an improvement in health services in the region, although there is a need for further investment in the more regional hospitals. Aged care facilities are not well represented across the region with no Aged Care facilities in Isaac, and no facilities in Airlie Beach. In order to retain inter-generation families in the region these facilities are essential.

6.2 Utilities

Utilities include public necessities such as water, electricity, natural gas, and waste water, telephone and telegraph communication. Providers of infrastructure under this section include Ergon, Powerlink, Arrow Energy, Queensland State Government, Local Councils, Telstra, Optus, and NBN Co.

6.2.1 Energy Infrastructure

Energy transmission refers to the infrastructure that generates and distributes the supply of electricity to the region. Significant upgrades to electricity infrastructure have occurred since 2007, with future plans for additional upgrades. The main concern is the timing of upgrades to align with growth and development.

6.2.1.1 Summary

Bulk Supply Points (BSPs)	Non-Customer Dedicated Substations	Customer Dedicated Substations	Power Stations
9	48	15	2

6.2.1.2 Key Assets

Provider	Infrastructure	Capacity/Upgrades	Other
Ergon	Mackay BSP	Constrained- 33kV	Supplies 9 Substances
	Mount Bassett Substation	Will be decommissioned and load transferred to future Mackay Harbour substation. Has been augmented to provide additional capacity.	Supplies Mackay Harbour, Lamberts Beach, Slade Point and North Mackay. Large increases in industrial and accommodation loads
	Tennyson Street substation	Proposed redevelopment 2016	Supplies Mackay CBD and Glenella. Has taken load from Tennyson and West Mackay
	Alfred Street substation	Rebuilt in 2004- no constraints	Supplies West Mackay to Glenella and South to the Racecourse
	South Mackay substation	Future plans for load transfer to new Ooralea substation 2018	Supplies South Mackay, Planlands, Paget and Bakers Creek. Rapid load increases from industrial development in Paget.
	Farleigh substation	Rural substation initially established to supply the Mill	Supplies Erakala, Dumbleton, Farleigh, the Cedars, Richmond, Nindaroo, Habanna and Wundaru
	Pioneer Valley BSP	Approximately 20 years old	Supplies 8 substations
	Glenella substation	Commissioned 2010. Currently supplied at 66kV from Pioneer Valley. Will become 132kV	Provides support to substation on the North side of Mackay, with future plans to become a

			BSP in 2020.
	Planella substation	Supplies areas where majority of new land is being released. Is currently constrained.	Supplies Bucasia, Eimeo, Dolphin Heads, Blacks Beach and Shoal Point
	North Mackay substation	Has seen significant growth, which is now slowing. Is approaching constraint.	Supplies Rural View, Richmond, Beaconsfield, Telina Heights, Andergrove and Mt Pleasant
	Greenmount substation	At end of life.	Switching station
	Eton substation	Approaching capacity. Will be moved onto Pioneer Valley BSP 66kV in the long term.	Supplies Victoria Plains, Eton, Homebush, Oakenden, Brightley, Kinchant Dam and Alandale.
	Mirani substation	Rural substation supplying agriculture and irrigation loads.	Supplies Mirani, Abingdon and Pinvale
	Marian substation	Located on site at Marian Mill with little room for expansion. Some load moved to new Marian South substation in future	Supplies Devereux Creek, Bolden and Marian
	McKinley Creek	Constrained by land size with little room for expansion	Supplies Seaforth, The Leap and Ball Bay.
	Pinnacle substation	Little growth expected in the area.	Supplies The Gorge, Wilsons Paddock, Boongana, Netherdale, Teemburra Dam, Pinnacle, Tannolo South, Beatrice Creek, Lanngdon, Owens Creek, Mt Castor, Dows Creek, Mt Martin, Mt Charlton, Sugarloaf RD, Mt Toby, Dev Creek West, Mirani West, Benholme, Septimus, Gargett, Dunwold, Berriwerri, Lumburra, Sybil Creek and Oluloo
	Crediton substation	Little likelihood of expansion	Supplies Crediton, Upper River, Bee Creek, Cathay Creek Dalrymple Heights.
	Eungella Dam substation	Reasonable condition	Supplies only Eungella Dam
	Proserpine BSP	Older 132/66kV substation	Supplies 8 substations
	Calen substation	Growth in this area is limited	Supplies Bloomsbury, Taranga station, Redfern, Wagoora, Pindi Pindi, Red Hill, Yalbaroo, Elaroo, Cathu, Rise and Shine, Barron pocket, Silent Grove, Royston Park, Kuttambul, Geeberga, Buthurra, Mt Ossa, Calen, Kolijo, St Helens, Mt Pelion and Camerons Pocket.
	Laguna Quays substation	Relatively new and in good condition	Supplies Laguna Quays, O'Connell River, Andromache, Mt Hecto, Bloomsbury, Whitsunday Park, Midge Point, Noorlah, Caping, Kunapippi and Whitsunday Waters
	Kelsey Creek East substation	Has recently been rebuilt. Plans to move load from Kelsey to Proserpine Mill substation.	Supplies Gunyarra, Letherbrook, Glen Isla, Proserpine, Kelsey Creek, Dingo Beach, Hydeaway Bay, Gregory, Strathdickie,

			Yuskan, Brandy Creek, Preston , Mt Julian, Bona Vista, Consway, Waterson, Foxdale, upriver and Crystalbrook.
	Proserpine Mill substation	No Capacity issues.	Customer Dedicated substation
	Cannonvale substation	Load to be moved to Riordanvale to allow for growth.	Supplies Clifford Beach, Riordanvale , Sugarloaf , Cannonvale, Jubilee Pocket, Airlie and Shingley Hill.
	Jubilee Pocket substation	Commissioned 2011	Supports load growth to the east of Airlie Beach
	Mount Rooper substation	No room for expansion	Supplies Manadalay, Shut harbour, Daydream and South Molle Island.
	Shute Haven substation	No room for expansion	Supplies Hamilton and hayman island via submarine cables
	Hamilton Prawn Farm substation	No growth expected	Dedicated substation owned by LGP Holdings
	Alligator Creek BSP	Older 132/33kV	Supplies 6 substations to the south of Mackay
	Roeslla substation	Critical for holding load prior to Ooralea being commissioned. Approaching constraint.	Supplies Chelona, Rosella , Dunrock, Sandifordm, McEwens and Armstrong Beach
	Sarina substation	Louisa Creek substation can remove load if necessary but will require construction of additional lines. Adjacent blocks of land have been purchased and incorporated into this site.	Supplies Sarina, Tara Creek , Foot of Range, Top of Range, Middle Creek , Blue Mountains, Mt Conenient , West Plane Creek, Freshwater Point , Oonoonie, Yukan and Innestion
	Balberra substation	Load Growth minimal	Supplies Balberra, Sunnside, Dawlish, Minbura, Alligator Breek and Sandy Creek
	Koumala substation	Load growth minimal	Supplies Turner Paddock , Innation south and Koumala
	Illbilbie substation	Load Growth minimal	Supplies Greenhioll, Illbilbie and Orkabie.
	Carmilla substation	Fair condition and load growth is minimal.	Supplies Carmila, Carmila Beach and Elalie
	Louisa Creek BSP	Commissioned 2009	Supplies two customer dedicated substations
	Louisa Creek substation	Ability to support load to other coastal communities but the project has been delayed due to landholder agreements.	Supplies Ballykeel, Louisa Creek, Hay Point, Salonkia and Raspberry Hill.
	Dalrymple Bay substation	Supply increase from 16.5MW to 36MW funded by customer	Supplies the coal port of Dalrymple Bay and is privately owned.
	Hay Point substation	Supply increase from 9MW to 14.5MW funded by customer	Supplies the coal port of Hay Point and is privately owned.
	Moranbah BSP	Rapid Increase in Load	Main supply to mining loads
	Moranbah substation	Approaching end of life in next 10 years and is constrained. Plans in place to install additional capacity at this site or the Ergon site in	Supplies Moranbah, Coppabella and Surrounding Areas.

		Goonyella Rd in the short term.	
	Carborough Mine switchyard		Adjacent to customer owned Carborough Mind substation
	Coppabella Switching station		Supplies customer owned Coppabella Dragline substation
	Coppabella substation		Supplies Coppabella Mine.
	Isaac Plains Switchyard		Supplies customer owned Isaac Plains Mine substation
	Millennium Mine substation		Supplies Millennium Mine
	Moorvale substation		Supplies Coppabella township, MAC services Group camp and Moorvale Mine
	Kemmis BSP	132/66kV BSP	Fully owned by Powerlink and supplies customer owned Hail Creek Mine substation
	South Walker Switching station	Alternate supply from Moranbah BSP	Supplies customer owned Dragline Feeder (BMC)
	South Walker substation		Supplies South Walker Creek Mine.
	Nebo BSP	257/132kV BSP	Fully owned by Powerlink
	Nebo substation	Sufficient capacity but approaching constraint at 11kV.	Supplies Areas around the town of Nebo.
	Newlands BSP	132/66kV BSP	Owned by powerlink and Ergon
	Glenden substation	Load growth is minimal	Supplies Mining township of Glenden.
Powerlink	Moranbah BSP		
	Kemmis BSP		
	Nebo BSP	AS ABOVE	AS ABOVE
	Northern Bowen Basin		
Ratch	Collinsville power station	180MW – Coal Field	Currently being Decommissioned with feasibility study for renewable energy generation
Energy Develoments LTD	Moranbah CSG Power station	45MW Gas Fired	Opened in 2009
Mackay Sugar	Mackay Sugar Cogeneration Plant	38MW Renewable energy	Opened in 2013

6.2.1.3 Future Projects

Provider	Infrastructure	Detail	Timing
Powerlink	Eagle Downs Project	132kV Switching station south – east of Moranbah at the request of Eagle Downs Coal Management Pty Ltd.	2013
	Galilee Basin Transmission Project	Two stage expansion (1) Surbiton Hill Substation and (2) two new 132kV transmission lines.	
Ergon	Glenella BP	Upgrade of Glenella substation	2020
	Broadlea BSP	Site acquired to the East of Moranbah.	

		Will take pressure from Moranbah BSP.	
	Riordanvale BSP	Assist with voltage drops to Mt Rooper and Shute haven substation	2030
	Mackay harbour substation	Will allow Mt Bassett substation to be decommissioned. New 66/11kV supply.	2020
	Ooralea substation	Will cater for the rapid load growth in Paget and new land estates opening up in this area.	2016
	Bucasia substation	Will provide supply to Bucasia and Eimeo, and will support Planella substation	2025
	Walkerston substation	Will support growth at Walkerston, and supply from Pleystowe due to substation condition.	2025
	Marian South substation	Land has been acquired	2014
	Riordanvale substation	Support load growth to the west of Cannonvale	2017
	Planella substation	Convert to 66kV and increase capacity.	2015

6.2.1.4 Strengths

- Secure supply of energy to Ports for future capacity.
- Increased security of supply due to new and upgraded substations across the region.
- Strong asset management plan from Ergon to increase future supply.

6.2.1.5 Weaknesses/Challenges

- Increased demand driven by growth in the resource sector.
- Land acquisition is difficult and expensive for both line route and site acquisition for new infrastructure e.g. Substations and Bulk Supply Points (BSPs).
- Delays in bringing new assets to market as compared to energy demand.
- Funding for new energy assets.
- Line route approvals at LGA level.
- 6% of substations are nearing constraint, with 12% already constrained.

6.2.1.6 Changes Since 2007

Provider	Infrastructure	LGA	Other
Ergon	Energy supply Cannonvale/Jubilee Pocket	WRC	Reinforce energy supply for new zone substation
	Energy Supply/North Beaches	MRC	Reinforce energy supply, new lines and substation to Glenella
	Louisa Creek New Line and Construction of Substation	MRC	Increase capacity to Dalrymple Bay/ Hay Point Coal Port
	Jubilee Pocket Zone substation	WRC	Construction of Zone substation
	Ness Street Depot Upgrade	MRC	Upgrade existing depot
	Alfred Street substation	MRC	New asset
	Louisa Creek BSP	MRC	New asset
	Glenella Substation	MRC	New asset
Energy Developments Ltd	Moranbah CSG Power Station	45MW Gas Fired	Opened in 2009
Mackay Sugar	Mackay Sugar Cogeneration Plant	38MW renewable energy	Opened in 2013
Powerlink	CQ-NQ Reinforcement Project	MRC	275 kV transmission line, board sound to Nebo substation
	Transmission Line Bowen to Strathmore	WRC	132 kV line to increase network service to region
	Goonyella Riverside Mine Switching station	IRC	Supply 132kV switching station to Moranbah

6.2.1.7 Opportunities/Priorities

- Development of coal seam gas (CSG) and/or solar fired power station at Collinsville for additional power generation to meet future regional requirements as well as export outside of region.
- Opportunities for development and expansion of industry precincts co-located with electricity generation and gas supply.
- Development of a long-term Energy Strategy for the region in order to be able to capitalise on opportunities as they arise.

6.2.2 Gas Infrastructure

Gas transmission refers to the transportation of natural gas via pipelines from gas production facilities to major users and markets. The four major interconnected natural gas transmission pipelines in Queensland are outside of the M-I-W region. Distribution networks in Queensland are operated by two major gas distribution businesses, being APA Gas Networks and Origin Energy. In order to meet future demand there are three infrastructure projects proposed for our region.

6.2.2.1 Future Projects

Provider	Infrastructure	Capacity	Other
Vic. Funds Management Corporation	North Queensland Gas Pipeline (NQGP), running from Moranbah to Townsville (392km).	1250 TJ per day	Operational
Arrow Energy	Bowen Basin to Gladstone (580km)	490 – 1000 TJ per day	First gas flow estimated to be 2018
Arrow Energy / AGL	Moranbah to Gladstone (440km)	55-137 TJ per day	Yet to be constructed

6.2.2.2 Strengths

- Abundant gas reserves in the Bowen Basin.
- Increasing demand for energy options outside of coal.
- Availability and abundance of gas reserves and supply in Queensland keeps gas price low.

6.2.2.3 Weaknesses/Challenges

- Static load factors predicted over the next 10 years for the current gas pipelines.
- Lack of gas storage facilities in Queensland.
- Currently there is only small gas storage capabilities located in South West Queensland.

6.2.2.4 Changes since 2007

- Two additional proposed gas pipelines within the region (one now has State Government approval).
- North Queensland Gas Pipeline has been built and supplies power stations and industry in Townsville.

6.2.2.5 Opportunities/Priorities

- Development of coal seam gas (CSG) and solar fired power station(s).
- Development of additional power generation infrastructure to meet future regional requirements as well as export outside of region.
- Opportunities for development and expansion of industry precincts co-located with electricity generation and gas supply.
- Demand for gas storage facilities and services is likely to increase in Australia as the state gas markets expand trading capability and become more interconnected.
- Gas storage facilities in the M-I-W region, to potentially provide base load power to North Queensland.

6.2.3 Water Supply and Waste Water Infrastructure

6.2.3.1 Key Assets - Water

Infrastructure	Capacity (ML)	Level/Other
Eungella Dam	112,400	100%
Peter Faust Dam	491,400	99%
Teemburra Dam	147,500	99%
Kinchant Dam	62,800	97%
Theresa Creek Dam	9,600	n/a
Bowen River Weir (Collinsville Weir)	943	100%
Gattonvale Offline Storage	5,230	
Dumbleton Weir	8,840	73%
Marion Weir	3,980	100%
Mirani Weir	4,660	66%
Braeside Bore Field	3,500	n/a
Bowen Broken Water Supply Scheme Pipeline	21,200 / yr	10,244 held by Sunwater
Burdekin to Moranbah Pipeline	23,000 ml pa	Sunwater
BMA Water Pipeline Network	6,200 ml pa	Sunwater (Eungella Dam to Sth Blackwater)
Collinsville Pipeline	5,000 ml pa	Sunwater
Xstrata to Newlands Pipeline	1,400 ml pa	Sunwater
Eungella Pipeline	15,000 ml pa	Sunwater
Eungella Water Pipeline	6,200 ml pa	Sunwater
Braeside Pipeline	3,250 ml pa	Sunwater

Source: Sunwater March 2013 (www.sunwater.com.au)

6.2.3.2 Key Assets – Water Treatment

Asset	LGA	Capacity/Other
Bowen Sewerage Treatment Plant	WRC	8,000 EP's
Proserpine Sewerage Treatment Plant	WRC	Currently being upgraded to 3,000 EP's
Cannonvale Sewerage Treatment Plant	WRC	Currently being upgraded to 20,000 EP's
Nebo Road Water Treatment Plant	MRC	774 ML/day, servicing Mackay Township
Sarina Water Treatment Plant	MRC	2.9 ML/day, servicing Sarina Township
Mackay South Sewerage Treatment Plant	MRC	100,000 EP's, servicing the majority of Mackay. Requires major upgrade (2024)
Mackay North Sewerage Treatment Plant	MRC	25,000 EP's, servicing Northern Beaches. Requires major upgrade (2018)
Sarina Sewerage Treatment Plant	MRC	4,000 EP's, servicing Sarina

		Township. Old technology and will be decommissioned in the future.
Mirani Sewerage Treatment Plant	MRC	3,800 EP's, servicing Mirani and Marian Townships. Interim works completed 2012, however still requires major upgrade.
Moranbah Water Treatment Plant	IRC	6,200 ml/pa
Moranbah Sewerage Treatment Plant	IRC	14,000 EP's, servicing Moranbah
Clermont Sewerage Treatment Plant	IRC	1,500 EP's, servicing Clermont
Dysart Sewerage Treatment Plant	IRC	5,000 EP's, servicing Dysart
Middlemount Sewerage Treatment Plant	IRC	4,500 EP's
Glenden Sewerage Treatment Plant	IRC	3,600 EP's

6.2.3.3 In Progress

- New Bowen Water Treatment Plant.
- New Proserpine Water Treatment Plant.
- Planning for augmentation of Dysart Sewerage Treatment Plant.

6.2.3.4 Strengths

- Abundant supply of water currently in the region.
- Demand management.
- Strong forward capacity for the Pioneer Valley and Proserpine for development out to 2050.

6.2.3.5 Weaknesses/Challenges

- Saline intrusion in groundwater (impact on sugar cane and other agricultural production).
- Insufficient water supply has the potential to restrict mining, agriculture and population growth.
- Potential amendments to water availability for industry (particularly agriculture).
- Adequate security of supply (urban, industry) in drought conditions.
- Capacity constraints of existing irrigation infrastructure if additional supply did become available (at peak demand periods).
- Government department has relocated to Brisbane.
- Boundaries for supply strategies do not align to statutory divisions.
- Duality in current infrastructure e.g. pipelines.
- Capacity constraints in Isaac.
- Climate change/climate variability.
- Limited water reservoir capacities, particularly at Bowen.
- Iron and manganese build-up on the pipes adversely affecting the capacity.
- Rising costs.
- Isaac does not have control over its own water supply, limiting planning for growth.

6.2.3.6 *Changes since 2007*

Provider	Infrastructure	LGA	Other
New			
Mackay Regional Council	Mackay – Sarina Pipeline	MRC	Construction of Pipeline between Mackay and Sarina
	Mirani Wastewater Treatment Plant	MRC	Upgrade W/Water treatment plant in Mirani and Marian
	Coles Road/ Gordon Street Pump Station	MRC	Upgrade to existing pump station
Withdrawn			
Sunwater	Connors River Dam	IRC	Project has now been withdrawn

6.2.3.7 *Opportunities*

- In order to ensure long term management of water demand, a Regional Strategy is required for Urban and Industrial Development.
- This would allow for a coordinated approach to infrastructure development.
- Ultimately a change of boundaries to align with the statutory divisions would also be beneficial from a regional planning perspective.
- Construction of a new pump and pipeline from Burdekin Water Supply to Isaac to secure water supply for growth.

6.2.4 Telephone and Internet

Telecommunications are provided across the region primarily by a range of networks. The National Broadband Network (NBN) will progressively roll out across the region in the next few years. Telephone and internet connections are available across the region. Broadband, ADSL, and ISDN are available in major coastal locations, with satellite links and video conferencing available in all LGAs.

6.2.4.1 Key Assets

At the time of preparing this report, we were unable to isolate information on key infrastructure. The following table outlines the areas that have been announced under the NBN rollout.

Type	LGA	Area
Fibre	MRC	North Mackay, South Mackay, East Mackay, West Mackay, Paget, Hay Point, Ball Bay, Sarina, Seaforth and Bakers Creek
	IRC	Clermont, Moranbah, Dysart, Middlemount
	WRC	Bowen, Collinsville, Airlie Beach, Proserpine
Fixed Wireless	MRC	Alligator Creek, Alligator Creek South, Balnagowan South, Beaconsfield West, Black Mountain, Bloomsbury West, Conder Range, Devereaux Creek, Eton, Farleigh, Farleigh North, Hay Point, Koumala, Kuttatubul, Mackay, Mackay Harbour, Marian North, Marlborough/Sarina, Mt Blackwood, Oakenden West, Sunnyside, Victoria Plains, Walkerston.
	IRC	Carmila, East Ilbilbie
	WRC	Bowen, Brisk Bay, Conway, Dryander, Foxdale Hill, Intaburra, Merinda, Mount Julian, Mount Nutt, Proserpine, Woodwarl

6.2.4.2 Strengths

- Telephone and internet connections available across the region.
- Broadband, ADSL and ISDN are available in major coastal locations.
- Priority NBN roll-out in parts of the Mackay region, as well as wireless rollout in more remote locations.
- Satellite links and video conferencing available in all LGAs.

6.2.4.3 Weaknesses/Challenges

- Capacity of infrastructure and sufficient levels of ongoing investment to meet the existing and future needs of business and industry and keep pace with technology advances.
- Variable mobile phone coverage across the region.
- Reliability and speed of internet access across the LGAs.

6.2.4.4 Opportunities/Priorities

- NBN rollout for the whole Mackay-Isaac-Whitsunday region.
- Improved speed and services to rural and remote areas across the region.

6.3 Industry / Resources Infrastructure

This section refers to major industry infrastructure owned by private corporations which are driving the regional economy.

6.3.1 Coal, Gas and Other

In 2011/12, resource companies in Mackay-Isaac-Whitsunday contributed the following:

- \$16b value of production (34% of state total)
- \$1.3 billion in royalties (50% of state total)
- 14,100 workers residing in area earning (and spending) \$1.8b
- \$4.6b billion in purchases (operational and capital) from local businesses and voluntary community contributions
- This \$6.4b in spend generated 58,000 indirect jobs leading to total employment of 71,600 or 74% of all employment in area

There are currently 32 operating coal mines in the region with 35 projects (including new mines and expansions of existing mines) planned for the future. The largest impact on resource infrastructure has been the financial effect of the high AUD, the lower commodity prices, the rising costs of production, and the increase in resource taxes which have come into effect in the last 12 months. These conditions put future investment at risk.

6.3.1.1 Summary

LGA	BMA/B MC	Rio Tinto	Anglo American	Xstrata	Peabody	Vale	Other	Total
MRC	0	0	0	0	0	0	1	1
IRC	6	2	6	5	7	1	3	32
WRC	0	0	0	1	0	0	2	3
TOTAL	6	2	6	6	7	1	6	34
New Mines / Mine Expansions								
TOTAL	3	1	4	6	9	2	13	38

6.3.1.2 Key Assets

Owner	Mine	LGA
Rio Tinto	Clermont	IRC
	Hail Creek	IRC
BMA	Broadmeadow	IRC
	Goonyella- Riverside	IRC
	Peak Downs	IRC
	Saraji	IRC
BMC	Poitrel	IRC
	South Walker Creek	IRC

Anglo American	German Creek	IRC
	Foxleigh	IRC
	Grasstree	IRC
	Lake Lindsay	IRC
	Moranbah North	IRC
	Oak Park	IRC
Peabody	Burton	IRC
	Coppabella	IRC
	Eaglefield	IRC
	Middlemount	IRC
	Millennium	IRC
	Moorvale	IRC
	North Gonnyella	IRC
Vale Australia Let	Carborough Downs	IRC
Xstrata Coal Queensland Ltd	Collinsville	WRC
	Newlands Eastern Creek	IRC
	Newlands Northern U/G	IRC
	Newlands Underground	IRC
	Newlands Wollombi	IRC
	Suttor Creek and Wollombi	IRC
OCoal	Sonoma	WRC
CQ Dolomite Ltd	Emu Apples/ Kennedy Creek	MRC
Aquila Resources Ltd	Isaac Plains	IRC
Lake Vermont Coal Resources	Lake Vermont	IRC
Maximus Resources	Sellheim Gold	WRC
Conquest	Twin Hills Gold	IRC

6.3.1.3 Future Projects

Owner	Mine	LGA	Status
Rio Tinto	Winchester South Open- cut (4MT)	IRC	2016
BHP Billiton Mits. Allce.	BroadMeadow life extension	IRC	In Progress
	Caval Ridge (5.5MT)	IRC	In Progress
	Daunia (4.5MT)	IRC	In Progress
Anglo American	Foxleigh Plains Expansion	IRC	EIS
	Grosvenor U/G Expansion	IRC	2017
	Grosvenor U/G (6.5MT)	IRC	In Progress
	Moranbah South U/G Project (14MT)	IRC	Exploration
Peabody/ Gloucester Coal	Burton Open – Cut Expansion	IRC	In Progress
Peabody	Codrilla Open- Cut Expansion	IRC	On Hold
	Eaglefield Open-cut Expansion	IRC	2014
	Middlemount Open- cut (3MT)	IRC	In Progress
	Millennium open – Cut Expansion	IRC	In Progress
	Moorvale U/G Expansion	IRC	2015
	North Goonyella	IRC	2013
	Olive Downs North Open – cut (1MT)	IRC	In Progress

	Willunga open- cut (3MT)	IRC	2015
Vale Australia Ltd	Ellensfield Underground	IRC	2013
	Isaac Plains Expansion	IRC	In Progress
Xstrata Coal Queensland Ltd	Collinsville Open – Cut Expansion		
		WRC	2015
	Sarum Open- Cut and U/G (5MT)	IRC	2014
	Newlands Northern U/G	IRC	In Progress
	Newlands Coal Extension Project	IRC	2014
	Eagle Downs U/G Stage 1	IRC	In Progress
OCoal	Byerwen Open – Cut (10MT)	WRC	2015
	Drake Mine	WRC	2014
	Jax Open – Cut	WRC	2013
Jellinbah Group	Jellinbah East open – Cut	IRC	2014
	Lake Vermont (1.5MT)	IRC	In Progress
New Hope Coal	Lenton Open – Cut (1.5MT)	IRC	2015
Carabella	Grosvenor West	IRC	Feasibility
Evolution Mining Ltd	Mt Carlton Copper – Gold – Silver O/C	WRC	2013
Bengal Coal Ltd	Dysart East O/C and U/G (4MT)	IRC	2013
Macmines Austasia	China Stone O/C and U/G (60MT)	IRC	EIS Being Prepared
Adani Mining Ltd	Carmichael O/C and U/G (60MT)	IRC	Draft TOR for EIS
Zamia Metals	Anthony Molybdenum O/C (5MT)	IRC	Feasibility

Source: REDC Regional Development Register, December 2012

6.3.1.4 Strengths

- High grade coking coal resources.
- Established mining basin.
- Established associated infrastructure (e.g. rail and ports).
- Strong demand from China, India and Europe.
- Technological advances in increasing economies of extraction.

6.3.1.5 Weaknesses/Challenges

- Rising costs of production and new capacity that are high relative to global competitors.
- High Australian dollar relative to the USD.
- Mounting regulatory and tax imposts.
- Increasingly volatile coal prices with significant drop in prices since mid 2011 due to intense global competition.
- Declining future investment in resource projects or delays to current projects.
- Competing demands of passenger/freight traffic (e.g. Peak Downs Highway).

6.3.1.6 Changes since 2007

There are a number of projects in progress which are listed above. The below projects are those that were completed in the time period.

Provider	Infrastructure	LGA	Other
New or Expanded			
Vale Australia	Carborough Downs Coal U/Ground Expansion	IRC	Expansion to increase coal production 1.9Mt/a to 5.0Mt/a
Rio Tinto Coal	Hall Creek O/Cut Expansion	IRC	Expansion to increase production 17Mt/a coking and thermal coal
Maximus Resources	Selheim O/Cut Gold Mine	WRC	New, producing 150000ozs pa gold in Nrth Drummond Basin
Rio Tinto Coal	Clermont Coal	IRC	Construction of IPCC system, coal prep/plant, 13km o/lander conveyor, admin. area, camp village/facilities
German Creek East J Venture	German Creek East	IRC	O/cut mine, now producing 6.0Mt/a low volatile coking coal for blending purposes
Anglo American	Foxleigh	IRC	O/cut mine, expansion to increase production 2.6Mt/a to 3.3Mt/a
Peabody	Millennium	IRC	O/cut mine, expansion to increase production 1.9Mt/a to 5.5Mt/a
Xstrata	Newlands Wollombi No. 2	IRC	O/cut mine, expansion to increase production 1.5Mt/a to 3.0Mt/a
Macarthur Coal	Moorvale Stages 1, 2 and 3	IRC	Provision of mining and operational services, removal of 24M/cubic metres waste
Aquilla Resources	Isaac Plains	IRC	Integrated expansion to increase production to 4Mt/a
Lake Vermont Coal	Lake Vermont	IRC	O/cut coal mine, upgrading of existing plant, increase production 800t/h to 1600t/h
Closed			
Rio Tinto Coal	Blair Athol	IRC	Mine Closed 2012
BMA	Norwich Park	IRC	Mine Closed 2012

6.3.1.7 Opportunities/Priorities

- Untapped Shale Oil Deposit in Whitsunday.
- Coal Seam Gas (CSG).
- Strong investment interest under the right economic conditions for new mines which will create long term job opportunities.
- Development of Clean Coal Technology.

6.3.2 Agriculture

The main areas of agriculture in the region include sugar, horticulture, livestock and aquaculture. This section does not include privately owned facilities. The major challenge for agriculture is the competition for transport infrastructure with the dominant resource industry in the region, particularly for rail transport.

6.3.2.1 Key Assets

Type	Owner	LGA	Asset	Capacity
Sugar Mills	Mackay Sugar	MRC	Racecourse Mill	1.7 Mtpa
			Racecourse Cogeneration Plant	38MW
			Farleigh Mill	1.7 Mtpa
			Marian Mill	2.6 Mtpa
			Racecourse Refinery (25%JV)	450,000 tonnes per annum
	Sucrogen	MRC	Plane Creek Mill	1.76 Mtpa
		WRC	Proserpine Mill	2.13 Mtpa
Abattoirs	NMPA	MRC	Thomas Borthwick and Sons	>750 cattle per day
Sale Yards	IRC	IRC	Clermont Sale Yards	
	IRC	IRC	Nebo Sale Yards	
	Sarina Show Society	MRC	Sarina Sale Yards	

6.3.2.2 Strengths

- Historical significance within the region for sugar.
- Considerable transport infrastructure in place (particularly sugar and beef).
- Good quality agricultural land with fertile soil.
- A significant proportion of relatively shallow and reasonably sheltered coastal areas with clean, unpolluted water that could support a range of marine aquaculture systems using existing engineering and management techniques .
- Extensive coastal areas suitable for land-based marine aquaculture .

6.3.2.3 Weaknesses/Challenges

- Loss of productive agricultural land (saline groundwater intrusion, urban encroachment, acid sulphate soils etc.).
- Exposure to the effects of drought, flood, cyclone and fire.
- Reliance on road transport.
- Peri-urban encroachment on agricultural land across the region.

6.3.2.4 *Changes since 2007*

Provider	Infrastructure	LGA	Other
CIS Australia	Sarina Distillery Upgrade	MRC	Fuel grade ethanol to increase production from 38m to 60m litres per year
Mackay Sugar	Mackay Sugar Cogeneration Plant	MRC	38MW renewable energy opened in 2013

6.3.2.5 *Opportunities/Priorities*

- Opportunities for inland freshwater aquaculture.
- Research and development facilities in the fields of aquaculture, marine science, marine engineering and biotechnology.
- Processing and distribution facilities in Bowen area for horticulture.
- Multi-cargo port facility to service container ships at Mackay to improve supply-chain efficiencies for the whole of the Central Queensland agricultural industry (e.g. Including Rockhampton and Central Highlands).
- Upgrade of the Whitsunday Coast Airport to increase export freight capacity.

6.4 Transport

Transport infrastructure for the region includes major roads, rail networks, port facilities, and airports. Providers include Government, Government owned corporations, and private companies.

6.4.1 Road

6.4.1.1 Key Assets

Type	Asset	Owner	Link
Major Road Network	Bruce Highway	Federal Government (Funding provided to Queensland Government which has management responsibility)	Coastal North-South Road Link
	Peak Downs Highway	Queensland Government road, but Federal Government also contributes funding	East-West Road Link
	Gregory Development Road	Queensland Government	Inland North-South Road Link
	Fitzroy Developmental Road		Inland North –South Route
Minor Road Networks	Bowen Developmental Road	Queensland Government	East-West Corridor
	Marlborough-Sarina Road	Queensland Government	East-West and North-South Corridors
	Moranbah Access Road	Queensland Government	North-South Corridor
	Dysart-Middlemount Road	Queensland Government	East-West Corridor connecting Fitzroy Development Road to Peak Downs Highway
	Suttor Development Road	Queensland Government	
	Proserpine Shute Harbour Road	Queensland Government	
	Crystal Brook Road	Queensland Government	
	Mackay Slade Point Road and Rockleigh North Mackay Road	Queensland Government	Connects Bruce Highway to the Mackay Port
	Mackay/Eungella/Marian Hampden Road	Queensland Government	Provides an alternative route to the Bruce Highway
	Hay Point Road	Queensland Government	Connection between the Bruce Highway and the Coal terminals

Source: Synergies Freight Transport Study – Stage 1, 2008.

6.4.1.2 Upgrades in Progress

Infrastructure Type	LGA	Value
State and Council Controlled Roads	Mackay	\$122 million
	Isaac	\$21.5 million
	Whitsunday	\$10 million

Source: REDC Regional Development Register, Dec 2012

6.4.1.3 Strengths

- Links to regional air, port and rail infrastructure.
- Connections with existing industry.
- \$171.8million of projects in progress in the region currently, with \$52.1 million of future project/upgrades.

6.4.1.4 Weaknesses/Challenges

- Ability of the road network to meet current and future demand.
- Deficiencies associated with overtaking lanes, adequacy of bridges and duplication of the network particularly on the Bruce and Peak Downs Highways.
- Ability to upgrade and expand in time to meet future industry needs.
- Burden on road network from significant increase in heavy industry (mining) affecting pavement life and asset longevity.
- Consistency and quality of road network to representative standards required for future usage.
- Aesthetics regarding tourist travel.
- Reliance on the Bruce Highway and Peak Downs Highway with a lack of alternate routes.
- Ability to fund future growth projects.

6.4.1.5 Changes since 2007

Project	LGA	Value
Forgan Bridge Duplication	MRC	\$148 million
New Base Hospital Bridge	MRC	\$43 million
Boundary Road and City Gates intersection upgrade	MRC	\$13 million
Construction deviation between Sam's Road-Barnes Creek Road	MRC	\$22.3 million
Isaac Town Street Upgrade	IRC	\$2.3 million
Oxford Downs – Sarina Road Project	IRC	\$2.3 million
Peak Downs Highway – Fiery Creek to Boundary Creek	IRC	\$7.1 million
Tropic Road and Proserpine – Shute Harbour Road	WRC	\$4.8 million
Peak Downs Highway Nebo – Mackay widen pavement	MRC	\$5 million
Peak Downs Highway Rehab and widening	IRC	\$8.7 million

Clermont – Nebo		
Dysart – Middlemount Upgrade	IRC	\$10.7 million
Realignment at Blackwater Creek	IRC	\$5.8 million
Mackay – Proserpine Bruce Highway realignment of 2 lanes	WRC	\$10.8 million
Bruce Highway resurfacing Shoal Point – Bucasia	MRC	\$1.8 million
Shoal Point Road upgrade	MRC	\$1.1 million
Intersection improvements Proserpine – Shute Harbour Rd	WRC	\$5.7 million
Isaac Rural Roads improvements	IRC	\$6.8 million
Construction of overtaking lanes – Elvins Rd – Burgess lane	MRC	\$2.7 million
Culvert installation at Running Creek	MRC	\$1.2 million
Farrellys/Smidtke/ Bruce Highway widening	MRC	\$16 million
Holt’s Road 4 Lanes	MRC	\$8 million
Mackay – Bucasia Road upgrade	MRC	\$25.3 million
Peak Downs Highway Nebo- Mackay widening	MRC	\$8 million
Sandy Creek Bridge	MRC	\$9 million
Boundary Road drainage upgrade	MRC	\$3 million
Keeley Road rehab	MRC	\$1 million
McEwans Beach Road widening and rehab	MRC	\$1.2 million
Paget Depot project	MRC	\$46.5 million
Park Porters reconstruction	MRC	\$1.2 million
River street rehab Nelson – Sydney	MRC	\$1.7 million
Glendaragh Road upgrade	MRC	\$1.4 million
Matsura Drive	MRC	\$1.4 million
Pavement widening at Marian – Hampden Road	MRC	\$3 million
Pleystowe Bridge construction	MRC	\$1 million
Bedford road duplication	MRC	\$1.4 million
Isaac Rural Road improvements	IRC	\$6.8 million

Source: REDC Regional Development Register, Dec 2012

6.4.1.6 Opportunities/Priorities

- Upgrade of Bruce Highway
- Upgrade of Peak Downs Highway
- Mackay Ring Road
- Alpha to Clermont Road
- Proserpine to Collinsville Road
- Stockroute Road Realignment
- Belyando Bridge
- Investment in intermodal infrastructure
- Development of strategically located transport interchanges

6.4.2 Rail

6.4.2.1 Key Assets

Type	Asset	Owner	Industry/Other
Public	Goonyella System	Queensland Rail	Mining
	Newland System	Queensland Rail	Mining
	North Coast Line	Queensland Rail	Freight, coal, minerals and agricultural products
	Queensland Rail Tilt Train system	Queensland Rail	Passenger service
	Jilanan Rail Yard	Queensland Rail	Maintenance and service to trains that haul coal on the Goonyella coal supply chain
Private	Nebo Train Maintenance Facility	Pacific National	Support for locomotives and rolling stock
	Mackay Sugar Rail Network	Mackay Sugar	Sugar
	Proserpine Sugar Rail Network	Sucrogen	Sugar

6.4.2.2 Future Projects

Asset	Proponent	Detail
Alpha Coal Rail Project	Hancock Prospecting	495km railway line from Galilee Basin to Abbot Point
China First Rail Network	Waratah Coal	490km railway line from Galilee Basin to Abbot Point
Goonyella Rail Expansion – Stage 1	Aurizon	Comprising 5 sub projects
Project Iron Bomerang	East West Line Parks	WA to Abbot Point

6.4.2.3 Strengths

- Direct link to port infrastructure.
- Links to regional road and air infrastructure.
- Upgrade and ongoing expansion.
- Increase utilisation.
- Completion of the Northern Missing Link, providing a strategic connection from the Bowen Basin to Abbot Point.
- Identification of rail corridor between Galilee Basin and Abbot Point.

6.4.2.4 Weaknesses/Challenges

- Current capacity is insufficient to meet future demand projections and planned port expansions.
- Scheduling constraints in periods of peak demand (competition from mining for rail access which has consistent access requirements).
- Limited capacity for industries outside of mining.
- Rising costs.

6.4.2.5 Changes Since 2007

Provider	Infrastructure	LGA	Other
QR Network	Jilanan Rail Yard Upgrade	MRC	Admin. and maint. facilities/50 km track, capacity to handle 60 coal trains per day
	Northern Missing Link	WRC	69 kilometre system and rail link in northern Bowen Basin
	Rollingstock Increased Cap.	MRC	\$2.27b in rolling stock infrastructure/1190 new coal wagons/40 new locomotives
	Goonyella to Abbot Point (GAP) project (in progress)	WRC	\$1.1 billion
Pacific National	Nebo Train Maintenance Facility Expansion	IRC	\$20 million

6.4.2.6 Opportunities/Priorities

- Transfer of commodities from road to rail e.g. fuel.
- Study on freight transport as above.

6.4.3 Sea Ports

6.4.3.1 Key Assets

LGA	Asset	Owner	Capacity	Commodities
Mackay	Hay Point	BHP Billiton	44 Mt/a	Mining
	Dalrymple Bay	DBCT	85 Mt/a	Mining
	Port of Mackay	NQBP		Sugar, Fuel, Grain, General Cargo
Whitsunday	Abbot Point	NQBP	50 Mt/a	Mining
	Abel Point Marina	Paul Darrouzet	N/A	Passenger
	Shute Harbour Passenger Terminal	Port Binnli Developments	N/A	Passenger

6.4.3.2 Future Projects

LGA	Asset	Owner	Commodities
WRC	Abbot Point T1	NQBP/Adani	Coal
WRC	Abbot Point T2	NQBP/BHP Billiton	Coal
WRC	Abbot Point T3	NQBP/GVK Hancock	Coal
MRC	Dalrymple Bay T8X	DBCT	Coal
MRC	Dalrymple Bay T9X	DBCT	Coal
MRC	Dudgeon Point	NQBP/DPPM/Adani	Coal
MRC	Hay Point X3	BMA	Coal
MRC	Mackay Marina Expansion	Port Binnli	Private Vessels

6.4.3.3 Strengths

- Strong port capacity.
- Financial commitment from resource houses for port expansions e.g. Adani.
- Direct link to rail and road infrastructure.
- Proximity to high quality coal resources.
- Land bank to support trade growth e.g. Dudgeon Pt. (1400 hectares), Abbot Pt. (16,230 hectares), Mackay Port (14 hectares).
- Multi-commodity ability at Mackay Port, with the opportunity to develop containerised facilities.
- Increasing popularity of the tourist and cruise shipping sector.

6.4.3.4 Weaknesses/Challenges

- Environmental limitations regarding impacts on the Great Barrier Reef.
- Currently no container port in the region.
- High AUD impacting on exports.
- Community awareness of positive impacts of growth.

6.4.3.5 Changes Since 2007

- Port consolidation – Port of Mackay now owned by North Queensland Bulk Ports.

Provider	Infrastructure	LGA	Other
NOBP	Abbott Point Terminal 1	WRC	Rail in-loading facility, coal handling, stockpiling areas and 2.8km single trestle jetty, two offshore berths, export capacity 50Mtpa
Adani	Abbott Point Terminal 1 Expansion	WRC	Increase port capacity from 44Mtpa to 55Mtpa
NOBP	Dalrymple Bay Coal Terminal Out loading and Berth 4 Expansion	MRC	Northward extension to berth 3 and new offshore out loading conveyor to new berth 4
BHP Billiton Mitsubishi Alliance	Hay Point Coal Terminal Expansion Stage 3 (HPX3)	MRC	Construction of new trestle and third berth, construction of foundations for transfer towers and surge bins

6.4.3.6 Opportunities

- 30-50 year Port Master Plans to ensure supply can keep up with demand over time.
- Container port at Port of Mackay.
- Industrial land development adjacent to Ports.
- Laydown areas for break bulk/project cargo at Port of Mackay.

6.4.4 Airports

6.4.4.1 Key Assets

Owner	Infrastructure	LGA	Other
Mackay Airport P/L	Mackay Airport	MRC	Serviced by Qantas, Virgin Australia, Jetstar, Tiger and General Aviation
WRC	Whitsunday Coast Airport	WRC	Serviced by Virgin Australia and Jetstar and General Aviation
21st Century Resorts Holdings Pty Ltd	Hamilton Island Airport	WRC	Serviced by Qantas, Virgin Australia and Jetstar
BHP Billiton	Moranbah Airport	IRC	Serviced by Qantas, Virgin and General Aviation
WRC	Bowen Airport	WRC	General Aviation
WRC	Collinsville Airport	WRC	General Aviation
Jeffrey Ruddell	Whitsunday Airport (Shute Harbour)	WRC	General Aviation
WRC	Mt Coolon Airport	WRC	General Aviation

6.4.4.2 Strengths

- Expanding passenger numbers across the three major airports.
- Increasing frequency of direct interstate flights.
- Increased connectivity through Mackay airport to Brisbane, Sydney and Melbourne.
- Proximity to major domestic and international tourist attractions.
- Capacity for Mackay and Whitsunday Coast airports to increase air freight carriage
- Links to road and rail infrastructure.
- Future export of highly perishable commodities (agriculture, horticulture, fishing, etc.) to overseas markets.
- Mackay airport is a multi modal transport hub for tourism.
- Expansion of Whitsunday Coast Airport to cater for larger passenger flights and export freight
- Trend of increasing domestic visitation.
- Improved packaging and marketing of tourism packages.

6.4.4.3 Weaknesses/Challenges

- Fuel prices.
- Lack of iconic tourism products in Mackay and Isaac LGAs.
- Increasing global event risk (such as terrorism, cyclones and health scares) contributing to trend of declining international visitation as well as high AUD.
- Decline in international visitors.
- Carbon tax.

6.4.4.4 Changes Since 2007

Provider	Infrastructure	LGA	Other
Mackay Airport	Mackay Airport Upgrade	MRC	\$19m invested in the runway, flood proofing, car park expansion, terminal redevelopment and refurbishment.
BHP Billiton	Moranbah Airport	IRC	\$8m overlay to runway construction of new terminal and runway facility
Queensland Government	Whitsunday Coast Airport	WRC	Master plan development of 430h site/2100m runway

6.4.4.5 Opportunities/Priorities

- Upgrade of the Whitsunday Coast Airport.
- Creation of a multi-modal freight transport and logistics hub in Mackay-Isaac-Whitsunday.
- Connectivity to other destinations e.g. Gold Coast and Sunshine Coast.
- Airport Master plans and land use plans.

6.5 Available Land

6.5.1 Industrial

6.5.1.1 Key Assets

Council	Opportunity	Description	Status
Mackay Regional Council	Paget Industrial Estate	<ul style="list-style-type: none"> Developed industrial park. High Impact Industry Zoning. Suit major industry. Located at Paget, 6 kilometres south of the Mackay CBD, 3 kilometres from Mackay Airport and 2 kilometres from the Mackay Railway Yards. 	Available now
Isaac Regional Council	Lyll Ford Industrial Development	<ul style="list-style-type: none"> A smaller scale industrial estate is being developed in Nebo adjacent to the MAC Camp. Opportunity exists for businesses to invest in lots to develop and/or expand their business. Approx. 15 lots will be available for sale. 	Under development
Isaac Regional Council	Clermont Industrial Park	<ul style="list-style-type: none"> 46.93ha, corner of Gregory Hwy & Clermont Connect Rd 2 Lot into 31 Lot subdivision (average lot size) Lot size ranges from 1679m² to 9308m² (average = 4456.3m²) Land is zoned industrial, but development is designed for <i>light</i> industrial uses. 	Approved
Whitsunday Regional Council	State Development Area (Abbot Point)	<ul style="list-style-type: none"> 16,230 hectares approx Heavy industry large scale development including corridors and essential infrastructure Supporting infrastructure for Abbot Point Port <ul style="list-style-type: none"> Potential for Burdekin to Abbot Point pipeline (Water) Potential for Major Fuel Depot Potential Multi Cargo Facility future development RAIL – A connection line links the Abbot Point terminal with the main rail grid, upgrade of existing Newlands and Abbot Point linked 	In progress

		and Expansion of Goonyella to Abbot Point completed	
Mackay Regional Council	Port of Mackay	<ul style="list-style-type: none"> PORT – 2.75Kilometre jetty and world class coal loading facility. 	

6.5.1.2 Proposed Assets

Council	Opportunity	Description	Status
Isaac Regional Council	Nebo Heavy Industrial Estate	<ul style="list-style-type: none"> There is opportunity to develop a large-scale heavy industrial estate in Nebo. An estate of this nature in Nebo (between the Bowen Basin and the Eton Range) could service large-scale mining machinery west of the range. This would significantly minimise heavy traffic over the Eton Range. This would be a perfect area for engineering and manufacturing/fabrication businesses to operate 'satellite' businesses from larger centres such as Mackay, Rockhampton, Townsville or Brisbane. Water security is an issue. 	Early concept
Isaac Regional Council	Moranbah Carbon Neutral Estate	<ul style="list-style-type: none"> Early discussions are occurring to develop a 'carbon-neutral' industrial estate on mining lease land near Moranbah. The project hopes to gain approvals from government and industry to open up areas under mining-lease for activities suitable for the zoning and business activities regularly associated with the mining industry. The project will open up much needed industrial land with a carbon neutral status. 	Early stages

Isaac Regional Council	Moranbah 'Pony Club' Industrial Area	<ul style="list-style-type: none"> • Opportunity exists for developers and business to invest in industrial land north of Moranbah. • The Moranbah Pony Club Industrial Estate will oversee the development and release of 20 light industrial lots for sale for suitable purposes. 	Planning stages
Isaac Regional Council	Dysart Connection Rd	<ul style="list-style-type: none"> • 2 additional Lots created (15 ha & 20 ha respectively) • Still currently zoned as rural, but intention is for further subdivision and rezoning to industrial. 	Early concept
Mackay Regional Council	Rosella Industrial Area	<ul style="list-style-type: none"> • 713 hectares • Good access to Bruce Highway and nearby ports. • Will benefit from major road network upgrade plans • Identified as next major regional industrial estate in Mackay. 	
Whitsunday Regional Council	Whitsunday Coast Airport	<ul style="list-style-type: none"> • 430 hectares • Industrial development, focused on transport and logistics, including a rail spur line into the airport site and the creation of a general aviation hub, focused on FIFO and regional aviation services. 	Early concept

6.5.1.3 Strengths

- Close to regional transport infrastructure (road, rail and port).
- Available and planned areas for heavy manufacturing and bulk storage.
- Land bank to support trade growth e.g. Dudgeon Pt (1400 hectares), Abbot Pt (16,230 hectares), Mackay Port (14 hectares).

6.5.1.4 Weaknesses/Challenges

- Supply of appropriately developed available industrial areas.
- Access to cost competitive energy.

6.5.1.5 Opportunities/Priorities

- Master Planning to ensure available future industrial land as required through industrial growth.
- Development of industrial land near port infrastructure to cater for growth in the mining sector.
- Development of the State Development Area (SDA) at Abbot Point for heavy industry.

6.5.2 Residential

Each LGA has areas of land that are available for development, but may not be for sale. There is currently a high cost of accommodation in the region due to the growth in the mining sector over the past decade.

6.5.2.1 Affordable Housing Projects

Provider	Project	LGA	Other
Economic Development Queensland	Bushlake Grove - Moranbah	IRC	175 dwellings
	Woodlands - Andergrove	MRC	185 dwellings

6.5.2.2 Strengths

- Statutory Regional Plan outlining future development areas.
- Diverse range of residential land offerings.
- Affordable housing development in Andergrove (Woodlands).

6.5.2.3 Weaknesses/Challenges

- High cost of housing.
- Timeliness and process of development approvals.
- Access to finance.
- Increasing infrastructure costs.
- Significant investment in temporary housing.

6.5.2.1 Opportunities

- Recognition from State and Federal governments of Mackay-Isaac-Whitsunday as a high growth area and financial commitment to the fast-tracking of development through common user infrastructure.

6.6 Education and Research Infrastructure

The Mackay-Isaac-Whitsunday region boasts an abundance of high quality educational and research facilities including 2 universities and 5 research facilities.

Total Centres	Universities	Vocational Education	Secondary Schools	Primary Schools	Specialty Schools	Research Facilities
	2	2	22	67	1	5

6.6.1 University

6.6.1.1 Key Assets

Type	Infrastructure	LGA	Other
Established Campus	CQ University, Mackay Campus Cook lecture theatre	MRC	Programs on campus at Mackay include: Nursing, Business, Arts, Accounting, Theatre, Music, Multimedia, Creative Enterprises, Science, Nursing, Medical Sonography, Medical Imaging, Learning Management, IT, Engineering, Theatre and Music. 167 capacity
Laboratory	Medical Imaging and Sonography labs	MRC	
Library Building	Library	MRC	Library – Technology and Information Resource Centre features meeting rooms, computer labs, library and meeting spaces
Building	Conservatorium of Music	MRC	Comprises a Performing Arts Theatre, Dance Studio, Practice Rooms, Recording Studio, Offices and Bar
Building	Nursing Laboratory	MRC	
Laboratory	Chiropractic Laboratory	MRC	
Residential buildings	Student Residential Accommodation	MRC	104 rooms
Satellite Campus	James Cook University JCU research centre at Base comprises: - 4 tutorial rooms (with video conf, one holds 24 students lecture style and others 12 – 14	MRC	Programs supported in Mackay include: Medicine, Dentistry, Allied Health programs, Veterinary Science, Social Work and Nursing. JCU Research and Education Centre situated at the Base Hospital

	students) - 1 clinical skills room - Computer room - 2 breakout rooms - Kitchen for students		
Satellite Campus	Mater Hospital Education Centre:	MRC	Soon to be completed will house Nursing, Allied Health, Medical, Dentistry and Social Worker students (similar facilities to Base facility)

6.6.2 Vocational Education

6.6.2.1 Key Assets

Type	Infrastructure	LGA	Other
Established Campus	TAFE Mackay Campus (CQ Institute of TAFE),	MRC	6,604 students
Purpose built centre	TAFE Trade Training Centre (VET)	MRC	Trade Training Centre utilised for TAFE and 5 State High Schools in Mackay and will cater for the following program areas: Fitting and Turning Plumbing Carpentry Boiler making Electrical Automotive Bricklaying
Established campus	Bowen Campus (Barrier Reef TAFE)	WRC	
Purpose built centre	Central Highlands Trade Training Centre Cluster - Dysart	IRC	Dysart High School - Engineering
Established campus	Cannonvale Campus (Barrier Reef TAFE)	WRC	Specialises in Food services, Hospitality and Marine
Purpose Built	Central Highlands Trade Training Centre Cluster - Clermont	IRC	Clermont State High School - Agriculture
Purpose Built	Coalfields Training Excellence Centre	IRC	Moranbah High School
Purpose Built	Mackay Christian College Trade Training Centre	MRC	Construction and Engineering
Purpose Built	Whitsunday Regional Trade Training Centre	WRC	Bowen, Collinsville and Proserpine High Schools – construction and civil

6.6.3 Secondary Schools

6.6.3.1 Summary

LGA	Public Secondary Schools	Private Secondary Schools	Total Centres
Mackay	7	6	13
Whitsunday	3	1	4
Isaac	5	0	5
TOTAL	15	7	22

6.6.3.2 Key Assets

Type	Infrastructure	LGA	Capacity
Public	Bowen State High School	Whitsunday	563
	Calen District State College	Mackay	208
	Clermont State High School	Isaac	122
	Collinsville State High School	Whitsunday	64
	Dysart State High School	Isaac	179
	Glenden State High School	Isaac	287
	Mackay North State High School	Mackay	1,513
	Mackay State High School	Mackay	973
	Middlemount Community School	Isaac	404
	Mirani State High School	Mackay	780
	Moranbah State High School	Isaac	516
	Northern Beaches High School	Mackay	Opened 2013
	Pioneer State High School	Mackay	824
	Proserpine State High School	Whitsunday	899
	Sarina State High School	Mackay	576
Private	Carlisle Christian College	Mackay	487
	Holy Spirit	Mackay	804
	Mackay Christian College	Mackay	487
	Mercy College	Mackay	663
	St Patrick's College	Mackay	539
	Whitsunday Anglican School	Mackay	852
	Whitsunday Christian College	Whitsunday	426

Source: Department of Education Training and Employment (February 2012)

6.6.4 Primary Schools

6.6.4.1 Summary

LGA	Public Primary Schools	Private Primary Schools	Total Centres
Mackay	36	7	43
Whitsunday	10	2	12
Isaac	12	0	12
TOTAL	58	9	67

6.6.4.2 Key Assets

Type	Infrastructure	LGA	2012 Enrolments
Public	Alligator Creek State School	MRC	412
	Andergrove State School	MRC	367
	Beaconsfield State School	MRC	434
	Bloomsbury State School	MRC	64
	Bowen State School	WRC	427
	Bucasia State School	MRC	316
	Calen District State College	MRC	208
	Cannonvale State School	WRC	556
	Carmila State School	IRC	41
	Chelona State School	MRC	85
	Clarke Creek State School	IRC	20
	Clermont State School	IRC	279
	Collinsville State School	WRC	64
	Coningsby State School	MRC	64
	Coppabella State School	IRC	32
	Dundula State School	MRC	68
	Dysart State School	IRC	376
	Eimeo State School	MRC	922
	Eton State School	MRC	81
	Eton North State School	MRC	8
	Eungella State School	MRC	41
	Farleigh State School	MRC	26
	Finch Hatton State School	MRC	54
	Fitzgerald State School	MRC	735
	Gargett State School	MRC	20
	Glenella State School	MRC	185
	Gumlu State School	WRC	12
	Hamilton Island State School	WRC	41
	Hampden State School	MRC	105
	Hayman Island State School	WRC	7
	Homebush State School	MRC	73
	Kilcummin State School	IRC	28

	Koumala State School	MRC	94
	Mackay Central State School	MRC	197
	Mackay North State School	MRC	351
	Mackay West State School	MRC	831
	Mackenzie River State School	IRC	28
	Marian State School	MRC	513
	Merinda State School	WRC	44
	Mirani State School	MRC	323
	Mistake Creek State School	IRC	10
	Moranbah East State School	IRC	713
	Moranbah State School	IRC	475
	Nebo State School	IRC	66
	Northview State School	MRC	311
	Oakenden State School	MRC	14
	Pindi Pindi State School	MRC	30
	Pinnacle State School	MRC	27
	Proserpine State School	WRC	626
	Queens Beach State School	WRC	484
	Sarina State School	MRC	483
	Scottville State School	WRC	55
	Seaforth State School	MRC	126
	Slade Point State School	MRC	277
	St Lawrence State School	IRC	5
	Swayneville State School	MRC	101
	Victoria Park State School	MRC	674
	Walkerston State School	MRC	383
Private	Emmanuel Catholic Primary	MRC	337
	Mackillop Catholic Primary	MRC	233
	St Anne's Catholic Primary	MRC	489
	St Francis Xavier Catholic Primary	MRC	65
	St John Bosco's School	WRC	222
	St John's Catholic Primary	MRC	N/A
	St Joseph's Catholic Primary	MRC	389
	St Mary's Catholic Primary	WRC	420
	St Joseph's Catholic Primary Clermont	IRC	142

Source: Department of Education Training and Employment (February 2012)

6.6.5 Other

6.6.5.1 Key Assets

Type	Infrastructure	LGA	Other
Public	Mackay District Special School	MRC	

6.6.6 Research Facilities

6.6.6.1 Key Assets

Component	Infrastructure	LGA	Other
Research Facility	BSES Limited	Mackay	BSES Limited is the principal provider of research, development and extension to the Australian sugar industry. They provide on-ground knowledge, interaction with and support of key local industries.
Research centre	Bowen Horticultural Research Station (Department of Agriculture, Fisheries and Forestry)	Whitsunday	Main infrastructure comprises: Meeting room (seats 60 people) Conference room (seat 100 people) Farming shed Chemical shed Research shed, includes outdoor lab Entomology lab and office space Research land – 7 acres
Research facility	QUT Mackay Renewable Biocommodities pilot research and development infrastructure	Mackay	Situated at Racecourse Mill, this facility aims to link innovations in product and process development with the assessment of commercial viability to enhance the uptake of this technology in Australia.
Research and Education Centre	JCU Education and Research centre – Base Hospital Mackay	Mackay	JCU research centre comprises: 4 tutorial rooms (with video conf, one holds 24 students lecture style and others 12 – 14 students) 1 clinical skills room Computer room 2 breakout rooms Kitchen for students
Research centre	Queensland Centre for Domestic and Family Violence Research, CQUniversity Mackay	Mackay	The Centre for Domestic and Family Violence Research's function is to initiate, undertake and collaborate on innovative and interdisciplinary. The centre is a dedicated building on CQU Mackay campus.

6.6.6.2 Strengths

- Presence and profile of CQUniversity.
- Strong development of Trade Training Centres to support required skills development.
- Potential merge between CQ TAFE and CQUniversity creating the first dual sector university in Queensland.
- CQUniversity introduction of Bachelor programs in medical imagery and chiropractic on campus in Mackay.
- Strong industry partnerships particularly with resource companies in Isaac which support facilities and programs.

6.6.6.3 Weaknesses/Challenges

- Funding cuts for vocational education places.
- The Mackay-Isaac-Whitsunday region is not covered by one TAFE institution. Mackay and Isaac fall under Central Queensland Institute of TAFE, whilst Whitsunday falls under Barrier Reef Institute of TAFE.
- Not all courses/trades are delivered within the region, and there is a need for students to travel, often to Brisbane, to undertake block bookings.
- Very little choice in Isaac LGA for high schools and no private high schools.
- Reduced funding for education.
- Low uptake of research.
- Marginal nature of smaller operations.
- Potential loss of localised research facilities.
- Attracting and retaining qualified teaching staff.
- Closure of schools in Isaac due to increasing fly-in fly-out work practices.

Provider	Infrastructure	LGA	Other
New			
Hutchison Builders	PCYC Denison Park	WRC	Facility to include youth and sport hall and café space
Education Queensland	Language Learning Centre	WRC	New language learning centre for Bowen High School
Education Queensland	Northern Beaches High School	MRC	Opened in 2013
CQU	Information and Technology Centre	MRC	CQU Mackay Campus, library, café and commercial tenancies
CQU	Residential College	MRC	Housing 104 students
JCU	Education and Research Centre	RMC	Located at the Mackay Base Hospital to cater for Medical, Dentistry, Social Work and Allied Health professionals training in rural areas
JCU	New Facility at Mater Hospital	MRC	Allied health, Medical, Dentistry and introducing JCU nursing students to Mackay
Queensland Government	Mackay TAFE	MRC	Refurbishment of existing TAFE
Education	Trade Training Centre - Mackay	MRC	1200sqm facility consisting of

Queensland			two levels and car park
Education Queensland	Coalfields Training Excellence Centre	Isaac	Moranbah High School
Education Queensland	Central Highlands Trade Training Centre Cluster - Dysart	Isaac	Dysart High School 2013
Education Queensland	Central Highlands Trade Training Centre Cluster - Clermont	Isaac	Clermont State High School
ECPS	Emmanuel Catholic Primary School Expansion	MRC	Construction of assembly hall and new classrooms
MCC	Mackay Christian College Development	MRC	Development of Primary school campus and hall
Queensland Government.	Slade Point School	MRC	Construction of multipurpose hall/resource centre
St Cath. School	St Catherine's School	WRC	Construction of library and covered area
MCC	Trade Training Centre at Mackay Christian College	MRC	Used by Carlisle Christian College, MCC and Whitsunday Anglican School
Closed			
Education Queensland	Dows Creek State School	IRC	Closed in 2007

6.6.6.4 Opportunities

- Strong need for special education units or facilities across the region.

6.6.7 Childcare and Kindergarten

6.6.7.1 Summary

The following table lists the early child care facilities currently operating in the Mackay, Isaac and Whitsunday region. The list includes facilities such as day care centres, kindergartens and family day care schemes and after-school care and vacation care facilities. In some cases, one facility may offer a number of services such as both long-day care and after school care. These have not been separately identified in this report.

LGA	Child Care Centres/After school hours facilities	Kindergartens	Family Dare Care schemes	Total Centres	Total Capacity*
Mackay	39	17	2	58	2964
Isaac	5	8	0	13	635
Whitsunday	15	6	2	23	1073
TOTAL					4672

*The individual number of Family Day Care places (home-based care) was unavailable at the time of publication of this report.

6.6.7.2 Key Assets 2013

LGA	Facility Name	Location	Capacity
Mackay	Adeona Early Exploration Centre Mackay	Andergrove	45
	Birrallee Child Care Centre	South Mackay	44
	Blue River Family Day Care	Andergrove	0
	Bucasia Kindergarten	Bucasia	24
	CandK Beaconsfield Community Kindergarten	Beaconsfield	24
	CandK East Mackay Community Kindergarten	Mackay	25
	CandK Eimeo Road Community Kindergarten	Rural View	48
	CandK Mackay North Community Kindergarten	North Mackay	24
	CandK Hoey Street Community Kindergarten	Sarina	24
	CandK Slade Point Community Kindergarten	Mackay	24
	CandK Seaforth Community Kindergarten	Seaforth	24
	CandK Walkerston Community Kindergarten	Walkerston	25
	CandK Marian Community Kindergarten	Marian	24
	Carlisle Early Learning Centre	Mackay	20
	Emmanuel Kindergarten, Mount Pleasant	Mount Pleasant	44
	Glenella Child Care And Education Centre	Glenella	74
	Goodstart Early Learning Andergrove	Andergrove	75
	Goodstart Early Learning Eimeo	Eimeo	74
	Goodstart Early Learning Mackay - Bridge Road ¹	West Mackay	75
	Goodstart Early Learning Mackay - Bridge	West Mackay	30

	Road2		
	Goodstart Early Learning Mackay - Macalister Street	Mackay	75
	Goodstart Early Learning Mackay - Shakespeare Street	Mackay	74
	Goodstart Early Learning Mount Pleasant	Mount Pleasant	74
	Goodstart Early Learning North Mackay	North Mackay	86
	Goodstart Early Learning Rural View	Rural View	75
	Goodstart Early Learning Walkerston	Walkerston	74
	Grandma's Place	Sarina	75
	Helping Hands Bucasia	Bucasia	44
	Hot Tots Educational Centre	Mackay	74
	Kids College @ Sarina	Sarina	74
	Kookaburra Child Care Centre	Andergrove	75
	Lead Childcare Sunrise	Blacks Beach	75
	Mackay Child Care Centre	Mackay	42
	Mackay Christian College Outside School Hours Care	North Mackay	90
	Mackay Christian College Pre-Prep Learning Centre	North Mackay	44
	Mackay Cubbie House Childcare And Educational Centre	Beaconsfield	74
	Mackay Family Day Care Scheme	Mackay	0
	Mackay Kindergarten And Preschool	Mackay	25
	Mackay North State School After School Care	North Mackay	60
	Mcsp School Age Care	Mackay	50
	PCYC Mackay - Eimeo Road School Age Care	Eimeo	45
	PCYC Mackay - Mackay West School Age Care	West Mackay	36
	PCYC Mackay - Marian School Age Care	Marian	45
	PCYC Mackay - Walkerston School Age Care	Walkerston	60
	PCYC Mackay School Age Care	North Mackay	145
	Pioneer Pre School And Kindergarten	North Mackay	50
	Platypus Playcare	Eungella	21
	Sarina And District Community Kindergarten	Sarina	25
	Snugglepot Kindyland	North Mackay	64
	South Mackay Kindergarten	South Mackay	25
	St Francis Xavier Long Day Care Centre.	West Mackay	54
	St Francis Xavier Outside School Hours Care	Mackay	80
	St Joseph's Outside School Hours Care	North Mackay	75
	Vinekidz	Bucasia	60
	Pioneer Valley Kindergarten	Mirani	25
	Whitsunday Anglican School Before and After School Care	Beaconsfield	30
	Whitsunday Anglican School Kindergarten	Andergrove	22
	Wonder Kids Early Learning Centre	Walkerston	75
		Total	2964
Isaac	CandK Capella Early Childhood Centre	Capella	24
	CandK Clermont Community Kindergarten	Clermont	24
	CandK Glenden Community Preschooling Centre	Glenden	45
	CandK Middlemount Community Preschooling Centre	Middlemount	74
	CandK Moranbah Community Kindergarten And Preschool	Moranbah	73

	CandK Tieri Community Kindergarten	Tieri	25
	Clermont Kindergarten Day Care Centre	Clermont	75
	Dysart Daycare	Dysart	59
	Dysart Kindergarten	Dysart	50
	Joey Occasional Child Care Service	Ilbilbie	16
	Moranbah Early Learning Centre	Moranbah	75
	Simply Sunshine Childcare Centre	Moranbah	74
	Tieri Daycare Centre	Tieri	21
		Total	635
Whitsunday	121 Child Care - Rainforest Centre	Cannonvale	150
	Bowen and District Child Care Centre	Bowen	63
	Bowen/Collinsville Family Day Care Scheme	Bowen	0
	CandK Proserpine Community Kindergarten	Proserpine	24
	CandK Queens Beach Community Kindergarten	Bowen	24
	CandK Whitsunday Kindergarten	Cannonvale	24
	Camp Australia - St Mary's Primary School Bowen Oshc	Bowen	18
	Cannonvale Kidz Early Learning Centre	Cannonvale	95
	Collinsville and Scottville Community Preschool And Kindergarten	Scottville	24
	Goodstart Early Learning - Bowen	Bowen	58
	Goodstart Early Learning - Proserpine	Proserpine	109
	Hamilton Island Kindy	Hamilton Island	29
	Karen's Place	Cannonvale	29
	Kidz At The Beach	Bowen	75
	Little Geckos Early Learning Centre	Cannonvale	65
	PCYC Whitsunday School Age Care	Airlie Beach	75
	PCYC Whitsunday - Cannonvale	Cannonvale	30
	PCYC Whitsunday - Hamilton Island	Hamilton Island	30
	PCYC Whitsunday - Proserpine	Proserpine	45
	Proserpine Public Kindergarten	Proserpine	25
	Sallywags Limited Hours Child Care Centre	Cannonvale	21
	The Beach Hut Queens Beach Oshc	Bowen	60
	Whitsunday Shire Family Day Care Scheme	Proserpine	0
		Total	1073

Source: Office of Early Childhood Education and Care (Townsville/Mackay), Queensland Government, March 2013

6.6.7.1 Weaknesses/Challenges

- Lack of perceived long-day care places.
- Lack of kindergarten places.

6.6.7.2 Opportunities

- The number of Kindergarten facilities operating in the region has increased significantly since 2010, with 11 new centres operational and a further four planned for opening in 2014.

6.7 Health and Care Services

6.7.1 Hospitals

6.7.1.1 Key Assets

Type	Infrastructure	LGA	Capacity	Other
Public	Mackay Base Hospital	MRC	318 beds	New Hospital 2013
	Bowen Hospital	WRC	17 beds	2013 refurbishment – 27 bed capacity
	Collinsville Hospital	WRC	15 beds	
	Proserpine Hospital	WRC	27 beds	2013 refurbishment
	Sarina Hospital	MRC	16 beds	2013 refurbishment - \$ 2.1 million
	Moranbah Hospital	IRC	12 beds	
	Clermont Hospital	IRC	16 beds	Requires upgrade
	Dysart hospital	IRC	9 beds	
Private	Mater Private Hospital	MRC	105 beds	Operating theatre expansion
	North Mackay Private Hospital	MRC	42 beds	Former Pioneer Valley Hospital. Plans to be recommissioned in 2013, including specialist rooms

6.7.2 Aged Care

6.7.2.1 Key Assets

Type	Infrastructure	LGA	Capacity
Public	Monash Lodge Clermont	IRC	16 beds
Hospital	Clermont Multi-Purpose Health Services	IRC	6 beds
	Collinsville Multi- Purpose Health Services	WRC	7 beds
Private	Blue care Home field Aged Care Facility	MRC	100 beds
	Francis of Assisi Home	MRC	140 beds
	Good Shepard Lodge	MRC	168 beds
	RSL Care Cunningham Villas Retirement Community (Bowen)	WRC	48 beds
	Hillside Haven Aged Care Facility (Collinsville)	WRC	12 beds
	Murronna Gardens (Bowen)	WRC	83 beds
	Proserpine Nursing Home	WRC	87 beds
	Northview Aged Care (Glenella)	MRC	118 beds
	Resthaven on Quarry	MRC	63 beds
	Nanyima Aged Care (Mirani)	MRC	50 beds
	Sarina Aged Residential Home	MRC	48 beds
Total			946 beds

6.7.2.2 Strengths

- New \$305 million Base Hospital to future proof regional health services.
- Current upgrades in progress for Bowen, Proserpine and Sarina hospitals.
- New services at Base Hospital including Urology.
- New hospital has improved staff retention and staff attraction.
- JCU training facilities at Base Hospital.
- New youth mental health facility (Headspace).

6.7.2.3 Weaknesses/Threats

- Quality of Health Infrastructure in mining regions.
- Funding cuts to Aged Care Facilities.
- No aged care facilities in the Cannonvale/Airlie Beach, Moranbah and Dysart areas.
- Adequate investment across the full aged care continuum (later phases have typically relatively low yields).
- Mental health facilities are not adequate to service demand.

6.7.2.4 Changes Since 2007

- Easing in skills market making it easier to attract and retain staff.
- Upgrade of Mackay Base Hospital and other facilities has improved the capacity to service the expanding regional population base.

Provider	Infrastructure	LGA	Other
Paynter Dixon QUEENSLAND	Muroona Gardens Dementia Care Centre	WRC	14 additional beds

6.7.2.5 Opportunities/Priorities

- Introduction of E-Health services and facilities in line with NBN rollout.
- Need for transition facilities for the aging population e.g. Retirement villages collocated with low/high care facilities, so that people can stay in their own home. The build of these types of facilities will free up more housing in the general market.
- Need for additional aged care facilities to be built in the Isaac and Whitsunday LGAs.

7 INDUSTRY PROFILES

7.1 Summary

Across the region many industry sectors increased their regional contribution to the economy. The largest growth in contribution was the construction sector with a 40.9% increase.

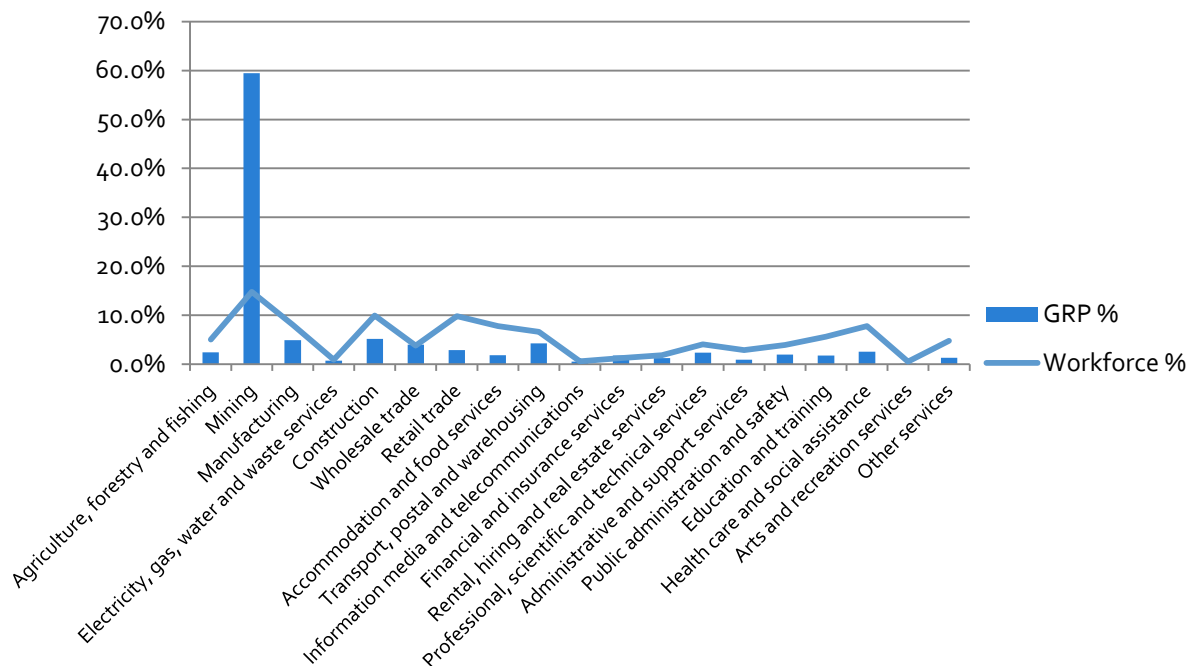
The Electricity, Gas, Water and Waste sector declined by 28.6%, as did mining (by 26.4%). The decline of regional contribution for this sector correlates with the extreme weather events experienced in Queensland over the last few years which has hampered production.

The Finance and Insurance sector also decreased by 15% and Food Accommodation Services by 9.7%. The high Australian dollar and competitive international market has impacted negatively on the regions tourism industry which contributed greatly to the decline in the food and accommodation sector.

Mining experienced the largest growth in employment of 44.1% which impacted positively in other areas which are highly reliant on mining (being 24% or more). These included (from most to least), Transport Postal and Warehousing, Rental Hiring and Real Estate, Other Services, Public Administration and Safety, Accommodation and Food Services, Education and Training, Wholesale and Retail Trade, Professional, Scientific and Technical, Administrative and Support Services and Construction.

Project approvals and mining expansion timings will impact these sectors significantly and opportunities for each need to be considered and investigated within these sectors to support regional economic stability.

Figure 19: GRP and Workforce by Sector, Mackay-Isaac-Whitsunday, 2012



(Lawrence Consulting, 2013)

\$6.94 billion was spent in the local economy across all sectors in 2012, highlighting the level of inter-regional dependencies between sectors. The five major sectors contributed the following:

- Mining \$2.3 billion
- Manufacturing \$1.2 billion
- Construction \$1.1 billion
- Transport \$359.2 million
- Agriculture \$353.6 million

7.2 Guideline and Format of Industry Profiles

There are four areas of assessment that are summarised for each industry profile, specifically:

Industry overview:

- Industry key commodity outputs and value (where available and appropriate)
- Contribution to the Mackay-Isaac-Whitsunday region gross regional product (GRP) and the sector's contribution to Queensland's gross state product (GSP),
- Share of employment, recent growth and indicative occupational splits.

Regional linkages:

- Examines the level of production inputs (excluding labour) purchased from each sector's top input suppliers within the region and the level of reliance the input has on the sector being examined (utilises data from REMPLAN). This allows the identification of risk and interdependence relationships.
- Influencing factors and drivers: This examines the anticipated factors that will facilitate, and the impediments or competitive considerations to be overcome in the delivery of industry development opportunities within the Mackay-Isaac-Whitsunday region.
- Industry development opportunities: Overview of the identified industry development opportunities and the key requirements for its facilitation.

Industry profiles have been developed based primarily on the ANZSIC¹⁶ classification system, with some minor modifications such as the addition of the tourism industry.

¹⁶ The Australian and New Zealand Standard Industrial Classification (ANZSIC) has been developed for use in both countries for the production and analysis of industry statistics.

7.3 Agriculture, Forestry and Fishing

7.3.1 Industry Overview

Key outputs of the agriculture, forestry and fishing sector in the Mackay Statistical Division include sugar, livestock, seafood, aquaculture and horticulture.

Sugar: Sugar has traditionally been one of the major industries and economic drivers of the region. Main areas of sugar cane production are in the coastal belt around Mackay City, south to Sarina, west to Mirani and north to the Whitsunday region.

- The Mackay-Isaac-Whitsunday region is the largest sugar producing area in Australia and the Mackay Port hosts one of the world's largest bulk sugar terminals.
- Sugar (raw and refined) is the current key export trade through the Port of Mackay, with trade levels, or throughput, currently totalling close to two million tonnes per year.
- Growers in the region have a total cane production area of approximately 86,000 hectares.

Livestock: Grazing is the largest land use in the Mackay-Isaac-Whitsunday region. Grazing accounts for 76 per cent of the region's land use area while sugar cane accounts for 15 per cent of the land use area. However on gross dollar value, sugar cane is by far the largest industry.

- The Mackay-Isaac-Whitsunday region has 9% of Queensland's beef enterprises.
- In addition to on-farm grazing and production enterprises, the region also has an export abattoir at Bakers Creek, south of Mackay which processes approximately 750 head of cattle per day, with 90 per cent of throughput for the export market and 10 per cent domestic.
- The cane and cattle industries are closely linked with more than 50 per cent of the region's beef cattle owned and managed by integrated cane and beef enterprises.
- The predominant beef business is breeding and sale of weaners, stores or cull cows.

Seafood: Marine prawns are the main aquaculture product in the Mackay-Isaac-Whitsunday region. Regional seafood harvests are valued at approximately \$20-\$30 million per year, which is approximately 10% of the total production from all fisheries in Queensland.

- The value of fish caught by commercial fishers in the region and sold domestically or exported during the 2008-09 financial year was estimated at \$23.5 million.
- The recreational fishing sector is a vibrant and strong economic activity. Fishing also contributes to the State's economy, and has many flow-on effects throughout the region's businesses that support fishing, including camping, fishing supplies, bait and tackle stores,

boat sales and maintenance, and tourism fishing charter operators, as well as local accommodation and retail shops.

- There are numerous small-scale aquaculture industries operating throughout the region, predominantly focused on fresh water Red Claw or Fin Fish production, with several large-scale operations whose production focus is marine prawns.
- Aquaculture value of production is approximately \$10 million per annum on average, accounting for approximately 15% of Queensland's total value of aquaculture products.

Horticulture: The Mackay-Isaac-Whitsunday region has a \$178 million dollar horticulture industry, with production occurring predominantly in the Bowen area, which supplies more than 60% of Queensland's tomatoes, capsicum, green beans and sweet corn and is well known for its high quality mangoes.

- Approximately 36,000 tonnes of vegetables are produced per annum.
- Only a small proportion of horticultural produce from the region (5-10%) is exported.
- Horticulture production for the whole of region was valued at \$178.9 million for 2009-10 approximately 8.0% of the Queensland total.

7.3.2 Employment

According to the 2011 Census, there are 4,141 people employed in the agriculture, forestry and fishing sector. This is a decrease of 15% since 2006.

Industry of Employment	2006	2011	% change
Agriculture, forestry and fishing	4,875	4,141	-15.1%

Source: ABS, Census of Population and Housing, 2006 and 2011.

Within the agriculture, forestry and fishing industry, the greatest decrease in employees was within the occupations of community and personal service workers and sales workers.

Occupations	2006	2011	% change
Managers	2,657	2,341	-11.9%
Professionals	71	63	-11.3%
Technicians and trades workers	117	96	-17.9%
Community and personal service workers	16	5	-68.8%
Clerical and administrative service workers	165	168	1.8%
Sales workers	24	16	-33.3%
Machinery operators and drivers	524	424	-19.1%
Labourers	1,259	997	-20.8%
Not stated	42	31	-26.2%
Total	4,875	4,141	-15.1%

Source: ABS, Census of Population and Housing, 2006 and 2011.

7.3.3 Contribution to regional economy

The agriculture, forestry and fishing industry contributed \$400.8 million to the Mackay-Isaac-Whitsunday regional economy (gross regional product) in 2011/12. This is an increase of 22.7% since 2007/08.

The Mackay-Isaac-Whitsunday region's economy is 2% reliant on agriculture, forestry and fishing for its contribution, an increase of 0.6 percentage points since 2007/08.

Contribution to Regional Economy	2007/08 (\$m)	2011/12 (\$m)	% change
Agriculture, forestry and fishing	326.7	400.8	22.7%

Source: Lawrence Consulting, 2013



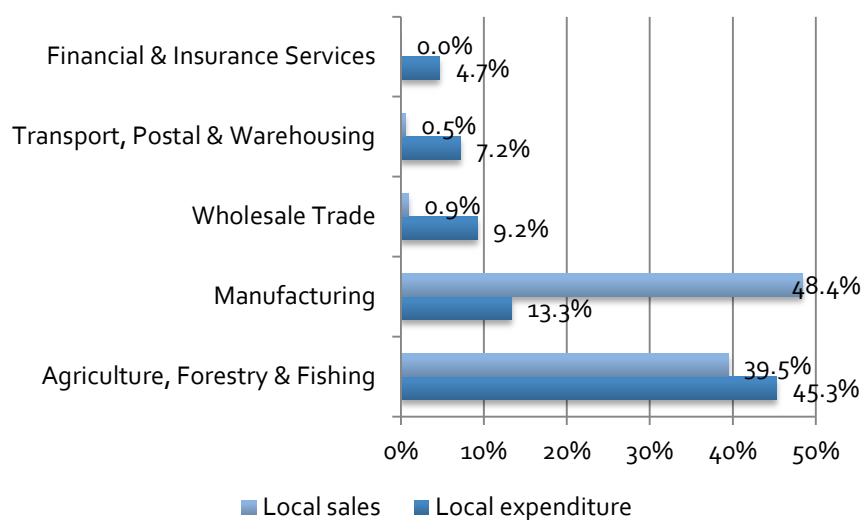
Despite a decrease in the number of people employed in the agriculture, forestry and fishing industry (-15%), it continues to increase its contribution to the regional economy (+22.7%), indicating an increase in productivity.

7.3.4 Sectoral Relationships and Reliances

The agriculture, forestry and fishing industry spends 79.7% of its \$353.6 million expenditure with five main sectors within the Mackay-Isaac-Whitsunday region, including:

- 45.3% from itself;
- 13.3% from manufacturing;
- 9.2% from wholesale trade;
- 7.2% from transport, postal and warehousing; and
- 4.7% from financial and insurance services.

Figure 20: Sectoral Relationships and Reliances: Agriculture, Forestry and Fishing



The agriculture, forestry and fishing industry purchases of more than 13% of its inputs from the manufacturing sector. This indicates that the manufacturing sector is relatively reliant (more than 10%) on the agriculture, forestry and fishing industry sector for buying their products.

7.3.5 Influencing Factors and Drivers

7.3.5.1 Strengths

Increasing Global Demand for Bio-fuels (Ethanol, Biodiesel, etc.)	<ul style="list-style-type: none">Increasing global demand for bio-fuels is increasing demand for sugar cane production and placing upward pressure on prices. Where overseas sugar cane producers divert production to ethanol rather than sugar production, this has the potential to reduce international supply and, subsequently, increase demand for Australian produced sugar.
Growing Aquaculture Industry	<ul style="list-style-type: none">Climate suitable for culturing a wide variety of species, including temperate and tropical species.Aquaculture has become increasingly accepted as a substitute product for wild-caught fisheries, and has grown in prominence in Queensland over the past 15 years. The buy-back of wild-caught fishing licenses has further facilitated this transition, with aquaculture now making up around one quarter of total Queensland seafood value of production and approximately one-third of total Mackay-Isaac-Whitsunday seafood value of production.
Availability of Good Quality Agricultural Land and Water	<ul style="list-style-type: none">The Mackay-Isaac-Whitsunday region has sufficient high quality land available to support a large agricultural sector, as well as high quality water with a range of suitable locations for aquaculture activities.The combination of available land, water and climate support the production of a range of tropical and sub-tropical productsAn audit of Queensland's agricultural land is being undertaken by the Queensland Government Department of Agriculture, Fisheries and Forestry to better assess the potential of new and existing land in planning for future needs.
Established and Stable Industries	<ul style="list-style-type: none">The Mackay-Isaac-Whitsunday region has a long established sugar industry with extensive and integrated transport facilities (tramway system and specialised port facilities), established markets and five milling facilities and a sugar refinery.The region also has a number of established meat and seafood processing enterprises, fisheries and livestock production, with existing transport infrastructure supporting domestic and export

	distribution.
Access to Information and Technology	<ul style="list-style-type: none"> The agriculture, fisheries and forestry sector is supported by a well-established manufacturing industry that provides specialist machinery production, repair and maintenance services. Additionally, some agricultural research is undertaken through the Bureau of Sugar Experiment Stations (BSES) Limited and Bowen Horticultural Research Station (DAFF) for sugar and horticultural crops, providing access to knowledge and information in this sector.
Trends in Food Consumption	<ul style="list-style-type: none"> Consumption trends such as increasing demand for organic produce and healthy food choices due to improved awareness of the health implications of food influences product demand.
Federal government policy	<ul style="list-style-type: none"> The Federal Government Renewal Energy Target (RET) scheme will deliver on a commitment to ensure that the equivalent to at least 20% of Australia's electricity comes from renewable sources by 2020. The Large-scale Renewable Energy Target (LRET) encourages the deployment of renewable energy projects such as wind farms, while the Small-scale Renewable Energy Scheme (SRES) supports the installation of small scale systems including solar panels and solar water heaters. Combined, the LRET and SRES are expected to deliver more renewable energy than the previous 45,000 GWh target in 2020.
State government policy	<ul style="list-style-type: none"> Agriculture is a key component of the Newman Government's objective of growing a four pillar economy in Queensland and is central to the commitment of doubling Queensland's food production by 2040.
Biosecurity	<ul style="list-style-type: none"> Freedom from many of the serious disease affecting aquaculture in other countries. Concerns focused on security of food production increase the importance of this industry and currently the region is well placed.

7.3.6 Challenges

Climate Change	<ul style="list-style-type: none"> The enhanced variability of climate could continue to produce high impact events like cyclones and floods as well as extended dry periods.
Labour and Skills	<ul style="list-style-type: none"> The highly competitive wages paid by the mining sector places pressure on the agriculture, fisheries and forestry sector to increase wages or risk encountering labour and skill supply

Shortages	<p>shortages.</p> <ul style="list-style-type: none"> • The industry also faces the challenge of an aging workforce.
Price Taker	<ul style="list-style-type: none"> • Prices for agricultural commodities produced in Mackay are heavily influenced by prices and conditions in international markets, including subsidies and other policy in competing countries, and can be highly variable. • Sugar prices are becoming increasingly linked to prevailing fuel prices due to the increasing demand and production of ethanol due to the highly changeable nature of production in Brazil, with the ability to switch production relatively quickly between sugar production and ethanol production.
Decreasing Global Competitiveness	<ul style="list-style-type: none"> • Relatively higher production costs compared to low cost countries, as well as subsidies in competing countries, implies exposure of the domestic industry to reduced world prices associated with global oversupply and replacement of domestic produce with imported products. This is felt throughout the entire supply chain.
Lifestyle Focussed Sector	<ul style="list-style-type: none"> • Many traditional agricultural sectors (grazing and sugar) are perceived to have “lifestyle” benefits and as such, many older farmers are not motivated to drive and push for additional production and expansion.
Adequate Zoning/ Planning	<ul style="list-style-type: none"> • Development of the agriculture, fisheries and forestry sector is constrained by limiting pre-approval criteria, for example with respect to aquaculture, regions that are pre-approved up to an annual production limit based on the ecology of the region, lushing rates and other science criteria.
Retention of Good Quality Agricultural Land	<ul style="list-style-type: none"> • Good quality agricultural land is in danger of being lost to “hobby” farmers, urban encroachment and industry development has the potential to decrease the viability of sectors of the agriculture industry. • The encroachment of residential developments on sugar mills and waste water facilities is increasing pressure on operations, and requires restrictions on development approvals in these sensitive areas.
Lack of Regionally Targeted Research and Development	<ul style="list-style-type: none"> • Access to regionally targeted research and development for developing agriculture, forestry and fishing sectors is relatively poor in the Mackay-Isaac-Whitsunday region.

Cost of Regulation	<ul style="list-style-type: none"> • Certification and environmental requirements and other legislation provide a significant operating cost to many agricultural sectors, and in many cases provide a significant barrier to entry for a new industry sector of significant development. • Likewise, recent steep increases in water and electricity costs are impacting primary producers who rely on irrigation for crop yields.
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7.3.7 Opportunities

Production and Expansion of Bio-Commodities	<ul style="list-style-type: none"> • Utilising primary production for bio-commodities (fibre, renewable fuels, etc.). Increasing demand for ethanol and biodiesel provides an opportunity for value adding sugar through the expansion of the local/ regional ethanol / biodiesel industry. This would help diversify the regional sugar market and increase security of demand for sugar cane. • The local promotion and use of blended biofuels would avoid fuel transport costs to/from capital cities, providing financial benefits to local biofuel producers and motorists.
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Utilisation of Fallow and Alternative Crops	<ul style="list-style-type: none"> • The Queensland Government's FutureCane project has demonstrated that establishing legume fallow crops has been effective in providing beneficial economic, environmental and social outcomes for cane-farming enterprises, providing an opportunity to increase returns for sugar cane producers.
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Plantation Forestry	<ul style="list-style-type: none"> • This activity can often be coupled with cane farming to provide a second income source.
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Native Hardwood Forestry	<ul style="list-style-type: none"> • Management of native forests for timber production particularly on grazing properties can provide second income source.
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Expansion of Horticulture	<ul style="list-style-type: none"> • The development of biotechnology and genetically modified crops also provides many opportunities for development within the agriculture sector. • The Water for Bowen project (Sunwater) and Ag Precinct work (DAFF) identified an opportunity for expansion near Bowen (subject to water availability and markets). • Continuing trends towards "clean and green" foods provides an opportunity for the region to focus on organic farming products, as well as niche gourmet food markets and specific products for further value adding.
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Innovative Cane Farming	<ul style="list-style-type: none"> • Various programs are encouraging innovation in cane farming practices. For example, the award winning, Project Catalyst, is
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Practices	reducing the environmental footprint of sugarcane production on freshwater quality and the Great Barrier Reef. Improvements are also focusing on soil, health, farm production efficiency and precision planning. The project is jointly funded by Reef Catchments and other Natural Resource Management (NRM) bodies, WWF and Coca Cola, and involves farmers from the Mackay-Isaac-Whitsunday region.
Expansion of Export	<ul style="list-style-type: none"> Proximity to Asian markets and climatic conditions conducive to the production of tropical and sub-tropical fruit provides an opportunity to develop export markets for these products.
Aquaculture Industry Growth	<ul style="list-style-type: none"> Increasing acceptance of aquaculture and the buy-back of wild-caught fishing licences provides an opportunity to expand the growing aquaculture industry in the region.
Clustering of Established Industries	<ul style="list-style-type: none"> The Mackay-Isaac-Whitsunday region has established horticulture, agriculture and food processing industries. There is an opportunity to increase linkages with local business to create a regional identity, in particular in the accommodation, cafés and restaurants and tourism markets.
Workforce Development and Training	<ul style="list-style-type: none"> Providing employment opportunities outside of the seasonal peaks to ensure trained staff stay in the region and can maintain adequate employment and incomes throughout the year.
Cogeneration	<ul style="list-style-type: none"> A combination of growing demand for power, government policy supporting the use of renewable energy sources for power generation and significant renewable energy resources available in the region (in particular sugar) provide an opportunity to develop renewable energy power generation infrastructure. However, given the comparably lower efficiency of renewable energy technology relative to other energy sources, it is expected that this would only be attractive to investors as local power generation supporting co-located businesses using current technologies. A project of this type has been completed at the Racecourse Mill and there are other mills exploring this option as well.

7.4 Mining

7.4.1 Industry Overview

The mining sector is the main economic driver of the region, with high quality coking and thermal coal production being the main output. The Mackay-Isaac-Whitsunday region accounts for approximately half the State's total coal production and three quarters of its total value. Other mining operations in the Mackay-Isaac-Whitsunday region include coal seam gas operations in Moranbah (Isaac LGA), gold mining operations north of Collinsville (Whitsunday LGA) and hard-rock quarries in Mackay (Mackay LGA).

- Viability and planning studies have been concluded in the Galilee Basin which could further increase demand on the port infrastructure, most likely at Abbot Point.
- The "missing link" rail line has been completed further reducing bottlenecks in port and rail allowing for further growth. The missing link is a 69-kilometre rail line connecting the existing mines of Northern Goonyella and Newlands to allow coal trains originating in Central Queensland to be directed to the port of Abbot Point.
- New technology such as Longwall Top Coal Caving has been deployed in the Bowen Basin to increase coal extraction.
- The Mackay-Isaac-Whitsunday region accounts for over 70% of the State's total coal, exported from the region's three major ports of Dalrymple Bay, Abbot Point and Hay Point.
- While Gregory Mine, Blair Athol Mine and Norwich Park Mine have recently announced closures, there are many actual and planned mines in the pipeline. Major coal investments currently committed include the Anglo Coal Australia Grosvenor Coal Mine, located near Moranbah (Isaac LGA) worth \$1.7 billion and the Sumitomo Corporation Eagle Downs Mine with close to \$1.3 billion.

7.4.2 Employment

According to the 2011 Census, there are 12,248 people employed in the mining sector. This is an increase of 44.1% since 2006.

Industry of Employment	2006	2011	% change
Mining	8,502	12,248	44.1%

Source: ABS, Census of Population and Housing, 2006 and 2011.

Within the mining sector, the greatest increase in employees was seen in the occupations of community and personal service workers (153%), professionals (54%), managers (50%) and technicians and trades workers (48%).

Occupations	2006	2011	% change
Managers	446	673	50.9%
Professionals	650	1,007	54.9%
Technicians and trades workers	2,404	3,560	48.1%
Community and personal service workers	15	38	153.3%
Clerical and administrative service workers	520	797	53.3%
Sales workers	24	16	-33.3%
Machinery operators and drivers	4,050	5,603	38.3%
Labourers	297	385	29.6%
Not stated	96	170	77.1%
Total	8,502	12,249	44.1%

Source: ABS, Census of Population and Housing, 2006 and 2011.

7.4.3 Contribution to Regional Economy

The mining industry contributed \$9.9 billion to the Mackay-Isaac-Whitsunday regional economy (gross regional product) in 2011/12. This is a decrease of 26.4% since 2007/08.

The Mackay-Isaac-Whitsunday region's economy is 50.3% reliant on the mining sector for its contribution, a decrease of 8.3 percentage points since 2007/08.

Contribution to Regional Economy	2007/08 (\$m)	2011/12 (\$m)	% change
Mining	13,529	9,961.8	-26.4%

Source: Lawrence Consulting, 2013



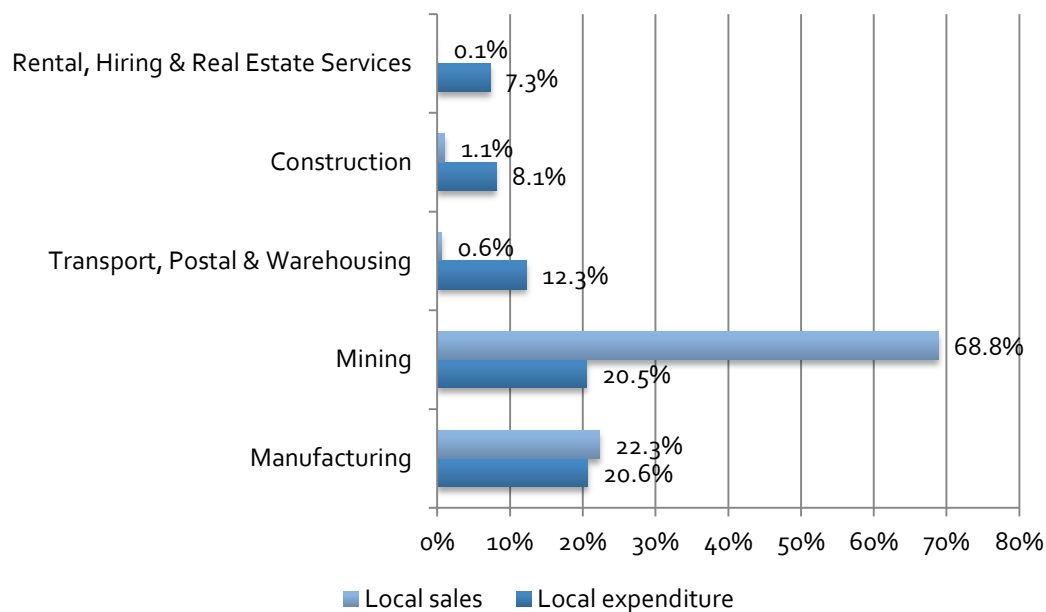
Despite an increase in the number of people employed in the mining sector (+44%), there was a decrease in the sectors contribution to the regional economy (-26.4%), reflecting the effects of price on economic performance.

7.4.4 Sectoral Relationships and Reliances

The mining sector spends 68.8% of its \$2.3 billion expenditure from five main sectors within the Mackay-Isaac-Whitsunday region, including:

- 20.6% from manufacturing;
- 20.5% from itself;
- 12.3% from transport, postal and warehousing; and
- 8.1% from construction.

Figure 21: Sectoral Relationships and Reliances: Mining



(REMPPLAN, 2013)

The sectors of manufacturing, mining and transport, postal and warehousing are relatively reliant (i.e. greater than 10%) on the mining sector for purchase of their products.

There is a high degree of interdependence between the mining sector and the transport and storage sector.

7.4.5 Influencing Factors and Drivers

7.4.6 Strengths

Significant natural resource deposits

- The region has significant high grade black coal deposits, which has encouraged key global industry players to invest in the region such as BHP Billiton Mitsubishi Alliance (BMA), BHP Billiton Mitsui Coal Pty Ltd, Anglo Coal Australia Pty Ltd, Xstrata, Peabody Energy Australia Pty Ltd, Rio Tinto Coal Australia Pty Ltd, Australian Premium Coals Pty Ltd and Macarthur Coal.

- Sizeable coal seam gas deposits have also been found, with an operation under way in Moranbah.

Growing Mining Sector	<ul style="list-style-type: none"> • The mining sector has grown significantly over the past 15 years and is now the premier black coal region in Queensland. With significant additional investment either committed or under construction, increasing demand for energy and global demand projected to remain strong, the region is displaying growth prospects for the immediate term.
Sector Support	<ul style="list-style-type: none"> • The mining sector is supported by a well-established mining engineering industry that supplies customised manufacture, repair and maintenance services to the sector. There is also a well organised industry association, MAIN (Mackay Area Industry Network) that provides links throughout the supply chain and export markets.
Export Infrastructure	<ul style="list-style-type: none"> • There are three coal export terminals in the region – Dalrymple Bay, Abbot Point and Hay Point – with a combined capacity of 104.5 million tonnes. Significant investment is currently committed or under construction that will increase port and rail capacity to approximately 145 million tonnes.
Technological Development	<ul style="list-style-type: none"> • Research and development of improved technologies such as clean coal technology, coal-to-liquids (CTL), gas-to-liquids (GTL), water recycling, water use efficiencies, etc. have the potential to increase the output and production efficiencies and value of the mining sector.
Labour and Skills	<ul style="list-style-type: none"> • Labour and skills shortages was a major challenge in 2007, however this position has reversed with an easing of the labour pressures in the market. Over 6,000 jobs have been lost over the past 12 months in Queensland, resulting in excess skills capacity in the sector.

7.4.7 Challenges

Exposure to Global Market Fluctuations	<ul style="list-style-type: none"> • The Mackay-Isaac-Whitsunday region's mining sector, in particular the coal industry, is predominantly export oriented and therefore highly exposed to global market fluctuations. declines in commodity prices, coupled with a high Australian dollar has seen a significant focus on input cost reductions and increased productivity.
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Environmental Issues	<ul style="list-style-type: none"> Domestic and global demand for coal may be negatively impacted by increasing awareness of environmental issues such as climate change, concerns regarding coal's high level of carbon emissions and issues around the Great Barrier Reef.
Availability and Reliability of Cost Effective Water	<ul style="list-style-type: none"> The availability of reliable water is one of the key impediments that will constrain the development of the mining sector throughout Queensland.

7.4.8 Opportunities

Knowledge sharing	<ul style="list-style-type: none"> Suppliers and producers develop shared productivity improvements.
Further expansion of the coal mining sector	<ul style="list-style-type: none"> Whilst coal production has eased in the last year, the medium to long term demands remain strong The development of clean coal technology could also increase the development of the sector.
Development of a coal seam gas industry	<ul style="list-style-type: none"> There is an opportunity to develop the coal seam gas industry in the region, which supports Government policy for clean energy. Gas pipelines from Moranbah to Gladstone and Townsville have been approved.

7.5 Manufacturing

7.5.1 Industry Overview

Key industries in the manufacturing sector include food processing, production and repair of mining, agribusiness and construction equipment and marine maintenance.

Food Processing - The Mackay-Isaac-Whitsunday region has significant processing enterprises for meat and sugar products.

- The Mackay-Isaac-Whitsunday region produces around 420,000 tonnes of refined sugar per annum, equating to approximately one third of the total refined sugar in Australia.

Mining and Construction - The Mackay-Isaac-Whitsunday region has a significant number of manufacturers in the region producing mining and construction machinery and related equipment.

- Several international firms have located their Queensland or Australian head office in the Mackay-Isaac-Whitsunday region.
- Locally based engineering companies export services and equipment to countries including China, Indonesia and Papua New Guinea.

Marine - The Mackay-Isaac-Whitsunday region has a strong and growing marine industry supported by extensive port and world class marina facilities.

- The region has one of Queensland's highest levels of recreational boat registrations and Australia's largest grouping of charter boat operators catering for domestic and international visitors.

7.5.2 Employment

According to the 2011 Census, there are 6,677 people employed in the manufacturing sector. This is an increase of 13.9% since 2006.

Industry of Employment	2006	2011	% change
Manufacturing	5,862	6,677	13.9%

Source: ABS, Census of Population and Housing, 2006 and 2011.

Within the manufacturing sector, the greatest increase in employees was seen in the professional occupations category (41.5%).

Occupations	2006	2011	% change
Managers	483	609	26.1%
Professionals	270	382	41.5%
Technicians and trades workers	2,191	2,627	19.9%
Community and personal service workers	20	27	35.0%
Clerical and administrative service workers	536	680	26.9%
Sales workers	237	221	-6.8%
Machinery operators and drivers	887	984	10.9%
Labourers	1,163	1,043	-10.3%
Not stated	75	104	38.7%
Total	5,862	6,677	13.9%

Source: ABS, Census of Population and Housing, 2006 and 2011.

7.5.3 Contribution to Regional Economy

The manufacturing sector contributed \$817 million to the Mackay-Isaac-Whitsunday regional economy (gross regional product) in 2011/12. This is a decrease of 3.6% since 2007/08.

The Mackay-Isaac-Whitsunday region's economy is 4.1% reliant on the manufacturing sector for its contribution, an increase of 0.5 percentage points since 2007/08.

Contribution to Regional Economy	2007/08 (\$m)	2011/12 (\$m)	% change
Manufacturing	847.8	817.0	-3.6%

Source: Lawrence Consulting, 2013



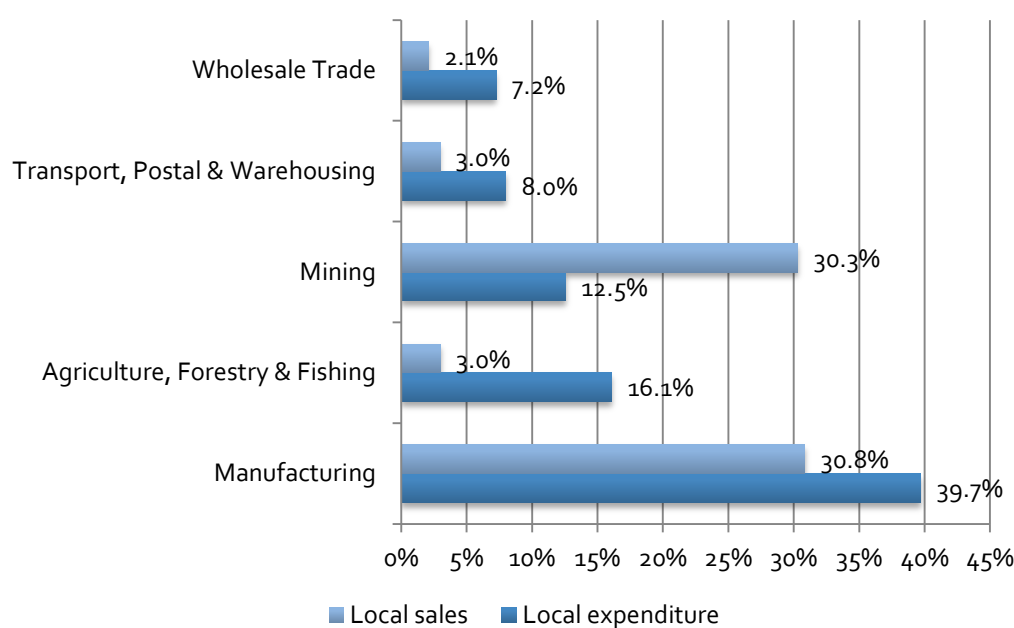
Despite an increase in the number of people employed in the manufacturing sector (+13.9%), there was a decrease in the sectors contribution to the regional economy (-3.6%), indicating a decrease in productivity.

7.5.4 Sectoral Relationships and Reliances

The manufacturing sector spends 83.6% of its \$1.2 billion expenditure on five main sectors within the Mackay-Isaac-Whitsunday region, including:

- 39.7% from itself;
- 16.1% from agriculture, forestry and fishing;
- 12.5% from mining;
- 8.0% from transport postal and warehousing; and
- 7.2% from wholesale trade.

Figure 22: Sectoral Relationships and Reliances: Manufacturing



(REMPLAN, 2013)

Agriculture, forestry and fishing rely on the manufacturing sector to purchase approximately 16.1% of its annual output.

There is a level of interdependence of the sector on itself, as it sells approximately 30.8% of its output to itself.

The manufacturing sector is highly reliant on the construction sector to purchase approximately 17.3% of its total output.

7.5.5 Influencing Factors and Drivers

7.5.5.1 Strengths

Cohesive industry	<ul style="list-style-type: none">• The manufacturing sector is an established sector, with major meat and sugar processors and mining and construction engineering services, as well as developed support infrastructure. The sector is also supported by a well-established and proactive industry association, MAIN (Mackay Area Industry Network), representing primarily mining and engineering services firms, but extending to construction and sugar.
Established supply and demand chains	<ul style="list-style-type: none">• The long-standing presence of mining and agribusiness as major industries in the region has facilitated the development of specialised manufacturing skills and services for value adding and supporting these industries. This co-location with major input suppliers, proximity to resource assets, and export infrastructure increases the competitive advantage of these businesses relative to other regions.
Well established mining sector	<ul style="list-style-type: none">• The mining sector has grown significantly in the past 15 years, however there are a number of external factors slowing the short term demand, including declining coal prices, high AUD, high input costs (e.g. Minerals Resource Rent Tax, Royalty increases etc.), and declining productivity. The long term demand for coal remains strong, however the external factors have contributed to increased sovereign risk and higher investment costs which is adding a level of uncertainty in the current market, which is adversely affecting the supply chain. The reduction of production costs is the focus for the majority of the resource companies in order to ensure current and future projects remain financially viable.
Increasing global demand for bio-fuels (ethanol, biodiesel, etc.)	<ul style="list-style-type: none">• Demand for bio-fuels is increasing globally, and the Mackay-Isaac-Whitsunday region produces a significant quantity of sugar cane, which can be used to manufacture ethanol and biodiesel. REDC's "Cleantech Diversification" project supports the establishment of a Cleantech industry in the M-I-W region, and will provide diversification to the manufacturing sector in the region.
Growing marine sector	<ul style="list-style-type: none">• A growing marine industry, supported by extensive port and world-class marina facilities as well as marine education and training facilities and programs, has seen increased demand for marine manufacturing, maintenance and repair services.

Skilled workforce	<ul style="list-style-type: none"> • The easing in the skills market now presents excess capacity in highly skilled workers in this sector. • The location of regional universities with an engineering research focus and long term presence of mining engineering and food processing industries provides a high level of skills in the region relevant to these industries. • The responsive nature of the history of the manufacturing sector in the region, particularly with respect to engineering (agricultural and mining) has resulted in the development of a sector that is able to develop customised engineering products, which in many cases results in innovations. • CQUniversity is proposing to establish a “SMART” (Sustainable Mining and Robotic Technology) centre on campus in Mackay.
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7.5.5.2 Challenges

Narrow client base	<ul style="list-style-type: none"> • With the exception of refined sugar (which is largely exported), Mackay’s manufacturing base currently relies heavily on local and regional business for consumption of its output. In order to grow the manufacturing sector and increase its sustainability, new markets should be developed both domestically as well as internationally.
High input costs	<ul style="list-style-type: none"> • Outside of well-established industries such as sugar processing and mining equipment manufacture and repair, Mackay has little comparative advantage in manufacturing compared to other regional areas of Australia or internationally, with a relatively expensive workforce and limited nearby access to inputs.
Low cost producing countries	<ul style="list-style-type: none"> • Import of processed foods from low cost producing countries reduces the cost competitiveness of a regional food processing industry.
High AUD	<ul style="list-style-type: none"> • The high Australian dollar is making imports cheaper and exports more expensive. Local industry needs to look at value adding to take them from a price-driven market to a differentiation focus.
Focus on price	<ul style="list-style-type: none"> • Margins are being challenged in the current market with business being asked to drop prices by the mining companies, and at the

reductions by mining companies	same time pressures on productivity are also a focus.
Strength of other manufacturing hubs	<ul style="list-style-type: none"> With the downturn and shutdowns of large operations in other States, we are seeing more businesses trying to access the local market from high quality manufacturing regions such as Wollongong, Illawarra, and Hunter Valley. These regions have lower shop rates and present a threat to local industry based on pricing and capacity surplus.

7.5.5.3 Opportunities

Value adding resource and primary production outputs and by-products	<ul style="list-style-type: none"> <i>Sugar</i>: The increasing demand for ethanol provides an opportunity for value adding sugar through the expansion of the local/ regional ethanol industry. <i>Horticulture</i>: Combination of established food processing industry (including developed market channels), trends towards semi-processed and processed fresh foods and a strong regional horticulture industry, provides an opportunity for expansion of the food processing sector in horticulture products. <i>General agriculture, forestry and aquaculture</i>: Opportunities exist for the value adding of final production outputs or production for previously waste products moving toward a zero waste production system. <i>Coal seam gas</i>: The production of coal seam gas in Moranbah provides an opportunity to develop value added gas products, such as ammonium nitrate to meet the increasing demand for explosives in the mining industry in the region or conversion to liquid fuels such as diesel or naphtha to take advantage of high world fuel prices. <i>Minerals and metals</i>: The Mackay-Isaac-Whitsunday region's significant port and rail infrastructure and proximity to major export markets provides considerable potential to diversify the manufacturing industry into new products using mineral and metal resources from nearby areas. <i>Cleantech</i>: The Mackay-Isaac-Whitsunday manufacturing industry possesses skills in engineering, sciences and industrial processes that are easily transferrable to clean technology projects which would enable them to ultimately broaden their client base, making them less dependent on mining and more sustainable.
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Manufacturing industry clustering and co-location	<ul style="list-style-type: none"> • There are opportunities for regional manufacturers to collaborate and co-locate to increase economies of scale and improve synergies including establishing cooperative networks for joint international marketing, production and logistics activities to meet large scale overseas orders. The MAIN industry association has initiated this process. Key opportunities exist in: <ul style="list-style-type: none"> – Increasing linkages between horticulture, agriculture and food processing with sectors such as accommodation, cafés and restaurants and tourism to assist in creating a regional identity. – Co-location of food processing facilities with sugar mills to allow access to cheaper energy (with sugar mills producing their own electricity using bagasse) and shared waste treatment facilities. – Development of a marine cluster encompassing marine designers, manufacturers, maintenance and refit to take advantage of the significant sea port and marina infrastructure and increasing volumes of commercial vessels, super yachts, charter boats and cruise liners. There are also opportunities to link this cluster with the tourism industry. – There is an opportunity to create strong clusters in Isaac and Whitsunday to link in with MAIN and present a full supply chain for the region. There are steps currently being taken to establish the “Bowen Basin Industry Alliance” in Isaac.
Market development (domestic and international)	<ul style="list-style-type: none"> • The Mackay-Isaac-Whitsunday region has an established manufacturing and engineering sector; however, opportunities exist to expand the sector and develop additional support for key regional industries and reduce import reliance (i.e. import substitution). Also the presence of multi-national mining firms and proximity to Asian markets provides opportunities to access international markets. This will require improved coordination of industry activities (particularly marketing), and would be greatly facilitated by the development of regionally aligned cluster groups.
Transport infrastructure	<ul style="list-style-type: none"> • The capacity to export directly from the Mackay-Isaac-Whitsunday region in bulk or container would greatly facilitate the development of further processing and manufacturing activities in the region. Future opportunities exist at the Port of Abbot Point for diversified logistic operations. <p>A strong and efficient transport link from the Mackay Port through to the industrial centre of Paget (e.g. The proposed Mackay Ring Road), and then out to the Bowen Basin (e.g. Walkerston Bypass</p>

and Eton Range upgrades) would further enhance manufacturing opportunities in the region.

Market
Diversification

- The manufacturing sector has a highly skilled workforce in place. With pressures from the mining companies there are opportunities to diversify into different markets and sectors, utilising the current excess capacity.
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7.6 Electricity, Gas, Water and Waste Services

7.6.1 Industry Overview

The electricity, gas, water and waste services sector is primarily focussed on energy production and distribution in the Mackay-Isaac-Whitsunday region.

- A 440 kilometre Central Queensland Gas Pipeline is being constructed from Moranbah to Gladstone that will transfer coal seam gas generated at Moranbah's CH₄ fields. This will involve the construction of gas processing and compression infrastructure at Moranbah. Scheduled for completion by end of 2014.
- The Collinsville power station has transmission connections to Townsville and Gladstone. It has two steam turbines and can generate about 100MW of electricity. The power station directly employs 130 staff. Closure is scheduled by July 1, 2016 but may be considered earlier.

7.6.2 Employment

According to the 2011 Census, there are 745 people employed in the electricity, gas, water and waste services sector in Mackay-Isaac-Whitsunday. This is an increase of 24.4% since 2006.

Industry of Employment	2006	2011	% change
Electricity, gas, water and waste services	599	745	24.4%

Source: ABS, Census of Population and Housing, 2006 and 2011.

Within the electricity, gas, water and waste services sector, the greatest increase in employees was seen in sales workers (50%) and managers (47.5%).

Occupations	2006	2011	% change
Managers	40	59	47.5%
Professionals	45	36	-20.0%
Technicians and trades workers	206	252	22.3%
Community and personal service workers	4	0	n/a
Clerical and administrative service workers	109	128	17.4%
Sales workers	8	12	50.0%
Machinery operators and drivers	115	159	38.3%
Labourers	67	80	19.4%
Not stated	5	19	280.0%
Total	599	745	24.4%

Source: ABS, Census of Population and Housing, 2006 and 2011.

7.6.3 Contribution to Regional Economy

The electricity, gas, water and waste services sector contributed \$122.1 million to the Mackay-Isaac-Whitsunday regional economy (gross regional product) in 2011/12. This is a decrease of 28.6% since 2007/08.

The Mackay-Isaac-Whitsunday region's economy is 0.6% reliant on the electricity, gas, water and waste services sector for its contribution, an increase of 0.5 percentage points since 2007/08.

Contribution to Regional Economy	2007/08 (\$m)	2011/12 (\$m)	% change
Electricity, gas, water and waste services	170.9	122.1	-28.6%

Source: Lawrence Consulting, 2013



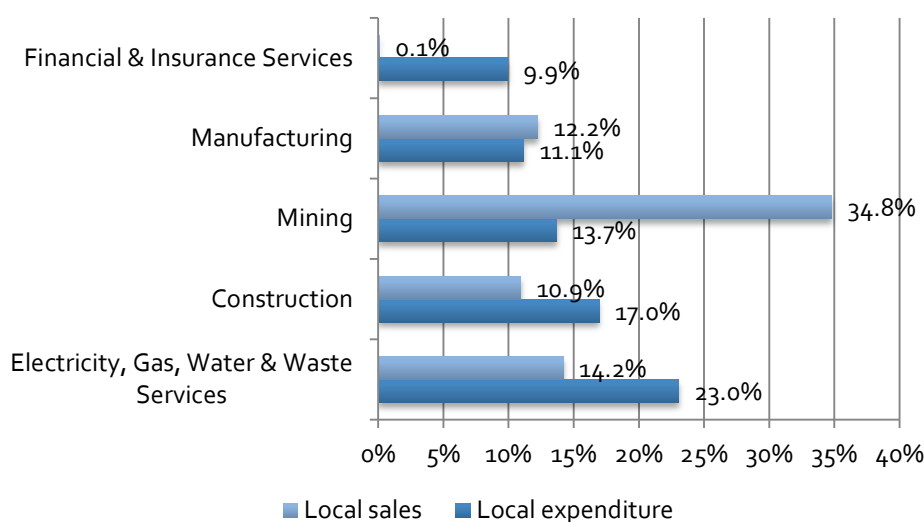
Despite an increase in the number of people employed in the electricity, gas, water and waste services sector (+24.4%), there was a decrease in the sectors contribution to the regional economy (-28.6%), indicating a decrease in productivity.

7.6.4 Sectoral Relationships and Reliances

The electricity, gas, water and waste services sector spends 74.7% of its \$104.6 million expenditure on five main sectors within the Mackay-Isaac-Whitsunday region, including:

- 23.0% from itself;
- 17.0% from construction;
- 13.7% from mining;
- 11.1% from manufacturing; and
- 9.9% from financial and insurance services.

Figure 23: Sectoral Relationships and Reliances: Electricity, gas, water and waste services



(REMPAN, 2013)

The construction and mining sectors are relatively reliant (i.e. greater than 10%) on the electricity, gas, water and waste services sector for purchases of their output.

There is a level of interdependence of the sector on itself, as it sells approximately 23.0% of its output to itself.

7.6.5 Influencing Factors and Drivers

7.6.5.1 Strengths

Significant coal and coal seam gas deposits

- The region has significant high grade black coal deposits, suitable for electricity production, and sizeable coal seam gas deposits suitable for use in electricity or gas production.

Technological development

- Research and development of improved technologies such as clean coal technology, water recycling, water use efficiencies, transmission

efficiencies, etc. have the potential to increase the output and production of the electricity, gas and water sector.

7.6.5.2 *Challenges*

Government policy towards clean energy sources	<ul style="list-style-type: none">• Current government policy does not support the development of coal-fired electricity generation; however there are indications that this policy is likely to be reviewed.
Water availability	<ul style="list-style-type: none">• Sufficient infrastructure to ensure water reliability and security for the generation and provision of utilities.
Limited Capacity	<ul style="list-style-type: none">• Limited excess capacity with existing energy infrastructure and currently not base load capacity in North Queensland
Population growth and expansion	<ul style="list-style-type: none">• Population growth will provide additional demand on all utilities including gas, water and electricity.
Rising cost of infrastructure	<ul style="list-style-type: none">• With demand for services increasing, there is a need for new infrastructure. Budget constraints at Government level means that there are limited funds in a market where costs of construction and regulation are rising.
Water supply to expanding Galilee and Bowen coal reserves	<ul style="list-style-type: none">• Increased expansion by mining proponents to develop the coal industry will require provision of appropriate volumes of reliable water. This may necessitate the development of water supply infrastructure and increased water sales, including access to systems outside the region.

7.6.5.3 *Opportunities*

Increased coal seam gas sector	<ul style="list-style-type: none">• Pipeline infrastructure exists to allow the transfer of gas from Moranbah to Townsville, providing significant opportunities to increase gas extraction. Another pipeline is being considered between Moranbah and Gladstone.
Water supply to Bowen from the	<ul style="list-style-type: none">• The development of pipeline infrastructure from the Burdekin to Bowen will provide additional water resources for development.

Additional power generation (coal, CSG, co-generation and bio-fuels, etc.)

- With sizeable fuel deposits in the region and potential growth in energy demand there are significant opportunities to increase energy production in the region in order to increase the cost competitiveness of power in the region. There is also potential to co-locate resource extraction with power generation in the Mackay-Isaac-Whitsunday region to meet additional energy demands.
- Government policy does not support the development of coal-fired power stations, and with the nearby location of sizeable coal seam gas deposits this provides an opportunity to develop coal seam gas fired power stations in the region, with two already under construction in Moranbah and Nebo. Additionally, with abundant coal resources in the region and increasing domestic demand this will continue to push development of clean coal technology.

Export electricity

- The interconnected National Electricity grid provides an opportunity to trade with southern markets only if there is base load power in North Queensland.

Infrastructure for export of gas to southern markets

- Current gas infrastructure is insufficient to access and trade with southern markets in Queensland and New South Wales.
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7.7 Construction

7.7.1 Industry Overview

Both the residential and non-residential construction industries have been performing strongly in the Mackay-Isaac-Whitsunday region. Transport, utility and mining construction has also remained strong with a significant amount of infrastructure investment occurring in the region. The construction sector is highly variable with significant fluctuation in activity depending on the timing of development, cost of construction and industry drivers such as financial rates of return. As such, point-in-time estimates should be interpreted with caution.

Residential - Dwelling investment has steadily increased over the past five years with increases in both number and value of building approvals in the Mackay-Isaac-Whitsunday region.

Growth in number and value of dwelling approvals in the Mackay-Isaac-Whitsunday region is well above the level of the State.

Non-Residential - The number and value of commercial developments has continued to increase, rising more than 150% in the past 5 years.

Transport Construction (Roads, Rails and Ports) - Key transport construction projects for the region include expansion of the Abbot Point, Hay Point and Dalrymple Bay Coal Terminals (Port-Sea), construction of spur loops and rail loops in Isaac Regional Council area, and upgrade of the Peak Downs Highway and Bruce Highway.

Utility Construction (Water and Energy Infrastructure) - Investment in utility infrastructure has been driven by the strong regional population growth, rising demand for electricity in Queensland, the strength of the mining industry placing demands on existing water and energy infrastructure.

Key utility construction projects for the region include the Central Queensland Gas Pipeline, expansion of the Moranbah CSG Operation, reinforcement of the high voltage transmission network in the Bowen Basin, expansions of the Hay Point, Dalrymple Bay and Abbot Point coal terminals and the planned Dudgeon Point Coal Terminal.

Mining Construction - Key mining construction projects for the region include the new Caval Ridge Open-Cut mine, Daunia Coal Project, Eagle Downs underground mine and Isaac Plains Coal project.

7.7.2 Employment

According to the 2011 Census, there are 8,240 people employed in the Mackay-Isaac-Whitsunday construction sector. This is an increase of 18.2% since 2006.

Industry of Employment	2006	2011	% change
Construction	6,971	8,240	18.2%

Source: ABS, Census of Population and Housing, 2006 and 2011.

Within the construction sector, the greatest increase in employees was seen in the professional occupations (79.7%) and sales workers (36.7%).

Occupations	2006	2011	% change
Managers	664	731	10.1%
Professionals	143	257	79.7%
Technicians and trades workers	3,175	3,572	12.5%
Community and personal service workers	12	8	-33.3%
Clerical and administrative service workers	733	949	29.5%
Sales workers	49	67	36.7%
Machinery operators and drivers	987	1,336	35.4%
Labourers	1,125	1,252	11.3%
Not stated	83	68	-18.1%
Total	6,971	8,240	18.2%

Source: ABS, Census of Population and Housing, 2006 and 2011.

7.7.3 Contribution to Regional Economy

The construction sector contributed \$867.1 million to the Mackay-Isaac-Whitsunday regional economy (gross regional product) in 2011/12. This is an increase of 40.9% since 2007/08.

The Mackay-Isaac-Whitsunday region's economy is 4.4% reliant on the construction sector for its contribution, an increase of 1.7 percentage points since 2007/08.

Contribution to Regional Economy	2007/08 (\$m)	2011/12 (\$m)	% change
Construction	615.6	867.1	40.9%

Source: Lawrence Consulting, 2013



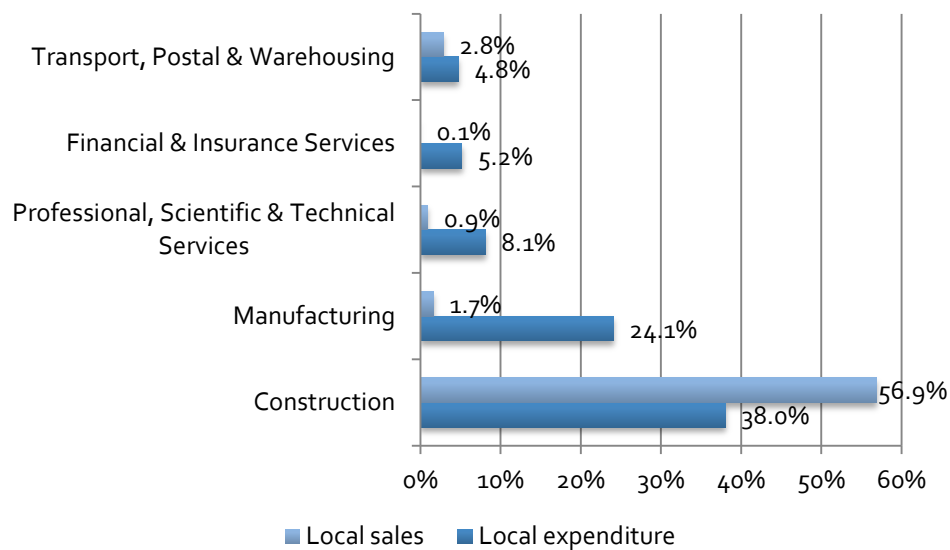
The construction sector has achieved a significant increase in its contribution to the regional economy (40.9%) with only a moderate increase in its workforce (18.2%), indicating a high rate of productivity.

7.7.4 Sectoral Relationships and Reliances

The construction sector spends 80.2% of its \$1.1 billion expenditure on five main sectors within the Mackay-Isaac-Whitsunday region, including:

- 38.0% from itself;
- 24.1% from manufacturing;
- 8.1% from professional, scientific and technical services;
- 4.8% from transport, postal and warehousing; and
- 4.6% from rental, hiring and real estate services.

Figure 24: Sectoral Relationships and Reliances: Construction



(REMPLAN, 2013)

The manufacturing sector relies on the construction sector to purchase approximately 24.1% of their output. There is a level of interdependence of the sector on itself, as it sells approximately 38.0% of its output to itself.

The construction sector is highly reliant on the mining sector to purchase approximately 24.8% of its total output

7.7.5 Influencing Factors and Drivers

7.7.5.1 Strengths

Strong population growth	<ul style="list-style-type: none">Population growth in the Mackay-Isaac-Whitsunday region has accelerated over the past 15 years, and is projected to remain strong over the next 20 years. This will increase demand for residential property construction in the region.
Sea and tree change phenomenon	<ul style="list-style-type: none">The increasing trend of migration to sea and tree change destinations is expected to bolster population growth over the next 20 years and increase demand for residential property construction.
Strong housing demand	<ul style="list-style-type: none">The Mackay-Isaac-Whitsunday region is currently faced with housing shortages due primarily to the significant growth in demand for accommodation in mining areas. This is boosting demand for residential construction services to increase housing supply in these areas.

7.7.5.2 Challenges

Increased Competition	<ul style="list-style-type: none">The slow down in the sector nationally has meant that southern businesses have entered this market with reduced prices.
Inflated construction material costs	<ul style="list-style-type: none">Building materials prices have grown at a faster rate than inflation over the past 10 years, resulting in increasing costs of construction.
Property market risks	<ul style="list-style-type: none">Declining business confidence: Business confidence is currently declining from high levels in recent years, which is expected to result in a decrease in business investment (including building construction) in the short term.
Planning for growth	<ul style="list-style-type: none">Release of land is experiencing delays due to actual demand for land far exceeding the demand catered for by original infrastructure plans. The number and geographic spread of new growth areas (exacerbated by the skills shortage) has impacted on land releases.
Complexity of planning	<ul style="list-style-type: none">There is a need to modernise the planning and development assessment system. Constraints to timely approvals include constantly changing regulatory requirements, current focus on process rather

system	than outcome and incomplete applications being submitted and accepted for assessment.
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Available Land	<ul style="list-style-type: none">• The regional communities are constrained by mining leases and native title, and their ability to bring enough land to market to supply the demand is limited. Moranbah only has 1,500 land blocks left.
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7.7.5.3 Opportunities

Expansion of industry to meet growing demand	<ul style="list-style-type: none">• With population growth continuing to grow in response to strong growth in employment opportunities, particularly in the mining industry, and significant industry investment already planned, there is an opportunity to expand the local and regional construction industry to meet growing demand from within the region.
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Prefabricated buildings	<ul style="list-style-type: none">• Given the intensive nature of the construction anticipated over the coming years and the acute housing shortage within the region, the development of efficient and timely prefabricated housing structures is likely to be a viable development alternative.
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Skills and labour development	<ul style="list-style-type: none">• In order to assist in meeting growing demand in the construction industry, there is an opportunity to develop strategies aimed at developing skills and labour capacity in the industry.
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7.8 Wholesale and Retail Trade

7.8.1 Industry Overview

***Wholesale Trade** encompasses wholesale merchants, separate sales branches operated by manufacturing enterprises, commission agents, import and export agents and purchasing agents, petroleum products distributors, and cooperatives and marketing boards engaged in marketing farm products.*

***Retail Trade** encompasses businesses who predominantly sell to households. Sales include food, clothing and household goods.*

- Caneland Central underwent redevelopment in 2011, doubling in size. The centre now boasts a new Myer store and Coles store and an additional 120 new specialty retailers, a 750 seat food court, alfresco dining precinct and additional car parking.
- The new Sydney Street Markets shopping precinct is located in the heart of Mackay CBD. It features Coles and over 15 specialty stores with a mix of essential services, fresh food, cafes, home wares, beauty, banking and health.
- The Avenue, a new commercial and retail precinct opened in North Mackay in 2011 and features Down Under Cellars, Pizza Capers, an IGA supermarket, cafés, alfresco dining and commercial office space.
- A number of new shopping precincts and expansions have been completed. The Mackay-Isaac-Region now boasts shopping of a metropolitan standard.
- In all areas of the region, there are a number of smaller shopping centres and specialist stores, all varying in size, servicing a customer base of local residents and intrastate, interstate and international visitors.
- Retail prices have grown faster in Mackay relative to Brisbane over the past five years.

7.8.2 Employment

According to the 2011 Census, there are 11,247 people employed in the Mackay-Isaac-Whitsunday wholesale and retail trade sector. This is an increase of 5.1% since 2006.

Industry of Employment	2006	2011	% change
Wholesale and retail trade	10,701	11,247	5.1%

Source: ABS, Census of Population and Housing, 2006 and 2011.

Within the wholesale and retail trade sector, the greatest increase in employees was seen in the professional occupations (17.2%) and sales workers (10%).

Occupations	2006	2011	% change
Managers	1,491	1,505	0.9%
Professionals	296	347	17.2%
Technicians and trades workers	1,204	1,312	9.0%
Community and personal service workers	80	62	-22.5%
Clerical and administrative service workers	942	1,034	9.8%
Sales workers	4,499	4,947	10.0%
Machinery operators and drivers	743	801	7.8%
Labourers	1,348	1,131	-16.1%
Not stated	98	108	10.2%
Total	10,701	11,247	5.1%

Source: ABS, Census of Population and Housing, 2006 and 2011.

7.8.3 Contribution to Regional Economy

The wholesale and retail trade sector contributed \$1.1 billion to the Mackay-Isaac-Whitsunday regional economy (gross regional product) in 2011/12. This is an increase of 7% since 2007/08.

The Mackay-Isaac-Whitsunday region's economy is 5.8% reliant on the wholesale and retail trade sector for its contribution, an increase of 1.2 percentage points since 2007/08.

Contribution to Regional Economy	2007/08 (\$m)	2011/12 (\$m)	% change
Wholesale and retail trade	1,076.1	1,151.9	7%

Source: Lawrence Consulting, 2013



The wholesale and retail trade sector has increased its contribution to the regional economy by 7%, despite an increase in its workforce of only 5%, indicating greater productivity levels.

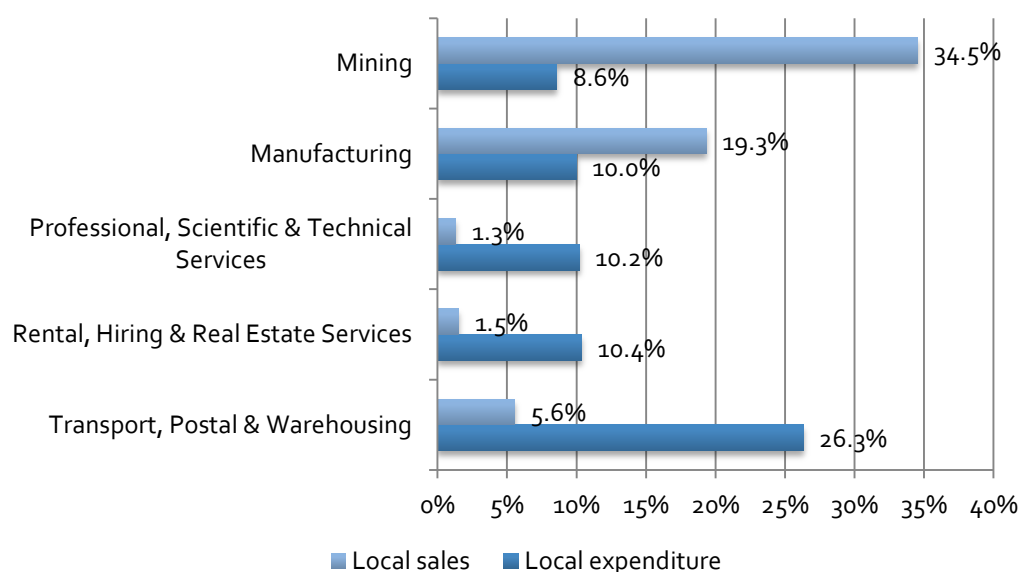
7.8.4 Sectoral Relationships and Reliances

Wholesale

The wholesale trade sector spends 65.4% of its \$327 million expenditure on five main sectors within the Mackay-Isaac-Whitsunday region, including:

- 26.3% from transport, postal and warehousing;
- 10.4% from rental, hiring and real estate services;
- 10.2% from professional, scientific and technical services;
- 10.0% from manufacturing; and
- 8.6% from mining.

Figure 25: Sectoral Relationships and Reliances: Wholesale trade



(REMPPLAN, 2013)

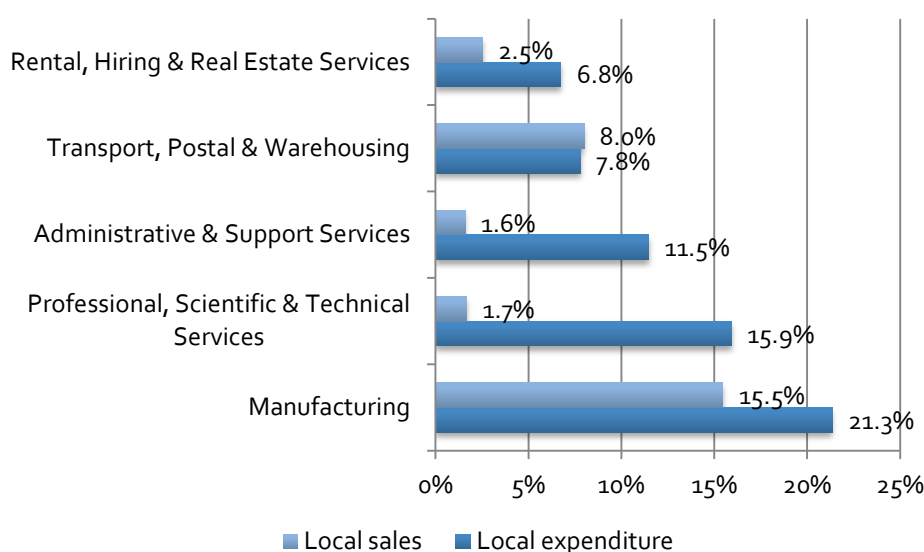
The transport, postal and warehousing sector relies on the wholesale trade sector to purchase more than 26% of its output.

Retail

The retail trade sector spends 63.3% of its \$178 million expenditure on five main sectors within the Mackay-Isaac-Whitsunday region, including:

- 26.3% from transport, postal and warehousing;
- 10.4% from rental, hiring and real estate services;
- 10.2% from professional, scientific and technical services;
- 10.0% from manufacturing; and
- 8.6% from mining.

Figure 26: Sectoral Relationships and Reliances: Retail trade



(REMPAN, 2013)

The manufacturing and professional, scientific and technical services sectors have a relatively high reliance on the retail trade sector.

The retail trade sector is highly reliant on the mining sector to purchase approximately 27.5% of its total output.

7.8.5 Influencing Factors and Drivers

7.8.5.1 Strengths

Strong population growth	<ul style="list-style-type: none"> Population growth in the Mackay-Isaac-Whitsunday region has accelerated over the past 15 years, and is projected to remain strong over the next 20 years. This will increase demand for retail services.
High disposable income in the region	<ul style="list-style-type: none"> The average wage in some sectors of the Mackay-Isaac-Whitsunday region is approximately 11% higher than the State average, largely driven by the high wages in the mining industry. This increases the disposable income available in the region, providing greater opportunity for retail expenditure.
Higher regional retail prices	<ul style="list-style-type: none"> Retail indices show that prices for groceries and similar consumables in the Mackay-Isaac-Whitsunday region are more expensive than in Brisbane, and are growing at a faster rate than the State average. This provides a benefit to the retail sector in terms of turnover through the higher prices received.
Increased retail offering	<ul style="list-style-type: none"> Caneland Central has completed a \$210 million transformation into a prime regional shopping centre, growing from around 39,000sqm GLA to 62,500sqm GLA with the addition of the new Myer department store.

7.8.5.2 Challenges

Retail leakage	<ul style="list-style-type: none">• The Mackay-Isaac-Whitsunday region has a relatively large number of employees that reside outside the region (particularly from the mining industry where a large proportion of employees operate on a fly-in, fly-out basis). As a result, the Mackay-Isaac-Whitsunday region suffers from a comparatively high amount of retail leakage, with high income earning mining personnel spending much of their income outside of the region.
Market size/ critical mass	<ul style="list-style-type: none">• Mackay currently relies heavily on local and regional business for consumption of its output. In order to grow the wholesale trade sector and increase its sustainability, new markets need to be examined.
Higher regional retail prices	<ul style="list-style-type: none">• Retail indices show that prices for groceries and similar consumables in the Mackay-Isaac-Whitsunday region are more expensive than in Brisbane, and are growing at a faster rate than the State average. While this is a positive for the sector in terms of higher prices received, it effectively reduces consumers' purchasing power and ability to make discretionary purchases, particularly for lower income earners in the region.
Cost of living	<ul style="list-style-type: none">• Although there are higher wages in the region, the cost of living is also considerably higher than the state/national average therefore reducing disposable income..

7.8.5.3 Opportunities

Continued expansion in response to growing demand	<ul style="list-style-type: none">• Trade is predominantly a reactive industry, which responds to growth. Programs to manage and ensure business development and growth in line with baseline growth in the region are essential to facilitate the development of the trade sector.
Increased regional retention and expenditure	<ul style="list-style-type: none">• Capturing a greater share of the disposable income of the existing market by diversifying experience, service and products provided.
Redevelopme nt of Retail	<ul style="list-style-type: none">• Revitalisation of existing retail precincts such as the Mackay City Centre, and Airlie Beach Main Street will provide greater diversity

Precincts

- of retail offerings and lift the profile of the sector.
- These type of redevelopments also have a positive effect on liveability.
-

7.9 Accommodation and Food Services

7.9.1 Industry Overview

Key industries in the accommodation and food services sector in the Mackay-Isaac-Whitsunday region are those which support tourism - hotel, motel and serviced apartment accommodation and restaurants.

The Mackay-Isaac-Whitsunday region is supported by well-established sea and air transport infrastructure and services, and increasing demand for accommodation in the region.

There are two distinct tourism regions in Mackay-Isaac-Whitsunday (Mackay-Isaac Tourism Region and the Whitsunday Tourism Region), each provides a unique destination with very different influences and target markets.

- Visitors to Mackay are predominantly business travellers and Whitsunday visitors are predominantly leisure travellers.
- Visitation to the Mackay-Isaac-Whitsunday region has continued to increase with almost 1.3 million domestic overnight and 211,000 international visitors staying in the region in 2012 (compared to 1.2 million domestic and 250,000 international visitors in 2006).
- In 2012, there were 1.3 million domestic day trip visitors to the region, compared to 1.1 million in 2006.

7.9.2 Employment

According to the 2011 Census, there are 6,441 people employed in the Mackay-Isaac-Whitsunday accommodation and food services sector. This is an increase of 7% since 2006.

Industry of Employment	2006	2011	% change
Accommodation and food services	6,017	6,441	7%

Source: ABS, Census of Population and Housing, 2006 and 2011.

Within the accommodation and food services sector, the occupations with the greatest increase in employees were labourers (17.3%) and community and personal service workers (13.4%).

Occupations	2006	2011	% change
Managers	1,032	1,055	2.2%
Professionals	114	86	-24.6%
Technicians and trades workers	891	895	0.4%
Community and personal service workers	1,288	1,460	13.4%
Clerical and administrative service workers	422	428	1.4%
Sales workers	562	551	-2.0%
Machinery operators and	116	109	-6.0%

drivers			
Labourers	1,540	1,807	17.3%
Not stated	52	50	-3.8%
Total	6,017	6,441	7.0%

Source: ABS, Census of Population and Housing, 2006 and 2011.

7.9.3 Contribution to Regional Economy

The accommodation and food services sector contributed \$307.9 million to the Mackay-Isaac-Whitsunday regional economy (gross regional product) in 2011/12. This is a decrease of 9.7% since 2007/08.

The Mackay-Isaac-Whitsunday region's economy is 1.6% reliant on the accommodation and food services sector for its contribution, an increase of 0.1 percentage points since 2007/08.

Contribution to Regional Economy	2007/08 (\$m)	2011/12 (\$m)	% change
Accommodation and food services	341	307.9	-9.7%

Source: Lawrence Consulting, 2013



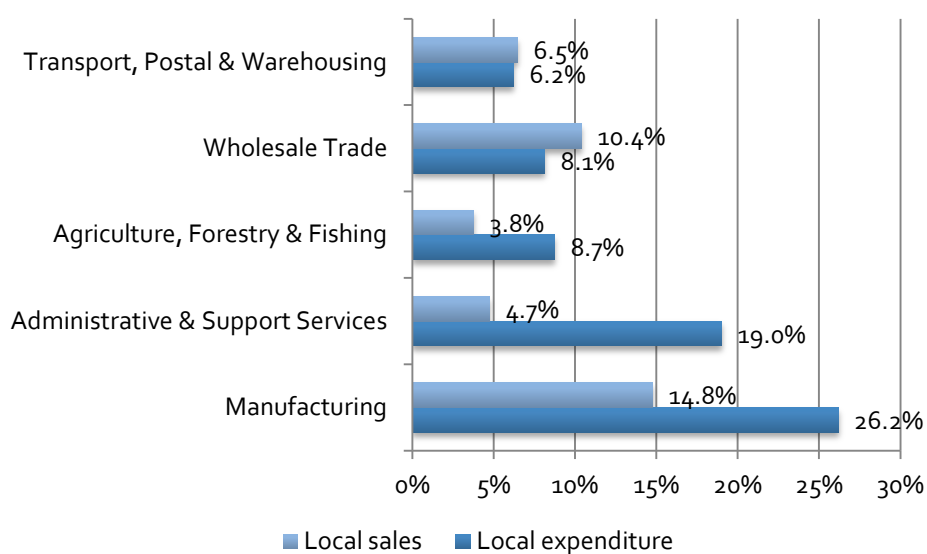
The accommodation and food services sector has increased its workforce by 7% between 2006 and 2011, however its contribution to the regional economy dropped by 9.7% due to a slow tourism season brought about by the Global Financial Crisis.

7.9.4 Sectoral Relationships and Reliances

The accommodation and food services sector spends 68.3% of its \$220.3 million expenditure on five main sectors within the Mackay-Isaac-Whitsunday region, including:

- 26.2% from manufacturing;
- 19% from administrative and support services;
- 8.7% from agriculture, forestry and fishing;
- 8.1% from wholesale trade; and
- 6.2% from transport, postal and warehousing.

Figure 27: Sectoral Relationships and Reliances: Accommodation and food services



(REMPPLAN, 2013)

The manufacturing and administrative and support services sectors have a relatively high reliance on the accommodation, and food services sector for purchase of their output.

The accommodation and food services sector is highly reliant on the mining sector to purchase approximately 29.4% of its total output.

7.9.5 Influencing Factors and Drivers

7.9.5.1 Strengths

Iconic Tourism Product	<ul style="list-style-type: none"> The Whitsundays are well known both internationally and domestically as an iconic tourism destination. As the gateway to the Great Barrier Reef, the 74 islands provide a diversity of tourism offerings.
Strong population growth	<ul style="list-style-type: none"> Demand for accommodation, cafés and restaurants will likely increase in line with predicted baseline population growth.
Relatively high disposable income	<ul style="list-style-type: none"> The higher the disposable income of a region the higher propensity to consume discretionary items such as takeaway food and alcohol, etc.

7.9.5.2 Challenges

Competition from overseas tourism destinations	<ul style="list-style-type: none">• With the strength of the AUD many domestic tourists are choosing to travel overseas, whilst the supply of international tourists is decreasing due to the rising costs, and cheaper options.
Availability of appropriately skilled labour	<ul style="list-style-type: none">• The development of premium accommodation, café and restaurant experiences, particularly with respect to international visitors, who may be used to a high level of service in their country of origin, is closely related to the availability of highly skilled staff. The transient nature of the labour force of the region that services the accommodation, cafes and restaurant sector in the Mackay-Isaac-Whitsunday region is further compounded by the high living costs in the region.
Limited availability of transport	<ul style="list-style-type: none">• Transport linkages, services and infrastructure throughout the region and between land and water prevent the attraction of additional expenditure and limit packaging or value-add opportunities.

Diversification of tourism visitor experience	<ul style="list-style-type: none"> The Mackay-Isaac-Whitsunday region's tourism industry is dominated by Whitsunday, Mackay and Sarina, where the majority of island, rainforest and national park tourist destinations are located. There is an opportunity to expand the tourism market to other areas of the Mackay-Isaac-Whitsunday region by building on the unique mining, cultural, agricultural and outback characteristics of these regions, which will result in opportunities to expand the accommodation, cafés and restaurants sector. This will require the development of transport infrastructure and links throughout the region, with potential to leverage low cost carriers to increase visitation to the region.
Development of modern, high quality tourism, accommodation and dining precincts	<ul style="list-style-type: none"> While the Mackay-Isaac-Whitsunday region has a number of existing and under development tourism, accommodation and dining precincts (such as the Mackay Marina Village, Airlie Beach Port of Airlie Marina, Blue Water Quays), there exists an opportunity to expand, diversify and modernise the experiences provided in these precincts in order to promote the Mackay-Isaac-Whitsunday region as a high quality tourism and cultural destination of choice.
Leveraging links with local production	<ul style="list-style-type: none"> The Mackay-Isaac-Whitsunday region has established horticulture, agriculture and food processing industries. There is an opportunity for local accommodation, café and restaurant establishments to increase linkages with local products and create a regional identity through enhanced visitor experiences.
Business Tourism Conversion	<ul style="list-style-type: none"> Mackay has a high percentage of business travellers to the region each year. There are opportunities to provide packages for people to "work and play" in order to extend their stays in the region.
Development of complimentary land based tourism experiences	<ul style="list-style-type: none"> The Mackay-Isaac-Whitsunday region boasts numerous naturally occurring high quality tourist attractions, such as rainforests and national parks, islands, coastal beaches and the Great Barrier Reef. However tourism is centred on water based activities in the Whitsundays and in Mackay the leisure sector has struggled to grow with a surge in business travel over the past three years. The development and integration of complimentary land based activities will facilitate the growth of the accommodation, cafes and restaurants sector.

7.10 Transport, Postal and Warehousing

7.10.1 Industry Overview

The Mackay-Isaac-Whitsunday region has a well-developed transport network, with extensive sea, air, road and rail infrastructure.

7.10.1.1 Sea Transport

- The Mackay-Isaac-Whitsunday region incorporates four seaports – Port of Mackay, Dalrymple Bay, Abbot Point and Hay Point – as well as numerous marinas.
- The region has one of Queensland’s highest levels of recreational boat registrations and Australia’s largest grouping of charter boat operators catering for domestic and international visitors.
- The region also supports a commercial fishing fleet operating out of Mackay, Bowen and Sarina.
- Significant marine infrastructure in the form of commercial and club marinas and ferry terminals are available at Bowen, Airlie Beach, Shute Harbour and the Port of Mackay are available to support these commercial and recreational vessels.

7.10.1.2 Road and Rail Transport

- Extensive rebuilding of the Bruce Highway and State-controlled road network is underway at a cost of \$556M to repair damage from flood events from 2010 to 2012. Works will be complete by December 2013.
- Construction of 18 overtaking lanes to improve safety on the Bruce Highway from south of Sarina to Bowen has commenced at a cost of \$43M.
- A \$50M, four lane upgrade of the Bruce Highway from City Gates to Temples Lane will be completed by mid-2013

7.10.1.3 Air Transport

- Mackay Airport is the major regional airport, and is serviced by three carriers – Qantas, Virgin Blue and Jetstar.
- Mackay Airport is primarily a passenger airport, with nearly 700,000 passengers entering or leaving the region through the airport in 2006.

- The Great Barrier Reef Airport and Whitsunday Coast Airport support business and tourist movement in the region, combining for around 700,000 passenger movements between them in 2006.

7.10.2 Employment

According to the 2011 Census, there are 5,469 people employed in the Mackay-Isaac-Whitsunday transport, postal and warehousing sector. This is an increase of 25.3% since 2006.

Industry of Employment	2006	2011	% change
Transport, postal and warehousing	4,364	5,469	25.3%

Source: ABS, Census of Population and Housing, 2006 and 2011.

Within the transport, postal and warehousing sector, the occupations with the greatest increase in employees were technicians and trades workers (45.6%) and clerical and administrative service workers (24.2%).

Occupations	2006	2011	% change
Managers	376	424	12.8%
Professionals	334	414	24.0%
Technicians and trades workers	421	613	45.6%
Community and personal service workers	108	103	-4.6%
Clerical and administrative service workers	773	960	24.2%
Sales workers	115	117	1.7%
Machinery operators and drivers	1,850	2,361	27.6%
Labourers	325	386	18.8%
Not stated	62	91	46.8%
Total	4,364	5,469	25.3%

Source: ABS, Census of Population and Housing, 2006 and 2011.

7.10.3 Contribution to Regional Economy

The transport, postal and warehousing sector contributed \$708.6 million to the Mackay-Isaac-Whitsunday regional economy (gross regional product) in 2011/12. This is a decrease of 25.2% since 2007/08.

The Mackay-Isaac-Whitsunday region's economy is 3.6% reliant on the transport, postal and warehousing sector for its contribution, an increase of 1.1 percentage points since 2007/08.

Contribution to Regional Economy	2007/08 (\$m)	2011/12 (\$m)	% change
Transport, postal and warehousing	566.2	708.6	25.2%

Source: Lawrence Consulting, 2013



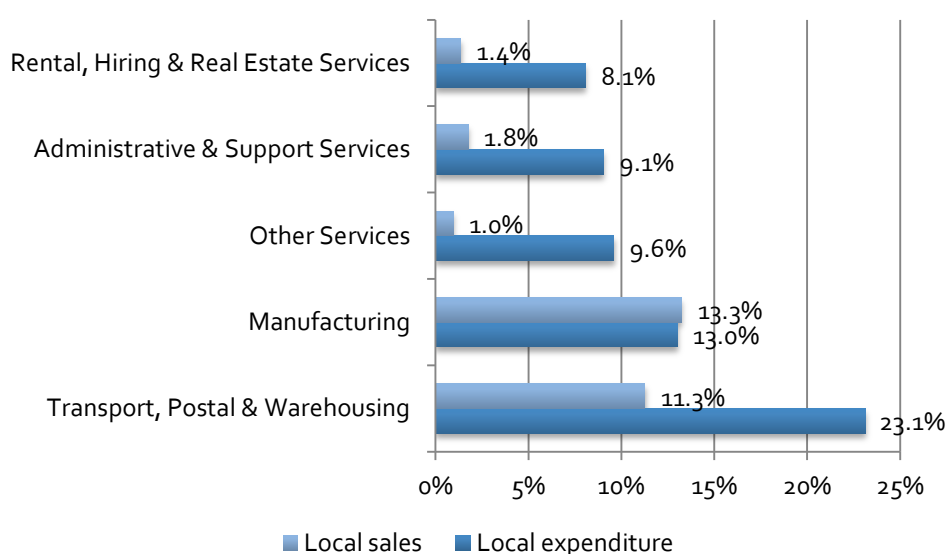
The transport, postal and warehousing sector has experienced significant growth, increasing its workforce by 25.3% between 2006 and 2011 and its contribution to the regional economy by 25.2% during the same period.

7.10.4 Sectoral Relationships and Reliances

The transport, postal and warehousing sector spends 62.9% of its \$359.2 million expenditure on five main sectors within the Mackay-Isaac-Whitsunday region, including:

- 23.1% from itself;
- 13.0% from manufacturing;
- 9.6% from other services;
- 9.1% from administrative and support services; and
- 8.1% from rental, hiring and real estate services.

Figure 28: Sectoral Relationships and Reliances: Transport, postal and warehousing



(REMPAN, 2013)

The sector has a relatively high reliance on itself. The manufacturing industry also relies on the transport, postal and warehousing sector to purchase approximately 13% of its total output.

The transport, postal and warehousing sector is highly reliant on the mining sector to purchase approximately 38.5% of its total output.

7.10.5 Influencing Factors and Drivers

7.10.5.1 Strengths

Strong and growing mining sector	<ul style="list-style-type: none">The mining sector has grown significantly in the past 15 years and is displaying strong growth prospects for the medium to long term, particularly with the development in the Galilee Basin. With the sector reliant on transporting coal to its local, regional and export markets, this will increase demand for transport and storage services.
Well established tourism industry	<ul style="list-style-type: none">The Mackay-Isaac-Whitsunday region's tourism industry is well established. Three passenger airports service the region while there are also significant sea transport facilities and services. Continued growth in demand in the tourism market will increase demand for both air and sea transport services.
Introduction of low cost carriers	<ul style="list-style-type: none">The introduction of low cost carriers (airlines) will increase travel and visitation of persons from southern states who would otherwise not have been able to afford to fly to the region.
Expansion of key infrastructure (rail, port, road, air)	<ul style="list-style-type: none">Infrastructure development has been completed in this period at Dalrymple Bay, Abbot Point and Hay Point coal terminals, and plans for future development at Abbot Point, and the potential new coal port at Dudgeon Point show a commitment to the future of the coal industry.

7.10.5.2 Challenges

Lack of capacity	<ul style="list-style-type: none">Current port and rail capacity is insufficient to cope with additional growth in the mining sector. It should be noted however that both port and rail infrastructure is currently being upgraded to cater to growing demand. However, under continued growth future capacity will be an issue also.
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- Increasing urban congestion on the Mackay road network will diminish freight efficiency to and from the port, Paget and the Peak Downs Highway.

Competition from nearby transport hubs	<ul style="list-style-type: none"> • Given its mobile nature, the transport and storage sector is highly competitive within and between regions.
High fuel prices	<ul style="list-style-type: none"> • In response to supply constraints and political tensions in key producing countries, crude oil prices reached record highs in July 2006 and despite falling since have remained at historically high levels, increasing transport expenses.
Labour and skills shortages	<ul style="list-style-type: none"> • The boom in the Mackay-Isaac-Whitsunday mining sector, which offers highly competitive wages, places pressure on the transport sector to increase wages or risk encountering labour and skill supply shortages, this is particularly true of truck drivers being attracted to the mines.

7.10.5.3 Opportunities

Continued support of the mining and agriculture sectors	<ul style="list-style-type: none"> • Both the mining and agriculture sectors are predicted to expand in the coming years and are both heavily reliant on the transport and storage sector.
Expansion and coordination of tourism experiences	<ul style="list-style-type: none"> • Opportunities exist to expand and coordinate the range of tourism experiences, in particular aquatic and land-based activities. This provides an opportunity to expand and diversify the range of transport activities, infrastructure and services.
Transport, logistics and distribution hub and travel nodes	<ul style="list-style-type: none"> • The transport and storage sector is supported in the Mackay-Isaac-Whitsunday region by strong mining and agricultural sectors requiring services for transporting their outputs to processing facilities and markets. The strong demand generated by these two sectors provides significant opportunities to develop the Mackay-Isaac-Whitsunday region as a regional transport, logistics and distribution hub, with dedicated centralised facilities and a transport corridor supporting and connecting multiple transport modes of road, rail, air and sea.

Multi-Cargo
Facilities

- Opportunities exist for multi-cargo facilities in the region at either the Port of Mackay or Abbot Point. The need is driven from the agriculture sector in Central Queensland.
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7.11 Information, Media and Telecommunications

7.11.1 Industry Overview

Information, media and telecommunications includes all enterprises engaged in providing communications, broadcasting, television, radio and telecommunication services.

- The southern suburbs of Mackay, including the industrial precinct of Paget are amongst the earliest recipients of its Fibre-to-the-Premise (FttP) rollout by The National Broadband Network (NBN), with construction having commenced in 2012.

7.11.2 Employment

According to the 2011 Census, there are 493 people employed in the Mackay-Isaac-Whitsunday information, media and telecommunications sector. This is an increase of 25.3% since 2006.

Industry of Employment	2006	2011	% change
Information, media and telecommunications	483	493	2.1%

Source: ABS, Census of Population and Housing, 2006 and 2011.

Within the information, media and telecommunications sector, the occupations with the greatest increase in employees were community and personal service workers (300%), clerical and administrative service workers (47%) and managers (27.9%).

Occupations	2006	2011	% change
Managers	43	55	27.9%
Professionals	114	109	-4.4%
Technicians and trades workers	117	104	-11.1%
Community and personal service workers	0	3	300.0%
Clerical and administrative service workers	66	97	47.0%
Sales workers	92	97	5.4%
Machinery operators and drivers	13	9	-30.8%
Labourers	32	15	-53.1%
Not stated	6	4	-33.3%
Total	483	493	2.1%

Source: ABS, Census of Population and Housing, 2006 and 2011.

7.11.3 Contribution to Regional Economy

The information, media and telecommunications sector contributed \$86 million to the Mackay-Isaac-Whitsunday regional economy (gross regional product) in 2011/12. This is an increase of 38% since 2007/08.

The Mackay-Isaac-Whitsunday region's economy is 0.4% reliant on the information, media and telecommunications sector for its contribution, an increase of 0.2 percentage points since 2007/08.

Contribution to Regional Economy	2007/08 (\$m)	2011/12 (\$m)	% change
Information, media and telecommunications	62.3	86	38%

Source: Lawrence Consulting, 2013



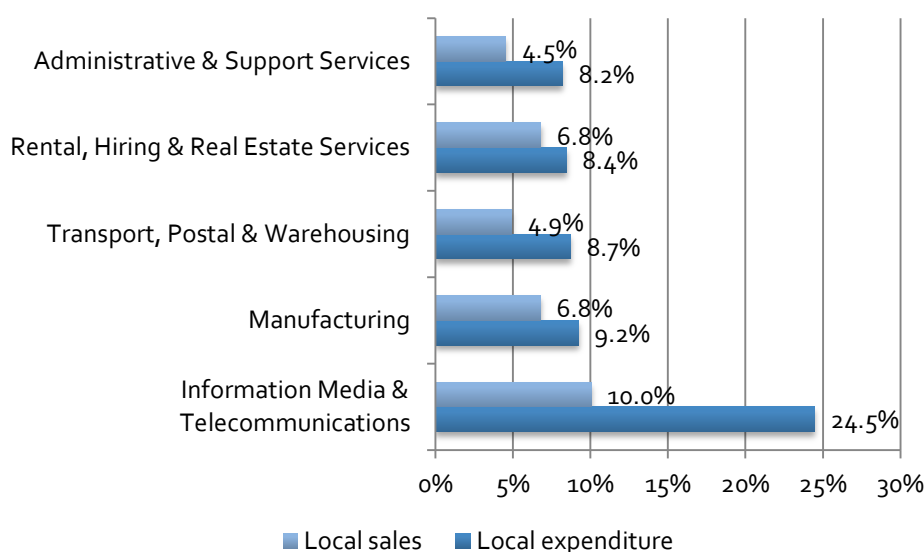
The information, media and telecommunications sector has increased its contribution to the regional economy by 3%. During the same period, its workforce increased by only 2.1% indicating a significant increase in productivity.

7.11.4 Sectoral Relationships and Reliances

The information, media and telecommunications sector spends 59% of its \$54.3 million expenditure on five main sectors within the Mackay-Isaac-Whitsunday region, including:

- 24.5% from information, media and telecommunications;
- 9.2% from manufacturing;
- 8.7% from transport, postal and warehousing;
- 8.4% from rental, hiring and real estate services; and
- 8.2% from administrative and support services.

Figure 29: Sectoral Relationships and Reliances: Information, media and telecommunications



(REMPAN, 2013)

There is a level of interdependence of the sector on itself, as it sells approximately 24.5% of its output to itself.

7.11.5 Influencing Factors and Drivers

7.11.5.1 Strengths

Presence of large, multi-national companies	<ul style="list-style-type: none">• The Mackay-Isaac-Whitsunday region has large, multi-national companies that require high quality Information, Communication and Technology (ICT) services, in particular in the mining and related industries, boosting demand for quality communications services.
Strong population and industry growth	<ul style="list-style-type: none">• Requirement for growth in line with predicted baseline population and industry growth in demand.
Globalisation	<ul style="list-style-type: none">• Globalisation of the marketplace and competition has driven increased demand for communication networks capable of high speed information transfer. International competition has also necessitated that ICT provision meet international standards to cater to and attract larger, multi-national companies.
Emerging e-business	<ul style="list-style-type: none">• E-business and ICT are being used in a broader range of industries and occupations. Currently, internet usage is not yet consistent across industries, although most industries and occupations require some form of ICT skills. However, e-business markets are continuing to develop and the range of business uses for ICT continues to expand.
NBN Rollout	<ul style="list-style-type: none">• A number of areas across the region have been announced as part of the Federal Government's rollout of the NBN.• This infrastructure will increase the competitiveness of the region in terms of attracting inter- and intra-state and international enterprises to the region.

7.11.5.2 Challenges

Extent and capacity of networks	<ul style="list-style-type: none">• The speed and quality of ICT infrastructure and services is relatively limited in the Mackay-Isaac-Whitsunday region, with high speed internet only available in some areas of the region and few businesses specialising in ICT expertise.
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Consistency of network access and capacity	<ul style="list-style-type: none"> There is currently a large disparity in service provision between urban and rural areas, negatively impacting on the attractiveness and competitiveness of rural areas for business and industry development.
Widely dispersed population base	<ul style="list-style-type: none"> Regional areas of Mackay-Isaac-Whitsunday region have a widely dispersed population base, which increases the cost of provision per customer in these areas (thus reducing the cost competitiveness of the region in providing communication services) and creates logistical issues.
Labour and skills shortages	<ul style="list-style-type: none"> Queensland is currently experiencing severe shortages in adequately skilled ICT professionals. New skills in ICT will be required once the NBN is rolled out.
Rapid technological change	<ul style="list-style-type: none"> The rapid rate of change in ICT can lead to rapid obsolescence of ICT infrastructure, which requires significant initial investment. As a result, ICT infrastructure requires ongoing high cost investment for the upgrade, replacement and / or duplication of infrastructure to cater to demand for leading edge ICT capabilities and service provision. The rapid rate of change in ICT also requires continuous retraining of ICT skills in the labour market in order to remain up-to-date with latest technologies.

7.11.5.3 Opportunities

Development and attraction of ICT expertise	<ul style="list-style-type: none"> The presence of large, multi-national companies demanding high quality ICT services provides an opportunity to develop ICT expertise in the region and boosts the attractiveness of the region to major ICT service providers.
NBN Diversity	<ul style="list-style-type: none"> The rollout of the NBN will provide new opportunities for diversification across the region in the areas of E-Health, Cloud Technology, and other associated services.

7.12 Financial and Insurance Services

7.12.1 Industry Overview

Financial and insurance services includes enterprises engaged in the provision of finance, investing money in predominantly financial assets, providing services to lenders, borrowers and investors, providing insurance cover of all types, and in providing services to insurance underwriters and to people or organisations seeking insurance.

Demand in the industry has grown in recent years in line with growth in mining, transport, business and property sectors.

7.12.2 Employment

According to the 2011 Census, there are 493 people employed in the Mackay-Isaac-Whitsunday financial and insurance services sector. This is an increase of 25.3% since 2006.

Industry of Employment	2006	2011	% change
Financial and insurance services	1,112	1,043	-6.2%

Source: ABS, Census of Population and Housing, 2006 and 2011.

Within the financial and insurance services sector, the occupations with the greatest increase in employees were machinery operators and drivers (1300%), labourers (133%) and community and personal service workers (100%).

Occupations	2006	2011	% change
Managers	151	142	-6.0%
Professionals	226	226	0.0%
Technicians and trades workers	10	13	30.0%
Community and personal service workers	3	4	100.0%
Clerical and administrative service workers	643	588	-8.6%
Sales workers	53	38	-28.3%
Machinery operators and drivers	0	13	1300%
Labourers	3	7	133.3%
Not stated	23	12	-47.8%
Total	1,112	1,043	-6.2%

Source: ABS, Census of Population and Housing, 2006 and 2011.

7.12.3 Contribution to Regional Economy

The financial and insurance services sector contributed \$292.3 million to the Mackay-Isaac-Whitsunday regional economy (gross regional product) in 2011/12. This is a decrease of 15% since 2007/08.

The Mackay-Isaac-Whitsunday region's economy is 1.5% reliant on the financial and insurance services sector for its contribution, remaining unchanged since 2007/08.

Contribution to Regional Economy	2007/08 (\$m)	2011/12 (\$m)	% change
Financial and insurance services	343.9	292.3	-15%

Source: Lawrence Consulting, 2013



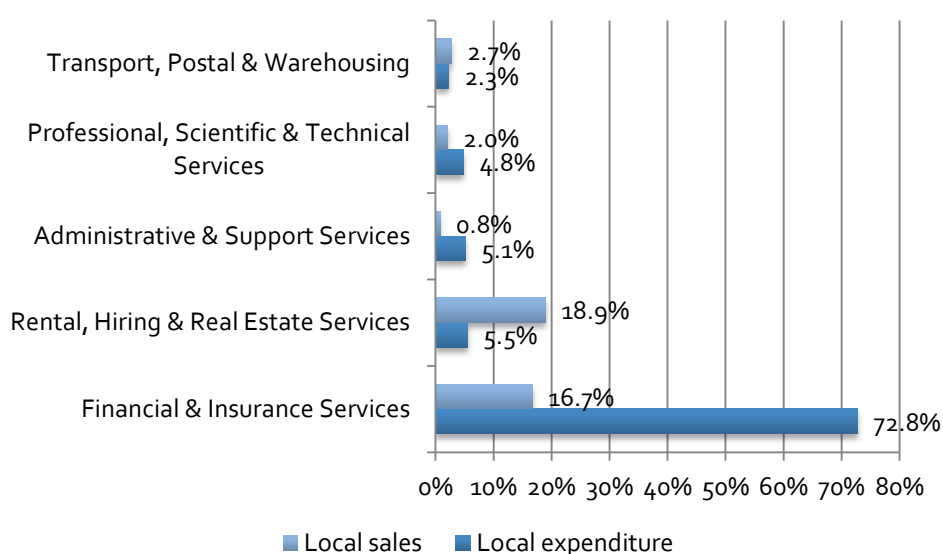
The financial and insurance services sector has seen a decrease in both its employment levels (-6.2%) and its contribution to the regional economy (-15%).

7.12.4 Sectoral Relationships and Reliances

The financial and insurance services sector spends 90.5% of its \$99.4 million expenditure on five main sectors within the Mackay-Isaac-Whitsunday region, including:

- 72.8% from itself;
- 5.5% from rental, hiring and real estate services;
- 5.1% from administrative and support services;
- 4.8% from professional, scientific and technical services; and
- 2.3% from transport, postal and warehousing.

Figure 30: Sectoral Relationships and Reliances: Financial and insurance services



(REMPAN, 2013)

The sector has a relatively high reliance on itself, which is common to cities and regional centres.

7.12.5 Influencing Factors and Drivers

7.12.5.1 Strengths

Strong population growth	<ul style="list-style-type: none">Population growth in the Mackay-Isaac-Whitsunday region has accelerated over the past 15 years, and is projected to remain strong over the next 20 years, increasing the demand for financial and insurance services. This will be further impacted by the relative wealth of the baby boomers and their propensity to seek and see/ tree change lifestyle.
Strong business and economic growth in key sectors	<ul style="list-style-type: none">The Mackay-Isaac-Whitsunday region's economy is one of the fastest growing regional economies in Australia, and the third largest economy in Queensland. Prospects remain strong for the medium to long term, which will increase demand for financial and insurance services in the region.

7.12.5.2 Challenges

Labour and skills shortages	<ul style="list-style-type: none">Queensland is currently experiencing severe shortages in adequately skilled professionals in the financial and insurance services sector.
Reliance on overall economic growth of the region	<ul style="list-style-type: none">The financial and insurance services sector is predominantly a reactive industry, which responds to the growth and prosperity of other sectors.

7.12.5.3 Opportunities

Continued expansion in response to growing demand	<ul style="list-style-type: none">The financial and insurance services sector is predominantly a reactive industry, which responds to growth. Programs to manage and ensure business development and growth in line with baseline growth in the region are essential to facilitate the development of the trade sector.
Increased regional retention and expenditure	<ul style="list-style-type: none">Capturing a greater share of the disposable income of the existing market by diversifying experience, service and products provided.

Skills
attraction and
development

- In order to assist in meeting growing demand for financial and insurance services from key sectors of the Mackay economy, there is an opportunity to develop strategies aimed at attracting external and developing internal labour and skills.
 - Opportunities exist to partner with CQ University to bring new courses to market to fill these skills shortages.
-

7.13 Rental, Hiring and Real Estate Services

7.13.1 Industry Overview

The Rental, Hiring and Real Estate Services industry includes all enterprises predominantly engaged in renting and leasing assets as well as businesses engaged in selling, buying and managing real estate.

Goods that are made available for the use of others through rental or lease agreements include heavy machinery and scaffolding, videos and other electronic media, coin operated amusement machines, art works, bicycles, camping equipment and costumes. Do-It-Yourself (DIY) equipment and hand tools, electric and electronic appliances, furniture, office machinery, pot plants and sound reproducing equipment are also hired, as are sports and recreation equipment, suits and other formal wear.

The industry also manages the hire and lease of assets such as brand-names, patents, trademarks and franchise agreements, plus the rental, valuation, selling and management of domestic, commercial and industrial real estate.

- Long-term property market trends reveal there has been significant growth in the sales number and value of houses, townhouses and vacant land in the Mackay-Isaac-Whitsunday region since 2003 reflecting the increasing pressures and population demands of the region.
- Median property prices for the Mackay-Isaac-Whitsunday region are above the State average, and have also grown at a much faster rate in recent years reflecting
 - The increasing popularity of the Mackay-Isaac-Whitsunday regional lifestyle,
 - The development and growth of the community; and
 - The ongoing pressures on housing supply to meet the increasing housing demands driven by the mining industry.
- Median weekly rents have also increased considerably in the Mackay-Isaac-Whitsunday region, reflecting the increase in demand for rental accommodation in the region.

7.13.2 Employment

According to the 2011 Census, there are 1,504 people employed in the Mackay-Isaac-Whitsunday rental, hiring and real estate services sector. This is an increase of 14.9% since 2006.

Industry of Employment	2006	2011	% change
Rental, hiring and real estate services	1,309	1,504	14.9%

Source: ABS, Census of Population and Housing, 2006 and 2011.

Within the rental, hiring and real estate services sector, the occupations with the greatest increase in employees were technicians and trade workers (83.7%) and machinery operators and drivers (48.4%).

Occupations	2006	2011	% change
Managers	160	175	9.4%
Professionals	55	51	-7.3%
Technicians and trades workers	98	180	83.7%
Community and personal service workers	13	9	-400.0%
Clerical and administrative service workers	252	296	17.5%
Sales workers	508	523	3.0%
Machinery operators and drivers	95	141	48.4%
Labourers	101	114	12.9%
Not stated	27	15	-44.4%
Total	1,309	1,504	14.9%

Source: ABS, Census of Population and Housing, 2006 and 2011.

7.13.3 Contribution to Regional Economy

The rental, hiring and real estate services sector contributed \$204.6 million to the Mackay-Isaac-Whitsunday regional economy (gross regional product) in 2011/12. This is an increase of 21.1% since 2007/08.

The Mackay-Isaac-Whitsunday region's economy is 1.5% reliant on the rental, hiring and real estate services sector for its contribution, remaining unchanged since 2007/08.

Contribution to Regional Economy	2007/08 (\$m)	2011/12 (\$m)	% change
Rental, hiring and real estate services	168.9	204.6	21.1%

Source: Lawrence Consulting, 2013



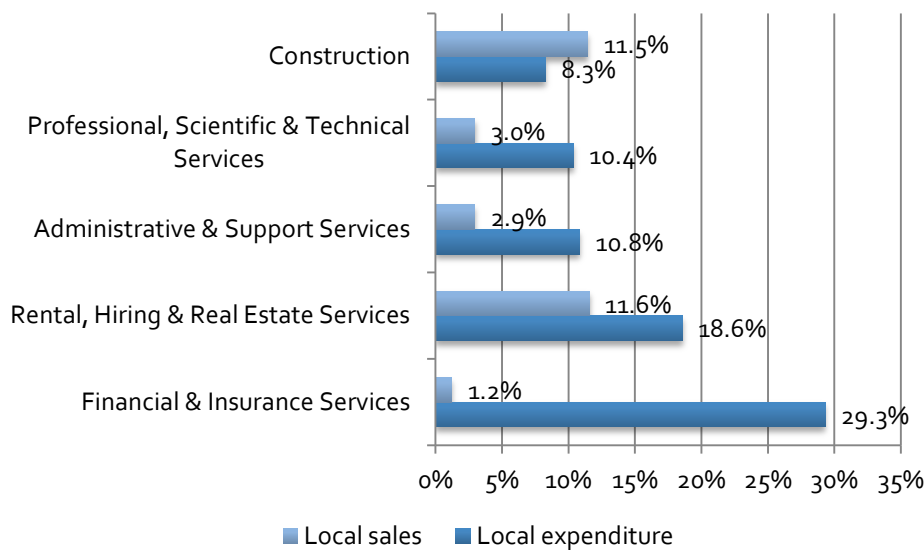
The rental, hiring and real estate services sector has seen an increase in both its employment levels (14.9%) and its contribution to the regional economy (21%).

7.13.4 Sectoral Relationships and Reliances

The rental, hiring and real estate services sector spends 77.3% of its \$280.2 million expenditure on five main sectors within the Mackay-Isaac-Whitsunday region, including:

- 29.3% from financial and insurance services;
- 18.6% from rental, hiring and real estate services;
- 10.8% from administrative and support services;
- 10.4% from professional, scientific and technical services; and
- 8.3% from construction.

Figure 31: Sectoral Relationships and Reliances: Rental hiring and real estate services



(REMPLAN, 2013)

There is a level of interdependence of the sector on itself, as it sells approximately 18.6% of its output to itself.

The sector is also heavily reliant on the financial and insurance services (29.3%) and mining (37.5%) sectors for purchase of its output.

7.13.5 Influencing Factors and Drivers

7.13.5.1 Strengths

Strong
Population
Growth

- Population growth in the Mackay – Isaac – Whitsunday Region has accelerated over the past 15 years, and is projected to remain strong over the next 20 years, increasing demand for residential property services in the region. This will be further impacted by the relative wealth of baby boomers and their propensity to seek a sea/tree change lifestyle.

- The Mackay-Isaac-Whitsunday region has experienced consistent growth since 2007. The demand for housing has outweighed supply which has indicatively resulted in high rental and property prices.

Strong Business and Economic growth in key sectors

- Prospects remain strong for the long term influenced by the major resource and infrastructure (rail and port) projects proposed for the region. This will support the demand for more housing across the region.
- Significant mining developments which boost non-residential and residential investment in the region and subsequently increase demand for property services.
- Mining and support sectors will continue to require equipment and machinery hiring and leasing services.
- Continuing strong agricultural and horticultural sector, boosting demand for regional research and facilities for industry.

7.13.5.2 Challenges

Labour and skills shortages

- Queensland is currently experiencing severe shortages in adequately skilled professionals across the finance, property and business services sector.

Reliance on overall economic growth of the region

- The finance, property and business services sector is predominantly a reactive industry, which responds to the growth and prosperity of other sectors.

Rising construction material costs

- Building materials prices have grown at a faster rate than inflation over the past five years, resulting in increasing costs in the building development and property markets. This is expected to ease growth in the property market, thus decreasing demand for property services.

Competition from nearby hubs

- Rockhampton is competing to become the major service centre of Central Queensland, and as such is likely to be a more attractive location for medium to large financial and business service enterprises. Other nearby regional centres such as Gladstone and Townsville also compete with Mackay-Isaac-Whitsunday.

Continued expansion in response to growing demand	<ul style="list-style-type: none">• Finance, property and business services sector is predominantly a reactive industry, which responds to growth. Programs to manage and ensure business development and growth in line with baseline growth in the region are essential to facilitate the development of the trade sector.
Skills attraction and development	<ul style="list-style-type: none">• In order to assist in meeting growing demand for financial, property and business support services from key sectors of the Mackay-Isaac-Whitsunday regional economy, there is an opportunity to develop strategies aimed at attracting external and developing internal labour and skills.
Increased regional retention and expenditure	<ul style="list-style-type: none">• Capturing a greater share of the disposable income of the existing market by diversifying experience, service and products provided.

7.14 Professional, Scientific and Technical Services

7.14.1 Industry Overview

Services include scientific research services, architectural, engineering and technical services, legal and accounting services, advertising services, market research and statistical services, management and consulting services, veterinary services, meteorological services, professional photographic services and computer system design services.

Research and development activities in Mackay-Isaac-Whitsunday are supported by facilities in various organisations:

- Bureau of Sugar Experiment Stations (BSES) Limited (Sugar industry funded);
- Central Queensland University, Mackay Campus; and
- Bowen Horticultural Research Station (Department of Primary Industries and Fisheries).

7.14.2 Employment

According to the 2011 Census, there are 3,378 people employed in the Mackay-Isaac-Whitsunday professional, scientific and technical services sector. This is an increase of 25.3% since 2006.

Industry of Employment	2006	2011	% change
Professional, scientific and technical services	2,695	3,378	25.3%

Source: ABS, Census of Population and Housing, 2006 and 2011.

Within the professional, scientific and technical services sector, the occupations with the greatest increase in employees were sales workers (75%) and machinery operators and drivers (51.7%).

Occupations	2006	2011	% change
Managers	166	197	18.7%
Professionals	1,006	1,325	31.7%
Technicians and trades workers	504	641	27.2%
Community and personal service workers	5	7	40.0%
Clerical and administrative service workers	808	929	15.0%
Sales workers	28	49	75.0%
Machinery operators and drivers	29	44	51.7%
Labourers	131	149	13.7%
Not stated	18	37	105.6%
Total	2,695	3,378	25.3%

Source: ABS, Census of Population and Housing, 2006 and 2011.

7.14.3 Contribution to Regional Economy

The professional, scientific and technical services sector contributed \$397.7 million to the Mackay-Isaac-Whitsunday regional economy (gross regional product) in 2011/12. This is an increase of 12.7% since 2007/08.

The Mackay-Isaac-Whitsunday region's economy is 2% reliant on the professional, scientific and technical services sector for its contribution, an increase of 0.5 percentage points since 2007/08.

Contribution to Regional Economy	2007/08 (\$m)	2011/12 (\$m)	% change
Professional, scientific and technical services sector	353	397.7	12.7%

Source: Lawrence Consulting, 2013



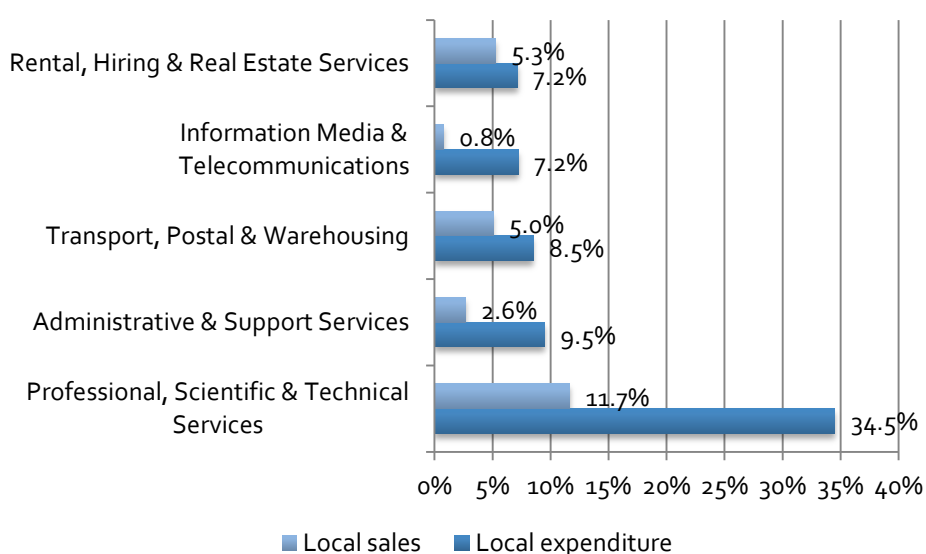
The professional, scientific and technical services sector has seen an increase in both its employment levels (25.3%) and its contribution to the regional economy (12.7%).

7.14.4 Sectoral Relationships and Reliances

The professional, scientific and technical services sector spends 66.9% of its \$186.7 million expenditure on five main sectors within the Mackay-Isaac-Whitsunday region, including:

- 34.5% from itself;
- 9.5% from administrative and support services;
- 8.5% from transport, postal and warehousing;
- 7.2% from information, media and telecommunications; and
- 7.2% from rental, hiring and real estate services.

Figure 32: Sectoral Relationships and Reliances: Professional, scientific and technical services



(REMPLAN, 2013)

There is a high level of interdependence of the sector on itself, as it sells approximately 34.5% of its output to itself.

The sector is heavily reliant on the mining (25.5%) and construction (16.6%) sectors for purchase of its output.

7.14.5 Influencing Factors and Drivers

7.14.5.1 Strengths

Strong Business and Economic growth in key sectors	<ul style="list-style-type: none">• Prospects remain strong for the long term influenced by the major resource and infrastructure (rail and port) projects proposed for the region. This will support the demand for technical services within many sectors including construction, engineering and manufacturing.• Continuing strong agricultural and horticultural sector, boosting demand for regional research and facilities for industry.
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7.14.5.2 Challenges

Centralisation of industry research and development	<ul style="list-style-type: none">• The trend of centralised research and development facilities and a perceived lack of appropriate funding for targeted local research and development facilities decrease the efficiency of the local agricultural sector. An example of this is the recent closure of the Sugar Research Institute when it relocated to Brisbane.
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7.14.5.3 Opportunities

Sugar Research and Development Reform	<ul style="list-style-type: none">• Reform to a Single Industry owned entity - Sugar Research Australia. Merger of Sugar Research Development Corporation (SRDC), Bureau of Sugar Experiment Stations (BSES) and Sugar Research Limited (SRL).• Stronger Research performance, industry support for higher sustainable research funding, cost savings and efficiency, industry performance benefits and regional and community benefits expected 1st July 2013).
Exporting research services	<ul style="list-style-type: none">• With expertise in the mining, marine, tourism, agriculture and horticulture industries, Mackay-Isaac-Whitsunday is well placed to expand marketing activities in these industries and promote exporting of specialised research and products.

7.15 Administrative and Support Services

7.15.1 Industry Overview

The administrative and support services sector includes employment services, travel agency and tour arrangement services, administrative services, building cleaning, pest control and gardening services, and packaging services.

7.15.2 Employment

According to the 2011 Census, there are 2,352 people employed in the Mackay-Isaac-Whitsunday administrative and support services sector. This is an increase of 32.4% since 2006.

Industry of Employment	2006	2011	% change
Administrative and support services	1,776	2,352	32.4%

Source: ABS, Census of Population and Housing, 2006 and 2011.

Within the administrative and support services sector, the occupations with the greatest increase in employees were machinery operators and drivers (159%), managers (51%) and technicians and trades workers (51%).

Occupations	2006	2011	% change
Managers	115	174	51.3%
Professionals	180	221	22.8%
Technicians and trades workers	162	245	51.2%
Community and personal service workers	142	141	-0.7%
Clerical and administrative service workers	271	351	29.5%
Sales workers	30	29	-3.3%
Machinery operators and drivers	64	166	159.4%
Labourers	796	995	25.0%
Not stated	16	30	87.5%
Total	1,776	2,352	32.4%

Source: ABS, Census of Population and Housing, 2006 and 2011.

7.15.3 Contribution to Regional Economy

The administrative and support services sector contributed \$151.6 million to the Mackay-Isaac-Whitsunday regional economy (gross regional product) in 2011/12. This is an increase of 15.4% since 2007/08.

The Mackay-Isaac-Whitsunday region's economy is 2% reliant on the administrative and support services sector for its contribution, an increase of 0.5 percentage points since 2007/08.

Contribution to Regional Economy	2007/08 (\$m)	2011/12 (\$m)	% change
Administrative and support services	131.4	151.6	15.4%

Source: Lawrence Consulting, 2013



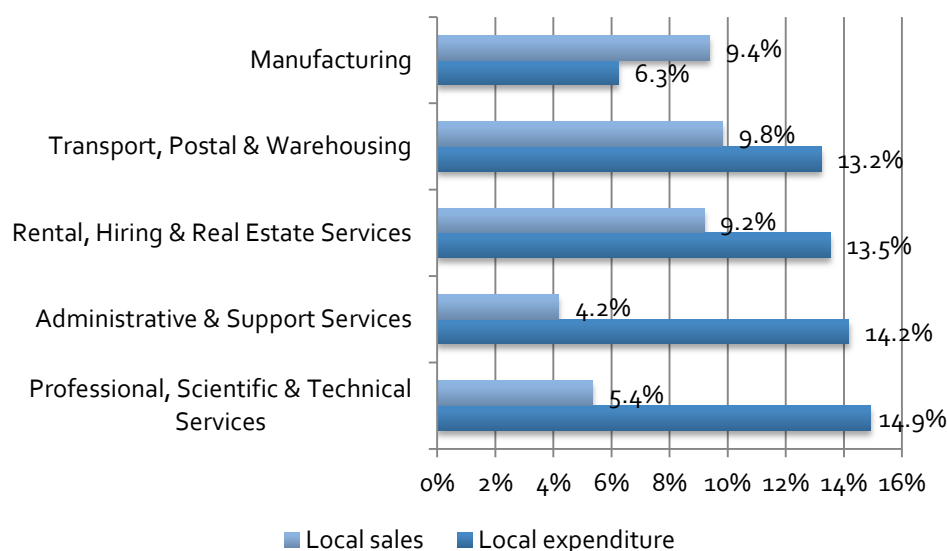
The administrative and support services sector has seen an increase in both its employment levels (32%) and its contribution to the regional economy (15%).

7.15.4 Sectoral Relationships and Reliances

The administrative and support services sector spends 66.9% of its \$97.7 million expenditure on five main sectors within the Mackay-Isaac-Whitsunday region, including:

- 34.5% from itself;
- 9.5% from administrative and support services;
- 8.5% from transport, postal and warehousing;
- 7.2% from information, media and telecommunications; and
- 7.2% from rental, hiring and real estate services.

Figure 33: Sectoral Relationships and Reliances: Administrative and support services



(REMPLAN, 2013)

There is a high level of interdependence of the sector on itself, as it sells approximately 34.5% of its output to itself.

The sector is heavily reliant on the mining (25.5%) and construction (16.6%) sectors for purchase of its output.

7.15.5 Influencing Factors and Drivers

7.15.5.1 Strengths

Strong Population growth	<ul style="list-style-type: none">• The accelerated population growth has seen an increase in demand from the administrative and support services industry.
Strong business and economic growth in key sectors	<ul style="list-style-type: none">• The growth within the mining and support services sectors have facilitated strong demand for support services contributing to increased employment opportunities within this sector.

7.15.5.2 Challenges

Competition from providers outside of region	<ul style="list-style-type: none">• A slowing economy has been experienced in other Queensland centres which has attracted many services providers to set-up support services within the Mackay-Isaac-Whitsunday region resulting in greater competition from outside of region.
Labour and Skills shortages	<ul style="list-style-type: none">• The growth in other key sectors has impacted the administration and support services sectors by attracting its workforce to consider working in a competing sector for skills.

7.15.5.3 Opportunities

Increased regional retention and expenditure	<ul style="list-style-type: none">• Capturing a greater share of the disposable income of the existing market by diversifying experience, service and products provided.
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7.16 Public Administration and Safety

7.16.1 Industry Overview

The sector includes Commonwealth, States and Territories and Local Government departments and organisations engaged in government administration, regulatory activities and public order and safety, as well as judicial authorities, commissions and defence forces.

The public administration and safety sector looks after the needs of the Australian public and assists them to access government services.

7.16.2 Employment

According to the 2011 Census, there are 3,235 people employed in the Mackay-Isaac-Whitsunday public administration and safety sector. This is an increase of 19.7% since 2006.

Industry of Employment	2006	2011	% change
Public administration and safety	2,702	3,235	19.7%

Source: ABS, Census of Population and Housing, 2006 and 2011.

Within the public administration and safety sector, the occupations with the greatest increase in employees were professionals (37%) and community and personal service workers (37%).

Occupations	2006	2011	% change
Managers	214	266	24.3%
Professionals	368	507	37.8%
Technicians and trades workers	321	296	-7.8%
Community and personal service workers	508	697	37.2%
Clerical and administrative service workers	671	754	12.4%
Sales workers	24	32	33.3%
Machinery operators and drivers	228	203	-11.0%
Labourers	328	410	25.0%
Not stated	40	70	75.0%
Total	2,702	3,235	19.7%

Source: ABS, Census of Population and Housing, 2006 and 2011.

7.16.3 Contribution to Regional Economy

The public administration and safety sector contributed \$330.7 million to the Mackay-Isaac-Whitsunday regional economy (gross regional product) in 2011/12. This is an increase of 10% since 2007/08.

The Mackay-Isaac-Whitsunday region's economy is 1.7% reliant on the public administration and safety sector for its contribution, an increase of 0.4 percentage points since 2007/08.

Contribution to Regional Economy	2007/08 (\$m)	2011/12 (\$m)	% change
Public administration and safety	300.7	330.7	10%

Source: Lawrence Consulting, 2013



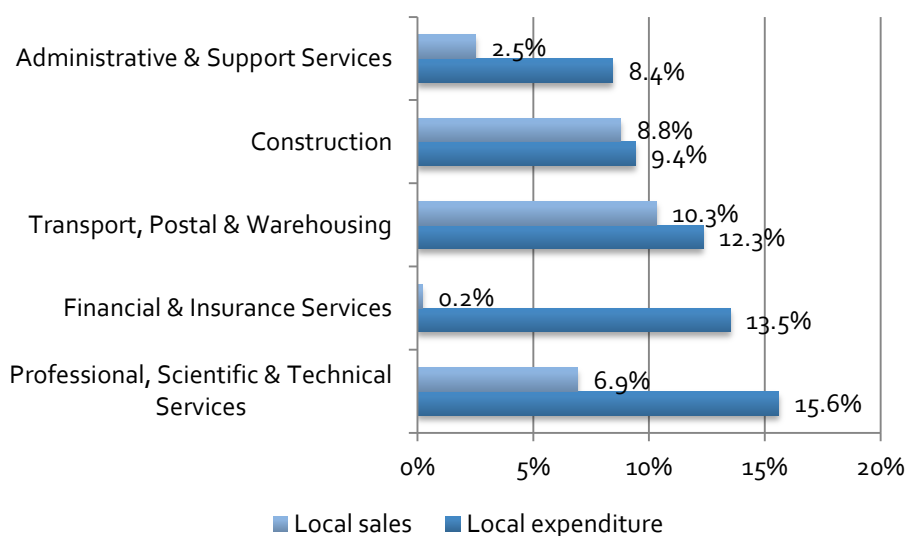
The public administration and safety sector has seen an increase in both its employment levels (19.7%) and its contribution to the regional economy (10%).

7.16.4 Sectoral Relationships and Reliances

The public administration and safety sector spends 59.3% of its \$102 million expenditure on five main sectors within the Mackay-Isaac-Whitsunday region, including:

- 15.6% from professional, scientific and technical services;
- 13.5% from financial and insurance services;
- 12.3% from transport, postal and warehousing;
- 9.4% from construction;
- 8.4% from administrative and support services.

Figure 34: Sectoral Relationships and Reliances: Public administration and safety



(REMPPLAN, 2013)

The sector is also heavily reliant on the mining sector (33.9%) for purchase of its output.

7.16.5 Influencing Factors and Drivers

7.16.5.1 Strengths

- | | |
|--------------------------|---|
| Strong Population Growth | <ul style="list-style-type: none">Population growth in the Mackay-Isaac-Whitsunday region has accelerated and will continue to grow which will require additional government administration services. |
|--------------------------|---|
-

7.16.5.2 Challenges

- | | |
|--|--|
| Widely dispersed population base | <ul style="list-style-type: none">Regional areas of Mackay-Isaac-Whitsunday region have a widely dispersed population base, creating logistical issues in governance and decreasing the efficiency of service provision. |
| Competition from Rockhampton and Townsville | <ul style="list-style-type: none">Rockhampton is the major service centre of Central Queensland, with almost half of the State Government agencies of the Mackay-Isaac-Whitsunday region reporting through Rockhampton. Townsville, as the major service centre of the adjacent Northern Region, is also a competitor to the Mackay-Isaac-Whitsunday region for State and Federal Government services. |
| Data availability and applicability | <ul style="list-style-type: none">The regularity and quality of data within the region impedes accurate and timely decision making and lobbying for adequate resources. This is of particular concern given the disparity of the Mackay-Isaac-Whitsunday region (e.g. average wage does not represent regional differences with mining areas having high wages and coastal areas having relatively low wages). |
| Fly-in-fly-out workers bias statistics and demand on service provision | <ul style="list-style-type: none">Fly-in-fly-out workers, due to the nature of their work, often place an un-quantifiable burden on local government and administration services. |
-

7.16.5.3 Opportunities

- | | |
|--------|---|
| Strong | Attraction of additional government agencies to region. |
|--------|---|
-

7.17 Education and Training

7.17.1 Industry Overview

The Mackay-Isaac-Whitsunday region has the following education facilities, providing access to education and training services across all levels of study.

Education and training facilities in the region include:

- CQUniversity (CQU);
- James Cook University (JCU)
- Central Queensland Institute of TAFE;
- TAFE Queensland Mining Services;
- Bowen Barrier Reef Institute of TAFE;
- Cannonvale Barrier Reef Institute of TAFE;
- 75 state schools;
- 14 private schools; and
-

7.17.2 Employment

According to the 2011 Census, there are 4,676 people employed in the Mackay-Isaac-Whitsunday education and training sector. This is an increase of 14.9% since 2006.

Industry of Employment	2006	2011	% change
Education and training	4,282	4,676	9.2%

Source: ABS, Census of Population and Housing, 2006 and 2011.

Within the education and training sector, the occupation with the greatest increase in employees was machinery operators and drivers (75%).

Occupations	2006	2011	% change
Managers	283	302	6.7%
Professionals	2,509	2,705	7.8%
Technicians and trades workers	105	122	16.2%
Community and personal service workers	752	822	9.3%
Clerical and administrative service workers	372	403	8.3%
Sales workers	12	14	16.7%
Machinery operators and drivers	4	7	75.0%
Labourers	236	277	17.4%
Not stated	9	24	166.7%
Total	4,282	4,676	9.2%

Source: ABS, Census of Population and Housing, 2006 and 2011.

7.17.3 Contribution to Regional Economy

The education and training sector contributed \$298.7 million to the Mackay-Isaac-Whitsunday regional economy (gross regional product) in 2011/12. This is an increase of 4.9% since 2007/08.

The Mackay-Isaac-Whitsunday region's economy is 1.5% reliant on the education and training sector for its contribution, an increase of 0.3 percentage points since 2007/08.

Contribution to Regional Economy	2007/08 (\$m)	2011/12 (\$m)	% change
Education and training	284.7	298.7	4.9%

Source: Lawrence Consulting, 2013



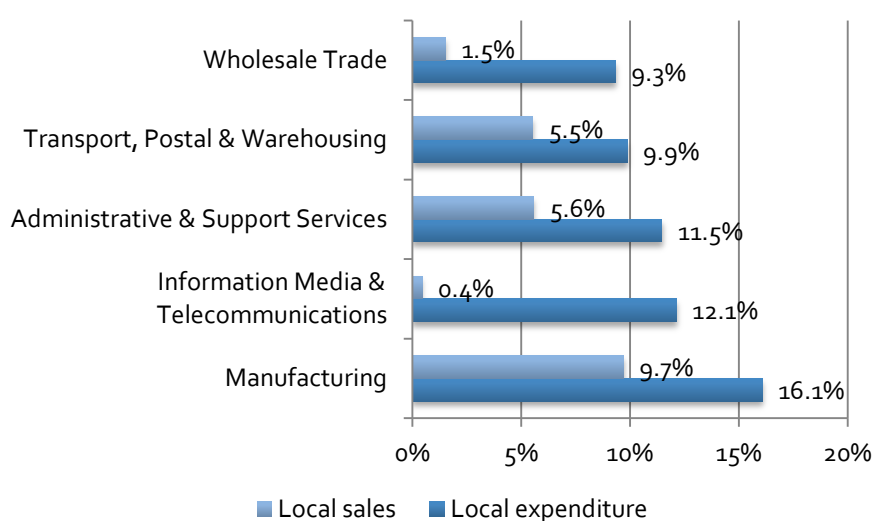
The education and training sector has seen an increase in both its employment levels (9%) and its contribution to the regional economy (5%).

7.17.4 Sectoral Relationships and Reliances

The education and training sector spends 58.9% of its \$56.6 million expenditure on five main sectors within the Mackay-Isaac-Whitsunday region, including:

- 16.1% from manufacturing;
- 12.1% from information, media and telecommunications;
- 11.5% from administrative and support services;
- 9.9% from transport, postal and warehousing; and
- 9.3% from wholesale trade.

Figure 35: Sectoral Relationships and Reliances: Education and training



(REMPLAN, 2013)

The sector is heavily reliant on the mining sector (28.8%) for purchase of its output.

7.17.5 Influencing Factors and Drivers

7.17.5.1 Strengths

Strong Population Growth	<ul style="list-style-type: none">• Population growth in the Mackay-Isaac-Whitsunday region has accelerated and will continue to grow. Increasing population will increase demand for additional education facilities, trade qualifications and tertiary education.
Existing Facilities	<ul style="list-style-type: none">• Strong level of choice in the region for all education levels, including two universities.
Career Pathways	<ul style="list-style-type: none">• Strong pathways from Language College through to TAFE and University.• High number of school based apprenticeships.
Education Cluster	<ul style="list-style-type: none">• Expansion of "Study Mackay" to "Study Mackay-Isaac-Whitsunday". The Education cluster now promotes Mackay-Isaac-Whitsunday to international and domestic students as the place to obtain world class education.• Presence of two universities (CQUniversity Mackay Campus and James Cook University Mackay Study Centre), TAFE and research facilities provides high quality education opportunities in the region, focusing on regional strengths such as mining, marine and agriculture.• Examples of the facilities provided include the trade training centres and simulators for the mining sector.

7.17.5.2 Challenges

Lack of Critical Mass	<ul style="list-style-type: none">• A critical mass of education providers, facilities and linkages with industry are yet to be reached within the Mackay-Isaac-Whitsunday region, despite significant and positive steps forward through the development and delivery of a number of programs and relationships within the region.
Strength and attraction of nearby regional centres	<ul style="list-style-type: none">• Nearby regional centres such as Rockhampton, Gladstone and Townsville will compete with Mackay-Isaac-Whitsunday for establishing leading education facilities and programs in areas of regional advantage. They will compete for the attraction of both students and academic staff.
Migration of young adults	<ul style="list-style-type: none">• The attractiveness of urban centres in terms of job opportunities and lifestyle as well as the strength, reputation and program offering of larger universities and education facilities will continue to attract young adults away from the Mackay-Isaac-Whitsunday region.

7.17.5.3 Opportunities

Development of Innovation Centres of Excellence	<ul style="list-style-type: none">• Opportunity to complement existing focus on mining training with innovative training facilities for other industries e.g. clean technology, tourism etc.
Attraction of International Students	<ul style="list-style-type: none">• Tertiary providers are increasing accommodation capacity for on-site students which creates the opportunity to attract international students.
Dual Sector University	<ul style="list-style-type: none">• CQ University is currently awaiting the approval from State & Federal Government to become the first Dual Sector University in Queensland, which will bolster the provision of education in the region.

7.18 Health Care and Social Assistance

7.18.1 Industry Overview

The Mackay-Isaac-Whitsunday region has nine public and private hospitals with specialist services including aged care, special disability care, naturopathy, chiropractic and holistic health treatments.

Community services include services to families and children, older people, young people, people with disabilities, homeless people, and the general community.

Population growth over recent years has been concentrated amongst working adults, families with children, and older people, and less so amongst young people.

7.18.2 Employment

According to the 2011 Census, there are 6,447 people employed in the Mackay-Isaac-Whitsunday health care and social services sector. This is an increase of 26.8% since 2006.

Industry of Employment	2006	2011	% change
Health care and social services	5,083	6,447	26.8%

Source: ABS, Census of Population and Housing, 2006 and 2011.

Within the health care and social services sector, the occupations with the greatest increase in employees were managers (32%) and professionals (31%).

Occupations	2006	2011	% change
Managers	188	249	32.4%
Professionals	1,689	2,211	30.9%
Technicians and trades workers	178	218	22.5%
Community and personal service workers	1,797	2,278	26.8%
Clerical and administrative service workers	759	975	28.5%
Sales workers	32	26	-18.8%
Machinery operators and drivers	39	45	15.4%
Labourers	362	374	3.3%
Not stated	39	71	82.1%
Total	5,083	6,447	26.8%

Source: ABS, Census of Population and Housing, 2006 and 2011.

7.18.3 Contribution to Regional Economy

The health care and social services sector contributed \$425.4 million to the Mackay-Isaac-Whitsunday regional economy (gross regional product) in 2011/12. This is an increase of 9.8% since 2007/08.

The Mackay-Isaac-Whitsunday region's economy is 2.1% reliant on the health care and social services sector for its contribution, an increase of 0.5 percentage points since 2007/08.

Contribution to Regional Economy	2007/08 (\$m)	2011/12 (\$m)	% change
Health care and social services	387.3	425.4	9.8%

Source: Lawrence Consulting, 2013



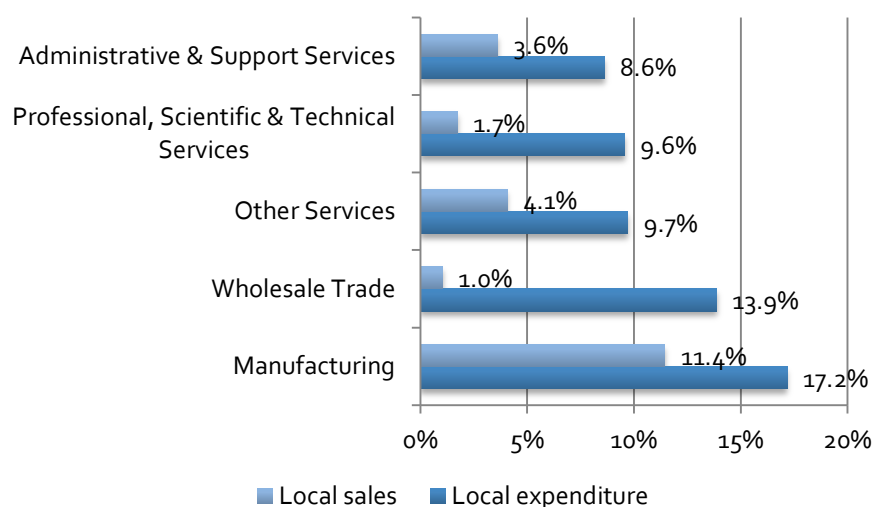
The health care and social services sector has seen an increase in both its employment levels (27%) and its contribution to the regional economy (10%).

7.18.4 Sectoral Relationships and Reliances

The health care and social services sector spends 58.9% of its \$51.2 million expenditure on five main sectors within the Mackay-Isaac-Whitsunday region, including:

- 17.9% from manufacturing;
- 13.9% from wholesale trade;
- 9.7% from other services;
- 9.6% from professional, scientific and technical services; and
- 8.6% from administrative and support services.

Figure 36: Sectoral Relationships and Reliances: Health care and social services



(REMPAN, 2013)

There is a high level of interdependence of the sector on itself, as it sells approximately 46.8% of its output to itself.

7.18.5 Influencing Factors and Drivers

7.18.5.1 Strengths

Strong population growth	<ul style="list-style-type: none">Population growth in the Mackay-Isaac-Whitsunday region has accelerated over the past 15 years, and is projected to remain strong over the next 20 years. Increasing population will require additional health and community facilities, services and skilled personnel.
Training and professional development	<ul style="list-style-type: none">CQUniversity Nursing course, JCU training facilities at the Mackay Base Hospital, work experience students from University and TAFE feeding into aged care services.
New Hospital Facilities	<ul style="list-style-type: none">New Base Hospital in Mackay provides increased services and capacity for the region.

7.18.5.2 Challenges

Widely dispersed population base	<ul style="list-style-type: none">Regional areas of Mackay-Isaac-Whitsunday region have a widely dispersed population base, making it difficult to centralise health and community facilities and services, and subsequently resulting in access issues in outlying areas and increased costs of provision per person.Limited services based on current population.
Fly-in-fly-out workers impact on service provision	<ul style="list-style-type: none">Fly-in-fly-out workers, due to the nature of their work, often place an unquantifiable burden on local health and community services.
Health Budgets	<ul style="list-style-type: none">Reducing Health budgets (ability to continue to provide free services) for both hospitals and aged care services in the home.Changes to the Aged Care Act will see reforms come in 2014 changing the entry criteria and financial requirements.Increased cost of Health services delivery and declining productivity and low wage rates in aged care contributes to the challenges of attracting and retaining staff.

Digital
Economy

- Delivery of service to the wider rural and regional communities outside Mackay city can be developed and improved with the rollout of the NBN to support greater E-Health services.

Aged Care
Investment

- There is an opportunity across the region to invest in transitional aged care facilities.
-

7.19 Arts and Recreation Services

7.19.1 Industry Overview

Arts and Recreation Services include enterprises engaged in providing cultural and recreational facilities and services such as libraries, museums and the Arts, and sport and recreation services. The Mackay-Isaac-Whitsunday region has a culturally diverse community, including Aboriginal and Torres Strait Islander, Australian South Sea Islander, European and Asian ethnicity.

- Mackay has significant regional heritage across a number of cultures, which is preserved through numerous heritage listed buildings, monument and museums, many of which are on display as part of the Mackay Heritage Walk.
- The Mackay-Isaac-Whitsunday region has a considerable commitment to art and culture, with local art attractions such as Art Space, the Mackay Festival or Arts and the Sarina Tourist Art and Craft Centre.
- The Mackay-Isaac-Whitsunday region boasts a number of high quality recreational areas, including the Great Barrier Reef, Whitsunday Islands and numerous National Parks.
- The Mackay-Isaac-Whitsunday region provides access to sport facilities capable of hosting Regional, State, National and International sporting events and competitions.

7.19.2 Employment

According to the 2011 Census, there are 455 people employed in the Mackay-Isaac-Whitsunday arts and recreation services sector. This is an increase of 4.8% since 2006.

Industry of Employment	2006	2011	% change
Arts and recreation services	434	455	4.8%

Source: ABS, Census of Population and Housing, 2006 and 2011.

Within the arts and recreation services sector, the occupations with the greatest increase in employees were managers (36%) and professionals (30%).

Occupations	2006	2011	% change
Managers	50	68	36.0%
Professionals	66	86	30.3%
Technicians and trades workers	61	68	11.5%
Community and personal service workers	112	109	-2.7%
Clerical and administrative service workers	54	51	-5.6%
Sales workers	31	27	-12.9%
Machinery operators and drivers	7	3	-57.1%
Labourers	53	40	-24.5%
Not stated	0	3	300.0%
Total	434	455	4.8%

Source: ABS, Census of Population and Housing, 2006 and 2011.

7.19.3 Contribution to Regional Economy

The arts and recreation services sector contributed \$18.1 million to the Mackay-Isaac-Whitsunday regional economy (gross regional product) in 2011/12. This is an increase of 13.8% since 2007/08.

The Mackay-Isaac-Whitsunday region's economy is 0.1% reliant on the wholesale and retail trade sector for its contribution, remaining unchanged since 2007/08.

Contribution to Regional Economy	2007/08 (\$m)	2011/12 (\$m)	% change
Arts and recreation services	15.9	18.1	13.8%

Source: Lawrence Consulting, 2013



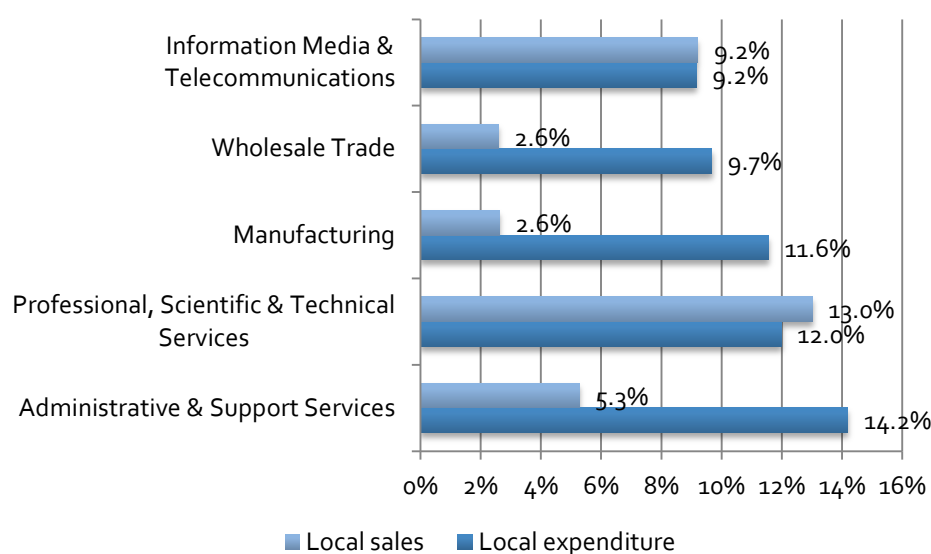
The arts and recreation services sector has seen an increase in both its employment levels (5%) and its contribution to the regional economy (14%).

7.19.4 Sectoral Relationships and Reliances

The arts and recreation services sector spends 56.6% of its \$18.6 million expenditure on five main sectors within the Mackay-Isaac-Whitsunday region, including:

- 14.2% from administrative and support services;
- 12% from professional, scientific and technical services;
- 11.6% from manufacturing;
- 9.7% from wholesale trade; and
- 9.2% from information, media and telecommunications.

Figure 37: Sectoral Relationships and Reliances: Arts and recreation services



(REMPAN, 2013)

The education and training sector is the largest purchaser of output from the arts and recreation services sector (15.9%).

7.19.5 Influencing Factors and Drivers

7.19.5.1 Strengths

- | | |
|-----------------------------------|---|
| Proximity to tourism destinations | <ul style="list-style-type: none">• Much of Mackay-Isaac-Whitsunday's culture and recreation is linked to nature based tourism destinations such as rainforests, national parks, islands and the Great Barrier Reef, providing opportunity to boost awareness of the Mackay-Isaac-Whitsunday region's culture through the strong tourism industry. These areas also provide significant recreational opportunities. |
| Strong growth in population | <ul style="list-style-type: none">• Population growth in the Mackay-Isaac-Whitsunday region has accelerated over the past 15 years, and is projected to remain strong over the next 20 years. The strong growth in population provides increasing demand for recreational activities. |

High disposable income in the region	<ul style="list-style-type: none"> The average wage in some sectors of the Mackay-Isaac-Whitsunday region is approximately 11% higher than the State average, largely driven by the high wages in the mining industry. This increases the disposable income available in the region, providing greater opportunity for discretionary expenditure.
Arts and Recreation Infrastructure	<ul style="list-style-type: none"> There is a world-class conservatorium of music facility at CQUniversity's Mackay campus. The new NRL Stadium in Mackay is a drawcard to performing artists and sporting events.

7.19.5.2 Challenges

Quality sporting facilities	<ul style="list-style-type: none"> The Mackay-Isaac-Whitsunday region lacks facilities of a suitable standard for hosting high level sporting events, reducing the region's ability to provide high standard competition and to attract elite sporting events and personnel. Lack of critical mass: The greatest demand for sporting facilities and services is through the 5 to 34 age groups. With the Mackay-Isaac-Whitsunday region's 5 to 24 age bracket decreasing in prominence in the region this may result in a decline in demand for sporting facilities and services.
Lack of funding and regional planning arrangements	<ul style="list-style-type: none"> There is currently no coordinated regional strategy for developing sport and recreation in the region, which is hindering the industries development in the region. Funding for cultural and sporting facilities and activities is also limited within the Mackay-Isaac-Whitsunday region.
Reliance on overall economic growth of the region	<ul style="list-style-type: none"> The cultural and recreational services sector is predominantly a reactive industry, which responds to the growth and prosperity of other sectors.

Expansion and packaging of tourism experiences	Opportunities exist to expand the range of tourism experiences, including culture and recreation based activities. This provides an opportunity to enhance the link between cultural and recreational activities in the region with tourism, promote the region's unique culture to outside markets and establish a recognised regional identity.
Development of State and National standard sports complex	The Mackay-Isaac-Whitsunday region does not currently have the capacity to host State or National level sporting events, preventing access into this potentially high yielding market. With a regional population of over 150,000, there is a considerable market for high level sporting events in the region. The development of a state-of-the-art sporting complex would provide the capacity to enter this market, and would assist in the attraction and retention of elite sporting events and skilled sports personnel.

7.20 Other Services

7.20.1 Industry Overview

Other services include personal and household goods services, religious organisations, interest groups, and public order and safety services.

7.20.2 Employment

According to the 2011 Census, there are 3,947 people employed in the Mackay-Isaac-Whitsunday other services sector. This is an increase of 32.7% since 2006.

Industry of Employment	2006	2011	% change
Other services	2,974	3,947	32.7%

Source: ABS, Census of Population and Housing, 2006 and 2011.

Within the other services sector, the occupations with the greatest increase in employees were community and personal service workers (47.1%) and professionals (38.2%).

Occupations	2006	2011	% change
Managers	172	231	34.3%
Professionals	123	170	38.2%
Technicians and trades workers	1,656	2,195	32.5%
Community and personal service workers	208	306	47.1%
Clerical and administrative service workers	370	488	31.9%
Sales workers	56	59	5.4%
Machinery operators and drivers	93	115	23.7%
Labourers	280	356	27.1%
Not stated	16	27	68.8%
Total	2,974	3,947	32.7%

Source: ABS, Census of Population and Housing, 2006 and 2011.

7.20.3 Contribution to Regional Economy

The other services sector contributed \$218.4 million to the Mackay-Isaac-Whitsunday regional economy (gross regional product) in 2011/12. This is an increase of 32% since 2007/08.

The Mackay-Isaac-Whitsunday region's economy is 1.1% reliant on the wholesale and retail trade sector for its contribution, an increase of 0.4 percentage points since 2007/08.

Contribution to Regional Economy	2007/08 (\$m)	2011/12 (\$m)	% change
Other services	165.4	218.4	32%

Source: Lawrence Consulting, 2013



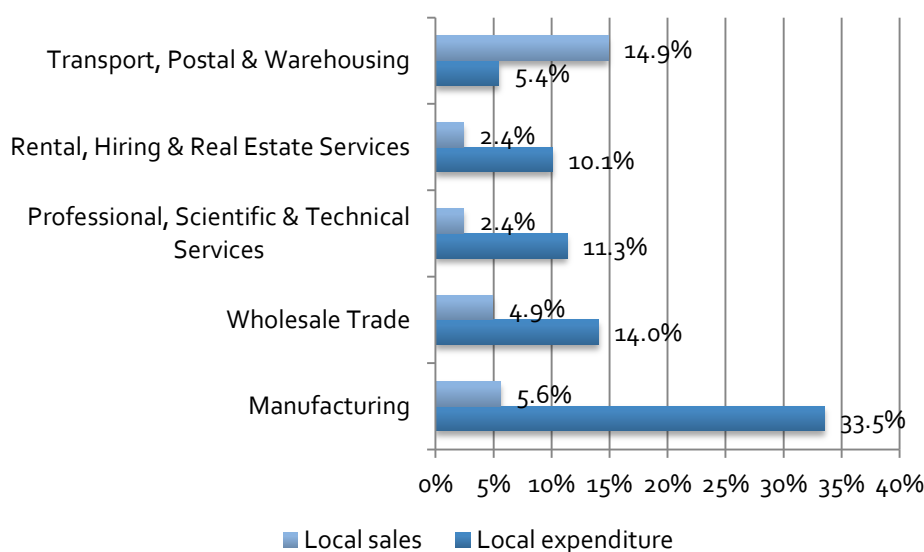
The other services sector has seen an increase in both its employment levels (33%) and its contribution to the regional economy (32%).

7.20.4 Sectoral Relationships and Reliances

The other services sector spends 74.4% of its \$129.8 million expenditure on five main sectors within the Mackay-Isaac-Whitsunday region, including:

- 33.5% from manufacturing;
- 14% from wholesale trade;
- 11.3% from professional, scientific and technical services;
- 10.1% from rental, hiring and real estate services; and
- 5.4% from transport, postal and warehousing.

Figure 38: Sectoral Relationships and Reliances: Other services



(REMPLAN, 2013)

The sector is heavily reliant on the manufacturing (33.5%) and mining (42.6%) sectors for purchase of its output.

7.20.5 Influencing Factors and Drivers

7.20.5.1 Strengths

- | | |
|-----------------------------|---|
| Strong growth in population | <ul style="list-style-type: none">• Population growth in the Mackay-Isaac-Whitsunday region has accelerated over the past 15 years, and is projected to remain strong over the next 20 years. The strong growth in population provides increasing demand for recreational activities. |
|-----------------------------|---|
-

- | | |
|--------------------------------------|--|
| High disposable income in the region | <ul style="list-style-type: none">• The average wage in some sectors of the Mackay-Isaac-Whitsunday region is approximately 11% higher than the State average, largely driven by the high wages in the mining industry. This increases the disposable income available in the region, providing greater opportunity for discretionary expenditure. |
|--------------------------------------|--|
-

7.20.5.2 Challenges

- | | |
|--|---|
| Fly-in-fly-out workers impact on service provision | <ul style="list-style-type: none">• Fly-in-fly-out workers, due to the nature of their work, often place an unquantifiable burden on personal and other services. |
|--|---|
-

- | | |
|---|--|
| Reliance on overall economic growth of the region | <ul style="list-style-type: none">• The personal and other services sector is predominantly a reactive industry, which responds to the growth and prosperity of other sectors. |
|---|--|
-

7.20.5.3 Opportunities

- | | |
|----------------------------------|--|
| Business and service development | Development and expansion of services and facilities within the sector to meet market requirements, such as childcare facilities, day-spa, health retreat facilities, etc. |
|----------------------------------|--|
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9 FIGURES, TABLES & GLOSSARY

9.1 *Index of Figures*

Figure 1: Historical Population Growth, Mackay-Isaac-Whitsunday, 2001 to 2011	14
Figure 2: Projected Population Growth, Mackay-Isaac-Whitsunday region to 2031	15
Figure 3: Age Distribution, Mackay-Isaac-Whitsunday region, 2006 and 2011	17
Figure 4: Family Composition	19
Figure 5: Housing tenure.....	20
Figure 6: Growth in Gross Regional Product, 2007-2012	26
Figure 7: Annual performance of key industry sectors (GRP growth), 2008-2012	27
Figure 8: Employment by Occupation, 2011	29
Figure 9: Industry workforce size (number of employees), M-I-W 2006-2011.....	30
Figure 10: Industry workforce size as % of total workforce, M-I-W comparison to QLD	31
Figure 11: Building Approvals 2008-2012	37
Figure 12: Median house price, 2007-2012	38
Figure 13: Median unit price, 2007-2012.....	39
Figure 14: Median land price, 2007-2012.....	39
Figure 15: Median weekly rent, 2 bedroom units, 2007-2012.....	40
Figure 16: Median weekly rent, 3 bedroom houses, 2007-2012	40
Figure 17: Median weekly rent, 4 bedroom houses, 2007-2012	41
Figure 18: Non-residential building approvals, 2007-2012.....	42
Figure 19: GRP and Workforce by Sector, Mackay-Isaac-Whitsunday, 2012	91
Figure 20: Sectoral Relationships and Reliances: Agriculture, Forestry and Fishing	95
Figure 21: Sectoral Relationships and Reliances: Mining	103
Figure 22: Sectoral Relationships and Reliances: Manufacturing	108
Figure 23: Sectoral Relationships and Reliances: Electricity, gas, water and waste services....	116
Figure 24: Sectoral Relationships and Reliances: Construction	121
Figure 25: Sectoral Relationships and Reliances: Wholesale trade	126
Figure 26: Sectoral Relationships and Reliances: Retail trade	127
Figure 27: Sectoral Relationships and Reliances: Accommodation and food services	132
Figure 28: Sectoral Relationships and Reliances: Transport, postal and warehousing.....	137
Figure 29: Sectoral Relationships and Reliances: Information, media and telecomm.....	142
Figure 30: Sectoral Relationships and Reliances: Financial and insurance services	146
Figure 31: Sectoral Relationships and Reliances: Rental hiring and real estate services.....	151
Figure 32: Sectoral Relationships and Reliances: Professional, scientific and tech serv	155
Figure 33: Sectoral Relationships and Reliances: Administrative and support services.....	158
Figure 34: Sectoral Relationships and Reliances: Public administration and safety	161
Figure 35: Sectoral Relationships and Reliances: Education and training	164
Figure 36: Sectoral Relationships and Reliances: Health care and social services	168
Figure 37: Sectoral Relationships and Reliances: Arts and recreation services.....	173
Figure 38: Sectoral Relationships and Reliances: Other services	177

9.2 Index of tables

Table 1: Estimated resident population	13
Table 2: Projected population growth (medium series) to 2031	15
Table 3: Population structure	16
Table 4: Median Age, 2001 to 2011	17
Table 5: Family Composition.....	18
Table 6: Household Tenure	20
Table 7: Household Finances.....	21
Table 8: Housing affordability matrix, Mackay-Isaac-Whitsunday	22
Table 9: Housing affordability, Mackay-Isaac-Whitsunday 2012	23
Table 10: Cost of Living	23
Table 11: Gross Regional Product, 2011-12.....	25
Table 12: Labour Market	28
Table 13: Employment by Occupation	29
Table 14: Weekly Income Brackets by Industry, Mackay-Isaac-Whitsunday region, 2011.....	33
Table 15: Post-school qualifications	34
Table 16: Educational Qualifications.....	34
Table 17: Residential and Non-Residential Building Approvals, September 2012	36
Table 18: Residential and Non-Residential Building Approvals 2008-2012.....	37
Table 19: Residential dwelling sales, 12 months ending June 2012.....	38
Table 20: General Business Conditions Index.....	43
Table 21: Business Conditions, June Q 2012.....	44

9.1 Glossary/Abbreviations

ABS – Australian Bureau of Statistics
ADSL – Asymmetric Digital Subscriber Line
ANZSIC – Australian and New Zealand Standard Industrial Classification
ASGC – Australian Standard Geographical Classification
AUD – Australian dollar currency
BSPs – Bulk Supply Point
CQ – Central Queensland
CSG – Coal Seam Gas
DAFF – Qld Department of Agriculture, Fisheries and Forestry
DEEWR – Qd Department of Education, Employment and Workplace Relations
EP's – earnings per share
FIFO – Fly-In-Fly-Out
FttP – Fibre to the Premises
GRP – Gross Regional Product
GSP – Gross State Product
GTL – Gas to Liquids
GWh – Gigowatt Hour
HPX3 – Hay Point Expansion Stage 3
ICT – Information and Communications Technology
IRC – Isaac Regional Council
ISDN - Integrated Services Digital Network
Km – Kilometres
kV – Kilovolts
LRET – Large-scale Renewable Energy Target
M-I-W – Mackay, Isaac, Whitsunday
MLPA – Multiplex Ligation-dependent Probe
MRC – Mackay Regional Council
MRRT – Minerals Resource Rent Tax
Mtpa – Megatonnes per Annum
n/a – Not Available
NBN – National Broadband Network
NRM – The Natural Resources Management Act 2004
NQ – North Queensland
NQBP – North Queensland Bulk Ports
O/C – Open Cut
P/L – Profit And Loss
PBI – Public Benevolent Institution
QTR - Quarter
REDC – Regional Economic and Development Corporation
REIQ – Real Estate Institute of Queensland
REMPLAN – Economic Modelling and Planning System
RET – Renewable Energy Target
RTA – Residential Tenancy Authority
SMART – Self Monitoring, Analysis and Reporting Technology
SRES - The Small-scale Renewable Energy Scheme
TAFE – Technical and Further Education
U/G – Underground
WA – Western Australia
WRC – Whitsunday Regional Council
WWF – World Wildlife Fund

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