Burnie Strategic Background Report

Burnie City Council

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SGS Economics & Planning

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Executive Summary

This background report provides a snapshot of Burnie and its community. It also shows what the future may hold for Burnie, and how it may be different in 2042. The different possible futures for Burnie that are described also show how decisions made now may influence future outcomes.

Key findings

Population and demographics

Burnie's population has grown by 1,023 between 2016 and 2021 and is forecast to grow by a further 550 people by 2041 based on the Tasmanian Treasury high scenario. New opportunities in the horizon will see growth much higher than 550 people over the next 20 years.

From the 2021 ABS Census, 5,387 families were counted in the Burnie LGA. The most common family types were couple families with no children (2,241 families), couple families with children under 15 (1,373 families) and Single parent families (1,070 families).

Burnie is becoming more diverse with the share of people with both parents born overseas rising from 10% in 2016 to 12% in 2021. Aside from English, top languages used at home by Burnie's residents include German, Mandarin, French, Spanish and Nepali. Compared to the data from ABS 2016 Census, the proportion of the population only using English at home also reduced slightly.

Housing

100 to 120 new dwellings per annum over the next 20 years will need to be built in Burnie to accommodate predicted population growth. That development needs to occur now, as 24% of Burnie residents (compared 12% of all Tasmanians) live in rental housing, and at 1% the rental vacancy rate is well below the healthy benchmark of 2.5% to 3.5%. In addition, housing affordability has declined, with renters paying 26.1% of their income on rent in 2022 compared to 21.6% in 2021.

To help shape Burnie's housing future, Council will need to:

- Conduct a housing supply and capacity assessment. Burnie has a compact urban form which limits its ability to expand outward without encroaching into agricultural and employment land.
- Encourage the development of diverse housing to meet the needs of the (single parent) families, elderly, small households, and temporary workers.

Community participation and disadvantage

Burnie has high levels of socio-economic disadvantage relative to Tasmania as a whole. Burnie's relative socio-economic disadvantage score is 915; George Town has the lowest score (high disadvantage) in Tasmania (895) and Hobart the highest (1045 – low disadvantage). While incomes increased over the last five years, reducing disadvantage, income equality remains low, with the gap between the poorest and richest households of Burnie being relatively wide compared to other local areas in Tasmania.

Some Burnie residents need support to complete school. While, over 95% of children in Burnie have attended a pre-school program, 25% of children are still considered developmentally vulnerable in their first year of school. Only 38% of Burnie's residents compared to the Tasmanian average of 48% finish Year 12. Completion of Certificate III or IV is higher than the Tasmanian average, but completion of University level education is lower in Burnie (9.2%) than the Tasmanian average (16%).

Some of Burnie's residents need better access to mental health services. 14% of Burnie's residents have a mental health condition compared to 12% across Tasmania. Those aged 20 to 44 are more likely to have a mental health condition than other Tasmanians within that age range. It is important for Council to continue supporting mental health programs and finding new ways to deliver support and increase awareness of available services.

Volunteering decreased to 15.5% in 2021 from 19% in 2016. This is likely due to the Census being undertaken after the first year of pandemic when social distancing policies impacted on face-to-face engagements. Burnie's socio-economic and cultural diversity make it is important for Council to track volunteering and consider new ways to ensure residents can participate in community activities.

Burnie has an array of recreational spaces and open spaces. The bulk of these spaces are around the city and residential areas. Additional population growth may put pressure on existing spaces.

To help support community participation and reduce disadvantage, Council will need to:

- Consider programs that support a decrease cost of living (for example, active transport and climate change mitigation).
- Support a recovery in volunteering.
- Consider whether there is need for more open space based on current supply and projected population growth.
- Consider ways to raise awareness of mental health services and how to deliver more support services.

Economy

Burnie's economy is predicted to grow and is higher skilled. Although Burnie's economy has struggled over the last decade with the economy growing on average 1% per annum between 2010 and 2020, in the future, Burnie will likely see economic growth with the Marinus Link, renewable energy projects in the North-West, and increased need for services from the growing population. Burnie's key employment industries are Healthcare and Social Assistance, Retail Trade, Manufacturing and Education and Training. Growth in jobs between 2016 and 2021 was in the Wholesale Trade, Mining, Healthcare and Social Assistance and Arts and Recreations Services industries. Mining and the Health and Social Assistance industries will be in industries requiring digital and specialised skills.

Burnie's growth may help drive down youth unemployment which sits at 17.8%, one of the highest levels in Tasmania.

To help Burnie's continued economic growth, Council will need to:

- Ensuring there is enough appropriate employment land to enable businesses to setup operations in Burnie.

Community services and infrastructure

Like many councils in Tasmania, Burnie faces challenges in the provision of community services and facilities. Shrinking rate bases, increasing costs of inputs, skill shortages, climate change and the limited response options for Councils are impacting the scope and quality of service and infrastructure delivery.

Burnie Council provides a range of services including supporting youth services such as Burnie Works, public health services, and other community services on the behalf of State government. Major community infrastructure includes the City's Town Hall, theatres, function rooms, gallery buildings, Pioneer Village Museum , and Senior Citizens Centre. The council manages 450kms of roads in the LGA.

To help Burnie service population growth, Council will need to:

- Review service and infrastructure provision using needs assessment.

Climate change

The main natural hazards in Burnie are bushfires, extreme rainfall, stormwater, riverine flooding, and some coastal erosion.

For the medium term (up to 2070), the agricultural sector may benefit from increased crop yields due to warmer temperatures and higher rainfall.

Burnie's residents are car-dependent, with 78% using a car to travel to work, compared to the Tasmanian average of 71.5%. Public and active transport use is low, with 1.4% of Burnie's residents using public transport compared to 3.4% across Tasmania, and 3.4% using walking and cycling to travel compared to 5% across Tasmania. The natural landscape and the design of city, which was pre modern urban planning, are barriers to the use of active transport.

To help Burnie address climate risks and reduce greenhouse gas emissions, Council will need to:

- Enhance community resilience through upgrades in updated planning, stormwater infrastructure, coastal riverine flood protection works, refuges from extreme heat, enhanced emergency and evacuation management and enhancing community awareness about health risks.
- Enable greater use of active and public transport.

1. Introduction

1.1 Project brief

Burnie City Council is looking to develop its Strategic Plans and Vision for the next twenty years. This twenty-year community vision and its Strategic Plans will be co-created by Council and the community. To this end, Council required a background report that tells the story of Burnie, the current conditions, the crossroads it may be at, and where it may grow to in the future.

To deliver this aim SGS collected and analysed a wide range of datasets that show the current and future state of Burnie. Burnie in 2042 will likely be quite different from what it is today, especially if a major transformation like Marinus Link goes ahead. This background report will provide Council with strong evidence for future decision making.

1.2 Report structure

The report is structured in the following manner. Chapter 2 provides a profile of Burnie and a description of three potential futures, labelled as scenarios, that will inform the analysis of the themes in the report. The rest of the report details the analysis and implication of the three potential scenarios across the themes. The themes and relevant chapters are:

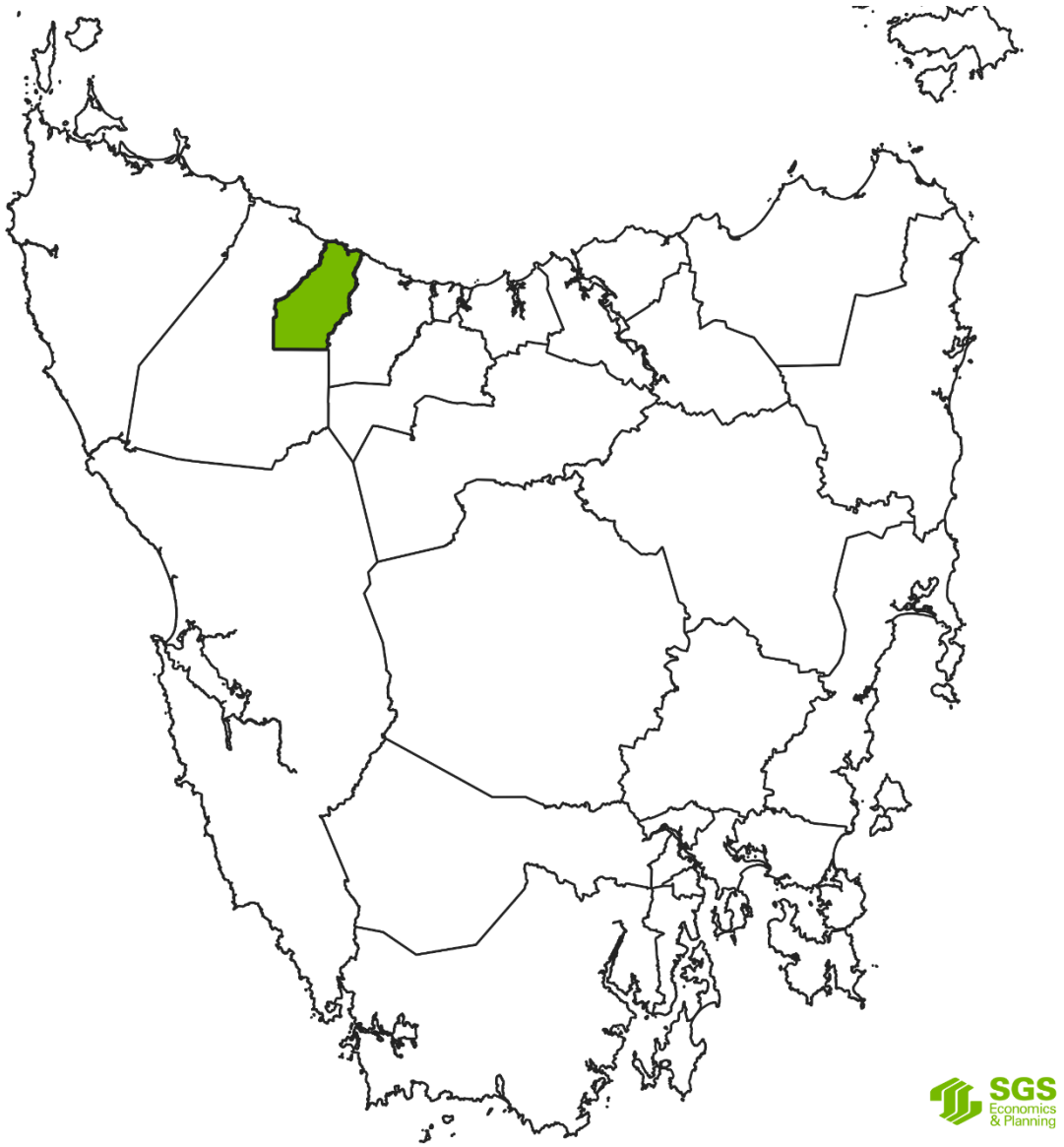
- Population and demographic change – Chapter 3
- Housing – Chapter 4
- Community wellbeing, inequality, and disadvantage – Chapter 5
- Transport – Chapter 6
- Education – Chapter 7
- Economy and employment – Chapter 8
- Community services and infrastructure – Chapter 9
- Open space and recreation – Chapter 10
- Climate change – Chapter 11

2. Profile of Burnie

Burnie is located in the Cradle Coast region of North-West Tasmania

Burnie is home to just under 20,000 residents and is located about 50 kilometres west of Devonport, and 150 kilometres north-west of Launceston. Figure 1 shows where the local government area (LGA) of Burnie is located within Tasmania.

FIGURE 1: LOCATION OF BURNIE



Source: SGS Economics and Planning

Burnie's position means that it is well connected to other Tasmanian hubs, as well as the mainland, both through its own port, the largest in the state, and Devonport which connects to Melbourne. Within the Cradle Coast, Burnie is the primary centre for commerce and trade, with its port – which underwent an upgrade in 2016 – handling over 4 million tonnes of freight. The development will allow it to accommodate growing demand for the next thirty years.

Burnie has a history of industry, with its port being the main dock for the mines in the state's west after the opening of the Emu Bay railway in 1897. The discovery of mineral deposits in the 1880's set Burnie in motion when it had a population of around 300, bringing people and industry to the town, and the population boomed following the introduction of the Mill and Australian Titan Products (Tioxide). However, these companies left the town with the unfortunate legacy of being dirty and undesirable, polluting the ocean and air. The Mill closed in 2010, after at its peak, employing 3,500 people, and shortly after, Caterpillar machinery relocated internationally. This began a period during which Burnie underwent a substantial transformation in the makeup of its key industries and labour profile. Currently, healthcare is the largest industry in Burnie, followed by retail trade, marking the paradigmatic shift away from heavy manufacturing. This has also been a function of the clean-up of Burnie's image, as the city has tried to shake its legacy of pollution and dirtiness.

Much of Burnie's industrial development predates the adoption of town planning, leaving the town with an uncoordinated structure that makes it difficult to resolve supply shortfalls in a way that accounts for function and amenity. This applies not only to residential supply, but retail and industrial uses too. This lack of planning has left the town constrained in its ability to accommodate the type of large format retail spaces that would help Burnie continue to facilitate its shift away from manufacturing and into the retail services sector with a very limited stock of existing commercial zoned land. The central business district itself is bounded by Bass Highway to its south, and the Bass Strait waterfront and Port of Burnie in the northeast restricting the potential for expansion or development. Just beyond the CBD, the former location of the Mill has been vacant for 12 years, and no alternative industrial use for the site has been realised, despite its strategic placement along Burnie's Marine Terrace. All that remains is the unused factory building and a tribute to the monument of industry that stood there, a 600-metre trail along the Marine Terrace that recalls a time when the Mill was the dominant force in the town's economic life.

Burnie is a city with rich history and character that has opportunities to capitalise on Tasmania's, Australia's, and the world's shifting economic frontiers.

2.1 Possible futures for Burnie

SGS developed three potential futures for Burnie based on existing data (extra high population growth, high growth and moderate growth). The primary inputs are:

- Population growth using the Tasmanian Treasury projections,
- Climate change impacts based on IPCC climate modelling and,
- Economic investment pipeline information based on known projects and Tasmanian government announcements

The scenarios are used in the report to frame the potential opportunities and challenges that could arise that would impact the liveability of Burnie. The three scenarios are described below.

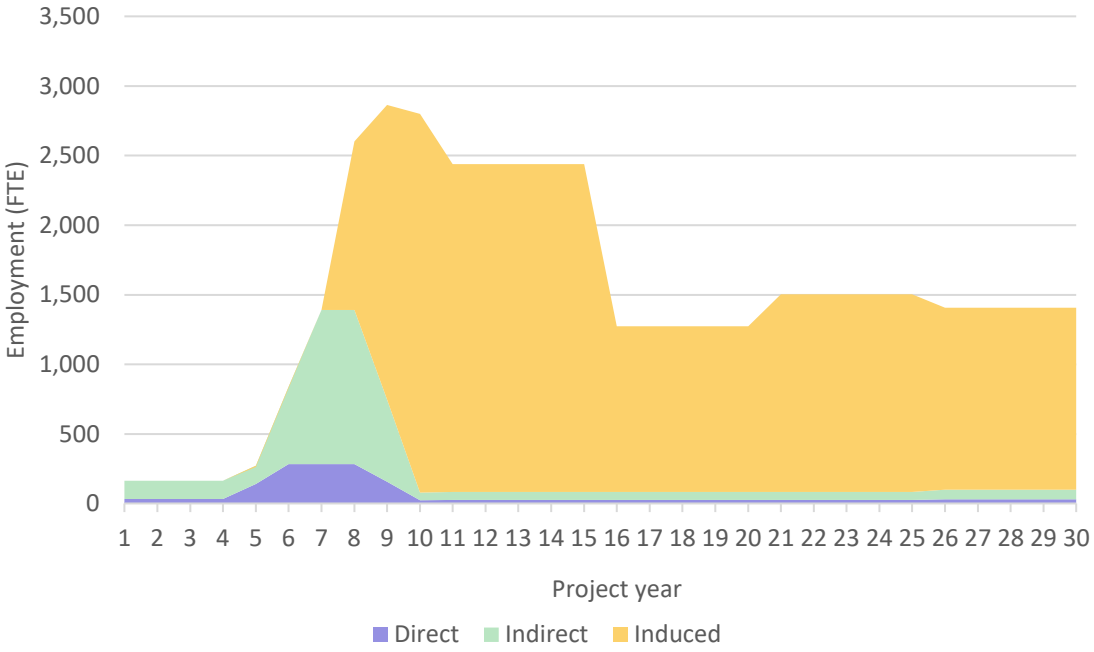
S1: Extra High Population growth, Project Marinus goes ahead and Tasmania is prepared for climate change

The high growth scenario considers the following:

- Burnie has extra high population growth, that is growth higher than the Tasmania Treasury high series projections[1], The extra high growth is due to skilled workers coming to Burnie to fill jobs created by Project Marinus.
- In addition, Project Marinus goes ahead and brings on average 1,484 ongoing FTEs jobs between 2020 and 2050 due to the construction and operation of the infrastructure and development of renewables. Those employed will bring their family into the region causing the population to grow by 2,968 persons[2] in the region. The time profile of jobs created is shown in the figure below. The direct and indirect jobs will be located in Burnie and the induced jobs will be within the region. The new jobs will cause youth unemployment to decrease to 8 per cent
- Global temperatures rise as per IPCC A2 scenario trajectory[3]. That is an increase in temperature of 2.9C. The Tasmanian and Commonwealth government invest in climate change adaptation and resilience which reduces the exposure and susceptibility to negative climate events. The shift in climate also produces higher agricultural yield due to favourable growing conditions and adapt to climate variability[4][5].

[1] Population projection assumptions in Table 1
[2] Number of persons calculated by using number of FTEs divided by average number of workers per household (1.3 persons) and multiplied by average number of persons per household (2.6 persons). Average number of workers per household based on 2018 ABS Survey of Income and Housing. Average household size based on Census 2016 data.
[3] ACE CRC 2010, Climate Futures for Tasmania impacts on agriculture: the summary, Antarctic Climate and Ecosystems Cooperative Research Centre, Hobart, Tasmania.
[4] ACE CRC 2010, Climate Futures for Tasmania impacts on agriculture: the summary, Antarctic Climate and Ecosystems Cooperative Research Centre, Hobart, Tasmania.
[5] TIA, Projected Impact of Climate Change what farmers say, farmers talk about their options https://nre.tas.gov.au/Documents/What-Farmers-Say-V7---31-May-FINAL.pdf

FIGURE 2: TIMELINE OF JOBS RELATING TO MARINUS LINK



Source: EY

S2: High Growth Scenario

The moderate growth scenario assumptions are:

- Burnie experiences high population as per the Tasmanian Treasury high series population projections, that is an increase of 550 people between 2021 and 2041[6],
- Job creation by Project Marinus is lower because the transition to renewables is slower than scenario S1. More specifically Tasmania does not hit its 2040 target of producing 200 per cent of the State's 2022 renewable energy output[7]
- Global temperatures rise as per IPCC A2 scenario trajectory; however, Tasmania and the Commonwealth government under-invest in climate change adaptation and resilience. The region is more exposed to negative climate events. Exposed assets experience higher insurance premiums or become un-insurable which impairs the community's resilience to climate events. Households in the lower socio-economic segments are vulnerable to the economic damages caused by climate events. The agricultural sector experiences growth as per scenario S1.

S3: Moderate Population, no Project Marinus, and poor climate change risk management

Scenario S3 has the following assumptions:

[6] Population projection series assumptions in Table 1
[7] Department of State Growth, 2020, Draft Tasmanian Renewable Energy Action Plan, https://www.stategrowth.tas.gov.au/__data/assets/pdf_file/0011/241112/TREAP.PDF

- Burnie's experiences population decline as per the Tasmanian Treasury medium series population projections, that is a decline of 2,408 people between 2021 and 20241[8],
- Project Marinus does not proceed, causing the region to miss out on the potential job creation outcomes and population increase that would occur due to the project. Youth disengagement from the labour market remains high with the youth unemployment staying at 15.9%
- Global temperatures rise as per IPCC A2 scenario trajectory, however, Tasmania and the Commonwealth government under-invest in climate change adaptation and resilience. The region is more exposed to negative climate events. Exposed assets experience higher insurance premiums or become un-insurable which impairs the community's resilience to climate events. Lower socio-economic households are vulnerable to the economic damages caused by climate events. The agricultural sector experiences higher production yields as per scenario S1.

TABLE 1: TASMANIAN TREASURY POPULATION PROJECTION ASSUMPTIONS

Series	Fertility (total fertility rate)	Mortality (life expectancy at birth)	Net Interstate Migration	Net Overseas Migration	Average annual growth rate (AAGR)
High	Increasing from 1.96 babies per woman in 2017, to 2.10 babies per woman by 2028 then remaining constant thereafter.	To reach 86.0 years for males and 88.5 years for females by 2067.	Net gain of 1,200 persons per year to Tasmania (+0.3% to population in 2017).	Net gain of 2,100 persons per year to Tasmania (+0.4% to population in 2017).	0.77% per annum from 2017 to 2036 0.62% per annum to 2067
Medium	Constant rate of 1.96 babies per woman.	To reach 82.4 years for males and 85.2 years for females by 2067.	Zero net interstate migration.	Net gain of 1,800 persons per year to Tasmania. (+0.34% to the population in 2017).	0.40% per annum from 2017 to 2036 0.20% per annum from 2017 to 2067

TABLE 2: POPULATION PROJECTION ASSUMPTIONS FOR BURNIE

Series	Fertility (total fertility rate)	Mortality (life expectancy at birth)	Net Interstate Migration	Net Overseas Migration	Average annual growth rate (AAGR)
Medium	Constant rate of 1.94 babies per woman	-	Net decline of 184 persons per annum to Burnie	Net overseas migration of 34 persons per annum	-

[8] IBID

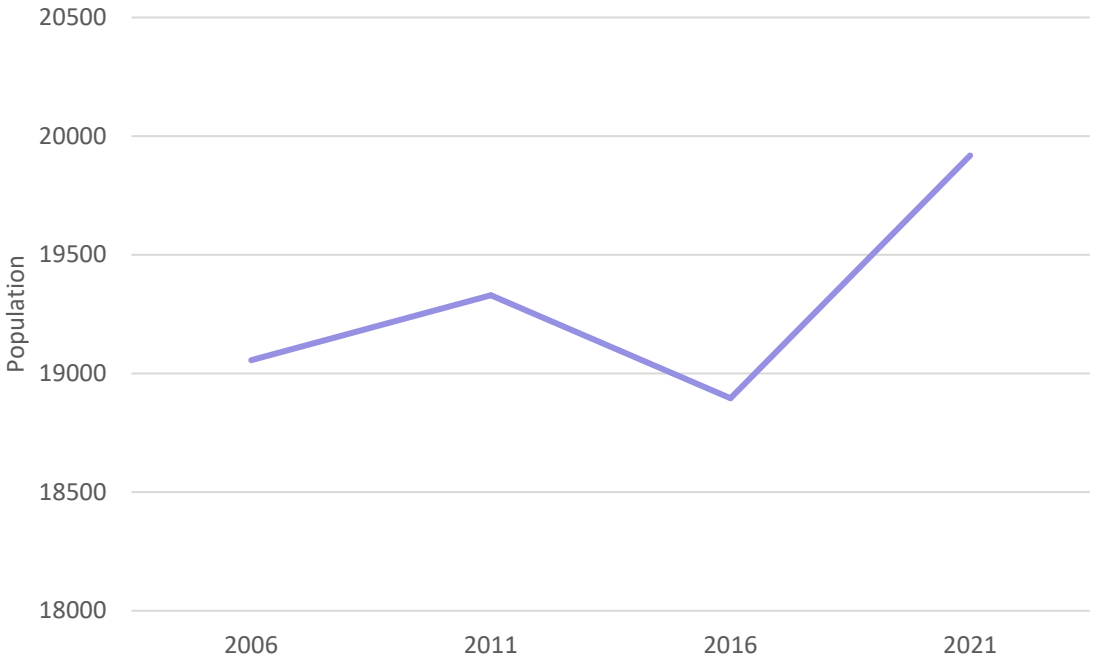
3. Population and demographic change

3.1 Population growth

Burnie's population is growing

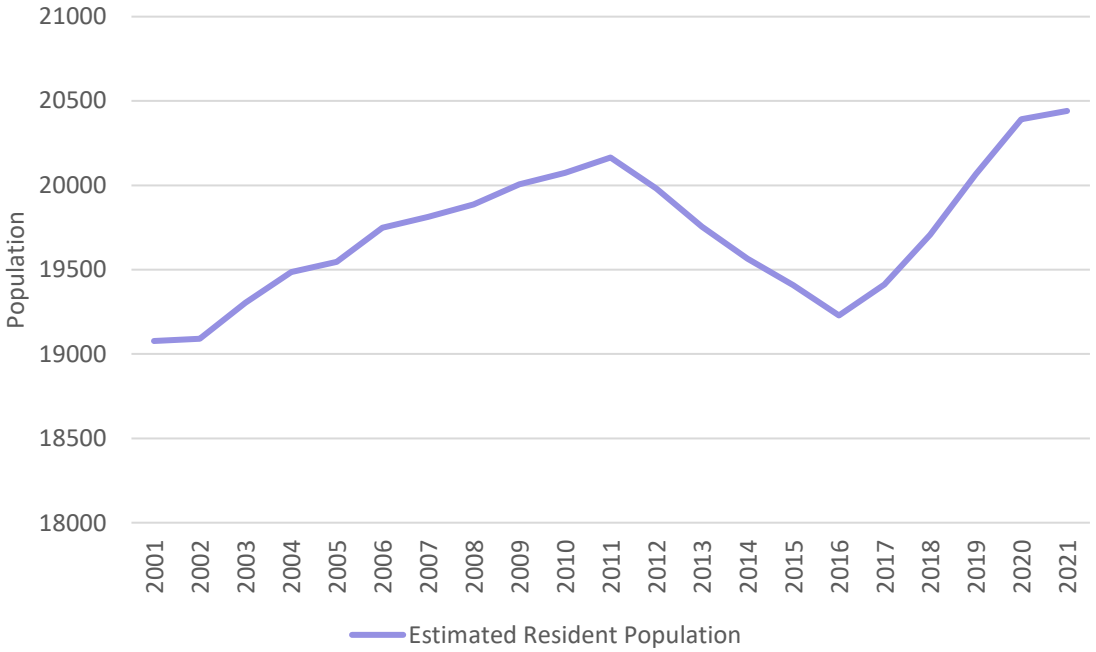
Burnie's population has grown since 2016. Figure 3 shows the population has grown from 18,895 people in 2016 to 19,918 people in 2021. That is an increase of 1,023 people or a 5.4% increase. This is a constant annual growth rate of 1.1% between 2016 and 2021. The growth between 2016 and 2021 has been modest as shown in Figure 4. The growth between 2016 and 2021 has reversed the population loss between 2011 and 2016, which was likely due to people moving away from Burnie after the closure of major companies such as Caterpillar in 2013.

FIGURE 3: BURNIE POPULATION SIZE CENSUS 2006 TO 2021



Source: ABS Census Data

FIGURE 4: ABS ERP BURNIE POPULATION FROM 2006 TO 2021



Source: ABS ERP 2021

Burnie's growth is forecast to increase by another 3% between 2021 and 2041 (Table 3), a total increase of 550 people under the high series population projections which. Population growth will be higher under scenario S1 due to more jobs coming into the region if the renewables sector experiences strong growth from additional investment over and above what Marinus Link will bring. Scenario S3 is less likely to eventuate as there has been commitment for Marinus Link to go ahead. Figure 5 shows under the high population projections, the period of high growth is happening now and the population levels will steady towards the tail end of the next two decades based on the Treasury population projection assumptions. Projections from the Centre for Population studies show population Tasmania's population will surpass the State's population target quicker than projected by the Tasmanian Treasury[9].

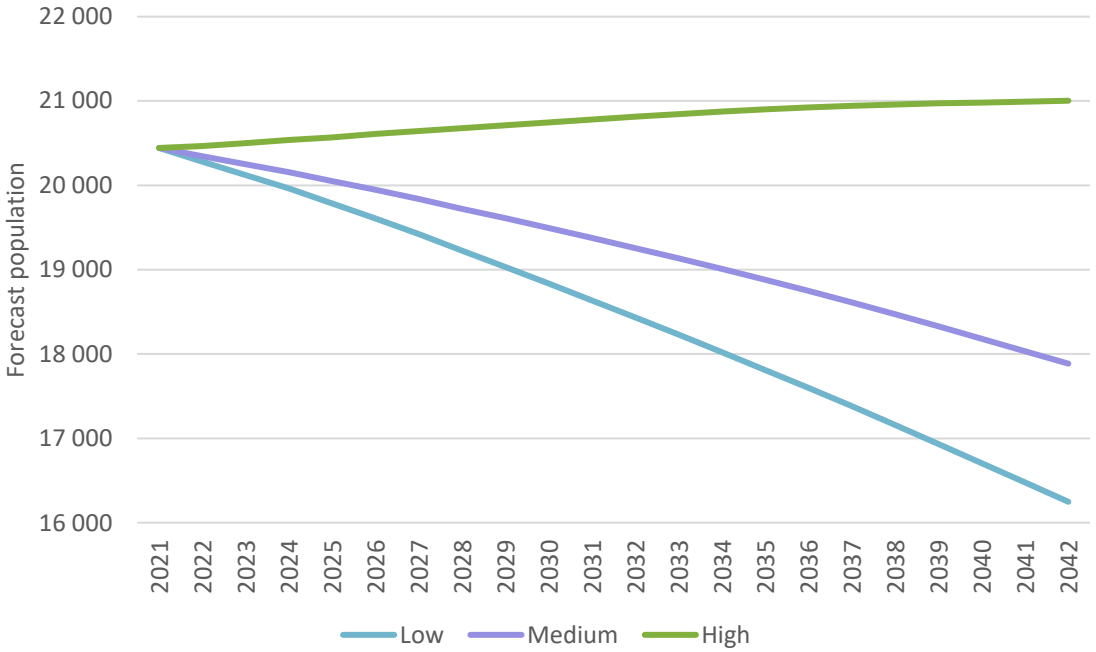
TABLE 3: POPULATION BY REGION 2021 AND 2041

	2021	2041	Change
Burnie	20,441	20,991	3%
Tasmania	567,909	654,654	15%

Source: Tasmanian Treasury 2022

[9] Centre for Population 2022, '2022 Population Statement', The Australian Government, Canberra.

FIGURE 5: POPULATION GROWTH FORECAST FROM 2021 TO 2042



Source: Tasmanian Treasury Interim Rebased Population Projections, 2022

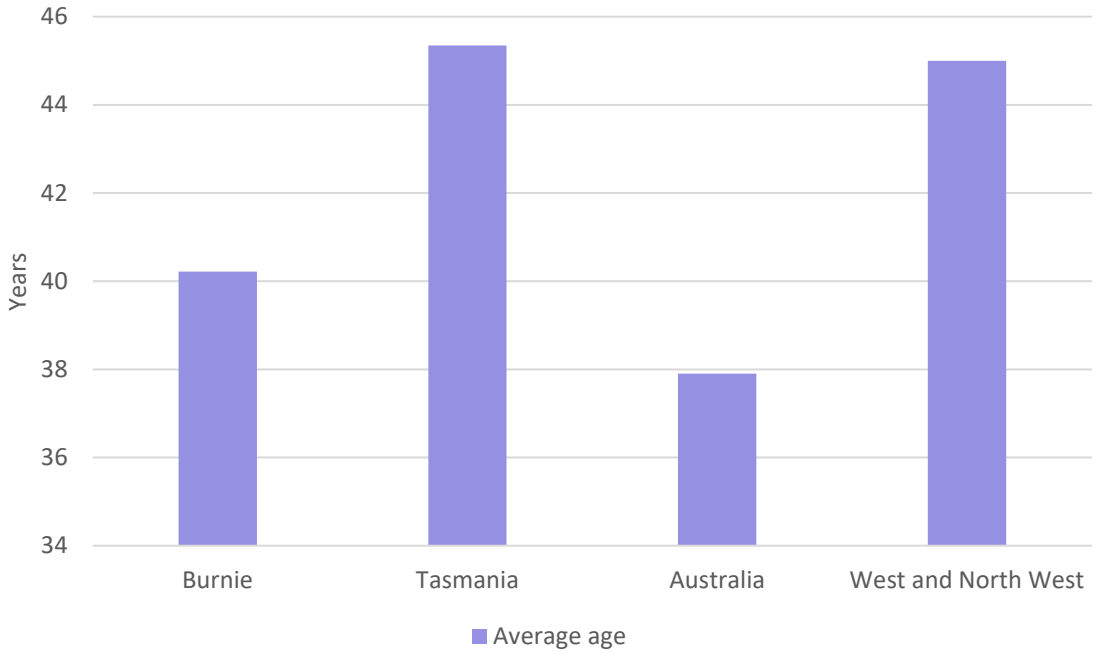
3.2 Community diversity

Burnie's population is ageing slowly

Burnie's community is relatively young when compared to the wider Tasmanian community but older when compared to the rest of the nation. Figure 6 shows the average age in Burnie in 2020 was 40.22 years. This is higher than the Australia-wide average age of around 37.9, but below the Tasmanian average of 45.35 years and the average in West and North-West SA4 of 45 years old.

It is likely Burnie's population will have an ageing profile that is much closer to the rest of Tasmania in the long run under scenario S3. If scenarios S1 or S2 eventuate, Burnie's population may remain relatively young as working age families come to live in Burnie as they take up jobs in the region.

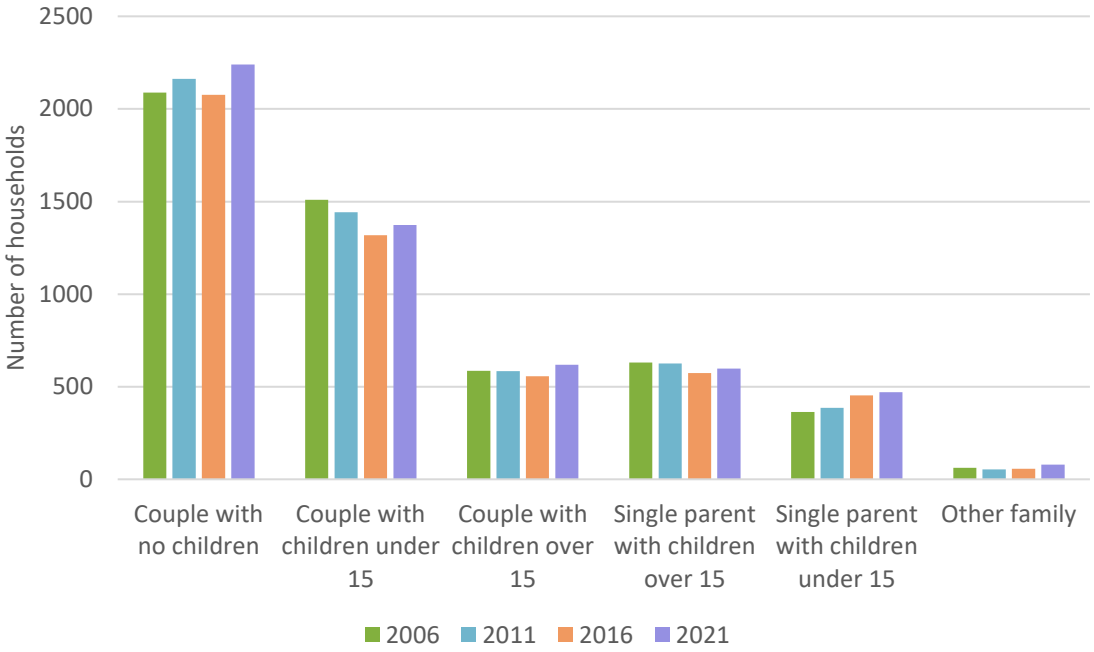
FIGURE 6: AVERAGE AGE BY AREA: ABS CENSUS 2021



Source: ABS Census 2021

Burnie is mainly made up of families, but there is a growing group of people who live on their own. From the 2021 ABS Census, 5,387 families were counted in the Burnie LGA, the main family type was couple families with no children, making up 2,241 of the recorded families as shown in Figure 7. The next most common family type was couple families with children under 15, making up 1,373 of the recorded families, ahead of couple families with no children under 15, which totalled 619. Single parent families made up 1,070 of all families, 598 with children under 15, and 475 with no children under 15. 80 families fell into the category of other family.

FIGURE 7: FAMILY COMPOSITION FROM 2006 TO 2021

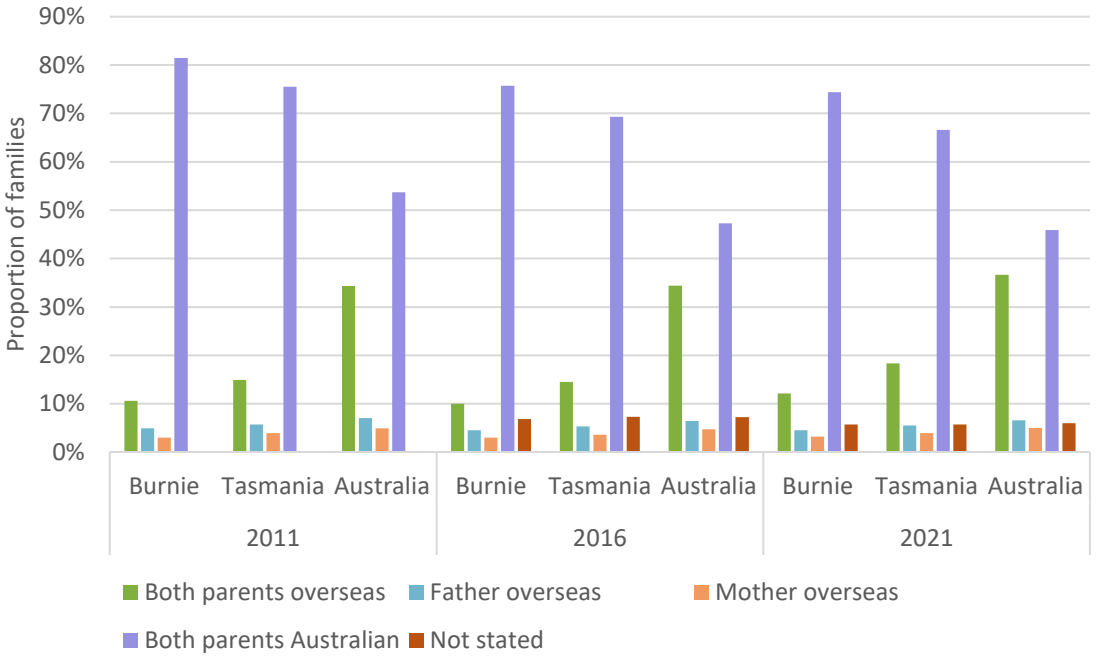


Source: ABS Census 2006, 2011, 2016, 2021

A community that is slowly becoming more diverse

Diversity is increasing and that poses both challenges and opportunities. Burnie's population is less diverse with regards to foreign background than Australia as a whole; however, that steadily changed to become more diverse over time as shown in Figure 8. The share of the population in Burnie with parents born from overseas has increased from just 10% in 2016 to 12% in 2021 which is a sizeable shift. In comparison, in 2021, 36.67% of Australians had both parents born overseas.

FIGURE 8: ANCESTRY BY AREA FROM 2011 TO 2021: BURNIE, TASMANIA & AUSTRALIA



Source: ABS Census 2011, 2016, 2021

The ABS 2021 Census shows that aside from English, top languages used at home by Burnie residents include German, Mandarin, French, Spanish and Nepali. Compared to the data from ABS 2016 Census, the proportion of the population only using English at home also reduced slightly, aligning to the increased share of the population with one or both parents being born overseas.

A vibrant First Nations community

The First Nations people make up a significant share of Burnie's population relative to the rest of Tasmania. According to the ABS 2021 Census data, the share of Indigenous Australians in Burnie is 8.49%, compared to the share statewide of 5.41%, and 3.20% nationally.

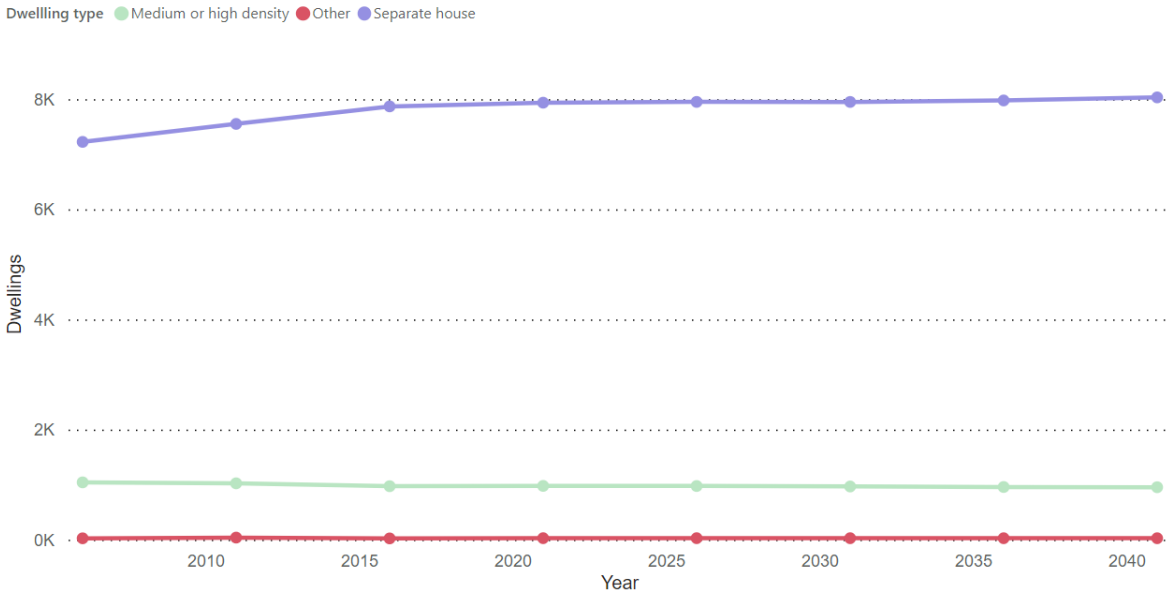
4. Housing

A community increasing in size needs more dwellings to meet the needs of the community.

What housing does Burnie need for a changing community

Burnie will need at least an additional 71 dwellings between 2021 and 2041[10]. That is a 1% increase in the number of dwellings. Most of the demand will be for separate dwellings, as shown in Figure 9. The level of the demand would be in line with scenario S2. Under scenario S1, additional dwellings would be needed to house a growing population. A historical profile of dwelling demand is in Appendix A.

FIGURE 9: DEMAND BY DWELLING TYPE BURNIE 2006 TO 2041

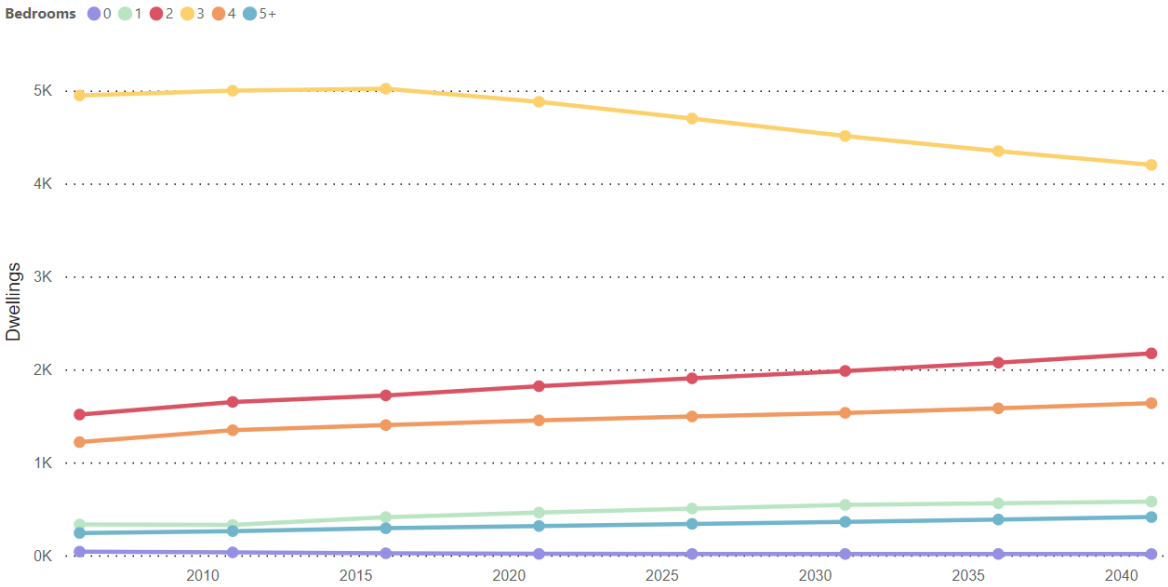


Source: SGS Economics and Planning

Apart from more separate dwellings being needed, there is a strong case that other dwelling types, such as townhouses, independent living units and low-rise apartments, might be preferred if those types of dwelling were to be constructed. Contrary to myth and assumption, Australians want a mixture of housing choices – not just detached houses (Frances-Kelly 2011). Many want to live in a semi-detached home or a larger apartment, in locations that are close to family or friends, or to shops. Figure 10 shows the increasing diversity of housing demand with demand for 1 and 2-bedroom dwellings increasing as well as demand for larger houses that are 4 or more bedrooms.

[10] Based on the Tasmania Treasury high projections and using the SGS Housing Demand Model (HDM)

FIGURE 10: DEMAND BY DWELLING SIZE: BURNIE 2006 TO 2041

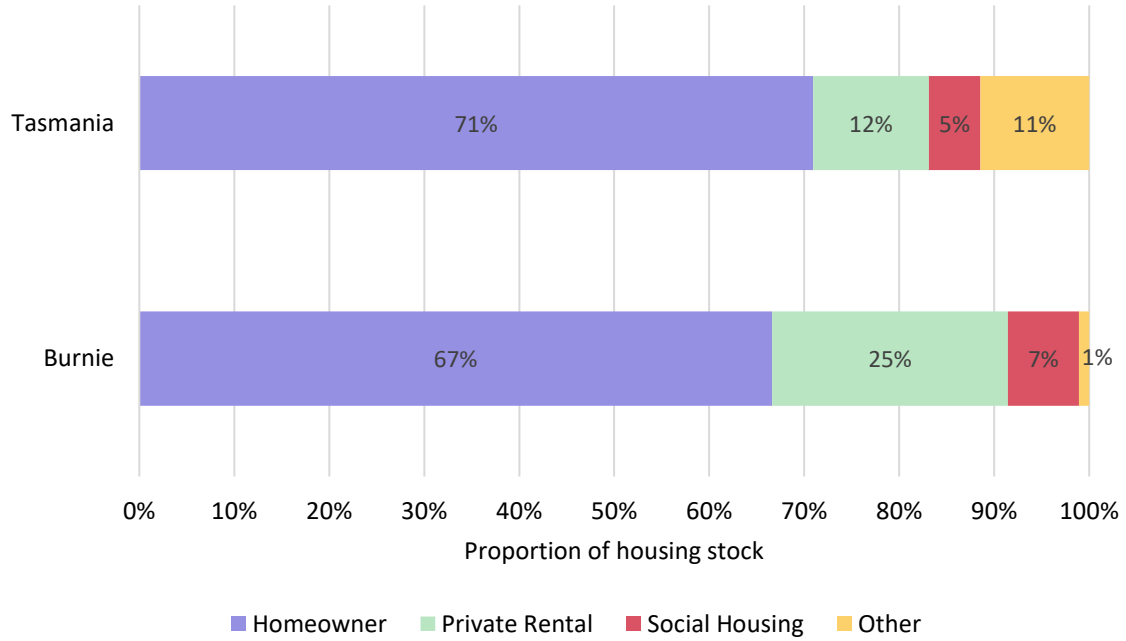


Source: SGS Economics and Planning

More residential land is needed to keep housing affordable

As shown in Figure 11, homeownership in Burnie is not as high as compared to the rest of Tasmania with only 66.6% of Burnie's residents being homeowners compared to the Tasmanian average of 71%. The share living in private rentals (24.8%) is double that of the Tasmanian average (12.2%). The share of people in social housing is also relatively high with 7.5% people living in social housing in Burnie compared to the Tasmanian average of 5.4%.

FIGURE 11: PROFILE OF HOUSING TENURE IN BURNIE & TASMANIA 2021



Source: ABS Census 2021

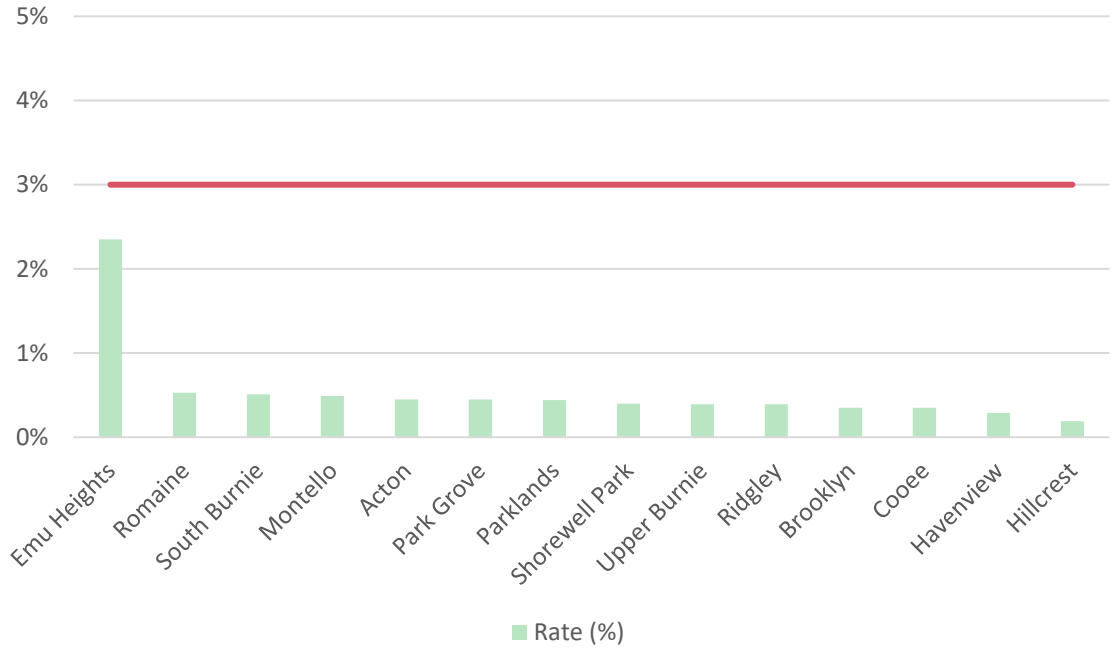
Is there enough places to live for renters

Although one out of four Burnie residents are private renters, vacancy rates data shows there is not enough places to rent. The rental vacancy rate, which is the available units as a share of the rental stock, is below REIA's healthy benchmark of 3%[11], as shown in Figure 12. Emu Heights has the highest number of places to rent with a vacancy rate of 2.4%. Notably Emu Heights is the only suburb with a vacancy rate over 1%. Hillcrest has the lowest vacancy rate of 0.2%, followed Havenview (0.3%) and Brooklyn (0.35%). Not enough places to rent could mean:

- rents could go up making renting more expensive,
- people looking to move to Burnie for work will struggle to find accommodation and,
- those who cannot afford the rents may be forced to move out of the municipality and or could become homeless.

[11] https://www.prd.com.au/corporate-news-page/article/vacancy-rates-breaking-10-year-records/

FIGURE 12: VACANCY RATES OF MAJOR SUBURBS IN BURNIE 2022



Source: Real Estate Investar 2022

Notes: Suburbs without data not included

Is it affordable to live in Burnie

Though Burnie is more affordable when compared to many areas in Southern Tasmania, rental affordability is declining according to the SGS Rental Affordability Index (RAI); Figure 13 shows the distribution of rental affordability across Tasmania with green areas being relatively affordable and yellow/orange areas being relatively unaffordable.

SGS calculated that rental housing in Burnie was moderately unaffordable in 2022, with an average rental household now having to spend 26.1% of their income on rent, as opposed to 21.6% in 2021. In relation to specific postcodes within the municipality, there was a decline in the affordability index in the Burnie postcode from 139 in 2021 to 115 in 2022. Across all the postcodes in Burnie, the RAI score ranged between 115 to 128 in 2022.

FIGURE 13: RENTAL AFFORDABILITY IN TASMANIA 2022

Source: SGS Economics and Planning RAI 2022

What is the Rental Affordability Index

SGS Rental Affordability Index (RAI) provides an indication of how affordable it is to rent across Australia. The annual rental affordability index (RAI) score is used to assess the rental affordability relative to household incomes. In the RAI, households who are paying 30 per cent of income on rent have a score of 100, indicating that these households are at the critical threshold for housing stress. A score of 120 or less indicates that households would pay more than 30 per cent of income to access a rental dwelling, meaning they are at risk of experiencing housing stress.

Rental Affordability Index Methodology)

It is generally accepted that if housing costs exceed 30 per cent of a low-income household's gross income, the household is experiencing housing stress (30/40 rule). That is, housing is unaffordable and housing costs consume a disproportionately high amount of household income. The RAI uses the 30 per cent of income rule. RAI is calculated as:

RAI = (Income/qualifying income) *100

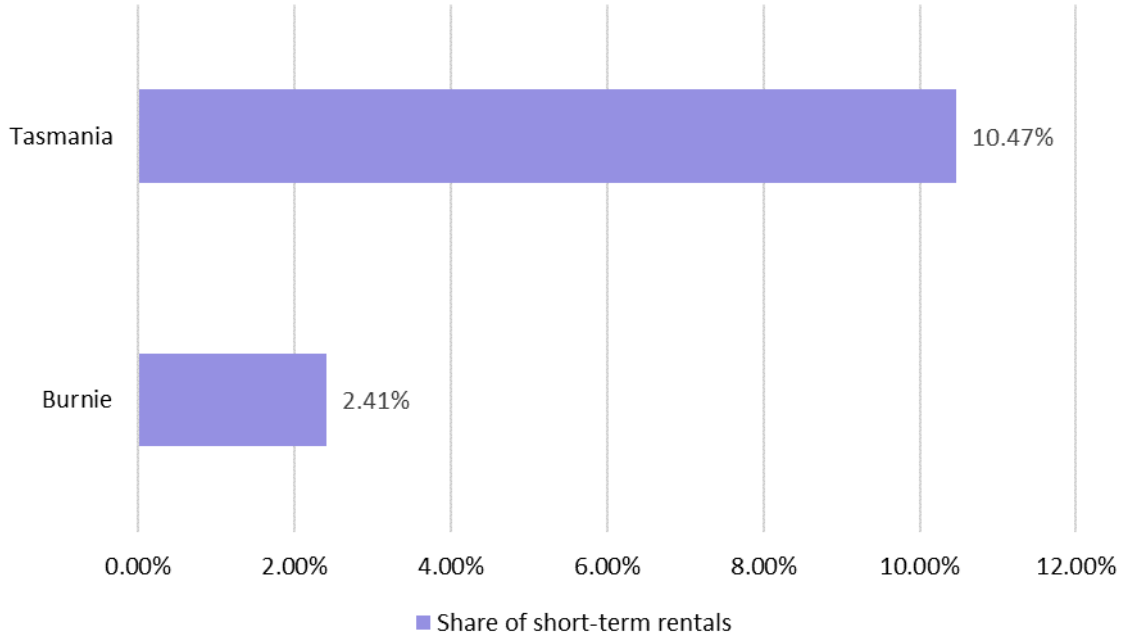
Households paying 30 per cent of income on rent have a RAI score of 100, indicating these households are at the critical threshold level for housing stress. Households paying more than 30 per cent of their income in rent have a score lower than 100.

The impact of short-term accommodation

Short-term rental accommodation is contributing a small part to the low rental vacancy rate. The number of dwellings categorised as short-term rentals in Burnie are 30 dwellings, making up only 2.41% of the region's total private rental stock. This appears small, particularly when being compared to short-term rentals as a share of Tasmania's private rental stock (10.47%). The numbers suggest short-term rentals are likely having minimal impact on the rental vacancy rate but growing evidence shows small changes make an impact on the rental market[12].

[12] Buckle, C. and Phibbs, P., 2021. Challenging the discourse around the impacts of Airbnb through suburbs not cities: Lessons from Australia and COVID-19. Critical Housing Analysis, 8(1), pp.141-149.

FIGURE 14: SHARE OF SHORT-TERM RENTAL DWELLINGS IN BURNIE AND TASMANIA



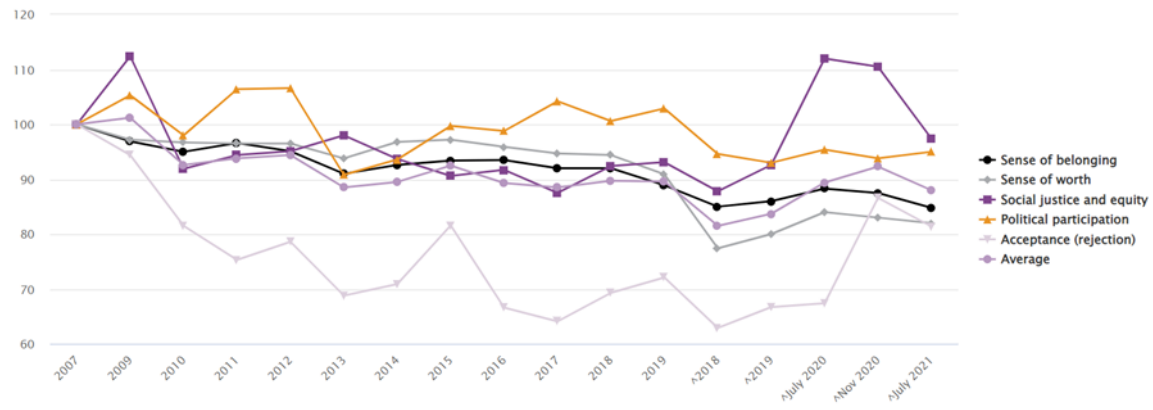
Note: Only dwellings that were available for greater than 60 days were included.
Source: Inside Airbnb, ABS Census 2021

5. Community wellbeing, inequality and disadvantage

5.1 Sense of community trends

The pandemic has had a negative effect on the sense of community. Surveys have shown that community cohesion – created by strong social connections and networks in communities – moved in a positive direction in July and November 2020. The key to the positive findings appears to be the high (although declining) level of support for government; the high level of trust in fellow citizens; the level of economic satisfaction; and optimism for the future. However, there was a sharp decline in social cohesion in 2021 compared to 2020.

FIGURE 15: SOCIAL COHESION MAPPING 2007 TO 2021: AUSTRALIA



Source: Scanlon Institute[13]

As community cohesion has declined, so has trust in government. Trust in government in Australia fell from 61% to 52% in 2022 as compared to last year (Edelman 2022). This reflects people's doubt in governments' capacity to deal with social challenges and the increasing feeling government is more divisive than unifying for society (Edelman 2022)[14].

An area of significant change during the COVID-19 pandemic is the heightened perception of racism. In 2021, in response to the question: 'In your opinion, how big of a problem is racism in Australia?', 60% of respondents indicated that it was a 'very big problem' or 'fairly big problem', compared to 39% in July 2020 and 40% in July 2020 (Scanlon Foundation 2021). An increase of twenty percentage points in response to a general question of this nature is almost unprecedented in the Scanlon Foundation surveys.

[13] https://scanloninstitute.org.au/mapping-social-cohesion-2021/
[14] https://www.edelman.com.au/trust-barometer-2022-australia

Another challenge emerging from the pandemic is the increasing risk of mental health issues. Decreased community social interaction in response to the pandemic had significant negative effects on the mental health of Tasmanians, leaving a negative impact on people's perception of life satisfaction compared to prior to the pandemic[15]. The effects were felt strongly especially among vulnerable communities including the homeless, the infirm, those with mental health issues, international students, and asylum seekers[16].

The key challenges raised by these trends in the sense of community are the lack of cohesion affects on health and wellbeing of individuals and broader social impacts including:

- the spread of information,
- harmony and solidarity,
- respectful and inclusive attitudes,
- reduces collective efficacy, governance (a community's belief in itself, its willingness to, and act collectively towards shared goals), and the working together than can turn community assets into outcomes.

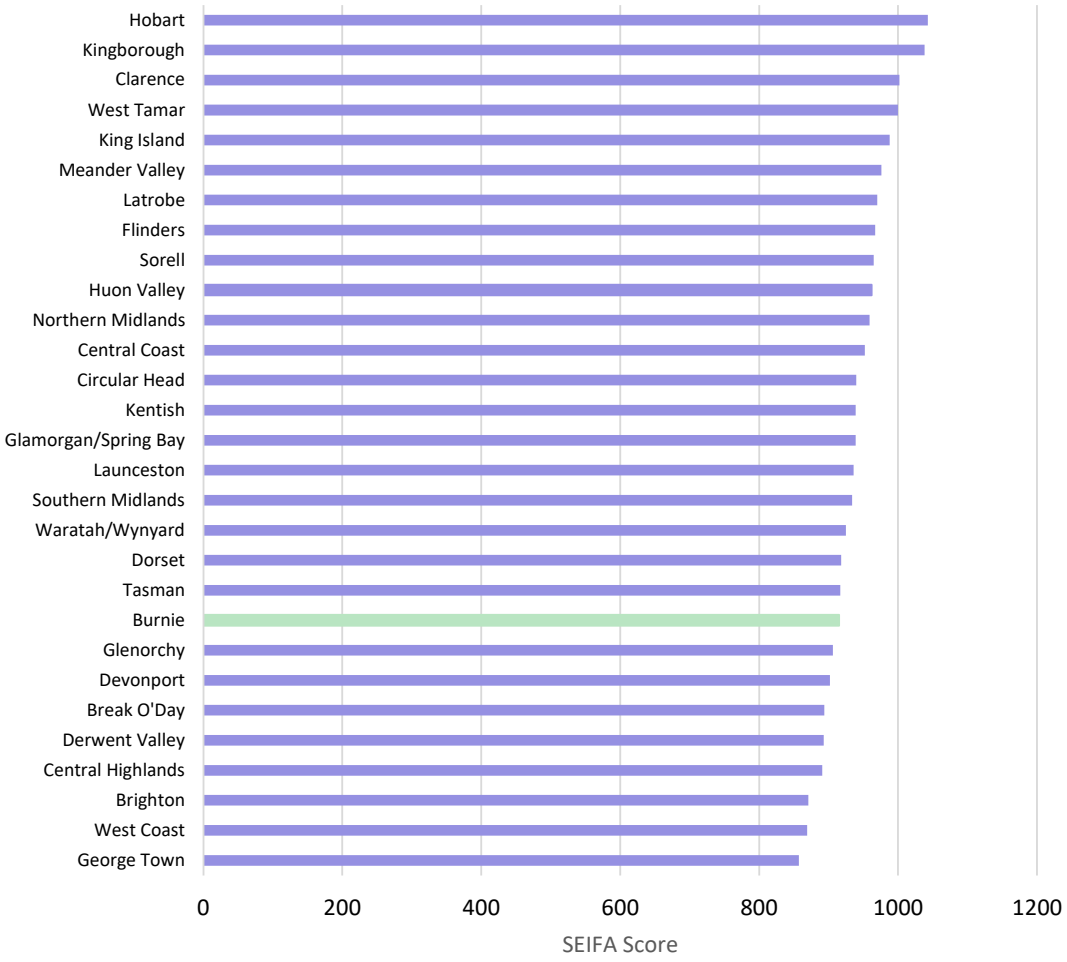
5.2 Inequality and disadvantage

Disadvantage is high

Burnie is relatively disadvantaged compared to other LGAs in Tasmania. The Index of Relative Socio-economic Disadvantage (IRSD) is one of four of the ABS' Socio-Economic Indexes for Areas (SEIFA) that captures an area's relative lack of disadvantage, and summarises 17 different measures such as low income, low education, high unemployment, and unskilled occupations into an index. Burnie ranks 9th highest in terms of the relative disadvantage of all Tasmanian LGAs, with a score of 915 on the IRSD (Figure 16). In comparison, the Tasmanian LGA with the highest level of disadvantage is George Town, with a score of 857, and the LGA with the lowest level of disadvantage is Hobart, with a score of 1043.

[15] UTAS, 2021, The Tasmania Wellbeing Survey
https://www.pesrac.tas.gov.au/__data/assets/pdf_file/0018/283203/Well-Being_Survey.pdf
[16] https://scanloninstitute.org.au/mapping-social-cohesion-2021/

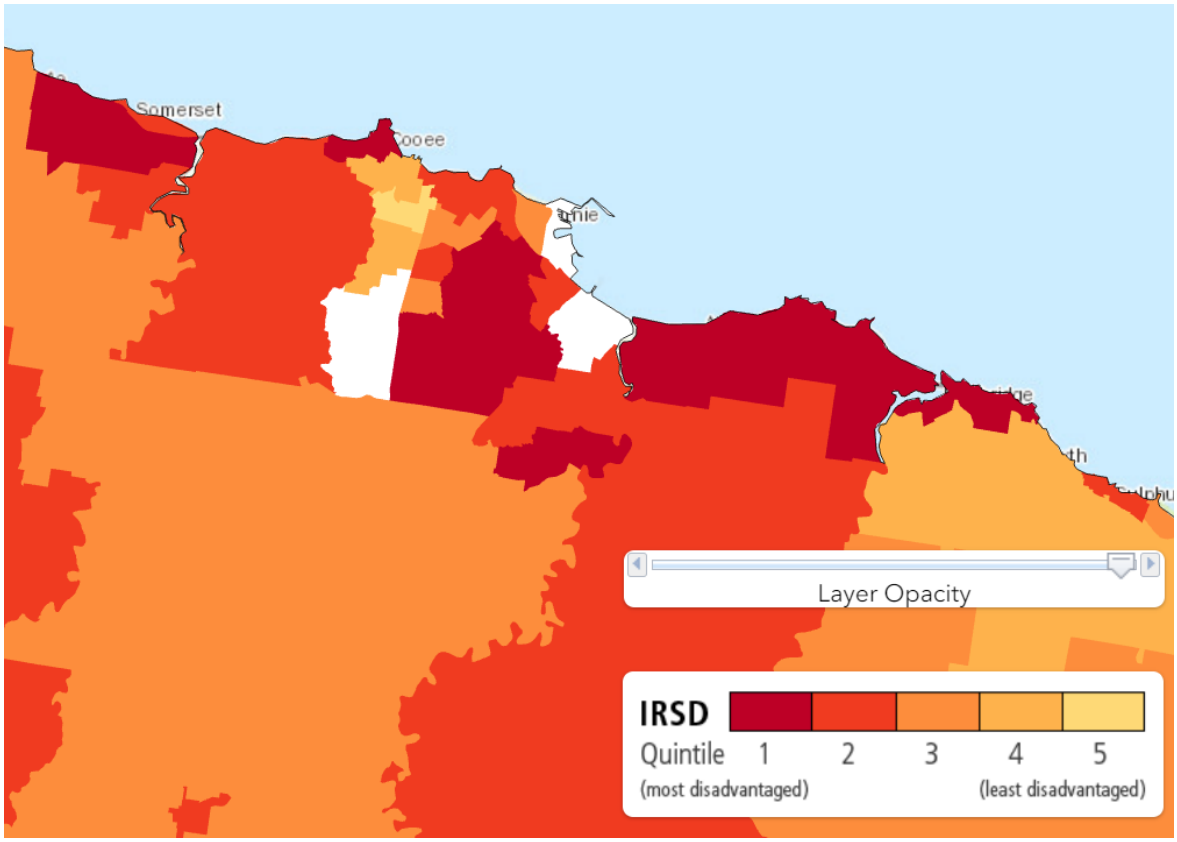
FIGURE 16: IRSD SCORES ACROSS TASMANIAN LGAS 2016



Source: ABS Socio-Economic Indexes for Areas (SEIFA) 2016

Figure 17 shows areas close to the city centre have higher levels of relative disadvantage. The key spots are around Hillcrest and Cooee. The areas of Parkland and Park Grove have lower levels of relative disadvantage. The areas in white show spots where data was not collected.

FIGURE 17: AREAS OF DISADVANTAGE IN BURNIE 2016

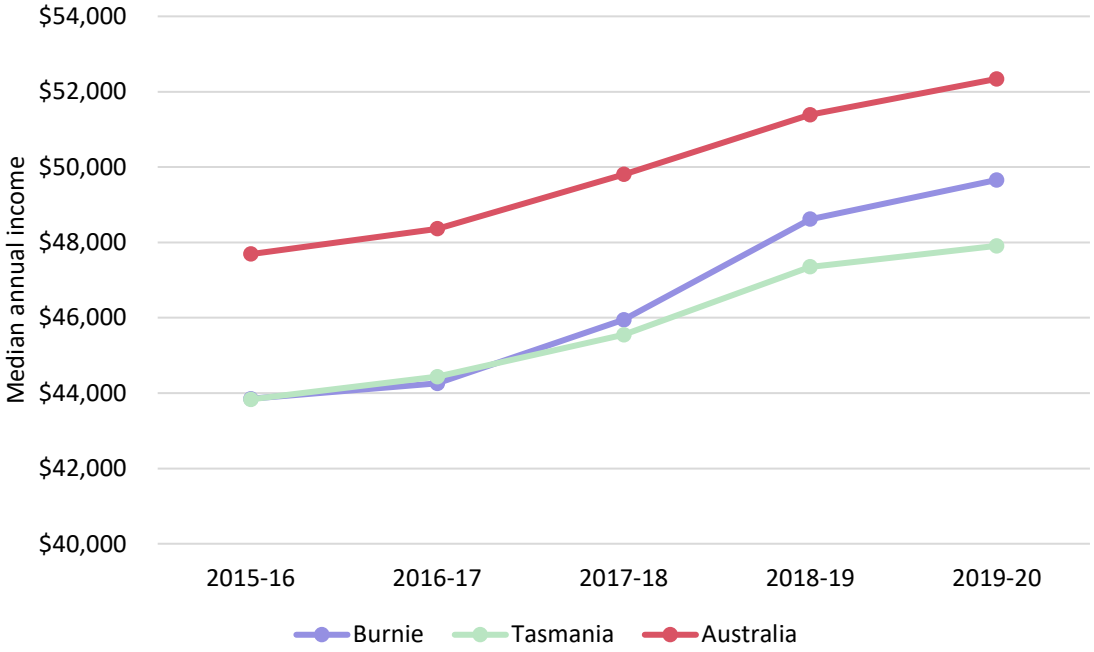


Source: ABS SEIFA 2016

Incomes are rising

Though Burnie is relatively disadvantaged, income levels are rising. Figure 18 shows the change in median personal income in Burnie compared to Tasmania and the wider Australian population. In addition to wages and salary, superannuation, own incorporated business, and investment incomes are included. Since 2015, median income in Burnie has risen to exceed the Tasmanian average, although it still remains below the Australian median personal income level.

FIGURE 18: MEDIAN PERSONAL INCOME IN BURNIE, TASMANIA, AND AUSTRALIA FY16-FY20

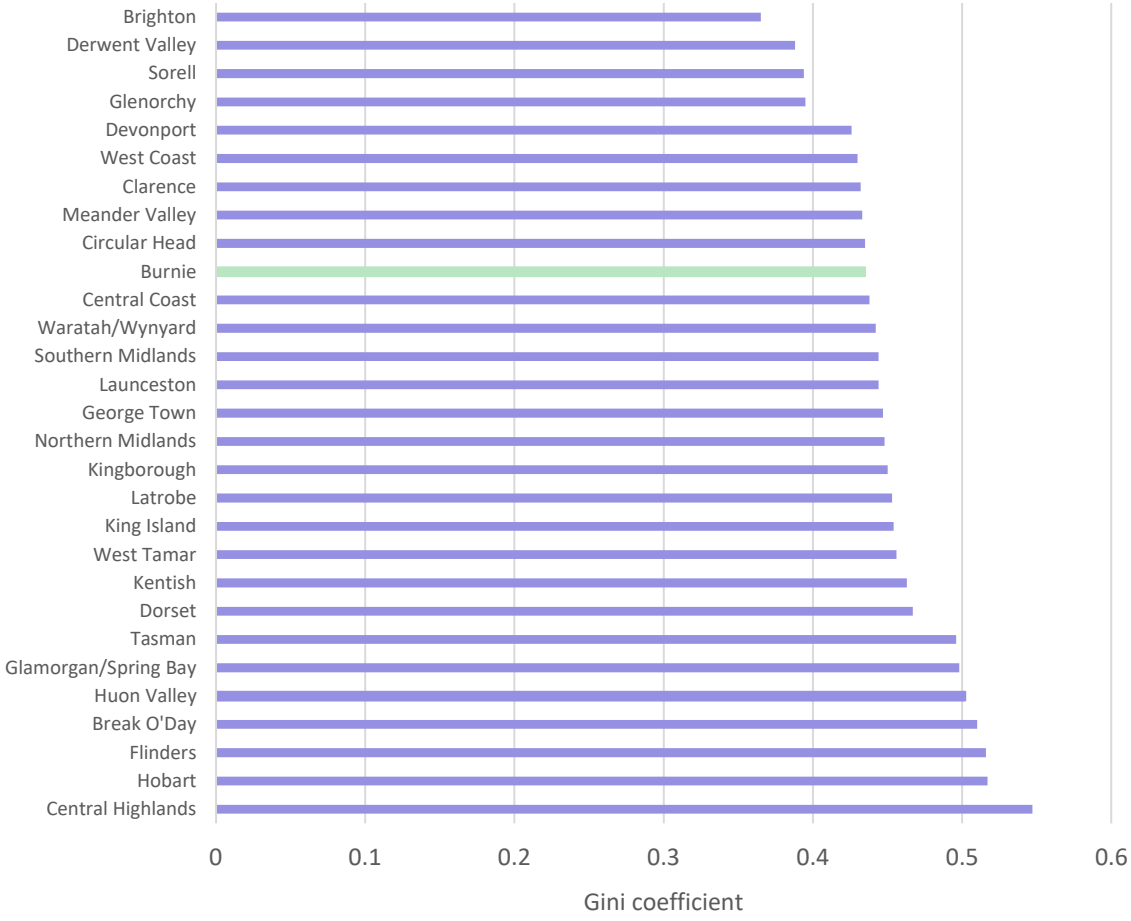


Source: ABS Personal Income in Australia 2022

Income equity

Incomes in Burnie are fairly distributed compared to many LGAs in Tasmania. The distribution of income was measured using the Gini coefficient which shows the degree of inequality among total incomes within a region, where a value of 0 indicates perfect equality. Figure 19 shows Burnie has a Gini coefficient of 0.435 as of FY20, which is one of the lower scores of inequality across LGAs in Tasmania. This is also lower than the Tasmanian average of 0.450 and the Australian average, 0.484. However, despite having a lower score than other regions in Australia, a Gini coefficient of 0.435 suggests there is still some work to be done to distribute income more fairly across residents in Burnie through an enabling environment that allows local residents to gain from economic opportunities that could arise under scenarios S1 and S2.

FIGURE 19: GINI COEFFICIENT ACROSS TASMANIAN LGAS 2018

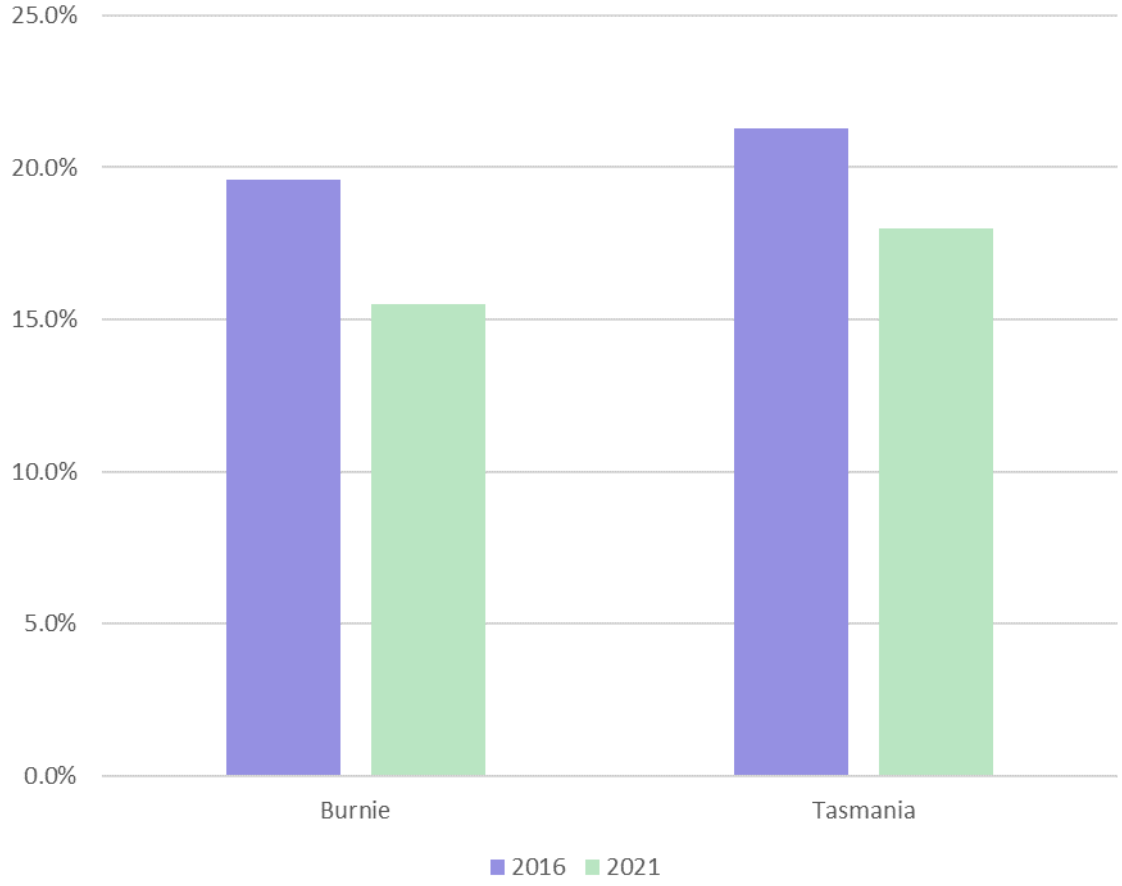


Source: ABS Personal Income in Australia 2022

Engagement in volunteering is low

Volunteering is low in Burnie compared to the Tasmanian average. Figure 20 shows 15.5% of Burnie's residents volunteered in the past 12 months compared to 18% in the rest of Tasmania. The rate of volunteering in Burnie fell from 19.6% in 2016 to 15.5% in 2021. It is likely this fall was driven by the pandemic policies requiring people to social distance. Whether volunteering will pick up to pre-pandemic levels is difficult to estimate.

FIGURE 20: RATE OF VOLUNTEERING IN BURNIE COMPARED TO TASMANIA: 2016 & 2021



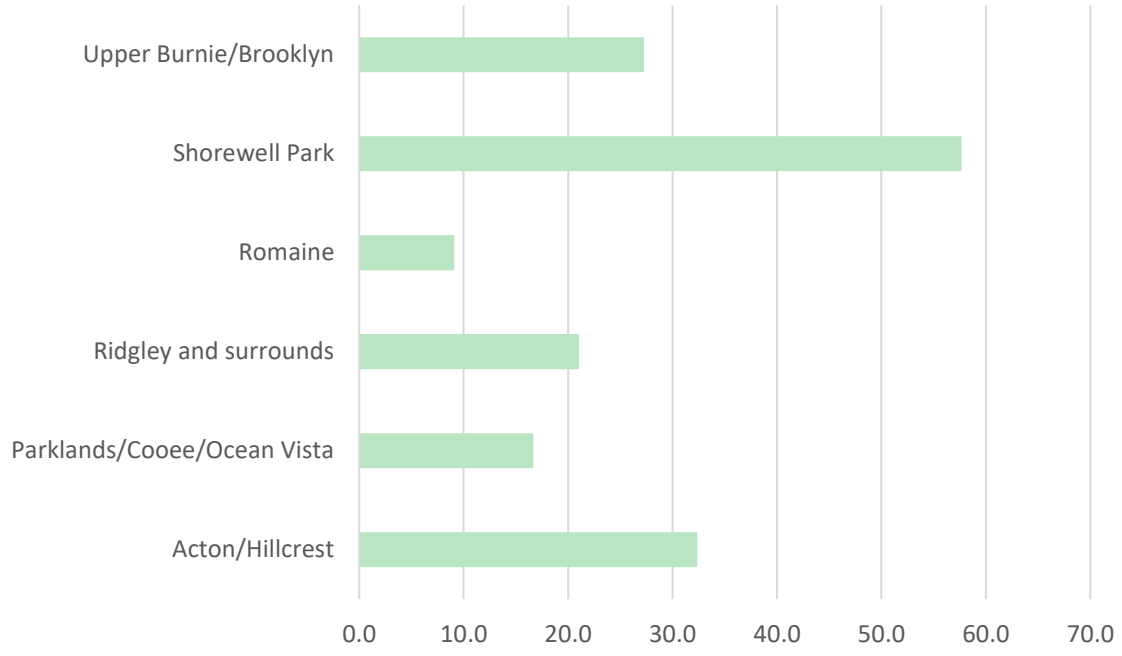
Source: ABS Census 2016 and 2021

5.3 Community health and wellbeing

Children's health and wellbeing

Though the vast majority of children in Burnie have attended a pre-school program, as shown in section 7.1, many are behind in their development. 25% of children are developmentally vulnerable compared to 23% in Tasmania[17]. Developmental vulnerability means children are lagging behind in key skills such as communication, health and/or socio-emotional skills. Figure 21 shows the localities of Shorewell Park (57.7% of children who attended a pre-school program), Hillcrest (32.4% of children who attended a pre-school program) and Upper Burnie/Brooklyn (27.3% of children who attended a pre-school program) have a high share of developmentally vulnerable children compared to the Burnie average (25%).

FIGURE 21: PERCENTAGE OF CHILDREN DEVELOPMENTALLY VULNERABLE 2021: BURNIE



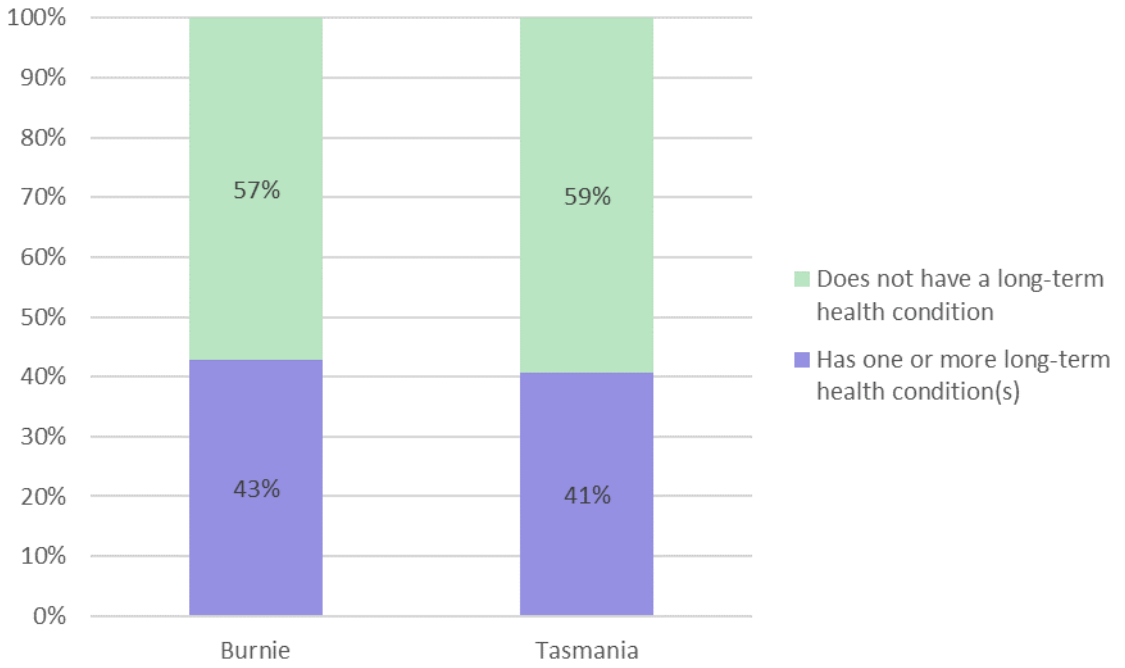
Source: AEDC 2021; SGS Economics and Planning

Overall health and wellbeing

Approximately 42.7% of the Burnie population has a long-term health condition, which is fairly similar to the average across Tasmania as shown in Figure 22. The top three health conditions are depression or anxiety (13.8% of the Burnie's population), arthritis (12.6%), and asthma (12.1%). 57% of Burnie's population report having no long-term health conditions, and that rate is similar to the Tasmanian average.

[17] AEDC 2021

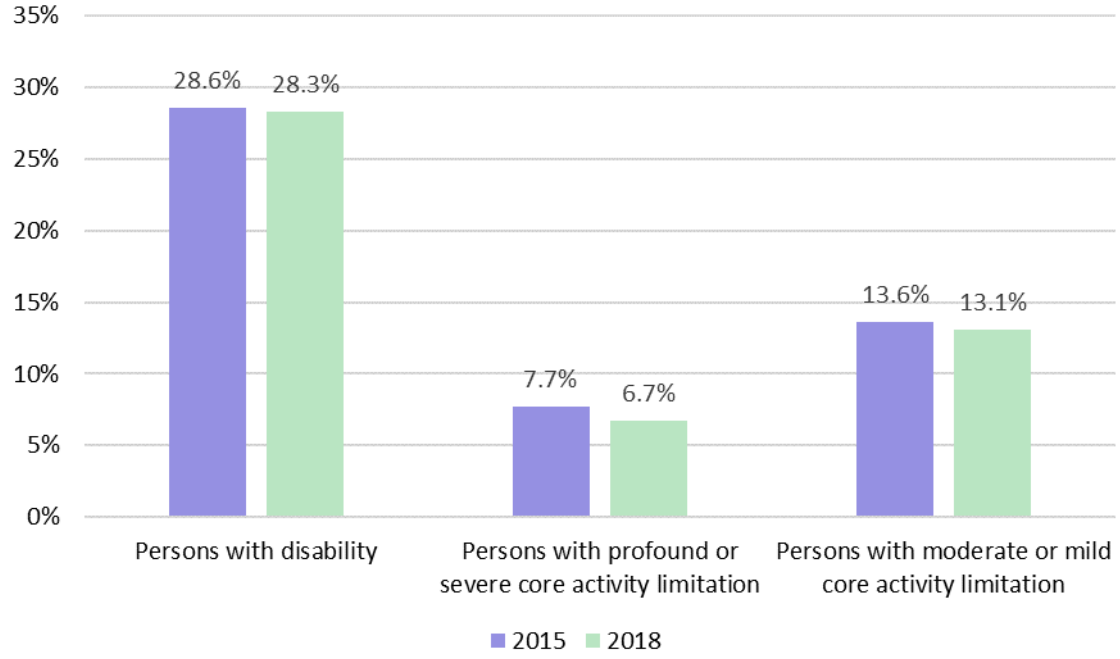
FIGURE 22: PROPORTION OF POPULATION WITH A LONG-TERM HEALTH CONDITION IN BURNIE VS TASMANIA 2021



Source: ABS Census 2021

Overall, the number of people living with a disability in Burnie has remained fairly constant between 2015 and 2018, falling only slightly from 28.6% in 2015 to 28.3% in 2018 (Figure 23). The ABS defines a disability as any limitation, restriction or impairment which restricts everyday activities and has lasted, or is likely to last, for at least six months. There has been a slightly larger fall of 1 percentage point in persons with core activity limitations, defined by the ABS as people needing assistance in their day to day lives in the areas of self-care, mobility or communication.

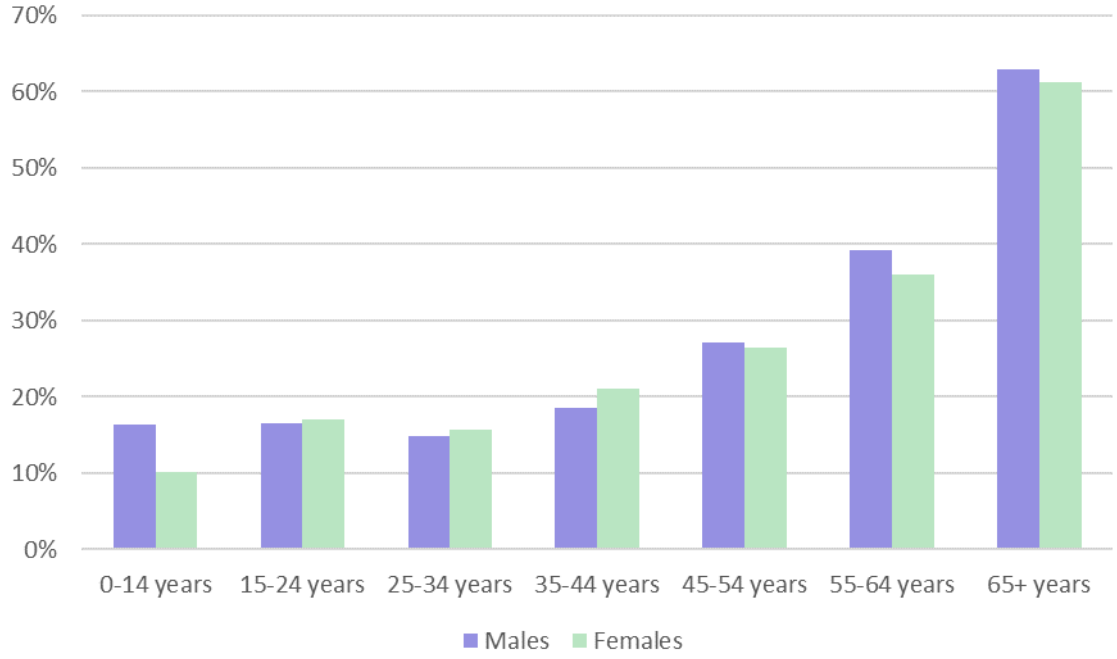
FIGURE 23: PERSONS WITH A DISABILITY OR CORE ACTIVITY LIMITATION IN BURNIE – 2015 & 2018



Source: ABS Disability, Ageing and Carers, Australia 2015 and 2018

Older residents are most likely to be living with a disability, with over half of those aged over 65 years living with a disability in 2018. Given the high proportion of older residents with a disability, ensuring adequate care and assistance, as well as accessible infrastructure and transport for this demographic will be critical.

FIGURE 24: PROPORTION OF POPULATION LIVING WITH A DISABILITY IN BURNIE IN 2018

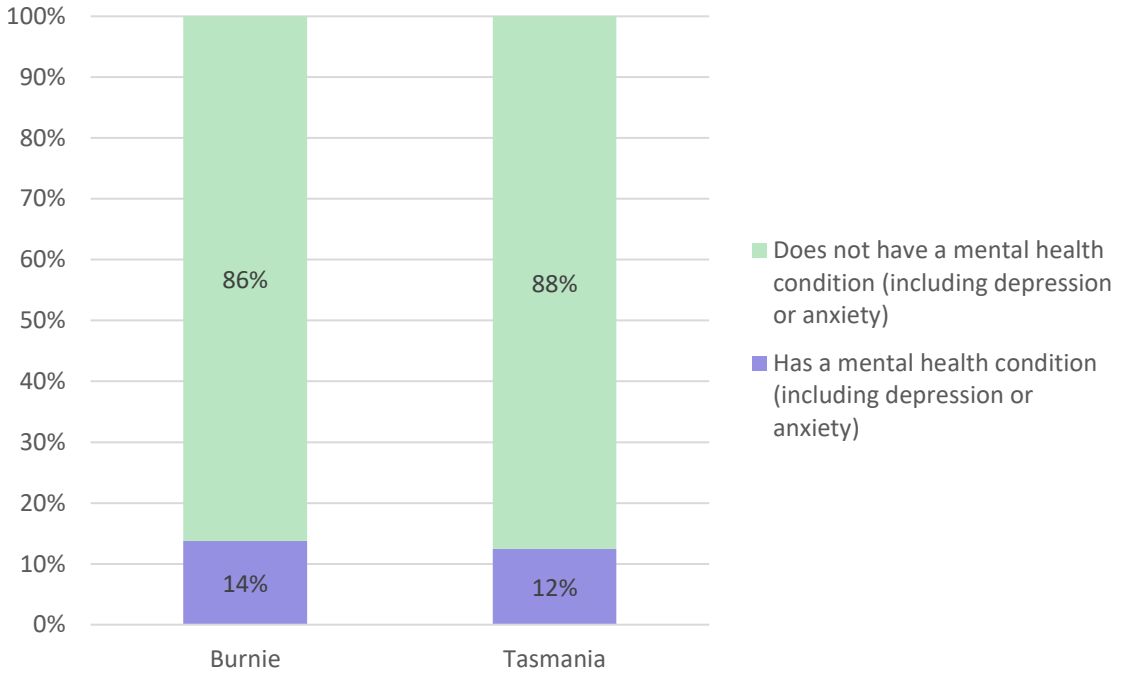


Source: ABS Disability, Ageing and Carers, Australia 2018

Mental health

Overall, mental health in Burnie is poor. 14% of Burnie's population has a mental health condition, in comparison the Tasmanian average is 12%, as shown in Figure 25.

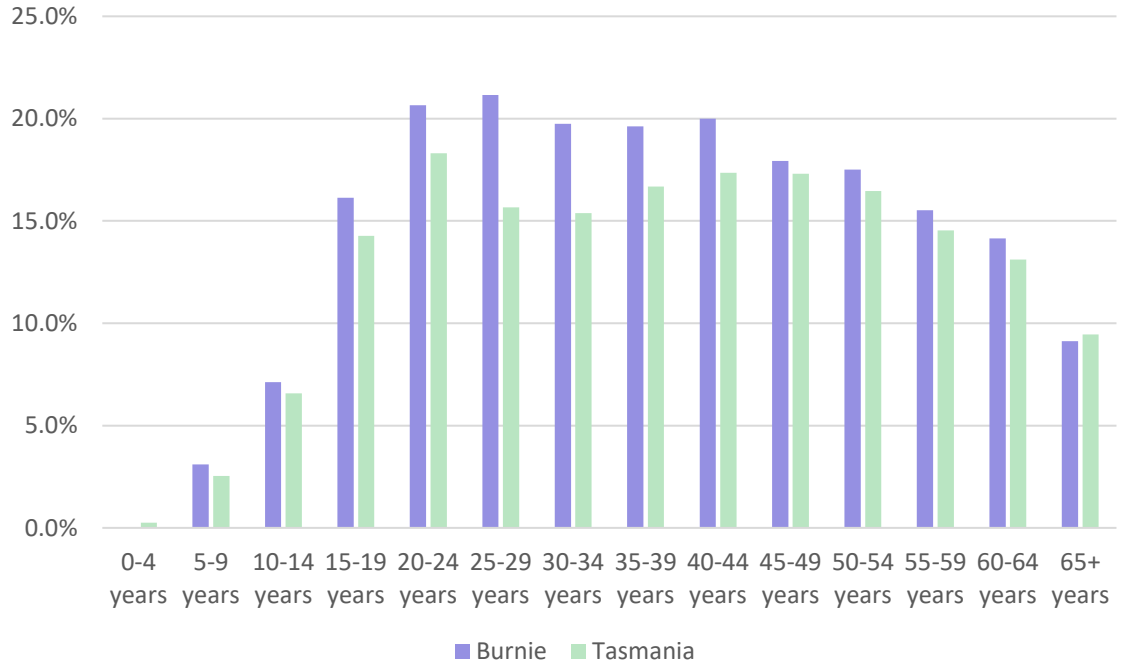
FIGURE 25: SHARE OF PEOPLE WITH A MENTAL HEALTH CONDITION 2021



Source: ABS Census 2021

Burnie's young people and adults are wrestling with poor mental health. 20-29 year olds are most likely to have a mental health condition (Figure 26). Also those between the ages of 30 to 45 years old are more likely to have a mental health condition compared to the Tasmanian average, as shown in Figure 26.

FIGURE 26: PROPORTION OF POPULATION WITH A MENTAL HEALTH CONDITION BY AGE IN BURNIE 2021



Source: ABS Census 2021

The severity of mental health appears to higher than the Australian average. Figure 27 shows 15% of Burnie's residents experience very high psychological distress compared to 4.2% across Australia. 37.7% have low psychological distress in Burnie, whilst 63.6% of Australian have low psychological distress

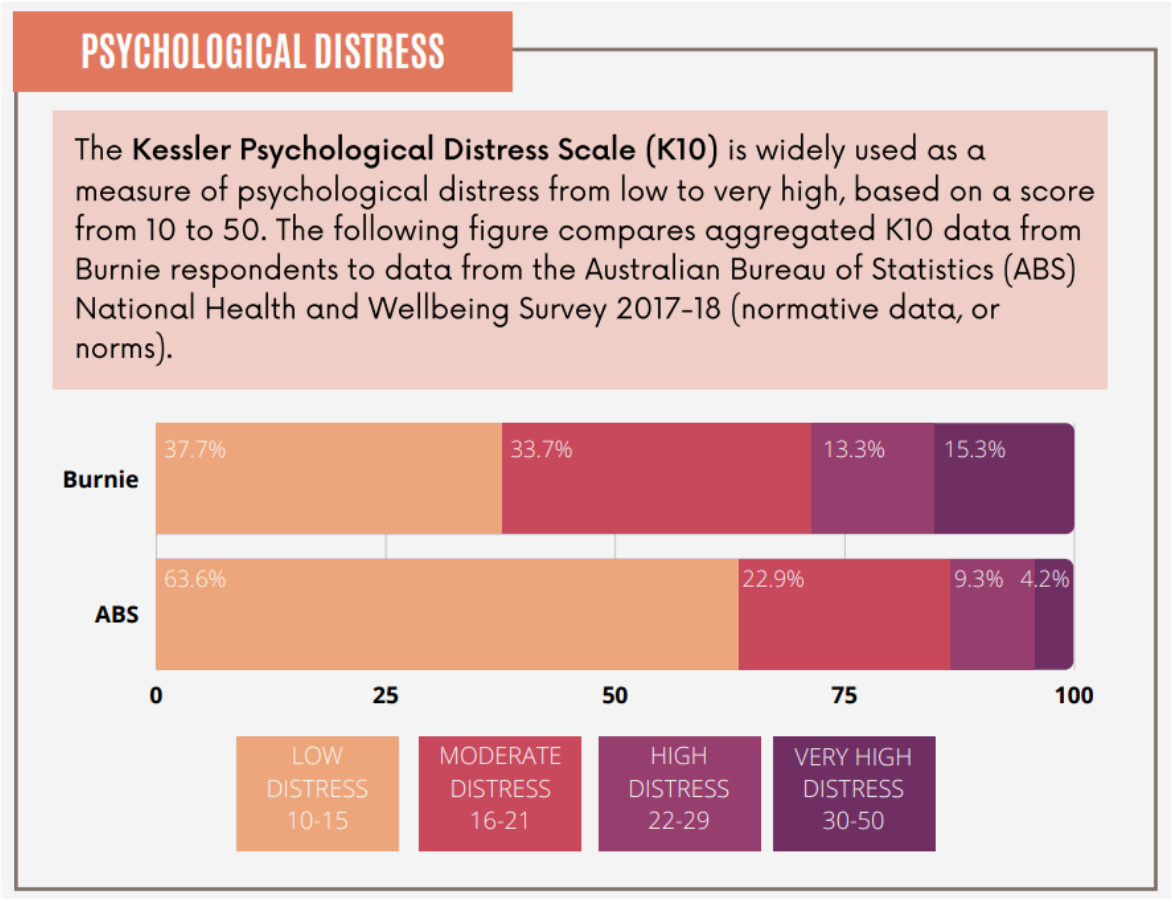
The ACDC survey identifies which are the most pressing issues for the community of Burnie that could be influencing mental health. The challenges are[18]:

- Housing
- Financial stress
- Employment
- Alcohol and drugs
- COVID-19 Pandemic
- Safety

The data suggests the continued need to address youth and adult mental health challenges in Burnie. Reducing stresses and increasing opportunities for community interactions would be potential pathways.

[18] Hooper, Yasmine., Kaleveld, Lisette., & Flatau, Paul. (2022). Community Report on the Assisting Communities through Direct Connection Survey Data: Burnie. Centre for Social Impact, University of Western Australia, University of New South Wales and Swinburne University of Technology.

FIGURE 27: MENTAL HEALTH PREVALENCE: BURNIE & AUSTRALIA 2018



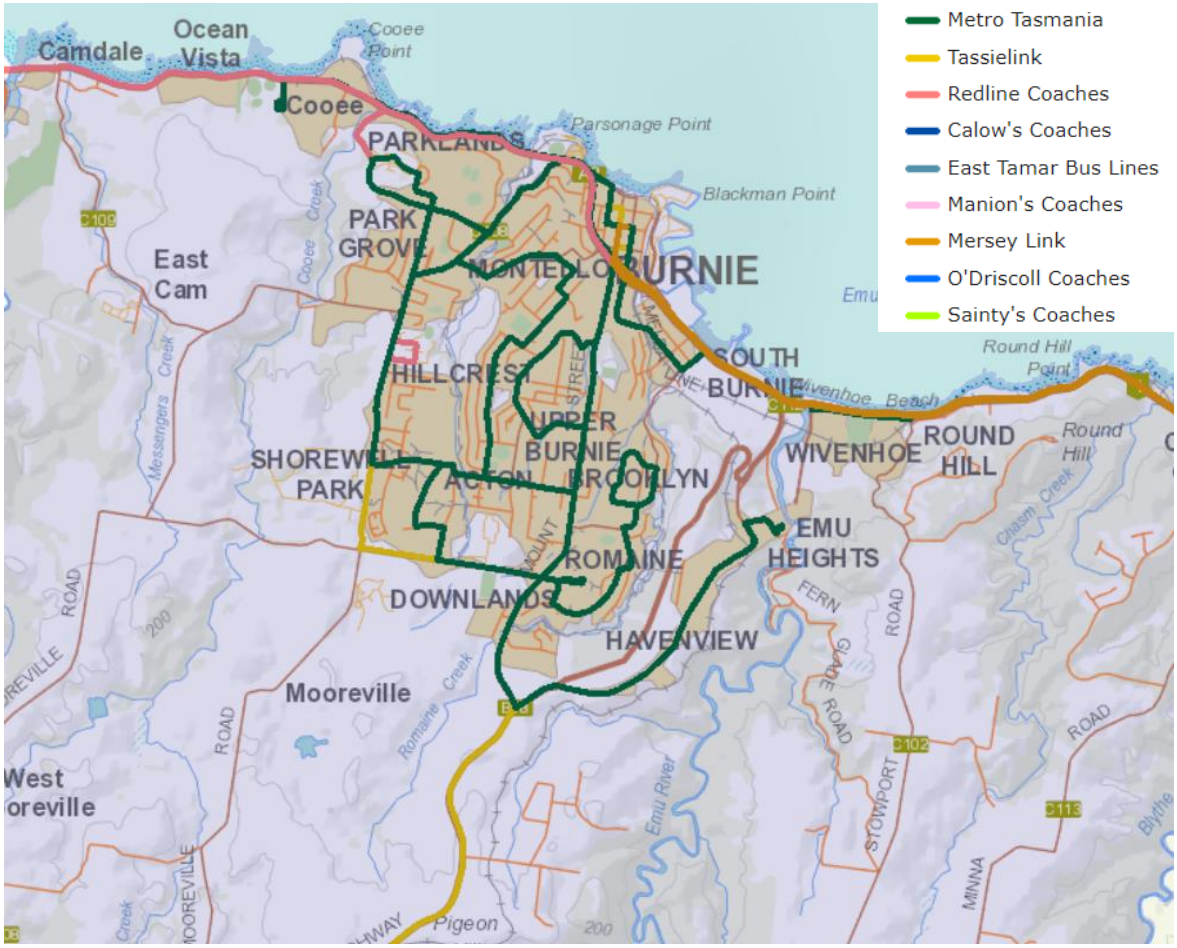
Source: ACDC Survey 2022

6. Transport

6.1 Transport network

Burnie's major transport connections are the Bass Highway, Ridgley Highway and Massey-Greene Drive. The Bass Highway provides a link to the west and the cities Devonport and Launceston in the eastern direction. Ridgley Highway provides a link through the south of Burnie to the western parts of Tasmanian. Massey-Greene Drive connects to Ridgley Highway. Figure 28 shows Burnie's public transport network. Burnie is mainly serviced by the Metro Tasmania bus service with Tassielink and Manion's coaches servicing the LGA through the main transport corridors such as Mount St, Mooreville Rd and W Mooreville Rd which all run north to south. Use of the public transport system is limited with 1.5% of residents using it as means to get to work.

FIGURE 28: BURNIE PUBLIC TRANSPORT NETWORK

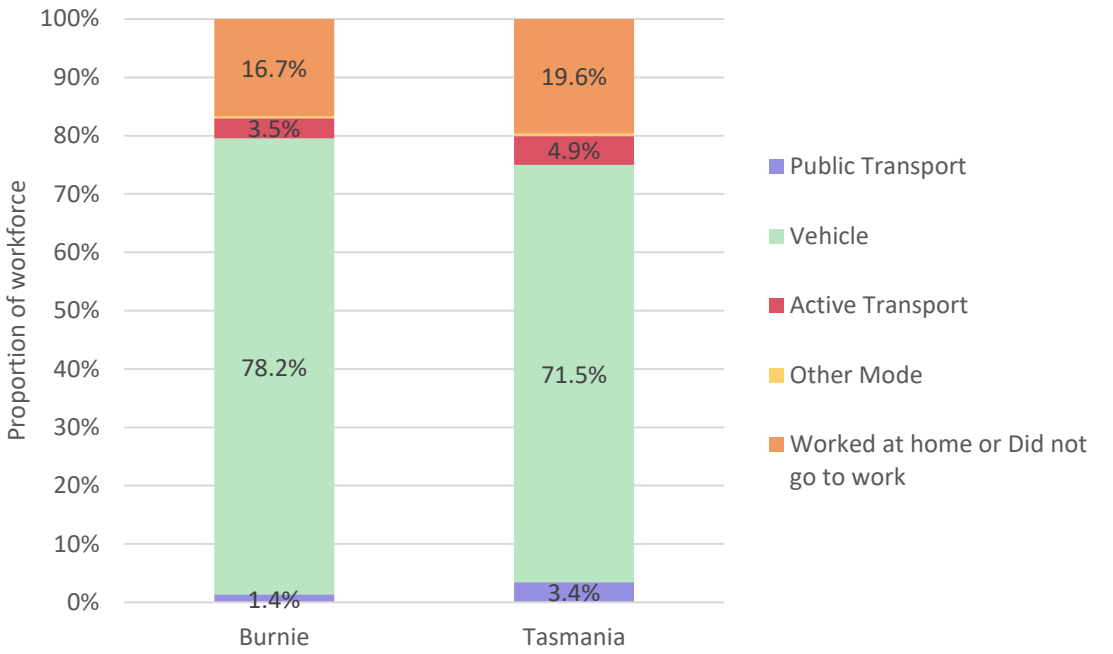


Source: Tasmania's The LIST

6.2 How people get around

Burnie's residents are car-dependent and few use active transport. Figure 29 shows the main method of travel of work is by car (78%) compared to 71.5% for Tasmania. Use of active transport (i.e. cycling and walking) to get to work is low with 3.4% of people in Burnie compared to 5% of Tasmanians. The low levels of active transport use is a reflection of historical land use development of Burnie, some of which predates modern urban planning, has criss-crossed the municipality with highways and rail lines that undermine the safety and utility of walking or cycling trails. The natural landscape compounds this issue with its mountainous topography traversed by river systems. Enabling greater use of active and public transport is pivotal to reducing greenhouse gas emissions and promoting an active and healthy lifestyle[19][20].

FIGURE 29: METHOD OF TRAVEL TO WORK BURNIE & TASMANIA 2021



Source: ABS Census 2021

[19] Xu, H., Wen, L.M. and Rissel, C., 2013. The relationships between active transport to work or school and cardiovascular health or body weight: a systematic review. Asia Pacific Journal of Public Health, 25(4), pp.298-315.

[20] Quam, V.G., Rocklöv, J., Quam, M.B. and Lucas, R.A., 2017. Assessing greenhouse gas emissions and health co-benefits: a structured review of lifestyle-related climate change mitigation strategies. International journal of environmental research and public health, 14(5), p.468.

7. Education

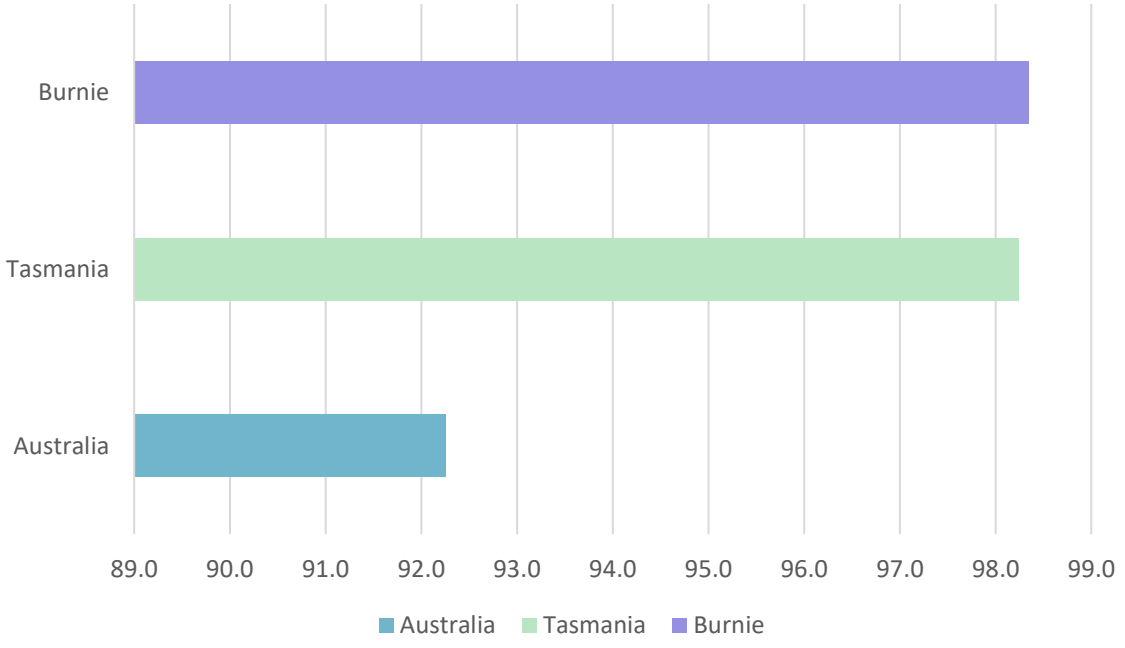
Do residents have the right skills for changing environment?

Education is vital in enabling people to engage in the labour market and post high-school education will be vital as technology and automation change the way we work; the changes are described in section 8.3. In the future, the population will need to be skilled in the types of jobs being offered which are knowledge intensive and require digital skills.

7.1 Engagement in pre-school programs

The vast majority of children in Burnie attended a pre-school program. Burnie has nine pre-schools which are non-Council run. Attendance of pre-school programs was 98.3% compared to 98.2% across Tasmania and 92.3% across Australia, as shown in Figure 30. It should be numbers measure those who go to pre-school regularly and those who do not.

FIGURE 30: PERCENTAGE ATTENDED A PRE-SCHOOL PROGRAM IN 2021: BURNIE, TASMANIA & AUSTRALIA

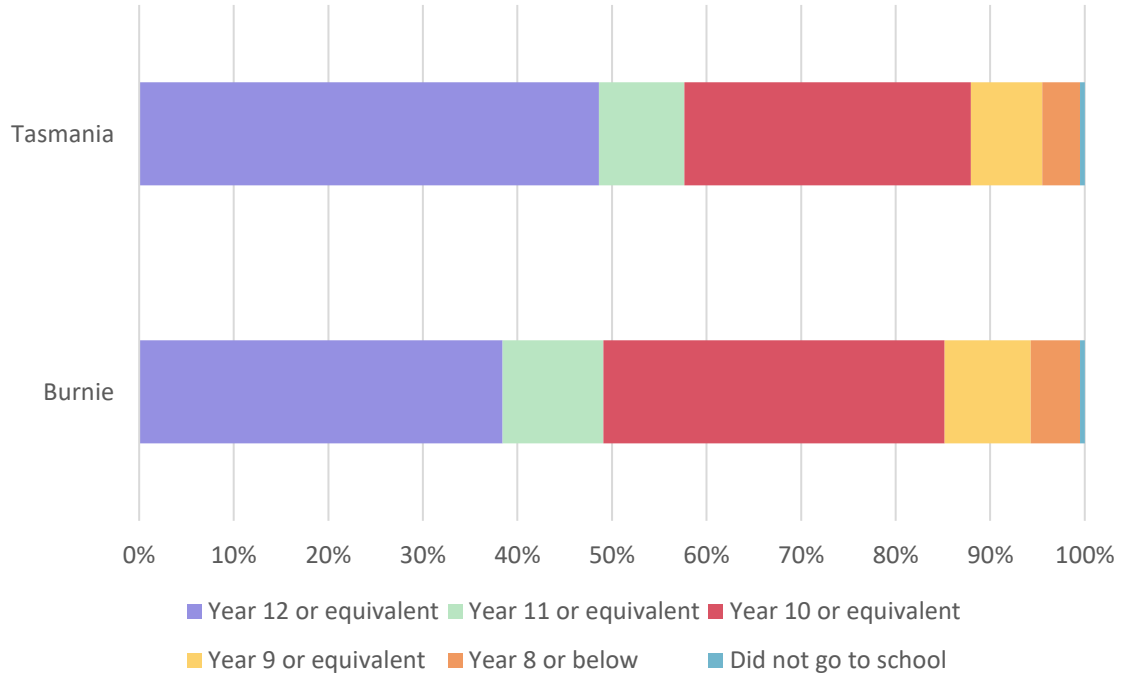


Source: AEDC 2022; SGS Economics and Planning

7.2 High school completion

Completion of Year 12 is low in Burnie as shown in Figure 31. Year 12 completion in Burnie is 38% compared to the Tasmanian average of 48%. Burnie's residents are more likely to have leave school at Year 10 (36%) compared to 30% of Tasmanians finishing school in Year 10. Leaving school at Year 9 (9.1% compared to 7.6%) and Year 8 or below (5.2% compared to 4.0%) is higher in Burnie than the Tasmanian average.

FIGURE 31: HIGHEST YEAR OF SCHOOLING COMPLETED 2021: BURNIE & TASMANIA

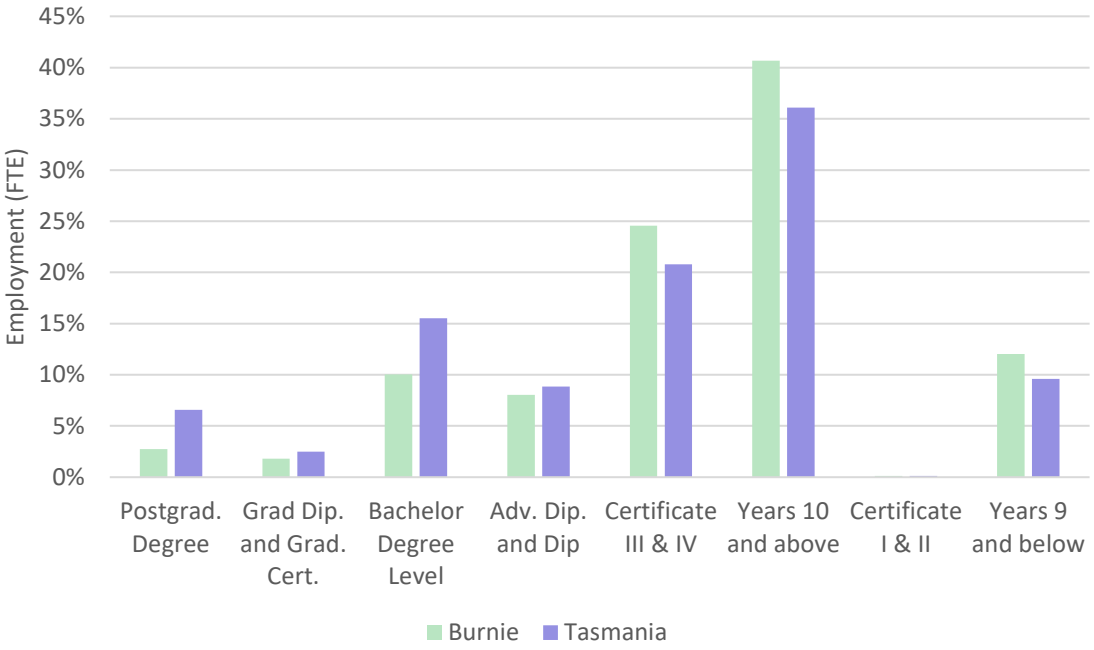


Source: ABS Census 2021; SGS Economics and Planning

7.3 Post-High school attainment

The LGA has some of the lowest post-school levels of educational attainment as shown in Figure 32. Only 9.2% of Burnie's residents have a Bachelor Degree compared to 16% of Tasmanians. Post-graduate attainment, Grad Dip and Postgraduate Degree, is lower in Burnie compared to the Tasmanian average. Attainment of Certificate III & IV is higher in Burnie than the Tasmanian average.

FIGURE 32: HIGHEST LEVEL OF QUALIFICATION IN BURNIE & TASMANIA



Source: ABS Census 2021

7.4 Opportunities for change

Access to ongoing education and training will be an important consideration in the future as jobs continue to change. The presence and development of partnerships with UTAS in Burnie would be one avenue. The expansion and relocation of the UTAS Cradle Coast Campus to West Park is anticipated to give rise to a forecast 2,000 additional students and academics including a component of international students with associated accommodation requirements. Another avenue would be TasTAFE which could provide vocational skills needed in emerging industries such as the renewables sector.

8. Economy and employment

8.1 Major Economic infrastructure and businesses

With its port and airport, Burnie serves as gateway to Tasmania's North West. Burnie is Tasmania's largest port, handling over 4 million tonnes of freight, including the largest container volumes at 54 per cent of total TEU (Integrated Freight Strategy). It is Tasmania's leading container port, moving 242 136 TEU in 2013-14. The Port of Burnie accommodates Tasmania's only minerals concentrate ship loader[21]. Owned by TasRail, and including a loader, wagon tippler, conveyance system and storage shed, the ship loader handles up to 500 000 tonnes of mineral concentrates a year[22].

The $12 million Burnie Port Optimisation Project completed in January 2016 has further improved train handling, loading/unloading activities and reduced travel congestion. It is estimated that long-term, staged upgrades can accommodate 750 000 TEU, which would meet Tasmania's total container demand for the next thirty years[23].

The Central Business precinct has a number of large retail chains including Target, Kmart, The Reject Shop, Best & Less and Cotton On. The other major businesses outside the central business precinct are other major retailers including Harvey Norman, Bunnings Warehouse, Spotlight, Godfreys and SuperCheap Auto.

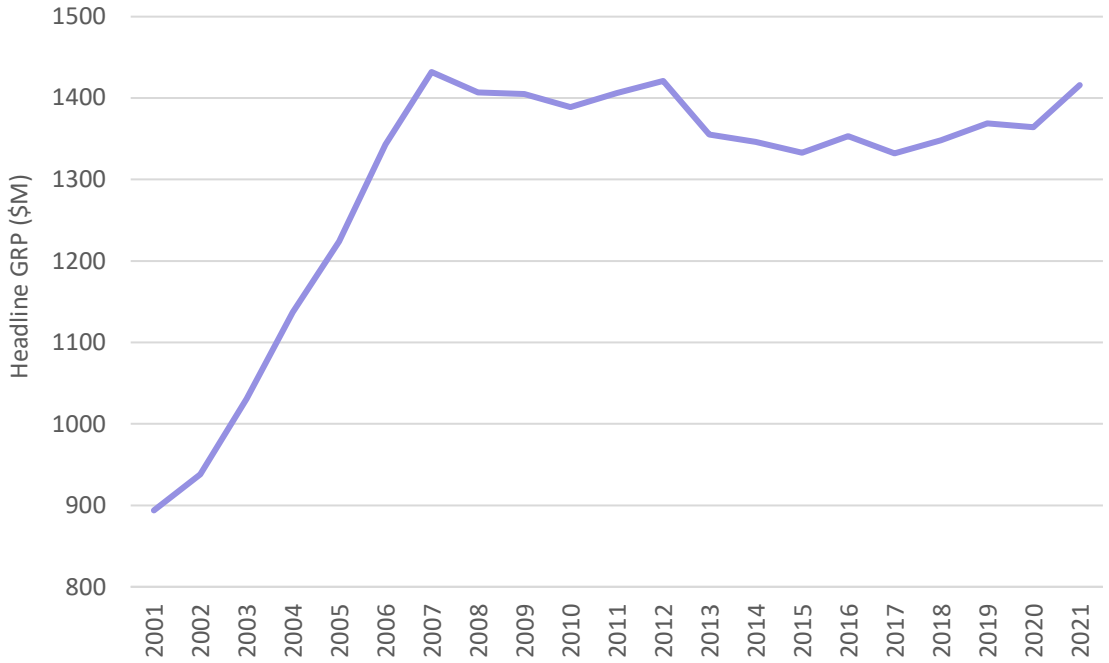
8.2 Economic Performance

How resilient is Burnie's economy?

Burnie has had limited economic growth over the last 15 years. Figure 33 shows Burnie's Gross Regional Product, which is a measurement of size or net wealth generated by a region. Burnie's economic growth was on average 1% per annum between 2010 and 2020 compared to 3% on average per annum between 2001 and 2009. In 2021, Burnie recorded the sharpest increase in growth of 3.8%. However, the growth rate was lower than the Tasmania average of 4.4%, and Burnie sharp growth was likely due to the broader macro-economy recovering from the effects of the pandemic.

[21] Burnie-Settlement-and-Investment-Strategy-2017-Update-Addendum-to-2007
[22] IBID
[23] IBID

FIGURE 33: BURNIE'S HEADLINE GROSS REGIONAL PRODUCT FROM 2001 TO 2021



Source: National Institute of Economic and Industry Research, 2021

It can be also observed that Burnie's GRP growth rate has experienced more fluctuations than that of Tasmania over the past 20 years. However, it appeared to decline significantly from 2008 onwards after the Global Financial Crisis and the growth rate is yet to reach the heights of pre-2008. However, the trend shows the economic growth is going upwards.

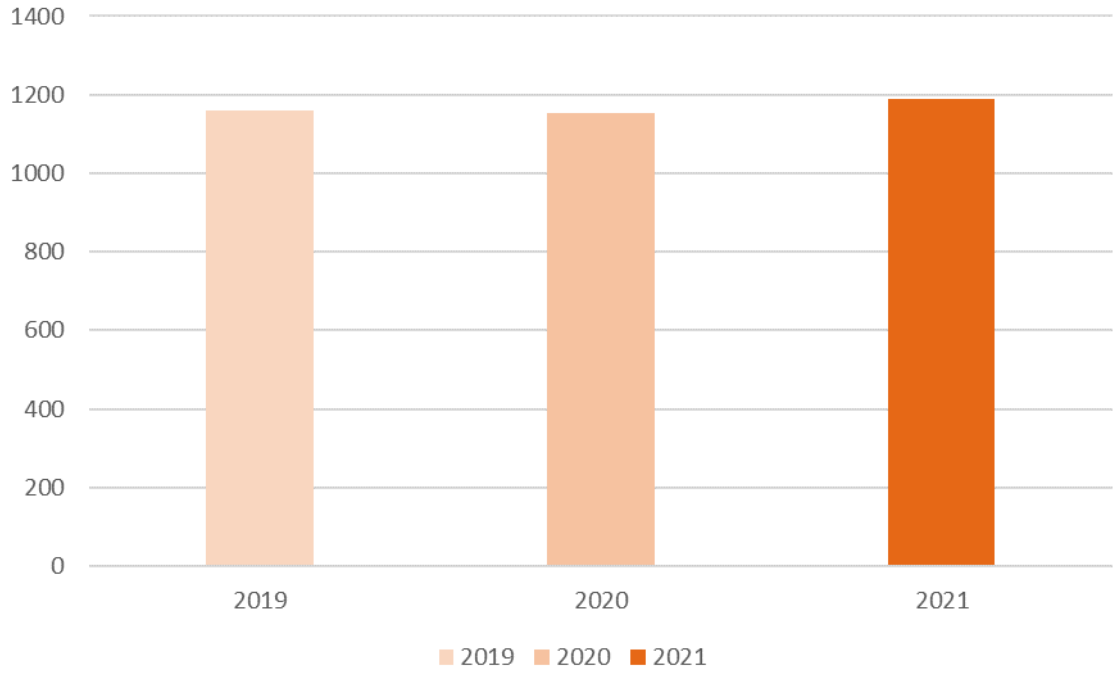
FIGURE 34: GROWTH RATE OF BURNIE AND TASMANIA'S HEADLINE GRP

Source: National Institute of Economic and Industry Research 2021

Are businesses investing in Burnie

Figure 35 shows more businesses are coming into Burnie. The number of businesses in Burnie increased from 1,152 in 2020 to 1,188 in 2021. The annual change in business counts was 3.1% between 2020 and 2021. The main industry that saw an increase in businesses was the Construction which saw an increase from 161 in 2020 to 175 in 2021. The increase was likely largely driven by State and Federal government incentives to support the housing market.

FIGURE 35: COUNT OF BUSINESSES BURNIE 2019 TO 2021



Source: ABS Census 2021; SGS Economics and Planning

The increase in businesses could be larger in Burnie if scenarios S1 or S2 eventuate. Larger businesses coming to the region would create demand for more goods and services that could result in an increased number of small to medium sized businesses starting up to support larger enterprises and increased population. Figure 36 shows some recent announcements of potential ventures that could happen around Burnie. The primary consideration for Council is enabling space for those businesses to establish within Burnie.

FIGURE 36: NEWS HEADLINES OF POTENTIAL MAJOR PROJECT IN NORTHERN TASMANIA

AFR

Porsche-backed e-fuels maker to build $1b Australian plant

The plant, to be located south of Burnie in the north-west of the ... and is combined with the green hydrogen to produce synthetic methanol,...

8 July 2022

Tasmanian Times

Labor Energy Promises: 'Community Battery' for Burnie, Support for Whaleback Ridge

The feasibility study will look at challenges facing the development of a green hydrogen industry, including environmental sensitivities.

11 May 2022

Source: AFR; Tasmanian Times

8.3 Changing nature of work

The future of work is changing and four key trends identified by UTAS summarise the broad macro-changes that will shape the nature of work. Some of these factors have occurred as a result of COVID whilst some trends have been accelerated by the pandemic. These four trends are:

- Acceleration of digitisation and technology in the workplace
- Economic restructuring and increasing inequality
- Changing patterns of migration and labour shortages
- Accelerating enterprise creation and new forms of work

Acceleration of digitisation and technology in the workplace

Digital skills and infrastructure will be in more demand as workplaces push forward the digitisation and automation of several work aspects. Increased digitisation will increase the likelihood of workers working in the regions and connecting remotely with their colleagues. Literacy in digital skills will become paramount for people to participate in the labour market.

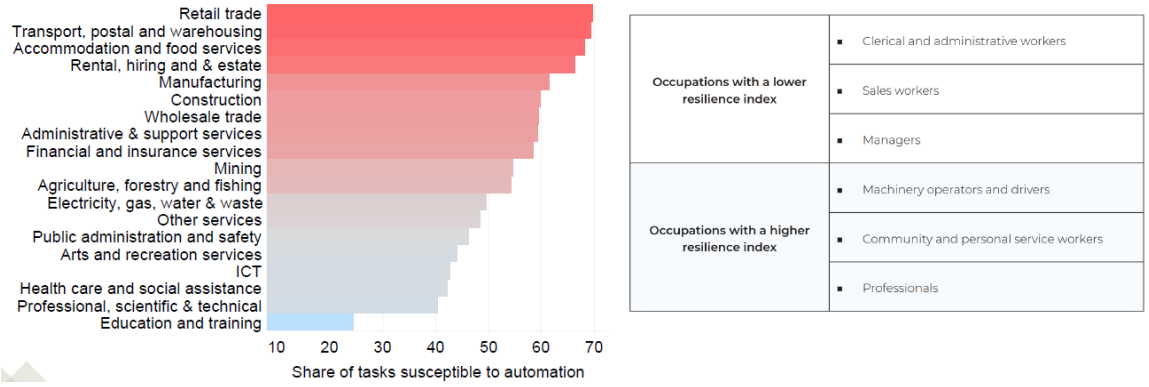
The mix and nature of businesses will change within commercial precincts. There will be a greater divide between business that require work being on-site versus being conducted remotely. This opens the opportunity to shape and transform retail and commercial precincts to suit the way residents want to interact and connect within the central retail and commercial precinct.

Economic restructuring and increasing inequality

COVID-19 has restructured the economy with key industries in Tasmania such as tourism and health and education being subject to long-term changes. The level and type of tourism has changed as a result of the pandemic with more local travellers supporting the industry. Work opportunities in technology driven sectors will likely increase in particular business and finance professionals, logistics specialists, construction, and health and community care workers[24]. Increased digitisation of work may increase inequality amongst those who have limited skills in digital literacy who will not be able to access higher paying jobs that are heavily technology dependent. Figure 37 shows the industries and occupations with the highest exposure to technological change.

[24] UTAS, 2021, COVID-19 and the Future of Work in Tasmania https://www.utas.edu.au/__data/assets/pdf_file/0008/1475567/Future-of-work-final_02092021.pdf

FIGURE 37: EXPOSURE OF AI BY INDUSTRY AND OCCUPATION



Source: UTAS 2021 COVID-19 and the Future of Work In Tasmania

Changing patterns of migration and labour shortages

Tasmania continues to face challenges in attracting skilled workers and efforts need to make to increase the participation and retention of young people and skilled migrants. Economic growth within Tasmania will need to be inclusive to enable retention of these groups.

Accelerating enterprise creation and new forms of work

With a crisis like a pandemic, the reshaping of the way the world works opens opportunities for the creation of new enterprises. The ability to work remotely, the need to solve problems caused the crises and emergence of new businesses to replace those that shutdown are driving the creation of new businesses. In addition, the gig economy has become more prominent but still poses challenges in providing secure work above the minimum wage.

8.4 The labour market

Engagement in the labour market

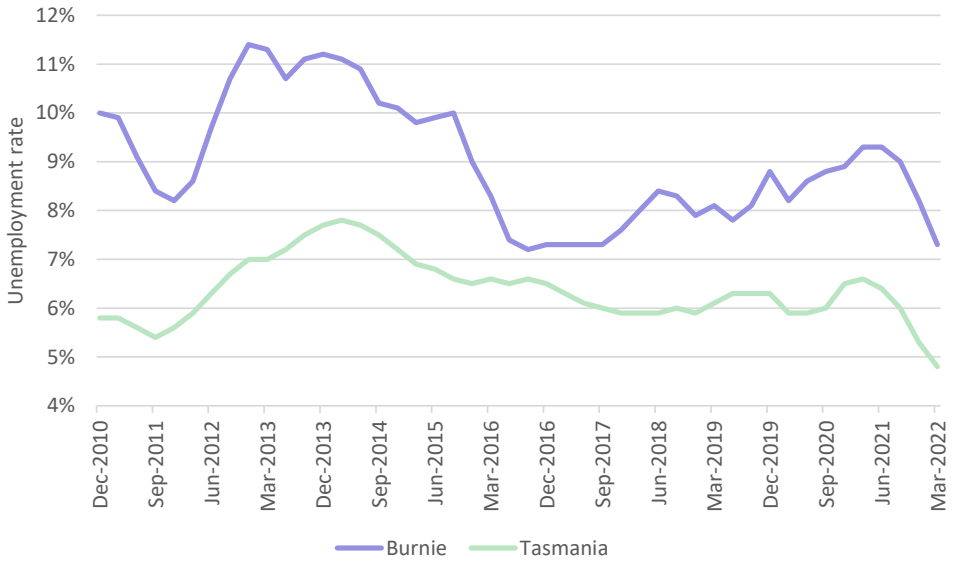
According to the ABS Census 2021, 9,291 people participate in the labour market, that is 57% of Burnie's residents. For comparison, 58% of people in Tasmania participate in the labour market[25]. The number participating in the labour market increased by 883 people between 2016 and 2021[26]. 8,731 of Burnie's residents were employed in 2021. Between the 2016 and 2021 the number of people employed increased by 1,068 people[27].

Unemployment is high in Burnie. About 7% Burnie's residents are unemployed compared to 5% across Tasmania as at the March quarter 2022. Data on the unemployment rate from 2010 to 2022 shows Burnie's unemployment rate has sat higher than the Tasmanian unemployment rate, as shown in Figure 38. The labour shortages associated with COVID-19 have caused unemployment to fall to record lows

[25] Profile ID
[26] ABS Census 2021
[27] ABS Census 2016 & 2021

across Australia, and this is evident in Burnie as well, with the unemployment rate declining between 2021 and 2022.

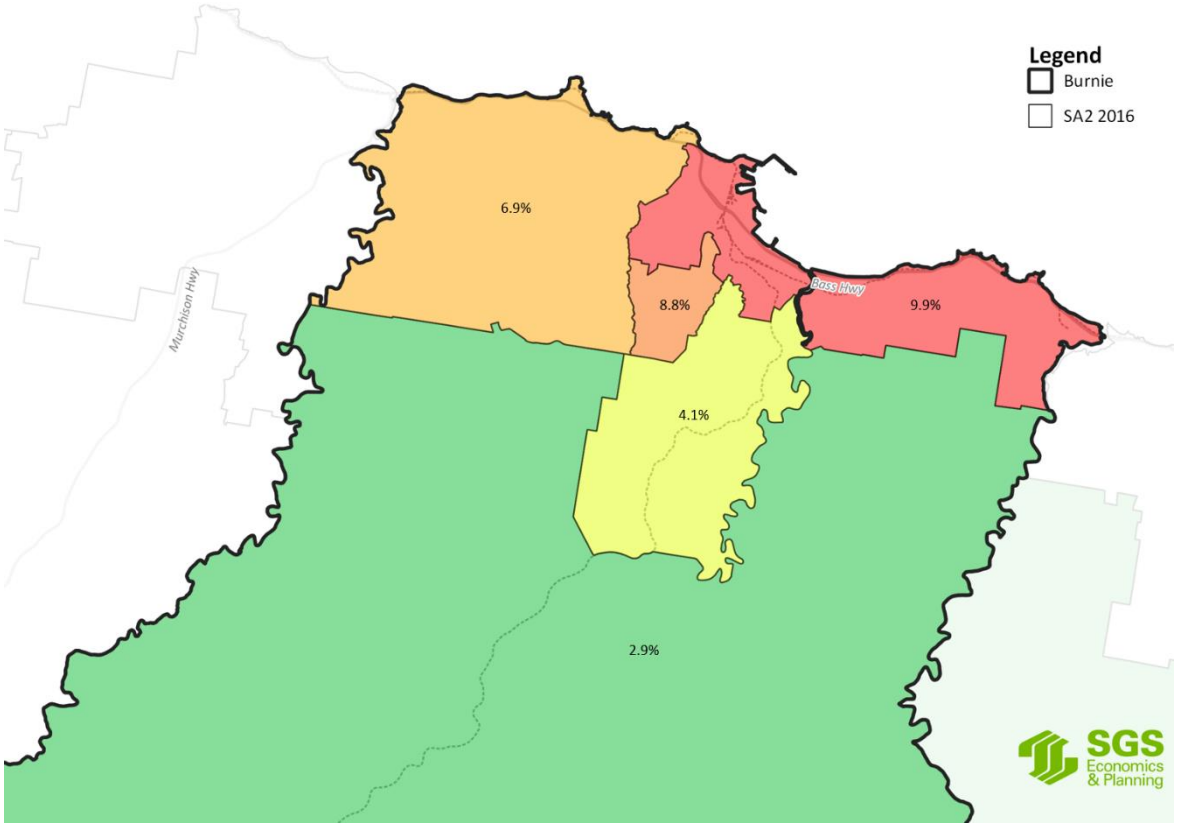
FIGURE 38: BURNIE'S UNEMPLOYMENT RATE FROM 2010 TO 2022



Source: National Institute of Economic and Industry Research, 2021

Figure 39 shows unemployment at an SA2 level using data from the National Skills Commission. Each SA2's small area unemployment figures were at least 1.5% lower than their 10 year average to June 30, 2022. A concern remains that the areas with the highest unemployment are also those of with the highest population, where retail and services are concentrated, along the coast. In particular, they are experiencing significantly higher than national figures of unemployment, up to 9.9%, indicating that even with the reduction in labour supply, Burnie residents are still finding it difficult to find work.

FIGURE 39: BURNIE UNEMPLOYMENT RATE BY SA2



Source: National Skills Commission; SGS Economics and Planning, 2022

Youth unemployment has long been a concern for northwest Tasmania, with the University of Tasmania research placing Burnie near the top of the list in the nation for the worst hotspots at 17.8% youth unemployment[28]. Participation rates are also considerably lower in the Cradle Coast than the rest of Tasmania.

Figure 39 contrasts with Figure 43 which shows the number of employed people in the same geographies. The 3 zones with the highest unemployment from Figure 39 are also the three zones with the highest numbers of employment from Figure 43. Despite the concentration of employment along the coast, there are still people looking for work in these regions. A spread of employment into the residential and rural land further south of the Burnie CBD could unlock job matching opportunities that may reduce Burnie's persistently high unemployment.

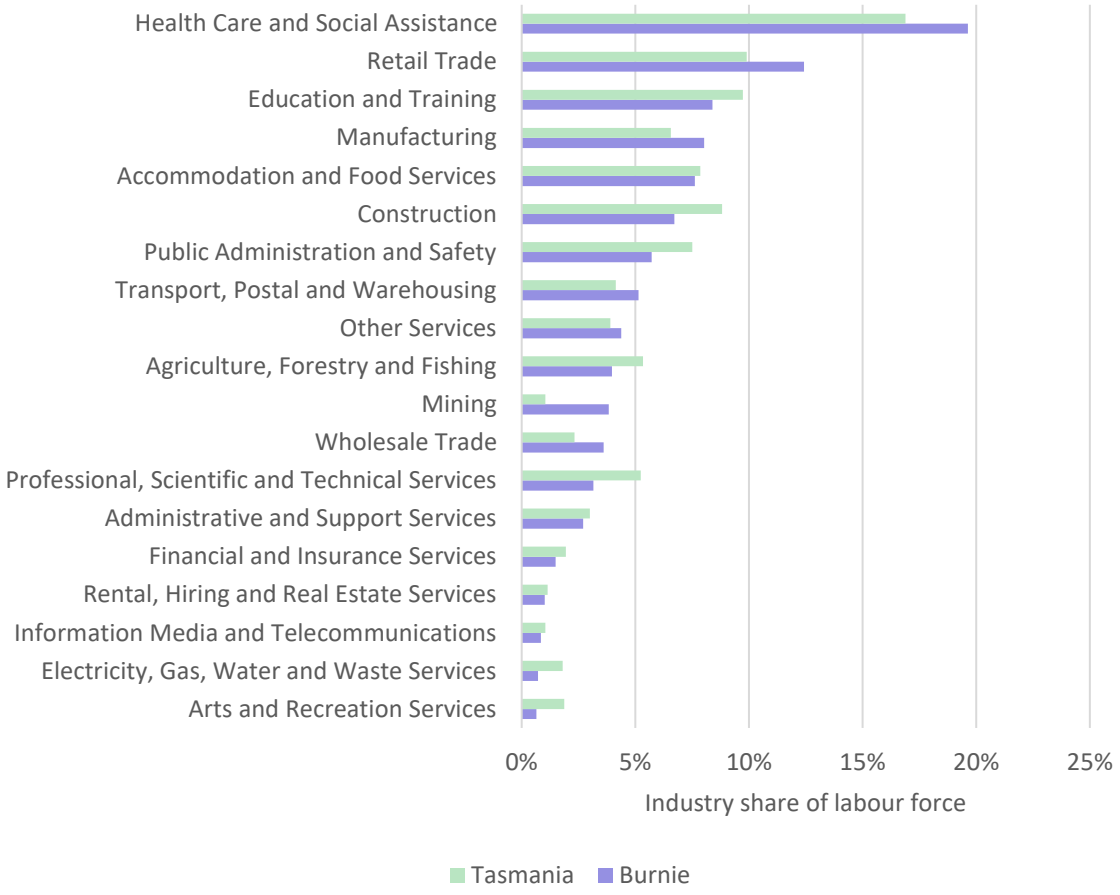
What do people do for work?

Burnie's key employment industries are Healthcare and Social Assistance, Retail Trade, Manufacturing and Education and Training as shown in Figure 40. All these industries are being transformed by increased digitisation, automation and changing dynamics. The increase in the share employed in the

[28] Vespignani, J. and Yanotti, M., 2020. COVID-19 and Tasmanian Youth Unemployment: A Policy Recommendation. *Tasmania School of Business and Economics*, (Discussion Paper Series N 2020-07).

Health Care and Social Assistance industry is reflective of the ageing population who require more health services as they age. Manufacturing is still a strong employer in Burnie and it is likely the share of people employed in this industry will increase as jobs from Marinus Link and other renewable energy projects come into the Northern Tasmania. A high share of people in Burnie work in the mining sector (4.4% of persons) compared to the Tasmanian average (1.1% of persons). A significant share work in the mining industry in Waratah-Wynyard and West Coast.

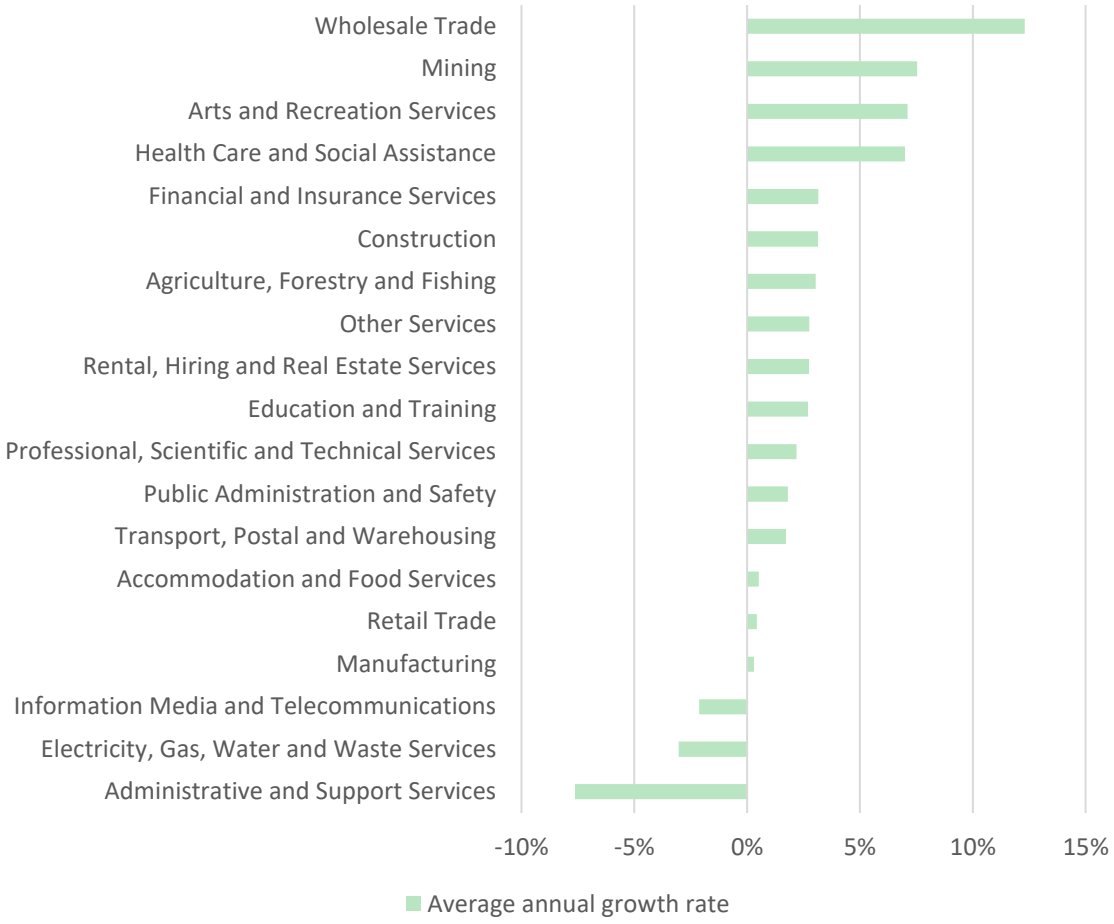
FIGURE 40: KEY INDUSTRIES: EMPLOYMENT SHARE BY INDUSTRY FOR BURNIE AND TASMANIA 2021



Source: ABS Census 2021; SGS Economics and Planning

More people are finding employment in the Wholesale Trade, Mining, Health and Social Assistance and Arts and Recreation sector. Figure 41 shows job growth by industry. Wholesale Trade had an average annual growth rate of 12% per, Mining had an average annual growth of 8%, Healthcare and Social Assistance (7%) and Arts and Recreation Services (7%). People are getting less jobs in the Administrative and Support Services (-8% average annual growth rate), Electricity, Gas, Water and Waste Services (-3%) and Information Media and Telecommunications (-2%).

FIGURE 41: JOB GROWTH IN BURNIE BY INDUSTRY BETWEEN 2016 AND 2021

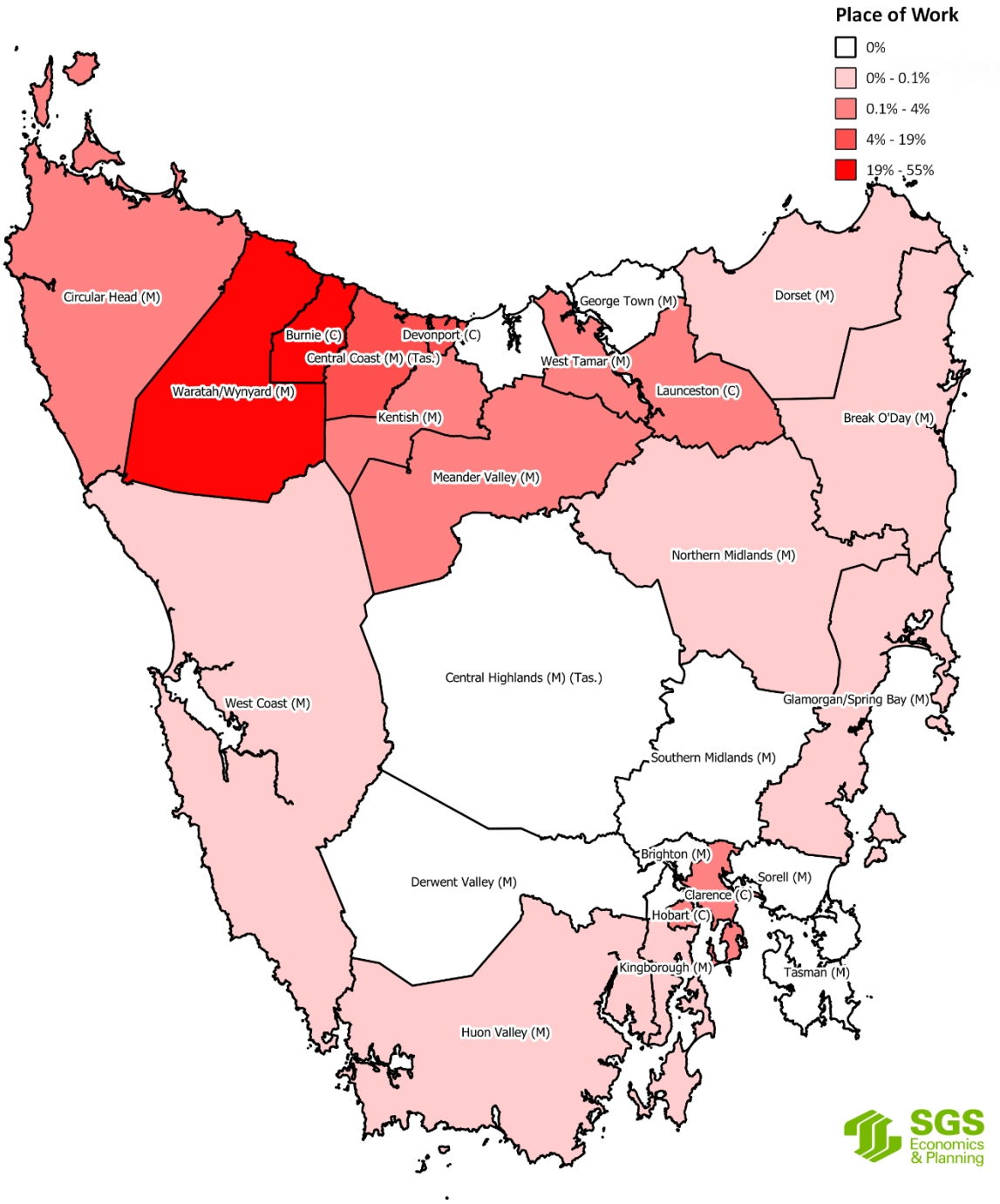


Source: ABS Census 2016 and 2021

Where do people work

About 47% of Burnie's workforce travels outside the LGA for work A significant share work in neighbouring LGAs as shown in Figure 42. In particular Waratah-Wynyard (20.2% of persons with many working in the health and mining sector), Central Coast (17.5% with the majority working in the health and construction sector) and Devonport (4.6% of persons with many working in the health, construction and logistics sector) have a high share of workers coming from Burnie.

FIGURE 42: WHERE RESIDENTS OF BURNIE WORK: SHARE OF WORKERS BY LGA

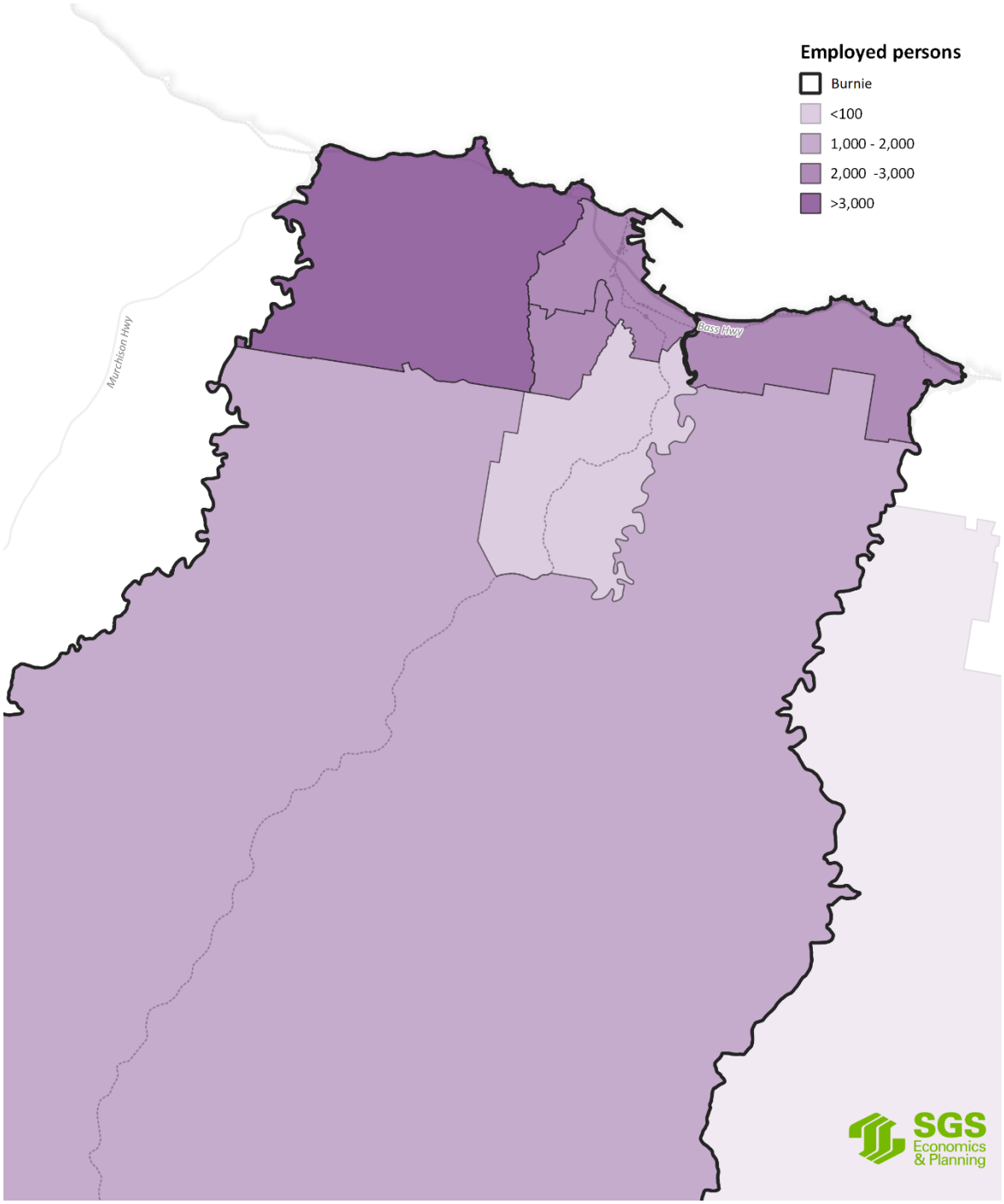


Source: ABS Census 2021; SGS Economics and Planning

Fifty-three per cent of Burnie's residents work within the LGA. Burnie is a major port for Tasmania, and thus much of its employment has historically, and continues to be centred around its coastline, as shown in Figure 43. South Burnie, where the Burnie Paper Mill used to operate remains a key area of employment despite the closure of the mill. In this area and around the Burnie Port, which was traditionally a manufacturing precinct, the majority of Burnie's retail now resides. Surrounding suburbs

along the coast such as Wivenhoe, Hillcrest and Montello are primarily residential now. And the same can be said further south, as agricultural land gives way to residential land. Further to the west along the coast, in Cooee, the North West Regional Hospital is the centre of another, smaller hub of employment, while just beyond this, there is more farmland.

FIGURE 43: WHERE PEOPLE WORK WITHIN BURNIE; 2021



Source: DSpark 2021: SGS Economics and Planning

The majority of Burnie's labour force is employed on the two SA2's along its northern shore according to DSpark data. DSpark is a mobility dataset which uses phone signals to geolocate individuals and can derive a place of work for those in the dataset. The place of work of an individual in the dataset is derived from their behaviour, such as travelling to the same region every weekday during work hours. While it is capable of deriving this information even for those with non-traditional work hours, it cannot pick up on the employment locations of people who, for example, work from home, or who's job location is mobile, such as a bus driver or tradesperson who works in different locations. Thus, this data is only an approximation of the true numbers of employed people in each region shown in Figure 42.

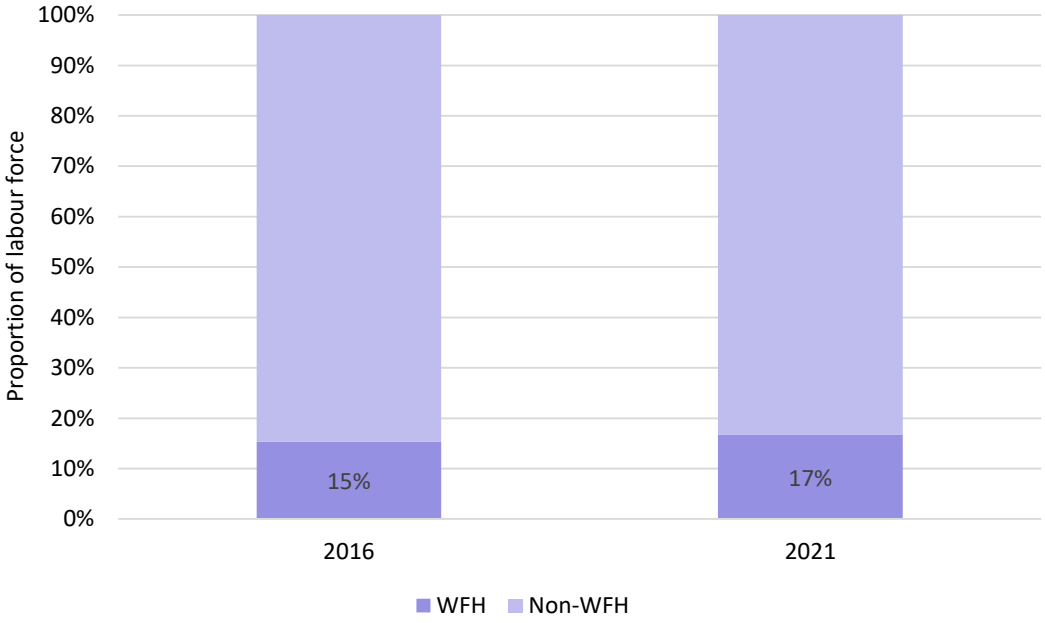
The most prominent region of employment is in the Parklands area in the municipality's Northwest, while Wivenhoe, which straddles the rest of Burnie's coastline is next. Acton, just inland is also a prominent employer, while further inland, the suburb of Romaine has very few individuals in the dataset with derived work locations in this area. The rest of Burnie is encompassed by the Ulverstone SA2 which also extends predominantly into Central Coast, so the numbers of employed people in this region are likely not all from within the Burnie municipality. As the largest SA2 in terms of geography, these employment numbers would also likely be sparsely spread. Figure 43 demonstrates that there is a concentration of employment along and near the coast.

Working From Home is on the rise

The way the residents of Burnie work has changed with more people working from home. The share of people WFH in Burnie has increased from 15% in 2016 to 17% in 2021, as shown in Figure 44. The share WFH is lower than the Tasmanian average in 2021 of 19.6%. Though the change in people working from home is modest compared to metropolitan cities such as Melbourne and Sydney where 1 in 4 people are WFH[29]. The share of people working from home in Burnie is slightly higher than other regional cities that have 1 in 8 people WFH[30]. The share of people WFH could grow with increasing digitisation causing more workers to adopt hybrid ways of working. Burnie's key industries may not see that shift because of the nature of the jobs in those industries. However, in industries more suited to hybrid work, this form of work arrangement will become more commonplace.

[29] https://www.abs.gov.au/media-centre/media-releases/2021-census-25-million-people-working-home-census-day
[30] IBID

FIGURE 44: SHARE OF PEOPLE WORKING FROM HOME BURNIE 2016 AND 2021



Source: ABS Census 2021; SGS Economics and Planning

9. Community services and infrastructure

Increasing costs of infrastructure, skill shortages, climate change and the limited funding options for councils is impacting the scope and quality of service and infrastructure delivery[31]. As local government tends to be the 'provider of last resort', Councils play an important role in ensuring the wellbeing of a local community. Dependent on the level of growth induced by scenarios S1 and S2, and whether there is an undersupply of services and facilities, there may be need for new community services and infrastructure within Burnie.

How can Council ensure the community get the services it needs?

Access to community infrastructure and services is fundamental to community health, wellbeing and economic prosperity. The first step in delivering appropriate social and community services is to understand current and future population, needs, existing infrastructure, and supply and demand. This should be understood at a regional, district, and local level.

Councils are a key stakeholder in the delivery of community infrastructure and services along with State Government, Federal Government, and the private sector. Councils have a role in understanding the broader infrastructure needs as well as the development of specific service and infrastructure plans to support community needs. These include areas such as open space strategies, arts and cultural strategies, and recreation strategies.

9.1 Profile of community services and infrastructure

Burnie is well endowed with cultural and recreational infrastructure. It is also the hub for the Cradle Coast region, providing a full range of health, education, community, and commercial services. The civic precinct encompasses the City's Town Hall, theatres, function rooms, gallery buildings, Pioneer Village Museum, regional library, and Senior Citizens Centre. Burnie's ageing population is anticipated to increase demand for health services and age-appropriate housing options including more independent and assisted living units. Council also manages 450kms of road network.

Youth Services

Burnie provides several programs of youth services, predominantly in the education sector. The Dream BIG program assists grade 5 students to develop their post-school futures. The Burnie Youth Council is a primary and secondary school program in which students can become youth councillors and gain an understanding of how local government works. For both of these programs, Council collaborates with a community collective called Burnie Works. Council also provides educational development support through bursaries to encourage students to pursue tertiary education.

[31] DPAC, 2022, Future of Local Government Review, Stage 1 Interim Report.

Public Health

The state government provides coronavirus vaccination and testing facilities, administered by the Council. School-based vaccination programs are undertaken by council on behalf of State Department of Health. The Council also maintains a register of food businesses and conducts annual food safety inspections in line with health regulations. The Council provides animal management services, responding to callouts and collecting dogs for reclamation.

Cemeteries

Council owns three cemeteries in the municipality which it manages, one of which is open to new burials, while the other two are traditional memorial sites.

Future service and infrastructure need

With population projected to grow and the demographics of Burnie changing, there may be a need to reassess what services and to what level they need to be provided. Future services and infrastructure need will likely be higher and more evident under scenario S1. Scenario S2 might induce small increase in service and infrastructure need. Scenario S3 might result in the mix of services needing to change. Whether there is need for more services or an adjustment in the services provided, Council will need to conduct the relevant needs assessments.

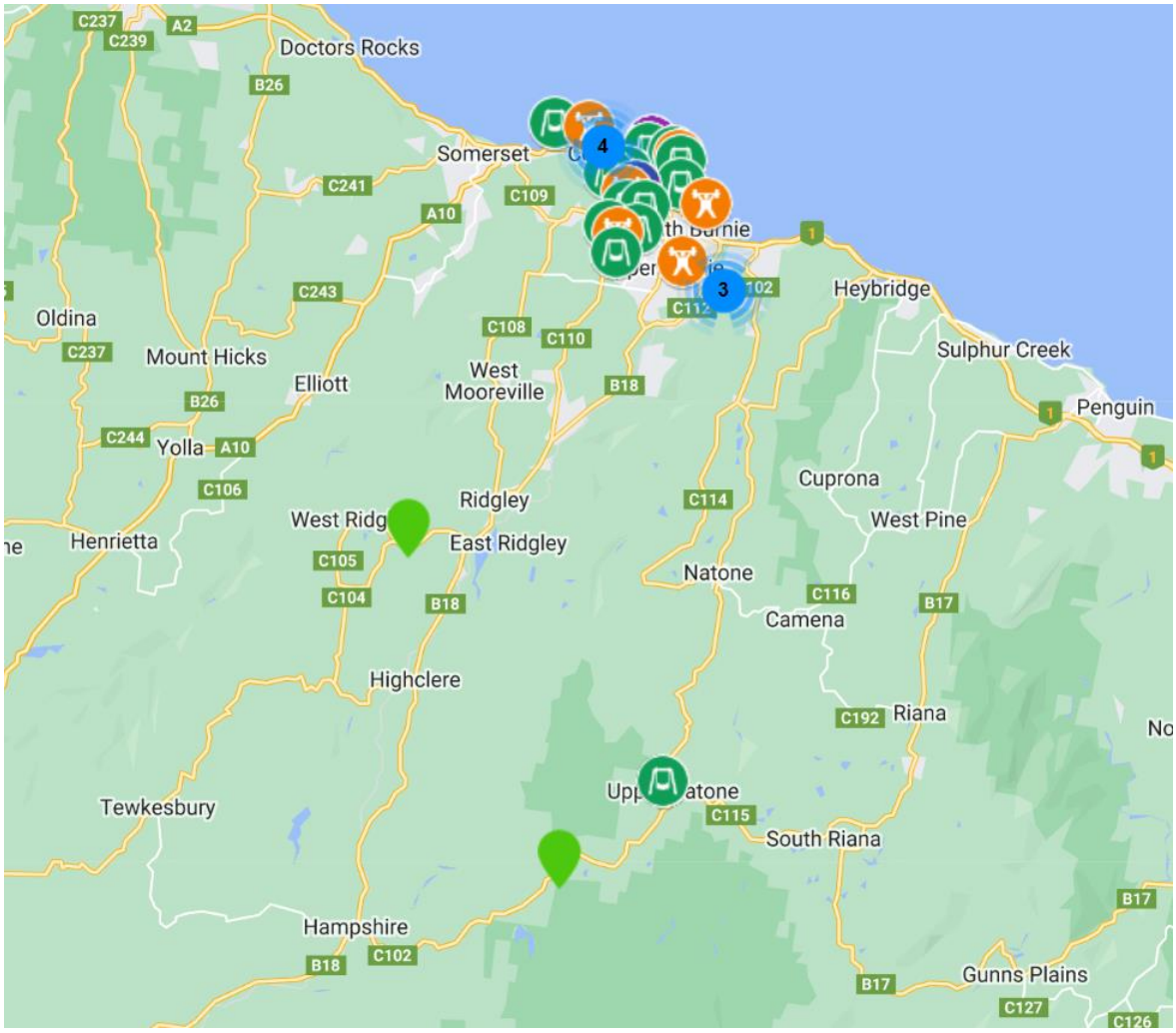
10. Open space and recreation

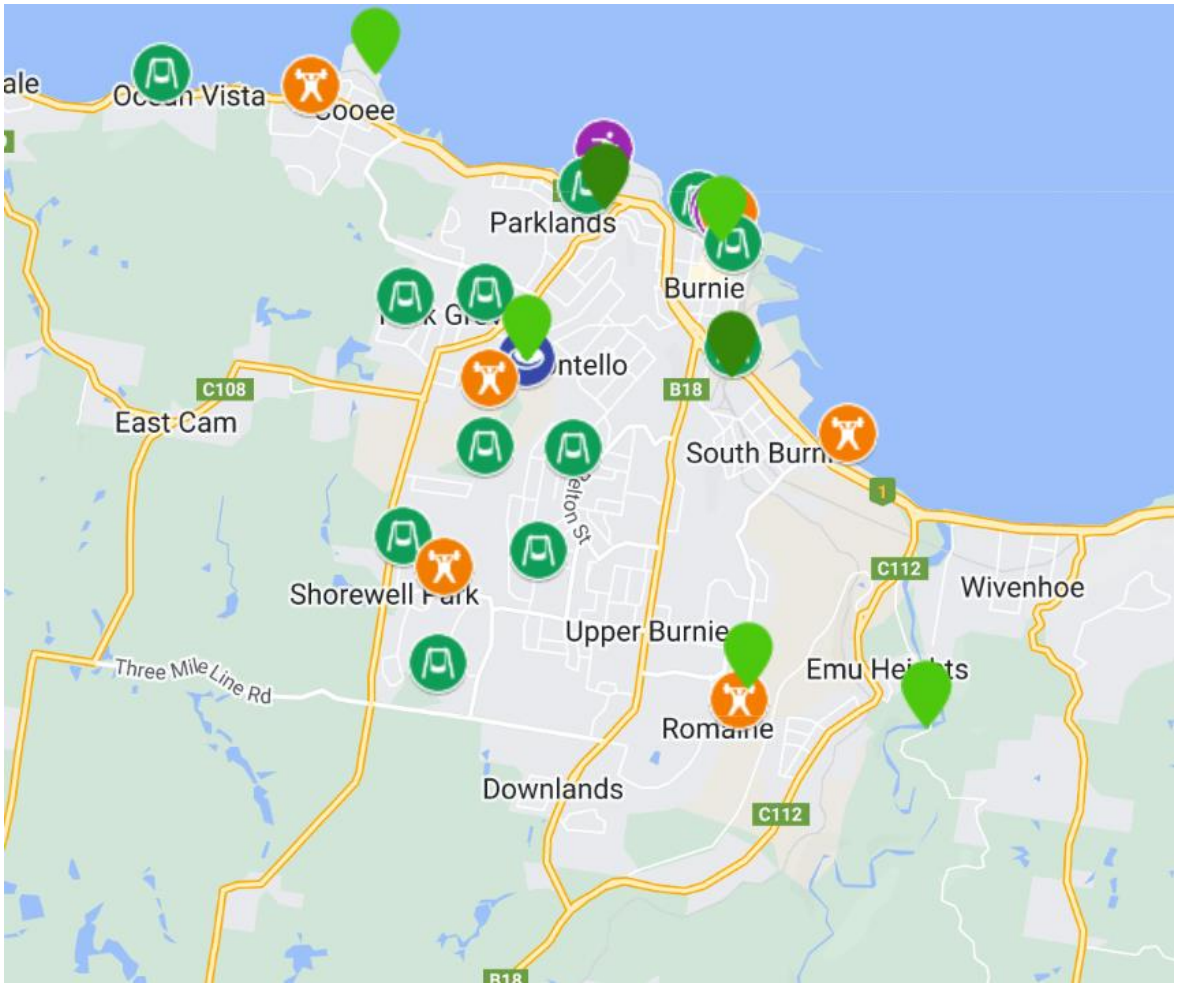
Burnie's open space development strategy was adopted in 2010, which was developed out of the Cradle Coast Regional Open Space Plan 2009 and intended to respond to the changing demands of residents regarding open space and active transport. The latter document projected the need to meet demand for walking and cycling trails close to residential zones to promote accessibility, provide a safe environment for on-road cycling, and facilitate dog-walking. The Cradle Coast Regional Open Space Plan 2009 also identified gaps in the provision of open space and active transport.

Places to play and connect

Burnie has a range of recreational and open spaces. The primary places include Burnie Park, Cooee Beach, Fern Glade Reserve, Guide Falls, Oakleigh Park, Romaine Reserve, Upper Natone Forest Reserve, View Road Reserve, Oldaker Falls, Cooee Point Reserve, South Burnie Foreshore Esplanade and Burnie Waterfront. Most of the recreational and open spaces are around the city centre and residential areas as shown in Figure 45.

FIGURE 45: RECREATIONAL AND OPEN SPACES BURNIE

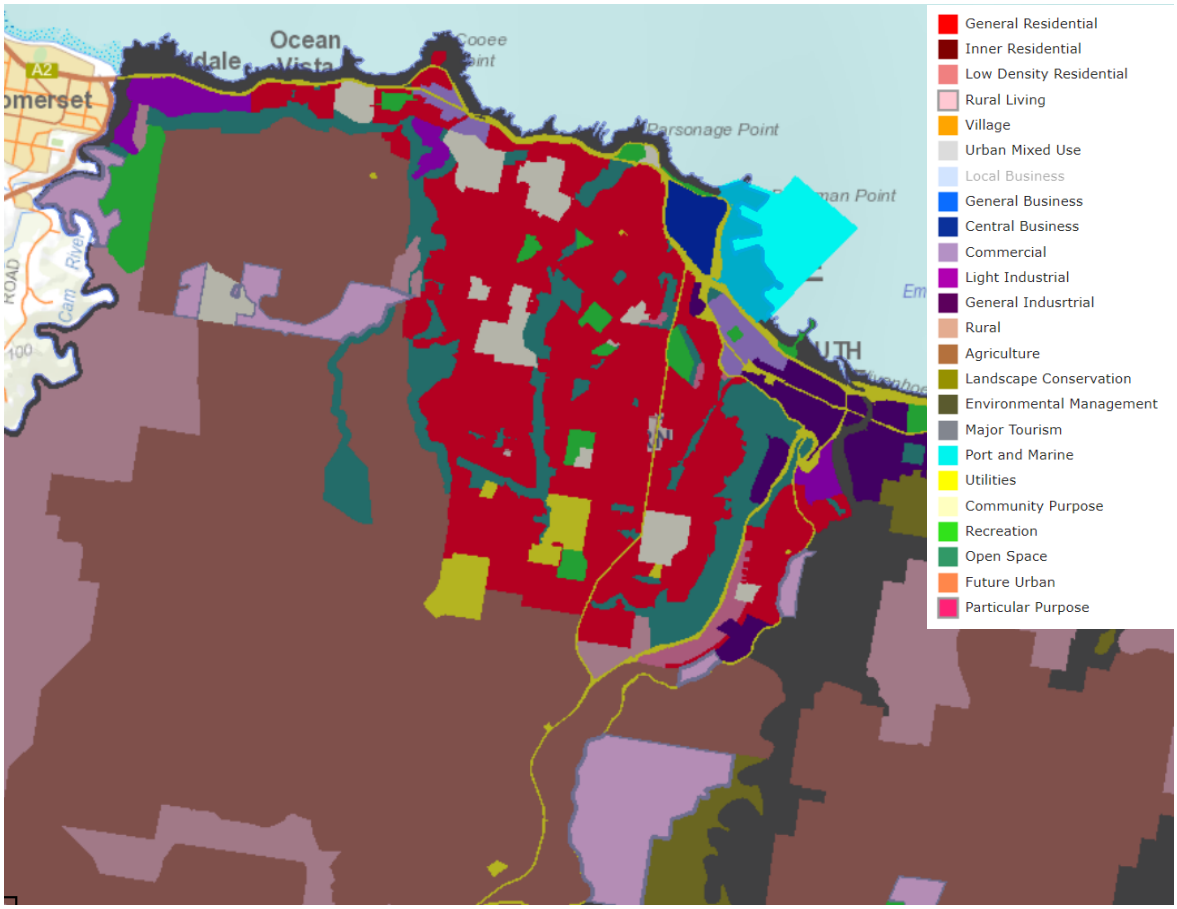




Source: Burnie City Council

Figure 46 also shows open and recreational space within the LGA based on zoning. Recreational spaces are scattered within the residential zone and bordered by housing. A key space is the foreshore that is near the CBD, capacity to grow that space is limited with other land uses bordering the area. There is a corridor of open space in the middle of the residential settlement area and a sizeable share of open space to the east of the general residential area.

FIGURE 46: THE URBAN FORM OF BURNIE: PLANNING ZONES



Source: Tasmania's The LIST

Additional population growth, particularly under scenario S1, may put pressure on existing spaces. Council will need to consider whether there is need for more open space based on current supply and projected population growth. The assessment will also need to consider the type of spaces needed based on the changes in the demographic profile of Burnie.

11. Climate change

11.1 Current Exposure to Climate Change

What climate change risks are the greatest

While Tasmania has achieved 100% renewable energy as a state, the world is still headed for the IPPC A2 scenario of 2.9^{o}C global warming. Like all municipalities in Australia and indeed the world, climate change poses a threat for Burnie. As a port city, is exposed to coastal erosion and inundation from rising sea levels and storm surge events. This will mean that Burnie's northern shore is under threat with sea levels predicted to rise by one metre by the end of the century. Other areas adjacent to creeks and rivers such as the Emu River, may be susceptible to riverine or stream flooding as shown in Figure 47 below. However, Burnie Council currently advises that due to the undulating topography of its municipality, floods pass through relatively quickly in general.

FIGURE 47: COASTAL INUNDATION AND EROSION HAZARD BANDS FOR BURNIE

Source: Tasmanian Government's the LIST

One of Burnie's most significant exposures to climate change risk is to bushfire hazards. In Figure 48 below, an overlay of Burnie's exposure to fire risk from The List is presented.

As a coastal town, there is a risk of coastal erosion and inundation from rising sea levels and especially combined with storm surge. Moreover, as Emu Rover flows into Emu Bay, there is also the risk of riverine flooding, if the river were to burst its banks, although this has never happened. At present, even though Burnie is coastal, erosion and inundation do not present serious risks for Burnie which is well protected by Wivenhoe beach, and the option to undertake sand banking.

FIGURE 48: BURNIE BUSHFIRE RISK MANAGEMENT PLANS OVERLAY

Source: Tasmania The LIST

11.2 Future exposure to climate change

Following the IPCC A2 scenario, Burnie's annual rainfall is predicted to experience slight decrease in rainfall in the medium term (2040-2069), that is, a decrease of up to 20 millimetres of rain per year. By the end of the century though, this change is expected to revert, and Burnie could see an annual increase in rainfall of up to 20 millimetres per year. Both of these changes are relatively minor and do not present a significant climate change risk. However, consistent with this scenario, the average temperature is expected to rise by 2.9^{o}C degrees by the end of the century, and by 1.2 ^{o}C to 1.5^{o}C in the medium term. Heatwaves are currently the deadliest climate hazard in Australia, and as temperatures rise, Burnie residents will be further exposed to the risk of heat-related injury and death.

As sea levels rise, most coastal regions, with Burnie being no exception, will have to contend with the risk of coastal inundation and erosion. Under the IPCC A2 scenario, sea levels are expected to rise by at least 1 metre, which will threaten Burnie's coastline and the regions adjacent to the Emu River which will fill higher as Emu Bay is filled. Nevertheless, much of Burnie's residential area is set back from the shoreline, which is mostly populated by industrial development, meaning that it should be safe even in the event of sea level rise.

11.3 Mitigation strategies

Burnie is already set in hillside, meaning that it is naturally set up to drain flood waters into the ocean through the Emu River, into Emu Bay. Given that the increase in predicted rainfall is relatively minor, there is not significant requirement for mitigation techniques against riverine flooding. As temperatures

rise however, there will be strain on Burnie's population to withstand urban heat pressures and manage the increased risk of bushfire. Burnie is not a large city with only low scale development, and is coastal, so the urban heat island (UHI) effect will likely remain relatively minor. This is an effect that amplifies the impacts of the warming climate. Nevertheless, Burnie will experience higher temperatures to some degree, and must consider how to manage this. Green infrastructure such as urban green space, green roofs and restoration and protection of natural habitats along coastlines are examples of flexible mitigation strategies that reduce the impact of urban heat.

Sand scraping would protect Burnie's shoreline from coastal inundation and erosion. This is the process of reshaping beach by redistributing sand, protecting the land behind it, and mimicking the natural recovery process of beaches, but at a faster rate[32]. Bushfire mitigation strategies involve the removal of fuel, which will become critical for Burnie in the surrounding forest. As temperatures rise, soil will become less moist, and provide more efficient fuel for bushfires, so addressing the fuel load should be a prioritised mitigation technique.

11.4 Adaptation options for council

Council must understand the costs and benefits of strategies relating to adaptation to climate change impacts. Each council will face different challenges adapting to climate change, and Burnie must understand which issues to prioritise. Once it does, the effective implementation of these adaptations comes down to introducing policy based on which provide the greatest benefit to cost ratio.

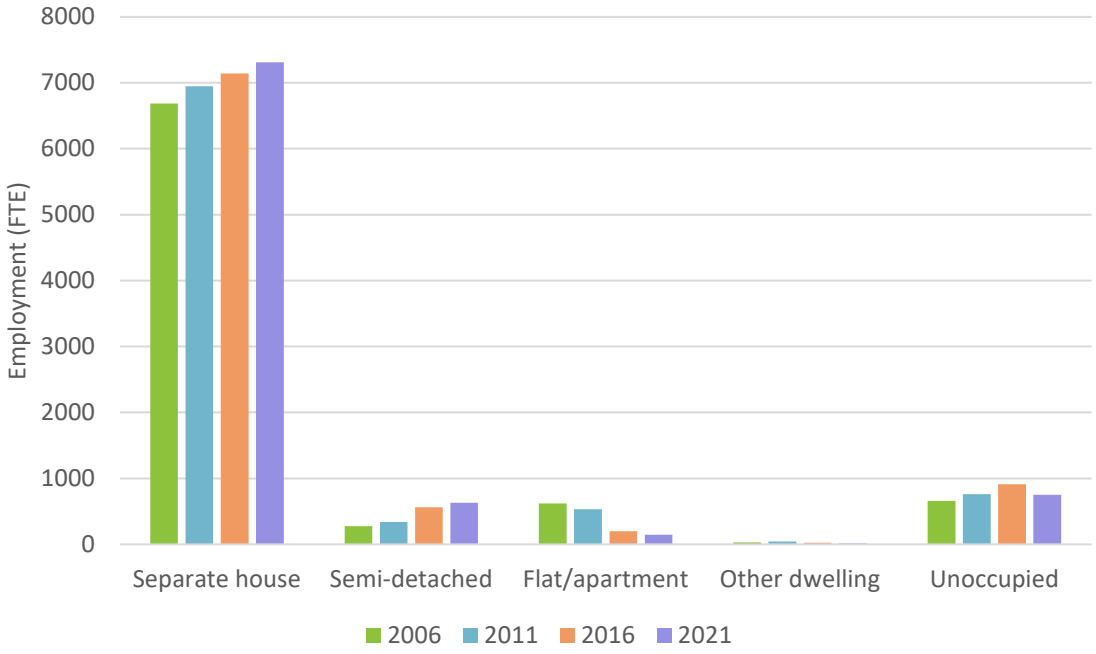
Local government has a specific and critical role to play in adapting to and mitigating the impacts of climate change[33]. Local government has a direct impact on the local environment through urban planning and zoning. Burnie City Council must utilise its decision-making power in regulating spatial planning to effectively adapt to the threat of climate change. It can also set an example as the tier of bureaucracy that has the most contact with citizens and local business. As a relatively small municipality, covering 611km^2, there does not need to be a large parcel of land set aside for additional green open space to combat urban heat. So too with new developments, initiatives like green roofs can be proposed by Council, and requirements can be put in place that ensure homes are built to withstand the expected increased temperatures in the future.

[32] https://royalsocietypublishing.org/doi/full/10.1098/rstb.2019.0124, nps.gov/articles/beach-scraping.htm
[33] https://link.springer.com/article/10.1186/2192-0567-4-8

Appendix A: Dwelling Profile

There was a total of 8,857 dwellings in Burnie counted on census night 2021. The vast majority of housing in Burnie is separate houses, that is, the least dense form of housing, which made up 7,310 of the total housing stock. The stock of separate housing has increased over time as shown in Figure 49. As at the 2021 Census, 632 dwellings were semi-detached. Flats and apartments made up 145 of Burnie's residences in 2021, while other dwellings such as caravans and shop-attached homes made up 15 residences according to the ABS 2021 Census. A further 752 dwellings were unoccupied according to the ABS 2021 Census.

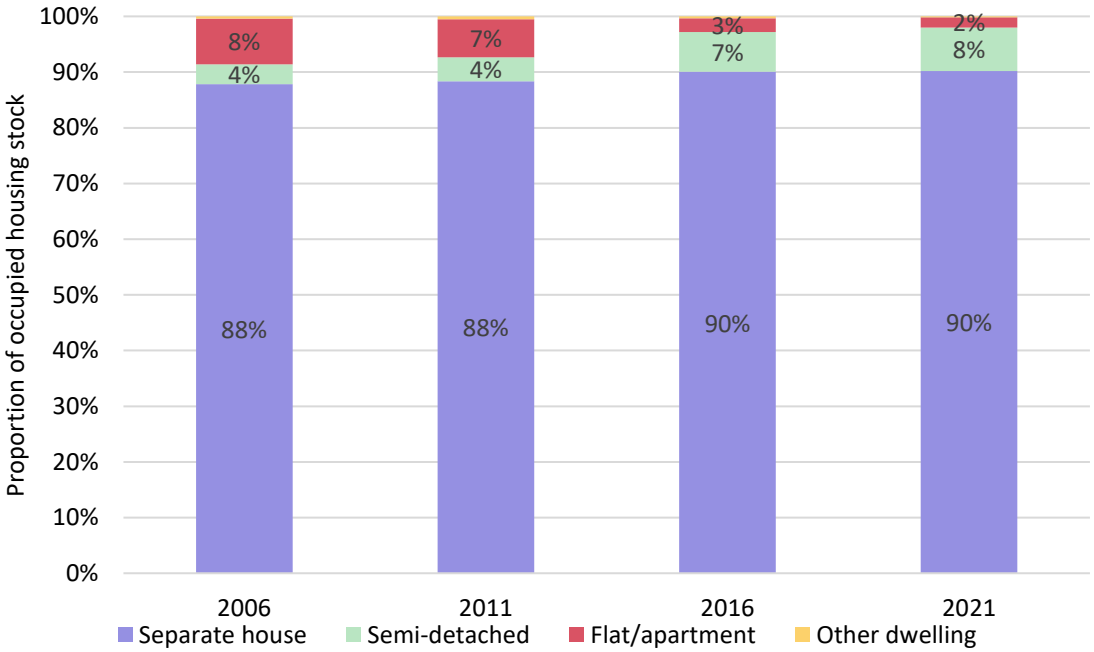
FIGURE 49: NUMBER OF DWELLINGS BY TYPE; BURNIE; CENSUS YEARS 2006 2011 2016 2021



Source: ABS Census Population and Housing

Figure 50 shows the share of separate houses has increased from 2006 to 2021, from 87.8% to 90.2%. Semi-detached dwellings are also an increasing share of Burnie's dwelling stock whilst high density forms, flat/apartments, are a decreasing share.

FIGURE 50: PROFILE OF BURNIE'S DWELLING STOCK 2006 TO 2021



Source: ABS Census; SGS Economics and Planning

Appendix B: Insert title

Insert Appendix B details here or attach pdf files.

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