

# Vecco Critical Minerals Project

## Social Impact Assessment

September 2023



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## Abbreviations

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<b>ABS</b>	Australian Bureau of Statistics	<b>MW</b>	Megawatt
<b>CHSP</b>	Commonwealth Home Support Program	<b>OIC</b>	Officer in Charge
<b>CRG</b>	Community Reference Group	<b>QAS</b>	Queensland Ambulance Service
<b>CSA</b>	Combined Sporting Association	<b>QFES</b>	Queensland Fire and Emergency Services
<b>DRFA</b>	Disaster Recovery Funding Arrangements	<b>QGSO</b>	Queensland Government Statisticians Office
<b>FIFO</b>	Fly-In/Fly-Out	<b>QPS</b>	Queensland Police Service
<b>HPA</b>	High-purity alumina	<b>REE</b>	Rare-earth elements
<b>JCSS</b>	Julia Creek State School	<b>RFS</b>	Rural Fire Service
<b>km</b>	kilometre	<b>ROM</b>	Run of mine
<b>LGA</b>	Local Government Area	<b>SES</b>	State Emergency Service
<b>MISOTA</b>	Mt Isa School of the Air	<b>SIA</b>	Social Impact Assessment
<b>MP</b>	Member of Parliament	<b>SIMP</b>	Social Impact Management Plan
<b>MPHS</b>	Multipurpose Health Service	<b>t</b>	tonne
<b>Mtpa</b>	Million tonnes per annum	<b>UCL</b>	Urban Centre and Locality

## Document Management

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### Conditions

Opinions and judgments expressed herein, which are based on our understanding and interpretation of current regulatory standards, should not be construed as legal opinions. Information obtained from interviews and contained in the documentation has been assumed to be correct and complete. The author does not accept any liability for misrepresentation of information or for items not visible, accessible, nor able to be inspected at the sites at the time of the site visits.

### Revisions

Rev No.	Date	Prepared by	Approved by
1	September 2023	<b>Think Business Solutions Pty Ltd</b> (Fiona Murcott)	<b>Vecco Industrial Pty Ltd</b> (Shane Ryan)

## Executive Summary

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### The Project

Vecco Industrial Pty Ltd proposes to develop the Vecco Critical Minerals Project – one of the largest low-cost vanadium resources in the world – 70km north of Julia Creek, in the western Queensland Local Government Area of McKinlay, and 515km west of Townsville.

The proposed open-cut mine will produce up to 1.9 million tonnes of run-of-mine ore per annum, which will be processed on site to yield up to 5,500t of vanadium and 4,000t of high-purity alumina each year. Minor quantities of other rare-earth elements may also present opportunities for saleable biproducts of the process. Product will be transported by road to Townsville for refinement as electrolytes and ultimate use in battery creation. Vanadium flow batteries are suitable for renewal energy storage on a large scale – a critical step in the global shift to decarbonisation.

The Project's estimated mine life is 26 years, extending to 36 years when accounting for construction and closure periods. The mine will be rehabilitated as it progresses and there will be no final void at the end of the mine's life.

### The Community

Primary industry has long been the mainstay of the McKinlay Shire economy, based predominantly on beef cattle (currently) and sheep (historically). More recently, the region has seen an influx of cotton cropping. The prospect of a significant mining industry will see a changing economic and social landscape that will have various impacts on communities in the vicinity of the proposed Vecco Critical Minerals Project.

While most local stakeholders are generally supportive of the burgeoning critical minerals industry, there is underlying concern that existing community challenges – such as Julia Creek's major housing and accommodation shortage – may be exacerbated by increased business activity.

Vecco understands that its licence to operate will be contingent, to a large extent, on its ability to build and maintain positive relationships with Project stakeholders and to engage openly and honestly with those people and organisations who will be most affected by its operations.

Through this Social Impact Assessment, Vecco has undertaken demographic research and directly engaged with a range of local stakeholders to understand any impacts that the proposed Vecco Critical Minerals Project (and broader critical minerals industry) may have on the region. The company has also identified various strategies to mitigate any potential negative social impacts that the Project may create and maximise any benefits and opportunities that will contribute to community health and wellbeing.



## 1.0 Introduction

Vecco Group Pty Ltd subsidiary Vecco Industrial Pty Ltd (Vecco) proposes to establish a new open-cut critical minerals mine in the western Queensland. The Vecco Critical Minerals Project is expected to have an initial export capacity of 1.9 million tonnes per annum (Mtpa) and a mine life of 36 years (including construction and decommissioning).

Vecco commissioned Think Business Solutions Pty Ltd to develop this Social Impact Assessment (SIA) to:

- Understand existing community values, benefits and challenges
- Collect and analyse information about key social and cultural issues, population change and community and social changes that are likely to occur as a direct or indirect result of the Project
- Develop strategies for impact mitigation and management.

### 1.1 Study Areas

Five Study Areas have been created to ensure a comprehensive understanding of potentially impacted stakeholders.

**Table 1** Project Study Areas

Study Area	Geography
1	Julia Creek Urban Centre and Locality (UCL)
2	McKinlay Local Government Area (LGA)
3	Richmond LGA
4	Cloncurry LGA
5	Queensland

Study Area 1 represents the town closest to the Project – Julia Creek – to provide a micro analysis of the immediate impact area. Study Area 2 encompasses the McKinlay LGA, of which Julia Creek is the largest town. Study Areas 3 and 4 represent adjacent LGAs Richmond (east) and Cloncurry (west), the latter housing the majority of major services. Study 5 encompasses the entire state of Queensland for comparison. Figure 1 shows the Study Areas relative to the proposed Project.

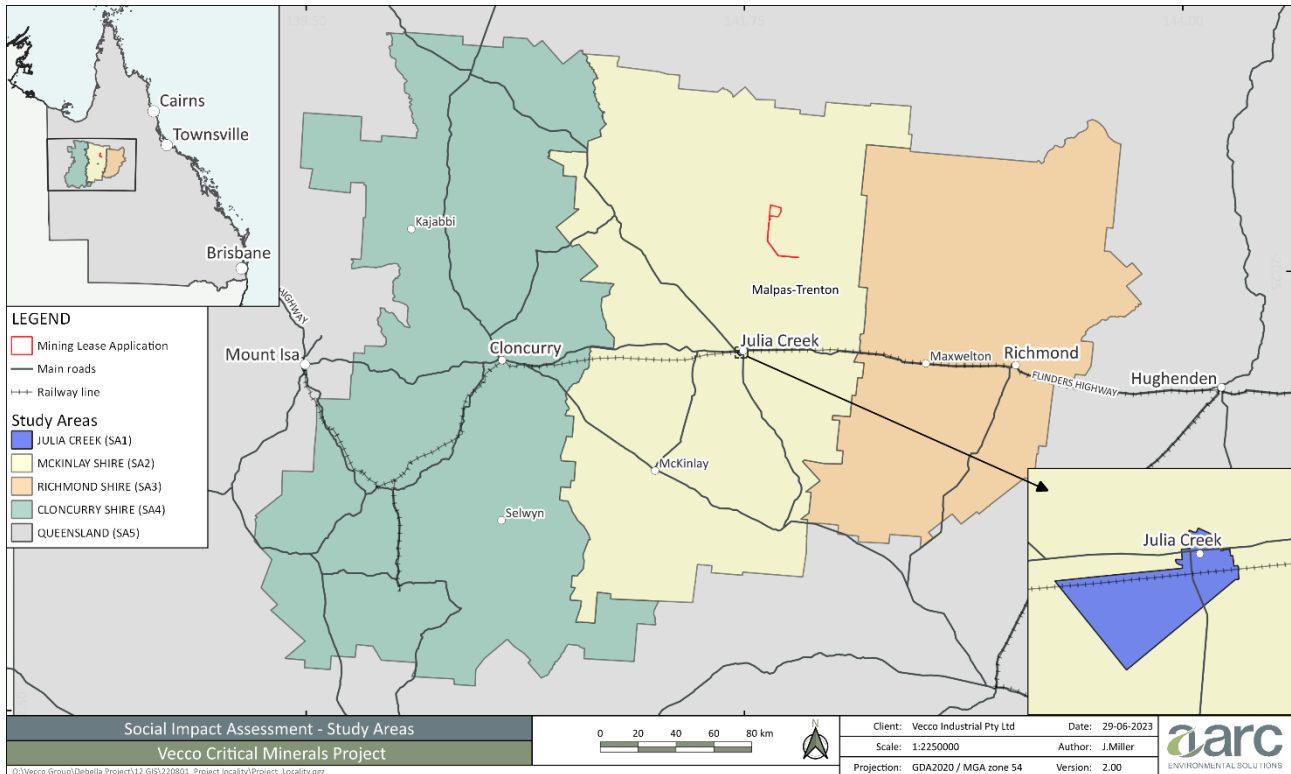


Figure 1 Study Areas

## 1.2 Methodology

### 1.2.1 Information Sources

This SIA combines a desktop review with direct consultation to assemble the information required to assess the social impacts of the proposed Project on various stakeholders. The desktop audit was carried out using the following sources:

- 2021 Census, Australian Bureau of Statistics
- Cloncurry Shire Council
- Project Prefeasibility Documentation
- McKinlay Shire Council
- Queensland Government Department websites and reports:
  - Agriculture and Fisheries
  - Education
  - Energy and Public Works
  - Environment and Science
  - Fire and Emergency Services
  - Health
  - Police
  - Regional Development, Manufacturing and Water
  - Resources
  - State Development, Infrastructure, Local Government and Planning

- Transport and Main Roads
- Treasury
- Treaty, Aboriginal and Torres Strait Islander Partnerships, Communities and the Arts.
- Richmond Shire Council.

## 1.3 Limitations

### 1.3.1 Random Error

Many classifications used in ABS statistics have an uneven distribution of data throughout their categories. Random adjustment of the data is considered the most satisfactory technique for avoiding the release of identifiable census data. These adjustments result in small introduced random errors, but the information value as a whole is not impaired.

## 2.0 Project Description

### 2.1 Project Overview

The Vecco Critical Minerals Project is located 70km north of Julia Creek and 515km west of Townsville, in the McKinlay LGA and is part of the Southern Gulf natural resource management region.

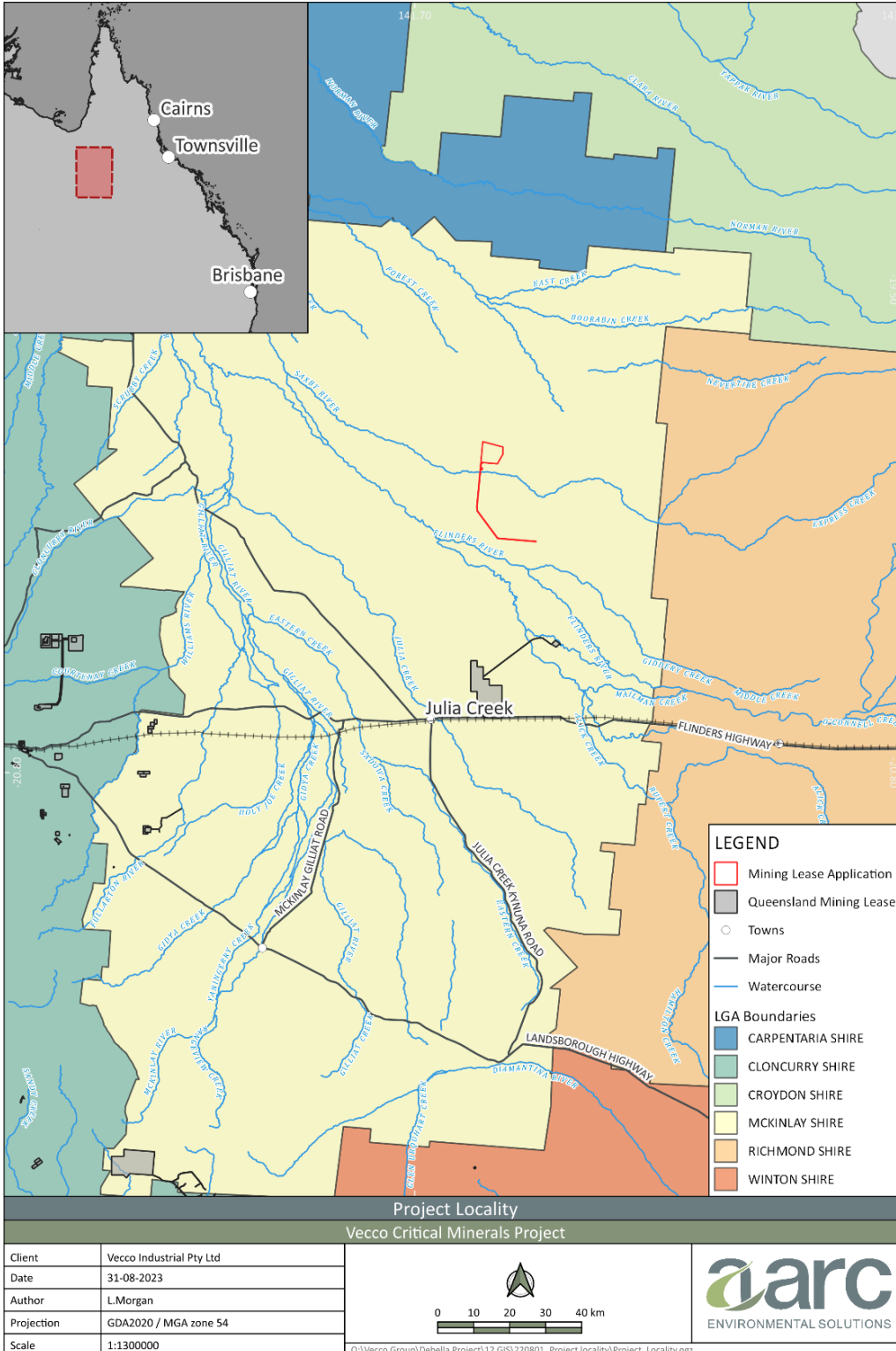


Figure 2 Project location

The Project involves establishing a new vanadium, high-purity alumina (HPA) and other rare-earth elements (REE) mine and associated infrastructure covering a 1,388ha footprint. The proposed operation will produce up to 1.9 million tonnes of run-of-mine (ROM) ore per annum, which will be processed on site to yield up to 5,500t of vanadium and 4,000t of HPA each year. Product will be transported by road to Townsville for refinement as electrolytes and ultimately used in battery creation. Vanadium flow batteries are suitable for renewable energy storage on a large scale – a critical step in the global shift to decarbonisation.

Katestone Global calculated that the Project could achieve 26 to 29 MtCO<sub>2</sub>-e in avoided emissions by 2050 for Queensland, and 22 to 29 MtCO<sub>2</sub>-e in avoided emissions achieved for Australia. This is approximately 15-21% of Queensland's current annual emissions and 4 to 6% of Australia's current annual emissions. The actual avoided emissions will depend on the rate at which renewable generation replaces fossil-fuel generation, i.e. whether State and Commonwealth targets are met, and the consequent change in State and Commonwealth emissions factors. This would be updated as emissions factors are reviewed and published.

The proposed Project will be an open-cut mining operation using truck and excavator methods, requiring supporting infrastructure, such as:

- Access roads
- Airstrip (requirement under assessment)
- Accommodation village (on site)
- General mine infrastructure (administration buildings, crib rooms, warehouses, workshops)
- Go-line/refuel zone
- Haul roads
- Helicopter pad
- Interim process stockpile
- Power generation
- ROM pad
- Sewerage treatment plant
- Solar array (10MW)
- Processing plant.

The Project's estimated mine life is 26 years, extending to 36 years when accounting for construction and closure periods. The mine will be rehabilitated as it progresses and there will be no final void at the end of the mine's life.

## 2.1.1 Landholders

### 2.1.1.1 Mining Lease

The proposed Mining Lease areas are within one functioning cattle property. Discussions with the landholder to date have indicated a willingness to collaborate on land use and access for the life of the Project.

### 2.1.1.2 Land Use

The Project area and surrounds are predominantly used for low-intensity grazing on grasslands and open woodlands. The area is not located in a Priority Agricultural or Strategic Cropping Area.

### 2.1.2 Native Title

The proposed Vecco Project Mining Lease area is not subject to a Native Title claim. Cultural heritage surveys were conducted on and around the site prior to any exploration activity and no sites or items of cultural significance were identified.

## 2.2 Project Workforce

The Project will require a workforce of up to 250 personnel during construction (146 personnel on site at any one time) and 160 during mining (90 on site at any one time). Preference will be given to recruiting local employees where possible; however, due to a shortage of skilled labour, most will be sourced more broadly, including fly in/flyout (FIFO) to Julia Creek airport and bussing to site.

### 2.2.1 Workforce Accommodation

Due to its remote location, the Vecco Project will offer onsite accommodation for both its construction and operation workforces. The 110-person accommodation village will be located on the proposed Mining Lease and accessed via the haul road. The village will feature en-suited single and double rooms, barbecue areas, gymnasium and common areas such as food mess, games room and communal work areas. The village layout will include considerable green space, as it will be constructed around existing trees and shrubbery – which will assist with noise reduction, improve liveability and negate carbon emissions.

There are currently no sources of power or sewerage treatment facilities in the vicinity of the proposed village. These facilities will be constructed as part of an early infrastructure works program. Potable water will be sourced by treating raw water in a small, onsite, reverse-osmosis plant located at the accommodation village. Site power will be temporarily delivered via diesel generators until the permanent sustainable power solution can be established – in the form of an onsite solar array, heat generation from the mineral processing work flow and associated battery storage. Refer to Figure 3 for a conceptual layout of the Project infrastructure, including the accommodation village.



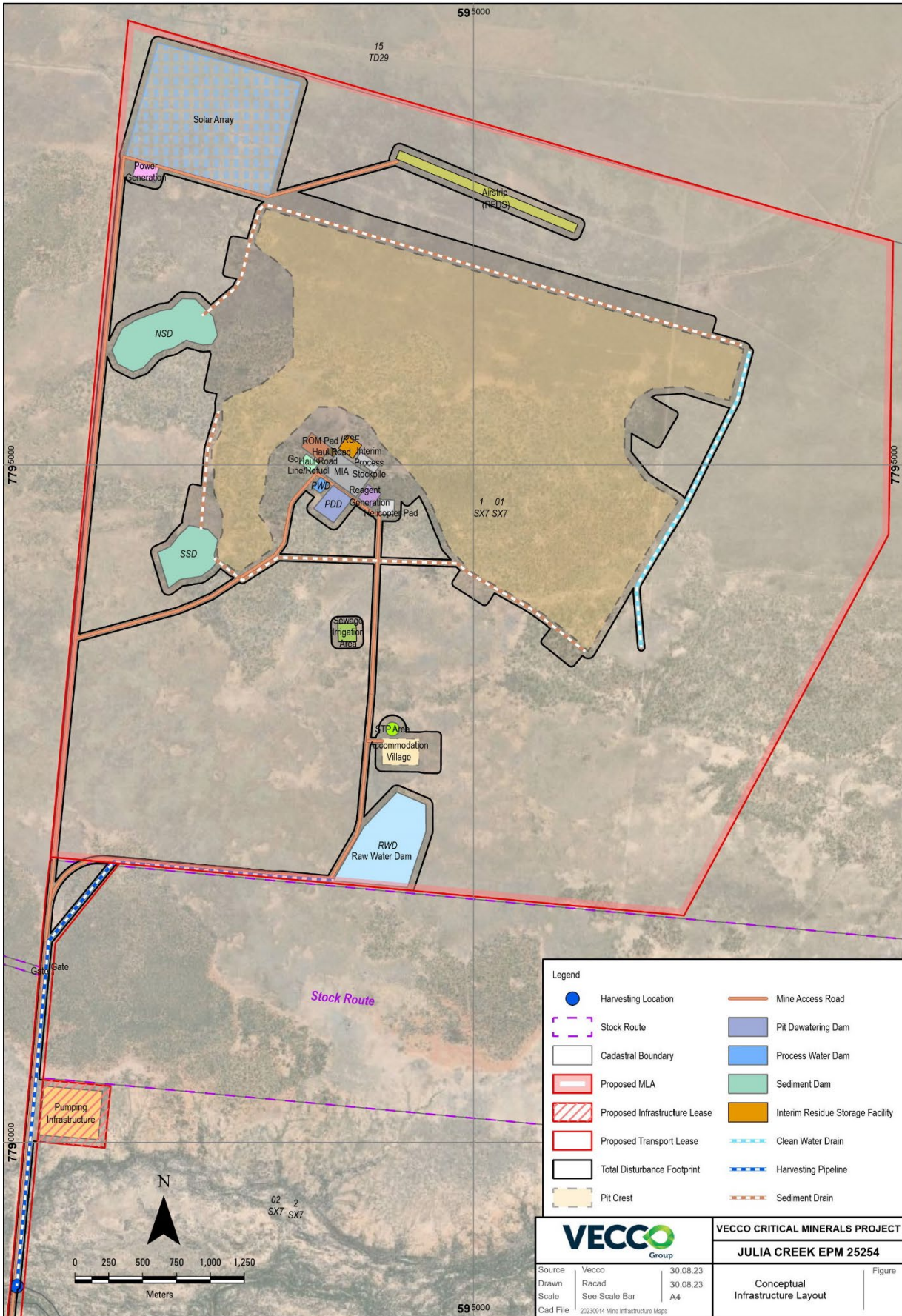


Figure 3 Conceptual infrastructure layout, including accommodation village location

## 3.0 Community and Stakeholder Engagement

### 3.1 Project Stakeholders

The following key stakeholders and areas of impact were identified for the Vecco Critical Minerals Project:

**Table 2** Identified stakeholders and impact areas

Stakeholder	Impact Areas
Landholders	<ul style="list-style-type: none"> <li>• Community identity and values</li> <li>• Livelihood/quality of life</li> <li>• Agricultural land/land use</li> <li>• Property values</li> <li>• Protection of water sources</li> <li>• Environment</li> <li>• Compensation</li> <li>• Psychological impacts</li> <li>• Construction and ongoing mine operations (dust, noise, vibration)</li> <li>• Safety and proximity to mine site</li> <li>• Mine closure/rehabilitation.</li> </ul>
Federal Government	<ul style="list-style-type: none"> <li>• Economic flow-on effects of Project</li> <li>• Infrastructure and planning required to secure successful growth of the region</li> <li>• Federal road network</li> <li>• Potential impact on matters of national environmental significance</li> <li>• Achievement of Australia’s renewable energy targets.</li> </ul>
State Government	<ul style="list-style-type: none"> <li>• Cumulative impacts of resources projects</li> <li>• Economic flow-on effect of Project</li> <li>• Infrastructure and planning required to secure successful growth of the region, including power supply</li> <li>• Community demographics</li> <li>• Housing affordability and availability</li> <li>• State road network</li> <li>• Environment and rehabilitation management</li> <li>• Local employment opportunities</li> <li>• Local procurement opportunities</li> <li>• Achievement of Queensland’s renewable energy targets</li> <li>• Mine closure/rehabilitation.</li> </ul>
Local government	<ul style="list-style-type: none"> <li>• Cumulative impacts of resource projects</li> <li>• Economic flow-on effect of Project</li> <li>• Infrastructure and planning required to secure successful growth of the region</li> <li>• Community demographics</li> <li>• Community identity and values</li> <li>• Social order</li> <li>• Community infrastructure and services</li> <li>• Housing affordability and availability</li> <li>• Local road networks</li> </ul>



Stakeholder	Impact Areas
	<ul style="list-style-type: none"> <li>• Environment</li> <li>• Local employment opportunities</li> <li>• Local procurement opportunities</li> <li>• Mine closure/rehabilitation, specifically post-mining land use.</li> </ul>
Local community	<ul style="list-style-type: none"> <li>• Community demographics</li> <li>• Community identity and values</li> <li>• Social order</li> <li>• Community infrastructure and services</li> <li>• Housing affordability and availability</li> <li>• Local road networks</li> <li>• Environment</li> <li>• Construction and ongoing mine operations (dust, noise, vibration)</li> <li>• Local employment opportunities</li> <li>• Local procurement opportunities.</li> </ul>
Health services	<ul style="list-style-type: none"> <li>• Community demographics</li> <li>• Community infrastructure and services (particularly, greater demand)</li> <li>• Housing affordability and availability.</li> </ul>
Emergency services	<ul style="list-style-type: none"> <li>• Community demographics</li> <li>• Community infrastructure and services (particularly, greater demand)</li> <li>• Social order.</li> </ul>
Education services	<ul style="list-style-type: none"> <li>• Community demographics</li> <li>• Community infrastructure and services</li> <li>• Housing affordability and availability.</li> </ul>
First Nations community	<ul style="list-style-type: none"> <li>• Community identity and values</li> <li>• Cultural heritage</li> <li>• Local employment opportunities</li> <li>• Local procurement opportunities.</li> </ul>
Local businesses	<ul style="list-style-type: none"> <li>• Cumulative impacts of resources projects</li> <li>• Community demographics</li> <li>• Housing affordability and availability</li> <li>• Local procurement opportunities</li> <li>• Capacity and skills to meet Project requirements.</li> </ul>
Local short-term accommodation providers (motel, hotel)	<ul style="list-style-type: none"> <li>• Cumulative impacts of resources projects</li> <li>• Greater demand for services</li> <li>• Ability/capacity to service tourist and other non-mining related industries.</li> </ul>
Environmental groups	<ul style="list-style-type: none"> <li>• Protection of local flora and fauna (including Julia Creek dunnart)</li> <li>• Protection of water sources (including Great Artesian Basin)</li> <li>• Mine rehabilitation.</li> </ul>

Stakeholder	Impact Areas
Agricultural groups	<ul style="list-style-type: none"> <li>• Protection of the rights of local farmers</li> <li>• Water access</li> <li>• Potential loss of employees to mining industry.</li> </ul>
Local employment organisations	<ul style="list-style-type: none"> <li>• Larger workforce</li> <li>• New industry to the region and required skills</li> <li>• Local employment opportunities.</li> </ul>
Other mining and energy projects within the region	<ul style="list-style-type: none"> <li>• Cumulative impacts</li> <li>• Competitive employment market/capacity of immediate community for employment</li> <li>• Road access.</li> </ul>
Unions	<ul style="list-style-type: none"> <li>• Project workforce agreements.</li> </ul>
Potential employees	<ul style="list-style-type: none"> <li>• Cumulative impact of projects</li> <li>• Local employment opportunities</li> <li>• Skill requirements.</li> </ul>
Potential suppliers/ subcontractors	<ul style="list-style-type: none"> <li>• Capacity and skills to meet Project requirements</li> <li>• Local employment opportunities</li> </ul>
Media	<ul style="list-style-type: none"> <li>• Focus of media attention given new technology and links to Queensland’s renewable energy strategy.</li> </ul>

### 3.2 Community Consultation

Vecco has been carrying out regular face-to-face liaison with directly impacted landholders and key community and government representatives for a number of years. Additionally, a specific consultation program was developed for this SIA to inform all local stakeholders about key developments and timelines associated with the proposed Project, and to collect and analyse information about those social and cultural issues likely to have the most pronounced impacts. As part of the SIA consultation, a fact sheet was distributed personally to general community members, local services organisations, business owners and local government representatives in Julia Creek. For further details, refer to Appendix A for Vecco’s Consultation Report.

## 4.0 Baseline Social Profile

### 4.1 Demographic Profile

#### 4.1.1 Population

At the time of the 2021 Census, Julia Creek's population was 373, equating to a 2.3% decline in from 2016. The Richmond LGA experienced a small population decline over the same period, while all other study areas saw increases.

**Table 3 Resident population by Study Area 2006-2021**

Year	Julia Creek	McKinlay	Richmond	Cloncurry	Qld
2006	367	922	935	3,248	4,007,992
2011	376	1,085	847	3,342	4,476,778
2016	423	816	806	3,125	4,845,152
2021 (actual)	377	836	761	3,644	5,156,138
Average annual change 06-11	0.5%	3.3%	-2.0%	0.6%	2.2%
Average annual change 11-16	2.4%	-5.5%	-1.0%	-1.3%	1.6%
Average annual change 16-21	-2.3%	0.5%	-1.1%	3.1%	1.3%

*Includes slight variations to core Census population data. Source: ABS Regional Population Growth Australia 2022 (various editions) and ABS 2021 Census of Population and Housing.*

The Queensland Government Statistician's Office expects the McKinlay LGA's population to decline by 1.2% over the next two decades (compared to state population growth of 1.4%). This decrease may not consider the potential growth of vanadium and other critical minerals production in the region, which may bring significant growth to the McKinlay and Richmond LGA populations.

*In response to the launch of Horizon Metal's Richmond mine and the nearby Julia Creek Multicom Resources project, the Queensland government committed \$10 million to construct a processing plant in Townsville.*

*"Make no mistake, the resources revolution is coming," said Queensland Minister for Trade and Investment, Cameron Dick, back in November when the plant was announced.*

*Source: "Australia's budding vanadium industry vital to more sustainable future, experts say", Mar 22 abc.net.au.*

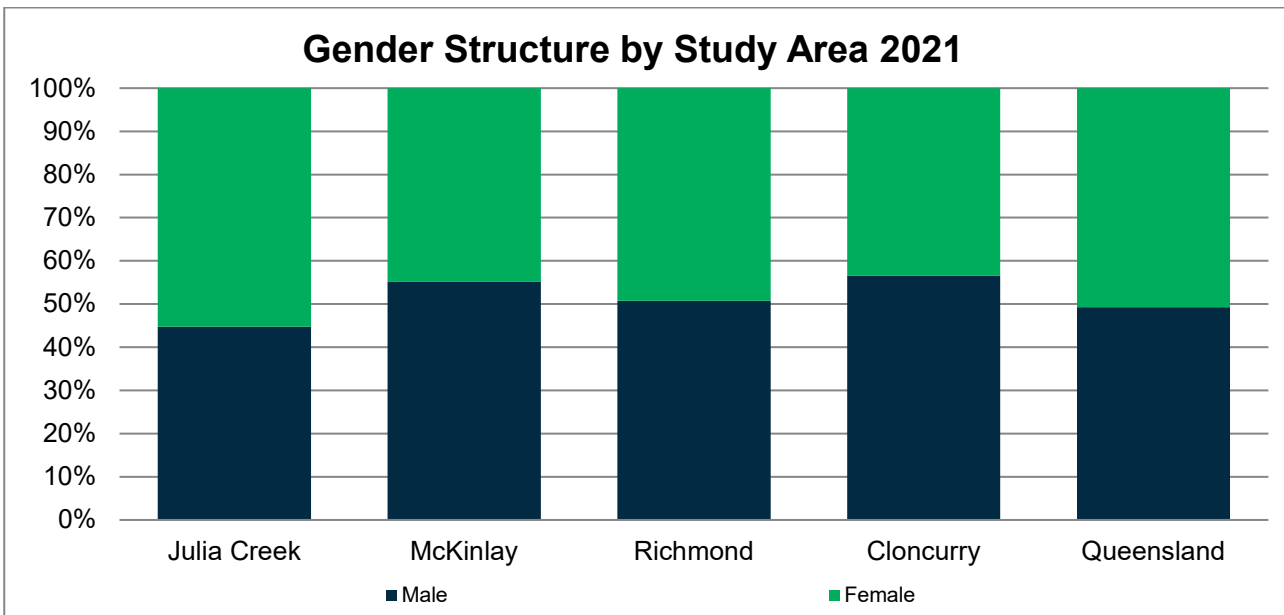
**Table 4** Projected population by Study Area 2011-2046

Year	McKinlay	Richmond	Cloncurry	Qld
2021 (actual)	836	761	3,644	5,156,138
2026	806	762	3,880	5,663,247
2031	753	742	3,938	6,079,887
2036	705	723	3,969	6,492,441
2041	664	704	3,977	6,899,969
2046	626	693	3,958	7,299,934
Average annual change	-1.2%	-0.4%	0.3%	1.4%

Includes slight variations to core Census population data. Based on place of usual residence. Data not available for Julia Creek. Source: QGSO Regional Profiles (Resident) and ABS 2021 Census of Population and Housing.

### 4.1.2 Gender

While Julia Creek had a higher proportion of residents who identified as female in 2021 (54.6%) and Queensland had 0.7% more females than males; the three LGAs had higher proportions of residents who identified as male.

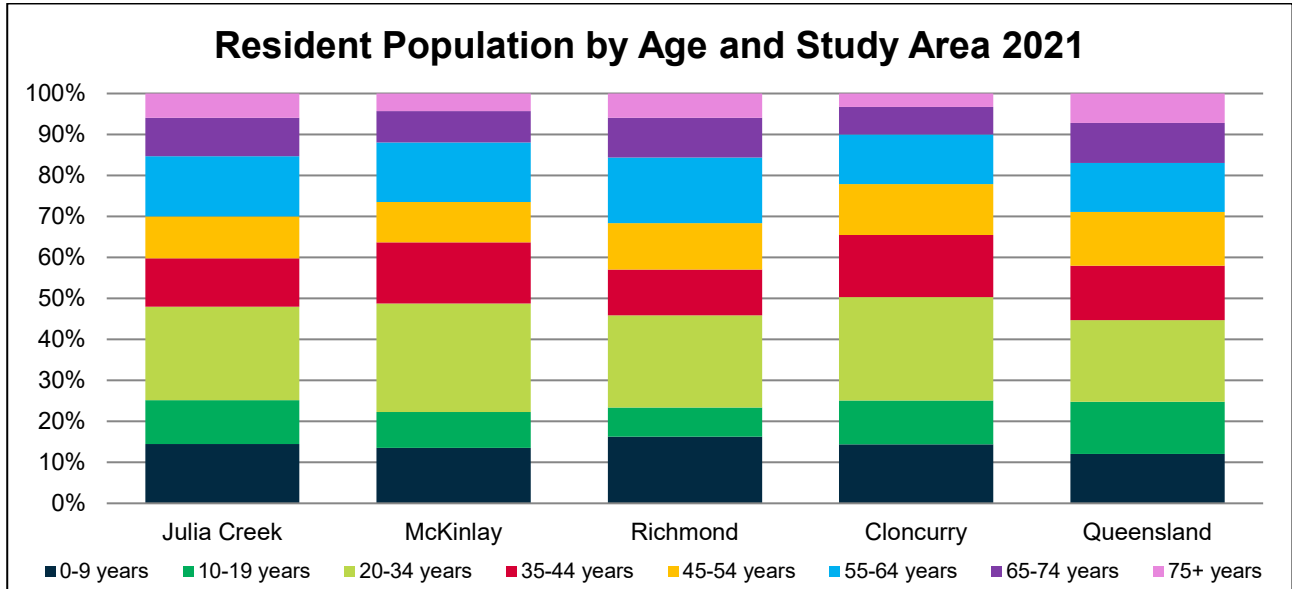


Based on usual place of residence. Source: ABS 2021 Census of Population and Housing.

**Figure 4** Gender structure by Study Area

### 4.1.3 Age

In 2021, a consistent theme across all Study Areas was the largest age group of 20-34 years. The McKinlay and Cloncurry LGAs had the highest proportions of 20-34-year-olds (26.4% and 25.3% respectively), while the Richmond LGA had the highest proportion of 0-9-year-olds (16.2%) and 55-64-year-olds (15.9%). All local Study Areas had lower proportions of 65+-year-olds than the broader state (17.0%).

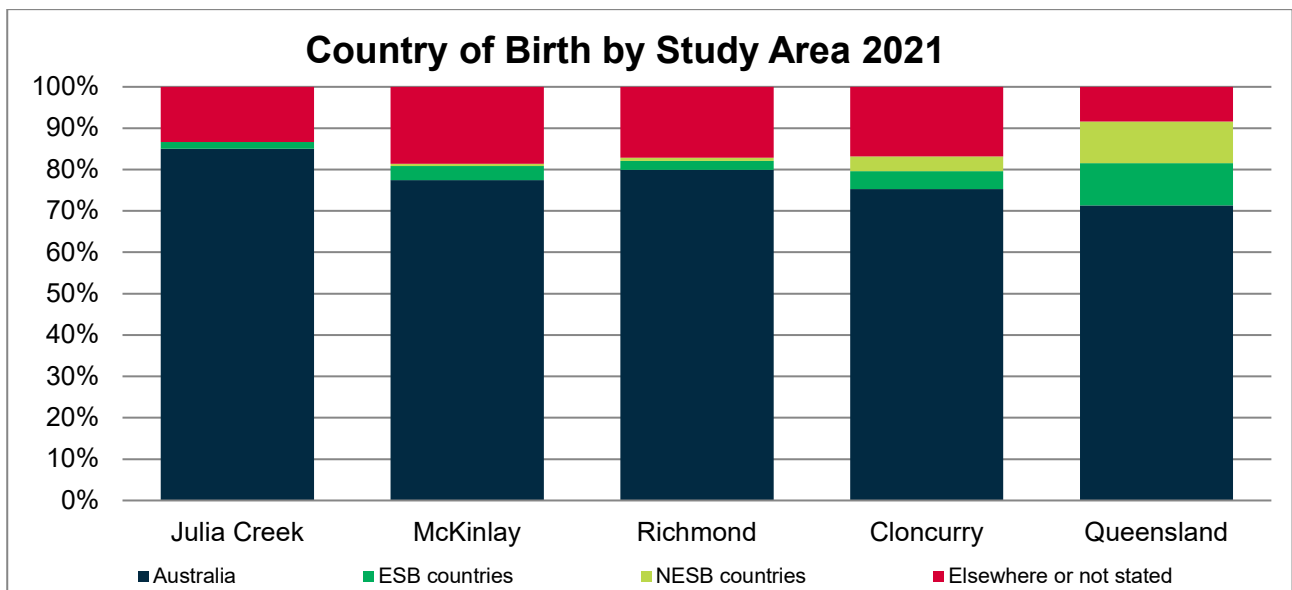


Based on usual place of residence. Source: ABS 2021 Census of Population and Housing.

Figure 5 Age structure by Study Area

### 4.1.4 Ethnicity

All local Study Areas recorded significantly lower ethnic diversity characteristics than for Queensland. In 2021, 82.8% of Julia Creek residents were born in Australia, compared to 71.4% for Queensland. There were no residents from non-English-speaking countries in Julia Creek at the time of the 2021 Census.

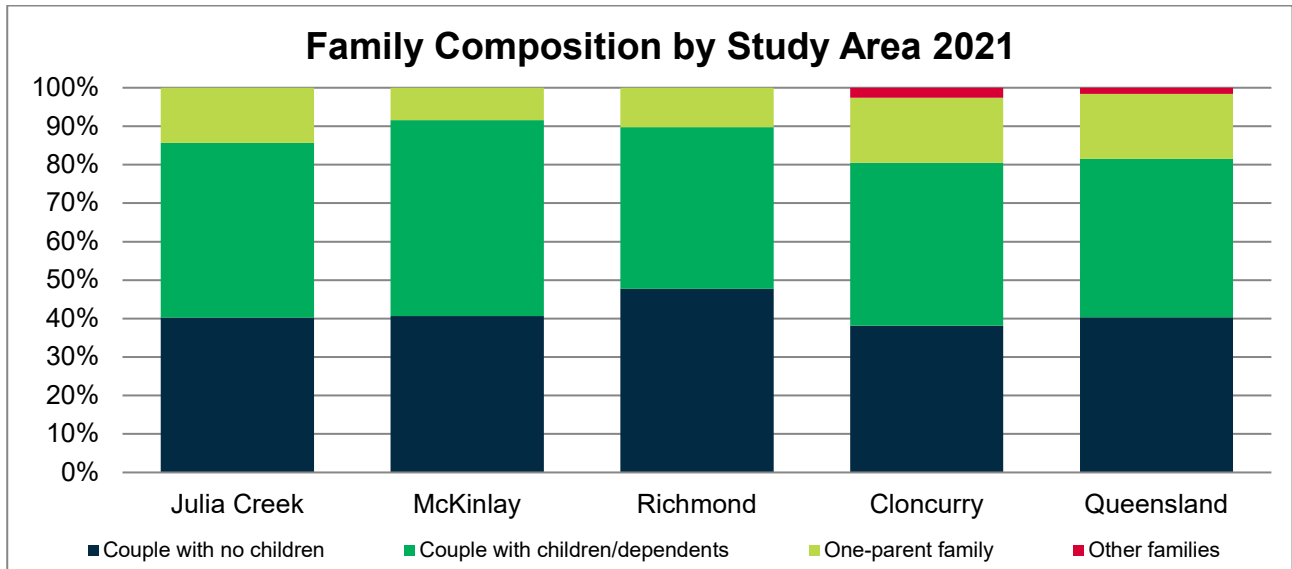


English-speaking background (ESB) countries include Canada, Ireland, South Africa, UK and USA. Non-English-speaking background (NESB) countries. Based on place of usual residence. Source: ABS 2021 Census of Population and Housing.

Figure 6 Country of birth by Study Area

### 4.1.5 Family

Of the total number of families in each Study Area at the time of the 2021 Census, the large majority were made up of couples with no children or couples with children or dependents. The Richmond LGA had a higher percentage of families comprised of couples with no children (46.9%). In Julia Creek, 14.7% of families had one parent, compared to 16.8% across the state.

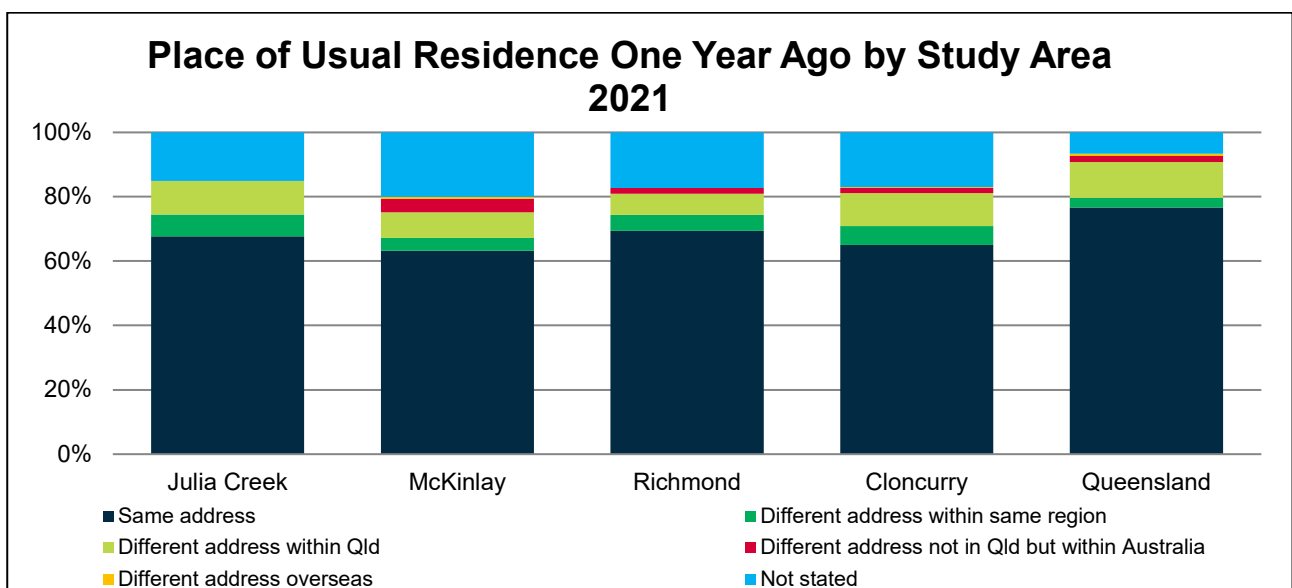


Includes both same-sex couple families and opposite sex couple families. Excludes family members temporarily absent on Census night. Based on place of enumeration. Source: ABS 2021 Census of Population and Housing.

Figure 7 Family composition by Study Area

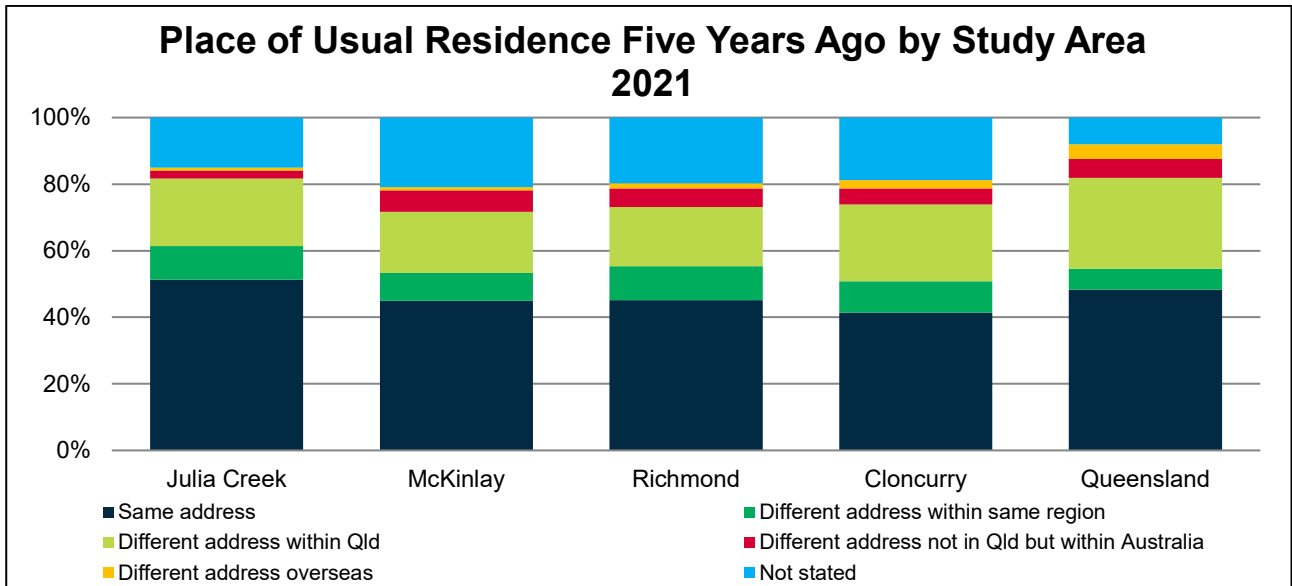
### 4.1.6 Mobility

Mobility measures migratory patterns of residents. One-year and five-year migration patterns for the Project’s Study Areas are shown below. In Julia Creek, 67.7% of residents lived at the same address as they did a year prior to the 2021 Census, while 50.4% of Julia Creek residents lived in the town five years before the Census.



Based on usual place of residence. Source: ABS 2021 Census of Population and Housing.

Figure 8 Place of usual residence one year ago by Study Area

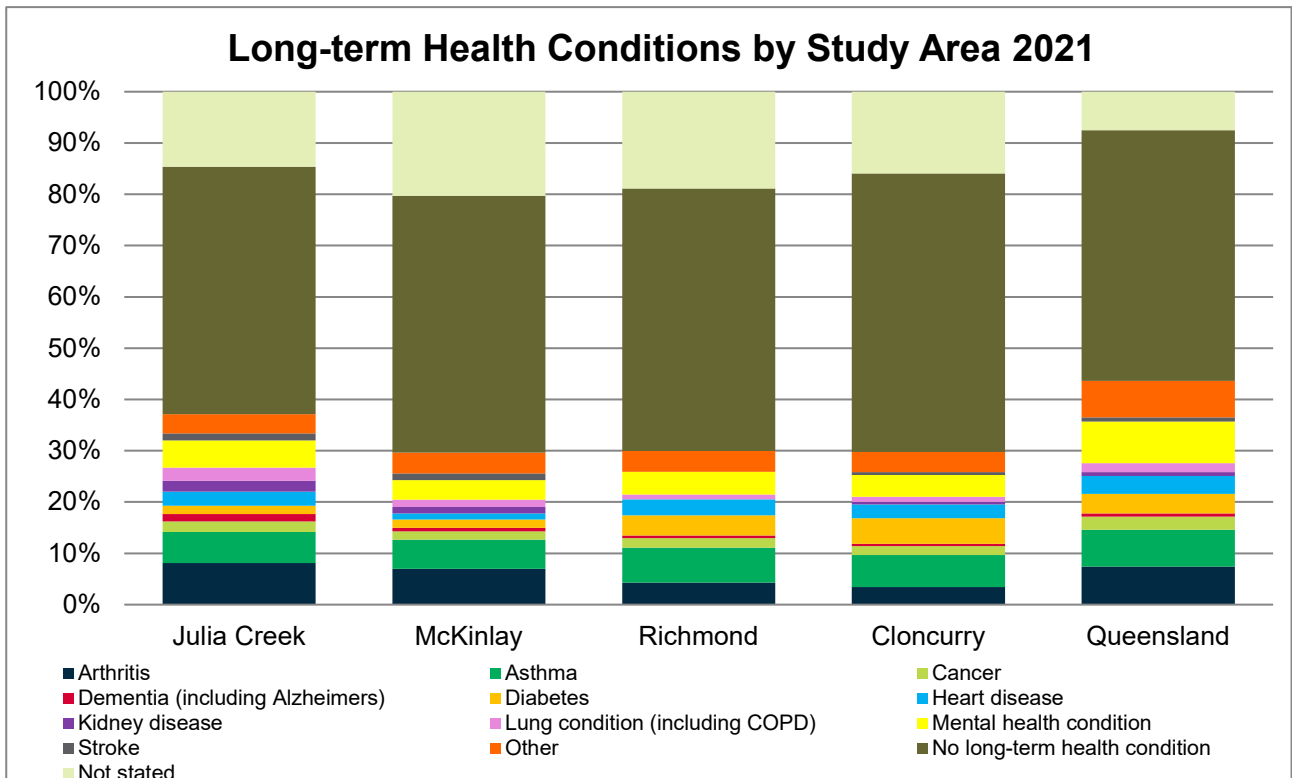


Based on usual place of residence. Source: ABS 2021 Census of Population and Housing.

Figure 9 Place of usual residence five years ago by Study Area

### 4.1.7 Health

In 2021, 42.4% of Julia Creek residents suffered from a health condition, compared to 32-33% for the McKinlay, Richmond and Cloncurry LGAs and a significantly greater 51.9% for the state. Arthritis and asthma were the most common health conditions in Julia Creek and McKinlay; while asthma, diabetes and mental-health conditions were prevalent in Richmond and Cloncurry and mental-health conditions were predominant across Queensland.

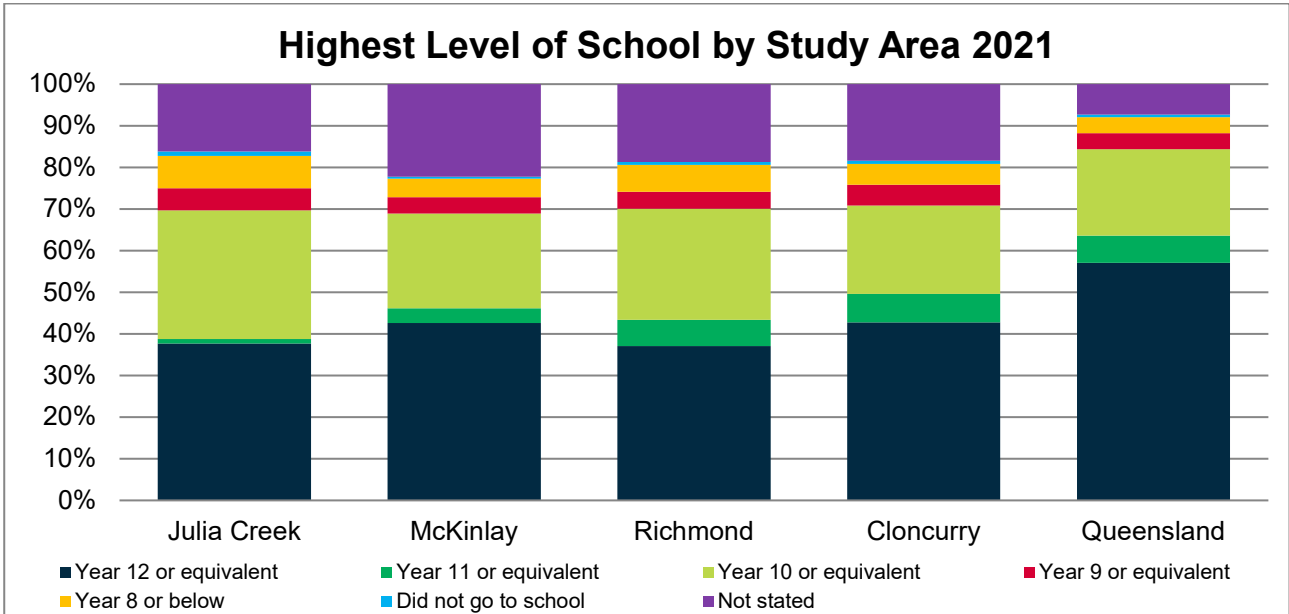


Includes people with multiple long-term health conditions. Based on place of usual residence. Source: ABS 2021 Census of Population and Housing.

Figure 10 Long-term health condition by Study Area

### 4.1.8 Education

In 2021, 67.1% of Julia Creek residents had achieved a year 10 or above education, with 36.3% having completed year 12 or equivalent. These indicators were on par with the other local Study Areas but were significantly lower than for the state, where 84.4% had completed year 10 or above and 57.1% had achieved year 12 or equivalent in 2021.



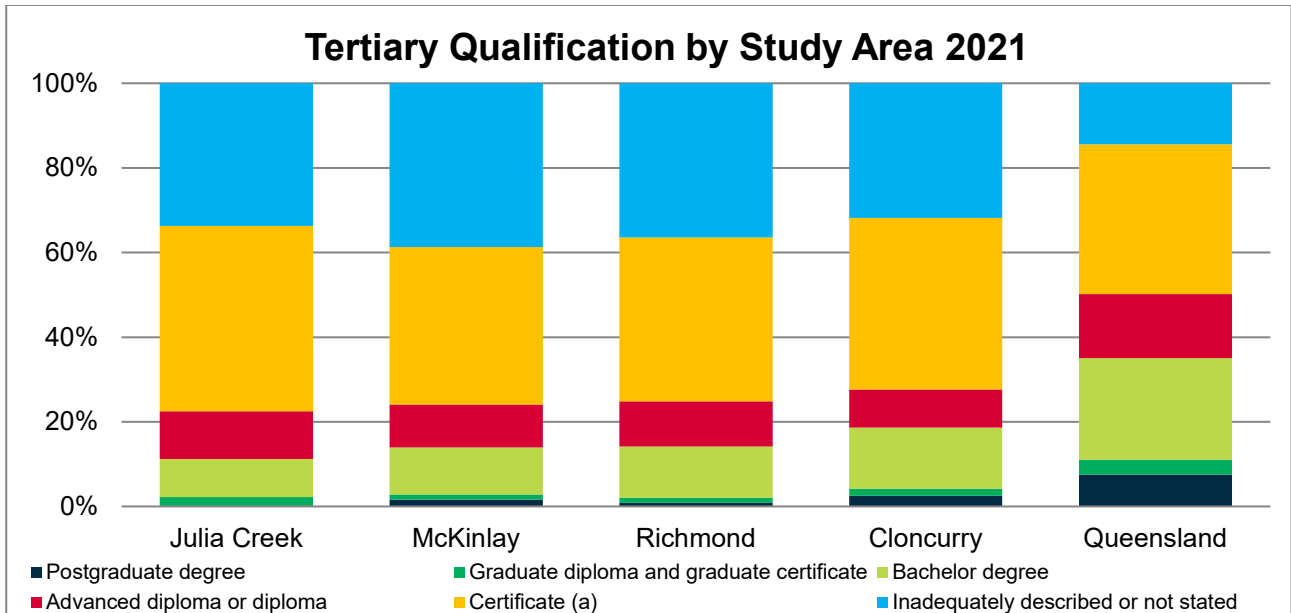
Based on persons 15 years and over who are no longer attending primary or secondary school. Based on place of usual residence. Source: ABS 2021 Census of Population and Housing.

**Table 5 Highest level of schooling by Study Area**



### 4.1.8.1 Tertiary Qualification

More than half of the Queensland population had a tertiary qualification in 2021. Across the local Study Areas, percentages of the population with a tertiary qualification were slightly lower, except for the McKinlay LGA, which had a tertiary qualified population of 428 (or 51.2%). ‘Certificate’ was consistently the highest level of qualification achieved across all Study Areas, while 5.3% of Julia Creek residents had achieved a Bachelor degree or higher in 2021.

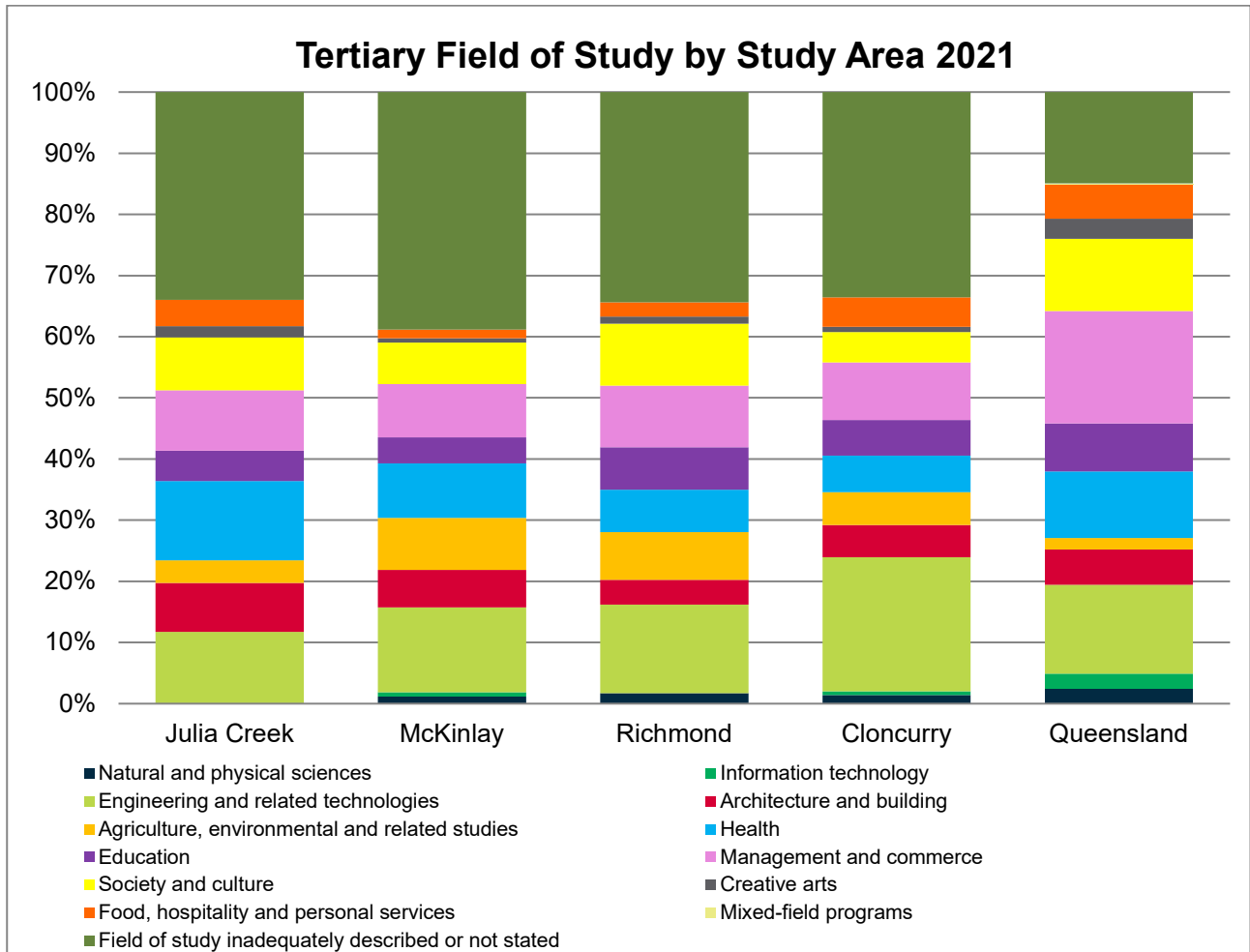


(a) Includes Certificates I, II, III and IV and certificates not defined. Based on persons 15 years and over. Based on place of usual residence. Source: ABS 2021 Census of Population and Housing.

Figure 11 Tertiary qualification by Study Area

### 4.1.8.2 Tertiary Field of Study

At the time of the 2021 Census, the most common field of study for the McKinlay, Richmond and Cloncurry LGAs was 'engineering and related technologies' (13.8%, 14.5% and 21.9% respectively). Health was the most common tertiary field for Julia Creek, while for the state, 'management and commerce' was the most popular field of study (18.4%).



Based on persons 15 years and over and place of usual residence. Source: ABS 2021 Census of Population and Housing.

Figure 12 Tertiary field by Study Area

### 4.1.9 Socio-Economic Index of Disadvantage

The Socio-Economic Index of Disadvantage ranks geographical regions to reflect disadvantage of social and economic conditions. The index focuses on low-income earners, relatively lower education attainment, high unemployment and dwellings without motor vehicles. Low index values represent areas of most disadvantage and high values represent areas of least disadvantage.

The McKinlay LGA had no residents in Quintile 1 (most disadvantaged) and a significant number of residents in Quintile 5 (least disadvantaged), compared to 0% for the Richmond and Cloncurry LGAs, and 20% for Queensland. More than 42% of the Cloncurry LGA population was considered 'most disadvantaged' in 2021.

**Table 6 Socioeconomic Index of Disadvantage by Study Area**

	McKinlay	Richmond	Cloncurry	Qld
Quintile 1 (most disadvantaged)	0.0%	0.0%	42.3%	20.0%
Quintile 2	45.2%	60.6%	8.5%	20.0%
Quintile 3	24.3%	0.0%	40.8%	20.0%
Quintile 4	0.0%	39.4%	8.4%	20.0%
Quintile 5 (least disadvantaged)	30.5%	0.0%	0.0%	20.0%

Data not available for Julia Creek. Source: QGSO Regional Profiles (Resident).

#### 4.1.10 Summary of Demographic Profile

The Julia Creek population has been declining since 2016 and in 2021, was expected to continue to decline for the next two decades. The broader McKinlay Shire population, while recently experiencing a small rebound from significant decline between 2011 and 2016, was also expected to decline at a similar rate. However, these statistics may not account for the growing northwest critical minerals industry (as well as increased cotton production), which may reverse these projections.

At the time of the 2021 Census, there were more residents who identified as female in Julia Creek (54.6%) than in the other Study Areas, while the largest proportion of McKinlay LGA residents were in the 20-34-years age bracket (which aligned with the other Study Areas). The Richmond LGA had the highest proportion of 0-9-year-olds (16.2%), while all local Study Areas had lower proportions of residents aged 65+ than the state.

The local Study Areas also had significantly lower proportions of residents born outside of Australia than the Queensland Study Area (17.2% for Julia Creek compared to 28.6% for the state); while two-thirds of Julia Creek residents lived at the same address as they did a year prior to the 2021 Census and just over half lived at the same address five years prior.

The Richmond LGA had a higher percentage of families comprised of couples with no children (46.9%), while McKinlay families were predominantly couple families with children. In 2021, there were 11 one-parent families in Julia Creek.

In 2021, more than two-thirds of Julia Creek residents had achieved a year-10-or-above education, with a third completing year 12 or equivalent. These indicators were on par with the other local Study Areas but were significantly less than for the state (57.1% of all Queenslanders had completed year 12 at the time of the 2021 Census). Most post-school qualifications were certificate level. All local Study Areas reported significantly fewer Bachelor-level-or-above qualifications when compared to Queensland. The predominant tertiary field of study for the LGAs was 'engineering and related technologies', while 'health' was the most common tertiary field for Julia Creek.

In 2021, some 42% of Julia Creek residents suffered from a health condition. This was higher than for the McKinlay, Richmond and Cloncurry LGAs but lower than for the state (51.9%). The most common local health complaints were arthritis and asthma.

The Socio-economic Index of Disadvantage indicated that McKinlay Shire had no residents in the 'most disadvantaged' quintile and 30.5% of residents in the 'least disadvantaged' quintile. Conversely, some 42% of Cloncurry LGA residents were considered 'most disadvantaged' and there were no Cloncurry residents considered 'least disadvantaged'.

## 4.2 Community Health and Wellbeing

Communities across the local Study Areas are essentially rural. Agriculture has been a driving force of the McKinlay and Richmond LGAs' economies, while Cloncurry has also supported major resources developments since the late 1800s. Given McKinlay Shire's abundance of critical minerals, new resources developments such as the Vecco Critical Minerals Project will diversify the local economy and potentially boost a declining local population.

### 4.2.1 Community History

The local Study Areas are on the tribal lands of the Wanamara people (predominantly) and Ngaun people (north of Julia Creek). *Vecco pays its respects to these Traditional Owners and to their Elders past, present and emerging.*

McKinlay Shire covers 40,728km<sup>2</sup> and is home to four towns – Nelia to the east, McKinlay and Kynuna to the south and Julia Creek in the centre. The Shire was named after Scottish explorer John McKinlay, who undertook the first successful transcontinental journey in Australia, travelling from Adelaide to the Gulf of Carpentaria in 1861-62.

The first European settlement in northwest Queensland occurred on what is now called Julia Creek – in 1862 just one year after Burke and Wills' expedition through the area to the northwest of the shire. Donald McIntyre took up Dalgona Station and established his base at Dalgona waterhole.

Julia Creek started in 1890 and was first called 'Hilton' until 1907, when the railway line was established, after which it was renamed after Donald McIntyre's niece, Julia Campbell. The town prospered and expanded until a century later, in the 1990s, when the high school (now the state primary school) and convent school (now Julia Creek Villas accommodation) closed and banks began to leave town.

Nearby McKinlay is known as the home of the Walkabout Creek Hotel. This historic pub was once the Shire Hall and ultimately gained notoriety as the pub in the movie "Crocodile Dundee". McKinlay is also home to Queensland's smallest library. 85km west of McKinlay is South 32 Cannington mine, established in 1997. Cannington is the world's largest silver and lead mine. Cannington was the official supplier of silver to the Sydney Olympic and Para-Olympic Games, as well as the 2008 Beijing Olympics.

McKinlay Shire is also home to the endangered Julia Creek dunnart (*Sminthopsis douglasi*). Related to quolls and Tasmanian devils, dunnarts are small carnivorous marsupials that hide underground in the cracks of clay soil during the day and emerge at night to hunt for crickets, cockroaches, spiders and scorpions.



Source: Australian Conservation Foundation

**Figure 13** Julia Creek dunnart

#### 4.2.2 McKinlay Shire Community Plan

Julia Creek is the centre of the Shire – with locals agreeing that it is a caring community that is safe, tightknit and supportive of community parenting. The town provides primary social and community facilities and infrastructure, including the Julia Creek Civic Centre and Julia Creek Indoor Sports Centre, as well as the Nerida Currin Skate Park and Peter Dawes Park. The McKinlay Community Plan 2019-2026 listed the following Shire strengths and opportunities, including highlighting the benefits of local resource activities:

- The proactive nature, strategic approach and financial position of McKinlay Shire Council places the Shire in a great position to capitalise on opportunities
- **Community events** bring community together, attract visitors and are positive for the regional economy
- **Strong community spirit and involvement.** In 2016, more than a third of the population undertook voluntary work and almost 40% represent one or more community organisation(s)
- The **St Elmo Mine** (first approved vanadium mine) will be a game-changer for Julia Creek and McKinlay Shire if it proceeds. The mine has the potential to retain and grow the population, provide employment and economic opportunities, and explore innovative approaches for water harvesting, storage and land management
- The McKinlay Shire overall has an adequate supply of community facilities, infrastructure and services
- The McKinlay Shire **Tourism Plan** identified a potential to grow tourism through various tourism strategies and actions.

The Community Plan also listed the following long-term challenges for the Shire:

- **Retaining population:** while the McKinlay Shire has experienced a wave of population increase and decline since 2001, overall, the population has declined
- Maintaining, expanding and diversifying **industry and employment opportunities**

- **Lack of childcare and after-school care.** Consequently, this negatively impacts family's ability to earn more money, the shire's economy and businesses as a result of a restricted labour force and spending potential
- The eminent threat of **natural disaster** and the effects on the community
- The continued **drought and 2019 flood** have had immediate and longer term economic, social, health and environmental impacts for the Shire
- **Transport** across the region is affected by access to alternative modes of transport, impact of wet-weather conditions, variability of road network standards, underuse of existing infrastructure, and growth in self-drive tourism
- **Access to allied health services.** While prevalence of mental illness in rural and remote Australia is similar to major cities, access to mental health services is more limited. However, given the drought and 2019 flood, the immediate and longer-term mental health issues may be exacerbated. As a remote Shire, residents are reliant on visiting health services.

McKinlay Shire Council's vision is to be a sustainable community, with its pillars of sustainability comprising:

- **Governance and administration:** maintain and improve provision of quality services and management of the Shire, and an active, engaged and connected community
- **Social and community:** create a sustainable environment by focusing on the Shire's built and natural environments, supporting infrastructure and programs to mitigate negative environmental impacts
- **Environment and country:** maintain and improve the health, wellbeing and social quality of life
- **Economy and infrastructure:** maintain and increase economic productivity and standard of living through retaining population, support new business development and employment opportunities and effective partnerships with new industries.

In its 2018 Economic Development Plan, McKinlay Shire Council detailed five strategic priorities to drive economic growth and community outcomes. Developed after community and industry consultation, the five priorities are:

1. Population attraction/retention
2. Tourism and natural assets
3. ICT and digital connectivity
4. Transport road, rail and airport
5. Resilience and sustainability of the local economy.

### 4.2.3 Regional Context

McKinlay Shire's Infrastructure Plan Issue B states that the Shire is part of Queensland's North West Region, which also includes Mount Isa City, Cloncurry Shire, Richmond Shire and Finders Shire. Mount Isa is the largest and fastest-growing of the LGAs and classified as a Major Rural Activity Centre. Cloncurry is the next largest, classified as a Major Rural Activity Centre, while smaller communities such as Julia Creek and Richmond are classified as Community Activity Centres due to their relatively low populations and limited levels of infrastructure.



#### 4.2.4 Political Context

Julia Creek is in the McKinlay LGA, which is overseen by McKinlay Shire Council. McKinlay, Richmond and Cloncurry Shires are all in the state electorate of Traeger and federal electorate of Kennedy.

Local Council	Local State Member (Traeger)	Local Federal Member (Kennedy)
<b>Cr Philip Curr</b> Mayor and Roads and Governance	<b>Robbie Katter MP</b> (Katter's Australian Party) Since 2017	<b>Bob Katter Jr MP</b> (Katter's Australian Party) Since 1993
<b>Cr Janene Fegan</b> Deputy Mayor and Health, Tourism and Economic Development		
<b>Cr Shauna Royes</b> Community Services, Economic Development and Tourism		
<b>Cr John Lynch</b> Environmental Management and Regulatory Services		
<b>Cr Tim Pratt</b> Roads		
<b>Trevor Williams</b> Chief Executive Officer		

#### 4.2.5 Health

##### Julia Creek Hospital

Established in 1972, Julia Creek Hospital developed into the McKinlay Shire Multipurpose Health Service (MPHS). A new Julia Creek MPHS was built in 2019, with six beds (four aged-care beds and two acute beds). The Level 2 hospital is part of the North West Hospital and Health Service and provides low-risk ambulatory care and clinical services, predominantly delivered by registered nurses and health workers. Patients requiring a higher level of care can be managed for short periods before being transferred to a high-level service, such as Townsville Hospital (the only Queensland tertiary hospital outside of Brisbane). Julia Creek MPHS does not provide surgical, maternity, mental health or child health.

The hospital recently secured a full-time doctor after an extended recruitment campaign. Overall, hospital staffing is challenging due to a general lack of nurses and the local accommodation shortage. There should be nine permanent staff but there are currently only seven agency staff. The hospital has accommodation for eight. Hospital growth depends on community numbers, so it is hoped that the Vecco Project (and broader critical minerals industry) will attract new families to town.



Source: North West Hospital and Health Service

**Figure 14** Julia Creek hospital

### Other Local and Regional Health Services

Funded by the State Government and McKinlay Shire Council, the McKinlay Shire Community Nurse is based in Julia Creek but supports the entire LGA. They provide aged-care services, community health and health promotion to all ages, as well as in-home post-acute care. The Community Nurse partners with McKinlay Shire Council, Mount Isa District Health Services, Queensland Ambulance, the local General Practitioner, Royal Flying Doctor Service and Julia Creek MPHS.

Julia Creek has a pharmacy that provides McKinlay Shire with over-the-counter and prescription needs.

The North West Hospital and Health Service also services McKinlay. With the first Bush Nursing Association building opening in McKinlay in 1927, the small community still has a primary health clinic that provides nurse-led 24-hour acute and emergency on-call services. The clinic focuses on chronic disease management, preventative health, health promotion and health education. It also offers pharmacy services, immunisation, dressings, station and home visits, outreach to Kynuna and visiting North and West Remote Health allied health services.

Also part of the North West Hospital and Health Service, the larger Cloncurry MPHS provides broader rural and remote hospital services, including an inpatient facility, residential aged-care facility, emergency department and an outpatient department. Community health services provide an aged-care assessment team, sexual health, chronic disease management, diabetes education, mental health, alcohol and drug service, school health, child and youth health, women's health, palliative care, physiotherapy, dietician, and optometry services. North and West Remote Health provides allied health services and diabetes education.

Mount Isa Hospital is the main referral centre within the North West Hospital and Health Service. Patients from Julia Creek, McKinlay and Cloncurry (as well as other communities across the northwest region) who require specialist treatment and care are referred to either the Mount Isa Hospital or to other major hospitals within Queensland.

Richmond also has a significant MPHS, though it is part of the Townsville Hospital and Health Service. The Richmond MPHS is an acute facility that provides an accident and emergency service, a general medical/surgical ward, long-stay aged care and daily outpatient session.



### 4.2.5.1 Aged Care

In addition to the four dedicated hospital beds, Julia Creek MPHS has aged-care support services such as Meals on Wheels. The Julia Creek Commonwealth Home Support Program (CHSP) helps people continue to live in their home and community independently. The CHSP is a joint Commonwealth and Council-run initiative that funds basic maintenance and support services to help frail older people and younger people with disabilities to continue living in their community. Additionally, McKinlay Shire Council provides affordable accommodation for older persons living in the Shire to enable them to continue living independently in the community with limited services support. Council maintains eight independent-living units consisting of one and two-bedroom layouts.

Further afield, there are various aged-care services in Cloncurry, including the St Andrew’s Garden Settlement, which has 24 one-bed units for singles and three two-bed townhouses for couples 50 years or older who benefit from supported but independent living.

## 4.2.6 Emergency Services

### 4.2.6.1 Police

McKinlay Shire has three police stations – Julia Creek, McKinlay and Kynuna. Currently, all stations are overseen by one Officer in Charge (OIC); however, the Queensland Police Service (QPS) is actively recruiting for three roles – a support officer for the existing Julia Creek OIC and OICs for McKinlay and Kynuna. Richmond also has a dedicated police station, as does Cloncurry. All stations are part of QPS’s Northern Region. Reported offences per capita are higher in the McKinlay LGA than in Richmond and the state but significantly lower than for the Cloncurry LGA.

**Table 7** Reported offences by Study Area 2021-2022

	McKinlay		Richmond		Cloncurry		Queensland	
	Number	Rate/100K	Number	Rate/100K	Number	Rate/100K	Number	Rate/100K
Offences against the person	14	1,653	11	1,432	172	4,439	67,432	1,282
Offences against property	21	2,479	13	1,693	149	3,845	245,090	4,659
Other offences	55	6,494	31	4,036	346	8,929	211,623	4,023
<b>TOTAL</b>	<b>90</b>	<b>10,626</b>	<b>55</b>	<b>7,161</b>	<b>667</b>	<b>17,213</b>	<b>524,145</b>	<b>9,964</b>

Rate per 100,000 persons. Data not available for Julia Creek. Source: QGSO Community Profiles.

### 4.2.6.2 Ambulance

Julia Creek and Cloncurry are part of Queensland Ambulance Service’s (QAS’s) North West District, which is headquartered in Townsville. The Richmond station is part of the Townsville District.

There is one ambulance role based in Julia Creek (covered by two paramedics rostered Thursday to Thursday) and two in Cloncurry – all of whom are on call 24 hours per day, seven days per week. They provide a range of services, including road and rural accidents and transport to Cloncurry, Mount Isa or Townsville hospitals if required. QAS provides replacement officers in the case of illness or annual leave.

The Julia Creek ambulance covers a large area (between Richmond, Cloncurry and Winton) and often relies on the Julia Creek Fire Captain for directions. Most callouts are related rural accidents on stations; however, the local community is very resilient, only calling the ambulance as a last resort. The rescue helicopter flies

to Julia Creek from Mt Isa (thanks to strategically placed fuel bowsers). Julia Creek and Cloncurry QAS paramedics also work with the Royal Flying Doctor Service.

### 4.2.6.3 Fire and Rescue

Julia Creek, Richmond and Cloncurry (auxiliary) fire stations are part of the Queensland Fire and Emergency Services' (QFES's) Northern Region Western Command, headquartered in the Mount Isa (permanent) Fire Station. QFES's Northern Region is one of its most diverse. It spans from Ingham to the Gulf, the length of the Queensland/Northern Territory border to Birdsville and to Bowen in the south, encompassing an area of 600,000km<sup>2</sup>. Northern Region operations include 20 urban fire stations, regional headquarters and area offices staffed by approximately 445 employees, ranging from full-time and auxiliary firefighters, emergency management officers, community safety officers and technical rescue.

Rural Fire Service (RFS) regional operations is co-located with the QFES Northern Regional office but led by the RFS Regional Manager. RFS Northern Region operates with 186 brigades, staffed by approximately 14 regional QFES personnel, 4056 Volunteer Firefighters, 44 Volunteer Community Educators.

State Emergency Service (SES) regional operations is co-located with the RFS Northern Region but led by the SES Regional Manager. SES Northern Region operates with 40 groups, staffed by approximately 596 volunteers, and they are supported by 12 SES staff in Townsville and Mount Isa offices.

Julia Creek Fire Station's Captain is a long-term local with a wealth of experience. The station's main challenge is resourcing (volunteer firefighters).

## 4.2.7 Education

### 4.2.7.1 Schools

There are five schools in the local Study Areas and in all, 2023 enrolments were generally lower than they were in 2022.

**Table 8 Summary of local schools**

School	Primary/Secondary	Enrolment
Cloncurry State School	Prep to Year 12	281
Cloncurry State School Special Education Program	Prep to Year 12	Not available
Julia Creek State School	Prep to Year 6	46
Richmond State School	Prep to Year 10	105
St Josephs Catholic School (Cloncurry)	Prep to Year 9	177

Source: Queensland Department of Education Schools Directory (August 2023).

Mount Isa is home to additional primary, secondary and special schools – both state and independent – as well as Mount Isa School of the Air (MISOTA). The closest boarding secondary schools to Julia Creek are in Mount Isa, Townsville and Charters Towers.

### Julia Creek State School

Current Julia Creek State School (JCSS) enrolment is 46 (52 is the next level for an additional teacher), though the school has infrastructure capacity for another 75 children or three spare classrooms. Classes are multi-age (P/1/2/3 and 4/5/6). With no local secondary school options in Julia Creek, in 2015 McKinlay Shire Council launched a learning hub in conjunction with MISOTA and JCSS. The learning hub provides for secondary students in Years 7 to 10 who do not wish to go to boarding school. Students are enrolled with MISOTA through distance education and attend JCSS in a separate room specifically for secondary

students. JCSS states that losing local teenagers to boarding school (i.e. they rarely return after completion) drains the town of social drive and connection. In addition to the hub, the school provides excursions to mines and other local industries to promote local career opportunities.

Housing is the biggest capacity challenge for JCSS. The school has access to some accommodation but is looking to build more. Additionally, JCSS would like to see more community activities for young people, such as team sports and an instrumental music program, and more job-related excursions for teenagers (i.e. exposing them to the region's diversity of industries and jobs) with the aim of keeping local youths in the community.

#### 4.2.7.2 Higher Education

There are no universities in the Study Areas; however, James Cook University's Centre for Rural and Remote Health has campuses in Cloncurry and Mount Isa. In addition to its campus in Mount Isa, TAFE Queensland has a campus in Cloncurry North, which offers courses in areas such as health and science, education and community, service industries, business and IT, environment and animal services, trades, creative industries and infrastructure and transport.

#### 4.2.7.3 Early Childhood Education and Childcare Services

There are limited childcare services in the Study Areas, with McKinlay Shire Council including this in its strategic planning to address the shortfall, with the aim of facilitating better economic outcomes for families and thereby, the region. Childcare centres in the local Study Areas include:

- Cloncurry Preschool
- Curry Kids Early Learning Centre
- Julia Creek Early Learning Centre
- Richmond Early Education Centre.

#### Julia Creek Early Learning Centre

The existing 21-place Julia Creek Early Learning Centre was State/local government run since 2016 (previously C&K). The centre faces the same challenges as other local businesses and services – lack of accommodation options and subsequent staff shortages. However, early learning centre staff have access to Council housing.

In 2022, McKinlay Shire Council secured \$6.2 million to construct a new child service facility in Julia Creek in the second round of the Queensland Government's Resources Community Infrastructure Fund. The grant will deliver a children's services hub, providing childcare for up to 40 children, as well as a consultation room for visiting allied health services that will greatly improve access to children's health care. The hub will include indoor and outdoor play areas, a sleeping area for babies, kitchen, storerooms, administration offices and amenities as well as the allied health services consultation room.

#### 4.2.8 Recreation, Leisure and Culture

Julia Creek offers a variety of sporting opportunities represented through local clubs and organisations. The Julia Creek Combined Sporting Association (CSA) promotes sport throughout the McKinlay Shire. The CSA facilitates sporting activities for the region and aims to maximise community involvement. Currently, the CSA has five sub-committees: junior rugby league, senior rugby league, women's rugby, tennis and netball. Julia Creek also has a public swimming pool and water park, as well as a gymnasium and three parks.

The McKinlay Shire has a strong arts and historical network. This includes the Opera House (opened on the same day as the Sydney Opera House, the Julia Creek Opera House features local and regional historical photos and regularly holds exhibitions), Julia Creek Historical Society, the library and McKinlay Shire Cultural Association. These are supported by the Regional Arts Development Fund Committee, which also supports

the Crafty Old School House. This group meets at the old McKinlay School House to partake in tennis, UFO (unfinished objects) craft afternoons.

Face-to-face consultation indicated a need for more sporting clubs and improved access to music-related activities (particularly instrumental programs for children).

Other events and tourist attractions include the Duncan McIntyre Museum (Julia Creek history), 'At the Creek' Visitor Information Centre and the annual Dirt n Dust Festival every April.



Source: At the Creek

**Figure 15** Julia Creek Visitor Information Centre

## 4.2.9 Transport

### 4.2.9.1 Public Transport

Julia Creek is serviced by Greyhound buses (Mount Isa to Townsville) that also pass through Richmond and Cloncurry on the Flinders Highway.

Queensland Rail has a passenger service, the Inlander, which travels between Mount Isa and Townsville twice weekly and stops in Richmond, Julia Creek and Cloncurry.

Rex Airlines services Julia Creek three times per week (Monday, Wednesday and Friday). The service leaves Townsville in the morning and stops at Hughenden, Richmond and Julia Creek before reaching Mount Isa and completing the same return journey in the afternoon.

### 4.2.9.2 Highways and Roads

Richmond, Julia Creek and Cloncurry are all located on the Flinders Highway, between Townsville and Mount Isa. This highway is also known as Overlanders Way – highlighting the 'beach to bush adventure' tourist destinations of Townsville, Charters Towers, Hughenden, Richmond, Julia Creek, Cloncurry and Mount Isa (and ultimately, to Tennant Creek in the Northern Territory). *The route follows in the footsteps of the droving pioneers who moved cattle from the wild Kimberley ranges in the great outback, to the bustling coastal markets on the tip of the Great Barrier Reef.*

McKinlay Shire Council maintains a Road Conditions Report (for both state and Council controlled roads) on its website to advise residents and travellers of road closures due to damage, works or weather.

The Council secured funding through the Disaster Recovery Funding Arrangements (DRFA) for damage sustained to McKinlay roads during 2022. DRFA is assistance provided through the jointly-funded Commonwealth-State Disaster Recovery Funding Arrangements. The total approved value of works for the 2022 event total \$33.8 million. Works have commenced and will be completed by 30 June 2024.

### **Punchbowl Road**

Punchbowl Road, east of Julia Creek off the Flinders Highway, has the most relevance for the Project, as traffic will increase from when construction commences for the life of the mine. The traffic increase will not be solely due to the Vecco Project, as three other critical-minerals projects and a cotton farm are also expected to generate additional heavy vehicle traffic on Punchbowl Road.

From the Flinders Highway to the Vecco Project entrance, Punchbowl Road comprises 60km of single-lane bituminised road and some 10km of graded dirt road.

## **4.2.10 Utilities**

### **4.2.10.1 Power**

Julia Creek currently gets its electricity from a substation near Charters Towers. With antiquated power lines, the town regularly suffers blackouts and brownouts. McKinlay Shire Council advised that while Copperstring 2032 (new 840km transmission line from Townsville to Mount Isa) will pass through Julia Creek, there are currently no plans to provide a substation and connection to Julia Creek.

### **4.2.10.2 Water**

McKinlay Shire Council owns and operates three articulated water systems at Julia Creek, Kynuna and McKinlay. All water is sourced from the Great Artesian Basin and complies with Australian drinking water guidelines. Julia Creek is the only town in the Shire with an articulated sewerage system. Other McKinlay Shire towns use septic systems.

### **4.2.10.3 Waste**

The Council operates waste facilities at Julia Creek, Kynuna, McKinlay and Nelia. A kerbside collection is provided in Julia Creek. The Julia Creek Waste Facility accepts refuse separated into tyres, cars, steel, timber, household rubbish and builders' rubble.

### **4.2.10.4 Communications**

Julia Creek has digital access, including:

- Telstra 4G plus mobile phone network (about a 4km radius from town)
- Telstra landline service
- ADSL 2+ broadband service
- NextGen wireless
- Optus mobile and data.

The towns of McKinlay and Kynuna are serviced through Telstra landline and NBN Sky Muster satellite services, with McKinlay also recently receiving Telstra mobile coverage. Stations located outside of the townships currently have access to NBN Sky Muster and Telstra-landline service through a radio system.

Local community members advised that digital connection was intermittent and some were relying on Starlink (using US-based SpaceX satellites). McKinlay Shire Council advised that NBN would be installed in Julia Creek by February 2024.



### 4.2.11 Community Organisations

There are a wide variety of opportunities to become involved in community activities in the McKinlay LGA. The Council provides details of community organisations, such as:

- Julia Creek Campdraft Association
- Julia Creek Combined Sporting Association
- Julia Creek Dirt n Dust Festival
- Julia Creek Historical Society
- Julia Creek Hospital Auxiliary
- Julia Creek ICPA
- Julia Creek Lions Club
- Julia Creek Lions Ladies
- Julia Creek Little Theatre Co
- Julia Creek Local Ambulance Committee
- Julia Creek MPHS Community Advisory Network
- Julia Creek P&C Association
- Julia Creek Pony Club
- Julia Creek RSL
- Julia Creek Sporting Shooters
- Julia Creek Swimming Club
- Julia Creek Turf Club
- Julia Creek Western Riding Club
- Kids of the Creek Inc
- Kynuna Rodeo and Sporting Association
- McKinlay Crafty Old School House
- MCKISSA
- McKinlay Race Club
- McKinlay Shire Cultural Association
- Nelia Small Community Enhancement Group
- QCWA Country Kitchens
- QCWA Julia Creek
- QCWA McKinlay
- QCWA Nelia
- Saxby Roundup
- Sedan Dip Sports and Rec.

### 4.2.12 Summary of Community Health and Wellbeing

The local Study Areas are on the tribal lands of the Wanamara people (predominantly) and Ngaun people (north of Julia Creek), while Julia Creek was the location of northwest Queensland's first European settlement in 1862. As well as being noted for the world's largest silver and lead mine – Cannington – and Crocodile Dundee's Walkabout Creek Hotel, McKinlay Shire is home to the Julia Creek dunnart – a small nocturnal carnivorous marsupial considered to be endangered.

Communities in the local Study Areas are essentially rural. Agriculture has been a driving force of the McKinlay and Richmond LGAs' economies, while Cloncurry has also supported major resources developments since the late 1800s.

Julia Creek is the hub of McKinlay Shire. In addition to being the base for McKinlay Shire Council, the town has the services and infrastructure expected of a small regional community. This includes a civic centre, sports centre, swimming pool, gymnasium, parks and various retailers. There is also a wide range of community organisations, from the historical society to a theatre company. Additionally, the town hosts the annual Dirt n Dust Festival – a major music and rodeo event that attracts visitors from all over the state and beyond.

McKinlay Shire Council's strategic focus areas are retaining the population, maintaining opportunities for industry and employment, increasing childcare options, preparing for natural disasters, maintaining and improving the local road network, and ensuring residents can access allied health services – particularly around mental health.

In addition to strong local government, the regional Study Areas fall in the State Electorate of Traeger and Federal Electorate of Kennedy. Sitting members of both electorates – Robbie Katter MP and Bob Katter Jr MP, respectively – both represent Katter’s Australian Party. The latter has been representing the region since 1993.

There are five schools across the McKinlay, Richmond and Cloncurry LGAs, with the latter home to the only high school and Catholic primary school. There are no universities in the region; however, James Cook University’s Centre for Rural and Remote Health has campuses in Cloncurry and Mount Isa. TAFE also has a campus in Cloncurry. All local LGAs have childcare centres.

All Study Areas have their own hospitals or MPHSs. Established in 1972, Julia Creek’s hospital was rebuilt in 2019 and now provides low-risk ambulatory care and clinical services. The small community of McKinlay also has a primary health clinic. Mt Isa Hospital is the main referral centre within the North West Hospital and Health Service, to which all Study Area hospitals belong. Julia Creek MPHS offers aged-care support services and four dedicated beds. McKinlay Shire Council also maintains eight independent-living units for older residents.

All local Study Areas have dedicated police, ambulance and fire stations. Julia Creek and Cloncurry ambulance stations are part of QAS’s North West District, while Richmond ambulance is part of the QAS Townsville District. Julia Creek and Cloncurry paramedics also work closely with the helicopter rescue service, based in Mount Isa, and the Royal Flying Doctor Service. Julia Creek, Richmond and Cloncurry fire stations are all auxiliary and are part of the Queensland Fire and Emergency Services’ Northern Region Western Command, headquartered in the permanent Mount Isa Fire Station.

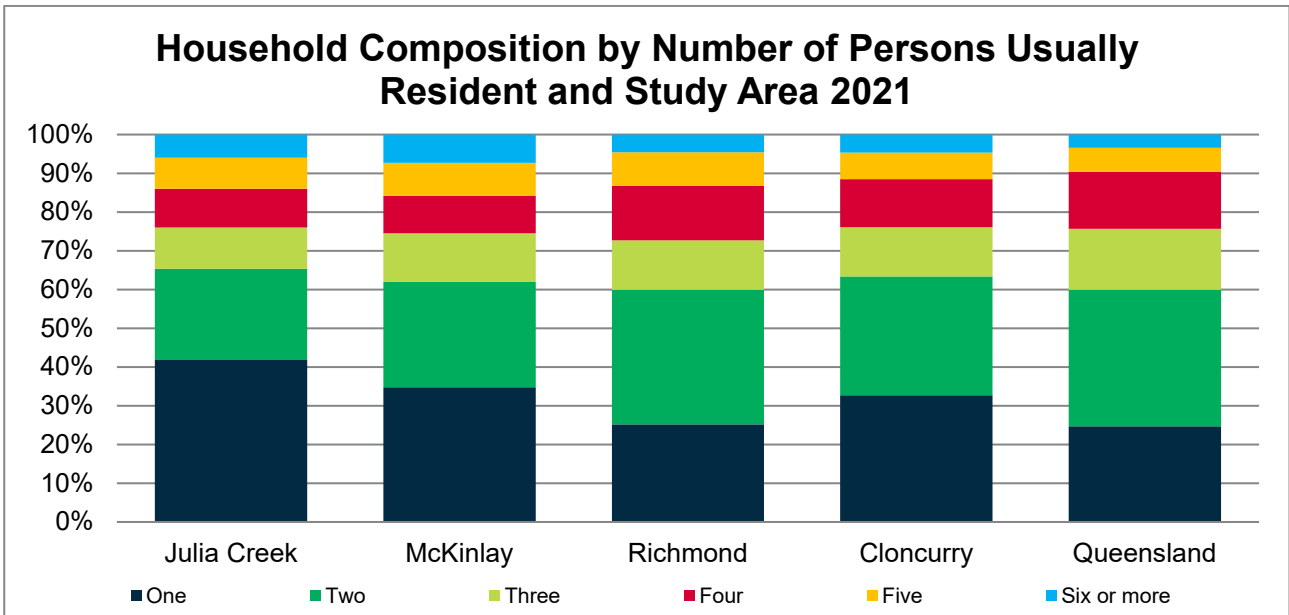
Julia Creek, Richmond and Cloncurry are all serviced by Greyhound buses (along the Flinders Highway, which connects the three towns) and Queensland Rail’s Inlander service. Rex Airlines services Julia Creek three days per week. The Flinders Highway is also known as Overlanders Way – a ‘beach to bush adventure’ tourist attraction. McKinlay Shire Council maintains a publicly available Road Conditions Report (for all local state and Council roads) to notify residents and travellers of road closures/ hazards. Punchbowl Road has the most relevance to the Project, as traffic will increase from when construction commences to mine operation.

Julia Creek gets its electricity from Charters Towers but antiquated infrastructure means the town regularly endures blackouts and brownouts. McKinlay Shire sources its water from the Great Artesian Basin, with Julia Creek the only community in the shire to have an articulated sewerage system. Julia Creek also has kerbside waste collection, which is transferred to the Julia Creek Waste Facility. Communications and data access is reasonable but should improve significantly when the NBN is installed by February 2024.

## 4.3 Housing and Accommodation

### 4.3.1 Household Composition

In Julia Creek and throughout the McKinlay LGA, one-person households were most common in 2021 (44.7% and 36.1% respectively), followed by two-person households. This was similar for the Cloncurry LGA, whereas, for the Richmond LGA and across Queensland, two-person households were the most prevalent (34.6% and 35.2% respectively).



Includes family and non-family households. Based on place of enumeration. Source: ABS 2021 Census of Population and Housing.

**Figure 16 Household composition by Study Area**

### 4.3.2 Dwelling Structure

Most of the 2021 housing stock across all Study Areas comprised separate houses. There were no flats/units/apartments in the McKinlay or Richmond LGAs, while these made up 7.9% and 11.3% of Cloncurry and Queensland dwellings, respectively. Surprisingly, given town’s and the nation’s current (2023) housing crisis, there were 64 unoccupied dwellings in Julia Creek at the time of the 2021 Census.

**Table 9 Dwelling structure by Study Area**

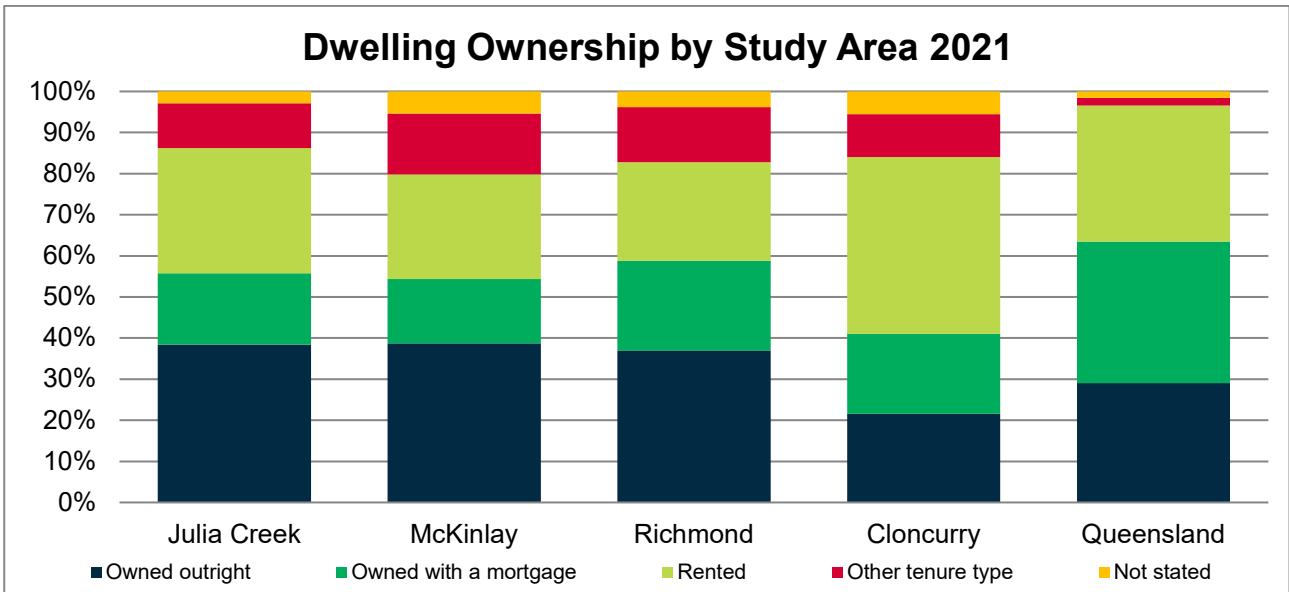
Dwelling Structure	Julia Creek	McKinlay	Richmond	Cloncurry	Qld
Separate house	122	190	209	848	1,397,920
Semi-detached, row or terrace house, townhouse	4	4	0	24	218,546
Flat, unit or apartment	0	0	0	107	233,531
Other dwelling	0	0	0	65	13,519
Dwelling structure not stated	11	50	29	17	5,947
Unoccupied private dwelling	64	85	88	299	192,393
TOTAL(a)	206	327	331	1,352	2,061,855

Count of total private dwellings. (a) Includes adjustment to protect identifiable data. ‘Other dwelling’ includes caravan, cabin, houseboat, improvised home or tent, as well as accommodation attached to a shop or office. Source: ABS 2021 Census of Population and Housing.

### 4.3.3 Dwelling Ownership

In 2021, more than half of all Julia Creek housing stock was owned outright or owned with a mortgage, with just less than a third of dwellings being rented. This was similar for the other Study Areas, bar Cloncurry, where most dwellings were rented (43.1%).



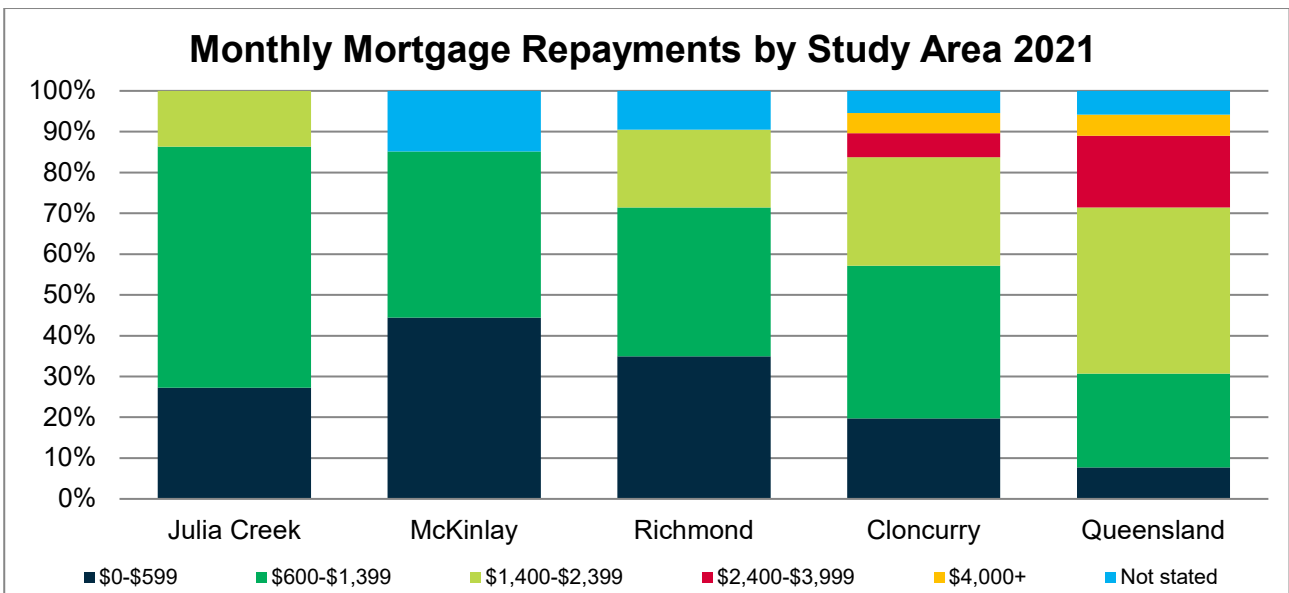


Includes dwellings being 'purchased under a shared equity scheme'. Excludes dwellings being 'occupied rent-free'. Includes dwellings being rented from a parent/other relative or other person. Includes dwellings being rented through an 'owner/manager of a residential park (including caravan parks and manufactured home estates)', 'employer - government (includes Defence housing Australia)' and 'employer - other employer'. Includes dwellings being 'occupied under a life tenure scheme' and 'occupied rent-free'. Based on place of enumeration. Source: ABS 2021 Census of Population and Housing.

Figure 17 Dwelling ownership by Study Area

### 4.3.4 Mortgage Repayments

At the time of the 2021 Census, most Julia Creek households (54.2%) serviced mortgage repayments of between \$600 and \$1,400 per month. Across the broader McKinlay LGA, 31.6% of households supported monthly mortgage repayments of less than \$600. 2021 statewide results indicated that more than 40% of households paid between \$1,400 and \$2,400 to service monthly mortgage debt, with 5.8% repaying more than \$4,000 per month.

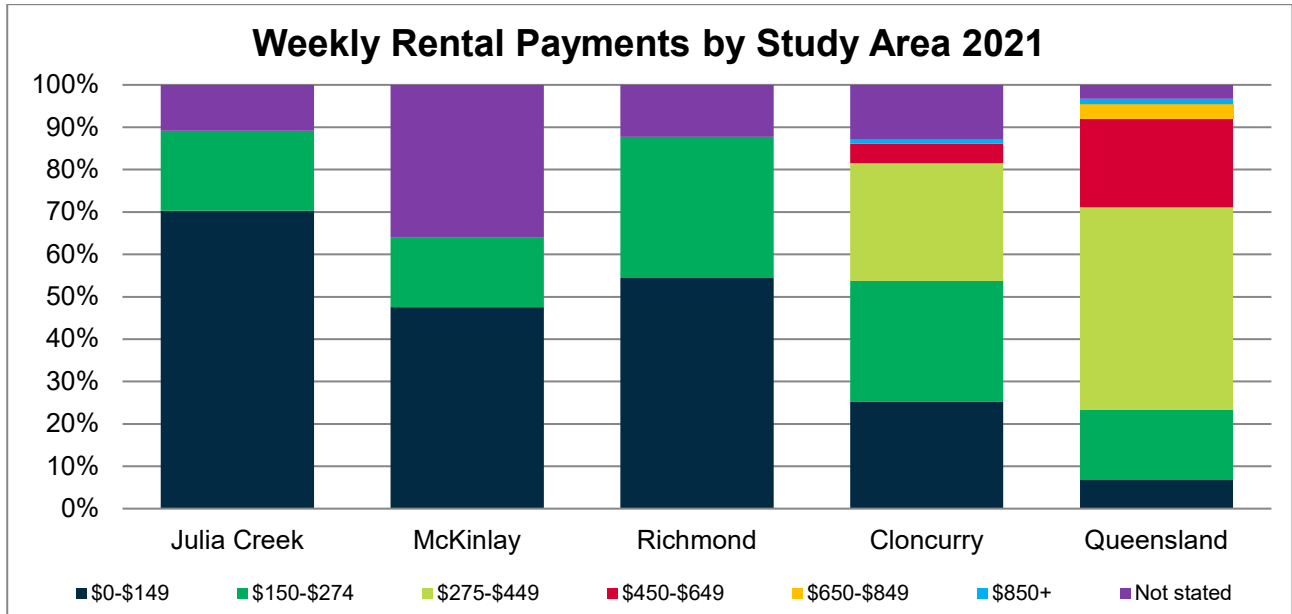


Count of private dwellings. Excludes dwelling being 'occupied rent-free'. Based on place of enumeration. Source: ABS 2021 Census of Population and Housing.

Figure 18 Monthly mortgage repayments by Study Area

### 4.3.5 Rental Payments

In 2021, rental payments in the McKinlay and Richmond LGAs did not exceed \$274 per week; while in the Cloncurry LGA, one-third of rental payments were more than \$275 per week. For the state, over a quarter of households paid more than \$450 per week in rent.



Count of occupied private dwellings. Excludes dwellings being 'occupied rent-free'. Includes dwellings being rented from a parent/other relative or other person. Includes dwellings being rented through an 'owner/manager of a residential park (including caravan parks and manufactured home estates)', 'employer - government (includes Defence housing Australia)' and 'employer - other employer'. Based on place of remuneration. Source: ABS 2021 Census of Population and Housing.

Figure 19 Weekly rental repayments by Study Area

### 4.3.6 Median Dwelling Prices

From 2014 to 2022, median dwelling prices almost doubled in the McKinlay LGA (from \$60,000 to \$110,000). This was the highest real-estate growth across all Study Areas, with state median dwelling prices increasing by 38.1% during the same period. Cloncurry median dwelling prices decreased in the 2014-2012 period and in December 2022, the median price was the same as it was in December 2014 (\$220,000).

Table 10 Median dwelling prices by Study Area 2012-2022

	McKinlay	Richmond	Cloncurry	Qld
December 2012	N/A	\$90,000	\$240,000	\$385,000
December 2013	N/A	\$95,000	\$267,500	\$400,000
December 2014	\$60,000	N/A	\$220,000	\$420,000
December 2015	N/A	\$100,000	\$205,000	\$435,000
December 2016	N/A	N/A	\$165,000	\$445,000
December 2017	N/A	\$78,750	\$110,000	\$454,900
December 2018	N/A	\$111,700	\$150,000	\$459,000
December 2019	\$55,000	\$97,500	\$160,000	\$460,000

	McKinlay	Richmond	Cloncurry	Qld
December 2020	\$72,500	\$112,500	\$175,000	\$472,500
December 2021	\$77,500	\$127,500	\$210,000	\$520,000
December 2022	\$110,000	\$132,500	\$220,000	\$580,000

*Includes detached and attached dwellings. Data not available for Julia Creek. (N/A) Data not available for every year (McKinlay and Richmond LGAs). Source: QGSO Queensland Regional Database.*

### 4.3.7 Current Dwelling Availability

As of September 2023, there was only one dwelling for sale in Julia Creek – a three-bedroom house on Coyne Street with an asking price of \$115,000. There were two dwellings for sale in the Richmond LGA – a five-bedroom home for \$350,000 and a three-bedroom home for \$330,000. In Cloncurry, there were almost 50 homes for sale – ranging in asking price from \$110,000 to \$430,000. In September 2023, there were no homes for rent in Julia Creek or Richmond. In Cloncurry, there were seven available rental properties, ranging from a three-bedroom house for \$550 per week to a two-bedroom unit at \$270 per week

#### 4.3.7.1 Housing Shortage

Consultation determined that there is an acute housing shortage in Julia Creek, which is impacting the town’s ability to attract staff to local government, services and businesses.

### 4.3.8 Land Valuations

The Queensland Government’s 2023 land valuations indicated that McKinlay Shire’s total land value (some 500 properties across the commercial, industrial, primary production and residential sectors) had increased by 176% since 2019/2020 to \$677,242,700 as at October 2022. Some 99% of these properties were considered primary production in land type. Median value of residential land (less than 4000m<sup>2</sup>) in Julia Creek increased from \$9,000 to \$10,000 in the same period, while the median rural residential land value increased from \$19,000 to \$32,000. In the Richmond Shire, median residential land value increased by some 23% from 2019 to 2022 (to \$14,000); while median rural residential value stayed at \$38,000. Cloncurry LGA median residential value increased by 6% to \$26,000; while median rural residential value increased from \$70,000 to \$95,000 (35.7%)

### 4.3.9 Residential Building Approvals

The few McKinlay and Richmond building approvals granted during 2022/2023 were related to residential developments (one house in McKinlay). Conversely, Cloncurry had more non-residential approvals and across the state, the split of residential and non-residential building approvals was more even.

**Table 11 Building approvals 12 months to July 2023 by Study Area**

	McKinlay	Richmond	Cloncurry	Qld
Residential building approvals (a)	1	4	7	35,273
Residential building value (\$'000)	736	1,417	4,301	19,185,593
Non-residential building value (\$'000)	0	627	7,277	16,789,703
Total building value (\$'000) (b)	736	2,044	11,579	35,975,296
Proportion of total value residential	100.0%	69.3%	37.1%	53.3%

*(a) Includes houses, semidetached, row or terrace houses or townhouses, and flats, units or apartments. (b) Includes alterations, additions and conversions. Data not available for Julia Creek. Source: QGSO Queensland Regional Profiles (Resident).*

### 4.3.10 Addressing Constraints to Development

McKinlay Shire Council's Housing Strategy (March 2023) lists the following strategies to address current and future accommodation needs:

- Investigating funding for the development of a further two dwellings (three-bedroom houses)
- Starting to plan for development of further lots, including funding options for new infrastructure, if required
- Encouraging more self-contained, short-term accommodation options in unit blocks, motels and caravan/cabin-type accommodation and sustainable housing options that can underpin the economic development of the region
- Asking the Western Queensland Alliance of Councils and Queensland Government to considering developing a major marketing strategy to highlight the housing affordability and other lifestyle and employment advantages and opportunities offered by the regions
- Engaging the State Government on the issue of home ownership in remote locations and the difficulty associated with obtaining finance through the normal means because of banking industry regulations specifically related to the deposit required to support a loan application.

During direct consultation, Council advised that while it can make available substantial land already zoned for residential use, there was limited return in developing it (as well as difficulties finding available building companies and supporting trades – there is currently an 18-month wait for a local builder to construct a house).

### 4.3.11 Short-term Accommodation

There are six short-term accommodation options in Julia Creek

- Julia Creek Caravan Park: five cabins, twin-single rooms with shared bathrooms, 40 powered caravan sites and powered and unpowered camp sites
- Julia Creek Villas: 20 rooms (another critical minerals company has secured these rooms but at this stage, they can still be booked by others)
- Julia Creek Hotel: 11 rooms and two dongers
- Gannons Hotel: 12 rooms (no longer available as new owners have reserved rooms for nearby cotton operation)
- Julia Creek Motel: 11 rooms (no longer available as the motel has been purchased by a road construction company)
- 'Tradies Way': 18 single dongas.

### 4.3.12 Workforce Accommodation

There are currently no standalone workforce accommodation facilities near Julia Creek; however, as per the previous section, some businesses are securing existing local accommodation for their employees.

### 4.3.13 Social Housing

McKinlay Shire Council indicates that it has 12 social housing dwellings (six houses and six units). While the registered social housing demand with Julia Creek as a first preference is zero, Council considers that some community members may have withdrawn from applying for social housing until houses became available. However, Council has not estimated any need for further social housing in McKinlay.

### 4.3.14 Summary of Housing and Accommodation

In Julia Creek and throughout the McKinlay LGA, one-person households were the most common in 2021. This was similar for the Cloncurry LGA, whereas for Richmond and across Queensland, two-person households were the most prevalent. Most of these households lived in separate dwellings.

Almost 40% of McKinlay LGA residents owned their homes outright, with only a third of Julia Creek homes rented. Conversely, in the Cloncurry LGA, 43.1% of dwellings were rented in 2021. Of those who serviced mortgages, over half of Julia Creek households paid between \$600 and \$1,400 per month. Statewide, some 40% of households paid between \$1,400 and \$2,400 to service their monthly mortgage debt. McKinlay LGA weekly rental payments did not exceed \$274 in 2021, while a third of Cloncurry renters paid more than \$275 per week and a quarter of all Queensland renters paid more than \$450 per week.

From 2014 to 2022, median dwelling prices almost doubled in the McKinlay LGA (from \$60,000 to \$110,000). This was the highest real-estate growth across all Study Areas, with state median dwelling prices increasing by 38.1% during the same period. In September 2023, there was only one dwelling for sale in Julia Creek and two for sale in the Richmond LGA. During the same period, there were no homes for rent in Julia Creek or Richmond and only seven in Cloncurry – mirroring the country’s deepening rental crisis.

The few McKinlay and Richmond building approvals granted in the 12 months to July 2023 were related to residential developments (including just one house in McKinlay). Conversely, Cloncurry had more non-residential approvals and across the state, the split of residential and non-residential building approvals was more even.

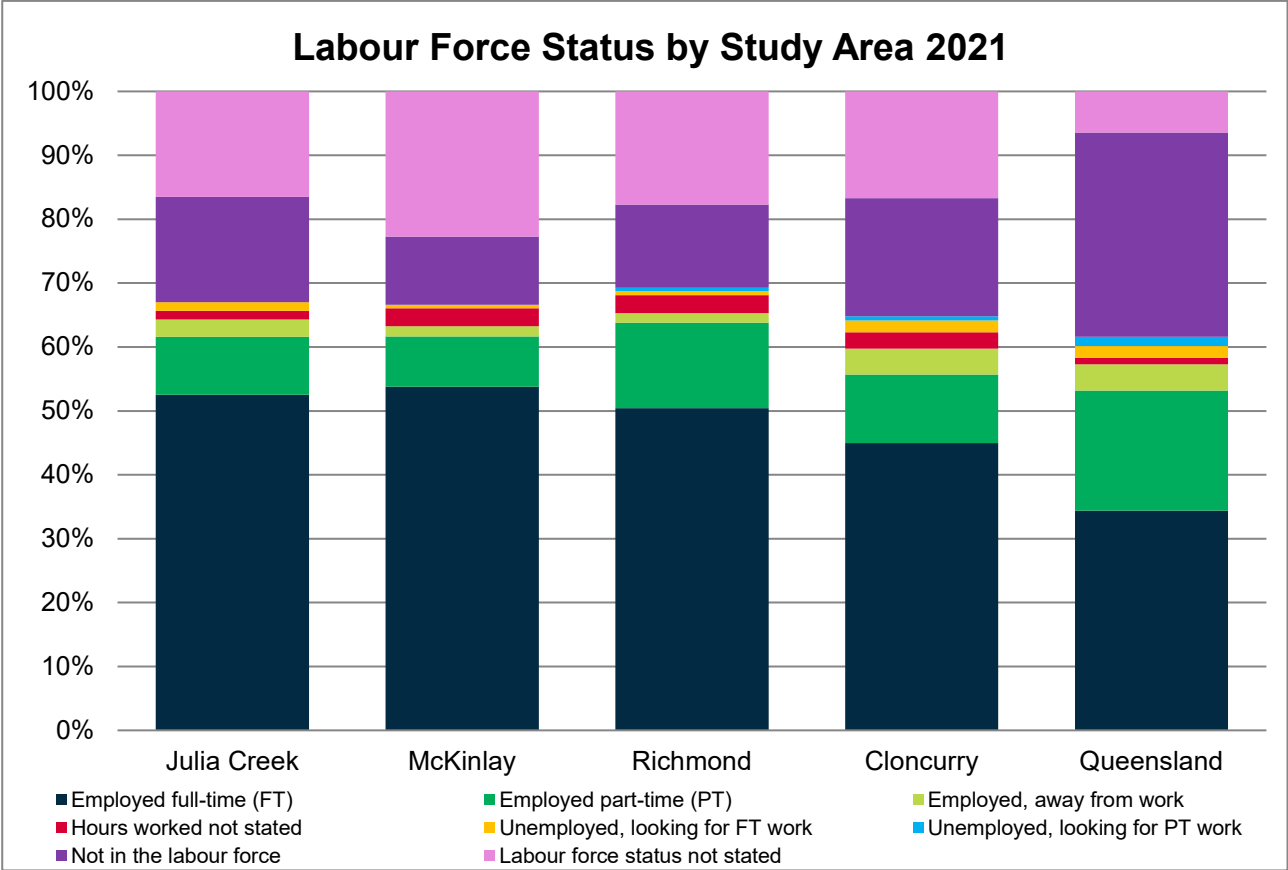
There are six short-term accommodation options in Julia Creek, a few of which have recently become unavailable due to being purchased or secured by companies new to the region. Julia Creek does not currently support any dedicated workforce accommodation facilities but McKinlay Shire Council advises that it has adequate social housing.

## 4.4 Employment and Income

### 4.4.1 Labour Force

2021 unemployment figures for the local Study Areas were significantly lower than for Queensland. The McKinlay LGA unemployment rate was less than one percent (0.9%), with Julia Creek at 2.0%. Richmond Shire unemployment was at 1.7% in 2021, while Cloncurry was higher at 3.9% – compared to Queensland at 5.4%. Queensland Government Statistician’s Office reporting indicated that the local LGAs were experiencing higher unemployment rates in 2023 (2.9% for McKinlay and Richmond and 5.0% for Cloncurry) compared to a current lower rate for the state (3.8%).

For the LGAs, most residents were in full-time jobs in 2021, with 13.4% of the Julia Creek labour force in part-time employment (11.7% of workers in the broader McKinlay LGA were part-time, 19.6% in Richmond and 16.5% in Cloncurry). This is compared to 30.5% of the entire state’s labour force being in part-time employment at the time of the 2021 Census.

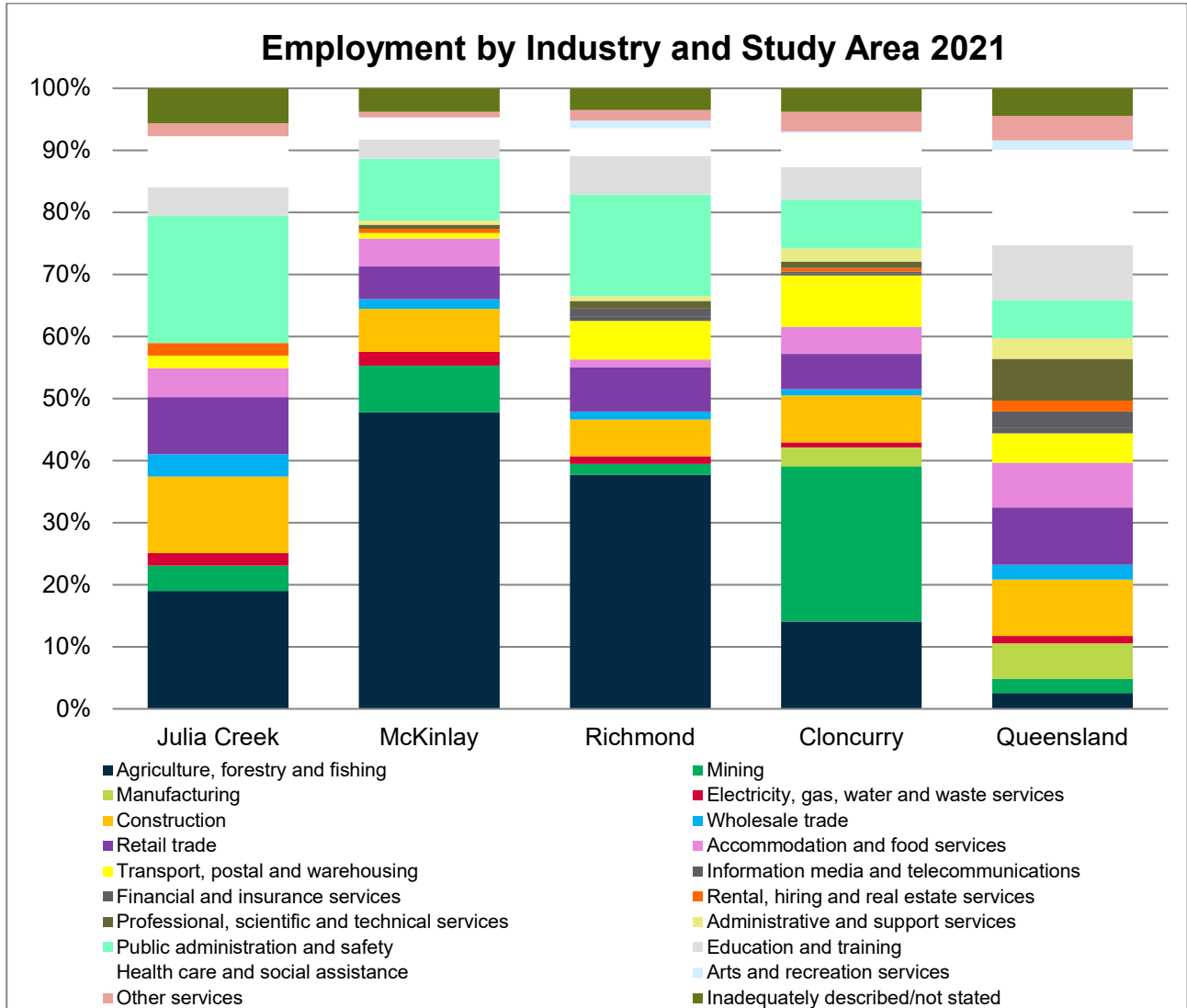


*Employed full-time' is defined as having worked 35 hours or more in all jobs during the week prior to Census night. Comprises employed persons who did not work any hours in the week prior to Census night. Based on place of usual residence. Source: ABS 2021 Census of Population and Housing.*

**Figure 20 Labour force status by Study Area**

### 4.4.2 Employment by Industry

In 2021, the predominant industry of employment for the McKinlay and Richmond LGAs was ‘agriculture, forestry and fishing’, while within the town of Julia Creek, ‘public administration and safety’ was the main employment industry. The Cloncurry LGA’s largest employer was the mining industry in 2021, while the largest industry of employment across the state was ‘healthcare and social assistance’.

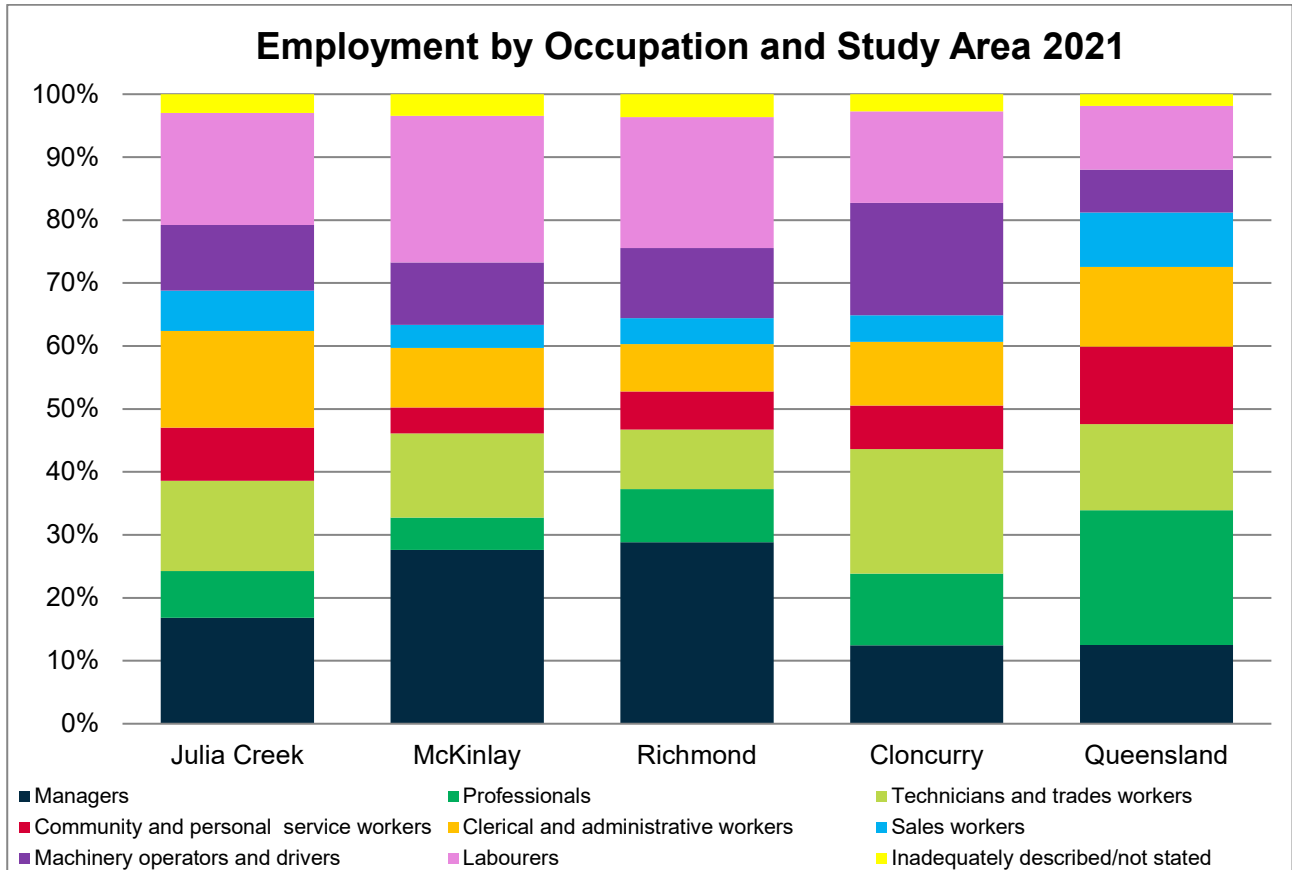


Based on place of usual residence. Source: ABS 2023 Census of Population and Housing.

Figure 21 Employment by industry and Study Area

### 4.4.3 Employment by Occupation

At the time of the 2021 Census, Julia Creek, McKinlay LGA and Richmond LGA all had higher proportions of labourers and managers – in line with the region’s dominant agricultural industry and Julia Creek public administration hub. The most common professions in Cloncurry were ‘technicians and trade workers’ and ‘machinery operators and drivers’, which is in line with the LGA’s significant mining industry. At the time of the 2021 Census, the most represented occupation across Queensland was ‘professionals’ (21.4%).



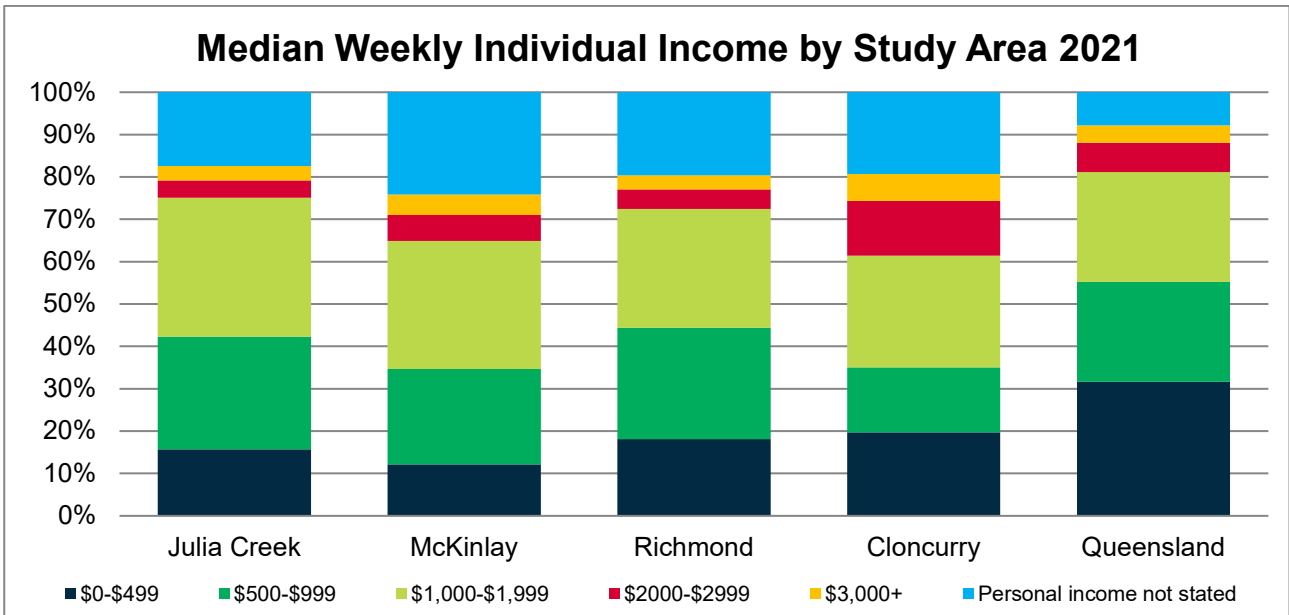
Based on place of usual residence. Source: ABS 2021 Census of Population and Housing.

Figure 22 Employment by occupation and Study Area

### 4.4.4 Median Individual Income

In 2021, 7.2% of the Julia Creek working population earned a median weekly individual income of more than \$2,000 per week, compared to 10.9% for the broader McKinlay LGA (on par with Queensland) and 8.3% for Richmond. In the Cloncurry LGA, almost 20% of the working population earned more than \$2,000 per week – significantly higher than all other Study Areas and potentially due to the region’s large and long-term resources industry and associated higher salaries.



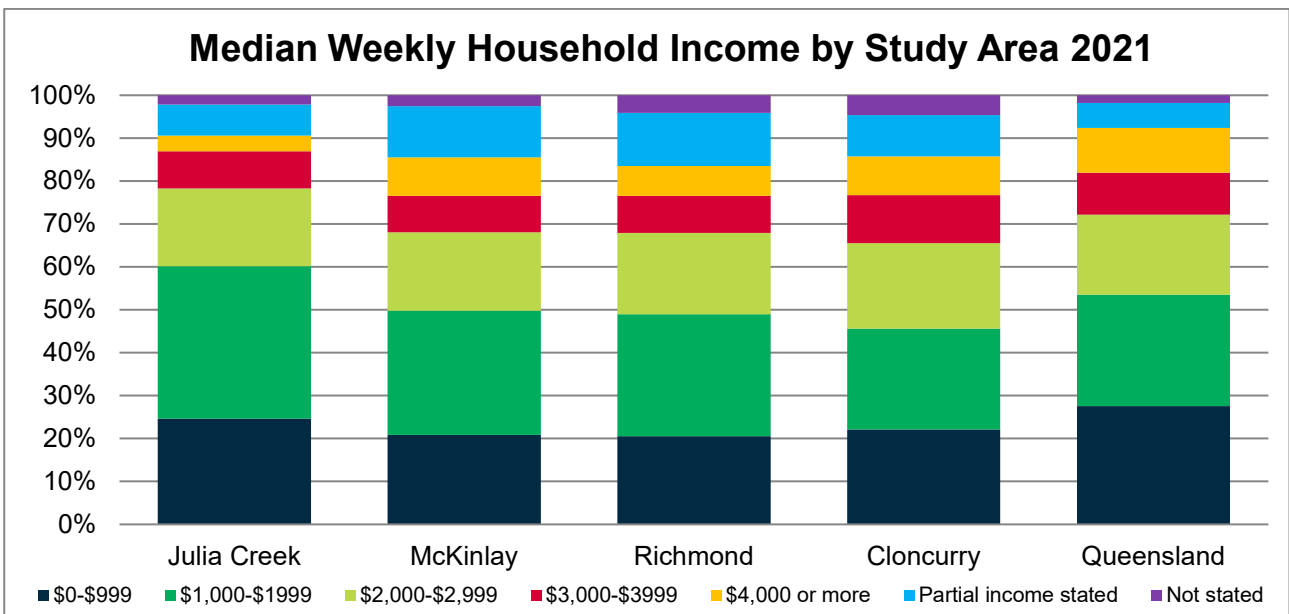


Based on place of usual residence. Source: ABS 2021 Census of Population and Housing.

Figure 23 Median weekly individual income by Study Area

#### 4.4.5 Median Household Income

All Study Areas had similar proportions of households with median weekly incomes of between \$0 and \$999 in 2021 (ranging from 20.6% in Richmond to 27.6% across Queensland), with Julia Creek only having 3.6% of households with median incomes of more than \$4,000 per week, compared to McKinlay LGA at 8.8%, Richmond at 7.0%, Cloncurry at 9.0% and Queensland at 10.4%.



Excludes 'visitors only' and 'other non-classifiable' households. Comprises 'lone person' and 'group households'. Comprises households where at least one, but not all, member(s) aged 15 years and over did not state an income and/or was temporarily absent on Census night. Comprises households where no members present stated an income. Based on place of enumeration. Source: ABS 2021 Census of Population and Housing.

Figure 24 Median weekly household income by Study Area

### 4.4.6 Summary of Employment and Income

2021 unemployment figures for the local Study Areas were significantly lower than for Queensland. The McKinlay LGA unemployment rate was less than one percent, with Julia Creek at 2.0%. and Richmond Shire at 1.7%, while Cloncurry was higher at 3.9% – compared to Queensland at 5.4%. 2023 unemployment rates are 2.9% for McKinlay and Richmond and 5.0% for Cloncurry, compared to a current lower rate for the state of 3.8%.

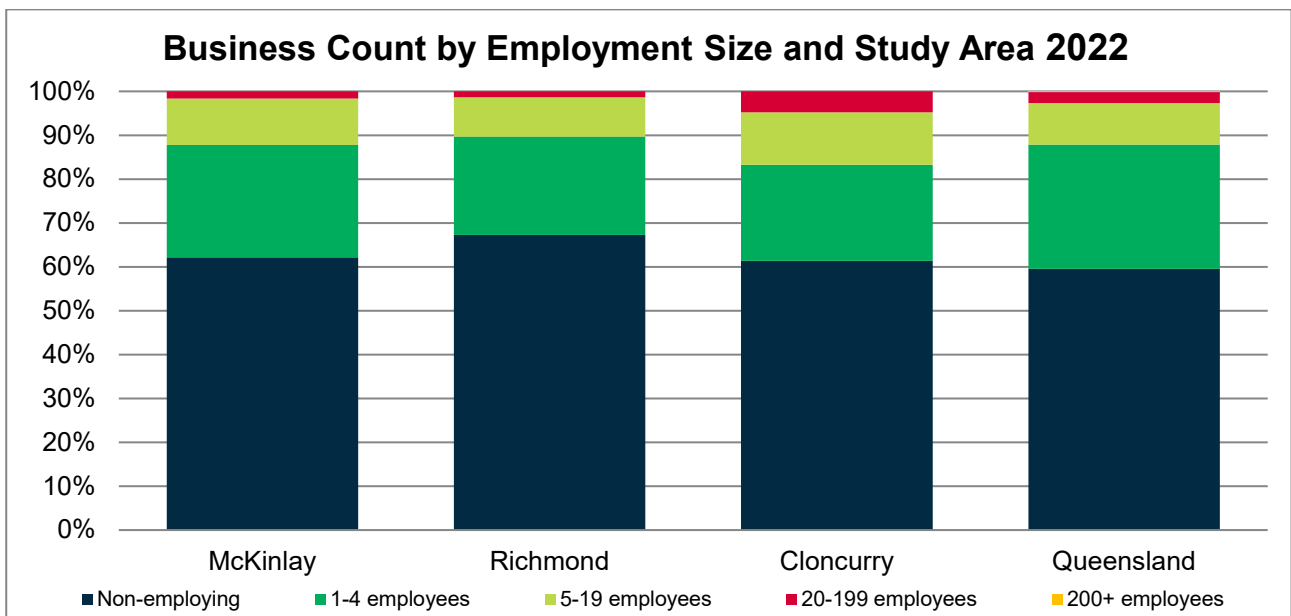
McKinlay and Richmond Shires’ predominant industry of employment was ‘agriculture, forestry and fishing’, while within the town of Julia Creek, ‘public administration and safety’ was the main employment industry. The Cloncurry LGA’s largest employer was the mining industry in 2021.

Some 7% of the Julia Creek working population earned a median weekly individual income of more than \$2,000 per week in 2021, compared to 10.9% for the broader McKinlay LGA (on par with Queensland) and 8.3% for Richmond. In the Cloncurry LGA, almost 20% of the working population earned more than \$2,000 per week – significantly higher than all other Study Areas and potentially due to the region’s large and long-term resources industry and associated higher salaries. Only 3.6% of Julia Creek households had median household incomes of more than \$4,000 per week, compared to McKinlay LGA at 8.8%, Richmond at 7.0%, Cloncurry at 9.0% and Queensland at 10.4%.

## 4.5 Business and Industry

### 4.5.1 Businesses by Employment

Of the McKinlay LGA’s 246 businesses, more than 62% were non-employing in 2022, while one-quarter employed one to four employees and no businesses supported more than 200 employees. Results were similar for Richmond and Cloncurry, while across the state, 756 businesses employed more than 200 people.

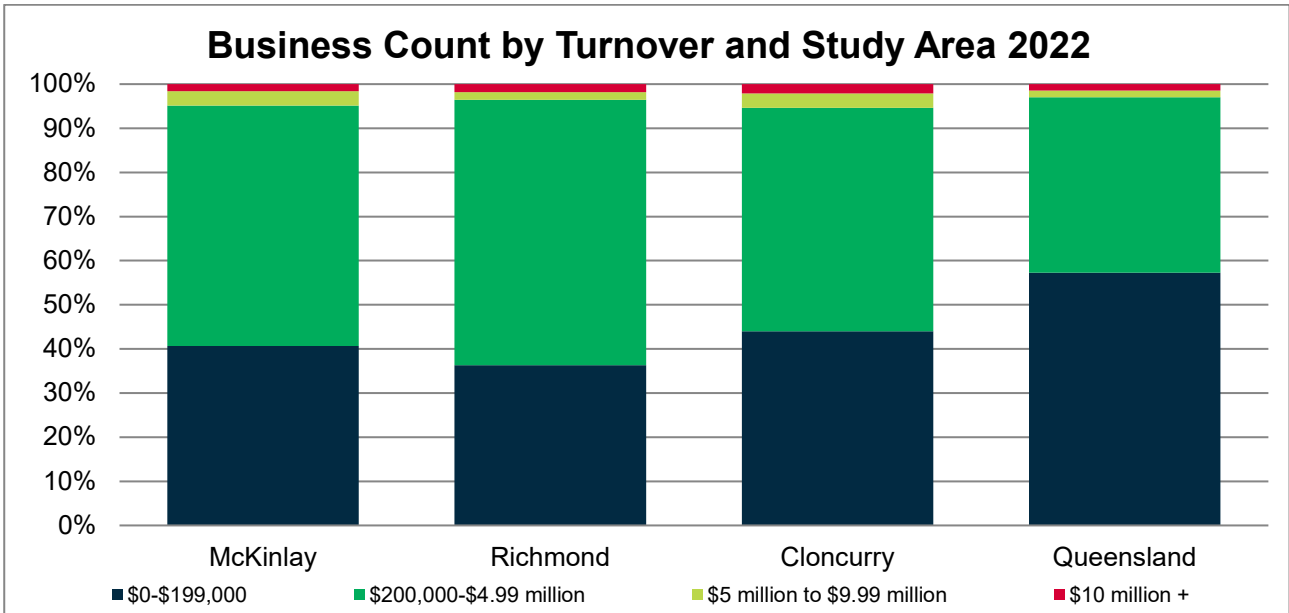


Data not available for Julia Creek. Source: QGSO Regional Profiles (Resident).

Figure 25 Business count by employment size and Study Area 2022

### 4.5.2 Businesses by Turnover

Just over 95% of McKinlay LGA businesses turn over less than \$5 million, with just under 43% of these turning over less than \$200,000. In 2022, there were eight McKinlay businesses with a turnover of between \$5 million and \$10 million and four turning over more than \$10 million. This was similar for Richmond. Cloncurry had more smaller businesses (\$0-\$199,000), with 57.3% of all Queensland businesses in this category.

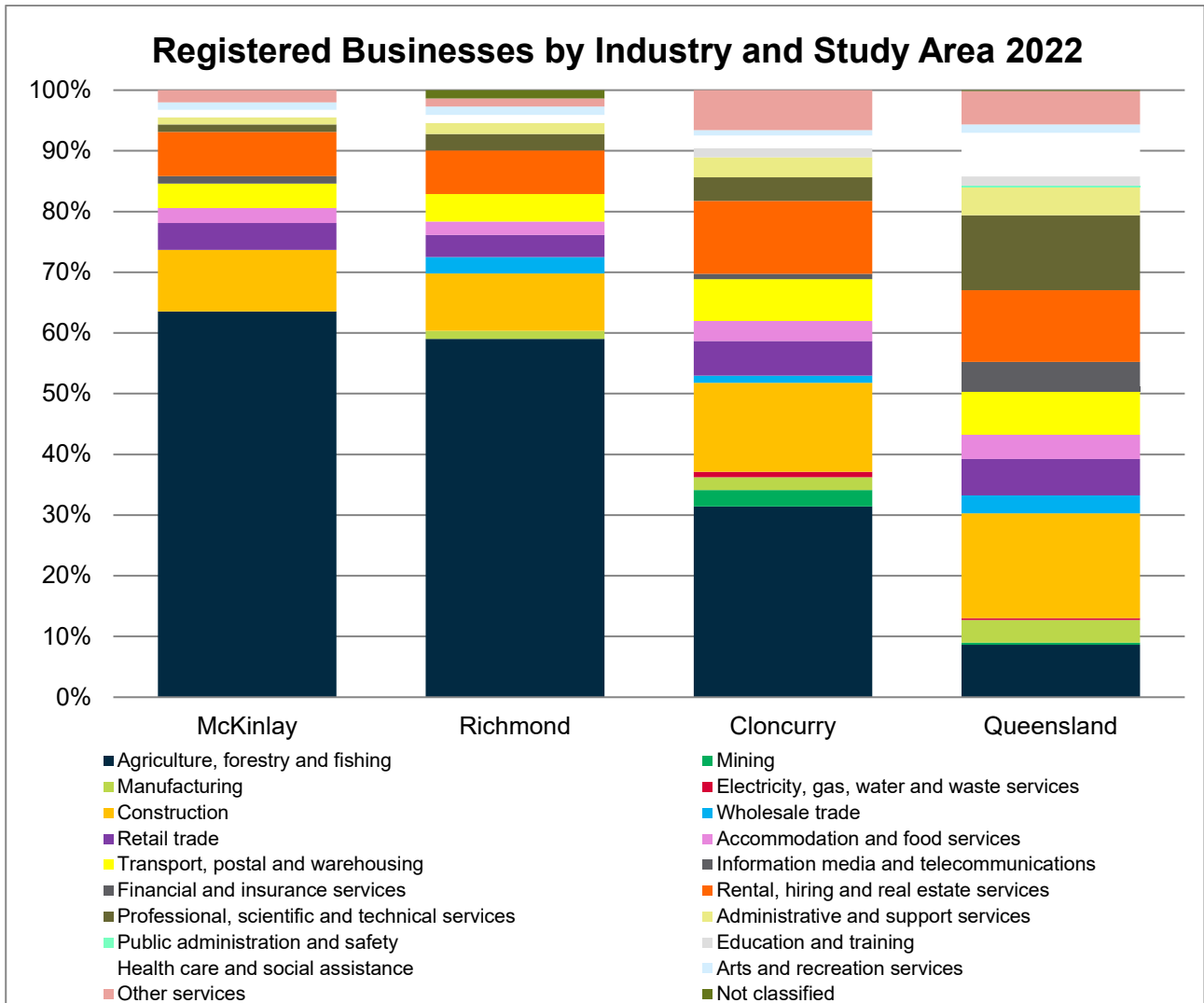


Data not available for Julia Creek. Source: QGSO Regional Profiles (Resident).

Figure 26 Business count by turnover and Study Area 2022

### 4.5.3 Businesses by Industry

In 2022, some 63.8% of McKinlay businesses were in the agriculture industry (beef cattle and sheep, according to McKinlay Shire Council’s Economic Development Plan). Richmond Shire was similar and in both Study Areas, construction was the next most prevalent industry (10.2% for McKinlay and 9.4% for Richmond). Cloncurry had a larger mining industry in 2022 at 2.7%; however, it had the same industry trends as the other regional Study Areas, with ‘agriculture, forestry and fishing’ the largest employer (31.4%), followed by construction (14.7%).



Includes inadequately described and not-stated responses. Data not available for Julia Creek. Source: QGSO Regional Profiles (Resident)

Figure 27 Registered businesses by industry and Study Area 2022

#### 4.5.4 Summary of Business and Industry

Of the McKinlay LGA’s 246 businesses, more than 62% were non-employed in 2022, while one-quarter employed one to four employees and no businesses supported more than 200 employees. Results were similar for the Richmond and Cloncurry LGAs.

Almost all McKinlay LGA businesses turn over less than \$5 million, with just under 43% of these turning over less than \$200,000. In 2022, there were eight McKinlay businesses with a turnover of between \$5 million and \$10 million and four turning over more than \$10 million.

In 2022, some 64% of McKinlay businesses were in the agriculture industry (beef cattle and sheep). Richmond Shire was similar and in both Study Areas, construction was the next most prevalent industry. Cloncurry had a larger mining industry in 2022; however, ‘agriculture, forestry and fishing’ was largest employer (31.4%), followed by construction.

## 4.6 Indigenous Social Profile

This section describes the First Nations population living in the Study Areas and examines trends across a number of demographic and socio-graphic areas.

### 4.6.1 Indigenous Population

In 2021, all local Study Areas had higher proportions of residents who identified as Aboriginal and/or Torres Strait Islander than the state average. Within the McKinlay Shire, 8.5% of Julia Creek’s population was Indigenous – 3.4% more than for the broader LGA. Cloncurry Shire had a considerably larger proportion of First Nations residents at 23.8%.

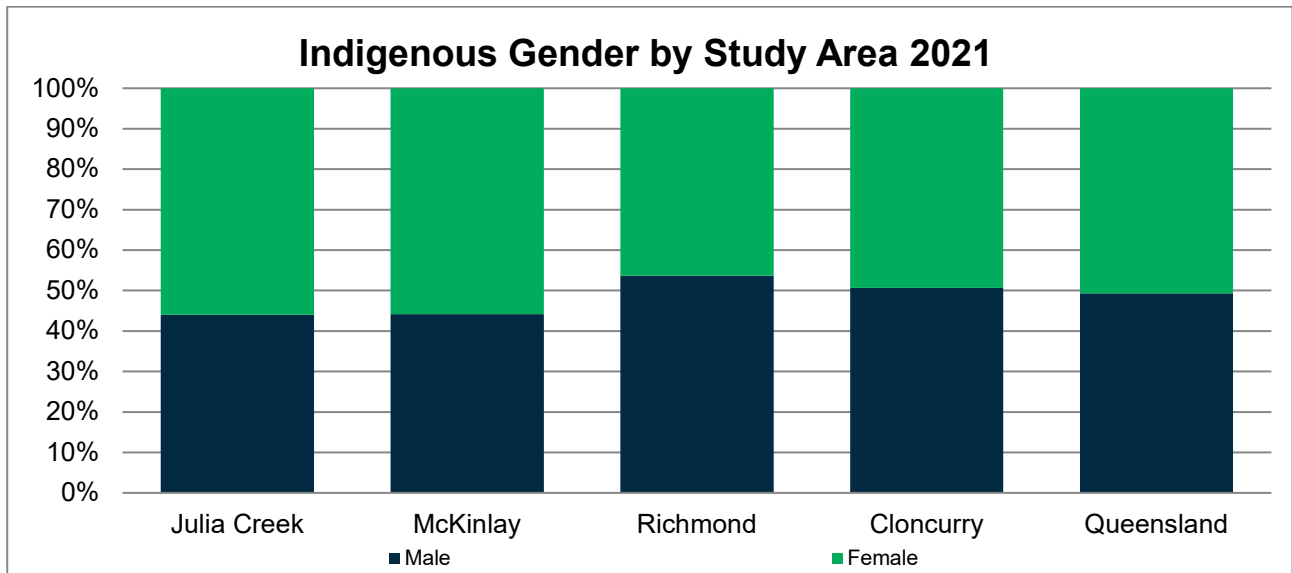
**Table 12 Indigenous population by Study Area**

	Julia Creek	McKinlay	Richmond	Cloncurry	Qld
Number of people who identify as Indigenous	32	43	55	868	237,303
Percentage of total population	8.5%	5.1%	7.2%	23.8%	4.6%

*Comprises persons who identified themselves as being of 'Aboriginal' or 'Torres Strait Islander' or 'Both Aboriginal and Torres Strait Islander' origin. Based on place of usual residence. Source: ABS 2021 Census of Population and Housing.*

### 4.6.2 Indigenous Gender

The Richmond LGA was the only Study Area to have significantly more First Nations males (53.7%) than females. Cloncurry LGA and the broader state had relatively even gender splits, while there were more First Nations females than males in Julia Creek and McKinlay Shire.

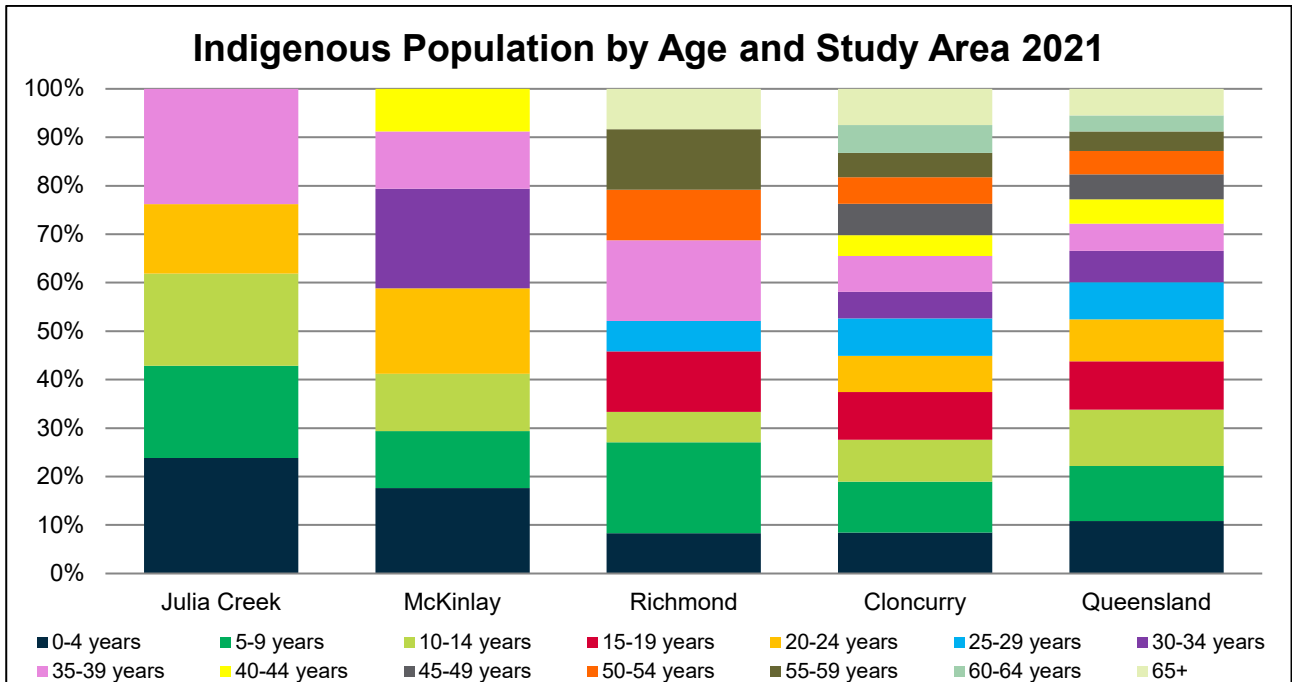


*Based on place of usual residence. Source: ABS 2021 Census of Population and Housing.*

**Figure 28 Indigenous gender structure by Study Area**

### 4.6.3 Indigenous Age

All Study Areas had greater numbers of younger First Nations Australians in 2021. The oldest Indigenous resident in the McKinlay LGA was in the 40-44-year-old bracket. Richmond’s Indigenous population was also generally younger; however the Shire did have a number of First Nations residents aged over 65. Cloncurry’s Indigenous age structure was more evenly spread across the age brackets, as was Queensland’s.

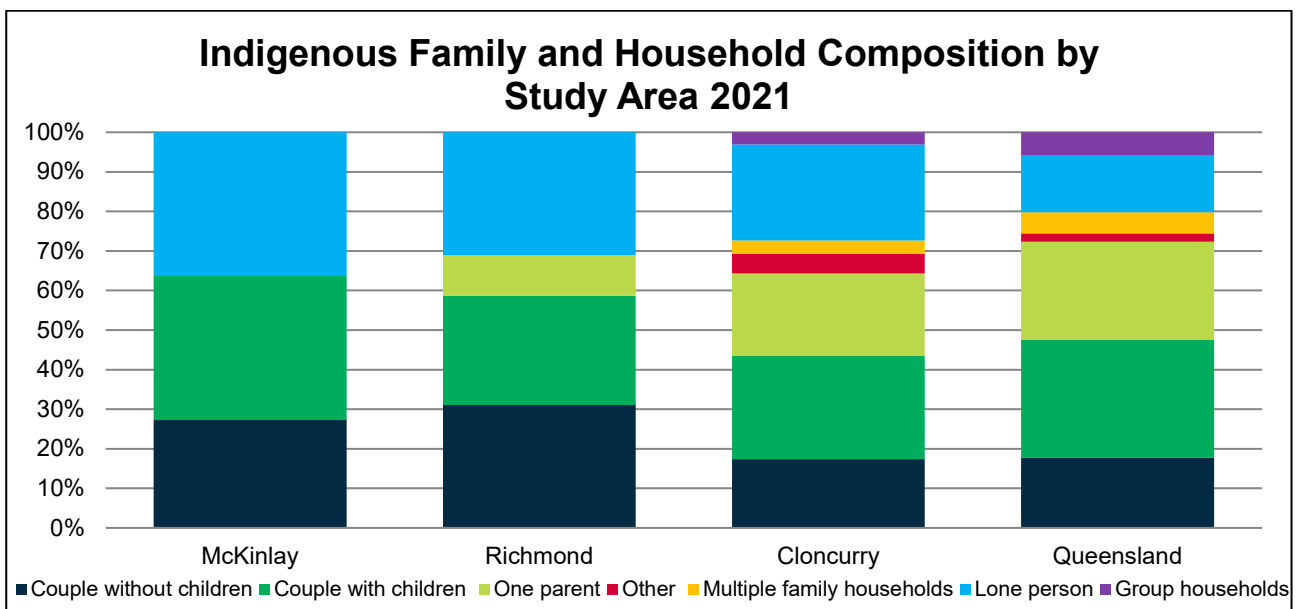


Comprises persons who identified themselves as being of 'Aboriginal' or 'Torres Strait Islander' or 'Both Aboriginal and Torres Strait Islander' origin. Based on place of usual residence. Source: ABS 2021 Census of Population and Housing.

Figure 29 Indigenous age structure by Study Area

#### 4.6.4 Indigenous Families and Households

In 2021, McKinlay Aboriginal and Torres Strait Islander households comprised couples with no children, couples with children and lone people. There were no multiple family or group households. The Richmond LGA was similar but with three one-parent families, while First Nations households were more diverse in Cloncurry and across Queensland.

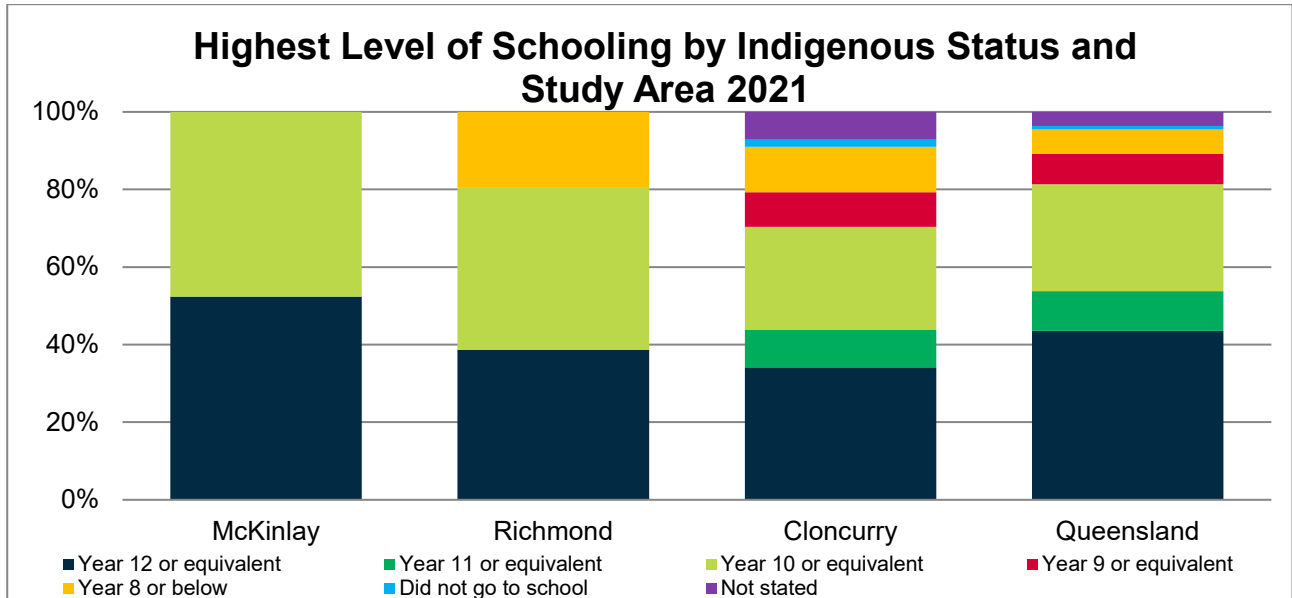


Includes up to three residents who were temporarily absent on Census night. Excludes 'visitors only' and 'other non-classifiable' households. A household with Aboriginal and Torres Strait Islander person(s) is any household that had at least one person of any age as a resident at the time of the Census who identified as being of Aboriginal and/or Torres Strait Islander origin. Based on place of enumeration. Data not available for Julia Creek. Source: ABS 2021 Census of Population and Housing.

Figure 30 Indigenous family and household composition by Study Area

### 4.6.5 Indigenous Education

At the time of the 2021 Census, 47.8% of McKinlay First Nations residents over 15 years had completed year 12, while all had completed year 10 or equivalent. The Richmond LGA had the lowest rates of Indigenous schooling, with just over 69% with a year 10 or equivalent education.

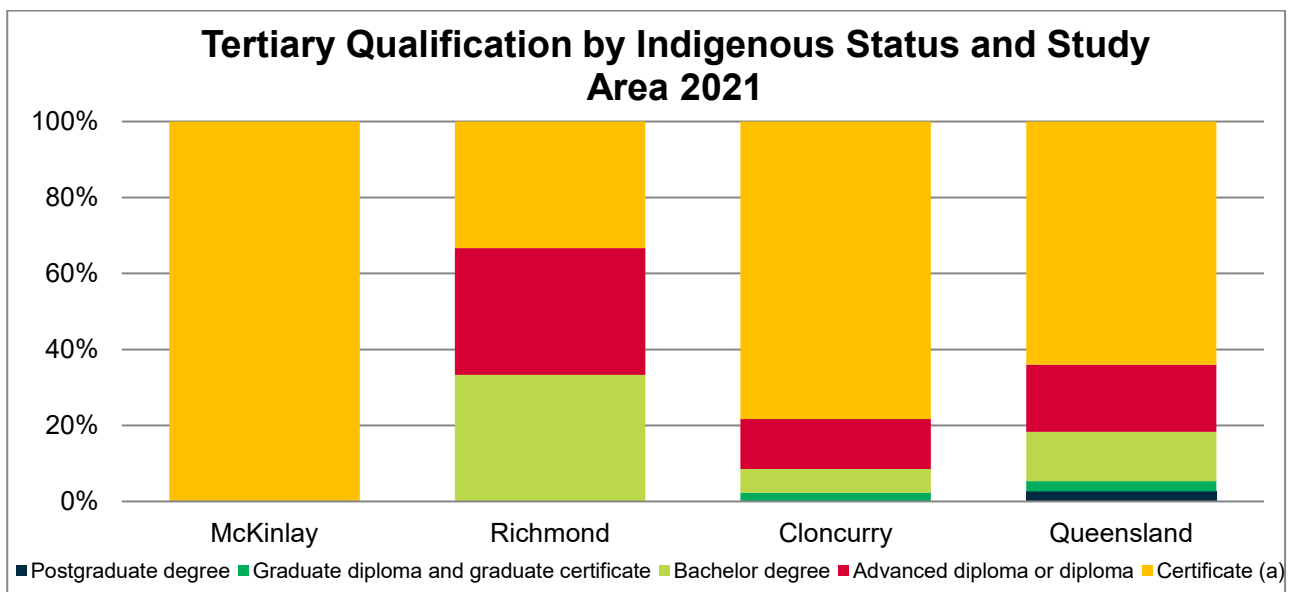


Based on persons 15 years and over who are no long attending primary or secondary school. Comprises persons who identified themselves as being of 'Aboriginal' or 'Torres Strait Islander' or 'Both Aboriginal and Torres Strait Islander' origin. Based on place of usual residence. Data not available for Julia Creek. Source: ABS 2021 Census of Population and Housing.

Figure 31 Indigenous highest level of schooling by Study Area

#### 4.6.5.1 Indigenous Tertiary Studies

In 2021, there were no McKinlay First Nations residents who had completed a diploma or higher. Richmond Shire had a relatively equal representation of Indigenous residents who had completed advanced diplomas and certificates, while across all Study Areas, 'certificate' was the most prevalent tertiary qualification.



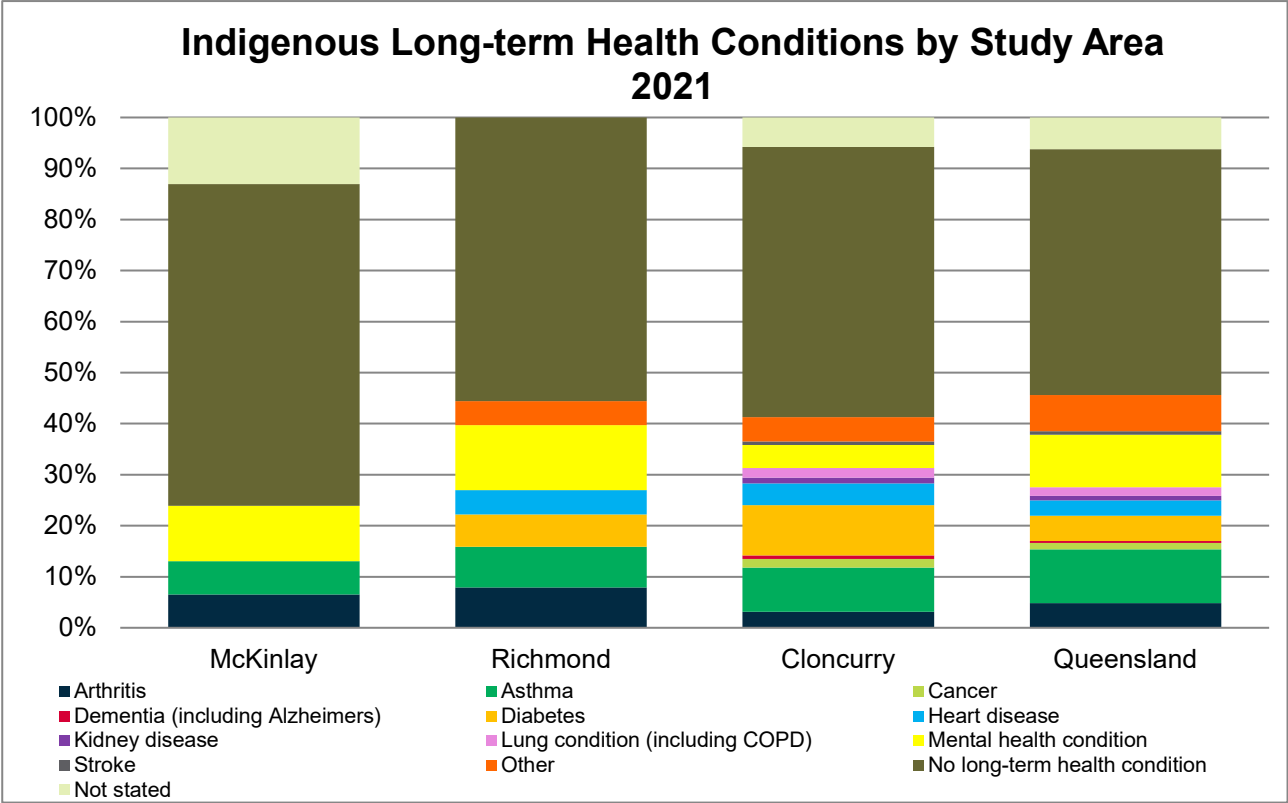
(a) Includes Certificates I, II, III and IV and certificates not defined. Based on persons 15 years and over and usual place of residence. Data not available for Julia Creek. Source: ABS 2021 Census of Population and Housing.

Figure 32 Indigenous tertiary qualification by Study Area



**4.6.6 Indigenous Health**

Almost 59% of the Queensland Aboriginal and Torres Strait Islander population reported no long-term health conditions at the 2021 Census, with all other Study Areas reporting well above 60% in this category. Arthritis and asthma were the predominant illnesses, with diabetes and mental-health conditions also featuring significantly in the Cloncurry and Queensland Study Areas.



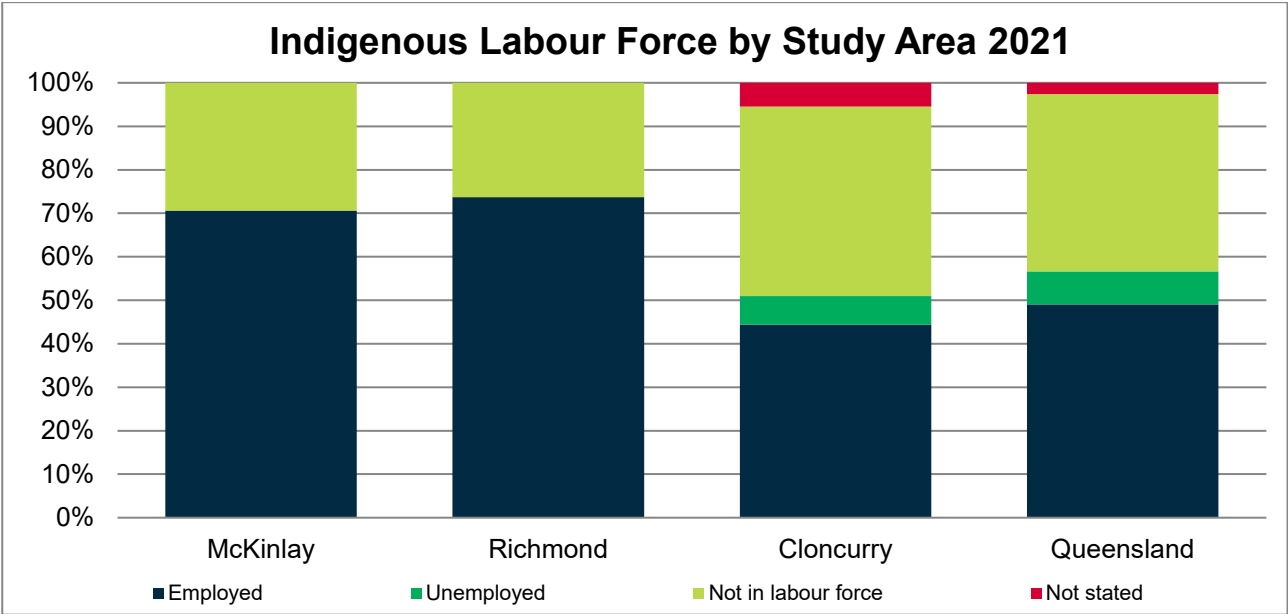
Includes people with multiple long-term health conditions. Based on place of usual residence. Data not available for Julia Creek. Source: ABS 2021 Census of Population and Housing.

**Figure 33 Indigenous long-term health condition by Study Area**

**4.6.7 Indigenous Employment and Income**

**4.6.7.1 Indigenous Labour Force**

In 2021, Indigenous unemployment across Queensland was at 13.3% (compared to 5.4% for the entire population). The Cloncurry LGA Indigenous unemployment rate was similarly high (13.1%, compared to 3.9% for the broader population), while all McKinlay and Richmond First Nations residents in the labour force were employed.

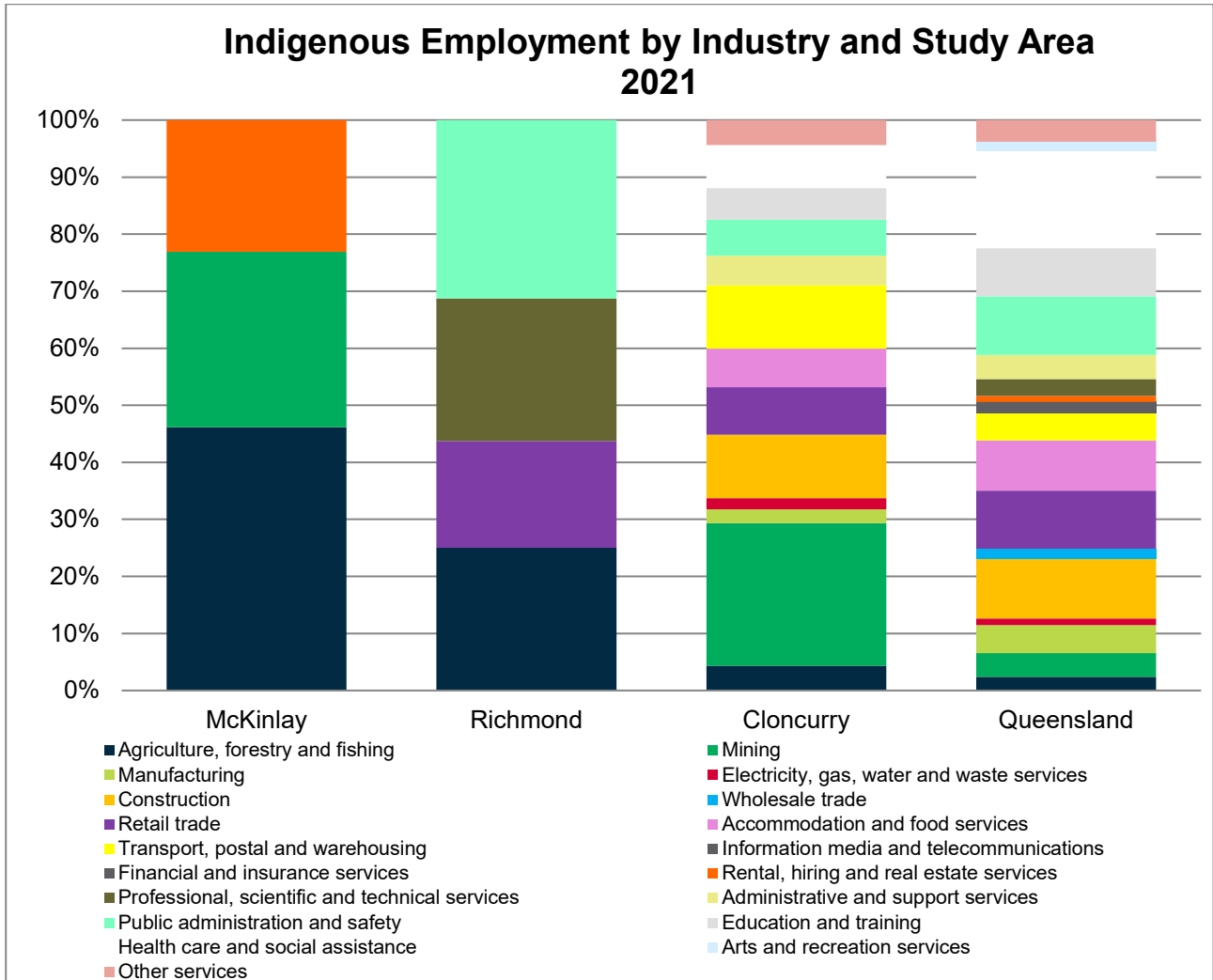


*Includes persons aged 15 years and over. Based on place of usual residence. Data not available for Julia Creek. Source: ABS 2021 Census of Population and Housing.*

**Figure 34 Indigenous labour force status by Study Area**

### 4.6.7.2 Indigenous Employment by Industry

The largest industry of Aboriginal and Torres Strait Islander employment in the McKinlay LGA at the 2021 Census was agriculture, following by mining. Richmond Shire’s First Nations residents were mostly employed in ‘public administration and safety’, while mining was the main industry of Indigenous employment in the Cloncurry LGA. The local Study Areas did not align with Queensland statistics as across the state, ‘health care and social assistance’ was by far the largest industry of employment for First Nations Queenslanders.

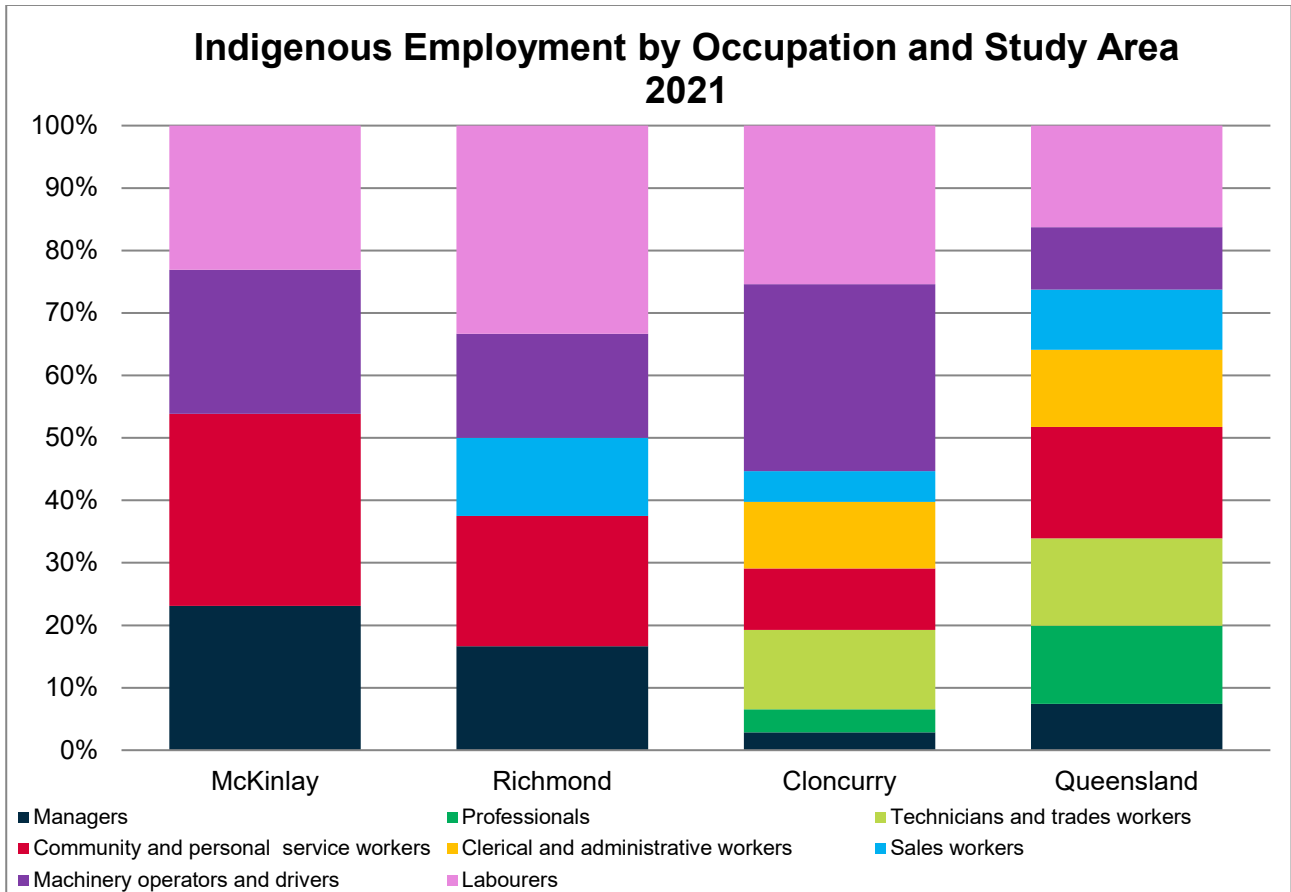


Includes inadequately and not-stated responses. Based on place of usual residence. Data not available for Julia Creek. Source: QGSO Queensland Regional Profiles (Indigenous).

Figure 35 Indigenous employment by industry and Study Area

### 4.6.7.3 Indigenous Employment by Occupation

In 2021, there was a relatively even mix of First Nations managers, ‘community and personal service workers’, machinery operators and drivers, and labourers in the McKinlay LGA. Some 21% of Richmond Aboriginal and Torres Strait Islander workers were labourers, compared to 14.6% for Cloncurry. The Cloncurry LGA’s most prevalent occupations were ‘technicians and trades workers’ and ‘machinery operators and drivers’ – directly aligned with the general population.



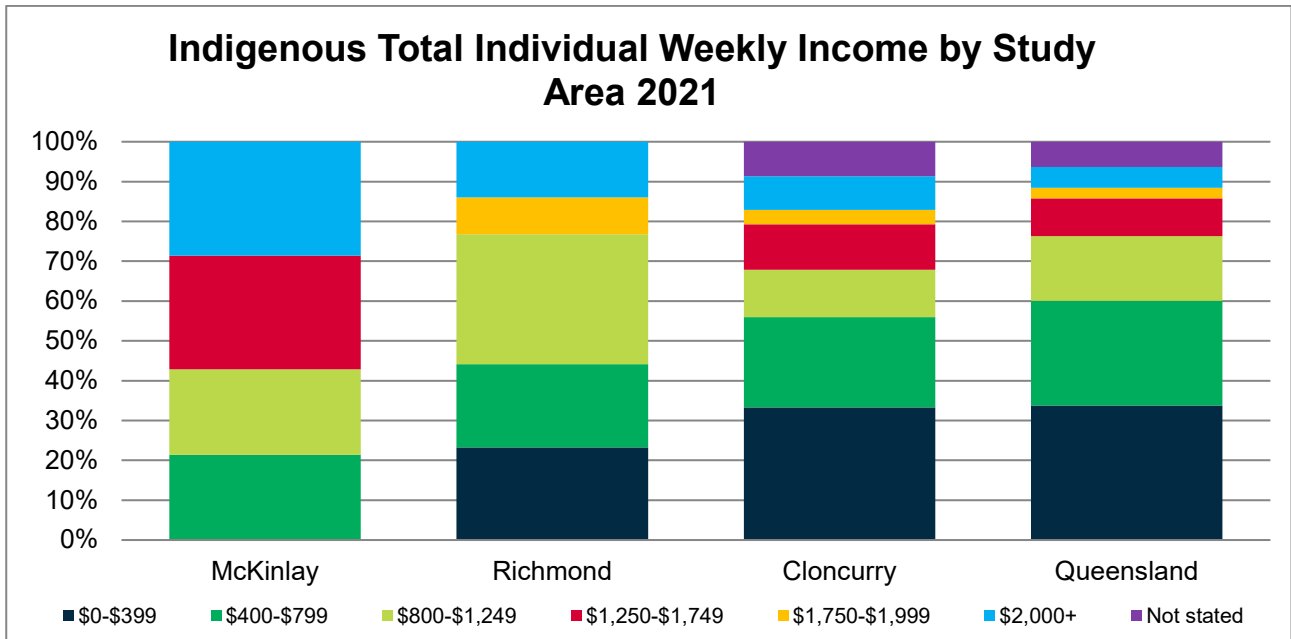
*Includes inadequately and not-stated responses. Based on place of usual residence. Data not available for Julia Creek. Source: QGSO Queensland Regional Profiles (Indigenous).*

**Figure 36 Indigenous employment by occupation and Study Area**

### 4.6.7.4 Indigenous Individual Income

Some 35% of McKinlay First Nations residents earned \$1,250 per week or more in 2021. This is compared to 29.4% for Richmond, 23.0% for Cloncurry and 17.4% for the state. Both the Cloncurry and Queensland Study Areas had Indigenous residents who earned less than \$400 per week, while the McKinlay LGA had no residents in this category.

In comparing Aboriginal and Torres Strait Islander incomes to those of the general population, 17.4% of Indigenous McKinlay residents earned \$2,000 per week or more, compared to 10.9% for the general population. Across the other Study Areas, the same comparison resulted as follows: Richmond – 17.6% compared to 8.3% for the general population, Cloncurry – 8.3% compared to 19.3% and for Queensland – 5.2% compared to 11.0% for the general population. While the small populations of McKinlay and Richmond Shires can be factored into these results, given the large Indigenous population in Cloncurry, the 11% difference significant.

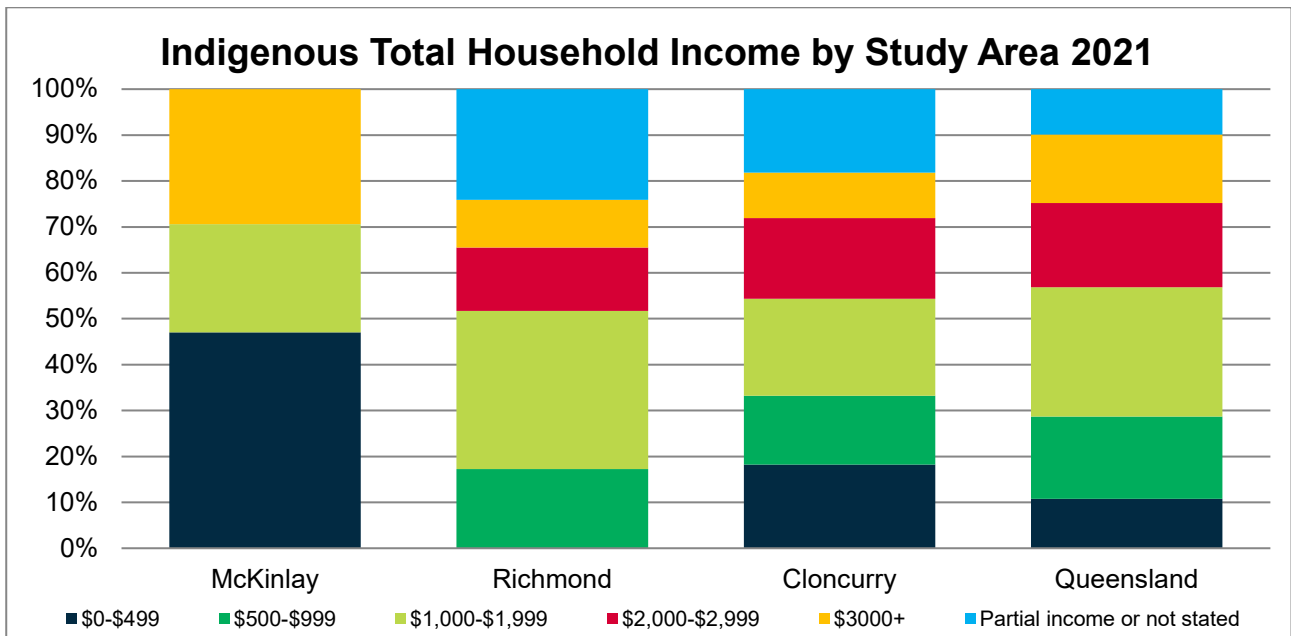


Includes persons aged 15 years and over. Based on place of usual residence. Data not available for Julia Creek. Source: ABS 2021 Census of Population and Housing.

Figure 37 Indigenous total individual weekly income by Study Area

#### 4.6.7.5 Indigenous Household Income

2021 Aboriginal and Torres Strait Islander household incomes aligned with individual incomes, including comparisons with the Study Areas' general populations. In particular, the proportion of Indigenous households earning \$3,000 per week or more in the Cloncurry LGA was 9.9% in 2021, compared to 20.2% for the general population.



Based on place of enumeration. Data not available for Julia Creek. Source: ABS 2021 Census of Population and Housing.

Figure 38 Indigenous total household weekly income by Study Area

#### 4.6.8 Summary of Indigenous Social Profile

In 2021, all local Study Areas had higher proportions of Aboriginal and Torres Strait Islander residents than the state average (4.6%). More than 8% of Julia Creek's population was Indigenous, while Cloncurry Shire had a considerably larger proportion of First Nations residents at 23.8%.

The Richmond LGA was the only Study Area to have significantly more First Nations males (53.7%) than females, while all Study Areas had greater numbers of younger Indigenous Australians in 2021. The oldest Indigenous resident in the McKinlay LGA was in the 40-44-year-old bracket.

In 2021, there were no multiple family or group households in the McKinlay LGA. The Richmond LGA was similar, while First Nations households were more diverse in Cloncurry and across Queensland

At the time of the 2021 Census, 47.8% of McKinlay Indigenous residents over 15 years had completed year 12, while all had completed year 10 or equivalent. The Richmond LGA had the lowest rates of Indigenous schooling, with just over 69% with a year 10 or equivalent education. No McKinlay First Nations residents had completed a diploma or higher. Across all Study Areas, 'certificate' was the most prevalent tertiary qualification.

More than 60% of all Study Areas' Aboriginal and Torres Strait Islander communities did not have a long-term health condition in 2021. For those who did, arthritis and asthma were the predominant illnesses in McKinlay and Richmond, with diabetes and mental-health conditions also featuring significantly in Cloncurry and across Queensland.

In 2021, Indigenous unemployment across Queensland was at 13.3% (compared to 5.4% for the entire population). The Cloncurry LGA Indigenous unemployment rate was similarly high (13.1%, compared to 3.9% for the broader population), while all McKinlay and Richmond First Nations residents in the labour force were employed. The largest industry of Aboriginal and Torres Strait Islander employment in the McKinlay LGA was agriculture, following by mining, with the mining industry the predominant employer in the Cloncurry LGA.

More than 17% of Indigenous McKinlay residents earned \$2,000 per week or more, compared to 10.9% for the general population. Across the other Study Areas, the same comparison resulted as follows: Richmond – 17.6% compared to 8.3% for the general population, Cloncurry – 8.3% compared to 19.3% and for Queensland – 5.2% compared to 11.0% for the general population. While the small populations of McKinlay and Richmond Shires can be factored into these results, given the large Indigenous population in Cloncurry, the 11% difference is significant.

## 5.0 Social Impact Assessment and Management

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This section examines the potential impacts on communities and individuals in the Study Areas should the Vecco Critical Minerals Project proceed. The impacts take into account existing social and cultural environments in the region, together with a study of outcomes experienced with comparable projects elsewhere in Queensland.

### 5.1 Community Health and Wellbeing

#### 5.1.1 Psychological Impacts

It is difficult to make a general assessment of psychological impacts of resource projects on the community, as the prospect of change affects different people in different ways. However, directly impacted landholders may potentially experience the most mental stress. That said, the owner of the property on which the Vecco Critical Minerals Project is situated is generally supportive of the Project. Broader consultation with landholders indicated that the main concerns were:

- Road safety risks for residents and their families
- Water sourcing and treatment
- Noise, vibration, dust, lighting and visual amenity impacts.

#### 5.1.2 Community Values and Lifestyle

The Study Areas' roots are tied to a rural lifestyle (particularly the McKinlay and Richmond LGAs) and this profile will change with the economic diversity that emerging resources projects will bring to the area. Conversely, Cloncurry has been supporting mining projects since the late 1800s, so Project impact is expected to be minimal.

Overall, the Julia Creek community is supportive of the potential benefits the Project will bring, such as employment and procurement, and improved infrastructure as a result of an increasing (rather than declining, as has been the case) population.

#### 5.1.3 Health Services

It is not expected that Project FIFO employees will impact heavily on local health services, as they will have access to onsite medical support for minor health issues and would generally use their home-based medical practitioners for general care.

However, the Julia Creek MPHS will be relied on in an emergency. While the hospital has capacity to care for Vecco Project employees, with larger hospitals on standby for complex medical emergencies (Mt Isa or Townsville hospitals, via the Royal Flying Doctor Service), hospital staff advised that in the event that employees cannot be transported to Julia Creek by road or further afield via the RFDS (i.e. during a flooding event), the Project should be prepared to manage major health issues on site until an alternative arrangement can be made.

#### 5.1.4 Emergency Services

The local police, ambulance and fire services are generally supportive of the Project and open to working collaboratively to ensure employee and community safety. The predominant emergency services concern with respect to the Project was road safety, particularly with the growing number of vehicles using the Flinders Highway and the increased use of Punchbowl Road (particularly around haulage of Vecco product and cotton from a nearby station). There is also some concern about antisocial behaviour due to a growing population and increased short-term visitors to town.



#### 5.1.4.1 Social Order

Low crime rates and a sense of safety and security are attributes that are strongly valued by the Julia Creek community. While some community members expressed concerns over potential antisocial behaviour if construction and mining personnel frequent the town, there is no expectation of abnormal levels of incidences of criminal behaviour. Rather, experience in other comparable towns indicates that the level of offences rises and falls in accordance with population numbers.

That said, antisocial behaviour can have a detrimental impact on community values and identity, so must be addressed in Project social impact management strategies.

#### 5.1.5 Education Services

The Study Areas will not be significantly impacted by the Project in terms of student numbers. It is expected that the majority of the Vecco Critical Minerals Project workforce will be FIFO, so will not require education services. That said, Julia Creek State School has capacity to grow by 75 children, so local Vecco employees can be readily accommodated.

#### 5.1.6 Transport

Road safety is a key community concern. As regional highways and local road networks become more populated, the safe and efficient movement of people and commodities becomes more problematic. The Flinders Highway is a major commodity corridor between Townsville and the Northern Territory (as well as a renowned tourist route – the Overlanders Way). Users of the highway regularly call for safety improvements and upgrades, which will become more pronounced as Queensland's North West region continues to grow in population. At a local level, increased traffic on Punchbowl Road due to the Vecco Project (and nearby cotton farm) will impact neighbouring landholders.

#### 5.1.7 Utilities

Vecco is working with landholders to achieve a mutually beneficial water supply solution but otherwise, will be self-sufficient with respect to communications and waste management.

### 5.2 Housing and Accommodation

By housing employees in an on-site accommodation village during both construction and mine operation, Vecco will not exacerbate Julia Creek's existing housing shortage. However, the company will actively encourage employees who wish to relocate to Julia Creek and participate in community life and will work with local stakeholders to find an appropriate housing solution.

#### 5.2.1 Short-term Accommodation

The need for available short-term accommodation is expected to increase early in the construction phase of the mine, until such time as the accommodation village is completed for the construction workforce. Once the mine is operational, occupancy rates of existing accommodation may peak as visiting managers, suppliers, government representatives, professionals and service industry staff compete for available beds. There will also be a constant but irregular demand for rooms by visiting contractors and subcontractors involved in equipment maintenance shutdowns at the mine.

The cumulative impact on short-term accommodation will be considerable, as a number of resource projects concurrently come online.

### 5.2.2 Workforce Accommodation

Given the Vecco Critical Minerals Project's distance from Julia Creek (70km), the town's acute accommodation shortage and McKinlay Shire Council's preference for 'service provider employers' to construct employee housing to reduce transient employees monopolising higher-quality housing at higher rentals, Vecco will provide onsite accommodation for its workforce.

The village will have capacity to accommodate 110 workers. During construction there is predicted to be up to up to 146 personnel on site at any one time and 90 during operations. Consequently, any overflow during the construction period will be managed through temporary mobile accommodation, other local providers or through coordinating rosters to reduce the on-site workforce.

## 5.3 Workforce Management

While most of the Project workforce will be sourced from outside the Study Areas, Vecco will proactively provide local people with the opportunity to work at the mine. Low unemployment levels in the region, together with an increasing demand for workers from an expanding critical minerals industry, may lead to a skills shortage for the Project. Local semi-skilled people working in non-mining industries may not have the range of experience or skills directly transferrable to the Project but could take up traineeships, apprenticeships or semi-skilled positions that with appropriate training, could lead to a new career.

Regardless of where employees come from, it will be important for the Vecco Project to implement appropriate inductions and a strict code of conduct to minimise any negative impacts on community health and wellbeing.

## 5.4 Local Business and Industry Procurement

The Study Areas are becoming more economically diverse with the development of mining and energy industries. As businesses diversify from traditional markets in the agricultural and forestry sectors, there will be potential growth in the professional services, transport, manufacturing and construction industries.

Local businesses will be encouraged to tender for supplies and services for the Project. This process may include the need for a training program for regional business to understand Vecco's tendering requirements, so that businesses are able to structure bids according to approved procedures.

A diversification of employment opportunities will demand different skills to respond to the changes in the type of work available. Importantly, the range of skills will need to be flexible to adapt to the needs of different projects as they pass through construction to operational phases. If demand for skilled and unskilled people is in tandem for other projects in the pipeline, a shortage of skilled and unskilled labour is predicted.

### 5.4.1 Tourism Industry

It is expected that the region will continue to attract visitors, particularly during the winter months when 'grey nomads' are frequent users of the Flinders Highway (or Overlanders Way). During mine construction, tourists may compete with mine workers for available short-term accommodation, and road safety may be further compromised as cars towing caravans increase the volume of traffic using major road corridors.

## 5.5 Cultural Heritage

The Project Mining Lease area is not subject to a Native Title claim. Cultural heritage surveys were conducted prior to any exploration activity and no sites or items of cultural significance were identified.

## 5.6 Environmental Impacts

### 5.6.1 Water

All landholders expressed concerns about water supply and impacts on the Great Artesian Basin. However, Vecco has worked closely with the State Government and directly impacted landholders to achieve a water solution that benefit all stakeholders. Subsequently, long-term water impacts will be minimal.

### 5.6.2 Noise and Vibration

Construction and mining operations will bring increased noise levels around the mine site; however, given that the nearest sensitive receptions are 7km away, impacts should be minimal.

### 5.6.3 Dust

Like noise, concerns about dust hazards were expressed by a number of landholders. Several mentioned the hazards of dust from construction and mining operations as a potential health issue, while others were concerned about dust residue affecting the quality of pastures for cattle grazing.

### 5.6.4 Lighting

As the Vecco Critical Minerals Project will operate on a 24-hour basis, large banks of lighting will be required to illuminate mining areas at night. The process plant and fleet of large mobile equipment will also be well lit. It is envisaged that strong external lighting will also predominate during the mine's two-year construction phase. While the Project does not have any close sensitive receptors, the extent of this lighting may impact on those properties adjacent to the Project.

### 5.6.5 Visual Amenity

As an open-cut mine, the Project will impact the visual amenity of the Mining Lease. However, given the shallow nature of the operation and that the mine will be progressively rehabilitated, the visual impact should be minimal. There will be no final void at the end of the mine's life.

## 5.7 Cumulative Impacts

In addition to existing resource projects such as Cannington, northwest Queensland's burgeoning critical minerals industry will result in a number of mines being constructed and operated for two or more decades around Julia Creek and Richmond. Potentially negative impacts will include stretched infrastructure and services and increased traffic, while potential opportunities will include improved infrastructure and services, and local employment and procurement opportunities. Development timing will determine the level of impacts in the short-term but regardless, local towns will need to grow with the new resource industry to ensure sustainable communities for years to come.

## 5.8 Mine Closure

As development of the region's critical minerals resources helps to provide economic diversity and stability, it should be remembered that the resource is finite and will be depleted. Current estimates indicate a mine life of 26 years, extending to 36 years when accounting for construction prior to mine operations, final land rehabilitation and shutdown. It is important that a strategy is developed over the life of the Vecco Project to manage the social impacts leading up to and including the mine's closure. Consideration should also be given to other factors that may influence the closure or major downsizing of the mine prior to this time, including industry-wide restructuring, government taxation policies or market forces.

Open consultation will be required with other stakeholders to promote long-term economic diversification, so that residents can choose to remain in the region and services can be maintained to a high standard after the mine has closed. Agriculture will continue to remain important to the region during and beyond the Project but it is also essential to support current businesses and attract new ones to build economic resilience and thus viable communities for the longer term.

A key part of the decommissioning process will be mine rehabilitation. While remediation would have taken place throughout the life of the mine, consultation has suggested that the effective return to prior land use (cattle grazing) will be a critical and symbolic community gesture.

## 5.9 Social Impact Management Summary

Following is a detailed breakdown of all impacts identified in the SIA process and their mitigation or opportunity strategies. Each impact is rated by:

- **Nature** – type of impact (perceived by the community as positive or negative)
- **Probability** – likelihood of the impact occurring (high, medium or low)
- **Consequence** – degree of benefit or harm to affected stakeholders (high, medium or low)
- **Long-term risk** – negative consequence of the impact after mitigation measures have been put in place (high, medium or low).

Table 13 Mitigation/opportunity analysis

Impact	Nature (P/N)	Probability (H/M/L)	Consequence (H/M/L)	Stakeholder	Mitigation/Opportunity	Long-term risk (H/M/L)
Cumulative impacts	P/N	H	H	State Government McKinlay Shire Council Local community Local health services Local emergency services Local education services Local businesses	<ul style="list-style-type: none"> <li>• Implement a Community Reference Group (CRG) – supported by McKinlay Shire Council and key community influencers (minimum), State Government and (ideally) other proponents – to monitor and address cumulative impacts jointly, holistically and relatively</li> <li>• Use the CRG to develop a regional planning framework to proactively contribute to and achieve sustainable communities.</li> </ul>	M
Land impacts (including property value, security, compensation, etc.)	N	H	H	Landholders McKinlay Shire Council	<ul style="list-style-type: none"> <li>• Facilitate quarterly meetings with the directly affected landholder throughout the life of the Project to monitor impacts and mitigation success</li> <li>• Facilitate six-monthly meetings with indirectly affected landholders throughout the life of the Project to monitor impacts and mitigation success</li> <li>• Implement a comprehensive Land-Access Management Plan (including weed management)</li> <li>• Implement a comprehensive employee and contractor induction process</li> </ul>	M

Impact	Nature (P/N)	Probability (H/M/L)	Consequence (H/M/L)	Stakeholder	Mitigation/Opportunity	Long-term risk (H/M/L)
					<ul style="list-style-type: none"> <li>Implement a strict employee and contractor behavioural code in line with community values. The code will apply to employees and contractors both on and offsite.</li> </ul>	
Land use	N	H	M	Landholders State Government McKinlay Shire Council Local community	<ul style="list-style-type: none"> <li>Implement the Project’s Environmental Management Plan</li> <li>Regularly and transparently monitor groundwater impact throughout the life of the Project</li> <li>Implement and communicate to landholders and wider communities Vecco’s progressive rehabilitation program</li> <li>Return the Project footprint to its pre-mining land use post operation.</li> </ul>	L
Psychological impacts	N	M	H	Landholders State Government McKinlay Shire Council Local community	<ul style="list-style-type: none"> <li>Facilitate monthly meetings with the directly affected landholder throughout the life of the Project to monitor impacts and mitigation success</li> <li>Implement a comprehensive Land Access Management Plan</li> <li>Implement a comprehensive employee and contractor induction process</li> <li>Implement a strict employee and contractor behavioural code in line with community values. The code will apply to employees and contractors both on and offsite.</li> </ul>	L
Community health and wellbeing	P/N	M	M	McKinlay Shire Council Local community Local health services Emergency services Education services	<ul style="list-style-type: none"> <li>Develop and implement mitigation and management measures for community health and wellbeing, such as:</li> <li>Implement a Project hotline and website to encourage community feedback</li> <li>Implement a comprehensive employee and contractor induction process</li> </ul>	L

Impact	Nature (P/N)	Probability (H/M/L)	Consequence (H/M/L)	Stakeholder	Mitigation/Opportunity	Long-term risk (H/M/L)
					<ul style="list-style-type: none"> <li>Implement a strict employee and contractor behavioural code in line with community values. The code will apply to employees and contractors both on and offsite</li> <li>Develop a Community Investment Program, as well as Sponsorship and Donations Guidelines to facilitate fair and practical community support</li> <li>Investigate extending the Cloncurry PCYC to Julia Creek</li> <li>Facilitate Project integration into the community through local Vecco employee participation in community and sporting organisations.</li> </ul>	
Health services	N	L	H	State Government McKinlay Shire Council Local community Health services Project employees	<ul style="list-style-type: none"> <li>Implement onsite medical facilities (and dedicated nurse) to cater for non-emergency Project requirements, to limit impact on local health services</li> <li>Notify Julia Creek hospital of Project ramp-up and any ongoing changes that may impact service provision</li> <li>Implement annual emergency simulation exercises with local health and emergency services personnel.</li> </ul>	L
Emergency services	N	M	H	State Government McKinlay Shire Council Local community Emergency services Project employees	<ul style="list-style-type: none"> <li>Implement Project familiarisation sessions with all emergency services personnel</li> <li>Develop comprehensive Emergency Response and Crisis Management Plans that include direct input from, and involvement of, emergency services</li> <li>Develop and implement a detailed Traffic Management Plan in conjunction with emergency services</li> <li>Implement community/road safety awareness training for all Project employees</li> </ul>	M



Impact	Nature (P/N)	Probability (H/M/L)	Consequence (H/M/L)	Stakeholder	Mitigation/Opportunity	Long-term risk (H/M/L)
					<ul style="list-style-type: none"> <li>Implement annual emergency simulation exercises with local health and emergency services personnel.</li> </ul>	
Social order	N	M	H	State Government McKinlay Shire Council Local community Emergency services Project employees	<ul style="list-style-type: none"> <li>Work with Julia Creek police to monitor and address any impacts on social order</li> <li>Implement a comprehensive employee and contractor induction process</li> <li>Implement a strict employee and contractor behavioural code in line with community values. The code will apply to employees and contractors both on and offsite.</li> </ul>	L
Education (including higher education and childcare)	P/N	L	L	State Government McKinlay Shire Council Local community Education services	<ul style="list-style-type: none"> <li>Notify Julia Creek State School of Project ramp-up and any ongoing changes that may impact the school</li> <li>Work with MISOTA and TAFE to introduce and/or enhance critical minerals/renewal energy industry related curricula (with the aim of encouraging local youths to stay in the region).</li> </ul>	L
Transport	N	M	H	State Government McKinlay Shire Council Local community Emergency services Project employees	<ul style="list-style-type: none"> <li>Use the CRG to secure government funding for upgrades to the Flinders Highway</li> <li>Implement a detailed Traffic Management Plan in conjunction with emergency services</li> <li>Encourage safe driving behaviour by employees and contractors with education and awareness programs reiterating the expectation of responsible driving to and from the workplace</li> <li>Implement In-vehicle Management System for all Project vehicles.</li> </ul>	L

Impact	Nature (P/N)	Probability (H/M/L)	Consequence (H/M/L)	Stakeholder	Mitigation/Opportunity	Long-term risk (H/M/L)
Utilities	N	M	M	Landholders State Government McKinlay Shire Council Local community	<ul style="list-style-type: none"> <li>Work with landholders to secure appropriate water allocations for all parties.</li> </ul>	L
Housing and accommodation	N	H	H	State Government McKinlay Shire Council Local community Local health services Local emergency services Local education services Local businesses Project employees	<ul style="list-style-type: none"> <li>Develop and implement mitigation and management measures for housing and accommodation, such as:</li> <li>Accommodate most Vecco Project employees at the onsite accommodation village to avoid exacerbating Julia Creek’s acute housing shortage</li> <li>Through the CRG, work with the State Government, McKinlay Shire Council and other proponents to address Julia Creek’s housing shortage.</li> </ul>	M
Short-term accommodation	N	H	H	McKinlay Shire Council Local community Local businesses	<ul style="list-style-type: none"> <li>Through the CRG work with surrounding proponents and local businesses to assess ongoing short-term accommodation challenges.</li> </ul>	M
Workforce accommodation	N	L	M	State Government McKinlay Shire Council Local community Local businesses Employees	<ul style="list-style-type: none"> <li>Develop a Workforce Accommodation Strategy that includes travel to site, FIFO impact, etc.</li> <li>Implement a comprehensive employee and contractor induction process</li> <li>Implement a strict employee and contractor behavioural code in line with community values. The code will apply to employees and contractors both on and offsite</li> <li>Ensure high-quality accommodation to attract high-calibre employees</li> </ul>	L

Impact	Nature (P/N)	Probability (H/M/L)	Consequence (H/M/L)	Stakeholder	Mitigation/Opportunity	Long-term risk (H/M/L)
					<ul style="list-style-type: none"> <li>Implement Vecco's 'Buy Local' procurement policy for camp goods and services</li> <li>Encourage staff to reside locally if there is available accommodation.</li> </ul>	
Workforce management	P	H	H	State Government McKinlay Shire Council Local community Indigenous communities Local businesses	<ul style="list-style-type: none"> <li>Develop and implement mitigation and management measures for workforce management, such as strategies for recruitment, training, workforce health and wellbeing, fatigue management, employee engagement and workforce behaviour management</li> <li>Regularly promote training and employment opportunities to the local community</li> <li>Work with regional Indigenous communities (particularly in Cloncurry) to identify potential candidates for apprenticeships, traineeships and general employment</li> <li>Implement an Employee Assistance Program.</li> </ul>	L
Business and industry procurement	P	H	H	State Government McKinlay Shire Council Local businesses Indigenous businesses	<ul style="list-style-type: none"> <li>Develop and implement mitigation and management measures for local and Indigenous business and industry, such as:</li> <li>Implement Vecco's 'Buy Local' procurement policy</li> <li>Communicate clear Project prequalification requirements</li> <li>Support local and Indigenous businesses to participate in the Project</li> <li>Where possible, use local/regional registered training organisations to deliver Project training requirements.</li> </ul>	L

Impact	Nature (P/N)	Probability (H/M/L)	Consequence (H/M/L)	Stakeholder	Mitigation/Opportunity	Long-term risk (H/M/L)
Water	N	M	H	Landholders State Government McKinlay Shire Council Local community	<ul style="list-style-type: none"> <li>Implement a Project Water Management Plan</li> <li>Regularly and transparently monitor water source impact throughout the life of the Project.</li> </ul>	L
Noise and vibration	N	M	H	Landholders State Government	<ul style="list-style-type: none"> <li>Regularly consult with surrounding landholders.</li> </ul>	L
Dust	N	M	H	Landholders State Government	<ul style="list-style-type: none"> <li>Regularly consult with surrounding landholders.</li> </ul>	L
Lighting	N	M	H	Landholders State Government	<ul style="list-style-type: none"> <li>Regularly consult with surrounding landholders.</li> </ul>	L
Visual amenity	N	M	H	Landholders State Government	<ul style="list-style-type: none"> <li>Regularly consult with surrounding landholders.</li> </ul>	L
Mine closure	P/N	M	H	All	<ul style="list-style-type: none"> <li>Implement and communicate the Project's Progressive Rehabilitation and Closure Program</li> <li>Work with the directly affected landholder to develop and appropriate grass mixes for rehabilitation to pre-mining land use.</li> </ul>	M

## 6.0 References

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- [schoolsdirectory.eq.edu.au](http://schoolsdirectory.eq.edu.au), Queensland Department of Education

# APPENDIX A Public Consultation Report



## A1 Introduction

Vecco Industrial Pty Ltd (Vecco) is undertaking ongoing community consultation to understand the existing local social environment and to ensure key stakeholders are aware of the Vecco Critical Minerals Project and have the opportunity to voice any concerns and/or recommendations.

This Public Consultation Report details how Vecco consulted with government, landholders and the Julia Creek community, as well as how responses have been incorporated into Project planning. The consultation underpins Vecco's SIA and approach to social impact management. In summary, Vecco engaged with Project stakeholders to:

- Provide a Project briefing and updates
- Understand existing community values, benefits and challenges
- Discuss Project impacts and opportunities.

## A2 Stakeholders

Key stakeholders consulted with to date, include:

- Local landholders
- Local health services
- Local emergency services
- Local education services
- Local businesses
- McKinlay Shire Council
- State Government agencies
- Local Federal Minister.



Source: On the Road Magazine



## A3 Consultation

The predominant tool used for communicating with Project stakeholders has been direct, face-to-face meetings. This has been supplemented by telephone calls (at the stakeholder’s convenience) and supported by a Project fact sheet to ensure stakeholders have as much information as is available. Following, Table A1 details stakeholder feedback from the consultation program, Table A2 outlines program logistics, while Figure A1 shows the supporting consultation material (Project fact sheet).

**Table A1 Community consultation feedback**

Stakeholder Group	Feedback
Landholders	<ul style="list-style-type: none"> <li>• Key concerns were water, traffic movements (including cattle safety) and power solutions, as well as ongoing monitoring requirements</li> <li>• Biggest existing challenge of living in the region is attracting and retaining staff. Lack of fuel-price parity and the Fringe Benefits Tax make it difficult, as it is not cost-effective to accommodate employees (e.g. food and board). Consequently, it is cheaper for companies to FIFO their people – which means that they do not participate in local community life, thereby impacting remote town viability</li> <li>• While would prefer not to have the Project, landholder is working closely with Vecco to achieve mutually beneficial outcomes. This includes realigning the initial Project access road to minimise impact to grazing operations. The landholder and Vecco are also collaborating on achieving a water-sourcing solution that benefits both (and the region)</li> <li>• Landholder requested that the original Project name be changed to avoid confusion with their property. Vecco agreed to this</li> <li>• Landholder pleased with Vecco’s approach to water (open bore closure, piping and flood harvesting)</li> <li>• Preference for returning the Project footprint to its original land use (grazing). Landholder and Vecco will work together to develop appropriate grass mixes for rehabilitation.</li> </ul>
Government (Federal)	<ul style="list-style-type: none"> <li>• Focus was on road conditions and potential required upgrades.</li> </ul>
Government (State)	<ul style="list-style-type: none"> <li>• Department of Regional Development, Manufacturing and Water queried water demands and supply options.</li> </ul>
Health Services	<ul style="list-style-type: none"> <li>• Hospital staffing is challenging due to lack of nurses and accommodation. There should be nine permanent staff but there are currently only seven agency staff. The hospital has accommodation for eight</li> <li>• Hospital growth depends on community numbers, so it is hoped that the Project will attract new families to town</li> <li>• The Project will need to be prepared to manage major health issues on site, in case RFDS or transport to Julia Creek MPHS is not possible</li> <li>• The hospital is keen to be involved in Project emergency training.</li> </ul>
Emergency Services	<ul style="list-style-type: none"> <li>• Main Project impact will be traffic on Punchbowl Road</li> <li>• Antisocial behaviour was also a concern</li> <li>• QAS hopes that the Project will provide support during emergencies</li> </ul>

Stakeholder Group	Feedback
	<ul style="list-style-type: none"> <li>• The Project's mines rescue team could be a big value-add to the community in supplementing stretched emergency services</li> <li>• Raised the positives of improving the Julia Creek airport and constructing an airstrip at the Project to support residents north of the Saxby River (who are cut off during floods)</li> <li>• There is community fatigue around 10-year wait (so far) for vanadium industry to progress</li> <li>• All emergency services keen to be involved in Project familiarisation and joint safety training exercises with the mine and other emergency services.</li> </ul>
Education Services	<ul style="list-style-type: none"> <li>• The local school has infrastructure capacity for another 75 children or three spare classrooms</li> <li>• Losing local teenagers to boarding school (i.e. they rarely return after completion) drains the town of social drive and connection</li> <li>• The school would like to see more team sports and an instrumental music program</li> <li>• Housing is the biggest capacity challenge. The school has access to some housing but is looking to build more (but facing similar challenges in securing builders/electricians/carpenters in reasonable timeframes and at reasonable pricing)</li> <li>• General feedback included subpar electricity supply (regular blackouts and brownouts) and poor communications (no NBN; most use wi-sky or Starlink)</li> <li>• There is general positivity about the new vanadium projects. However, the school has had considerable consultation with other proponents and expressed a level of fatigue with respect to 'when will it happen?'</li> <li>• A new 40-place early learning centre is planned to be located near the school</li> <li>• The early learning centre faces the same challenges as other Julia Creek businesses and services – lack of accommodation options and staff shortages. However, staff have access to Council housing.</li> </ul>
Government (Local) – McKinlay Shire Council	<ul style="list-style-type: none"> <li>• Julia Creek is safe, friendly and welcoming. The town has good retail offerings and lots of volunteers. Emergency services work very well together</li> <li>• Julia Creek has changed over time - it used to be a sheep-farming area - it is now cattle, cotton and soon-to-be mining</li> <li>• Council is keen to develop the airport (longer runway to accommodate Dash-8 type aircraft) and is currently looking for a grant to achieve this</li> <li>• The main challenges facing Julia Creek are accommodation and electricity. Council has six vacant positions due to lack of housing. While it owns substantial land already zoned for residential, there is limited return in developing them (as well as difficulties finding available construction companies and supporting trades - there is currently an 18-month wait for a local builder to construct a house). Council has submitted a grant for five one-bed units</li> <li>• While Copperstring 2032 construction will directly impact Julia Creek, there is no planned connection for the town to the grid. Currently electricity is delivered via an antiquated power line from Charters Towers</li> <li>• NBN will be installed in Julia Creek by February 2024</li> <li>• Council expressed interest in a communal acid plant in Julia Creek (rather than each mine having its own)</li> </ul>

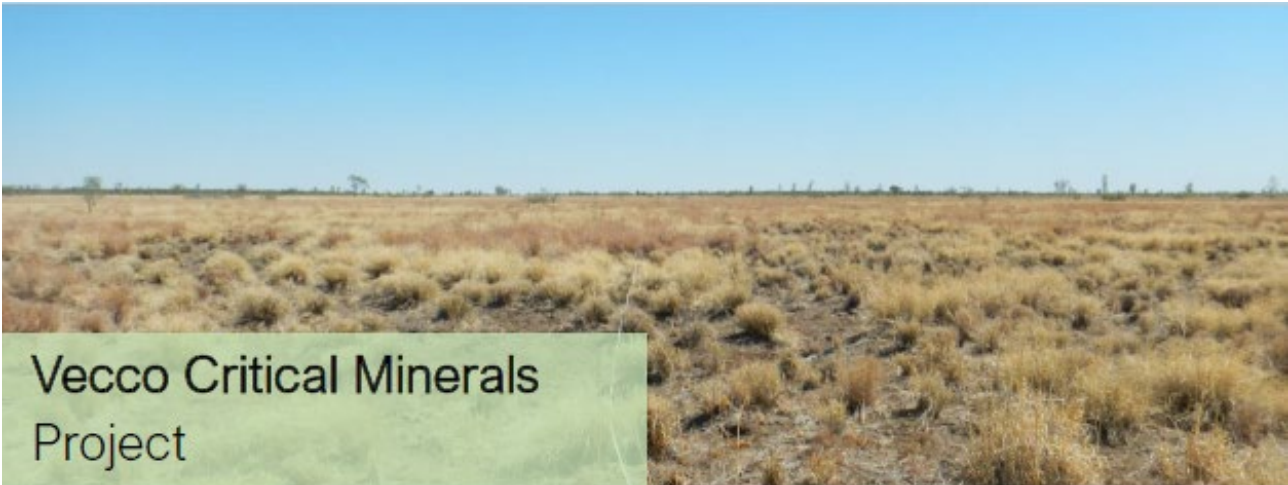
Stakeholder Group	Feedback
	<ul style="list-style-type: none"> <li>• Council is also keen to connect with Townsville-based Critical Minerals Queensland (CMQ) to discuss industry challenges and opportunities for McKinlay Shire. Aligned with CMQ, the State Government is spending \$75 million to build a demonstration facility to support the critical minerals industry</li> <li>• Council indicated a clear preference for returning the Vecco Project to post-mining land use of grazing. Council was supportive of Vecco's commitment to backfill voids.</li> </ul>
Local Businesses	<ul style="list-style-type: none"> <li>• Interested in local content requirement policy and timing of works local contractors may undertake</li> <li>• Queried staffing and workforce location and services required locally</li> <li>• Lack of accommodation is a major challenge, as it makes it difficult to attract staff. Companies are buying up motels</li> <li>• Café staff (generally backpackers) stay in the proprietor's two houses</li> <li>• There are plenty of jobs in Julia Creek but not enough people or houses to accommodate them</li> <li>• All businesses were supportive of Vecco's 'Buy Local' policy and hope that the Project help to grow Julia Creek</li> <li>• Both grocery stores have capacity to service the Project</li> <li>• Julia Creek's population is getting older as when teenagers leave for boarding school, they rarely return</li> <li>• The town needs more people</li> <li>• Julia Creek is a caring community that is safe, tightknit and supportive of community parenting</li> <li>• Store trade tends to align with cattle prices.</li> <li>• The accommodation shortage has led to a staff shortage. Backpackers are taking on roles as ringers and general residents are attracted to mining</li> <li>• Interested in programs proposed for protecting the endangered Julia Creek Dunnart – suggested a program of trapping be implemented ahead of Vecco mining progression. Also interested in mine rehabilitation methods to return the Project footprint to existing land use</li> <li>• Julia Creek has not changed much in the last 40 years. However, house prices have risen since news of potential mining</li> <li>• Top Pub has no poker machines. The pub can supply major events (such as Dirt n Dust and the races) and can support the Project if it has a wet mess</li> <li>• Julia Creek infrastructure - particularly housing - will struggle to accommodate the new critical minerals industry unless it grows with it. The town has changed over the past 12 months - more road workers and the like are diluting the locals and the latter are not coming together as a community as much as they used to.</li> </ul>
Other Industries and Utilities	<ul style="list-style-type: none"> <li>• There is potential for sulphur supply into Townsville Port and Julia Creek, with facilities in Julia Creek and opportunities to upgrade same</li> <li>• There is potential to share logistics with Incitec Pivot with respect to sulphur</li> <li>• Interested in Project power demands and likely solutions</li> <li>• There are challenges around Julia Creek power supply and lack of capacity (5MW capacity remaining).</li> </ul>

Table A2 Vecco community consultation program

Stakeholder	Discussion Focus	Method	Timing	Interviewer
Landholder	Project overview	Face-to-face	Regular contact	Vecco
	Project impacts on and opportunities for landholder and local community	Telephone	30/08/2023	Think Business Solutions
Landholder	Project overview	Telephone	11/08/2023	Vecco
	Name change	Telephone	29/08/2023	Vecco
Landholder	Project overview	Telephone	15/08/2023	Vecco
Landholder	Project overview	Face-to-face	4/09/2023	Vecco
Landholder	Project overview	Face-to-face	15/08/2023	Vecco
Federal Member	Project overview	Face-to-face	5/05/2023	Vecco
Dept Regional Development, Manufacturing and Water	Project overview	Face-to-face	18/01/2023	Vecco/AARC
	Project overview	Face-to-face	23/08/2023	Vecco
Queensland Ambulance Service	Project impacts and opportunities	Face-to-face	5/09/2023	Vecco/Think Business Solutions/AARC
Queensland Fire and Emergency Services	Project impacts and opportunities	Face-to-face	23/08/2023	Vecco
			5/09/2023	Vecco/Think Business Solutions/AARC
Queensland Police Service	Project impacts and opportunities	Face-to-face	23/08/2023	Vecco
Julia Creek Multipurpose Health Service	Project impacts and opportunities	Face-to-face	6/09/2023	Vecco/Think Business Solutions/AARC
Julia Creek Early Learning Centre	Project impacts and opportunities	Face-to-face	6/09/2023	Vecco/Think Business Solutions/AARC
Julia Creek State School	Project impacts and opportunities	Face-to-face	6/09/2023	Vecco/Think Business Solutions/AARC
McKinlay Shire Council	Project overview	Face-to-face	23/08/2023	Vecco
	Project impacts and opportunities	Face-to-face	6/09/2023	Vecco/Think Business Solutions/AARC
Local Business	Project overview	Face-to-face	16/05/2023	Vecco

Stakeholder	Discussion Focus	Method	Timing	Interviewer
Local Business	Project overview	Face-to-face	17/05/2023	Vecco
Local Business	Project overview	Face-to-face	23/08/2023	Vecco
Local Business	Project impacts and opportunities	Face-to-face	5/09/2023	Vecco/Think Business Solutions/AARC
Local Business	Project opportunities	Face-to-face	14/10/2022	Vecco
Local Business	Project impacts and opportunities	Face-to-face	5/09/2023	Vecco/Think Business Solutions/AARC
Local Business	Project impacts and opportunities	Face-to-face	5/09/2023	Vecco/Think Business Solutions/AARC
Local Business	Project overview	Face-to-face	17/05/2022	Vecco
Local Business	Project overview	Face-to-face	23/08/2023	Vecco
	Project impacts and opportunities	Face-to-face	5/09/2023	Vecco/Think Business Solutions/AARC
Local Business	Project overview	Telephone	16/02/2023	Vecco
Local Business	Project impacts and opportunities	Face-to-face	5/09/2023	Vecco/Think Business Solutions/AARC
Aurizon	Project overview	Face-to-face	16/05/2023	Vecco
	Project overview	Face-to-face	11/08/2023	Vecco
Ergon Energy	Project overview	Face-to-face	17/04/2023	Vecco
	Project overview	Face-to-face	5/09/2023	Vecco





# Vecco Critical Minerals Project

## The Project

Located approximately 70 km north of Julia Creek, Vecco's proposed critical minerals mine includes:

- Mining of up to 1.9 Million tonnes / year run of mine ore, to a maximum depth of 35m;
- Production of up to 5,500 tonnes of vanadium (V<sub>2</sub>O<sub>5</sub>), 4,000 tonnes of high purity alumina (HPA) and small quantities of other critical minerals per year;
- Operations commencing in 2024/2025 (subject to approvals) and continuing for approximately 26 years.
- Progressive rehabilitation to return the land to a grazing use, with all voids completely backfilled.
- Product minerals to be hauled by road train along Punchbowl Road and the Flinders Highway to Townsville, where it will be turned into battery electrolyte.

By prioritising local employment and sourcing local contractors, Vecco will assist long term regional development and growth.

## Why vanadium?

Vanadium is required for vanadium flow batteries, which are essential for long lasting renewable energy storage. Vanadium batteries are non-flammable, recyclable and perfectly suited for large-scale energy storage needs.

The Project will help to achieve the state's targets for renewable energy generation and emissions reduction through creation of grid scale energy storage.

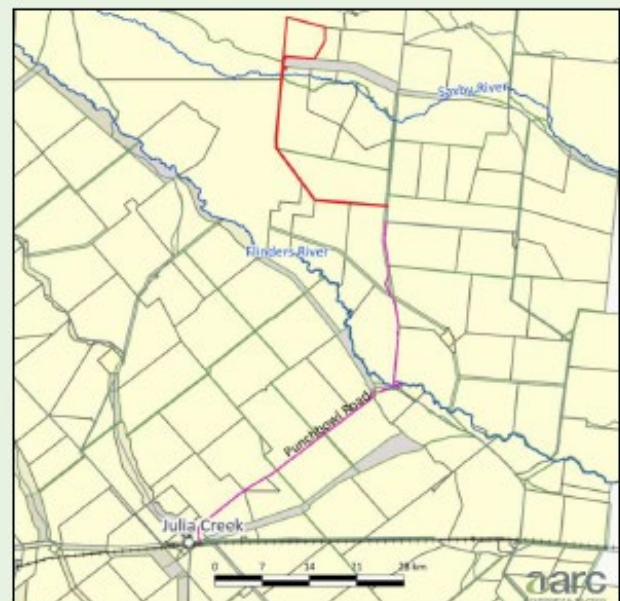


## Who are we?

The proponent is Vecco Industrial Pty Ltd (Vecco), a wholly owned subsidiary of Vecco Group Pty Ltd. Vecco Group is a private Australian company founded in 2014.

*"Vecco believes that the solution to Australia's energy transition can be found in Queensland minerals, which should be both mined and processed locally."*

Vecco has developed Australia's first commercial scale vanadium electrolyte manufacturing plant in Townsville, with plans to expand production capacity in the future. When combined with a steady, mineral supply from the proposed mine, Vecco can provide electrolyte security for battery projects throughout Australia.







## Frequently Asked Questions

### How big will the mine be?

The mine pit itself will be relatively shallow, with a maximum depth of 35 m. The total area to be mined is approximately 600 ha, though the area will be progressively backfilled and rehabilitated as the mining face advances.

### What waste will be created and how will Vecco handle it?

Once the vanadium and other minerals have been extracted, mineral residue from the processing circuit will be neutralised with lime and dried before being returned to the floor of pit prior to backfilling. Testing and modelling of waste and water properties has been undertaken as part of the application to ensure protection of environmental values.

### Will the Project cause dust and noise issues?

The nearest residence is more than 7km from the mining operations. Dust and noise impacts are not anticipated to impact any residences.



Figure A1 Project fact sheet

### Have flood risks been considered?

As seen in 2019, flooding risks in the Gulf are significant. All mine pit, plant and waste dump areas will be located outside of the probable maximum flood extent for the Saxby River. Detailed flood modelling has been undertaken as part of the application.

### Will the Project impact the Julia Creek Dunnart population?

Multiple targeted surveys have been completed over the site by specialist ecologists. No populations or individuals were identified, and potential habitat values are limited.

### What impacts or opportunities will the Project present to the local community?

The Project will employ up to 250 staff during construction and 160 across the mining operations. Local employment opportunities will be prioritised for residents. Fly-in/fly-out workers will be bused to an on-site accommodation village from the most suitable regional airport. Where possible, sourcing of local contractors and service providers will be prioritised, leading to economic growth for the region.

A social impact assessment is being prepared as part of the application.

### How will the mine be powered?

By developing a solar array and battery on-site, the Project seeks to be almost entirely powered by renewable energy. This means the mine will not need to be connected to the grid for electricity.

### What comes next?

An Environmental Authority application, supported by a thorough environmental impact assessment, is planned to be lodged in 2023. The mining lease applications will be lodged at the same time.

### How can I get more information?

Please contact us for more information about the Vecco Critical Minerals Project, the application process, or to have your say:

**T** 07 3155 6311

**E** [contact@veccogroup.com.au](mailto:contact@veccogroup.com.au)

**W** [veccogroup.com.au/contact/](http://veccogroup.com.au/contact/)

**A** Level 10, 40 Creek Street, Brisbane QLD 4000



## A4 Stakeholder Feedback

All feedback obtained during consultation has been and will continue to be used to inform and refine both the Vecco Critical Minerals Project SIA and ongoing community engagement. Section 4.0 of the SIA highlights the key issues identified by stakeholders during consultation, with initial impact-management measures detailed in Section 5.0.

## A5 Social Impact Management

In line with the Queensland Government Social Impact Assessment Guideline 2018, post-approval and prior to construction commencement, Vecco will develop a comprehensive Social Impact Management Plan that includes mitigation and management measures for:

- **Community and stakeholder engagement:** building on Vecco's engagement to date to maintain proactive partnerships with local landholders and community stakeholders
- **Community health and wellbeing:** minimising impacts on the local community and identifying and supporting opportunities to enhance community health and wellbeing
- **Housing and accommodation:** ensuring the Project does not add to the existing housing shortage and supporting the local community to identify opportunities to address the issue
- **Workforce management:** employing locally wherever possible and supporting McKinlay Shire jobseekers in skills development
- **Local business and industry:** procuring locally and supporting local businesses to participate in the Project through business and systems development.

## A6 Ongoing Consultation

Vecco will continue to regularly engage with landholders, the local Julia Creek community and government to ensure open and transparent communication throughout Project construction and operation. The company will work towards understanding, managing and meeting community expectations with the aim of achieving mutually beneficial outcomes for all Project stakeholders.