

Attachments

Ordinary Council Meeting Tuesday, 19 March 2024

Table of Contents

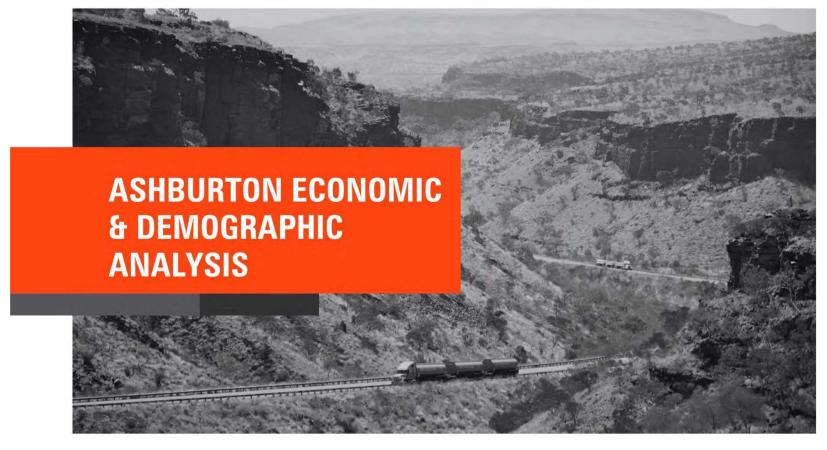
| 6.1 | Shire of Ashbu | rton Economic and Demographic Analysis Report | |
|--------|------------------------------|--|-----|
| | Attachment 1 | Shire of Ashburton Economic and Demographic Analysis Report 2023 | |
| | Attachment 2 | Shire of Ashburton Economic and Demographic Analysis Report 2023 Overview Presentation | |
| 6.2 | Small Business | s Friendly Council Initiatives | |
| | Attachment 1 | Shop Ashburton Campaign Proposal | 110 |
| | Attachment 2 | Whitsunday Small Business Start-Up Program Application Form | 114 |
| 6.3 | Airlie Island Pre | eliminary Conservation and Eco-Tourism Concept | |
| | Attachment 1 | Airlie Island Preliminary Conservation and Eco-Tourism Concept | 122 |
| 10.1.1 | Minutes Of The | e Ordinary Council Meeting Held On 20 February 2024 | |
| | Attachment 1 | Minutes of the Ordinary Council Meeting held 20 February 2024 | 139 |
| 10.2.1 | Minutes Of The February 2024 | e Audit And Risk Management Committee Meeting Held On 20 | |
| | Attachment 1 | Minutes of the Audit And Risk Management Committee Meeting held 20 February 2024 | 289 |
| 10.2.2 | | e Chief Executive Officer's Recruitment and Performance Review eting Held On 20 February 2024 | |
| | Attachment 1 | Minutes of the Chief Executive Officer's Recruitment and Performance Review Committee Meeting held 20 February 2024. | 324 |
| 13.1 | Monthly Financ | ial Statements - February 2024 | |
| | Attachment 1 | Financial Statements - February 2024 | 341 |
| 13.2 | Monthly Sched | ule of Accounts Paid - February 2024 | |
| | Attachment 1 | Schedule of Accounts Paid - February 2024 | 367 |
| 13.3 | Monthly Sched | ule of Accounts Paid - January 2024 | |
| | Attachment 1 | Schedule of Accounts Paid - January 2024 | 388 |
| 13.4 | | nual Budget Review | |
| | Attachment 1 | 2023-2024 Annual Budget Review | 407 |
| 13.5 | Gross Rental V | aluation (GRV) Rating of Transient Workforce Accommodation | |
| | Attachment 2 | FMG - Kartajirri TWA Technical Land Description | 539 |
| | Attachment 4 | MRL - Yarri TWA Technical Land Description | 541 |
| 13.6 | Appointment of | Elected Members to Committees of Council and Working Groups | ; |
| | Attachment 1 | Shire of Ashburton Committees and Working Groups Booklet | 543 |

| 15.1 | | mmunity Arts and Cultural Centre – Support for Proposed Freel rtion of UCL 524 on Deposited Plan 69942 | nold |
|------|---------------|---|------|
| | Attachment 1 | Tenure Map Portion of UCL Lot 524 on DP 69942 | 608 |
| | Attachment 2 | Aerial Map | 610 |
| | Attachment 3 | Letter of Support | 612 |
| | Attachment 4 | Image of Flooded Land | 614 |
| | Attachment 5 | Letter Requesting Support | 616 |
| | Attachment 6 | DPLH Current Offer - 23/02/2024 | 619 |
| 15.2 | Tom Price Spo | orting Working Group - Community Member Selection | |
| | Attachment 1 | Tom Price Sporting Working Group Terms of Reference | 622 |



Agenda Item 6.1 - Attachment 1

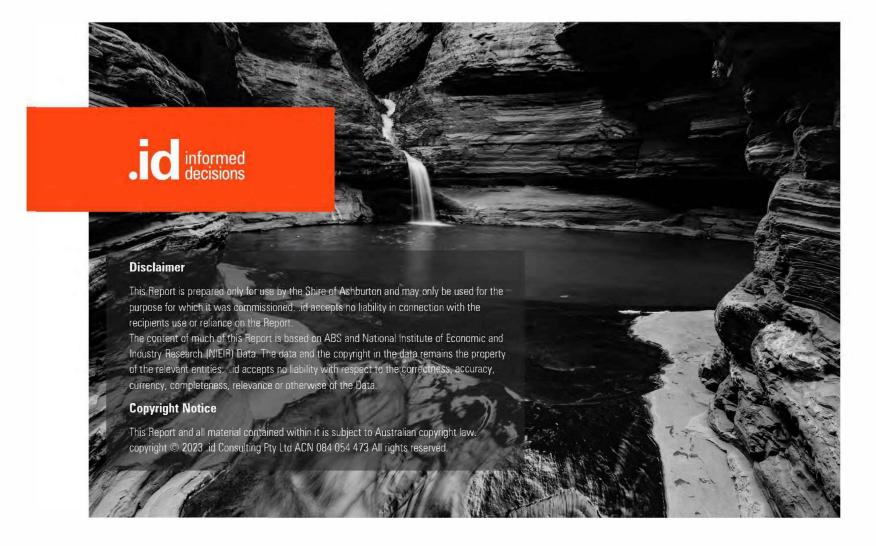
Shire of Ashburton Economic and Demographic Analysis Report 2023



An up to date overview of the local economy, historical trends, and future opportunities







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Data sources and definitions

The economic and employment data for the Shire of Ashburton is sourced from NIEIR. For more information on NIEIR and their methodology please refer to the economy.id website.

The following data is used in this report:

- Australian Business Register, GST Registration (2023)
- Australian Bureau of Statistics, Building Approvals (2023)
- Australian Bureau of Statistics, Regional Population Growth (2023)
- Australian Bureau of Statistics, Census of Population and Housing 2006, 2011, 2016 and 2021 estimates
- Australian Bureau of Statistics, Weekly Payroll Jobs and Wages in Australia (2023)
- Department of Employment, Small Area Labour Market (2023)
- NIEIR (National Economics), Small area estimates of employment and economic value (2023)

The following terms and acronyms are used in this report:

- ABS: Australian Bureau of Statistics
- DZN: Destination Zone (ABS Journey to Work small area geography)
- LGA: Local Government Area
- LQ: A Location Quotient is a way of seeing which are the main industries in an area, relative to a larger benchmark region. A number greater than 1 suggest the industry is over-represented locally and could be a specialisation
- SA2: Statistical Areas Level 2 (SA2) are medium-sized general purpose areas used by the ABS for statistical analysis purposes



Shire of Ashburton I Economic and Demographic Analysis

Executive Summary

This report provides insights into Ashburton's economic dynamics, workforce characteristics, population trends, and the impact of major projects on its development trajectory over the last twenty years. It concludes with an analysis of potential opportunities for growth going forward and challenges that may inhibit growth or diversification.

Economic and Demographic Overview

- Ashburton's economy is dominated by extractive industries and the construction that supports it. Worker productivity is four times higher than the average for regional Western Australian workers.
- The workforce in Ashburton is characterized by a younger and predominantly male population. There is a higher representation of Indigenous workers and overseas-born workers.

How is the economy performing?

- Employment levels in Ashburton have decreased rapidly in recent years, particularly following the completion of major gas projects like Gorgon and Wheatstone. The workforce has dropped from a peak of over 26,000 workers to an estimated 16,357 workers in 2022.
- Ashburton consistently maintains one of the lowest unemployment rates in Australia, hovering around 1% for over a decade. This is influenced by a high temporary resident population, and when jobs decrease, workers/residents leave.
- The LGA of Ashburton experienced the largest % decline in population out of all LGAs in Australia between 2016 and 2022

What is driving conditions?

- The construction industry played a pivotal role in Ashburton's economic growth, driven by major projects. In a five-year period to 2013/14, approximately \$2 billion in building work was approved in the LGA.
- However, upon project completion most workers left. Worker numbers rose from an estimated 2,000 in 2011 to almost 10,000 in 2016 before falling back to 1,854 in 2022.
- Productivity has experienced exceptional growth as the operational phases of gas and iron or projects are far less labour intensive.

Industry competitive analysis

- Ashburton's economy is highly concentrated, with 66% of local employment in the Mining industry. While it is more diverse than East Pilbara. it is less diversified than Karratha and Port Hedland.
- Even when compared to the Pilbara region, Ashburton's specialisations in Oil and Gas, Heavy and Civil Engineering and Metal Ore Mining come through.
- Smaller specialisations in terms of job numbers include Agriculture (livestock farming), Real Estate/Property management, and Administrative Services (mostly employment services).
- Ashburton's economy is considerably under-represented in terms of Health and Social Assistance Services employment.



Shire of Ashburton I Economic and Demographic Analysis

Item 6.1 - Attachment 1

Executive Summary

What are the demographic drivers?

- Since the boom in resource projects, Ashburton has consistently had a much higher level of people being present in the LGA (enumerated population within the Census) than the resident population would suggest.
- During the construction peak, Ashburton attracted new residents, particularly from Greater Perth, Overseas and Queensland.
 However, after project completion, there was a shift in migration patterns, resulting in a net loss of residents to regional WA and Queensland.
- There were just over 2,000 less people in Ashburton in 2021 who said they were born overseas compared to 2016. The main loss of people appears to have been from New Zealand and the United Kingdom.
- Inward and outward movements of the enumerated population during the last decade have overwhelmingly been amongst the male population.
- New migrants to Ashburton more likely to come from Greater Perth compared to the rest of the Pilbara; New residents less likely to be parents but most coming to the region in a relationship
- Ashburton has a very high share of residents who work locally, however, this figure did fall slightly between 2016 and 2021 from 90% to 87%.
- The region has a very non-local workforce and the share of the workforce residing locally has fallen between censuses. In 2016,

an estimated 1 in 3 workers resided in Ashburton. In 2021, this had fallen to 1 in 4.

What is the skill profile of the workforce?

- Ashburton has a higher prevalence of vocational qualifications compared to the regional WA average, particularly in engineering fields. There has been a slight increase in degrees, but business skills growth is minimal compared to the state average.
- The qualification fields that grew the strongest between 2016 and 2021 were quite diverse including education related studies, environmental/geology sciences, health, and welfare. There were large losses in technical trades due to the exodus of construction workers.

Future growth prospects

- Ashburton's future is still tied to the resource based industries with short to medium term demand for gas and iron ore to continue and longer term growth in critical minerals.
- Risks from global competition, potential downturns in China, regulatory changes, and competition for investment in the Pilbara region are challenges to navigate
- Renewable energy develops offer opportunities to decarbonize high emission industries.
- Ashburton's small and dispersed population base limit its capacity to compete with larger towns like Karratha and Port Hedland for commercial investment and larger essential facilities.



Shire of Ashburton I Economic and Demographic Analysis

Executive Summary

- Decommissioning oil and gas infrastructure presents employment opportunities for the Construction sector.
- In Tourism, infrastructure upgrades, nature-based/ecotourism development, indigenous tourism expansion, and targeted campaigns for FIFO workers/families present growth avenues.
- In Agriculture, the exploration of irrigated agriculture in alluvial floodplains, technology adoption, and native food crops present growth opportunities.
- In Education, the region has the potential for remote learning facilities, and leveraging major employers for new training facilities, focusing on relevant emerging course.
- Other areas that have the potential to support employment and economic diversity opportunities include the space and marine sectors.



Shire of Ashburton I Economic and Demographic Analysis

Contents page

01

Economic & Demographic Overview

05

What are the demographic drivers?

02

How is the economy performing?

06

What is the skill profile of the workforce?

03

What is driving recent conditions?

07

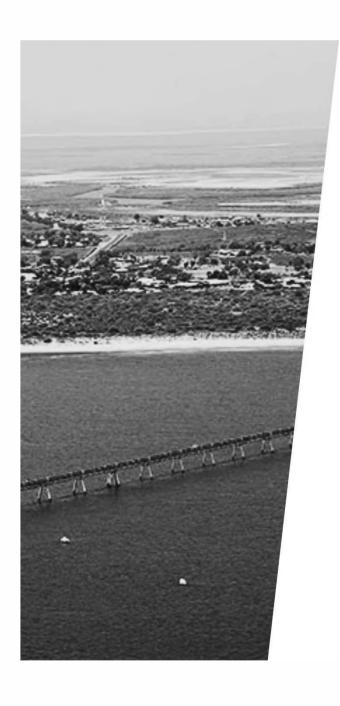
Future growth prospects

04

Industry competitive analysis



Shire of Ashburton I Economic and Demographic Analysis



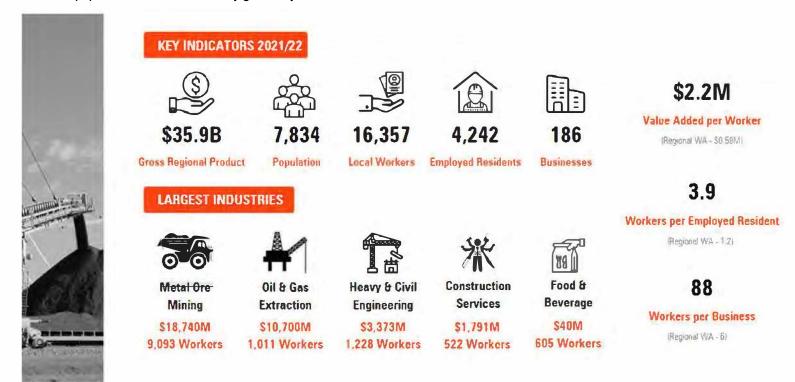
Economic & demographic overview

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Ashburton's economy dominated by high value resource-based industry activity

Ashburton's economy is arguably the most economically productive in Australia with each worker estimated to generate \$2.2M in value added in 2021/22. This is four times the average regional Western Australian worker. The high FIFO population means there were almost 4 workers for every employed resident in 2022. This means the actual population in the Shire on any given day is well above the

estimated resident population of 7,834 in 2022. The prominence of a few major employers means there were an estimated 88 workers per local registered business in Ashburton. This contrasts with the regional Western Australia average where the abundance of small companies means there are typically 6 workers per business.

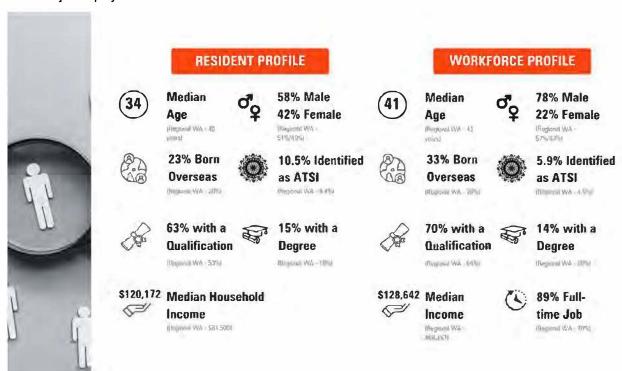


Shire of Ashburton I Economic and Demographic Analysis

Ashburton's workforce is older and more male-orientated than the resident base. The workforce has a lower share of Indigenous, but a higher share of overseas born.

Ashburton's economy is arguably the most economically productive in Australia with each worker estimated to generate \$2.2M in value added in 2021/22. This is four times the average regional Western Australian worker. The high FIFO population means there were almost 4 workers for every employed resident in 2022. The prominence of a few major employers means there were an

estimated 88 workers per local registered business. This contrasts with the regional Western Australia average where the abundance of small companies means there is typically 6 workers per business.





Shire of Ashburton I Economic and Demographic Analysis



How is the economy performing?

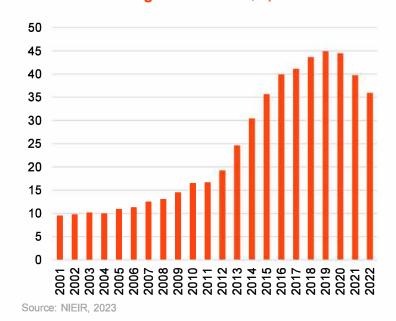
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Ashburton's economy has experienced a substantial boom and recent bust (decline) common in many resource industry dependent areas

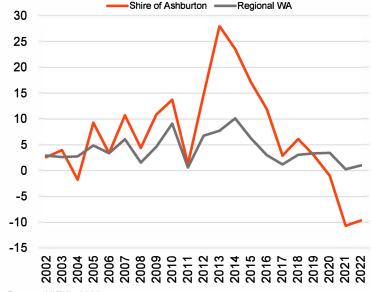
Ashburton's economy in the last 10 to 15 years has experienced considerable change in levels of activity. In the early 2000s, Ashburton was still a substantial contributor to the state supporting around 5.5% of total state production value. However, by 2019 the economy was generating \$45M in Gross Regional Product which represented over 12% of the state's economy.

In recent years, with the completion of major gas projects and the transition to production phase, the economy has slowed. In fact, it is estimated that the last three years have seen a decline in GRP in the Ashburton LGA.

Estimated Gross Regional Product \$B, 2001 to 2022



% Change in GRP, 2002 to 2022



Source: NIEIR. 2023

Shire of Ashburton I Economic and Demographic Analysis

Page 17 Item 6.1 - Attachment 1

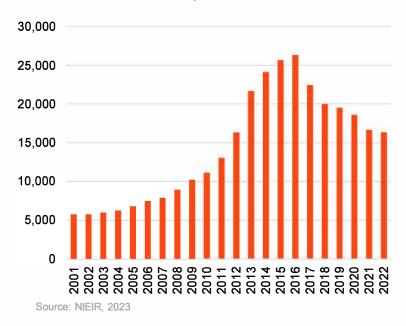
Ashburton's employment levels have dropped rapidly in recent years as a result of the completion of major gas projects – Gorgon and Wheatstone

Ashburton's economy has generally supported more employment opportunities than can be provided by the local resident base. At the turn of the century, there was an estimated 1.5 jobs for every employed resident.

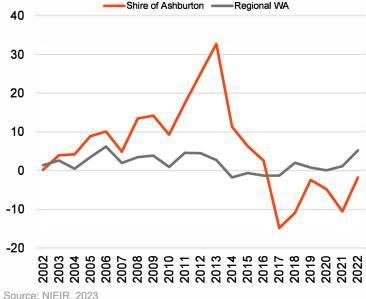
However, the development of major resource industry projects required an exceptionally large workforce. At its peak in 2016,

Ashburton's economy supported over 26,000 workers. With the completion of these projects, employment has decreased substantially. In 2022, it was estimated that there were 16,357 workers - 10,000 less than the peak.

Estimated Local Workers, 2001 to 2022



% Change in Local Workers, 2001 to 2022



Shire of Ashburton I Economic and Demographic Analysis

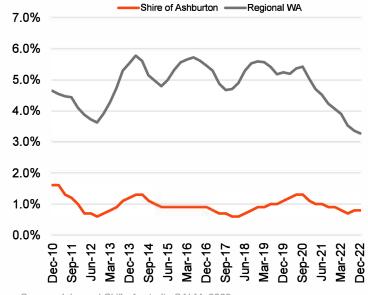
Unemployment levels in Ashburton are consistently one of the lowest in Australia. However, this reflects an area of high temporary residents when jobs decrease, workers leave

The average unemployment level in Ashburton has hovered around 1% for over a decade. This is about 4 percentage points lower than the regional WA average for the same period.

Even when compared to neighbouring shires, Ashburton's unemployment rate stands out. In June 2022, the rate of 0.7% was the lowest in the country and half that of adjacent shires.

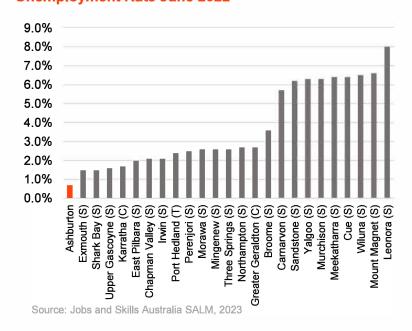
The low rate suggests that not only is the labour market very tight, but also that if a resident doesn't have employment they more than likely leave the region or are not engaged in the labour force.

Unemployment Rate, 12 month rolling average



Source: Jobs and Skills Australia SALM, 2023

Unemployment Rate June 2022



Shire of Ashburton I Economic and Demographic Analysis



The resident population has fallen in line with the loss of jobs and stands in contrast to the other shires in the Pilbara

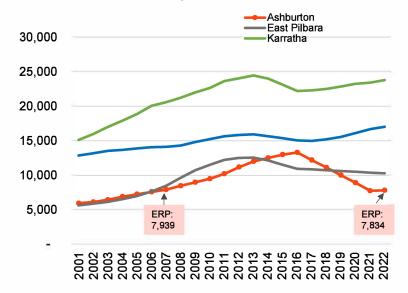
In 2001, Ashburton's resident population was equivalent to the LGA of East Pilbara (approx. 6,000 residents). Fifteen years of solid growth saw the region more than double to reach an estimated 13,300 residents in 2016. This was only 1,750 residents short of Port Hedland.

Since 2016, the region has lost an estimated 5,500 residents.

In fact, the resident population in 2022 of 7,834 was estimated to be equivalent to that 15 years prior in 2007 (7,939). This contrasts with neighbouring shires that have either grown or experienced marginal decreases.

The LGA of Ashburton experienced the largest % decline in population out of all LGAs in Australia between 2016 and 2022

Estimated Resident Population, 2001 to 2022



Source: ABS Regional Population Growth

Change in Estimated Resident Population, 2001 to 2022

| | 2001 to 2006 | 2006 to 2011 | 2011 to 2016 | 2016 to 2022 |
|-----------------|--------------|--------------|--------------|--------------|
| Ashburton | 27% | 34% | 30% | -41% |
| East Pilbara | 36% | 60% | -11% | -6% |
| Karratha | 33% | 18% | -6% | 7% |
| Port Hedland | 9% | 11% | -4% | 13% |

Source: ABS Regional Population Growth



Shire of Ashburton I Economic and Demographic Analysis



What is driving recent conditions

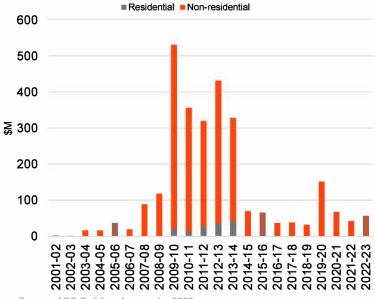
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Employment levels were driven by a major construction boom in the resources industry

Most of Ashburton's jobs growth and decline can be attributed to the development of major projects. This can be seen when looking at building approvals. In a five-year period to 2013/14, approximately \$2 billion in building work was approved in the LGA. On an annual basis during that period, this represented 3-4% of the state's total approved building value.

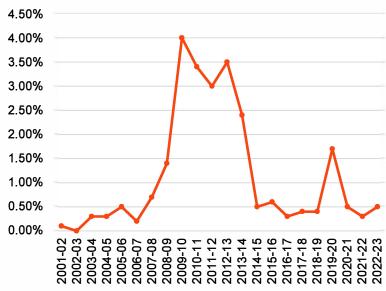
The value approved has been nearly all in non-residential construction. In fact, in the 22 years to 2023, only 581 residential dwellings have been approved in the LGA. This equated to \$332M in value, or 11.7% of total buildings approved.

Value of Buildings Approved, 2001 to 2022



Source: ABS Building Approvals, 2023

Shire of Ashburton as a % of State Building Approvals



Source: ABS Building Approvals, 2023



Shire of Ashburton I Economic and Demographic Analysis

The Gorgon and Wheatstone Gas projects has substantial impacts on economic conditions in the shire

Major resource projects were approved in the late 2000s which led to an increasing need for workers. Some of these workers chose to reside locally while many adopted fly-in-fly-out lifestyles. The 'resident' population increased substantially during this period with most living in purpose built worker communities. The low approval of residential

Population and Workers

Gorgon & Wheatstone
Gas Project Major
Construct on

Workers

30,000
25,000
15,000
10,000
5,000
0

Source: ABS & NIEIR, 2023



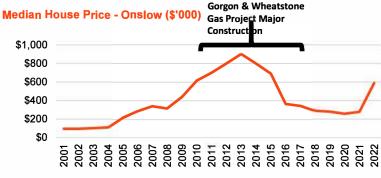
Source: NIEIR, 2023



dwelling saw median house prices and rents skyrocket in places such as Onslow. As the construction phase transitioned to operational, thousands of workers left. The 'resident population declined and house prices fell. Gross Regional Product has remained elevated due to the high value of mining and gas production.



Source: ABS, 2023



Source: REIWA, 2011 and 2023

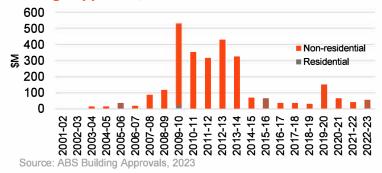
Shire of Ashburton I Economic and Demographic Analysis

Ashburton's construction activity contrasts with Port Hedland and Karratha which experienced a greater level of residential building approvals

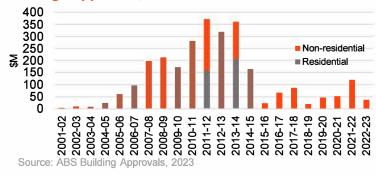
There is a clear contrast in terms of construction approved within the Pilbara shires. The larger centres of Karratha and Port Hedland also experienced large building approvals, but the construction boom started a little earlier and was better split between residential and non-residential.

In the 8 years to 2014/15, only 7% of the value of Ashburton's buildings approved was residential compared to 49% for Karratha and 57% for Port Hedland. An estimated 318 dwellings were approved in Ashburton compared to 3,000 in both Karratha and Port Hedland. Even East Pilbara approved more (725) in the same period.

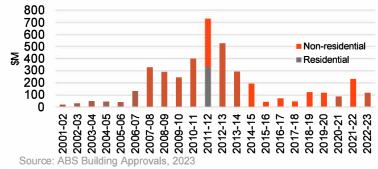
Buildings Approved, Ashburton



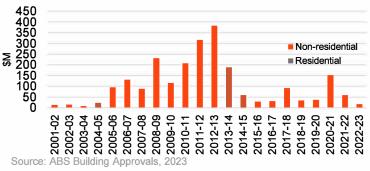




Buildings Approved, Karratha



Buildings Approved, East Pilbara



Shire of Ashburton I Economic and Demographic Analysis



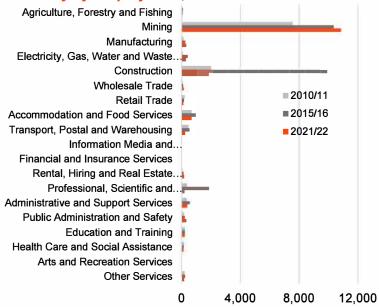
The two industries which have experienced the largest fluctuation in employment over the last decade are Construction and Professional and Technical Services

It is no surprise that Construction was the most impacted industry over the last decade. Worker numbers rose from an estimated 2,000 in 2011 to almost 10,000 in 2016 before falling back to 1,854 in 2022.

The second most impacted industry has been Professional and Technical Services and overwhelmingly this has been in Architectural, Engineering and Technical Services.

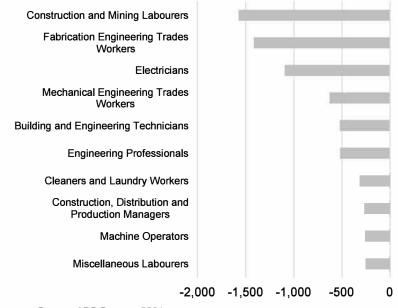
The 2021 Census showed substantial falls in technicians, tradies and labourers between 2016 and 2021 in Ashburton. The numbers of engineering related workers at all skill levels were also impacted after the completion of the major projects.

Industry by Employment, 2011 to 2022



Source: NIEIR, 2023

Change in State Occupation, 2016 to 2021



Source: ABS Census, 2021

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Shire of Ashburton I Economic and Demographic Analysis

The components of economic growth have changed over the twenty years; recent years have seen strong productivity growth as resource projects move into the production phase

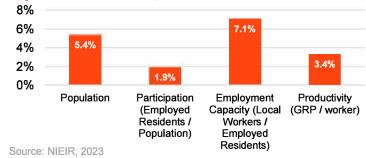
Population growth averaged 5-6% in the decade to 2011. The ratio of workers to local employed residents grew by 3-4% as resource projects started to increase due to the growing WA mining boom. Labour productivity actually declined during this period as work was mostly labour intensive.

In the period 2011 to 2016, when the big gas projects were being constructed all components of growth were very high. Productivity also grew as production value of iron ore and gas started to increase considerably. Between 2016 and 2021, the 'resident' population declined substantially. Productivity experienced exceptional growth as the operational phases are far less labour intensive.

Components of Growth, 2001 to 2006 6%4% 5.0% 3.3% 2% 0% -1.9% -2.8% -2% -4% Population Participation Employment Productivity Capacity (Local (GRP / worker) (Employed Residents / Workers / Population) **Employed**

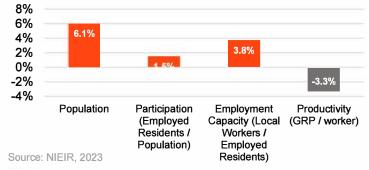
Residents)



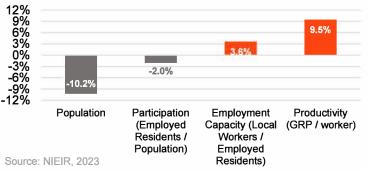


Components of Growth, 2006 to 2011

Source: NIEIR. 2023



Components of Growth, 2016 to 2021



Shire of Ashburton I Economic and Demographic Analysis

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04
Industry
competitive

analysis

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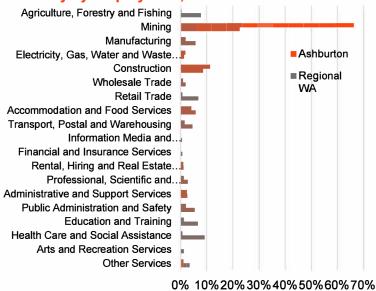
Ashburton has a highly concentrated industry structure, slightly more diverse than East Pilbara but far less diversified than Karratha and Port Hedland

In 2022, it was estimated that 66%, or two thirds, of Ashburton's local employment was in the Mining industry. This was almost three times the regional WA average. Compared to other LGAs in the Pilbara region, Ashburton most closely resembled East Pilbara which was even more concentrated in Mining. Utilising census data, a comparison of industry diversity can be calculated. The Herfindahl–Hirschman index measures market concentration but can also be

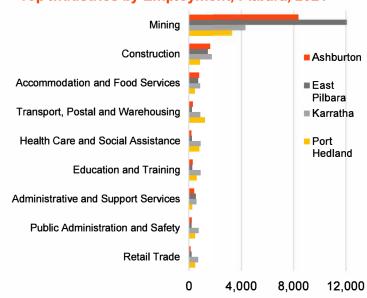
used to illustrate how concentrated activity is in an economy within one or a few industries. Ashburton's HHI was 0.42 in 2021, compared to 0.51 for East Pilbara, and 0.15 for both Karratha and Port Hedland. For regional WA as a whole it is 0.09.

A HHI below 0.15 suggests low concentration and high diversity, above 0.25 suggests very high concentration-low diversity.

Industry by Employment, 2022



Top Industries by Employment, Pilbara, 2021



Source: ABS Census 2021

Source: NIEIR, 2023



Shire of Ashburton I Economic and Demographic Analysis

Ashburton's local workforce has obvious specialisations in Oil and Gas, Metal Ore Mining and Civil Engineering

As noted already, Ashburton has a much higher share of employment in Mining compared to the regional WA average. Other over-represented industries include construction and utilities.

Even when compared to the Pilbara region, Ashburton's specialisations in Oil and Gas, Heavy and Civil Engineering and Metal Ore Mining come through.

Level of specialisation - Ashburton

| Jobs | Value Added |
|------|--|
| 2.9 | 1.1 |
| 1.4 | 0.1 |
| 1.3 | 2.9 |
| 0.9 | 0.3 |
| 0.9 | 0.5 |
| 0.7 | 0.3 |
| 0.5 | 0.2 |
| 0.5 | 0.1 |
| 0.4 | 0.1 |
| 0.4 | 0.1 |
| 0.3 | 0.1 |
| 0.3 | 0.1 |
| 0.3 | 0.1 |
| 0.2 | 0.1 |
| 0.1 | 0.0 |
| 0.1 | 0.0 |
| 0.0 | 0.0 |
| | 2.9 1.4 1.3 0.9 0.7 0.5 0.5 0.4 0.4 0.3 0.3 0.3 0.2 0.1 |

Smaller specialisations in terms of job numbers include Agriculture (livestock farming), Real Estate/Property management, and Administrative Services (mostly employment services).

Specialisation by detailed industry - Ashburton

Compared to Regional WA (in LQ terms)

| Industry | Jobs | % of total | Specialisation |
|---|-------|------------|----------------|
| Gas Supply | 216 | 1.3% | 12.06 |
| Petroleum and Coal Product Manufacturing | 83 | 0.5% | 9.29 |
| Oil and Gas Extraction | 1,011 | 6.2% | 5.99 |
| Heavy and Civil Engineering Construction | 1,228 | 7.5% | 4.11 |
| Metal Ore Mining | 9,093 | 55.6% | 3.43 |
| Non-Metallic Mineral Product Manufacturing | 70 | 0.4% | 2.02 |
| Administrative Services | 315 | 1.9% | 1.79 |
| Waste Collection, Treatment and Disposal Services | 84 | 0.5% | 1.25 |
| Machinery and Equipment Wholesaling | 108 | 0.7% | 1.12 |

Specialisation by detailed industry - Ashburton

Compared to Pilbara Region (in LQ terms)

| Industry | % of total | Specialisation |
|---|------------|----------------|
| Oil and Gas Extraction | 4.8% | 1.68 |
| Heavy and Civil Engineering Construction | 7.3% | 1.52 |
| Agriculture | 0.5% | 1.45 |
| Mining, nfd | 2.2% | 1,41 |
| Property Operators and Real Estate Services | 0.8% | 1.31 |
| Construction, nfd | 1.2% | 1.30 |
| Metal Ore Mining | 53.2% | 1.23 |
| Food and Beverage Services | 5.0% | 1.18 |
| Administrative Services | 2.2% | 1.16 |



Shire of Ashburton I Economic and Demographic Analysis

In terms of the largest employing industries in the Pilbara, Ashburton is under-represented in retail, Health, Education, Public Admin, and Transport Services

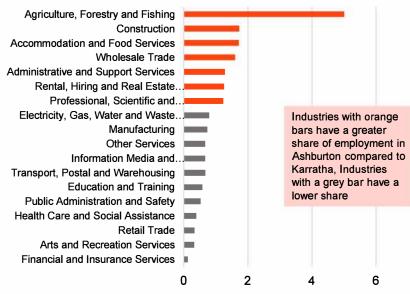
In 2021, Ashburton had a local workforce size on par with Karratha's despite having a much smaller residence base. Ashburton's economy was clearly more concentrated in Mining. If we remove the influence of this sector for analytical purposes we can identify the different economic structures better.

Karratha had a much larger share of employment in population

servicing industries - health, education, retail, public admin. It also had more employment in Transport due to having a major port (Dampier) and larger Airport.

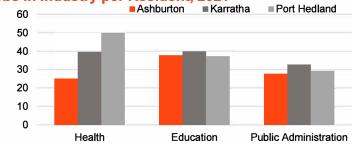
In 2021, Karratha and Port Hedland had slightly more jobs per residents in health and public service areas but far more jobs when comparing to the enumerated population (accounts for FIFO).

LQ Ashburton compared to Karratha (exc. Mining), 2021



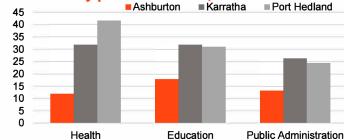


Jobs in Industry per Resident, 2021



Source: ABS Censuses 2021

Jobs in Industry per Enumerated, 2021



Source: ABS Censuses 2021

Shire of Ashburton I Economic and Demographic Analysis

Page 30 Item 6.1 - Attachment 1

The lack of health services employment in Ashburton appears more connected to size of resident population rather than demographics

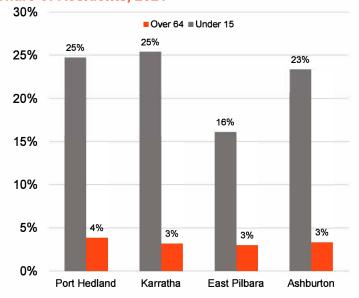
Ashburton's economy is considerably under-represented in terms of Health and Social Assistance Services employment. This industry's demand is usually driven by demographics (older residents and preschool aged children for child care).

While Ashburton did have a slightly smaller share of older residents and children than Karratha and Port Hedland, it is arguably not significant enough to account for the large differences in employment.

It appears the size of the residence base, which has triggered large investment in the size and scale of medical facilities, is more of a factor.

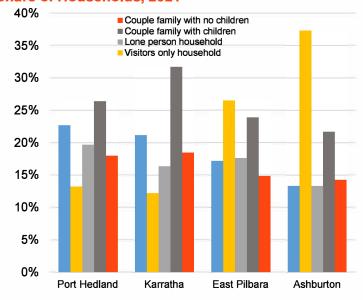
Ashburton has a workforce larger than Port Hedland, but appears most of this workforce is accessing health services outside the region (most likely Greater Perth)

Share of Residents, 2021



Source: ABS Census 2021





Source: ABS Census 2021



Shire of Ashburton I Economic and Demographic Analysis



<u>05</u>

What are the demographic drivers?

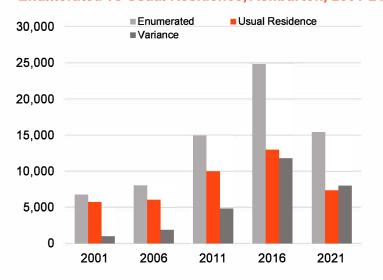
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Since the boom in resource projects, Ashburton has consistently had a much higher level of people being present in the LGA than the resident population would suggest

In the 2001 Census, the level of resident population was not vastly different from the enumerated population (total people counted in a location on census night, but not necessarily residing there). There was an extra 1,049 people, or 18% more. During the peak of the construction boom, this variance grew to almost 12,000 people. The enumerated figure was 91% higher than the residence base.

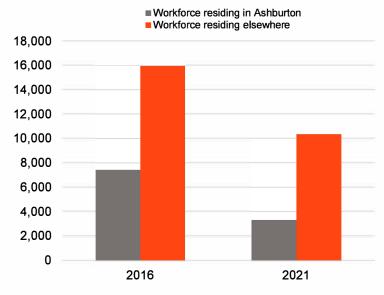
By 2021, Ashburton had lost both residents and workers residing elsewhere. The variance was lower (8,000) but higher in % terms (109%). Place of work employment data from the Census shows 16,000 local workers said they resided outside Ashburton in 2016. By 2021, this figure had fallen to 10,000. In addition, the workers stating they also resided in Ashburton had more than halved from 7,400 to 3,300 in the same period.

Enumerated vs Usual Residence, Ashburton, 2001-21



Source: ABS Censuses 2001 to 2021

Residence of Workforce, Ashburton, 2016 and 2021



Source: ABS Censuses 2001 to 2021



Shire of Ashburton I Economic and Demographic Analysis

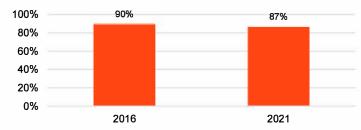
Only 1 in every 4 workers resided locally in 2021

Ashburton has a very high share of residents who work locally, however, this figure did fall slightly between 2016 and 2021 from 90% to 87%.

The region has a very non-local workforce and the share of the workforce residing locally has fallen between censuses. In 2016, an estimated 1 in 3 workers resided in Ashburton. In 2021, this had fallen

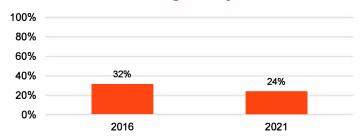
to 1 in 4. The biggest source of non-local workers are the two coastal outer Perth areas of Wanneroo and Rockingham.

Share of Residents Working Locally



Source: ABS Censuses 2016 and 2021

Share of Workers Residing Locally



Source: ABS Censuses 2016 and 2021

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Source of non-local workers, 2021

| Location | % Share |
|------------|---------|
| Wanneroo | 6.4% |
| Rockingham | 6.1% |
| Swan | 4.9% |
| Mandurah | 4.4% |
| Stirling | 4.3% |
| Joondalup | 3.9% |
| Cockburn | 2.8% |
| Gosnells | 2.3% |
| Armadale | 2.1% |
| Kalamunda | 1.8% |

Source: ABS Census 2021

Shire of Ashburton I Economic and Demographic Analysis

Tom Price is Ashburton's largest population centre and has grown in enumerated population in recent years; Barrow island and Onslow have experienced a substantial loss in enumerated population since the completion of Gorgon

In 2022, Tom Price was estimated to be Ashburton's largest place of residence with a resident population of 3,116 (almost 40% of the LGA's total). It most likely services a greater population than this with numerous mining villages bringing the estimated enumerated population to over 6,000 within a driving catchment of Tom Price in 2021.

Paraburdoo is the next largest locality with an estimated resident population of 1,394 in 2022. Once again, its service catchment would be much greater with mining villages like Western Range lying just outside the town borders.

Onslow was estimated to be home to 874 residents in 2022. Greater Onslow which includes Wheatstone Village was estimated to have a population of over 8,000 in 2016. In 2021, this had fallen to less than 2,000. Barrow Island has also seen considerable change. Home to almost 6,000 people (enumerated) in 2016, it is now estimated to be less than 300 people.

Pannawonica is the fourth largest community, home to an estimated 721 residents in 2022.



Estimated Change in Population, 2016 to 2021

| Area | 2016 Enum. | 2016 Usual residence | 2021 Enum. | 2021 Usual residence | 2022 ERP* | Change 2016 to 2021 Enum. | Change 2016 to 202' Usual residents |
|-----------------------|---------------|-------------------------|---------------|-------------------------|--------------|---------------------------------|--|
| Wakathuni | 78 | 80 | 88 | 79 | | 10 | -1 |
| Barrow Island | 5,731 | 1,963 | 248 | 44 | | -5,483 | -1,919 |
| Pannawonica | 953 | 694 | 769 | 685 | 721 | -184 | -9 |
| Paraburdoo | 1,687 | 1,354 | 1,659 | 1,316 | 1,394 | -28 | -38 |
| Greater Paraburdoo | 3,478 | 1,842 | 2,850 | 1,379 | | -628 | -463 |
| Onslow | 1,183 | 851 | 1,492 | 812 | 874 | 309 | -39 |
| Greater Onslow | 8,118 | 3,955 | 1,907 | 885 | | -6,211 | -3,070 |
| Tom Price | 3,286 | 2,960 | 3,508 | 2,911 | 3,116 | 222 | -49 |
| Greater Tom Price | 5,965 | 4,073 | 6,837 | 3,705 | | 872 | -368 |
| Remainder** | 1,064 | 429 | 2,837 | 617 | | 1,773 | 188 |
| Total LGA | 24,859 | 13,023 | 15,446 | 7,393 | 7,834 | -9,413 | -5,630 |

Source: ABS Census 2016 and 2021; ABS Regional Population Growth; *2022 ERP estimates for non-townships are not available; ** Remainder is LGA minus smaller localities and 'Greater' township areas.

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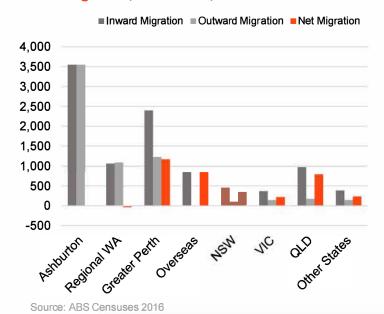
Cinformed decisions

During the construction peak, Ashburton was attracting a large amount of new residents from Perth, Queensland and Overseas

Between 2011 and 2016, the largest source of new residents (and likely workers) according to stated migration patterns on the census was from Greater Perth. Almost 2,500 people stated they had moved to Ashburton in the last five years and net migration (inward minus those who had left Ashburton) was +1,170.

In the same period, net migration from Queensland was also high (+800) as the region attracted workers with similar skills from that

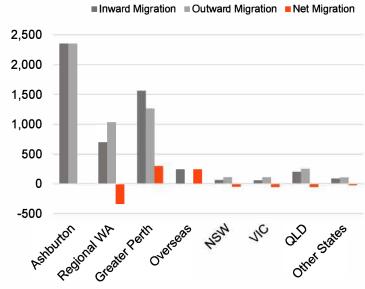
Stated migration, Ashburton, 2011 and 2016



state (Gladstone which is also home to a major gas plant was the largest source after Brisbane).

In the period 2016 to 2021, migration patterns had changed considerably. The completion of major projects and impacts of COVID meant net migration from Perth was only +300 and Ashburton actually saw a net loss of residents to regional WA and QLD.

Stated migration, Ashburton, 2016 and 2021



Source: ABS Censuses 2021



It is important to note that almost 2,300 Ashburton residents did not state where they resided 5 years previous in 2016 and 1,400 in 2021. There is no way of knowing how many previous Ashburton residents moved overseas, or moved elsewhere but didn't state they had previously resided in Ashburton. It is likely to be in the thousands.

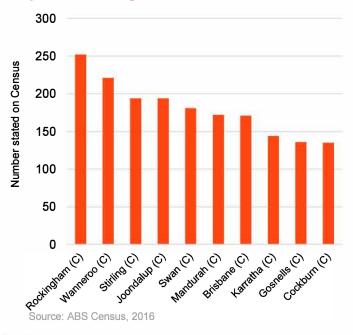
Shire of Ashburton I Economic and Demographic Analysis

Outer Perth areas were the main source of residents/workers during peak; many went back to Perth after project completion but also to regional WA cities with good flight connections

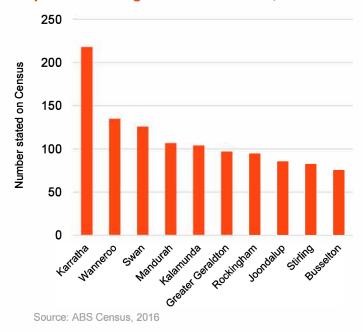
Looking closer at where people who moved to Ashburton between 2011 and 2016 came from, it can be seen that a large amount came from outer suburbs of Perth. Most were employed as technicians, machine operators and labourers. The inner coastal shire of Stirling was the third highest source of inward migration, boosted by the highest source location for residents occupied as professionals.

Between 2016 and 2021 when there was an estimated large out migration, the largest stated destination by far was the adjoining LGA of Karratha. Outer Perth areas were also high as expected. The regional cities of Geraldton and Busselton also appear as key destinations. Busselton Airport had a major upgrade in 2017 and Geraldton Airport in 2019 which may also have contributed to workers choosing to fly-in-fly-out rather than reside in Ashburton.

Top Domestic Migration Sources, 2011 to 2016



Top Domestic Migration Destinations, 2016 to 2021



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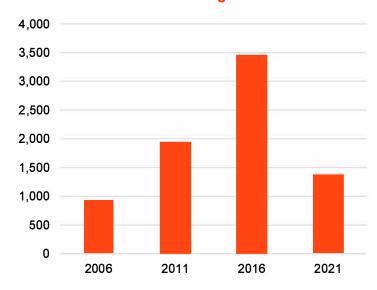
• Cinformed decisions

There was a fall of more than 2,000 overseas born residents in Ashburton between 2016 and 2021; most of this loss was due to NZ and UK residents returning home

Censuses can provide an indication of people who have migrated to a region from overseas, but they cannot estimate directly how many people have left a region to go overseas.

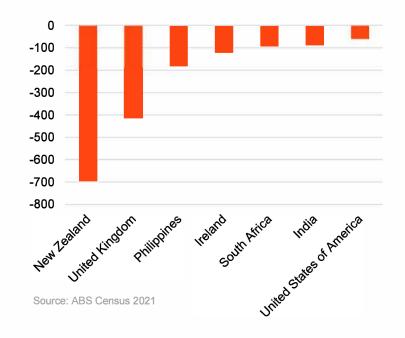
However, if we look at stated numbers of overseas born between Census periods we can clearly see there must have been a large exodus between 2016 and 2021. There were just over 2,000 less people in Ashburton in 2021 who said they were born overseas compared to 2016. The main loss of people appears to have been from New Zealand (694 less Ashburton residents stated they were born in NZ in 2021, compared to 2016) and the United Kingdom (-411).

Stated Overseas Born residing in Ashburton



Source: ABS Censuses 2006 to 2021

Change in Overseas Born, 2016 to 2021



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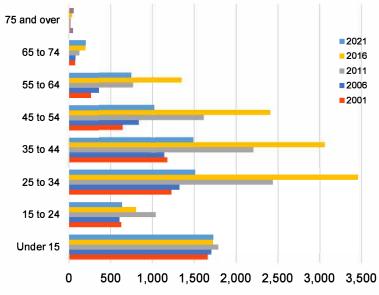
Shire of Ashburton I Economic and Demographic Analysis

The majority of demographic change has occurred in the working age population between 25 to 54; migration and workforce change appears to be evenly split between Australian and Overseas born

The largest change in terms of age brackets for Ashburton residents during the last 15 years was in the 25 to 54 key working age bracket. In particular, 24 to 35 year olds went from 1,300 stated residents in the 2006 Census to almost 3,500 in 2016 and then back to 1,500 in 2021. The number of children has hardly changed in twenty years suggesting the region is clearly not attractive to new families.

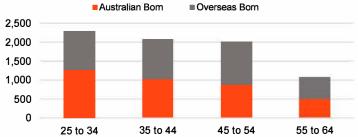
If we look at enumerated numbers, the same patterns are evident with more than 2,000 extra 25 to 34 year olds in 2016 compared to 2011 and then almost 3,000 less in 2021. Interestingly, the split in terms of where the enumerated were born suggests high rates of overseas workers and/or NZ/UK born from outer Perth suburbs.

Stated Residents by Age Group, 2001 to 2021



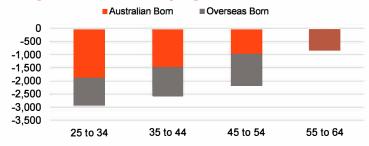
Source: ABS Censuses 2001 to 2021

Change in Enumerated by Age, 2011 to 2016



Source: ABS Censuses 2011, 2016

Change in Enumerated by Age, 2016 to 2021



Source: ABS Censuses 2016, 2021

Shire of Ashburton I Economic and Demographic Analysis

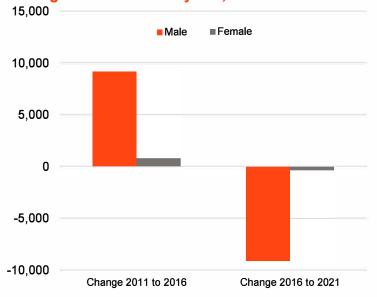


Demographic change has overwhelmingly been within movements of working age males

Inward and outward movements of the enumerated population during the last decade have overwhelmingly been amongst the male population. Between the 2011 and 2016 censuses, an extra 9,150 males were recorded compared to only 830 females. In contrast, in 2021 almost 9,100 fewer males were recorded compared to 2016. Female numbers changed by only 355.

The change in respective numbers meant that 1 in 3 people recorded in the 2021 census were female compared to only 1 in 5 in 2016. The resident split in 2021 (58% male, 42% female) was back to that experienced in the 2006 Census.

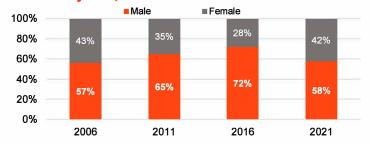
Change in Enumerated by Sex, 2011 to 2021



Source: ABS Censuses 2011 to 2021

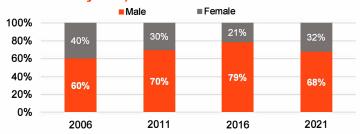
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Residents by Sex, 2006 to 2021



Source: ABS Censuses 2006 to 2021

Enumerated by Sex, 2006 to 2021



Source: ABS Censuses 2006 to 2021

Shire of Ashburton I Economic and Demographic Analysis

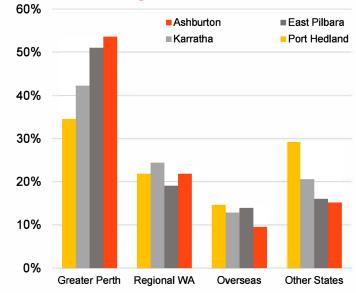
New migrants to Ashburton more likely to come from Greater Perth compared to the rest of the Pilbara; New residents less likely to be parents but most coming to the region in a relationship

Ashburton was still attracting new residents despite also losing large amounts between 2016 and 2021. In comparison to other LGAs in the Pilbara, Ashburton was seeing a greater share of in-migration from Perth and less from overseas or interstate.

New residents were less likely to be parents than those moving to Karratha or Port Hedland which reflects the greater facilities for families in these locations.

However, Ashburton had a higher share of new residents being in a relationship than other areas. This suggests there are good employment opportunities for partners.

Source of Inward Migration, 2016 to 2021

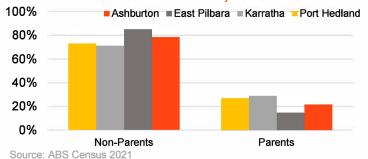


Source: ABS Census 2021

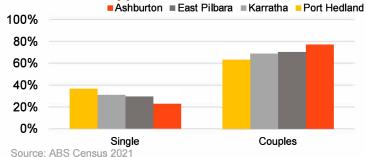




Parental Status of New Residents, 2016 to 2021



Social Status of Applicable New Residents, 2021



Shire of Ashburton I Economic and Demographic Analysis

Page 41 Item 6.1 - Attachment 1

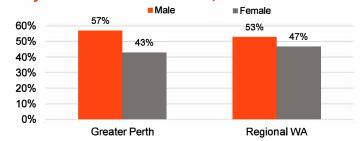
New residents from Perth more likely to be male and younger than those from regional WA; Females moving to Ashburton worked across diverse industries but were less likely to have full-time employment

New residents from Perth differed slightly from those moving in from elsewhere in regional WA. Former Perth residents were more likely to be male and under 40. Due to their age difference, they were less likely to be have children compared to those from regional WA

All cohorts had high labour force participation. However, females were far less likely to be working full time, especially ones from regional WA.

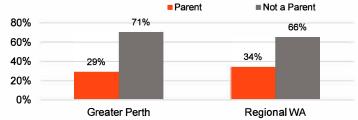
The top employing industry for all new residents was of course Mining. However, females had much more diversified employment.

Sex by Source of New Resident, 2021



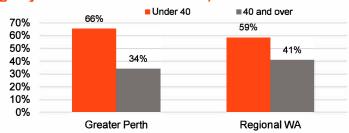
Source: ABS Censuses 2021

Parental Status by New Resident, 2021



Source: ABS Censuses 2021

Age by Source of New Resident, 2021



Source: ABS Censuses 2021

Source:

Employment Profile, New Residents

| | Greater Perth 5 years ago | | Regional WA 5 years ago | |
|------------------------|---------------------------|--|--|--|
| | Male | Female | Male | Female |
| Participati on rate | 96% | 83% | 94% | 78% |
| Full-time status | 91% | 66% | 93% | 61% |
| Top Industries | Conetruction: 11% | Mining: 24% Education & Training: 20% Healthcare: 12% | Mining: 71% Construction: 9% Public. Admin & Safety: 8% | Mining: 27% Education & Training: 15% Healthcare: 11% |

Source: ABS Census 2021

Shire of Ashburton I Economic and Demographic Analysis



What is the skill profile of the workforce?

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Ashburton's workforce is characterised by male full-time employees with engineering and related trade skills

In 2021, more than a quarter of Ashburton's workforce was male (78%). This contrasts with a much more even split at the regional WA average level.

The share of workers employed full time was 90% well above the regional WA average. The resident base was less likely to be full time than the local workforce, largely due to the greater share of employed females (more likely to be in part time work).

The local and resident workforce were much more likely to be in labourer and technician/trade occupations than the regional WA average. There was a lower share of professionals and managers.

Workforce Profile, 2021

| | Resident | Local | Regional |
|---|----------|---------|----------|
| | Workers | Workers | WA |
| Male | 62% | 78% | 53% |
| Female | 38% | 22% | 47% |
| Under 25 | 9% | 7% | 13% |
| 25 to 54 | 75% | 75% | 62% |
| 55 and over | 16% | 19% | 26% |
| Born Overseas | 30% | 32% | 24% |
| Full time | 82% | 90% | 66% |
| Part time | 18% | 10% | 34% |
| Managers | 8% | 6% | 15% |
| Professionals | 11% | 11% | 17% |
| Technicians and Trades Workers | 14% | 18% | 10% |
| Community and Personal Service Workers | 4% | 2% | 7% |
| Clerical and Administrative Workers | 5% | 3% | 7% |
| Sales Workers | 2% | 1% | 5% |
| Machinery Operators And Drivers | 19% | 20% | 9% |
| Labourers | 10% | 10% | 11% |
| Bachelor or higher degree | 16% | 14% | 19% |
| Advanced diploma or diploma | 10% | 10% | 10% |
| Certificate level | 41% | 47% | 33% |
| No qualifications | 34% | 30% | 37% |
| Natural and Physical Sciences | 2% | 3% | 3% |
| Information Technology | 1% | 1% | 1% |
| Engineering and Related Technologies | 24% | 36% | 15% |
| Architecture and Building | 3% | 4% | 2% |
| Agriculture, Environmental and Related | 1% | 1% | 2% |
| Health | 3% | 3% | 4% |
| Education | 4% | 2% | 4% |
| Management and Commerce | 6% | 5% | 6% |
| Society and Culture | 4% | 2% | 4% |
| Creative Arts | 1% | 1% | 1% |
| Food, Hospitality and Personal Services | 3% | 3% | 3% |

Source: ABS Census 2021



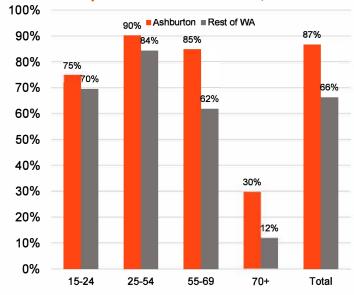
Shire of Ashburton I Economic and Demographic Analysis

The participation rate amongst Ashburton's residents is very high, especially amongst older residents, when compared to the rest of regional WA

Ashburton's stated labour force participation rate was 87% in the 2021 Census. This rate was much higher than the Regional WA average of 66%. Ashburton's participation rate for persons aged over 55 in particular was much higher than the Regional WA average. It highlights the strong employment opportunities but also that the region is not perceived as a place to retire (which generally brings the participation rate down.

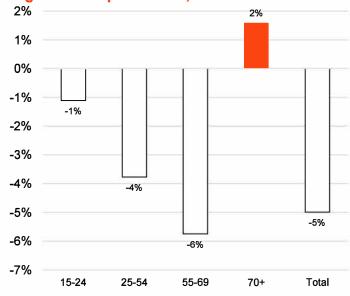
Ashburton's labour force participation rate decreased from 92% in 2016 to 87% in 2021 (-5.0 percentage points). This was in contrast to many areas in Australia that saw an increase in participation rates. Notably, though, persons aged 70+ were higher by 1.6 percentage points.

Stated Participation Rate of Residents, 2021



Source: ABS Census 2021

Change in Participation Rate, 2016 to 2021



Source: ABS Census 2021



Shire of Ashburton I Economic and Demographic Analysis

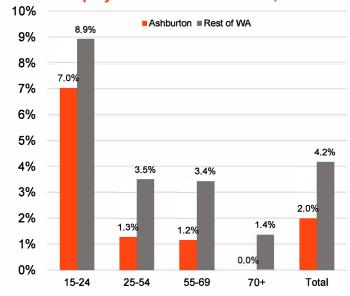
Ashburton has very low unemployment rates, however the gap to the regional WA average is lowest amongst youth (15 to 24 yrs)

In the week prior to 14th August 2021*, Ashburton's unemployment rate was 2.0%. This rate was lower than the Regional WA average of 4.2%. Ashburton's youth unemployment rate (15-24 year olds), despite being high, was still lower than the Regional WA average.

Ashburton's unemployment rate was basically unchanged from 2016 to 2021 census points. Despite the youth unemployment rate being

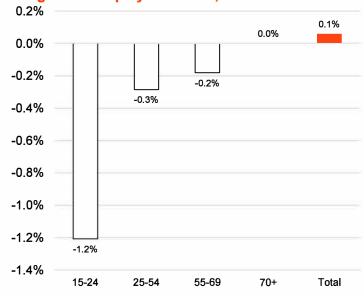
1.2 percentage points lower, young people became a higher share of the labour force so their higher unemployment rate on average overall counter balanced unemployment rate falls.

Stated Unemployment Rate of Residents, 2021



Source: ABS Census 2021

Change in Unemployment Rate, 2016 to 2021



Source: ABS Census 2021



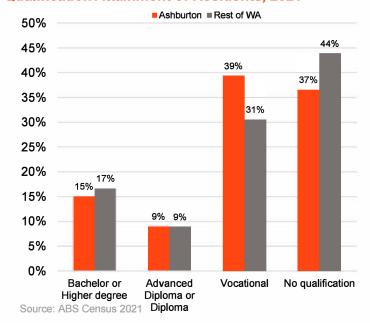
Shire of Ashburton I Economic and Demographic Analysis

Ashburton has a higher share of vocational qualifications amongst its residence base, although degrees are increasing

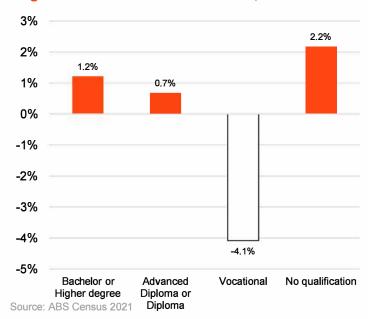
15.0% of people aged 15-69 in Ashburton had a Bachelor Degree or Higher qualification in 2021, lower than the Regional WA average of 16.6%. However, the share of people with no qualification (36.6%) was much lower than the Regional WA average in the same year. The LGA has an over-representation of vocational qualifications, not surprising given the prominence of mining and construction jobs.

The share of residents with a Bachelor or Higher degree qualification increased by +1.2 percentage points from 2016 to 2021. The share of residents with no qualification actually increased by +2.2 percentage points over the same period. This was likely due to older and younger residents becoming a higher share of the resident base. Both these cohorts have lower qualification attainment rates.

Qualification Attainment of Residents, 2021



Change in Qualifications of Residents, 2016 to 2021





Shire of Ashburton I Economic and Demographic Analysis

Small growth across diverse skillsets in Ashburton between 2016 and 2021, however minimal growth in business skills compared to the state average

The qualification fields that grew the strongest between 2016 and 2021 were quite diverse including education related studies, environmental/geology sciences, health, and welfare. There were large losses in technical trades due to the exodus of construction workers. In contrast to the state, there was very little growth in business areas and hospitality.

The largest growing occupations in Ashburton between 2016 and 2021 were by far Drillers/Miners (+191 stated workers). The rest of the growth was mixed across multiple areas. In contrast to the state, there was very little growth in aged care.

Top Growth in Occupations, 2016 to 2021

| Top Growth | in Fields of | Study. | 2016 to 202 | 1 |
|------------|--------------|--------|-------------|---|

| Growing Skills - Ashburton | Growing Skills - Pilbara | Growing Skills - WA |
|---|--|---|
| Education, nfd | Field of study not stated | Business and Management, nfd |
| Geology | Hospitality | Accounting |
| Paramedical Studies | General Nursing | Hospitality |
| Beauty Therapy | Accounting | General Nursing |
| Land, Parks and Wildlife Management | Field of study inadequately described | Engineering and Related Technologies, nfd |
| General Nursing | Teacher Education: Early Childhood | Business Management |
| Earth Sciences, nfd | Business Management | Psychology |
| Glazing | Paramedical Studies | Education, nfd |
| Sales | Business and Management, nfd | Teacher Education: Early Childhood |
| Teacher Education: Early Childhood | Sports Coaching, Officiating and Instruction | Information Technology, nfd |
| Human Welfare Studies and Services, nec | Teacher Education, nec | Law, nfd |
| Human Welfare Studies and Services, nfd | Automotive Engineering and Technology, nfd | Management and Commerce, nfd |
| Literature | Psychology | Human Welfare Studies and Services, nec |
| International Business | Education, nfd | Health, nfd |
| Tourism Management | Mining Engineering | Education, nec |

| Growing Occupations - Ashburton | Growing Occupations - Pilbara | Growing Occupations - WA |
|---|---|---|
| Drillers, Miners and Shot Firers | Drillers, Miners and Shot Firers | Aged and Disabled Carers |
| Geologists, Geophysicists and Hydrogeologists | Other Building and Engineering Technicians | Drillers, Miners and Shot Firers |
| Fire and Emergency Workers | Production Managers | Registered Nurses |
| Managers, nfd | Other Information and Organisation Professionals | Other Information and Organisation Professionals |
| Earthmoving Plant Operators | Registered Nurses | Child Carers |
| Registered Nurses | Managers, nfd | Nursing Support and Personal Care Workers |
| Vehicle Body Builders and Trimmers | Earthmoving Plant Operators | Metal Fitters and Machinists |
| Other Information and Organisation Professionals | Technicians and Trades Workers, nfd | Bar Attendants and Baristas |
| Couriers and Postal Deliverers | Education Aides | Education Aides |
| Education Aides | Geologists, Geophysicists and Hydrogeologists | Delivery Drivers |
| Shelf Fillers | Vocational Education Teachers (Aus) / Polytechnic Teachers (NZ) | Managers, nfd |
| Marine Transport Professionals | Carpenters and Joiners | Other Building and Engineering Technicians |
| Child Carers | Science Technicians | General Clerks |
| Machine and Stationary Plant Operators, nfd | Child Carers | Production Managers |
| Railway Track Workers | Fire and Emergency Workers | Storepersons |

Source: ABS Census 2016 and 2021 informed

Source: ABS Census 2016 and 2021

Shire of Ashburton I Economic and Demographic Analysis



<u>07</u>

Future growth prospects

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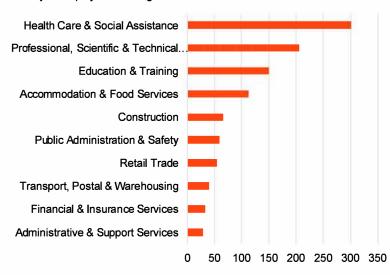
At the national level, growth in health and professional services expected to continue in short-term

It the short-term, employment growth at the national level is expected to continue in key industries that have driven growth over the last two decades. The National Skills Commission projected that Health Care, Professional Services, and Education will experience the largest growth in employment in the five-year period to 2026. Accommodation & Food would also experience strong growth recovering from COVID impacts.

Given industry projections, It is unsurprising that the strongest growth in occupations is projected to be in Professional and Community/Personal Service roles.

Projected employment growth, 2021 to 2026

Industry of employment change in '000s



Source: National Skills Commission, 2022





Source: National Skills Commission, 2022



Shire of Ashburton I Economic and Demographic Analysis

Service industries will continue to dominate jobs growth led by tech, health/care and potentially 'green' investments; construction and education will still have a major role due to national immigration policies

There is a general consensus that technological change, ageing populations, migration, and climate change/environment will be the major influencers of employment in the next 10-20 years. Within Australia, construction and population-driven industries (e.g. education, food services) will still experience strong growth due to national policies aimed at expanding international migration rates substantially.

Future employment drivers

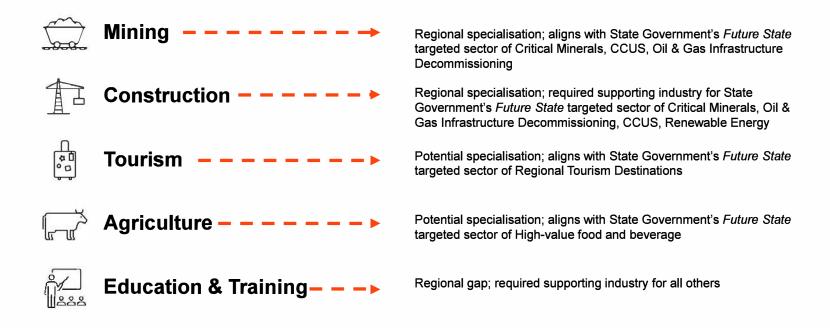
| Source | Drivers of Future Employment |
|--|--|
| National Skills Commission | Five Cs': Care, the group of skills responding to demographic and health challenges Computing, a group of specialised technical skills needed to respond to the digital world Cognitive abilities, the group of advanced reasoning and higher order skills computers cannot replace Communication, the group of skills needed to collaborate and engage within and across workplaces. Climate – the range of skills required to transition to a net zero carbon economy and respond to the impacts of climate change. |
| Future State Accelerating Diversify WA | Targeted investment could see growth in: Renewable energy (hydrogen), critical minerals, Carbon capture, utilisation and storage (CCUS), oil & gas decommissioning, medical and digital health products, high value food manufacturing, naval shipbuilding, regional tourism, space technologies |
| PwC Workforce of the Future | Megatrends shaping global workforces |

| Source | Drivers of Future Employment |
|--|--|
| World Economic Forum Future of Jobs 2023 | Trends nominated by Australian CEOs as most likely to drive industry transformation Investments to facilitate the green transition of your business Climate-change induced investments into adapting operations Broader application of Environmental, Social and Governance (ESG) standards Increased adoption of new and frontier technologies Broadening digital access |
| CEDA – Australia's Future Workforce | Trends influencing our future workforce 1. Economics: a shift towards emerging-market economies 2. Climate change – both mitigation and adaptation. 3. Resource security: reconciling resource consumption and ecosystem health. 4. Virtual connectivity: the acceleration of global networking. 5. Demographics: population growth, ageing, and urbanisation. |
| RMIT & Deloitte - Ready, set, upskill: Effective training for the jobs of tomorrow | Data science and analytics, health and medicine, and web app and software development considered the most 'in demand' knowledge areas |
| Queensland University of Technology | 8 of Australia's in-demand jobs for the future Cyber security, Aged Care, Education, Software Development and Computer Science, Nursing and Healthcare, Data Analytics, Web Development, Digital Communication |
| Victoria University | 10 In-demand Careers for the Future Healthcare (multiple), Construction (multiple), Education & Training, App. And Software development, Data Analysis, Cyber Security, E-Commerce, Product designers, Digital & Content Marketing, and Alternative Energy. |

Shire of Ashburton I Economic and Demographic Analysis

At the national level, growth in health and professional services expected to continue in short-term

The Shire of Ashburton has requested an analysis of five key industries that have the potential to shape the future of the region. Some of them represent existing specialisations and major influences on economic activity (Mining and Construction). Others offer potential for diversification (Tourism and Agriculture) or address gaps in the economy (Education and Training).





Shire of Ashburton I Economic and Demographic Analysis

Mining - Overview

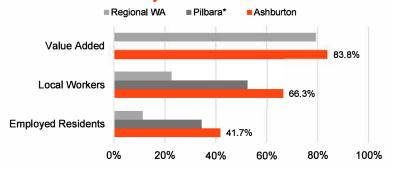
The Mining industry is a major specialisation in the region generating 84% of value added and supporting 66% of the workforce in 2022. This is well above the regional WA average (23% of workers) and the Pilbara average.

The industry is dominated by Iron Ore Mining, and Oil and Gas which employs only 8% of the industry's workforce but generates a third of its value.

Headline Indicators, 2021/22



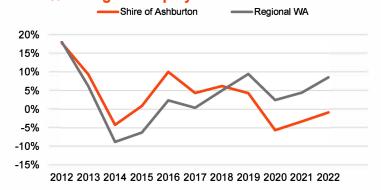
% Share of Economy



Source: NIEIR, 2023 & ABS Census 2021

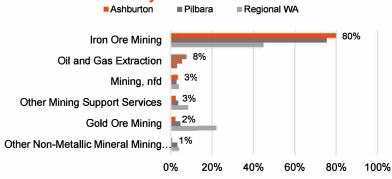


Annual % Change in Employment



Source: NIEIR, 2023

% Share of Sector by Workers



Source: ABS Census 2021

Shire of Ashburton I Economic and Demographic Analysis

Mining – Trends and Outlook

49

Iron Ore

Demand is tied to demand for steel which is expected to continue to be high as developing countries expand housing, industrial and commercial infrastructure.

Growth will weaken though as China begins greater utilisation of recycled steel. India's demand for high grade Iron ore will rise as it seeks to complement lower grade domestic stocks.

Gas

Australia's is one of the world's largest LNG exporters despite only having the 13th-largest proven natural gas reserves. Our proximity to Asia gives the country a natural advantage however it also means our demand is highly concentrated with four Asian countries — China, Japan and South Korea (the world's three largest LNG importers), plus Taiwan — accounting for 92 percent of Australia's LNG exports in 2022. A downturn in demand in these countries can inhibit growth.

In addition, there is growing competition from Australia's competitors such as Qatar whose reserves are 10 times that in Australia. Russia is also looking for new markets to the east due to disrupted demand in Europe because of the Ukraine invasion.





Critical Minerals

Critical minerals are core inputs for lithium-ion batteries, sintered magnets, high performance alloys and semiconductors which are essential components in electric vehicles, hydrogen electrolysers, smartphones, computers, solar panels, and a range of defence and medical equipment.



Surging demand worldwide is set to drive growth in exploration and mining opportunities in this area over the next decade. For example, lithium demand is forecast to rise rapidly from 313 kt of lithium carbonate equivalent (LCE) in 2019 to 1,465 kt LCE by 2030. This represents 15.% p.a.

State and federal Governments are supporting growth in the sector. For example, the Australian Government has established the A\$2 billion Critical Minerals Facility, managed by Export Finance Australia.



Shire of Ashburton I Economic and Demographic Analysis

Mining – Projects

Major resource projects have shaped the region over the last decade and will continue to support employment and economic value for the foreseeable future.

Gorgon Gas (Chevron)

Gorgon is one of the world's largest LNG projects and the largest single resource project in Australia's history.

Located on Barrow Island – a Class A Nature Reserve – Gorgon comprises a three-train, 15.6 million tonnes per annum LNG facility and a domestic gas plant with the capacity to supply 300 terajoules of gas per day to Western Australia.

The first LNG cargo departed Barrow Island on 21 March 2016 and domestic gas supply to the Western Australian market commenced in December 2016.

Wheatstone Gas (Chevron)

is one of Australia's largest resource developments and the nation's first liquefied natural gas (LNG) hub. Onshore facilities are located 12 kilometres (km) west of Onslow on the Pilbara coast of Western Australia.

The Wheatstone Project achieved first LNG production and shipped its first cargo in October 2017.

Eliwana iron ore mine (Fortescue)

Constructed in 2019/20, this \$1.8B mine and railway link commenced production in early 2021.

During the construction of the mine, approximately 2,000 people were employed, while, once in operation, this number dropped to 500.

Western Turner Syncline Stage 2 (Rio Tinto)

WTS2 is a \$1B expansion of facilities by Rio Tinto in its existing Greater Tom Price operations.

Gudai Darri iron ore mine (Rio Tinto)

This estimated \$3.8B mine commenced production in 2022. It sits adjacent to the border of Ashburton Shire and may have some flow on effects to Tom Price and surrounds.



Shire of Ashburton I Economic and Demographic Analysis

Mining – Projects

Planned or proposed projects in the region have potential to grow specialisations as well as diversify the industry into other areas (e.g. critical minerals) and support complementary industries.

Onslow Iron project (Mineral Resources)

The Onslow Iron project is one of the largest iron ore projects currently under development in Australia.

On completion, the project will have the shortest pit to port distance in the industry, with iron ore transported 150 kilometres from the mine site to the Port of Onslow. In a world first, the product will be transported by jumbo autonomous road trains via a dedicated fenced and sealed haulage road.

Construction is estimated to support 2,100 direct jobs with 1,200 expected workers during the operational phase.

Iron Ore Export Facility

CZR Resources, Strike Resources and CSL Australia have proposed to form a consortium to secure approvals for a bulk loading export facility at the Port of Ashburton within the Ashburton North Strategic Industrial Area (ANSIA) near Onslow. The proposal is for a 5Mtpa iron ore and bulk material facility capable of taking ore via road train to transshipment vessels.

Western Range (Rio Tinto)

In 2022, Rio Tinto agreed to form a joint venture with China Baowu Steel Group to develop the Western Range iron ore project near Paraburdoo. Construction is expected to begin in early 2023 with first production anticipated in 2025. Western Range's annual production capacity is expected to be 25 million tonnes of iron ore.

Yangibana Rare Earths Project's (Yangibana) hydrometallurgical plant (Hastings)

Hastings has received conditional approval to construct a hydrometallurgical plant in the ANSIA just south of Onslow. The site is approximately 430km by road from the Yangibana mine site, ensuring a cost-efficient delivery of a high-grade concentrate from the mine site to the hydrometallurgical plant for final production of minerals used in the manufacture of permanent magnets for use in electric vehicles, wind turbines and other clean-energy products.

Solar Salt Project (K+S Salt Australia)

The Solar Salt project is a planned evaporative salt facility south of Onslow. It is estimated that the facility would produce 4.7mtpa of salt per year for export markets in Asia. Construction is estimated to cost \$850M and support 350 direct jobs with 150 expected workers during the operational phase.

Biofuels Project (Equus Energy)

Equus Energy is progressing plans for a scalable low carbon ammonia and methanol project within the ANSIA. While the project falls under manufacturing, it is a downstream industry connecting to Equus' offshore gas activities.



Shire of Ashburton I Economic and Demographic Analysis

Mining - Outlook

The Mining industry in Ashburton is an obvious current competitive strength due to the abundance of resources. However, there are both opportunities to enhance/sustains the industry going forward as well as some potential challenges to growth.

Strengths

- Abundance of natural resources and offshore gas basins.
- Existing strong demand for high-grade iron ore in Asia's key markets.
- Long term contracts for Gas provision to Asian markets.
- Continued investment in facilities and industrial sites like ANSIA by major companies.
- Established infrastructure to support mining export activities and workforce capacity needs as needed (e.g. strategic airports).

Weaknesses

- The industry is a substantial contributor to carbon emissions and faces ongoing challenges in an environment where national emissions reduction targets are set.
- Mining industry key players such as Rio Tinto have experienced reputational challenges in recent years due to environmental and cultural damage in the region.
- Chevron still facing challenges storing carbon emissions effectively leading to the Gorgon Plant being Australia's biggest industrial carbon polluter in 2022.
- Some infrastructure such as larger ports are located in Karratha and Port Hedland LGAs at the moment leading to loss of some potential flow-on industry impacts.

Opportunities

- Growth in critical minerals demand can drive future exploration and investment.
- Development of Ashburton Port for Iron Ore Export would have flow on impacts to other industries and support growth of other mining projects in the area
- Large scale renewable projects across the Pilbara would help decarbonise the industry and incentivise investment.
- The Gorgon Carbon Capture and Storage (CCS) system if successfully implemented has potential to be utilised as an example for other industrial sites within the region and outside.

Challenges

- Iron Ore exports demand faces potential risks from competition in other overseas markets
- Potential downturn of China would impact steel and therefore Iron ore market
- Increasing talk of regulation and diversion of LNG into the domestic market.
- Activist litigation against new or expanded LNG projects may dampen investment.
- Competition for investment into projects across the Pilbara can see regions compete against each other.

Shire of Ashburton I Economic and Demographic Analysis

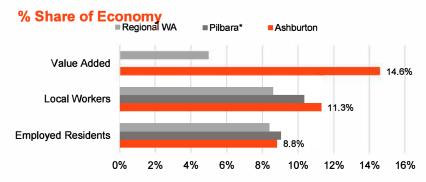
Construction - Overview

The Construction industry is a specialisation in the region generating 15% of value added and supporting 11% of the workforce in 2022. This is above the regional WA average (9% of workers).

The industry is dominated by heavy and civil engineering projects connected to the mining industry. In 2021, only 1% of the workforce was involved in house construction compared to 6.4% for regional WA.

Headline Indicators, 2021/22





Source: NIEIR, 2023 & ABS Census 2021



2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

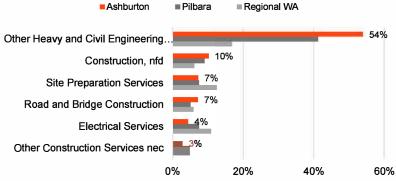
Source: NIEIR, 2023

0%

-20% -40% -60% -80%

% Share of Sector by Workers

Annual % Change in Employment



Source: ABS Census 2021

Shire of Ashburton I Economic and Demographic Analysis

- Cinformed decisions

Construction – Trends and Outlook

Resource developments

The Western Australian Government estimate that as of September 2023, there was around \$55 billion in mining industry projects committed and under construction in the state, a decrease of around \$5 billion from the March 2023 estimate.

The major projects under development and that continue to support investment spending in WA as at September 2023 were:

- · Pluto LNG expansion and Scarborough gas.
- · Jansz-lo compression (J-IC) project.
- · Crux gas.
- · Onslow iron ore.
- · Western Range iron ore.
- Mt Holland lithium.
- Kemerton lithium hydroxide plant Trains III and IV.
- · West Musgrave nickel and copper.
- Eneabba rare earths refinery.
- Mardie salt.
- Mt Weld rare earths mine expansion and Kalgoorlie cracking and leaching plant.

The estimated capital cost of medium to longer-term projects (i.e. feasibility and pre-feasibility stage) was \$93 billion, up by \$4 billion from the March 2023 estimate.

Residential pipeline

Western Australia's residential development approvals for 2022/23 were very strong and exceeded non-residential developments. However, construction commencements have declined in the last two years suggesting rising costs have impacted the industry leading to project delays and some businesses going into administration.



Shire of Ashburton I Economic and Demographic Analysis

Construction in Ashburton

The Construction industry in Ashburton is heavily tied to resource project developments and expansions.

Strengths

- Strong skillsets available in the region or accessible through established labour supply networks.
- Consistent pipeline for resource projects or expansion of existing facilities and associated transport infrastructure in recent decades.
- Specific engineering expertise developed through large resource projects which require high technical skills and advanced construction methodologies.

Weaknesses

- Residential construction limited by weak population growth and competition for labour from resource industry which drives costs up.
- Construction materials and components are largely imported into the region from outside, negating growth of local manufacturing industry.

Opportunities

- Planned redevelopment of Tom Price Hospital has state support.
- Pipeline of energy and resource developments is improving.
 The value of non-residential building approvals in 23/24 is already highest since pre-COVID levels.
- Potential for mass employment opportunities related to decommissioning of oil and gas infrastructure. The Centre for Decommissioning Australia (CODA) estimates that over the next 50 years, approximately \$56.9 billion will need to be spent to decommission Australia's ageing offshore oil and gas infrastructure.

Challenges

- The cyclical nature of commodities demand and mining/resource developments can lead to fluctuations in construction activity.
- Environmental impacts will increasingly be considered with new developments and new regulations may impact approvals.
- Major projects in neighbouring shires may impact the cost and availability of labour.
- Ashburton continues to have a low residential building pipeline potentially due to cost constraints and big companies building purpose-built accommodation.

• Cinformed decisions

Shire of Ashburton I Economic and Demographic Analysis

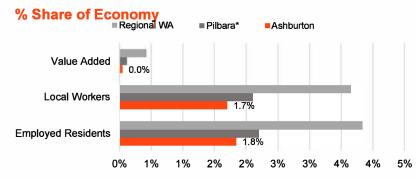
----Regional WA

Tourism - Overview

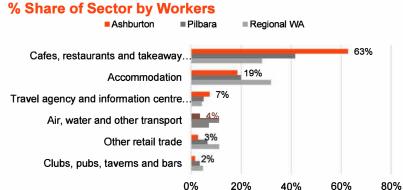
The Tourism industry is a small industry supporting only 1.7% of the workforce in 2022, and 1.8% of employed residents. The industry is under-represented compared to the Regional WA average, but this is largely due to the prominence of mining which can distort the figures. The industry is dominated by cafes and takeaways. Employment in Accommodation is under-represented compared to regional WA.

Headline Indicators, 2021/22





Source: NIEIR, 2023 & ABS Census 2021



2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

Annual % Change in Employment

30%

20%

10%

0% -10%

-20% -30% -40%

Source: NIEIR. 2023

Shire of Ashburton

Source: NIEIR, 2023

• Cinformed

Shire of Ashburton I Economic and Demographic Analysis

Tourism — Trends and Outlook

Travel within Australia has returned post-COVID and with it has come the continued expansion of some ongoing trends including:

Sustainable travel

Eco tourism and tourism that leaves a light touch is on the rise. Research from a 2022 Tourism Australia report found 75 per cent of people want their travel to have low emissions and one-third of this group will forgo travel if they can't do it carbon-free.

Luxury travel

Demand for premium end experiences and accommodation are on the rise. Older residents are utilizing their superannuation to

Nature based experiences

COVID lockdowns have driven increasing demand for outdoor and adventure based visitation.

First nations tourism

A growing segment of Australians, especially younger ones, are seeking a better connection to country and understanding of Indigenous cultures. Overseas visitors have also shown greater interest in well organised and accessible first nation tourism experiences.

Digital nomads

Australians and overseas visitors with the ability to work remotely are extended vacations in locations with quality lifestyle conditions and good broadband access.

Food Tourism

People are increasingly travelling to destinations in search of unique or location specific food options. Culinary experiences that incorporate local ingredients can be packaged to target premium end visitors or be used as a marketing edge.



Shire of Ashburton I Economic and Demographic Analysis

Tourism in Ashburton

There is potential to grow the Tourism offer and enhance visitation in the Ashburton region.

Strengths

- Natural tourism assets such as Karijini and Millstream Chichester National Parks that receive over 300,000 estimated visits per year.
- Industrial tourism assets with established tours of mines in Tom Price the Wheatstone LNG precinct in Onslow.
- Strong indigenous culture to build tourism experiences from.
- Established visitor centres and tourism 'trail' Warlu Way
- Some key accommodation facilities including Onslow Beach Resort, Ocean View Caravan Park, and Karijini Eco Retreat.
- Easy access to fishing and water-based activities in the coastal areas.

Weaknesses

- Distances between attractions can be prohibitive to many visitors.
- Lack of affordable accommodation and expensive short-term rental costs can limit visitation potential.
- Difficulties in attracting long term hospitality staff.
- Tourism marketing split between multiple areas, diluting messaging: Australia's North West, Destination Pilbara, Visit Ashburton

Opportunities

- Onslow Community Precinct Boating Upgrade will boost potential to attract recreational boat visitors.
- Increased nature based/ecotourism accommodation development would support more local spend.
- Strong opportunity to grow more Indigenous tourism facilities and experiences in the region boosting employment opportunities.
- Native food tours and experiences utilizing Indigenous knowledge can be developed and packaged to attract new markets.
- Targeted campaigns to attract and better support FIFO workers and extended families to experience local attractions can have potential to grow market value.

Challenges

- Brand recognition for Pilbara in terms of natural tourism assets is lower than for the Kimberley, Shark Bay/Monkey Mia and to some extent Exmouth to the south.
- Major construction projects related to resource industry can drive up costs of flights and accommodation preventing tourism based visitation.
- Key air transport gateways competing with larger airports in Karratha and Port Hedland.

- Cinformet

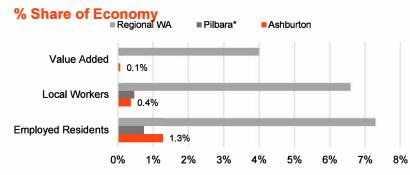
Shire of Ashburton I Economic and Demographic Analysis

Agriculture - Overview

The Agriculture industry is a small industry supporting only 0.4% of the workforce in 2022, and 1.3% of employed residents. The industry is substantially under-represented compared to the Regional WA average, but this is largely due to the prominence of mining which can distort the figures. The industry is dominated by Beef Cattle farming. Employment in Grain growing is under-represented compared to regional WA, but of course the region's climate impacts production possibilities.

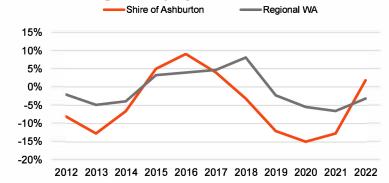
Headline Indicators, 2021/22





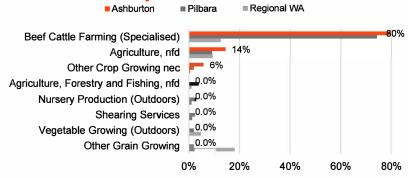
Source: NIEIR, 2023 & ABS Census 2021





Source: NIEIR. 2023

% Share of Sector by Workers



Source: NIEIR, 2023

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Shire of Ashburton I Economic and Demographic Analysis

Agriculture — Trends and Outlook

Short term

Domestic and global demand for primary and processed food products will continue to grow due to population growth in Australia and continued income growth in key Asian markets.

As always, export potential for commodities will be dependent on market access (reduced tariffs), climatic conditions in Australia and product volumes of key competitors. For example, as the United States is currently in a herd liquidation phase before a rebuild, this will prop up beef exports demand in the next few years.

Technological change

Longer term industry change is reliant on adaption to new technology, resilience against climatic impacts, and implementation of low carbon processes. The agriculture industry was at the forefront of technological and productivity enhancements in Australia in the 20th century. Improved productive capacity is still key to meet growing demand and in 2015 the Australian Farm Institute estimated that the full uptake of digital technologies could help the agriculture industry in Australia increase the gross value of production by more than \$20 billion or 25 per cent annually.

Key to improvements in the sector are needed for this to happen including better connectivity; awareness and understanding of implementation of technology; and specific training in digital technologies and the implementation of agritech.



Reducing carbon emissions

Industry groups like the Red Meat Advisory Council have made pledges to be carbon neutral by 2030 (CN30).

Key focus areas that could be considered in the region include:

- Exploring and utilising methane reduction options in stock feed:
- Increasing the use of renewables within the industry's energy mix;
- Researching and implementing pasture-based carbon sequestration practices;

Shire of Ashburton I Economic and Demographic Analysis

Agriculture in Ashburton

There is limited potential to grow Agriculture in the Ashburton region if water scarcity is managed.

Strengths

- Established rangeland grazing properties across the region that utilize selective breeding for heat tolerance.
- Some established feedstock cropping.

Weaknesses

- Water availability and high temperatures remain a challenge for industry diversification.
- Lack of processing facilities means downstream value adding potential is lost from the region.
- Distance from markets makes production of more perishable agricultural products difficult.

Opportunities

- Opportunities for aquaculture and mariculture need to be further investigated, taking advantage of the region's coastline.
 This includes the cultivation of marine species, such as fish and shellfish, in controlled environments.
- Explore the potential for irrigated agriculture in the alluvial floodplains of areas to the south and east of Onslow.
- Implementation of new technology such as Virtual Fencing which allows livestock to be contained or moved without using physical fences could improve profitability of livestock grazing ventures.
- Explore the development of native food crops.

Challenges

- Water erosion will continue to be a challenge for sustainable irrigation due to extended periods of negligible rainfall interspersed with intense, highly erosive rainfall events at times.
- Agriculture will continue to compete with the mining industry for water, energy and labour needs.



Shire of Ashburton I Economic and Demographic Analysis

Education and Training - Overview

The Education and Training industry is a small industry supporting only 1.3% of the workforce in 2022, but almost 6% of employed residents. The industry is under-represented compared to the Pilbara and Regional WA average. The industry is dominated by primary education. Employment in Technical and Vocational education areas is underrepresented compared to the Pilbara region as a whole. In 2021, only 2% of the industry was working this area, compared to 10-11% in Karratha and Port Hedland.

Headline Indicators, 2021/22



\$16.2m

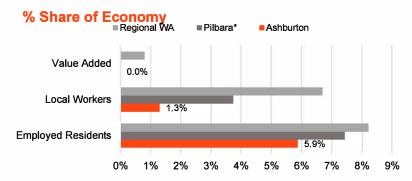
Value Added 0.0% of Total



1.3% of Total

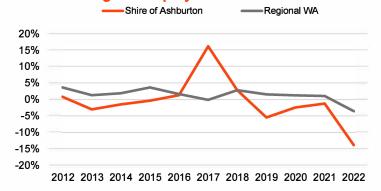


5.9% of Total



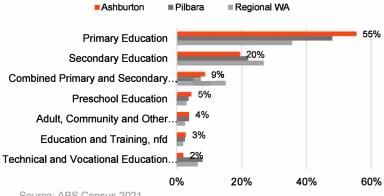
Source: NIEIR, 2023 & ABS Census 2021

Annual % Change in Employment



Source: NIEIR. 2023

% Share of Sector by Workers



Source: ABS Census 2021

Shire of Ashburton I Economic and Demographic Analysis



Page 67 Item 6.1 - Attachment 1

Education and Training – Trends and Outlook

School Education

Demand is tied to growth of local young family aged resident base. On a state level, population growth is strong, but residents are favouring larger urban areas with access to key retail, health, recreational and transport facilities. Job opportunities attract young families, however the continued acceptance of FIFO lifestyles and redevelopments of airport facilities at more favoured destinations across the state make Ashburton's proposition for growth more challenging.

Technical and Vocational Education

The viability of the Vocational Sector is increasingly linked to international students who generate a high proportion of paid enrolments especially in metro areas. The rising demand for aged care and construction boom has led to an increase in courses targeted in these fields.

There is also growing integration of digital technologies and online learning platforms to enhance the accessibility and flexibility of vocational education and training programs. This includes the use of virtual reality, simulations, and other digital tools.

Higher Education/University

A growing share of Australia's population is seeking higher education opportunities in order to better compete in labour markets and attract higher incomes. The Australian University market has also become overly reliant on international students as a source of growth in the last two decades, partly due to changes in commonwealth funding. The majority of this growth occurs in metro areas or larger regional cities in Australia on the eastern seaboard e.g. Cairns, Townsville, Wollongong.

In recent years, many Universities are beginning to offer 'microcredentials' or short courses designed to bridge skills-gaps in the market and meet the needs of existing workers who need to upskill.



Shire of Ashburton I Economic and Demographic Analysis

Education and Training in Ashburton

The Education and Training industry in Ashburton has the potential to grow, and support growth in other industries, if specific opportunities are invested in.

Strengths

- Six schools across the LGA including Tom Price Senior High School
- One campus of North Regional TAFE (Tom Price)
- Large companies with specialised training and apprenticeships and traineeship programs

Weaknesses

 A small and dispersed population makes it difficult to generate economies of scale for a large education and training facility.

Opportunities

- Potential to attract a higher education remote learning facility under the federal government's Regional University Study Hubs program (there is precedent set by similar sized towns to Tom Price with such facilities such as Cook Town in QLD)
- Possibility to encourage a major employer to establish a training facility similar to BHP's Mining School of Excellence in South Australia
- Local institutions should focus on courses that target growing skills e.g. courses that emphasize environmental stewardship and sustainable practices in mining. This can include programs on responsible mining, reclamation, and environmental impact assessments.
- Better support for residents to take advantage of the rise in flexible learning pathways (including recognition of prior learning (RPL), credit transfer, and the provision of part-time or online courses) will aid skills development and/or qualification attainment.

Challenges

- Large centres such as Port Hedland and Karratha have larger population bases that better support education campuses or attract more investment from training firms.
- Towns can not make investment in technology or equipment for advanced learning without industry/government support.



Shire of Ashburton I Economic and Demographic Analysis

Other Industry opportunities

There are some other potential growth areas for the Shire to investigate that could generate employment and diversification opportunities.

Space Sector

- Western Australia has a competitive position in space activities due to the dry environmental conditions, radio quiet zones, and clear skies.
- In 2020, the Western Australian Government announced Perth as the headquarters for the Australian Remote Operations for Space and Earth (AROSE) to advance and translate locally developed remote and robotic technologies for use in space exploration.
- The Pilbara region shows the oldest indications of life on the planet and its environment is a good testbed for future Mars exploration programs.
- Ashburton has the potential to transfer its workforce and industry capabilities in remote operations, automation, and robotics from mining to the space industry.
- The region can also host investigative tours such as one led by LifeSpringsMars who took members from NASA's Mars Exploration Program, the European Space Agency, the Australian Space Agency, and CSIRO to the Pilbara region in 2023. The Pilbara

Marine Sector

- The Port of Onslow and Ashburton have the potential to develop into larger facilities and marine vessel servicing hubs over the next few decades.
- The Port of Ashburton is attracting investment from the resources industry and if upgraded to include an Iron Ore Export Facility, it could support further activities. The adjacent Ashburton North Strategic Industrial Area has suitable room for accessible landside developments.
- The Beadon Creek Maritime Facility in Onslow operates as a smaller supply base for offshore operations. The facility comprises of 8 pile mooring pens, a service wharf, dual public boat ramp, fuelling facility, as well as a fish cleaning table and public car park. An Onslow Community Boating Precinct has recently been completed with a new boat ramp and central holding jetty with suitable space for the development of a small marina.
- In the 2021 census, Ashburton only had 21 stated workers in Marine Sector industries (water transport, port operations, ship servicing etc). This contrasts with 223 in Karratha and 279 in Port Hedland.



Shire of Ashburton I Economic and Demographic Analysis





Agenda Item 6.1 - Attachment 2

Shire of Ashburton Economic and Demographic Analysis Report 2023 Overview Presentation



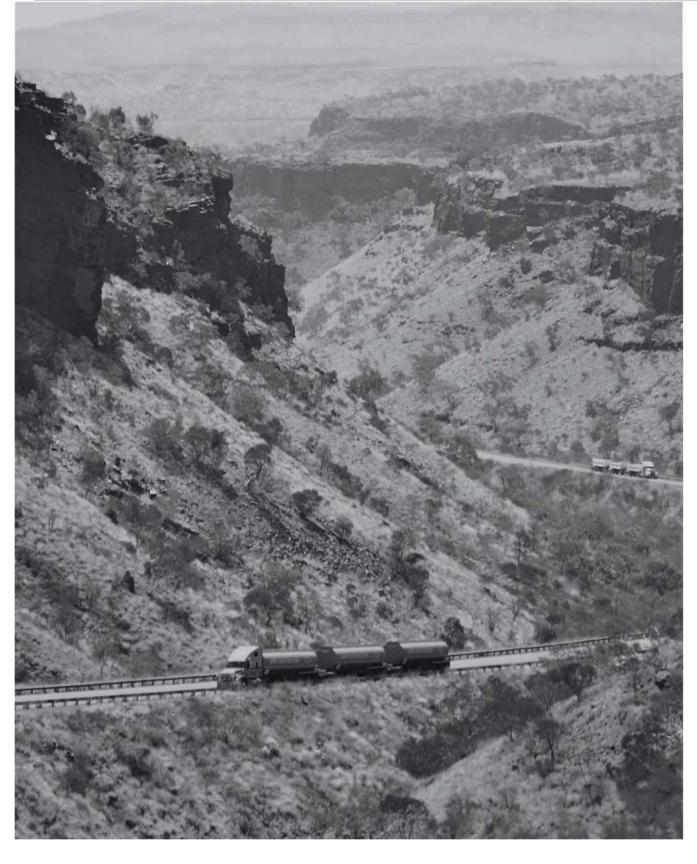
Ashburton Economic and Demographic Analysis

A look at key recent trends and outlooks

Presentation for the Shire of Ashburton 20 Feb 2024

Presented by Keenan Jackson

Ordinary Council Meeting Attachments



Agenda

- Economic & demographic snapshot
- Recent economic and demographic trends
- Industry and workforce analysis
- Future prospects

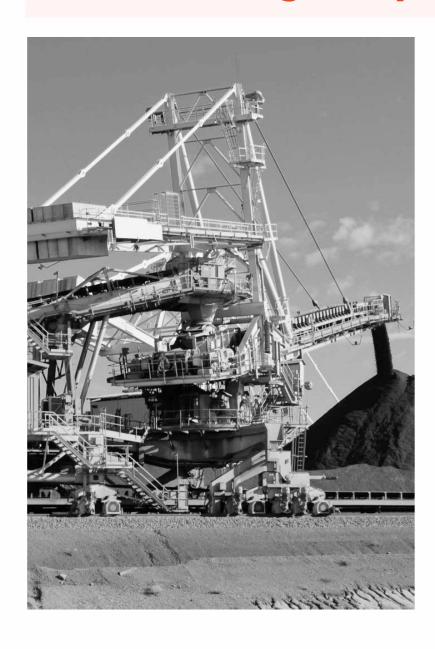


Economic & demographic snapshot





The most productive workers in Australia, but an economy reliant on a few large employers



KEY INDICATORS 2021/22



\$35.9B

Gross Regional Product



7,834

Population



16,357

Local Workers



4,242

Employed Residents

186

Businesses

3.9

\$2.2M

Value Added per Worker

(Regional WA - \$0.58M)

Workers per Employed Resident

(Regional WA - 1.2)

Workers per Business

88

(Regional WA - 6)

LARGEST INDUSTRIES



Metal Ore Mining

\$18,740M 9,093 Workers



Oil & Gas Extraction

\$10,700M 1,011 Workers



Heavy & Civil Engineering

\$3,373M 1,228 Workers



Construction Services

\$1,791M 522 Workers



Beverage

\$40M 605 Workers

informed decisions

Very hard to get an accurate picture of just how many people are in the Shire at any given time

Usual residents

7,393

Enumerated Population

15,446

2021 Census

Local Stated Workers

13,727

Local Workers

16,649

Modelled estimate

informed decisions

Local workforce is older and more male orientated. They are more likely to be overseas born, and less likely to be Indigenous than residents.



RESIDENT PROFILE



Median Age (Regional WA - 40

23% Born

Overseas

(Regional WA - 20%)

years)



58% Male 42% Female





10.5% Identified as ATSI

(Regional WA - 8.4%)



41

33% Born **Overseas**

Median

(Regional WA - 43

Age

(Regional WA - 26%)





78% Male 22% Female

(Regional WA -57%/43%)



5.9% Identified as ATSI

(Regional WA - 4.5%)



63% with a Qualification

(Regional WA - 53%)



15% with a Degree

(Regional WA - 16%)



70% with a Qualification

(Regional WA - 64%)



14% with a Degree

(Regional WA - 20%)

\$120,172 Median Household Income

(Regional WA - \$84,500)

\$128,642 Median

Income (Regional WA -

\$68,357)

89% Fulltime Job (Regional WA - 70%)

Item 6.1 - Attachment 2 Page 78

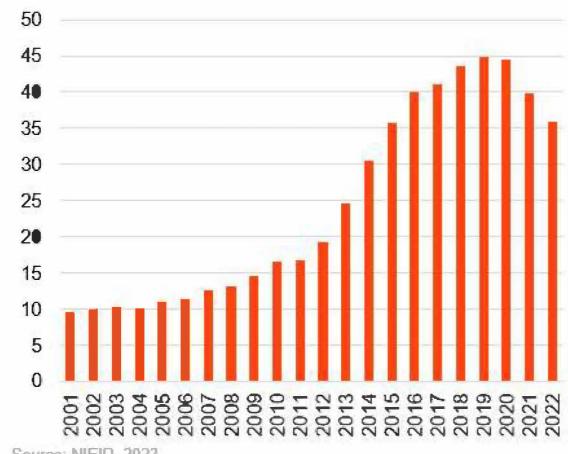
Trends/changes over the last two decades





Ashburton's employment levels have dropped rapidly in recent years as a result of the completion of major gas projects

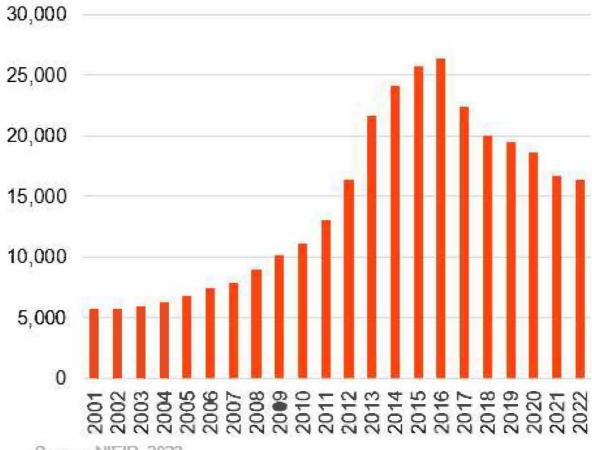
Estimated Gross Regional Product \$B, 2001 to 2022



Source: NIEIR. 2023

IC informed decisions

Estimated Local Workers, 2001 to 2022



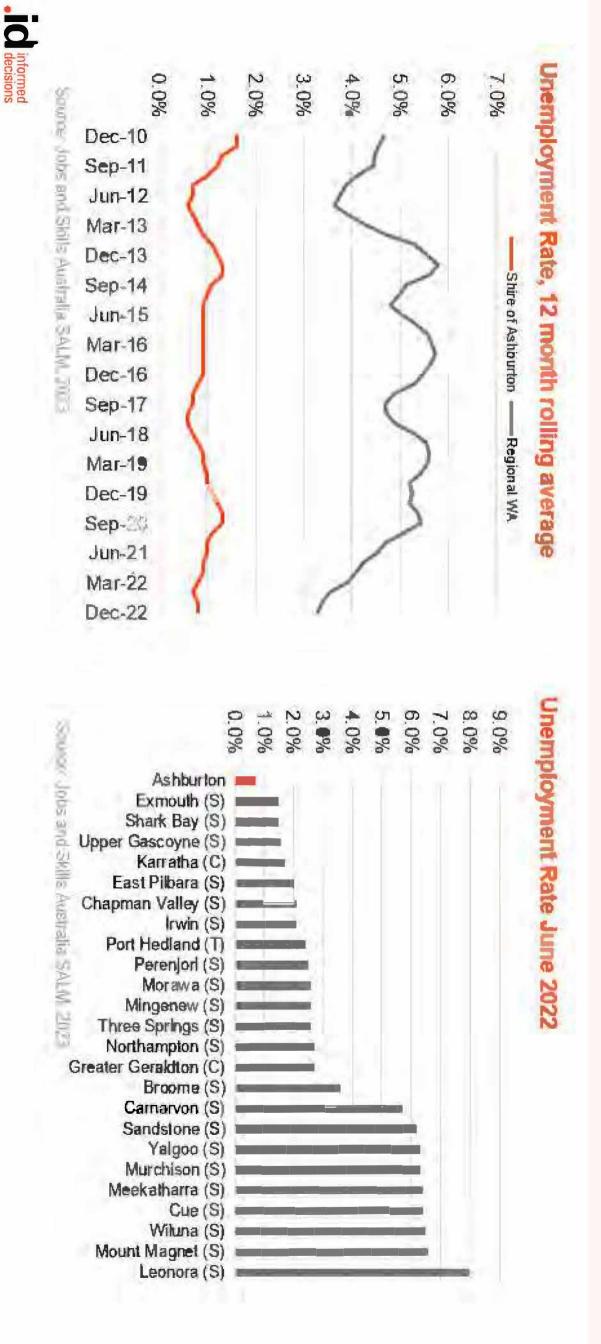
Source: NIEIR, 2023

Item 6.1 - Attachment 2 Page 80

Gorgon and Wheatstone had substantial impacts across the Shire

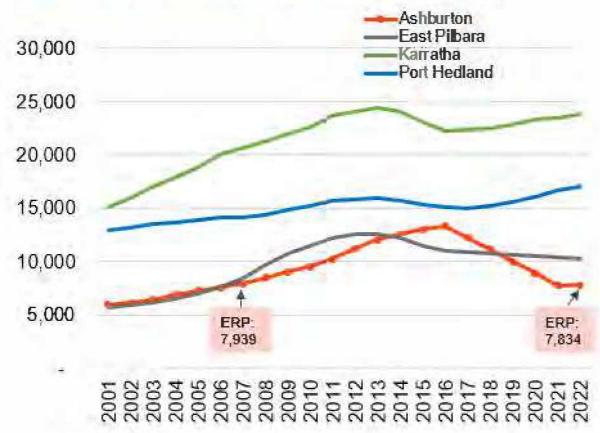


workers leave lowest in Australia. However, this is because when jobs decrease Unemployment levels in Ashburton are consistently one



The LGA of Ashburton experienced the largest % decline in population out of all LGAs in Australia between 2016 and 2022. Resident population was back to 2007 levels.

Estimated Resident Population, 2001 to 2022



Change in Estimated Resident Population, 2001 to 2022

| | 2001 to 2006 | 2006 to 2011 | 2011 to 2016 | 2016 to 2022 |
|-----------------|--------------|--------------|--------------|--------------|
| Ashburton | 27% | 34% | 30% | -41% |
| East Pilbara | 36% | 60% | -11% | -6% |
| Karratha | 33% | 18% | -6% | 7% |
| Port Hediand | 9% | 11% | -4% | 13% |

Source: ABS Regional Population Growth

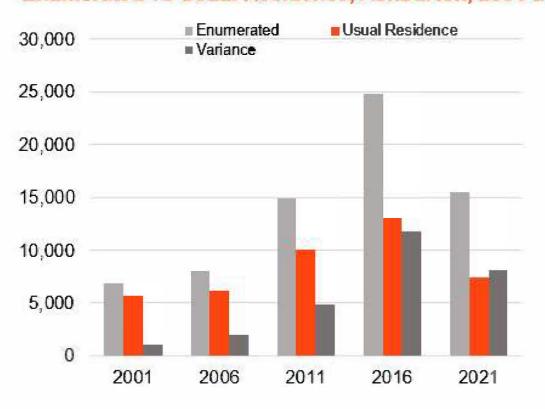
Source ABS Regional Population Growth



Ordinary Council Meeting Attachments

Ashburton typically has a much larger 'actual' population; during the peak of the construction boom, the actual population was almost 12,000 people above the resident population

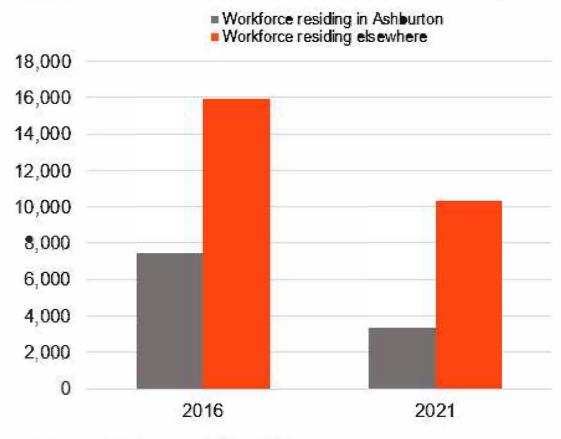
Enumerated vs Usual Residence, Ashburton, 2001-21



Source: ABS Censuses 2001 to 2021

I informed decisions

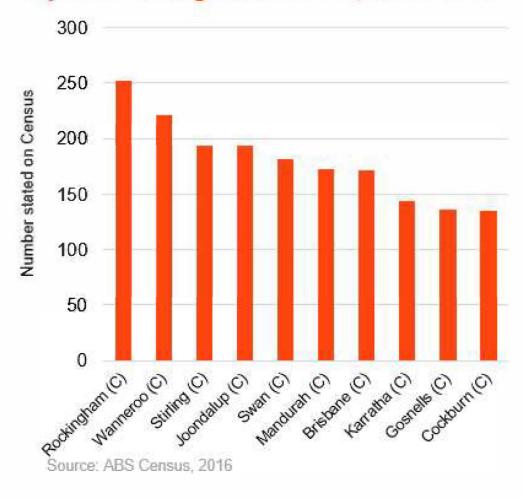
Residence of Workforce, Ashburton, 2016 and 2021



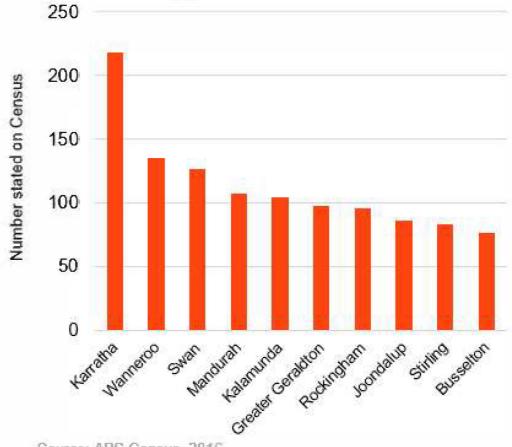
Source: ABS Censuses 2001 to 2021

Ashburton has had negative net domestic migration in recent years, many moving back to Perth or larger regional WA cities

Top Domestic Migration Sources, 2011 to 2016



Top Domestic Migration Destinations, 2016 to 2021

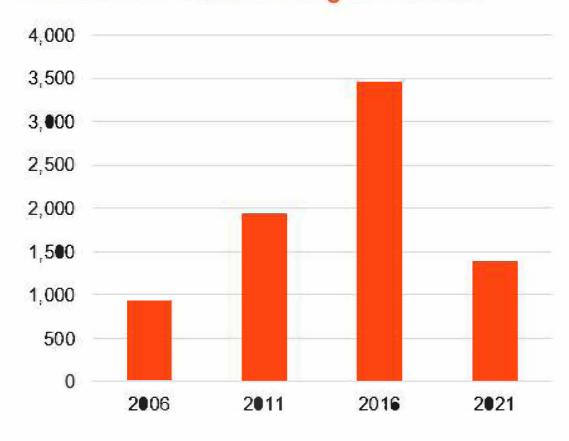


Source: ABS Census, 2016



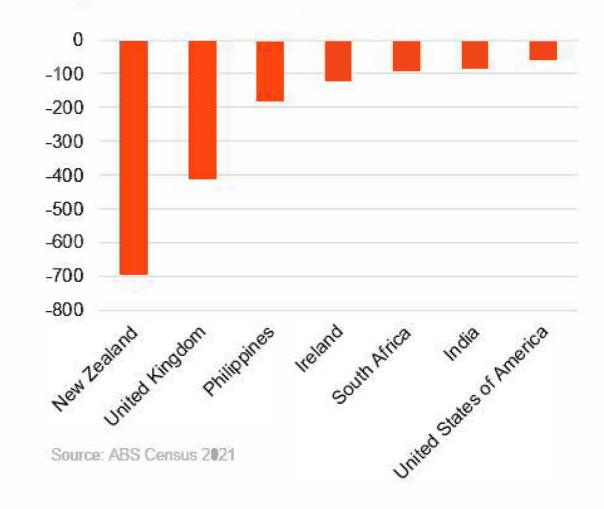
Many overseas workers also returned home, some possibly influenced by COVID restrictions

Stated Overseas Born residing in Ashburton



Source: ABS Censuses 2006 to 2021

Change in Overseas Born, 2016 to 2021





Tom Price is
Ashburton's
largest
population
centre and has
grown in
enumerated
population



Estimated Change in Population, 2016 to 2021

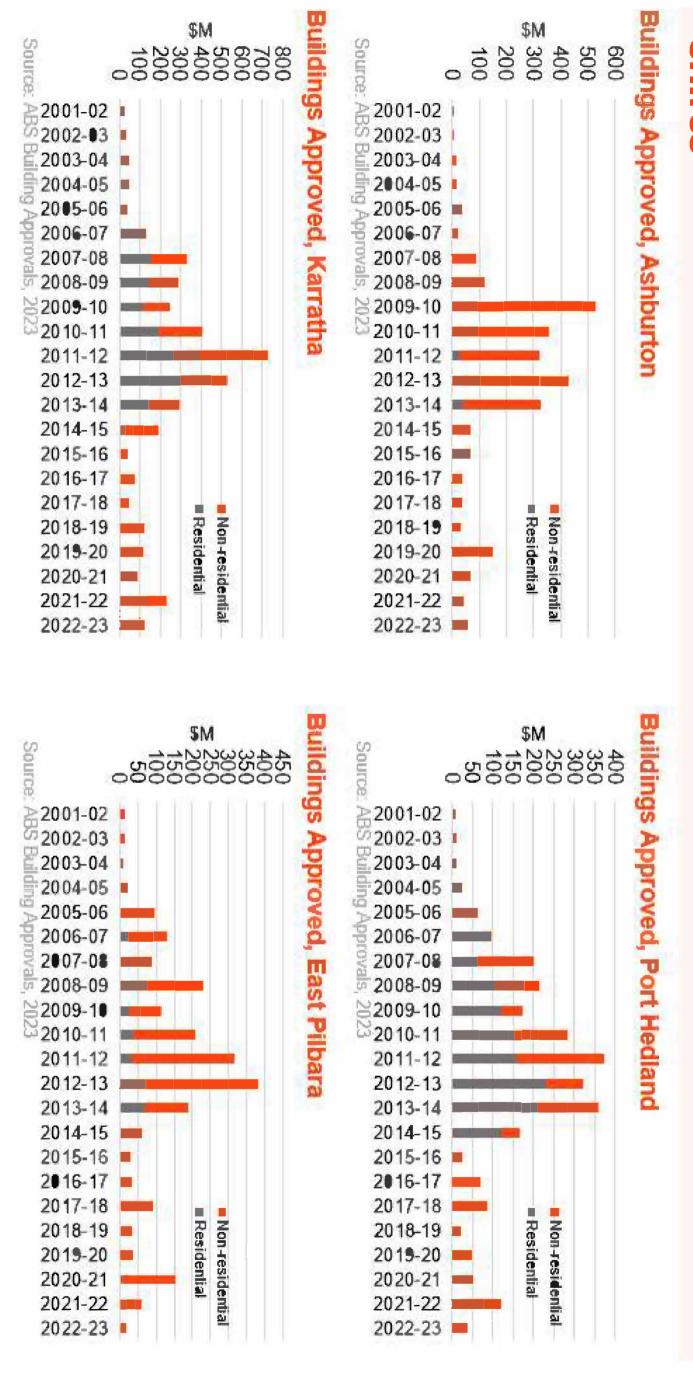
| Area | 2016 Enum. | 2016 Usual residence | 2021 Enum. | 2021 Usual residence | 2022 ERP* | Change 2016 to 2021 Enum. | Change 2016 to 2021 Usual residents |
|-----------------------|---------------|-------------------------|---------------|-------------------------|--------------|---------------------------------|--|
| Wakathuni | 78 | 80 | 88 | 79 | | 10 | -1 |
| Barrow Island | 5,731 | 1,963 | 248 | 44 | | -5,483 | -1,919 |
| Pannawonica | 953 | 694 | 769 | 685 | 721 | -184 | -9 |
| Paraburdoo | 1,687 | 1,354 | 1,659 | 1,316 | 1,394 | -28 | -38 |
| Greater Paraburdoo | 3,478 | 1,842 | 2,850 | 1,379 | | -628 | -463 |
| Onslow | 1,183 | 851 | 1,492 | % 12 | 874 | 309 | -39 |
| Greater Onslow | 8,118 | 3,955 | 1,907 | 8 85 | | -6,211 | -3,€70 |
| Tem Price | 3,286 | 2,960 | 3,508 | 2,911 | 3,116 | 222 | -49 |
| Greater Tom Price | 5,965 | 4,073 | 6,837 | 3,705 | | 872 | -368 |
| Remainder** | 1,064 | 429 | 2,837 | 617 | | 1,773 | 188 |
| Total LGA | 24,859 | 13,023 | 15,446 | 7,393 | 7,834 | -9,413 | -5,630 |

Source: ABS Census 2018 and 2021; ABS Regional Population Growth; "2022 ERP estimates for non-townships are not available; "* Remainder is LGA minus smaller localities and 'Greater' township areas.

19 March 2024

Residential building approvals have been far below neig

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Residential building approvals in the 8 years to 2014/15

| | Dwellings | Dwellings Value | Share of Approvals |
|---------------------|------------------|------------------------|---------------------------|
| Ashburton | 318 | \$166M | 7% |
| East Pilbara | 725 | \$307M | 19% |
| Port Hedland | 2,999 | \$1,190M | 57% |
| Karratha | 3,050 | \$1,478M | 49% |

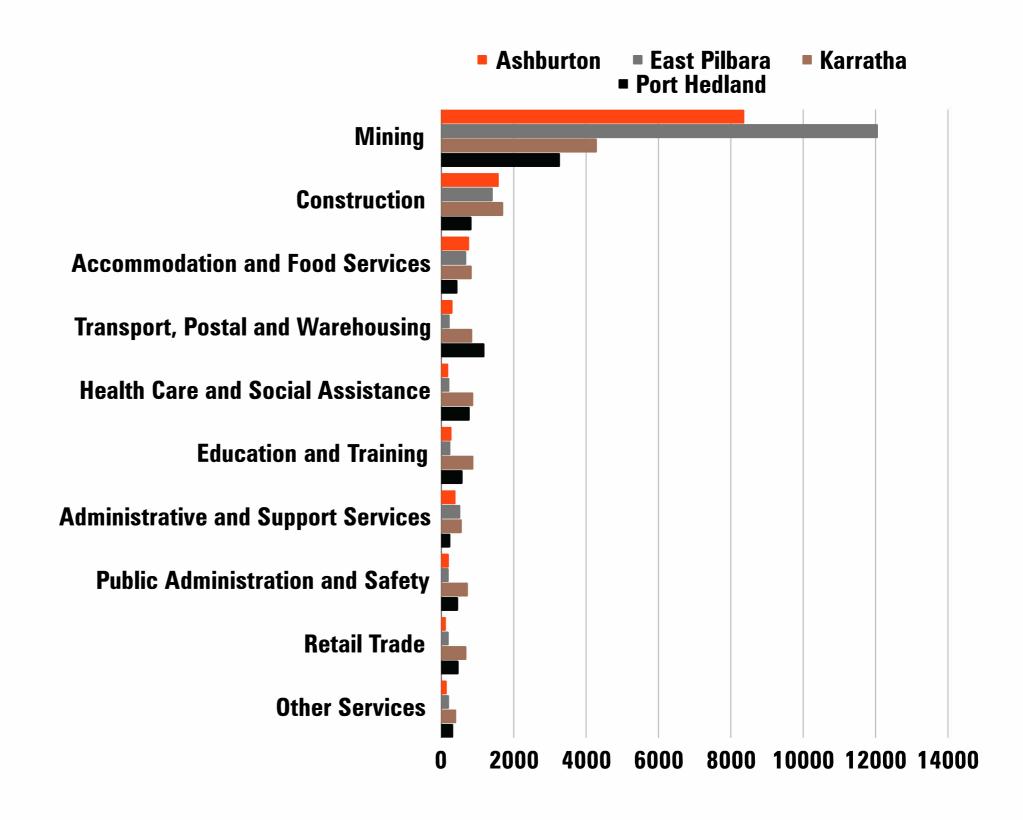


Industry & Workforce analysis





Ashburton has a highly concentrated industry structure



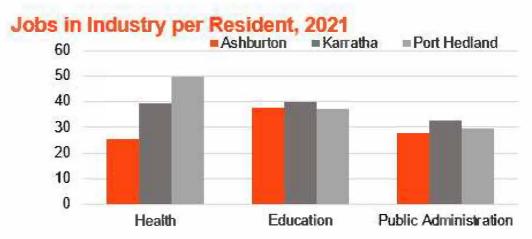
Provision of essential household services, especially healthcare, appears to be under-represented in Ashburton

LQ Ashburton compared to Karratha (exc. Mining), 2021

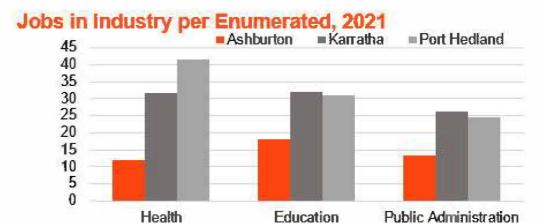


Source: ABS Census 2021



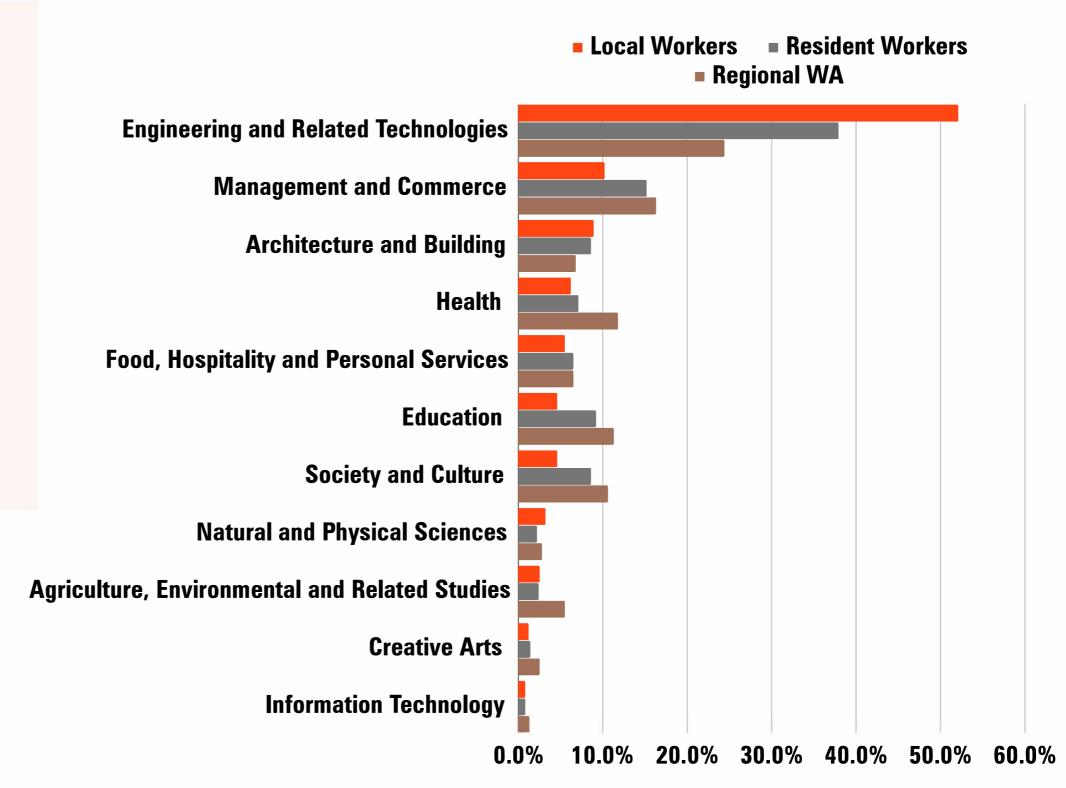


Source: ABS Censuses 2021



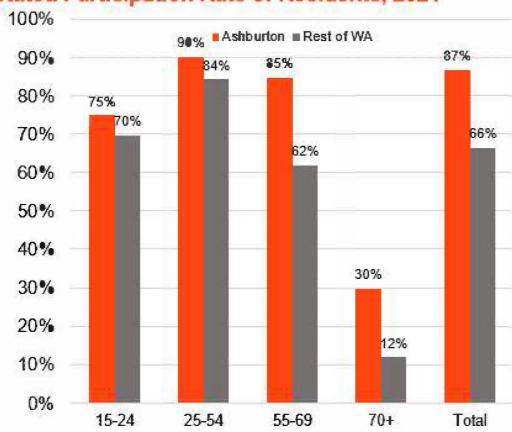
Source: ABS Censuses 2021

Skills and qualifications are centred on Engineering and Trades areas



Ashburton has much higher participation rates and lower unemployment rates than most of regional WA

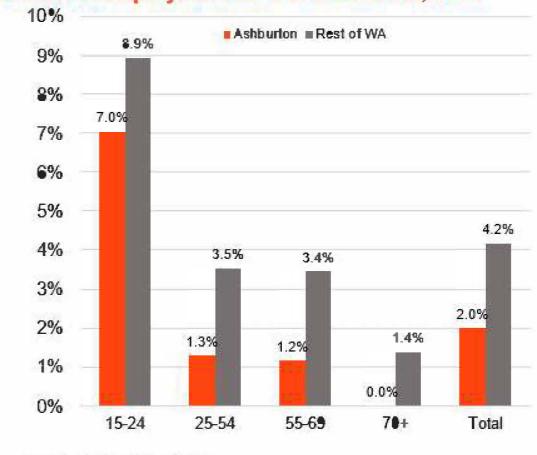
Stated Participation Rate of Residents, 2021



Source: ABS Census 2021

IC informed decisions

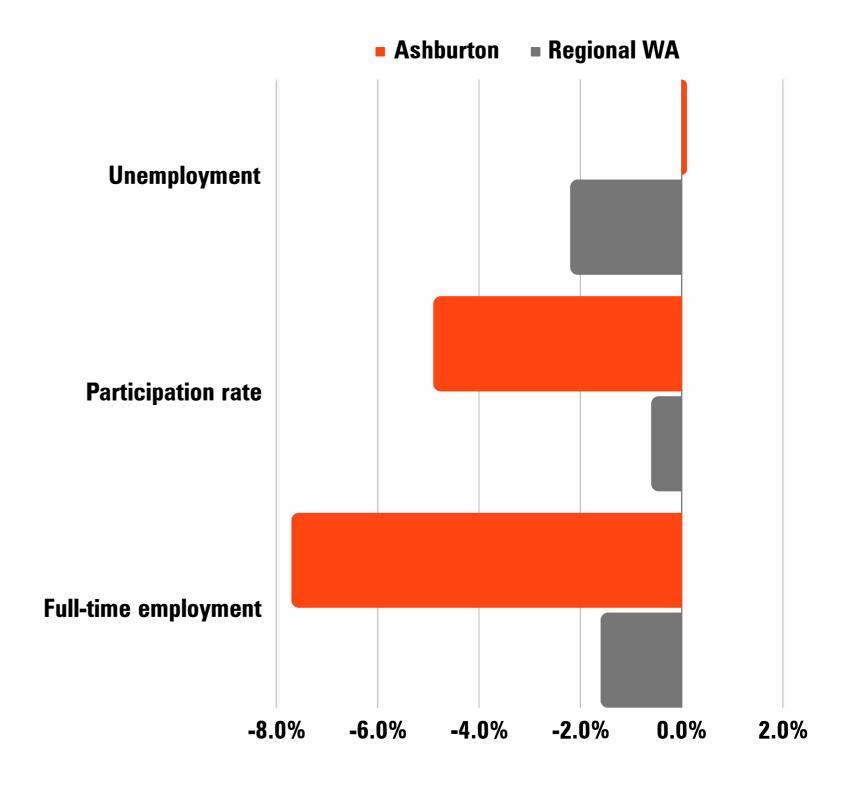
Stated Unemployment Rate of Residents, 2021



Source: ABS Census 2021

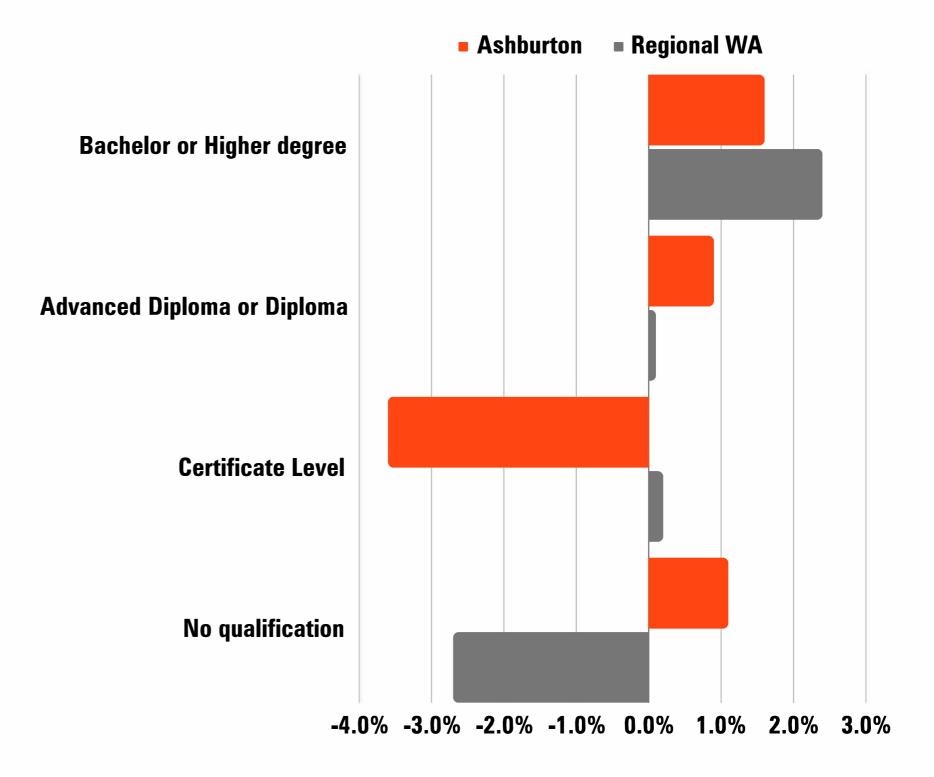
Ordinary Council Meeting Attachments

However, changes in labour force indicators between 2016 and 2021 were worse than regional WA



Ordinary Council Meeting Attachments

Skill levels of workforce worsened between 2016 and 2021



Ordinary Council Meeting Attachments 19 March 2024

Minimal growth in business related qualifications compared to other areas, but specialised environmental areas growing

| Growing Skills - Ashburton | Growing Skills - Pilbara | Growing Skills - WA | |
|--|---|--|--|
| Education, nfd | Hospitality | Business and Management, nfd | |
| Geology | General Nursing | Accounting | |
| Paramedical Studies | Accounting | Hospitality | |
| Beauty Therapy | Teacher Education: Early Childhood | General Nursing | |
| Land, Parks and Wildlife Management | Business Management | Engineering and Related Technologies, nfd | |
| General Nursing | Paramedical Studies | Business Management | |
| Earth Sciences, nfd | Business and Management, nfd | Psychology | |
| Glazing | Sports Coaching, Officiating and Instruction | Education, nfd | |
| Sales | Teacher Education, nec | Teacher Education: Early Childhood | |
| Teacher Education: Early Childhood | Automotive Engineering and Technology, nfd | Information Technology, nfd | |
| Human Welfare Studies and Services, nec | Psychology | Law, nfd | |
| Human Welfare Studies and Services, nfd | Education, nfd | Management and Commerce, nfd | |
| Literature | Mining Engineering | Human Welfare Studies and Services, nec | |
| International Business | Community Health | Health, nfd | |
| Tourism Management | Human Welfare Studies and Services, nec | Education, nec | |

Future prospects





Outlook

The National Skills Commission suggests employment growth will be driven by:



Care



Computing



Cognitive abilities



Communication



Climate

The WA Government is focusing efforts on the following industries:

- Renewable energy (hydrogen)
- Critical minerals
- Carbon capture, utilisation and storage (CCUS)
- Oil & gas decommissioning
- Medical & digital health products
- High value food manufacturing
- Naval shipbuilding
- Regional tourism
- Space technologies



Strengths and challenges - overall



- Ashburton's future is still tied to the resource based industries with short to medium term demand for gas and iron ore to continue and longer term growth in critical minerals.
- Industry concentration means the economy and population is open to large movements/less resilience.



 Ashburton's small and dispersed population base limit its capacity to compete with larger towns like Karratha and Port Hedland for commercial investment and larger essential facilities.



Opportunities & Challenges/Threats - Mining





- Growth in critical minerals
- Development of Ashburton
 Port for Iron Ore exports
- Large scale renewable projects across the Pilbara would help decarbonise the industry



- Competition from other overseas markets in a better position to produce green hydrogen-reduced iron
- China economy slowing
- Demands to decarbonise the industry
- Gorgon Carbon Capture and Storage still not working optimally



Opportunities & Challenges/Threats - Construction





- Planned redevelopment of Tom Price Hospital
- Pipeline of energy and resource developments is improving
- Potential for mass employment in decommissioning of oil and gas infrastructure



- Highly cyclical of resource based developments
- Low residential building pipeline
- Environmental impacts increasingly need to be considered
- Major projects in neighbouring shires impact the cost and availability of labour



Opportunities & Challenges/Threats - Tourism





- Onslow Community
 Precinct Boating Upgrade
- Development of naturebased/ecotourism/indigen ous tourism development,
- Targeted campaigns for FIFO workers/families present growth avenues



- Brand recognition for Pilbara in terms of natural tourism assets is lower than for the Kimberley
- Major construction projects drive up costs of flights and accommodation
- Larger airports in Karratha and Port Hedland seen as key gateways.



Opportunities & Challenges/Threats - Agriculture





- Aquaculture and mariculture
- Irrigated agriculture in the alluvial floodplains of areas to the south and east of Onslow
- Development of native food crops
- New technology could improve profitability of livestock grazing ventures.



- Water erosion will continue to be a challenge for sustainable irrigation
- Lack of processing facilities



Opportunities & Challenges/Threats - Education





- Higher education remote learning facility
- Encourage a major employer to establish a specialised training facility
- Local institutions can focus on courses that target growing skills



 Large centres such as Port Hedland and Karratha have larger population bases that better support education campuses or attract more investment from training firms



Opportunities & Challenges/Threats - Other





- Space Pilbara region is a good testbed for future space exploration programs; industry transfer opportunities in remote operations, automation, and robotics from mining
- Marine Ashburton had less than 10% of Port Hedland and Karratha's employment levels in Marine Industries in 2021



 Large centres such as Port Hedland and Karratha have larger established ports and possibly offer better transport access and accommodation facilities for scientific explorations



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Economic and demographic profiles



Economic and population forecast monitoring



Economic and population forecasts



Industry analysis



Economic health checks



Economic impact analysis and benefit cost assessment

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Agenda Item 6.2 - Attachment 1

Shop Ashburton Campaign Proposal

Proposal – Shire of Ashburton Buy Local Campaign

Opportunity:

To create a gift card program that is unique to the businesses within the Shire of Ashburton, ensuring that money stays within our community and supports local businesses in alignment with tourism and business strategy.

Current Situation:

Vouchers from some specific businesses within the shire are available to purchase, however these are often paper based and frequently go unused. Due to the specific nature of these vouchers, consumers may instead elect to buy more generic vouchers such as Coles / Myer group vouchers which increase the gift recipient's choice of spend but takes the money out of the community. To combat this a local gift card program offers consumer choice, whilst keeping money in community.

Shires and chambers of commerce across Western Australia are developing their own versions of buy local campaigns to promote businesses within the community as an identified promotional activity.

The Onslow Chamber of Commerce and Industry has conducted market research and liaised with the Collie Chamber of Commerce, Margaret River Chamber of Commerce, Kalamunda Shire and Geraldton Shire to discuss their current programs and the associated costs and benefits.

Proposal:

The Onslow Chamber of Commerce and Industry (OCCI) has conducted market research and in conjunction with Pilbara Inland Chamber of Commerce and Industry (PICCI) – consideration was given to:

- Cards 4 All due to the type of cards not all businesses would be able to be involved
- Manual Hard Copy Voucher very labour intensive to administer and lag time for reimbursements to businesses
- Why Leave Town the preferred option

OCCI & PICCI recommends the "Why Leave Town" (WLT) Proposal due to its usability for all vendors, administrative support (including remote POS terminal lockdown and management) and reporting. The recommendation is to implement Generic Chip Gift Cards and Digital Gift Cards.

| | PROGRAM – Why Leave Town (WLT) |
|-----------------------|---|
| Cost | \$13,596 inc GST (5 years) – nonrefundable subscription |
| | \$5.20 per card |
| | Includes |
| | Marketing material |
| | • Artwork |
| | Administration of program |
| Type of Card | EFTPOS, Chip, digital gift card (chip and digital suitable for all readers) |
| Loading of Card | Primary – WLT website |
| | Local load-up point |
| Expired Funds | 25% to card issuer |
| | 75% WLT (will use credit against future fees) |
| Business Registration | WLT via online registration, WLT will work with local CCI/SoA to identify and onboard |
| | business. |

| | Will likely need local CCI to door knock businesses | | | | |
|---------------------|--|--|--|--|--|
| Terminal Activation | Hands free activation completed by WLT | | | | |
| Funds to Merchant | Immediate | | | | |
| Reporting | Monthly via WLT website | | | | |
| | Consumers able to check card balance via WLT website | | | | |
| Pro's | - Áll inclusive' package | | | | |
| | - WLT can administrate program | | | | |
| | - Card holders can check balance on website | | | | |
| | - Local or web-based loading | | | | |
| | - Includes marketing materials | | | | |
| | - Suitable for all merchants | | | | |
| Con's | - 0% unused funds returned'- however will be allocated to ongoing subscription fee | | | | |

Program Requirements:

Participating businesses to be members of either the Onslow Chamber of Commerce and Industry (OCCI) or Pilbara Inland Chamber of Commerce and Industry (PICCI) and be located within the Shire of Ashburton.

Opportunities to broaden scope:

There is functionality within the system for sub-sets of vouchers that can be used at specific locations, for example grocery or fuel vouchers for at risk community members who are supported by corporations, department of communities.

Funding Support Requested from SoA:

- In kind support from SoA for all associated graphic design work including for cards and promotional materials
- Initial seed funding to purchase program subscription for five years \$13,596.00
- Sponsorship of initial 500 generic cards to reduce barriers to purchase, \$2,600.00
- Total Contribution from SoA: \$16,196.00 incl GST

Resourcing:

OCCI and PICCI are committed to promoting the program with member businesses and providing support in addition to Why Leave Town to assist member sign-up as well as operation as a local load-up point.

Initial marketing material will be required including digital advertising, seeking resourcing from SoA for development of this material. Initial subscription includes marketing for 30 member businesses (shop-front stickers and posters), additional quantity can be purchased as needed.

Recommendation:

The Shire of Ashburton agrees to fund the buy local campaign with an initial outlay of \$16,196.00 to have the program running for 5 years and provide an in-kind donation to develop marketing materials for use in program promotion.

Shop Ashburton Concept



Colour Pallet



Gift Card





Business Sticker



Bumper Sticker



Promotional Flyer



Website Landing Page





Agenda Item 6.2 - Attachment 2

Whitsunday Small Business Start-Up Program Application Form



Whitsunday Small Business Start-Up Program Application Form Template

SECTION 1: YOU

| APPLICANT DETAILS | |
|--|---|
| New Business Name | |
| Registered Australian Business Number (ABN) | |
| Registered Trading Name (if applicable) | |
| Street Address | |
| Postal Address | |
| Website/page | |
| Are you seeking to start-up a new business in the Whitsunday Local Government Area (LGA)? | (You must answer yes to proceed) ☐ YES ☐ NO |
| How long have you been working on establishing this business? | □ Less than 6 months □ 6-12 months □ 12-24 months □ 2 years – 5 years □ 5 years + |
| Grant funding must be matched by the applicant 50:50 - can you demonstrate a financial ability to match the funding amount within grant timing? | (You must answer yes to proceed) ☐ YES ☐ NO How will you demonstrate ability to match funding? ☐ Letter from a third party accountant or bank ☐ Evidence of written agreement with third parties (e.g. investors or business partners) ☐ Other (please specify) |
| Grant activities must be delivered within 12 months from signing the Funding Agreement – will your activity be completed within the 12month timeframe? | (You must answer yes to proceed) □ YES □ NO |

1

Application Form Template 2468352/2466332



| CONTACT DETAILS | | | |
|-----------------|--|--|--|
| Salutation | | | |
| First Name | | | |
| Surname | | | |
| Position/Title | | | |
| Email Address | | | |
| Contact Number | | | |



SECTION 2: START-UP BUSINESS DETAILS

| DETAILS | |
|---|---|
| New Business Name (20 words) | |
| Brief description of your start-up business (50 words) | |
| Brief description of the purpose of the funded activity (50 words) | |
| Which type of new business are you? (You may choose more than one) | □ Commercialising a novel product, process, service, or business model □ Introducing a new product, process, service, or business model to the region □ Undertaking collaboration activities that are region-specific (e.g. value / supply chain partnerships or strategic alliances) |
| Which pillar industry (mining, tourism, agriculture) does your activity align with? (You may choose more than one) | ☐ Mining ☐ Tourism ☐ Agriculture |
| How does your new business align with the industry or industries indicated above? | Please provide a short description of how your business directly or indirectly aligns and/or supports mining, tourism or agriculture in the Whitsunday region. |



SECTION 3: RESPONSE TO MERIT CRITERIA

START-UP BUSINESS DESCRIPTION Please describe how your start-up business addresses each of the merit criteria. Applications are selected based on responses to these 5 key criteria. Demonstration of newness or uniqueness - 20% (up to 500 words) You should demonstrate: How the new business is clearly new or unique or has strong point of difference to existing businesses in the Whitsunday region How the new business addresses an identified market need A sound understanding of potential market/s, competitors and industry Contribution to business start-up capacity and capability (up to 500 words) You should demonstrate: How the funding will directly support business start-up activities Using the Market Readiness Level tool (below), provide a self-rating of where your start-up business is currently at and what impact the funding will have on moving to the next level? The expected contribution to the business (e.g. financial, employment FTE, and/or other measures) Value for money (up to 500 words) You should demonstrate: How the grant activity provides value for money (e.g. supported by supplier quotes) That the grant activity has been thoroughly researched, planned and considered Key risks associated with delivering the grant activity have been identified and mitigation approaches considered

4

Application Form Template 2468352/2466332



Shows economic benefit and alignment to the 3 pillars of the Whitsunday region (up to 500 words)

You should demonstrate:

- How the grant activity directly or indirectly aligns to one or more of the 3 pillar industries (tourism, mining, agriculture) in the Whitsunday region
- · How the grant activity will deliver economic benefit to the Whitsunday region (e.g. employment)
- · Potential of the grant activity to get investor-ready and/or attract future investment to the region

Business readiness and capacity to fund (up to 500 words)

You should demonstrate:

- The applicant can match the amount applied for (e.g. bank statement)
- Ability to deliver the grant activity within the 12-month timeline (If not, explain why)

Using the Market Readiness Level tool, provide a self-rating of where your business is currently at. What impact the funding will have on moving to the next level?

| Current Level (pre-activity) | Expected Level (post-activity) | |
|---------------------------------|--------------------------------|--|
| | | |
| | | |



5

Application Form Template 2468352/2466332



SECTION 4: USE OF FUNDING

| FUNDING | | |
|---|------------|--|
| Total Grant Activity(s) Cost | \$8,000.00 | |
| Funding amount required from WSBSU program (up to \$10,000 to be matched) | \$4,000.00 | |

EXPENDITURE BREAKDOWN

Please provide a breakdown of how the grant activity costs will be allocated.

Not all activities will require an even split of funding contribution, however the Total Costs will need to comprise 50% Applicant Contribution and 50% WSBSU Funding.

| Activity/Task | Vendor | Expected Purchase Date | Total Activity Cost | Applicant Contribution | WSBSU Funding |
|--------------------------------------|-------------|------------------------------|---------------------------|---------------------------|------------------|
| Purchase of new processing equipment | XXX Pty Ltd | 01/07/2019 | \$6,800.00 | \$2,800.00 | \$4,000.00 |
| New website and branding | XXX Pty Ltd | 01/09/2019 | \$1,200.00 | \$1,200.00 | - |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| TOTAL EXPENSES | | \$8,000.00 | \$4,000.00 | \$4,000.00 | |



SECTION 5: TIMING AND MILESTONES

| TIMEFRAME | |
|-------------------|--|
| Commencement Date | |
| Completion Date | |

| ACTIVITIES AND MILESTONES Please list the activities and milestones expected to be completed under this program. | | | | |
|---|--------------------------|------------|--------------------|--|
| Description | Activity or Milestone | Start Date | Completion Date | |
| Purchase of processing equipment | Milestone | 01/07/2019 | 01/08/2019 | |
| 2. Manufacturing trial batch | Activity | 01/08/2019 | 15/08/2019 | |
| 3. Developing branding | Activity | 01/07/2019 | 15/08/2019 | |
| 4. First sales at Farmers Markets | Milestone | 17/08/2019 | 17/08/2019 | |
| Develop wholesale terms and promotion to retail stockist | Activity | 01/10/2019 | 01/01/2020 | |
| 6. | | | | |
| 7. | | | | |

SECTION 6: ATTACHMENTS

Please ensure you have attached the following **essential** documentation:

- Response to Merit Criteria
- Evidence to support your financial contribution

You may attach any additional non-essential documentation, including:

- Business Plan
- Marketing Plan
- Risk Management Plan
- Any other information relevant to your application

7

Application Form Template 2468352/2466332

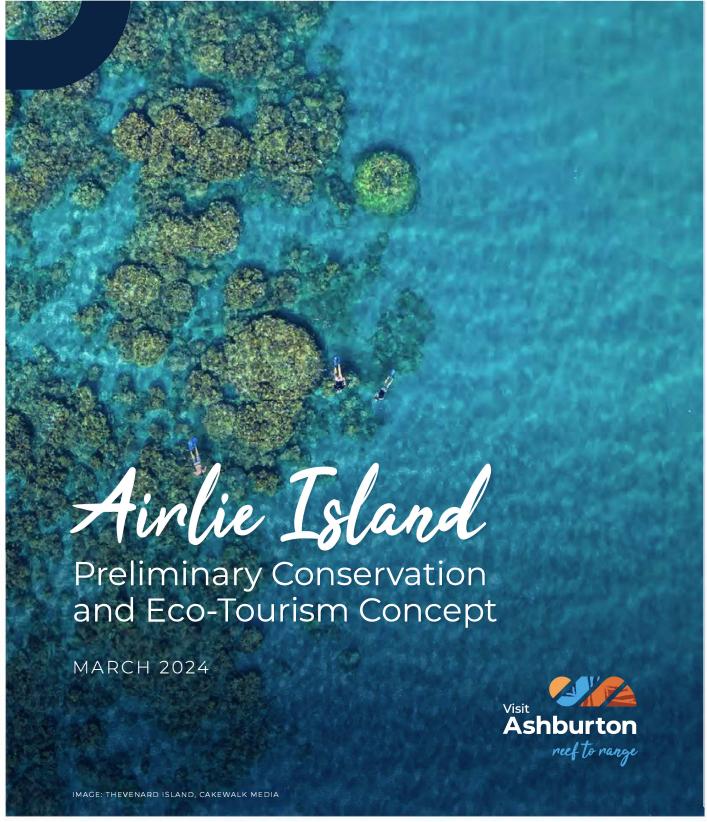


Agenda Item 6.3 - Attachment 1

Airlie Island Preliminary Conservation and Eco-Tourism Concept









2



Contents

| The Opportunity | 4 |
|---------------------------------|----|
| Gateway to the Mackerel Islands | 6 |
| Eco-Tourism Project Development | 8 |
| Strategic Alignment | 12 |
| Marine Tourism | 13 |
| Next Steps | 15 |

References

Pilbara Inshore islands nature reserves and proposed additions draft management plan. Department of Biodiversity, Conservation and Attractions, Perth, Australia

 $Commonwealth\ of\ Australia\ 2022,\ THRIVE\ 2030:\ The\ Re-Imagined\ Visitor\ Economy.\ A\ national\ strategy\ for\ Australia's\ visitor\ economy\ recovery\ and\ return\ to\ sustainable\ growth,\ 2022\ to\ 2030\ (available\ here:\ https://www.austrade.gov.au/news/publications/thrive-2030-strategy)$

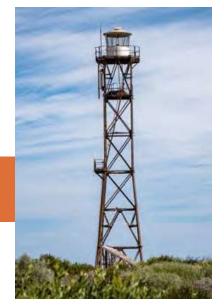
 $Development WA, Pilbara Vernacular Handbook, Part 5-Onslow (available here: https://developmentwa.com.au/projects/residential/pilbara-vernacular/overview) \\ economy.id 2019/20-https://economy.id.com.au/ashburton$

Tourism Western Australia, Corporate Plan 2020-21 (available here: https://www.tourism.wa.gov.au/About-us/Strategies-plans-reports/Pages/Strategies-plans-and-reports.aspx#/)

Western Australia Local Government Association Economic Development Review 2019 (available here: https://walga.asn.au/Policy-Advice-and-Advocacy/Economic-Development)

Photo Credi

Tourism Western Australia, Cakewalk Media, Shire of Ashburton



The Opportunity

Airlie Island Conservation Plan

Airlie Island lies approximately 35km off the coast of Onslow and is one of the most accessible of the Pilbara Inshore

Islands. The island is approximately 800m by 400m in size and was used as an oil storage and processing facility until 2002. Following this use as an oil and gas island it is now uninhabited and is surrounded by pristine coral reef and turquoise waters presenting the perfect opportunity to play host to a range of tourism activities.

Santos Limited and its predecessors (Quadrant Energy, Apache Energy, Novus West Australia, and Western Mining Corporation) operated an oil production facility over the eastern portion of Airlie Island from 1991 under various joint ventures.

The facility was approved by the EPA in 1995 (Bulletin 210) and is situated on a CALM Act lease, sourcing oil from offshore oilfields. Oil production ceased in 2002 and the facilities existed under a care and maintenance regime. During 2016–17 Quadrant Energy commenced decommissioning the infrastructure, including two crude oil storage tanks, water discharge tanks, sludge pits and associated office, accommodation and workshop.

Airlie Island is classified as a contaminated site with an updated investigation required to understand the current levels of contamination. Recent site visits revealed that the island has introduced weed species and infrastructure not removed during oil and gas decommissioning including concrete pads, pylons and considerable portions of the bund wall.

Pilbara Inshore Islands Nature Reserves Draft Management Plan

Department of Biodiversity, Conservation and Attractions 2020

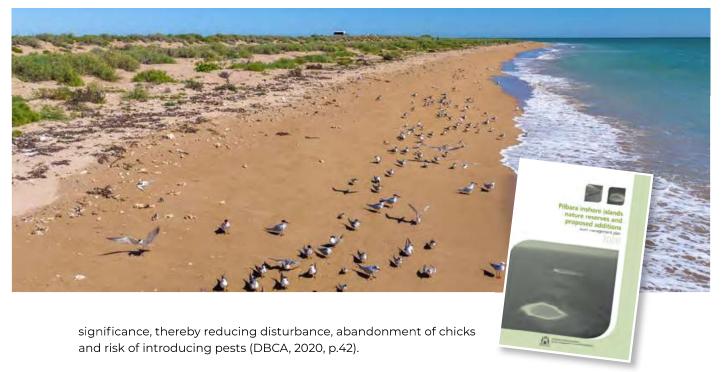
The Draft Pilbara Inshore Islands Management Plan identified that the Pilbara Inshore Islands provide a refuge for threatened species including the 'critically endangered' eastern curlew, great knot, curlew sandpiper, and are nesting beaches for 'vulnerable' green, flatback and hawksbill turtles and 'endangered' loggerhead turtles.

It was recognised that a key challenge for the plan is to identify locations where people can access beaches without unduly impacting on sensitive sites and species vulnerable to disturbance, particularly during nesting (DBCA, 2020, p.36).

The Draft Pilbara Inshore Island Management Plan (DBCA 2020) identified that Airlie Island is one of three islands that have the most challenges for long-term management of conservation values (DBCA, 2020, p.iv).

The intent of designating camping and day use on select islands such as Airlie Island is to minimise camping and use outside of designated areas of higher natural values and

4



With the level of contamination, remaining industry infrastructure and likely prevalence of invasive weeds, Airlie Island presents as a logical candidate for a locally driven and managed case study into how Eco-Tourism can assist in conservation.

Strategic Goal 4: Allow for nature-based recreation and tourism experiences without compromising the cultural, heritage and natural values of the islands.

Visitor management priorities will focus on identifying locations where access can occur without unduly impacting on values.

The department's Corporate Policy Statement No.18: Recreation, Tourism and Visitor Services (DPaW 2017a) outlines the principles, operational guidelines, procedures and administrative controls in relation to recreation and tourism on department-managed lands.

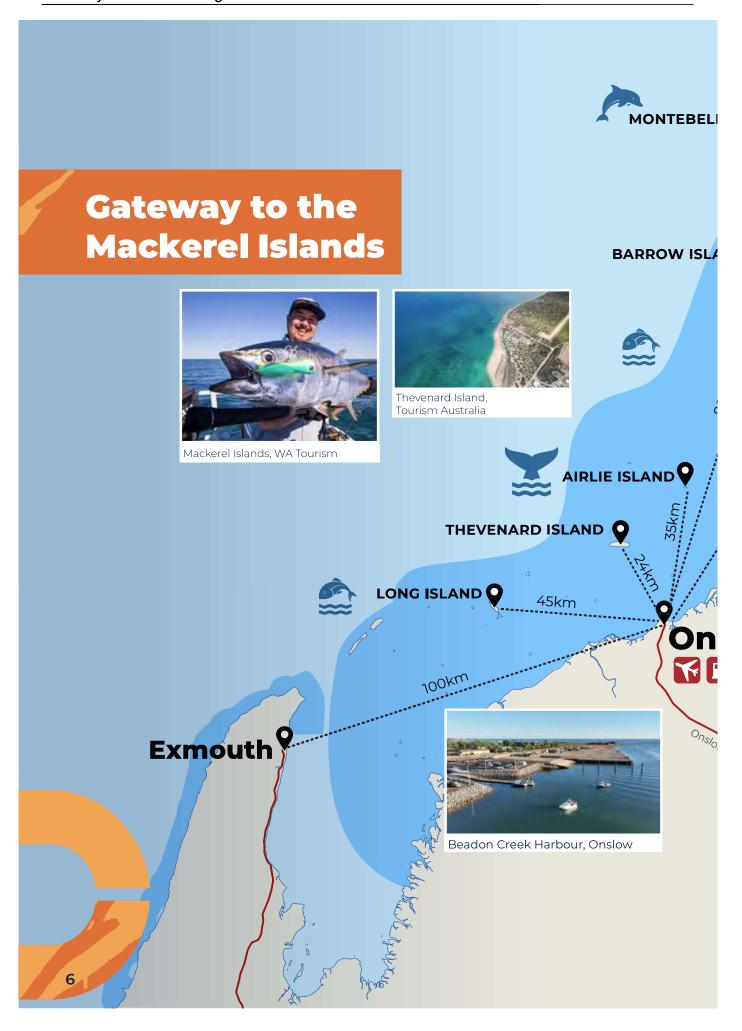
The policy states that 'any recreation and tourism activity should be compatible with the vesting purpose of the reserve'.

The proposed Airlie Island Conservation and Eco-Tourism Concept is intended to develop model whereby tourism can be used to champion, promote and fund conservation efforts in a localised environment.

The proposed use in this case will enhance the cultural, heritage and natural values of the island given the current state it is in and act as an example case of the importance of conserving the broader Pilbara Inshore Islands.



5





Eco-Tourism Project Development

Stage 1: Self-Contained Eco-Tourism Concept

Stage 1 of the Eco-Tourism Concept includes self-contained camping locations, ocean moorings and a conservation boardwalk.

Boating and other water-based activities in nature reserves are generally not compatible with the reserve purpose (and CALM Regulations 2002) (DBCA, 2020, p.36). In line with the Draft Management Plan, this concept proposes to identify and designate suitable locations where camping can occur, and vessels can operate. Land may then be classified under the CALM Regulations 2002 as a designated area (for a purpose specified in the notice such as a camping area or boating area) (DBCA, 2020, p.36).

Self-Contained Camping

The Draft Pilbara Inshore Island Management Plan identified that camping on the islands is a popular pastime for locals and visitors.

The intent of designating camping on select islands such as Airlie Island is to minimise camping outside of designated areas of higher natural values and significance, thereby reducing disturbance, abandonment of chicks and risk of introducing pests (DBCA, 2020, p.42). The introduction of a Mooring system will also naturally reduce disturbance on sensitive beach locations by directing people where to secure vessels.

The proposed Airlie Island camping location is to be in line with that proposed in the Draft Management Plan for camping on Serrurier Island where it was proposed to occur in a

designated 'camping area' which will be signposted (see regulation 2, CALM Regulations). Nature reserve signs on Airlie Island should be modified to indicate this similarly to Serrurier Island (DBCA, 2020, p.42).

Campers will need to be fully self-sufficient, adopt leave no trace principles and abide by conditions on the lawful authority (DBCA, 2020, p.44).

Moorings – Safe and Secure Anchorage

The Draft Pilbara Inshore Island Management Plan noted that 'Several incidents where people camped on an island overnight have woken up to either a missing vessel or a beached and damaged vessel. The remains of a 'trailer sailer' from one such incident was removed from South Muiron Island at great cost to the department. The department may



8

consider the possibility of installing small boat moorings to facilitate safe vessel mooring near the South Muiron Island camping area' (DBCA, 2020, p.39). The Draft Management Plan also indicated that Moorings to facilitate camping at South Muiron, Serrurier and Sholl Islands may be considered (DBCA, 2020, p.44).

Looking to other jurisdictions, The Whitsundays, in Queensland, now have over 200 moorings for public use. These moorings offer boat users with safe anchorage and help to protect the fringing reef surrounding the island by limiting anchor drag (Queensland Department of Environment and Science, Whitsundays Public Moorings Brochure).

Conservation Boardwalk

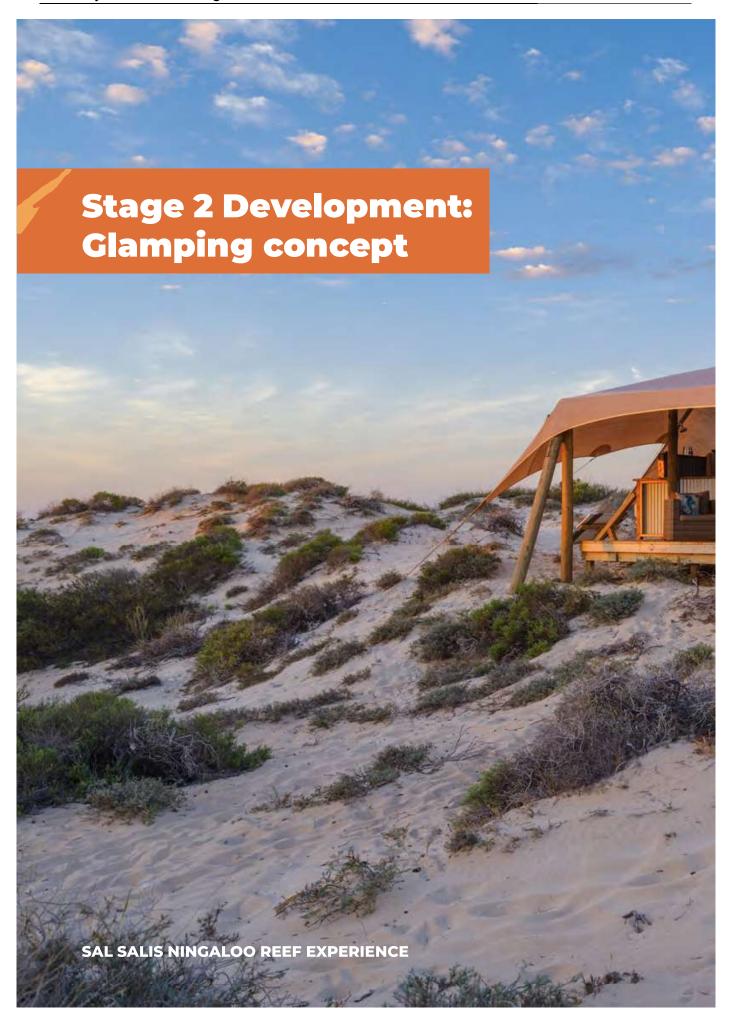
To ensure the safeguarding of the sensitive natural habitat and wildlife of Airlie Island, a

conservation boardwalk will be established. The boardwalk will enhance the overall visitor experience to the island, increase accessibility as well as offering a designated path to ensure minimal disturbance to vegetation and provide protection to the islands native fauna.

Stage 2 For Investigation: Glamping ECO-Tourism Experience

Given it's remoteness, it is anticipated that tourism to Airlie Island will remain low volume with the majority of visitation between April – September whilst the weather is coolest and outside of the Cyclone season. This presents a key opportunity to investigate the viability of a 'glamping' style tourism offering.







Strategic Alignment



Towards a Visitor Economy

Prosperity is one of the four pillars included in the Shire of Ashburton Strategic Community Plan 2022-2032, which states that we will advocate and drive opportunities for the community to be economically desirable, resilient, and prosperous.

Onslow currently has a strong industrial economy with Chevron's Wheatstone and Woodside's Macedon LNG projects and Onslow Salt's operations providing employment opportunities.

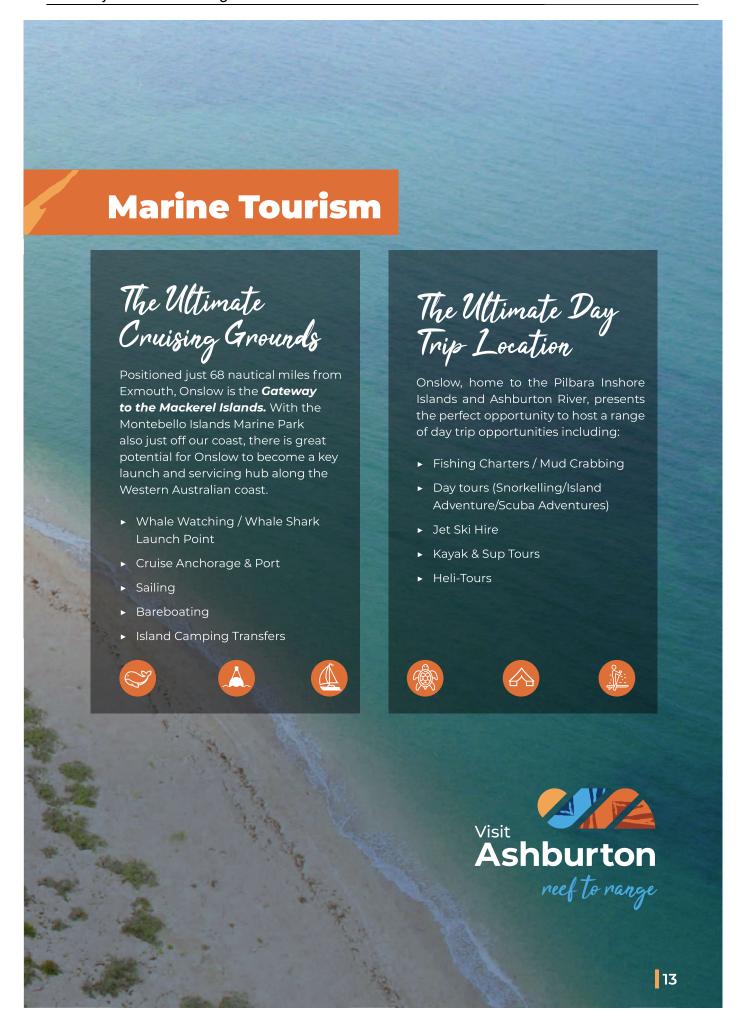
The Shire of Ashburton is committed to securing the long-term future of Onslow by ensuring the community has the amenity, vibrancy and lifestyle in place to underpin future industry expansion.

The visitor economy is seen as a sustainable opportunity to deliver these long-term benefits to the community and to sustain a strong industry workforce.

To support this vision, the Shire of Ashburton adopted the positioning paper Onslow Towards a Visitor Economy which highlights the visitor economy vision of the community, the actions that we have taken to date and those we plan to undertake.

Principle 2 of this document states that we will enhance the Gateway to the Mackerel Islands experience.







Item 6.3 - Attachment 1 Page 135

Next Steps

The Shire of Ashburton have currently taken the following steps:

- 1. Undertaken Preliminary Environmental Assessment with Aurora Environmental
- 2. Prepared the Airlie Island Preliminary Conservation and Eco-Tourism Concept
- 3. Conducting early stakeholder engagement with the Department Biodiversity, Conservation and Attractions.

Objective

To seek support of the Western Australian Government through the New Tourism Investment committee of Cabinet to develop Airlie Island or other suitable islands accessible off the coast of Onslow as a first stage project.

What we will deliver

The Shire will develop the management plans and business cases required for investment. This will be performed in collaboration with the community and Western Australian Government departments.

The Shire will:

- ► Conduct on-site updated Environmental Assessments for Airlie Island (Updated information on level of contamination, introduced weeds, remaining infrastructure including bund walls, pads and pylons).
- ▶ Develop a Conservation Management Plan for Airlie Island or the most feasible island/s.
- ▶ Develop Eco-Tourism Business Case (Stage 1 & Stage 2) Opportunities to facilitate business development and co-management.

What do we need

The Shire of Ashburton seek to work with the Western Australian Government through the New Tourism Investment committee of Cabinet to coordinate the tourism investment opportunity in the Pilbara Inshore Islands which involves working with:

- ▶ Department of Biodiversity, Conservation and Attractions,
- ► Department of Transport,
- ▶ Department of Jobs, Tourism, Science and Innovation
- ▶ Department of Water and Environmental Regulation
- ▶ Department of Energy, Mines, Industry Regulation and Safety

15

Item 6.3 - Attachment 1

