

WHITSUNDAY ECONOMIC AND POPULATION STUDY - 2021 REVISION

Prepared for: Whitsunday Regional Council
Date: September 2021

WHITSUNDAY ECONOMIC AND POPULATION STUDY

- 2021 REVISION

Prepared by:

Jon Norling, Director

Norling Consulting^{Pty Ltd}
Business & Property Economics

Level 5, 320 Adelaide Street

GPO Box 5061

Brisbane Qld 4001

mail@norling.com.au

ABN: 92 082 232 540

DISCLAIMER:

This report is based upon the most up-to-date and readily available information at the time of writing, to our knowledge. Norling Consulting Pty Ltd has applied due professional care and diligence in accordance with generally accepted standards of professional practice in undertaking the analysis contained in this report. While every effort is made to source data from Government and other reputable sources, Norling Consulting Pty Ltd shall not be liable for damages arising from any errors or omissions that may be contained within these information sources. If this report involves future market projections, such projections can be affected by a number of unforeseen variables and may not in fact eventuate. Any projections made by Norling Consulting Pty Ltd represent our best possible estimates at the time of writing and no warranty is given that this particular set of projections will be achieved.

TABLE OF CONTENTS

1	Introduction	4
1.1	Background and Study Objectives	4
1.2	Methodology.....	4
2	COVID-19.....	5
2.1	Health.....	5
2.2	Economy	7
2.3	Housing Market.....	9
2.4	Local Implications	11
3	Economic Profile	12
3.1	Overview	12
3.2	Population.....	13
3.3	Employment Profile	14
3.4	Regional Profile	17
3.5	Key Industries.....	19
4	Medium Series Population projections	26
4.1	Previous Projections	26
4.2	Building Approvals	28
4.3	Medium Scenario Population Projection	28
5	definition of Catchment Areas	30
6	Catchment Area Population and Employment Projections.....	32

TABLES

Table 3.1: Gross Value Added and Gross Regional Product, Whitsunday Region 2019/20.....	12
Table 3.2: Whitsunday Region Historical Estimated Resident Population.....	13
Table 3.3: Resident Worker Growth Whitsunday Region 2001 to 2016.....	14
Table 3.4: Jobs within Whitsunday Region 2001 to 2016.....	15
Table 3.5: Net Jobs Balance for the Region – 2001 – 2016.....	15
Table 3.6 Non-resident workers on-shift*	16
Table 3.7: Industry of the Resident Workforce, Whitsunday (R) - 2006, 2011 and 2016.....	17
Table 3.8: Industry of the Resident Workforce, 2016.....	18
Table 4.1: Comparison of Actual ERPs with Projections for the Whitsunday Region 1991 – 2036.....	26
Table 4.2: Annual Population Growth Rates for the Whitsunday Region 1991 – 2036.....	27
Table 4.3: Annual Building Approvals in the Whitsunday Region 1991 – 2036.....	28
Table 4.4: ERP Projections for the Whitsunday Region 2021 – 2036	29
Table 6.1: ERP Medium Series Projection for the Whitsunday Region 2021 – 2036.....	32
Table 6.2: Employment Projection for the Whitsunday Region 2001 – 2036	33
Table 6.3: 2021 - 2036 ERP Population and Employment Projections – Medium Scenario	33
Table 6.4: Population, Dwellings and Jobs Projections - Medium Scenario	35
Table 6.5: Occupied Private Dwelling Projections by Dwelling Type and Catchment Area - Medium Scenario	37
Table 6.6: Employment Projections by Industry Group and Catchment Area - Medium Scenario	38
Table 6.7: Estimated Resident Population by Dwelling Type and Catchment Area - Medium Scenario....	39
Table 6.8: Floorspace Projections by Industry Group and Catchment Area - Medium Scenario	40

FIGURES

Figure 3.1 Whitsunday Estimated Resident Population: 1991-2021	14
Figure 3.2: Industry of the Resident Workforce, Whitsunday (R)- 2006, 2011 and 2016	16
Figure 4.1: Comparison of Actual ERPs with Projections for the Whitsunday Region 1991 - 2036	27
Figure 4.2: Comparison of Actual ERPs with 2018 Projections for the Whitsunday Region 1991 – 2036..	29
Figure 5.1 Whitsunday Region Catchment Areas	31

1 INTRODUCTION

1.1 Background and Study Objectives

Norling Consulting has been commissioned by the Whitsunday Regional Council to prepare the Whitsunday Economic and Population Study – 2021 Revision for the Whitsunday Regional Council Local Government Area. It updates the Updated Economic and Population Study – 2018 Revision prepared by Norling Consulting in July 2018, which itself was an update of the Economic and Population Study prepared by Norling Consulting in November 2013.

Population growth has tracked below expectations in the 2018 to 2021 period and, despite the release of 2021 ABS Census data not expected until next year, Council requires updated economic analyses and population and employment projections.

The primary purposes of this Whitsunday Economic and Population Study – 2021 Revision were to:

- (a) Provide commentary on the COVID-19 pandemic and how it is impacting and is likely to continue to impact the Region;
- (b) Identify changes in economic conditions in the Region;
- (c) Provide commentary on the validity of the projections set out in the Updated Economic and Population Study – 2018 Revision; and
- (e) Update the Medium Growth Scenario employment and population projections.

1.2 Methodology

In undertaking this Revision, Norling Consulting has employed the following methodology:

- (a) Held a video Workshop with Council staff on the latest economic and population conditions impacting the Region;
- (b) Reviewed Australian Bureau of Statistics (ABS) Estimated Residential Populations to June 2020;
- (c) Reviewed ABS Building Approvals to June 2021;
- (d) Reviewed Queensland Government Statistician's Office population projections (2018, the latest released);
- (e) Reviewed general and economic information related to the COVID-19 pandemic;
- (f) Reviewed the status of the main industries and major projects in the Region;
- (g) Prepared Medium Scenario population projections for the Region and five geographic areas within the Region;
- (h) Prepared projected Medium Scenario employment, dwellings and floorspace for the Region and five geographic areas; and
- (h) Prepared a concise report that summarised the results of the above tasks.

This Revision has been prepared as a desk-top exercise. However, Norling Consulting staff is generally familiar with the Region, having visited it on many occasions previously.

2 COVID-19

This Chapter reviews what is currently known about COVID-19, discusses the uncertainty surrounding its future impacts, how it is affecting our economy and how it might impact the future economy and lifestyles of Whitsunday Region residents.

COVID-19 is the greatest global health and economic crisis affecting the world over the last century. The pandemic may only be in its early stages and there is much uncertainty surrounding how long it will last.

Due to this uncertainty and the changing nature of the pandemic, much that has been written in this Chapter will become out of date very quickly, with this Chapter having been written in mid- to late-August 2021.

2.1 Health

Coronaviruses are a group of ribonucleic acid (RNA) viruses that cause diseases in mammals and birds. Six species of coronaviruses (seven strains) have now been discovered as affecting humans, with the first discovered in the 1960s. In humans, these viruses primarily affect the respiratory system, with resulting illnesses ranging from mild to lethal. Four viruses are regarded as mild and are believed to be the cause of about 15% of common colds in humans.

Severe Acute Respiratory Syndrome (SARS-CoV) was the first of the lethal coronaviruses to affect humans. This virus was traced back to Horseshoe Bats in China and affected humans in the 2002-2004 period. SARS-CoV had a fatality rate of almost 10%, with a total of 8,100 persons infected, two-thirds of whom were in China. This species of virus is no longer in the human population due to isolation strategies and its low transmission rate (0.4). No vaccine was developed for this species.

Middle East Respiratory Syndrome (MERS-CoV) was the second of the lethal coronaviruses to affect humans, with outbreaks recorded in 2012, 2015 and 2018. This virus was also traced back to bats, although humans were typically infected directly from camels. MERS-CoV had a fatality rate of a very significant 34%, with a total of 2,500 persons infected, 40% of whom were in Saudi Arabia. This species of virus remains prevalent in the population of Saudi Arabian Dromedary Camels. However, human to human transmission has been considered to be very low (requiring very close contact with severely ill persons in healthcare or household settings). No vaccine was developed for this species.

COVID-19 is a new strain of Severe Acute Respiratory Syndrome (SARS-CoV-2) affecting humans. It was first discovered in the human population in Wuhan, China in December 2019. It is widely believed to have originated in bats, having a 96% similarity to a known coronavirus in bats. As of August 2021, 215 million people have been infected globally, with a 2.2% fatality rate (now considered to be an under-estimate due to under-reporting in some countries). The death rate is much higher in the older populations and those with underlying health conditions.

COVID-19 spreads much more easily than other coronaviruses and influenza, with the transmission rate of the original strain considered to be in the order of 2.5, compared to 1.0 for influenza. The transmission rate of the Delta strain has been estimated to be in the order of 3.5 to 4.0.

Global infections have spread in waves, with peaks being recorded in April 2020, July 2020, January 2021 and April 2021. We are presently in the fifth global wave, apparently driven by the Delta variant.

The countries recording the largest number of cases are the United States of America, India and Brazil. Iran, France, Indonesia, the UK and Turkey also continue to record high numbers of cases presently.

Australia has recorded 48,000 cases as at August 2021, with three distinct waves. The first wave occurred during late March and early April 2020, where the majority of infections were returning travellers from overseas. A second wave emerged during July and August 2020 in Victoria and we are presently in the grip of a third wave that is centred mostly in NSW. The death rate in Australia was 2.9% in August 2021.

Countries/states have adopted various strategies to deal with the COVID-19 pandemic. Some have pursued elimination strategies (such as New Zealand and Queensland), some have pursued suppression strategies (such as New South Wales, Australia and the United Kingdom). Some countries have adopted a more relaxed strategy (such as Sweden).

Strategies typically involve isolation, which necessarily imposes restrictions on people's lifestyles and adversely affects the economy.

All countries appear to be relying upon achieving a herd immunity through the discovery and application of vaccines. Much has been invested in vaccine research, with the World Health Organisation having approved seven SARS-CoV-2 vaccines (although noting that 21 vaccines have been approved by at least one country) and is monitoring a further 110 vaccine candidates in clinical development and 180 candidate vaccines in pre-clinical development.

Globally, 33% of the population has now received at least one vaccine dose, with 25% of the population fully vaccinated. However, the rollout of vaccines is disparate across countries. Several smaller countries have been able to achieve fully vaccinated rates of in excess of 70% including Gibraltar, Malta, Iceland, the UAE and Cayman Islands. Of the larger countries, those achieving fully vaccination rates in excess of 50% include Canada, Spain, the UK and the USA.

In Australia, 54% of the eligible population has received their first dose and 32% of the eligible population are fully vaccinated. We now have three approved vaccines, with supplies scheduled to increase significantly in the September to December 2021 period. Various estimates place Australia reaching between 70% and 80% of the eligible population being fully vaccinated by the end of this year.

The Federal Government has developed a four-stage plan as the pathway out of COVID-19, involving reducing the incidence of lockdowns, increasing international travel bubbles, easing of restrictions for vaccinated persons and eventually opening international borders. However, with the States controlling lockdowns and isolation strategies, uncertainty over how quickly the vaccination program will be rolled out and the nature of possible future strains, this Plan should be viewed as being flexible and uncertain.

At this stage, there is still much uncertainty around the future of COVID-19 and how it may affect our lives in the future. It is likely that lockdowns and other isolation measures will remain as potential measures for the rest of this year, whilst various forms of social distancing measures are likely to remain in place for much longer.

Whilst next year is looking much rosier from a COVID-19 perspective, risks remain over:

- (a) The transmissibility and fatality rates of future strains;
- (b) The ability of future vaccines and boosters to keep up with future strains; and
- (c) The attitudes and responses of existing and future governments to control this pandemic.

Even if the COVID-19 pandemic could be overcome through global vaccination, people's memory will be relatively long, such that there will always be a fear of the next coronavirus to strike the human race. Nations will be more prepared for the next virus than the current virus.

2.2 Economy

As mentioned above, strategies to control the spread of the virus have resulted in significant changes to our lifestyles and our economies.

The International Monetary Fund (IMF) reports that the world suffered an economic downturn of -3.2% in 2020, one of the worst results ever recorded. Countries and regions that have fared particularly poorly during 2020 include Spain (-10.8%), the United Kingdom (-9.8%), Italy (-8.9%), France (-8.0), India (-7.3%), Europe (-6.5%), Canada (-5.3%), Japan (-4.7%) and the USA (-3.5%).

It is also relevant to note that these drastic falls in economic output occurred in spite of a massive global fiscal stimulus of US\$16.5 trillion to fight the COVID-19 pandemic. This stimulus represented a very significant 15% of global Gross Domestic Product (GDP). Quantitative easing has been greater in reaction to this pandemic than it was in reaction to the Global Financial Crisis. These measures have all been designed to cushion the adverse economic impacts of COVID-19.

However, with the progressive rollout of vaccines from late 2020, the IMF is now projecting positive growth for 2021 - 6.0% for the World and in the order of 5-7% for most of the advanced economies. The global projection for 2022 is a more moderate 2.4%. However, it is understood that these projections were prepared prior to the dominance of the more aggressive Delta strain, which may depress these positive projections.

This projected decline in the world economy this year is despite massive fiscal and monetary stimulus measures undertaken by major countries in the wake of this pandemic.

In Australia, GDP fell by 7.2% in the first six months of 2020, with 96% of this fall occurring in the June 2020 quarter, the largest single quarter decline on record. This decline was experienced despite very strong stimulatory measures by the federal government during this period. This is the first recession experienced by Australia in 29 years and its largest contraction since records began.

This fall in GDP has since been more than recovered, with the March 2021 GDP being 0.8% greater than the pre-pandemic peak in December 2019 quarter. A substantial rebound in the agricultural sector (following several years of drought and the bushfires) has helped to insulate our economy from the worst of the pandemic. There are still sectors that continue to be adversely affected such as the airline industry, accommodation and food services and arts and recreation services.

Australia's unemployment rate has also recovered quickly. Unemployment rates pre-pandemic were hovering around the 5.2% mark. They increased to 7.4% during mid-2020 and have reduced significantly since then to reach 4.9% in June 2021, a lower level than existed pre-pandemic.

Queensland's State Final Demand (SFD) fell by a very significant 6.3% in the six months ended June 2020, but has since rebounded strongly, such that the March 2021 SFD was 2.7% more than the pre-pandemic level peak recorded in December 2019.

The latest Delta outbreak, centred mainly in NSW and more recently in Victoria, has not yet been reflected in the data.

Apart from the great uncertainty surrounding how long the pandemic will continue to affect the Australian psyche and economy, the following additional observations can be made:

- (a) Society's unrelenting march towards globalisation is likely to be halted and reversed for a period. COVID-19 has emphasised the importance of countries having a greater control over their economic inputs and selected production lines;
- (b) Monetary policy will become more ineffective as interest rates remain at all-time lows and public and private debt levels remain very high;
- (c) Governments will borrow more to stimulate the economy, although this will be less of a problem for Australia as it will be for most other countries/states;
- (d) Australia's relationship with our largest trading partner, China, has soured. This has and is likely to continue to place adverse pressure on some of our exports. Most exports apart from iron ore appear to have been adversely affected to date;
- (e) COVID-19 has further eroded the leadership and competence of the USA as a global power, perhaps permanently. Whether the incumbent Presidency can recover from this is uncertain;
- (f) Productivity will be adversely impacted by working from home and other changes imposed due to isolation strategies, particularly as isolation strategies are changed and different strategies are applied across different parts of the country;
- (g) People will want to save more in uncertain times;
- (h) The way in which we work has fundamentally changed. Some of those who work from home will want to continue to work from home, at least some of the time. The demand for office space will reduce. The utility of public transport will reduce. These trends will undermine the current planning theory of cities and urban areas;
- (i) There has been some anecdotal evidence of a drive from cities to regions, at least temporarily. Whether this translates to a permanent shift is uncertain at this stage;
- (j) The volume of cash transactions has fallen and is likely to remain at low levels;
- (k) Immigration levels will fall significantly for the next two to four years at least;
- (l) National population growth will fall significantly (1.5% to 0.6-0.7% per annum) due to the lack of immigration;

- (m) Housing construction will fall significantly (although has not yet fallen to the extent expected from such a significant reduction in immigration, perhaps due to some people holding multiple residential properties until current uncertainties are resolved, see section 2.3);
- (n) Housing renovations will increase as people spend more time at home and need to create home offices;
- (o) Housing prices should fall (but, there has been no evidence of this to date);
- (p) International tourism to Australia will be non-existent for some years;
- (q) International students travelling to Australia for education will be almost non-existent for some time, perhaps years;
- (r) The hardest hit sectors of the economy will be Accommodation and Food Services, Education and Arts and Recreation;
- (s) Online retail sales have increased during 2020 from 6.5% to 11% by August to November 2020. It has subsequently continued to range in the 9-10%, and is most unlikely to return to 6.5%;
- (t) There will be continued pressure on 'bricks and mortar' retailing;
- (u) There will be a greater appetite for human-less delivery systems (eg drones);
- (v) There will be an increasing emphasis upon distribution systems, picking up some of the lost retail activity;
- (w) Whilst there may be some greater levels of interest in increasing our manufacturing capacity, that is expected to be short-lived due to the economic differentials that exist between Australia and many Asian countries;
- (x) Large-scale entertainment (cinemas, concerts, sporting events, festivals) are likely to be curtailed for some years; and
- (y) The combination of lockdowns, isolation strategies, lack of quality films and streaming services have significantly adversely impacted the cinema industry. It may never recover to its former popularity.

2.3 Housing Market

At the national level, population growth has consistently averaged 1.57% over the decade to March 2020. Over this period, net overseas migration drove 60% of our population growth. With net overseas migration becoming negative in the three quarters to December 2020 (the latest data released) due to international border closures imposed during the COVID-19 pandemic, population growth has slowed in this period to 0.12% per annum.

Assuming that net overseas migration reverts to zero (rather than the recently recorded negative), Australian population growth should stabilise at around 0.65% per annum during the pandemic. Once the virus becomes more manageable, this population growth should gradually increase back to the historic average of 1.5-1.7% per annum. This is not currently expected until all international borders are reopened, which may be another two to four years away.

If the housing market is synched to population growth, one would expect that building approvals would fall in line with the recent significant fall in population growth. However, the data does not support this.

In the decade to March 2020, the average monthly number of building approvals in Australia was 16,443. This varied with an all-time peak being recorded in the 2015 to mid-2018 period (averaging 19,400 per month). In the 18 months to March 2020, the average was 14,900 per month. In the 8 months since March 2020, building approvals remained similar to the previous level, at 15,100 per month. Surprisingly, from December 2020, building approvals have been averaging 20,000 per month, which is 34% above the level recorded just prior the pandemic and just above the previous all-time peak.

The data clearly shows that despite population growth falling by more than 90% since the COVID-19 pandemic, building approvals have actually increased 30% above the pre-pandemic level and are presently at an all-time high.

This situation is occurring at a time when housing markets are reported to be booming, rental vacancies are falling and prices continue to escalate. The demand for housing has become detached from population growth.

The likely explanation is that lockdowns and border closures are causing panic buying of residential property by ex-pat Australians hoping to come home at some time and by residents in the more affected (southern) cities and states trying to relocate to regions and states less affected by lockdowns (whilst still maintaining their original properties). That is, lockdowns have created great uncertainty and unease in the population, resulting in many who can afford it to pursue a multiple housing strategy in order to maintain options as to where to live. As this situation continues, the number of vacant houses and units will increase significantly, with the 2021 Census likely to measure a relatively high proportion of vacant dwellings. Student housing is expected to report the highest vacancy levels.

Norling Consulting considers that the detachment of these two markets is not sustainable. Once the worst of the pandemic has passed and there is greater certainty over the future, the population is likely to rationalise their ownership of dwellings leading to a fall in residential markets that are not supported by population growth. These falls are likely to be more prominent in Victoria and NSW, where the gap between these two markets is wider.

Queensland has exhibited a similar pattern, albeit it has been able to achieve stronger population growth in the post-pandemic period.

Population growth in Queensland has halved in the three quarters ended December 2020 in comparison to growth achieved in the two years prior to March 2020. This has been derived from a slight reduction in natural increase (-6%, caused by a declining birth rate), an increase in interstate migration (+34%) and a positive net overseas migration level becoming negative during the pandemic). Annual population growth has essentially halved from 1.74% in the two years to March 2020 to 0.81% in the three quarters to December 2020.

Queensland's building approval pattern mirrors that experienced at the national level. An all-time peak in building approvals occurred in the 2015 to mid-2018 period, averaging 3,900 per month. In the 18-month period leading up to the pandemic, monthly building approvals averaged a more moderate 2,550. To date during the pandemic, building approvals have averaged 3,200 per month, some 25% above pre-pandemic levels.

Again, the housing market has disconnected from population growth in Queensland, with the explanation provided above for Australia likely to apply in this state also.

2.4 Local Implications

The Whitsunday Region has been adversely affected by the loss of international visitors and the loss of international backpackers, which provided employees for the tourism and horticultural sectors. Outside the lockdown periods, the Region has benefited from an increase in domestic visitors (due to the inability of Australians to travel overseas), which has somewhat insulated its tourism sector since mid- to late-2020.

The Region's coal mining, sugar cane and manufacturing sectors are likely to have been relatively unaffected by COVID-19.

More specific implications are considered to include:

- (a) The move to a work from home model should not adversely impact local businesses;
- (b) In the near future, the Region may benefit from the move by some city residents to the regional areas. However, unless the provision of jobs improves, this relocation may only be temporary;
- (c) The recent and current lockdowns in NSW and Victoria are likely to limit the source of migrants to the Region and to Queensland whilst these lockdowns continue. Whilst there may be a prospect that the Victorian outbreak can be overcome, it is becoming increasingly doubtful that the NSW outbreak can be controlled in the near future, if at all;
- (d) The source of labour for the tourism and horticultural sectors will continue to be difficult until international travel returns to pre-pandemic levels; and
- (e) Patronage at festivals, dining out, sporting events, cinemas and other group-based entertainment is likely to diminish significantly due to social distancing measures and temporarily changed behaviours.

3 ECONOMIC PROFILE

3.1 Overview

The Whitsunday Region is a local government area (LGA) located in North Queensland, approximately 1,000 kilometres north of Brisbane and 600 km south of Cairns. The Region comprises the former LGAs of Bowen and Whitsunday Shires which, from March 2008, formed the Whitsunday Regional Council.

The coast is a gateway to the 74 islands of the Whitsundays and to the Great Barrier Reef whilst the mainland contains agriculturally and mining rich areas, including direct access to the northern tip of the coal-rich Bowen Basin.

The estimated Gross Regional Product (GRP) for the 2019/20 year was \$3.9 billion, with the similar Gross Value Added (GVA) estimated at \$3.5 billion as shown in TABLE 3.1. The last quarter of this financial year was adversely affected by the COVID-19, particularly impacting the performance of the Transport, Postal and Warehousing, Accommodation, Food Services and Retail Trade and Arts and Recreational Services sectors.

Table 3.1: Gross Value Added and Gross Regional Product, Whitsunday Region 2019/20

#	Industry	Level (\$ million)	% of total
1	Mining	1,835.7	46.9%
2	Construction	326.9	8.3%
3	Transport, Postal and Warehousing	198.5	5.1%
4	Agriculture, Forestry and Fishing	152.7	3.9%
5	Accommodation and Food Services	139.6	3.6%
6	Administrative and Support Services	113.5	2.9%
7	Health Care and Social Assistance	106.9	2.7%
8	Manufacturing	101.2	2.6%
9	Retail Trade	95.5	2.4%
10	Education and Training	77.6	2.0%
11	Public Administration & Safety	65.1	1.7%
12	Professional, Scientific & Technical Services	57.2	1.5%
13	Wholesale Trade	46.6	1.2%
14	Electricity, Gas, Water and Waste Services	41.2	1.1%
15	Information Media and Telecommunications	11.4	0.3%
16	Arts and Recreation Services	8.1	0.2%
17	Other Services	46.6	1.2%
Total Industry Value Added		3,521.9	89.9%
Taxes less subsidies on production and imports		394.1	10.1%
Gross Regional Product		3,916.0	100.0%

Source: Latest NIEIR data from Whitsunday Regional Council

GRP is considered to be the most appropriate measure of the Region's economic performance. The Whitsunday Region generated approximately 1.1% of Queensland's Gross State Product in 2019/20. The major industries in the Region, in order of economic value, were mining, tourism (comprising a large proportion of accommodation and food services; transport, postal and warehousing; and retail trade), construction, agriculture and manufacturing.

3.2 Population

The following provides a brief explanation of various population definitions that are commonly referred to by the ABS:

- (a) Enumerated population – the number of persons counted on Census night;
- (b) Place of usual residence population – represents the count of persons on Census night at their place of usual residence;
- (c) Estimated residential population (ERP) – is based upon the place of usual residence population after making additional adjustments to account for persons not counted by the Census (such as persons travelling overseas at the time of Census). This is the ABS' key measure of population and the one adopted by this Report; and
- (d) Non-resident workers – comprise workers who are living in an area of their workplace, but who have their usual place of residence elsewhere. They are not included in the estimated resident population of the area of the workplace, yet place additional demand for services within their workplace area. They typically travel between their usual place of residence and workplace on a fly-in/fly-out or drive-in/drive-out (FIFO/DIDO) basis.

Table 3.2 below sets out the historic and current estimated resident populations for the Region between 1991 and 2021. Estimates to 2020 are based upon ERP data from the Australian Bureau of Statistics (ABS). Norling Consulting has estimated the 2021 population, based upon the 2020 ABS estimate as adjusted by the building approvals reported in the 2020/1 financial year.

Table 3.2: Whitsunday Region Historical Estimated Resident Population

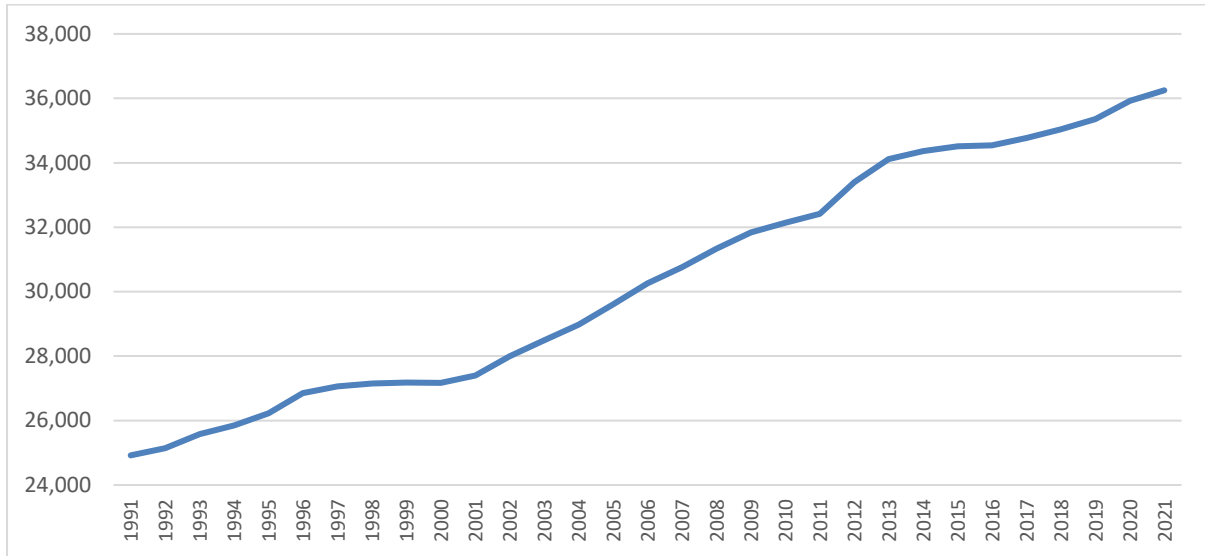
	1991	1996	2001	2006	2011	2016	2020	2021	% p.a. 1991-2021
ERP	24,921	26,851	27,396	30,255	32,416	34,538	35,927	36,250	1.3%
Households	9,585	10,530	11,087	12,355	13,391	14,433	15,100	15,230	1.6%
Persons per household	2.60	2.55	2.47	2.45	2.42	2.40	2.38	2.38	n/a

Source: ABS and Norling Consulting's estimates

The above Table is illustrated in Figure 3.1 showing that the annual population growth has varied considerably over the past 30 years, from -0.04% in 2000 to 3.03% in 2012. This variation has been driven by the cyclical nature of the Region's major economic sectors. Strong growth occurred in the 2001 to 2006 period (2.0% per annum), modest growth in the 1991 to 1996 period (1.5% per annum), 2006 to 2011 period (1.4%) per annum) and 2011 to 2016 period (1.3% per annum), low growth in the 2016 to 2021 period (1.0% per annum) and very low growth in the 1996 to 2001 period (0.4% per annum).

Over the long term, annual growth has averaged 1.26%, well below that recorded by the state of Queensland (1.94% per annum).

Figure 3.1 Whitsunday Estimated Resident Population: 1991-2021



Source: 1991-2020, ABS; 2021, Norling Consulting

Future population growth is examined in greater detail in Chapter 4.

3.3 Employment Profile

Analysis of the ABS Household and Population Census data has revealed the following residential workforce information for the Whitsunday Region since 2001. The following TABLE 3.3 provides an historic breakdown of the number of Whitsunday residents who were employed at the time of the 2001, 2006, 2011 and 2016 Censuses. Results for the recent 2021 Census will not be available until mid-2022.

Table 3.3: Resident Worker Growth Whitsunday Region 2001 to 2016

	2001	p.a. growth	2006	p.a. growth	2011	p.a. growth	2016
Whitsunday	12,580	3.48%	14,926	1.34%	15,955	0.14%	16,069

Source: 2001, 2006, 2011 & 2016 ABS Household and Population Censuses, based on place of usual residence

As illustrated above, the number of resident workers within the Whitsunday Region increased significantly during the 2001 and 2006 period, with modest growth occurring between 2006 and 2011 (coinciding with the GFC) and negligible growth was achieved during the 2011 to 2016 period. This suggests that population growth over the last five year intercensal period has been driven by non-workers, namely retirees. This has been confirmed, with the population of persons aged 50 and over generating two-thirds of the net increase in population of the Region over the 2011 to 2016 intercensal period.

By utilising a different data set, the Small Area Labour Markets produced by the Australian Government, growth in the number of resident workers in the period June 2016 to March 2021 period averaged a stronger 2.4% per annum, indicating that employment growth has been stronger over this period.

An estimated 16,994 jobs were provided within the Whitsunday Region in 2016. The following TABLE 3.4 illustrates the historical workforce between 2001 and 2016, based on the results of the ABS Household and Population Censuses.

Table 3.4: Jobs within Whitsunday Region 2001 to 2016

	2001	p.a. growth	2006	p.a. growth	2011	p.a. growth	2016
Whitsunday	14,445	1.21%	15,337	-0.07%	15,281	2.23%	16,994

Source: 2001, 2006, 2011 & 2016 ABS Household and Population Censuses

Jobs growth in the Region has displayed a contrasting pattern to the growth of resident workers. Jobs growth has been strongest in the 2011 to 2016 period, modest in the 2001 to 2006 period and negative growth was incurred during the GFC period of 2006 to 2011. The strong increase in jobs growth in the five years leading up to 2016 was driven by tourism, agriculture, education, administration and health care, with manufacturing, mining, construction and trade all recording negative growth during this period.

A comparison of TABLES 3.3 and 3.4 reveals the net jobs balance for the Region, which measures the proportion of jobs supplied in the Region to the number of workers residing in the Region (Table 3.5). A net jobs balance of less than 100% means that fewer jobs are supplied than there are workers residing in the Region – implying a net export of workers to jobs located outside the Region. The net jobs balance for the Region is estimated below for the 2001 to 2016 period:

Table 3.5: Net Jobs Balance for the Region – 2001 – 2016

Year	Jobs Balance
2001	115%
2006	103%
2011	96%
2016	106%

Source: 2001, 2006, 2011 & 2016 ABS Household and Population Censuses

This shows a general pattern of the Region supplying slightly more jobs than its resident workforce over this period, with the Region relying upon workers living elsewhere to supply the balance (such as through FIFO/DIDO arrangements). The exception to this pattern occurred during the GFC period in 2011, where the Region's number of jobs fell below that of its resident workforce.

With an established trend by mining companies to prefer FIFO/DIDO workforces, it is expected that the net jobs balance in the future would remain in the 105% to 102% range and trending down over time as the Region attracts more residents who work outside the Region.

The Queensland Government Statistician's Office (QGSO) collects details of non-resident (FIFO/DIDO) workers working in the Bowen Basin. The relevant data for this Region relates to the former Bowen Shire part of the Region, it does not collect data on other non-resident workers.

The following TABLE 3.6 highlights these estimates (reflecting temporary residents of [mainly] Collinsville and Bowen):

Table 3.6 Non-resident workers on-shift*

LGA	2006	2011	2016	2018	2020
Whitsunday (R) (Bowen only)	220	715	300	1,140	840

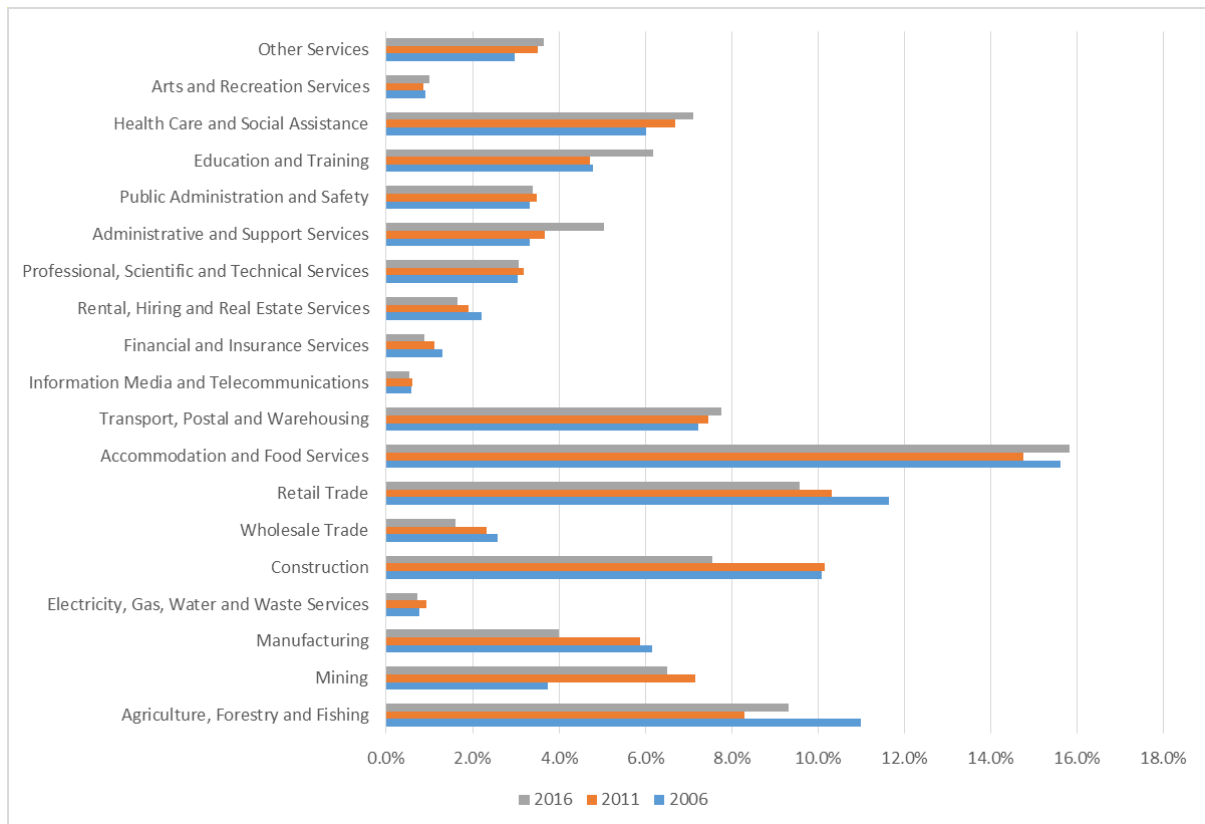
**due to shift arrangements, not all members of the non-resident workforce are present in the local area at one time. The figures therefore reflect the average number of non-resident workers on-shift, rather than total non-resident workforce numbers.*

Source: Queensland Government Statistician’s Office

The QGSO estimated that there were a total of 840 non-resident workers at Collinsville and Bowen in 2020 (the latest date for which estimates have been released). The number of non-resident workers peaked at 735 in 2012 and again at 1,140 in 2018. The Collinsville mine was also closed for a period of time in 2016, which contributed to the reduced figure at that time.

The following FIGURE 3.2 illustrates how the industries of the Whitsunday Region workforce have trended since 2001. It shows the dominance of the tourism, agriculture, retail trade, construction, mining and health care sectors. Sectors demonstrating significant growth over this period comprise construction, retail and wholesale trade, manufacturing and agriculture.

Figure 3.2: Industry of the Resident Workforce, Whitsunday (R)- 2006, 2011 and 2016



Source: 2006, 2011 and 2016 ABS Household and Population Censuses

The above is also documented on the next page in greater detail (Table 3.7):

Table 3.7: Industry of the Resident Workforce, Whitsunday (R) - 2006, 2011 and 2016

	2006	2011	2016	Difference between 2006 - 2016
Agriculture, Forestry and Fishing	1,639	1,322	1,499	-140
Mining	558	1,141	1,046	+488
Manufacturing	918	940	642	-276
Electricity, Gas and Water Supply	113	150	115	+2
Construction	1,507	1,620	1,212	-295
Wholesale Trade	385	371	259	-126
Retail Trade	1,738	1,646	1,537	-201
Accommodation and Food Services	2,331	2,354	2,544	+213
Transport, Postal and Warehousing	1,079	1,190	1,247	+168
Information Media and Telecommunication	86	98	87	+1
Financial and Insurance Services	193	178	143	-50
Rental, Hiring and Real Estate Services	330	303	265	-65
Professional, Scientific and Technical Services	455	510	494	+39
Administrative and Support Services	495	585	810	+315
Public Administration and Safety	495	558	546	+51
Education and Training	716	751	995	+279
Health Care & Social Assistance	899	1,070	1,143	+244
Arts and Recreation Services	135	138	160	+25
Other Services	446	561	587	+141
Inadequately described/Not stated	408	468	737	+329
TOTAL	14,926	15,955	16,069	+1,143

Source: 2006, 2011 and 2016 ABS Household and Population Censuses

In contrast to the GRP data, the most important industries in terms of employment in the Region are tourism (which encompasses more industry sectors than accommodation and food services), retail, agriculture, transport, postal and warehousing, construction, health care and mining.

As shown above, the major increases have occurred within the mining, administrative and support services, education and training and health care and social assistance.

The majority of decreases have occurred within the construction, manufacturing, retail trade and agriculture, forestry and fishing industry sectors.

3.4 Regional Profile

Table 3.8 below shows the proportion of the resident workforce employed by industry within the key urban areas of Proserpine, Airlie Beach/Cannonvale/Shute Harbour/Jubilee Pocket, Bowen and Collinsville as well as the balances of the former Whitsunday Shire and the former Bowen Shire. The most dominant industries of employment within each area are highlighted.

Table 3.8: Industry of the Resident Workforce, 2016

	Proserpine	Whitsunday Urban Area And Islands	Balance Whitsundays	Bowen Urban Area	Collinsville	Balance Bowen Shire
Agriculture, Forestry and Fishing	5.6%	0.6%	10.8%	17.0%	3.2%	43.4%
Mining	4.2%	5.5%	8.4%	4.7%	30.4%	9.3%
Manufacturing	8.4%	2.6%	6.3%	3.8%	3.8%	2.9%
Electricity, Gas and Water Supply	1.3%	0.3%	0.6%	0.5%	2.7%	0.0%
Construction	7.4%	7.5%	10.7%	6.9%	5.2%	6.3%
Wholesale Trade	1.9%	1.2%	1.8%	2.8%	0.0%	0.0%
Retail Trade	14.8%	9.3%	9.8%	9.5%	8.6%	4.8%
Accommodation and Food Services	8.2%	28.8%	8.4%	7.8%	6.3%	3.5%
Transport, Postal and Warehousing	4.8%	9.4%	5.2%	9.2%	4.7%	4.0%
Information Media and Telecommunication	0.7%	0.6%	0.6%	0.2%	0.0%	0.0%
Financial and Insurance Services	0.0%	0.8%	0.8%	0.8%	0.0%	0.3%
Rental, Hiring and Real Estate Services	1.2%	2.2%	1.6%	1.2%	0.0%	0.6%
Professional, Scientific and Technical Services	2.9%	3.3%	4.4%	2.6%	0.0%	2.2%
Administrative and Support Services	3.8%	6.4%	4.1%	4.0%	6.3%	2.3%
Public Administration and Safety	5.6%	2.4%	3.5%	4.4%	2.5%	1.5%
Education and Training	10.0%	4.1%	7.2%	6.8%	14.9%	4.8%
Health Care & Social Assistance	10.1%	5.1%	6.8%	10.1%	7.7%	4.7%
Arts and Recreation Services	0.2%	1.8%	0.7%	0.1%	0.0%	0.9%
Other Services	4.6%	3.7%	4.3%	3.7%	1.1%	2.4%
Inadequately described/Not stated	4.1%	4.5%	4.2%	4.0%	2.7%	5.9%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: 2016 ABS Household and Population Census

The agriculture, forestry and fishing industry is the major industry of employment for the Balance Bowen (43%), Bowen Urban Area (17%) and Balance Whitsunday Shire (11%). Unsurprisingly, mining is the dominant employment industry in Collinsville, comprising 30% of resident workers.

The accommodation and food services sector is the key employer within the Whitsunday Urban Area and Islands (29%).

Retail trade (15%), health care (10%) and education and training (10%) are the major industry sectors of workers living in Proserpine.

3.5 Key Industries

This section provides a brief overview of the key industries in the Whitsunday Region.

Mining

Australia

Australia has benefited from mining booms in the late 1960's, the early 1980's and during the 2000's. The latest boom has been driven by rapid urbanisation and industrialisation of emerging Asian countries, resulting in significant commodity price increases and leading to strong levels of mining exploration and investment. Coal, iron ore and gas have been the major growth sectors in the most recent boom. Mining exploration and expansion sustained Australia during the early part of the GFC. However, significant price falls in 2012 have led to cost-cutting measures being taken by miners, including delays to new projects, reduction in exploration, closure of some mines and negotiations with workforces to reduce wage costs and improve productivity. There was a rebound in coal production in the late 2010s, although recent actions by China in reducing its intake of coal (and other products) has resulted in the need to find replacement buyers, as well as a slight reduction in coal production volumes.

Coal is generally described as black or brown coal, with the former having a much higher energy content. In Australia, black coal is predominantly mined in Queensland and NSW, whereas brown coal is mined in Victoria. There are three different types of black coal: coking coal, thermal coal and pulverised coal injections (PCI), which are utilised in different applications. Coking coal is primarily used in steel production and can be classified as soft, semi-soft or hard. Hard coking coal is the highest quality coal and therefore attracts the highest prices in the world market. Thermal coal is a lower grade coal utilised primarily in the production of electricity by power stations. PCI is also used in steel production, applied in a manner to reduce the extent of higher-priced hard coking coal.

The mining industry is heavily affected by fluctuating commodity prices, international markets and climate change mitigation efforts, such as carbon pricing. When commodity prices fall or there is a downturn in a major importing economy, the coal industry can be adversely affected. This can lead to sporadic changes in employment, population and the demand for services and facilities in mining-driven regions. The 2012 falls in coal prices, together with a slowing of China's economic growth, caused the closure of several coal mines, delayed the commencement of several new mines and created a cost-cutting drive by miners. Subsequent high prices in the 2016 to 2018 period led to further openings of coal mines.

Queensland

Coal is Queensland's most important commodity, with more than 34 billion tonnes (raw coal) identified, of which 8.7 billion tonnes have been identified as hard coking coal (defined above). During 2019/20, Queensland produced 239 million tonnes of saleable coal, of which 89% (worth A\$35 billion) was exported.

The Bowen Basin in Central Queensland contains almost all of the state's hard coking coal, making it the most important source of export coal in Queensland. The Callide, Clarence-Moreton, Tarong and Surat Basins are important sources of thermal coal for domestic power generation.

The Bowen Basin contains the largest coal reserve in Australia and supplies around 90% of the coal produced in Queensland, and more than three quarters of the total value of exports. The Bowen Basin encompasses an area of 60,000 square kilometres, from Collinsville in the north, to Theodore in the south. The Bowen Basin contains the majority of operational coal mines in the State. There were 45 mines operating in the Bowen Basin as at June 2020.

In addition, there is now a focus on exploration for export thermal coal in the Galilee Basin, a large reserve of coal located to the west of the Bowen Basin and centred around Alpha in western Central Queensland. Seven large mines have been proposed, of which the Carmichael Coal Mine and Railway Project (Bravus), Alpha Coal Project (GVK Hancock Coal), Kevin's Corner Coal Project (GVK Hancock Coal) and South Galilee Coal Project (AMCI Group and Bandanna Energy Ltd) have received State Government approvals. The Carmichael Coal Mine and Railway Project is under the construction stage, with coal expected to be exported by late-2021.

Coal from the Bowen Basin is currently exported from five coal terminals located at three ports: Abbot Point north of Bowen, Hay Point near Mackay, and the Port of Gladstone.

Lower global coal prices in the 2012 to 2016 period, several flooding events and the introduction of COVID-19 (causing a sharp price drop) have increased production costs and reduced performance. China's recent ban on Australian thermal coal has placed additional stress on this sector, although there are reports that other countries have replaced China as buyers of our coal. Uncertainty remains into the future over this issue. The coal price has increased strongly over the past few months, but is not likely to remain at these levels for long.

Whitsunday Region

The northern tip of the Bowen Basin extends into the Whitsunday Region, resulting in the Collinsville, Sonoma, Cows, Drake and Jax coal mines (these latter four coal mines are located close together, are all operated by QCoal and their combined production is attributed to the Sonoma mine) and the Abbot Point Coal Terminal being located in the Region. Technically, the Newlands and Eastern Creek coal mines are just located within the Whitsunday Region's boundary. However, due to the Wollombi and Suttor Creek coal mines being located outside the boundary and these four related mines being serviced from the town of Glenden, which is also outside the boundary, these mines have been excluded from this analysis. However, their production is exported through the Abbot Point Coal Terminal and this activity is relevant to the performance of the Region.

Contributing 47% of the Region's GRP in 2019/20, mining has become the principal economic driver in the Whitsunday Region. Over the last five years, production volumes have increased significantly from the Collinsville and Sonoma mines, rising from 5.8 million tonnes to 8.7 million tonnes.

Annual throughput of coal at the Abbot Point Coal Terminal has improved in recent years, mainly due to expansion of the Newlands mines (now comprising four mines). Coal exports have now increased to 29.5 million tonnes.

Future Outlook

While the very long-term future of thermal coal mining is uncertain due to global pressures relating to climate change, any fundamental change in China's, Japan's or Australia's dependence on coal-based fuels are not expected within the next 10 or 15 years. Such long-term uncertainty is not associated with hard coking coal mining, as there are currently no known replacements for its role in steel making.

Over the next decade or two, the major factors likely to affect coal mining will revolve around production costs, the opening up of the Galilee Basin, the future prices of coal and China's attitude to purchasing Australian coal. These factors cause continuing uncertainty over the future of coal, particularly China's position as a buyer of Australian coal in the short term.

Tourism

Australia

International visitor arrivals to Australia peaked at 9.4 million in the year ended June 2019, recording an impressive average annual growth of 5.4% over the previous decade. These arrivals fell by 14% to 8.1 million in the year ended March 2020, with the early effects of the COVID-19 pandemic impacting the latter part of this year. COVID-19 border controls have effectively shut Australia off to international visitors, with only 60,000 persons arriving in the year to March 2021, a reduction of 99.3%!

The Tourism Forecasting Reference Panel (TFRP) has not released projections since the commencement of COVID-19 and it may be three to four or more years before international visitor arrivals can approach pre-pandemic levels.

Domestic visitation in Australia also peaked in the year to June 2019 at 399 million visitor nights. This market sector grew by a significant 4.2% per annum over the previous decade. These visitor nights fell in the year to March 2020 to 351 million, a reduction of 12%. The series of lockdowns and interstate border restrictions reduced visitor nights to 231 million in the year to March 2021, representing a decline of 42% from the peak.

The current Delta outbreaks in NSW and Victoria have resulted in stringent lockdowns and interstate border closures currently. It is likely that these will remain in place and may even be expanded over time for some time.

The present COVID-19 pandemic is a clear reminder that the tourism market is sensitive to global and Australian political and macroeconomic shocks. Tourism is also a discretionary expenditure item and great uncertainty exists over when market conditions may return to at least semi-normal, let alone reach the pre-pandemic peaks.

Queensland

For the year ended March 2021, domestic visitors generated 69 million visitor nights and international visitors generated just 16,000 visitor nights, representing declines, respectively of 30% and 99.4%. Queensland's decline in domestic visitation was only exceeded by Victoria (-44%), which imposed a more severe lockdown during that year.

Whilst there is anecdotal evidence of parts of regional Queensland (particularly the Outback areas) recording high visitation levels during 2021, domestic visitation levels have generally suffered in the more established tourist destinations that rely heavily upon interstate visitors and since the onset of the latest NSW and Victorian lockdowns.

Whitsunday

The Whitsunday Region is the most tourism-dependent regional economy in Queensland, in terms of the contribution of tourism to the GRP (21% in 2019/20). Tourism represents the second highest contributor to the GRP, with approximately \$552 million for the year ended June 2020.

The Region accommodated 528,000 domestic visitor nights for the year ended March 2021, which represented a decline of only 18% from its peak recorded in 2019. International visitors fell from a 2018 peak of 244,000 to zero in the year ended March 2021.

Two airports service the Region, the Great Barrier Reef Airport (HTI) on Hamilton Island with (pre-pandemic) services from Brisbane, Cairns, Melbourne and Sydney and the Whitsunday Coast Airport (PPP) in Proserpine with services from Brisbane, Sydney and Melbourne.

The Region was a recognised destination for the cruise ship industry, which has also been eliminated by the pandemic. Up to 40 cruise ships docked at Airlie Beach annually prior to the pandemic delivering a potential capacity of 70,000 passengers to the Region.

As at June 2016, there were 32 tourism accommodation establishments (hotels, motels and serviced apartments) offering some 7,400 bed spaces, representing a decline from the 51 establishments reported in 2010. Impacts from cyclones has resulted in several closures of island resorts. The main concentrations of accommodation in the Region comprise:

- (a) Middle to upper market islands resorts;
- (b) Airlie Beach accommodation dominated by serviced apartments and backpacker accommodation; and
- (c) Small scale resorts and caravan parks at Bowen.

The Whitsunday Region is known as a “sailing paradise”, capitalising upon the protected waterways of its 74 islands. This sector comprises an important part of the Whitsunday tourism experience.

Future Outlook

The future of tourism in this Region is clearly tied to our ability to overcome the COVID-19 pandemic and what lasting isolation measures may remain in place to protect society from the worst impacts of this virus-induced serious illness.

It is speculated that domestic tourism may not recover to its pre-pandemic peak level until at least 2024 and international tourism may not recover to its pre-pandemic peak level until at least 2028. However, much uncertainty exists over the trajectory of this pandemic at the present time and these dates should not be viewed as projections.

Agriculture

Australia

The Australian agriculture sector is a critical element of the Australian economy. The total value of Australia’s agricultural production was \$60.7 billion in 2019/20, of which livestock and livestock products, particularly cattle, contributed more than half (53%) of this value, followed by crops (21%) and horticulture (16%). Livestock and livestock products have significantly improved their share of total production at the expense of crops over the past few years.

Queensland

Agriculture industries are integral to the Queensland economy, and are the backbone of many rural and regional communities in Queensland. During 2019/20, the total value of Queensland’s primary industry commodities was \$13.6 billion, of which livestock and livestock products comprised the majority (60%) of that value, followed by horticulture (23%) and crops (14%). The major agricultural sectors for Queensland comprise cattle (50%), sugar cane (9%), poultry (6%) and bananas (5%).

Queensland is an important source of tropical products, supplying 98% of Australian pineapples, 96% of bananas, 95% of sugar cane, 83% of sweet corn, 79% of sorghum, 68% of chickpeas, 62% of macadamias, 59% of pumpkins, 58% of mangoes, 55% of mandarins, 55% of capsicums and 54% of avocados and 53% of strawberries. Whilst most agricultural industries appear well established, production can be adversely affected by adverse weather events (droughts, floods and cyclones), global prices and the fluctuating value of the Australian dollar.

Whitsunday

Based upon 2015/6 production values horticulture (\$152m), beef cattle (\$123m) and sugar cane (\$43m) are the main agricultural sectors in the Whitsunday Region (total of \$319m). Due to its tropical dry climate and fertile soil, Bowen is Australia's most significant winter growing region, supplying the majority of Australia's tomatoes and capsicums. The industry is made up of over 13 major crop varieties which include tomatoes, capsicums, chillies, melons, beans and mangoes. The tomato industry is by far the most significant crop, with the region producing some \$60.5 million in 2015/6, representing half of Queensland's production.

Beef cattle is the major agricultural activity to the west of Bowen and improving cattle prices have led to a significant improvement in production values over recent years. Despite the Region accounting for only 1.4% of the state's land area, it generated 2.1% of its cattle production, with an estimated total of more than 250,000 head.

Sugar cane is also a prominent industry in the area, mainly grown and processed around the town of Proserpine. The Proserpine Mill has a production capacity of 2.1 million tonnes of cane and averages an annual throughput of 1.7 million tonnes. Production volumes are significantly affected by cyclones, wet weather and cane content supply (CCS), a measure of recoverable sugar in the cane. 2020 production was 1.5 million tonnes and a CCS on 14.35. It should be noted that the global sugar price has increased from late 2020 and into 2021 and is likely to provide higher returns for growers in the current season.

Future Outlook

Future growth in the agricultural sector is dependent upon many factors, including obtaining new sources of water, attracting interest from farmers willing to invest in the Region, sourcing new winter markets for the horticultural sector and the future global price of sugar. The current Labor government appears to have an aversion to the establishment of new dams, which is likely to curtail this opportunity over the medium term. The horticultural sector has sufficient quality soils for production to be increased by a factor of at least five. The identification of new winter markets, together with necessary transport infrastructure to those markets, is required before plantings can be significantly increased. This sector is currently investigating the opportunity to fly product direct from the Proserpine Airport to the Toowoomba Wellcamp Airport to link in with regular produce flights into Asia.

The World Bank predicts sugar prices to grow steadily from US\$0.35/kg to US\$0.42/kg over the next decade, although shorter term swings are likely to be encountered over this period.

The Region possesses a climate suitable for aquaculture and has sufficient lands fronting salt water. With strong domestic and international demand for seafood, the Region has the potential to accommodate an expanded aquaculture sector, which would broaden the Region's agricultural base. It is understood that Tassal is progressing a very large aquaculture project at Exmoor Station, immediately to the south of the Whitsunday Region's boundary.

The Uranah Water Project has been proposed for several decades. Whilst mostly benefiting neighbouring local government areas, farmlands to the south of Collinsville are expected to benefit from irrigation from the Project. This may allow an escalation of agricultural production to take place in this area. A feasibility study is presently being undertaken for the Project, with construction works potentially commencing as early as 2023. Given its long lead time to date and the need for further approvals, uncertainty remains as to if and when this Project will proceed.

Manufacturing

Australia

Manufacturing has been an integral part of the Australian economy, although its level of importance has been diminishing. As at June 2020, the manufacturing sector employed approximately 831,000 persons. In 2019/20, it contributed approximately \$107 billion to the economy, representing 5.5% of GDP. This proportion has declined by more than half over the previous 43 years (13.4% in 1976/7). In 2019/20, the food and beverage sector was the largest manufacturing sector in Australia in terms of industry value added.

Manufacturing in Australia has been challenged by increasing production costs and increasing global competition, resulting in lower production levels, reduced profitability and consequently a declining level of importance to the Australian economy. The GFC has served to accelerate this rate of decline, with employment in this sector declining by 28% in numeric terms and 39% in market share terms over the 2006 to 2016 intercensal periods. The manufacturing sector appears to have fared well during the COVID-19 pandemic, with the sector being viewed as essential industry during most lockdown periods.

Queensland

Manufacturing in Queensland has exhibited a similar declining pattern to that described above for Australia, being adversely affected by the same macroeconomic factors. In June 2020, there were 156,000 persons working in the manufacturing sector, accounting for 6.4% of the state's workforce. This number had decreased by 29% over the previous decade and the market share had decreased by 39% over the same period. Queensland's manufacturing sector generated \$22.7 billion in 2019/20, accounting for 6.3% of the state's GSP. This share had almost halved from a significant 12.0% recorded in 1989/90.

Despite these trends, the Queensland Department of State Development, Manufacturing, Infrastructure and Planning has identified six Priority Industries to support and nurture, all of which involve some level of manufacturing. These comprise Advanced Manufacturing (products requiring a high level of technology and expertise throughout the value chain), Aerospace, Biofutures (manufacturing of products from sustainable organic and/or waste resources), Biomedical (including production of pharmaceuticals), Defence (including manufacture of defence assets) and Mining Equipment, Technology and Services (METS) (including the manufacture of mining equipment).

As part of its actions, the Department has set aside a series of State Development Areas throughout the state to accommodate large-scale manufacturing and other industrial activities.

Whitsunday

In the Whitsunday Region, manufacturing activity is mainly comprised of the sugar mill in Proserpine and small businesses specialised in the manufacture of steel, sheet metal, aluminium and glass products. In the Airlie Beach vicinity, there is also a variety of sailing and marine equipment and shade structure manufacturers that service the cruising, racing and charter fleet in the Whitsundays and surrounding areas.

Table 3.6 shows that the Whitsunday Region has not been immune from the widespread decline of the manufacturing sector, with employment in this sector declining by 276 jobs over the past decade.

Future Outlook

Future opportunities for the manufacturing sector for the Region may occur at Abbot Point, Bowen, Collinsville, Proserpine and Whitsunday Coast Airport, with significant industrial lands available at each of these locations.

Potential projects in the Region include:

- (a) The Abbot Point State Development Area (SDA), identified by the state government for the establishment of large-scale industrial development, is situated adjacent to the port. The current Development Scheme provides for 3,200ha of this SDA to be developed for industrial purposes. However, since being declared in 2008, no industrial development has occurred to date. Industries specifically considered suitable by the state government as being suitable for the Abbot Point SDA include:
 - (i) Large scale, value adding industrial development;
 - (ii) Bulk mineral resource unloading and stockpiling facilities;
 - (iii) Mineral processing;
 - (iv) Integrated steel mill;
 - (v) Liquefied Natural Gas (LNG) facility (since declaration of this SDA, three LNG plants have been constructed in Gladstone);
 - (vi) Fuel storage and associated infrastructure; and
 - (vii) Extractive industries.
- (b) The Abbot Point Clean Energy Hub is a large-scale green hydrogen project proposed for the Abbot Point SDA. It proposes to manufacture hydrogen fuel from renewable energy sources (wind and solar). This project is considered to be in the early phases of planning and further technological advances may be needed before it becomes viable.
- (c) Gilmour Space Technologies has recently received approval to construct a small rocket launch pad at the Abbot Point SDA for the launching of small satellites into low-Earth Orbits. It is understood that most of the staff will be based on the Gold Coast, with staff travelling to Abbot Point for launches (possibly up to 12 per annum).
- (d) A proposed redevelopment of the Bowen Boat Harbour at Bowen could support future marine manufacturing and servicing opportunities for the larger boats being attracted to the Whitsundays. To date, funding for the redevelopment has not yet been committed.
- (e) The proposed Project Iron Boomerang aims to connect Port Hedland to Abbot Point by rail. By transporting iron ore to the east and coal to the west transport efficiencies are maximised. By locating five steel smelting plants at each end, Australia is able to maximise its value-added potential. Despite being proposed in 2006, the project has yet to be implemented. The Abbot Point SDA would be ideally located to accommodate these plants.

4 MEDIUM SERIES POPULATION PROJECTIONS

This Chapter reviews previous population projections, recent population growth and develops a revised Medium Scenario population projection. This will assist Council in its planning for future growth and infrastructure. This Chapter outlines the assumptions underpinning this projection.

4.1 Previous Projections

In December 2018, just after finalising the projections contained in the 2018 Revision, the Queensland Government Statistician's Office (QGSO) released its population projections, again utilising three series: low; medium; and high. The 2018 Revision also presented three scenarios. It is these six series (all prepared in 2018) that are relevant to compare to actual population growth at this time.

As stated previously, the 'actual' 2021 population has been derived from the ABS 2020 estimate, in combination with the building approvals that were reported by the ABS for the 2020/1 year.

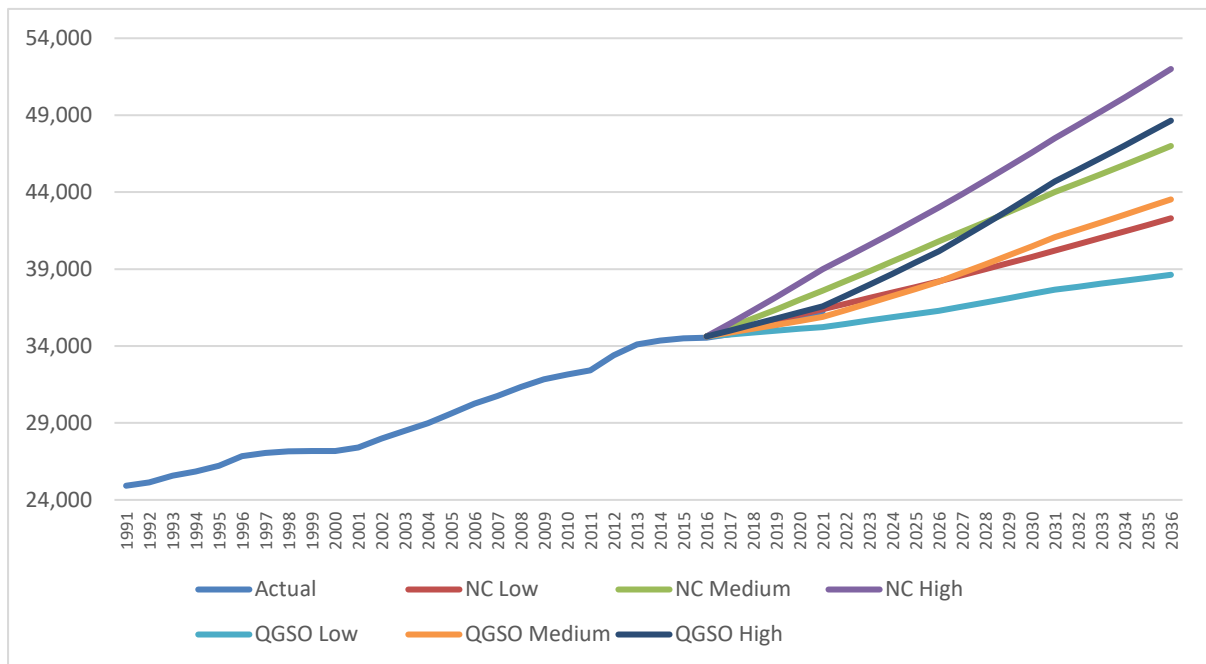
The following Figure 4.1 sets out these six projection scenarios (all prepared in 2018) in comparison to the actual estimated resident populations from 1991 to 2021, with the relevant data set out in Table 4.1.

Table 4.1: Comparison of Actual ERPs with Projections for the Whitsunday Region 1991 – 2036

	1991	1996	2001	2006	2011	2016	2021	2026	2031	2036
Actual ERP	24,921	26,851	27,396	30,255	32,416	34,538	36,250			
QGSO Low						34,626	35,237	36,289	37,664	38,628
QGSO Medium						34,626	35,887	38,174	41,072	43,526
QGSO High						34,626	36,578	40,165	44,694	48,645
NC Low						34,626	36,400	38,200	40,200	42,300
NC Medium						34,626	37,600	40,800	44,000	47,000
NC High						34,626	39,000	43,000	47,500	52,000

Source: ABS historical ERP estimates, QGSO and Norling Consulting projections

Figure 4.1: Comparison of Actual ERPs with Projections for the Whitsunday Region 1991 - 2036



Source: ABS, Norling Consulting 2013 Projections, 2015 QGSO Projections

A review of Figure 4.1 and Table 4.1 reveals that:

- (a) The historic ERP has tracked erratically over the previous 30 years;
- (b) The ABS revised downwards its 2016 estimated resident population after the 2018 projections had been prepared, a fall of 88 persons or 0.25%;
- (c) The Norling Consulting projections were consistently higher than the equivalent QGSO projections (i.e. comparing low with low, etc);
- (d) In 2021 each of the three Norling Consulting projections exceeded the actual ERP, although the difference from the low projection was negligible; and
- (e) The 2021 actual ERP fell about midway between the QGSO medium and high series projections.

Table 4.2 provides a summary of relevant population growth rates.

Table 4.2: Annual Population Growth Rates for the Whitsunday Region 1991 – 2036

	2016-2021	Long Term	L-T Period
Actual	0.97%	1.26%	1991-2021
QGSO Low	0.35%	0.55%	2016-2036
QGSO Medium	0.72%	1.15%	2016-2036
QGSO High	1.10%	1.71%	2016-2036
NC Low	1.00%	1.01%	2016-2036
NC Medium	1.66%	1.54%	2016-2036
NC High	2.41%	2.05%	2016-2036

Source: Norling Consulting calculations derived from Table 4.1

Table 4.2 shows that the actual growth recorded during the 2016 to 2021 period was significantly lower than the historic growth recorded by the Region over the past 30 years. Another important feature that emerges from this Table is that all of the QGSO projections involved lower growth rates in the 2016 to 2021 period than the 2016 to 2036 period, whereas the 2016 to 2021 growth rates of the Norling Consulting projections were similar to or above the long term growth rates adopted for the 2016 to 2036 period.

4.2 Building Approvals

Building approvals in the Region provide an additional perspective of the rate of population growth in the Region, as provided in Table 4.3.

Table 4.3: Annual Building Approvals in the Whitsunday Region 1991 – 2036

Financial Years Ended June	Building Approvals
2013	195
2014	221
2015	108
2016	101
2017	47
2018	212
2019	239
2020	88
2021	138
Average	150

Source: ABS

Over the past nine years, building approvals have averaged 150 per annum in the Region. However, the annual quantum has varied considerably, from less than 50 to almost 240. Relatively low quantum were recorded in the 2015 to 2017 financial years and again in the 2020 financial year.

An examination of monthly data reveals that in the nine months to March 2020 there were an average of only six building approvals per month, with this rate continuing through for the remainder of 2020. Building approvals then increased in January 2021, averaging 20 per month in the six months ended June 2021.

This demonstrates that the Region has benefited from increased demand for housing during the pandemic and that the COVID-19 pandemic did not cause a fall in population growth. Low rates of growth occurred in the 2015 to 2017 period and again in the short period leading up to the pandemic due to, in Norling Consulting's opinion, the lack of jobs growth in the Region.

4.3 Medium Scenario Population Projection

Based upon the above information, a 2021 Medium Scenario Population Projection has been prepared for the Region, which is set out in Table 4.4 and illustrated in Figure 4.2. These projections are most similar to the QGSO medium series projections released in late 2018, after the release of the 2018 Update. They are also slightly higher than the Norling Consulting Low Scenario prepared in 2018.

Table 4.4: ERP Projections for the Whitsunday Region 2021 – 2036

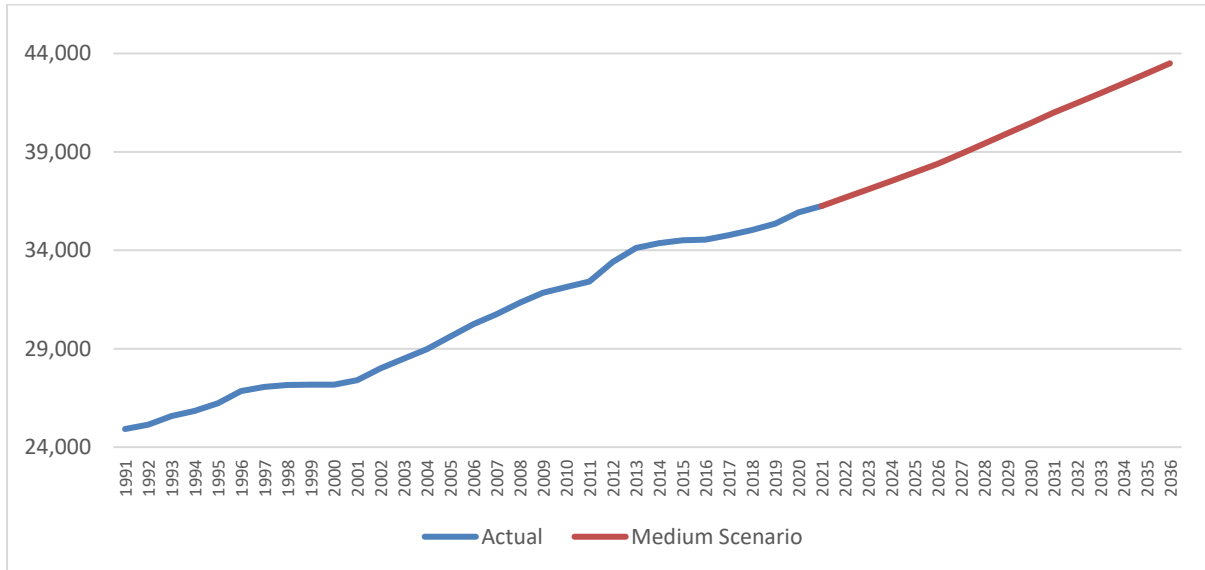
	2021	2026	2031	2036
Medium Scenario	36,250	38,400	41,000	43,500
Annual Growth	0.97%	1.16%	1.32%	1.19%

* Projections rounded to nearest 100 persons

Source: ABS 2016 ERP estimate, Norling Consulting projections

These projections are explained in greater detail in Chapter 6 and are illustrated on Figure 4.2.

Figure 4.2: Comparison of Actual ERPs with 2018 Projections for the Whitsunday Region 1991 – 2036



Source: ABS, Norling Consulting 2021 Projection

5 DEFINITION OF CATCHMENT AREAS

The Council has defined five Catchment Areas for use in planning for trunk infrastructure needs of the Region. These Catchment Areas have been defined to replicate, as close as possible, to the Priority Infrastructure Areas defined by the Whitsunday Region Planning Scheme 2017 and are illustrated in Figure 5.1. The 2021 Medium Scenario Population projections are required to be developed for these five Catchment Areas, which are described below:

1. Town of Whitsunday

This Area comprises a contiguous urban area from Cannon Valley to Mandalay. It is smaller than the Airlie - Whitsunday Statistical Area Level 2 (SA2), omitting the Islands and other lands sitting outside the Priority Infrastructure Area. As at 2021, this Catchment Area accommodates 28% of the Region's population.

2. Bowen

This Area comprises five discrete urban areas of Bowen. Small areas are located at Horseshoe Bay, Rose Bay, the Whitsunday Breeze estate at Banks Drive and Whitsunday Paradise at Ocean View Drive. This Area comprises a slightly smaller area than the Bowen SA2. As at 2021, this Catchment Area accommodates 24% of the Region's population.

3. Collinsville

This Area comprises the two discrete urban areas of the Collinsville Urban Community and the Scottville Locality. As at 2021, this Catchment Area accommodates 4% of the Region's population.

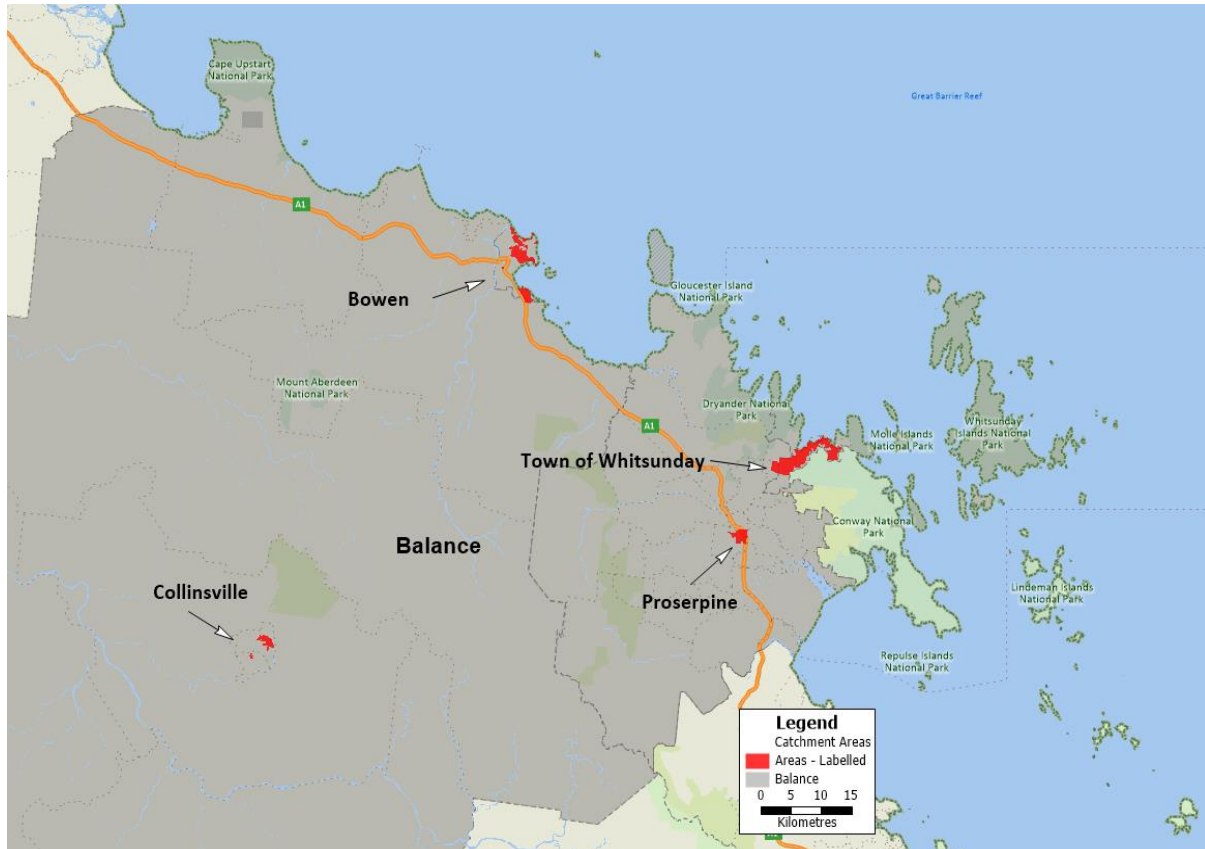
4. Proserpine

This Area comprises the urban area of Proserpine, including growth areas. This Area comprises a slightly smaller area than contained within the Proserpine Urban Locality. As at 2021, this Catchment Area accommodates 10% of the Region's population.

5. Balance

This Area comprises the balance lands of the Region. As at 2021, this Catchment Area accommodates 34% of the Region's population.

Figure 5.1: Whitsunday Region Catchment Areas



Source: Maptitude 2017, Norling Consulting

6 CATCHMENT AREA POPULATION AND EMPLOYMENT PROJECTIONS

This Chapter details the population and employment projections for the five Catchment Areas in respect of the 2021 Medium Scenario Population Projection.

The Medium Scenario Population Projection has been defined so as to represent a population projection about which the likelihood of the actual population exceeding it is equal to the likelihood that it would fall short of it.

Table 6.1 below summarises the Regional population projections for this Medium Scenario:

Table 6.1: ERP Medium Series Projection for the Whitsunday Region 2021 – 2036

	2021	2026	2031	2036
Medium Scenario	36,250	38,400	41,000	43,500
Annual Growth	0.97%	1.16%	1.32%	1.19%

** Projections rounded to nearest 100 persons*

Source: Norling Consulting estimate for 2021 and projections for remaining years

Employment projections are considered to be less accurate than the population projections. Whereas the 2021 population estimate has been based upon the ABS 2020 population estimate and 2020/1 building approvals reported by the ABS, the starting point for employment is the 2016 Census. Employment data for the recently completed 2021 Census will not be released for another twelve months or so. With the 2021 starting point for employment having less accuracy than the 2021 population starting point, greater uncertainty underpins the employment projections.

Employment projections for the Whitsunday Region have been set out in Table 6.2 and based upon the following basic assumptions:

- (a) Projections of a declining proportion of 0-14-year-olds due to the ageing of the population and a falling birth rate;
- (b) Projections of an increasing proportion of persons aged 65 years and over due to the ageing of the population;
- (c) An increasing workforce participation rate to take account of the small proportion of persons in the expanding population of persons aged 65 years and over that will remain in the workforce;
- (d) A 2021 unemployment rate based upon the Small Area Labour Markets Data reported by the Federal Department of Education, Skill and Employment and a projection that it would moderate to 5% in 2036; and
- (e) A declining net jobs balance (the proportion of jobs in the Region divided by the number of resident workers) due to the mining sector increasingly adopting the FIFO/DIDO model and the attractiveness of the Region to accommodate resident workers who work outside the Region.

Table 6.2: Employment Projection for the Whitsunday Region 2001 – 2036

	2001	2006	2011	2016	2021	2026	2031	2036
Population	27,396	30,255	32,416	34,538	36,250	38,400	41,000	43,500
0-14 years (%)	18.2%	18.3%	18.7%	18.1%	17.9%	17.6%	17.3%	17.0%
65+ years (%)	12.7%	11.1%	11.7%	14.6%	16.5%	17.8%	19.1%	20.3%
Working Age Population	18,939	21,345	22,532	23,249	23,780	24,806	26,076	27,275
Participation Rate (%)	71.4%	72.6%	74.3%	73.9%	74.5%	75.1%	75.7%	76.4%
Labour Force	13,513	15,500	16,750	17,174	17,716	18,635	19,752	20,831
Unemployment Rate (%)	6.9%	3.7%	4.7%	6.7%	6.6%	5.8%	5.4%	5.0%
Resident Workers	12,580	14,926	15,955	16,028	16,546	17,555	18,686	19,789
Employed Workforce	14,445	15,337	15,281	16,954	17,374	18,257	19,246	20,185
Net Jobs Balance	114.8%	102.8%	95.8%	105.8%	105.0%	104.0%	103.0%	102.0%

Source: ABS for 2001 to 2016, Norling Consulting projections for remaining years

These projections show that Resident Workers are projected to increase at a rate commensurate to population growth due to the increasing workforce participation rate and declining unemployment rate offsetting the ageing of the population. The Employed Workforce (number of jobs) is projected to increase by an average of 1.00% per annum in comparison to the average population growth rate of 1.22% per annum.

Table 6.3 provides a summary of the detailed projections undertaken for the five Catchment Areas for the Medium Scenario. The attached TABLE 6.4 provides a detailed breakdown of these population and employment projections per Catchment Area for the Medium Scenario.

Table 6.3: 2021 - 2036 ERP Population and Employment Projections – Medium Scenario

Catchment Areas	2021 Population	2021 Jobs	2036 Population	2036 Jobs	2021-2036 Population Difference	2021-2036 Jobs Difference
Town of Whitsunday	10,300	4,237	14,360	5,543	+4,060	+1,306
Bowen	8,620	4,110	9,420	4,290	+800	+180
Collinsville	1,300	410	1,230	407	-70	-3
Proserpine	3,760	1,421	4,190	1,510	+430	+89
Balance	12,270	7,196	14,300	8,435	+2,030	+1,239
TOTAL*	36,250	17,374	43,500	20,185	+7,250	+2,811

Source: Norling Consulting estimates and projections

The Town of Whitsunday is projected to accommodate 56% of the Region's population growth and 46% of the Region's job growth. The Balance area, in which the farms and mines are located, is projected to attract 28% of the Region's population growth and 44% of the Region's jobs growth. Collinsville is the only Catchment Area expected to record a decline in population and employment growth.

The following points explain the above:

- **Town of Whitsunday** has attracted almost half of the Region's population growth over the 2016 to 2021 period. This Catchment Area is expected to continue to benefit from coal mining FIFO/DIDO workers seeking to base themselves in an established coastal urban area served by a range of services and interstate migrants seeking to relocate from the COVID-19-ravaged southern states. Tourism is also expected to recover strongly following the 2020/1 weak period. However, domestic tourism may not return to its previous peak until 2024 and international tourism may not return to its previous peak until 2028.

- **Bowen's** population growth has averaged only 0.33% per annum in the 2011 to 2021 period. Future growth is projected to remain at modest to moderate levels, with only a small growth in employment projected. Whilst there are a number of industrial projects mooted for the Abbot Point SDA, their possible impact on population growth at Bowen is considered to mostly lie outside the Medium Scenario parameters and current projection period.
- **Collinsville** is expected to record a declining population and number of jobs due to the switch by the coal mines to FIFO/DIDO employment models. This decline was most evident in the 2011 to 2016 period, with a further decline experienced in the 2016 to 2021 period. Employment in the town is projected to experience a slight decline, although employment at the mines surrounding the town (in the Balance area) may increase (via FIFO/DIDO arrangements).
- **Proserpine** has experienced moderate population growth in the 2016 to 2021 period following a slight decline in the previous inter-Censal period. The price of sugar has recently increased and is projected to sustain further growth. This is likely to lead to improved economic outcomes for the town, but is unlikely to result in significant further population growth. Increased freight activity through the Whitsunday Coast Airport may result in a slight increase in population growth. Modest population and job growth is projected for this Catchment Area.
- The **Balance** area is projected to experience a moderate rate of population growth and stronger rates of employment growth. The coal and agricultural resources are located in this area and are expected to drive the stronger rates of employment growth. Whilst the agricultural benefits of the proposed Uranah Water Project may lie outside the projection period, any increased agricultural production would drive population growth in this Balance area. Moderate population growth is expected to continue in this area.

Table 6.4 sets out the resulting population, dwelling and employment projections for the five Catchment Areas in respect of the Medium Scenario. The largest population growths are expected to be derived by the Town of Whitsunday (56%), Balance (28%) and Bowen (11%).

As requested by Council, Tables 6.5 to 6.8 provide more details surrounding the preferred Medium Scenario population projections for the five Catchment Areas:

- (a) Table 6.5 – occupied private dwelling projections by dwelling type;
- (b) Table 6.6 – employment projections by industry group;
- (c) Table 6.7 – estimated resident population by dwelling type; and
- (d) Table 6.8 – floorspace projections by industry group.

Due to the source of much of these detailed Tables being the 2016 Census, the Tables present data that includes the 2016 base, with the 2021 figures being estimates and the figures for the remaining years being projections.

Table 6.4: Population, Dwellings and Jobs Projections - Medium Scenario

Catchment Area	2001		2006		2011		2016		2021		2026		2031		2036
Town of Whitsunday															
Population	5,500	3.65%	6,580	3.41%	7,780	4.08%	9,500	1.63%	10,300	2.30%	11,540	2.33%	12,950	2.09%	14,360
Occupied Dwellings	2,331	99	2,824	106	3,353	145	4,077	61	4,383	110	4,930	125	5,560	125	6,190
Persons per household	2.36		2.33		2.32		2.33		2.35		2.34		2.33		2.32
<i>Resident workforce</i>							4,670		4,985		5,585		6,248		6,929
<i>Employed workforce</i>							4,203		4,237		4,636		5,061		5,543
<i>Net job balance</i>							90.0%		85.0%		83.0%		81.0%		80.0%
Bowen															
Population	7,280	1.18%	7,720	1.56%	8,340	0.29%	8,460	0.38%	8,620	0.44%	8,810	0.69%	9,120	0.65%	9,420
Occupied Dwellings	2,971	46	3,203	51	3,461	28	3,600	17	3,684	20	3,780	30	3,930	30	4,080
Persons per household	2.45		2.41		2.41		2.35		2.34		2.33		2.32		2.31
<i>Resident workforce</i>							3,550		3,543		3,621		3,739		3,763
<i>Employed workforce</i>							4,083		4,110		4,164		4,225		4,290
<i>Net job balance</i>							115.0%		116.0%		115.0%		113.0%		114.0%
Collinsville															
Population	2,020	0.10%	2,030	-1.21%	1,910	-6.70%	1,350	-0.75%	1,300	-0.47%	1,270	-0.32%	1,250	-0.32%	1,230
Occupied Dwellings	849	2	857	3	872	-49	628	-5	605	-2	590	-2	580	-2	570
Persons per household	2.38		2.37		2.19		2.15		2.15		2.15		2.15		2.15
<i>Resident workforce</i>							520		494		483		475		467
<i>Employed workforce</i>							416		410		410		409		407
<i>Net job balance</i>							80.0%		83.0%		85.0%		86.0%		87.0%
Proserpine															
Population	3,300	1.30%	3,520	0.39%	3,590	-0.06%	3,580	0.99%	3,760	0.47%	3,850	0.87%	4,020	0.83%	4,190
Occupied Dwellings	1,310	22	1,419	13	1,483	2	1,492	18	1,580	10	1,630	15	1,710	15	1,790
Persons per household	2.52		2.48		2.42		2.40		2.38		2.36		2.35		2.34
<i>Resident workforce</i>							1,470		1,512		1,548		1,612		1,678
<i>Employed workforce</i>							1,397		1,421		1,424		1,467		1,510

<i>Net job balance</i>							95.0%		94.0%		92.0%		91.0%		90.0%
Balance															
Population	9,296	2.28%	10,405	0.74%	10,796	1.53%	11,648	1.05%	12,270	1.05%	12,930	1.10%	13,660	0.92%	14,300
Occupied Dwellings	3,627	85	4,052	34	4,221	76	4,603	69	4,949	62	5,270	62	5,570	62	5,870
Persons per household	2.56		2.57		2.56		2.53		2.48		2.45		2.45		2.44
<i>Resident workforce</i>							5,818		6,013		6,318		6,611		6,952
<i>Employed workforce</i>							6,856		7,196		7,623		8,084		8,435
<i>Net job balance</i>							117.8%		119.7%		120.7%		122.3%		121.3%
TOTAL Whitsunday Region															
Population	27,396	2.01%	30,255	1.39%	32,416	1.28%	34,538	0.97%	36,250	1.16%	38,400	1.32%	41,000	1.19%	43,500
Occupied Dwellings	11,087	254	12,355	207	13,391	202	14,400	160	15,200	200	16,200	230	17,350	230	18,500
Persons per household	2.47		2.45		2.42		2.40		2.38		2.37		2.36		2.35
<i>Resident workforce</i>	12,580		14,926		15,955		16,028		16,546		17,555		18,686		19,789
<i>Employed workforce</i>	14,445		15,337		15,281		16,954		17,374		18,257		19,246		20,185
<i>Net job balance</i>	114.8%		102.8%		95.8%		105.8%		105.0%		104.0%		103.0%		102.0%

Table 6.5: Occupied Private Dwelling Projections by Dwelling Type and Catchment Area - Medium Scenario

Catchment Areas	Single #	Multiple #	Other #	Total #
2016				
Town of Whitsunday	2,699	1,256	122	4,077
Bowen	2,981	504	115	3,600
Collinsville	597	25	6	628
Proserpine	1,222	257	13	1,492
Balance	4,093	420	90	4,603
Total	11,592	2,462	346	14,400
2021				
Town of Whitsunday	2,999	1,262	122	4,383
Bowen	3,065	504	115	3,684
Collinsville	575	24	6	605
Proserpine	1,310	257	13	1,580
Balance	4,437	421	90	4,948
Total	12,386	2,468	346	15,200
2026				
Town of Whitsunday	3,524	1,284	122	4,930
Bowen	3,161	504	115	3,780
Collinsville	560	24	6	590
Proserpine	1,360	257	13	1,630
Balance	4,753	427	90	5,270
Total	13,358	2,496	346	16,200
2031				
Town of Whitsunday	4,116	1,315	129	5,560
Bowen	3,306	509	115	3,930
Collinsville	550	24	6	580
Proserpine	1,438	259	13	1,710
Balance	5,042	436	92	5,570
Total	14,452	2,543	355	17,350
2036				
Town of Whitsunday	4,683	1,366	141	6,190
Bowen	3,449	516	115	4,080
Collinsville	540	24	6	570
Proserpine	1,514	263	13	1,790
Balance	5,326	448	96	5,870
Total	15,512	2,617	371	18,500

Source: Norling Consulting

Table 6.6: Employment Projections by Industry Group and Catchment Area - Medium Scenario

Catchment Areas	Retail #	Commercial #	Community #	Industry #	Other #	Total #
2016						
Town of Whitsunday	915	1,526	467	702	593	4,203
Bowen	666	988	1,082	465	882	4,083
Collinsville	58	116	72	100	70	416
Proserpine	249	317	324	303	204	1,397
Balance	791	1,631	649	1,889	1,896	6,856
Total	2,679	4,578	2,594	3,459	3,645	16,955
2021						
Town of Whitsunday	890	1,525	508	720	593	4,237
Bowen	658	986	1,028	534	904	4,110
Collinsville	56	115	70	103	66	410
Proserpine	242	327	326	313	213	1,421
Balance	792	1,727	648	1,943	2,087	7,196
Total	2,638	4,680	2,580	3,613	3,863	17,374
2026						
Town of Whitsunday	950	1,646	580	811	649	4,636
Bowen	667	999	1,041	541	916	4,164
Collinsville	57	115	70	103	65	410
Proserpine	242	328	328	313	214	1,424
Balance	839	1,753	685	2,058	2,287	7,623
Total	2,755	4,841	2,704	3,826	4,131	18,257
2031						
Town of Whitsunday	1,012	1,771	658	911	709	5,061
Bowen	676	1,014	1,056	549	930	4,225
Collinsville	57	115	70	102	65	409
Proserpine	250	337	337	323	220	1,467
Balance	889	1,859	728	2,183	2,425	8,084
Total	2,884	5,096	2,849	4,068	4,349	19,246
2036						
Town of Whitsunday	1,081	1,912	748	998	804	5,543
Bowen	686	1,030	1,073	558	943	4,290
Collinsville	57	114	69	102	65	407
Proserpine	257	347	347	332	227	1,510
Balance	928	1,940	759	2,277	2,531	8,435
Total	3,009	5,343	2,996	4,267	4,570	20,185

Source: Norling Consulting

Table 6.7: Estimated Resident Population by Dwelling Type and Catchment Area - Medium Scenario

Catchment Areas	Single #	Multiple #	Other #	Total #
2016				
Town of Whitsunday	6,821	2,449	230	9,500
Bowen	7,342	932	186	8,460
Collinsville	1,300	42	8	1,350
Proserpine	3,092	418	70	3,580
Balance	10,739	739	170	11,648
Total	29,294	4,580	664	34,538
2021				
Town of Whitsunday	7,661	2,410	229	10,300
Bowen	7,510	927	183	8,620
Collinsville	1,252	40	8	1,300
Proserpine	3,281	411	68	3,760
Balance	11,377	728	165	12,270
Total	31,081	4,516	653	36,250
2026				
Town of Whitsunday	8,887	2,426	227	11,540
Bowen	7,721	907	182	8,810
Collinsville	1,222	40	8	1,270
Proserpine	3,372	411	67	3,850
Balance	12,034	734	162	12,930
Total	33,236	4,518	646	38,400
2031				
Town of Whitsunday	10,267	2,446	237	12,950
Bowen	8,030	910	180	9,120
Collinsville	1,203	39	8	1,250
Proserpine	3,545	409	66	4,020
Balance	12,749	749	162	13,660
Total	35,794	4,553	653	41,000
2036				
Town of Whitsunday	11,575	2,527	258	14,360
Bowen	8,325	919	176	9,420
Collinsville	1,184	38	8	1,230
Proserpine	3,713	413	64	4,190
Balance	13,370	762	168	14,300
Total	38,167	4,659	674	43,500

Source: Norling Consulting

Table 6.8: Floorspace Projections by Industry Group and Catchment Area - Medium Scenario

Catchment Areas	Retail	Commercial	Community	Industry	Other	Total
	m2	m2	m2	m2	m2	m2
2016						
Town of Whitsunday	29,320	30,514	32,657	84,228	n/a	176,719
Bowen	21,297	19,762	75,740	55,855	n/a	172,654
Collinsville	1,850	2,330	5,038	11,981	n/a	21,199
Proserpine	7,957	6,342	22,687	36,378	n/a	73,365
Balance	25,300	32,610	45,466	226,616	n/a	329,991
Total	85,724	91,558	181,588	415,058	n/a	773,928
2021						
Town of Whitsunday	28,473	30,506	35,591	86,435	n/a	181,005
Bowen	21,043	19,728	71,925	64,116	n/a	176,812
Collinsville	1,837	2,296	4,879	12,300	n/a	21,312
Proserpine	7,730	6,537	22,878	37,514	n/a	74,659
Balance	25,330	34,541	45,335	233,150	n/a	338,356
Total	84,413	93,608	180,608	433,515	n/a	792,144
2026						
Town of Whitsunday	30,412	32,916	40,565	97,356	n/a	201,249
Bowen	21,320	19,987	72,870	64,958	n/a	179,135
Collinsville	1,837	2,296	4,879	12,300	n/a	21,312
Proserpine	7,747	6,550	22,926	37,594	n/a	74,817
Balance	26,833	35,066	48,025	246,985	n/a	356,909
Total	88,149	96,815	189,265	459,193	n/a	833,422
2031						
Town of Whitsunday	32,390	35,427	46,055	109,318	n/a	223,190
Bowen	21,632	20,280	73,938	65,910	n/a	181,760
Collinsville	1,833	2,290	4,867	12,270	n/a	21,260
Proserpine	7,980	6,748	23,619	38,729	n/a	77,076
Balance	28,456	37,187	50,929	261,921	n/a	378,493
Total	92,291	101,932	199,408	488,148	n/a	881,779
2036						
Town of Whitsunday	34,588	38,247	52,381	119,729	n/a	244,945
Bowen	21,965	20,592	75,075	66,924	n/a	184,556
Collinsville	1,824	2,279	4,843	12,210	n/a	21,156
Proserpine	8,214	6,946	24,311	39,864	n/a	79,335
Balance	29,691	38,801	53,141	273,294	n/a	394,927
Total	96,282	106,865	209,751	512,021	n/a	924,919

Source: Norling Consulting

Norling Consulting^{Pty Ltd}
Business & Property Economics

**WHITSUNDAY ECONOMIC AND POPULATION STUDY
– 2021 REVISION**