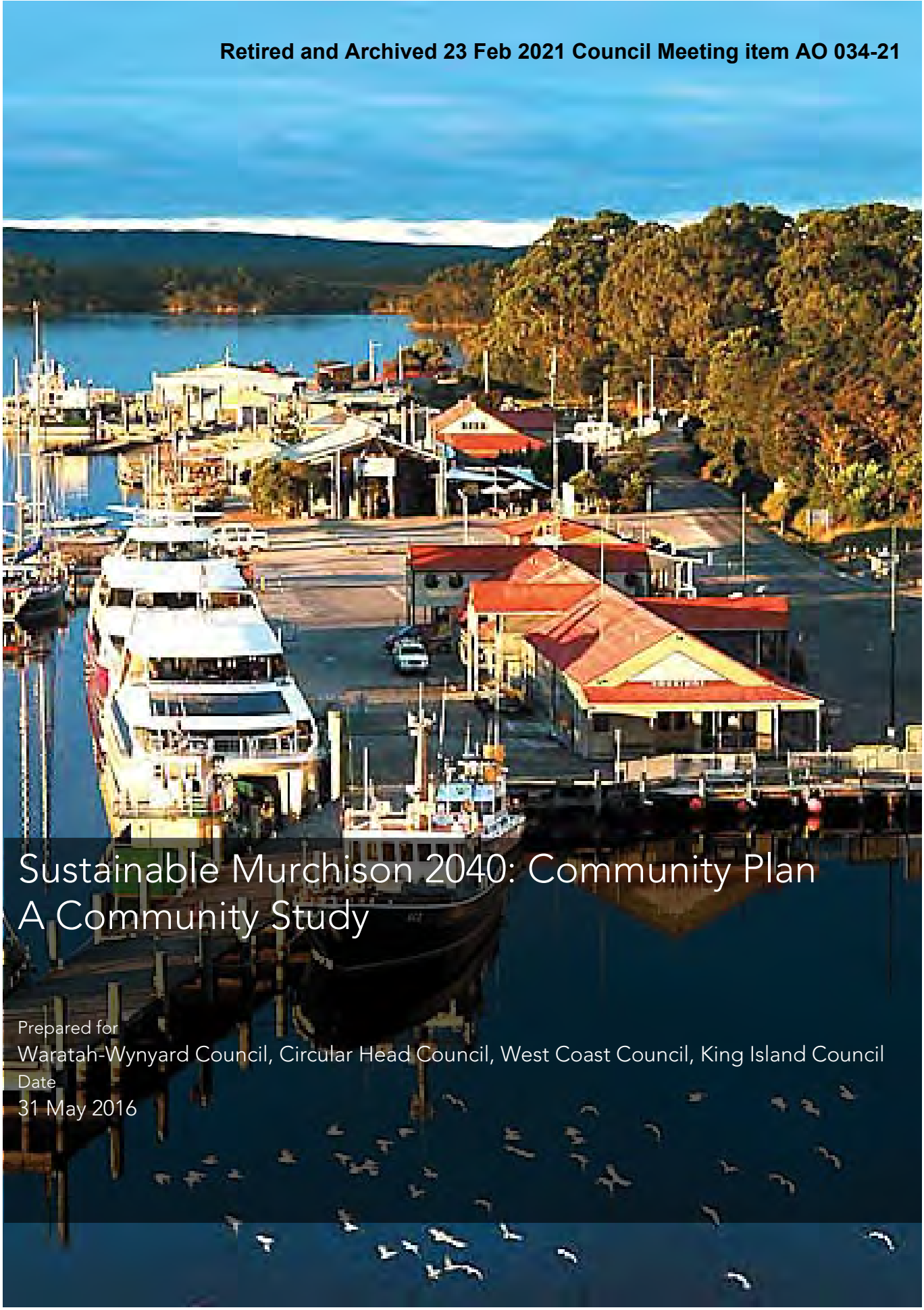

Sustainable Murchison 2040: Community Plan
A Community Study

Prepared for
Waratah-Wynyard Council, Circular Head Council, West Coast Council, King Island Council

Date
31 May 2016

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Contents

Page

1 Introduction 1
1.1 Purpose of this document 1
1.2 Features of the study area 1
1.3 Background to the Plan 11
2 Population Forecasts 12
2.1 Global population growth is slowing and shifting 12
2.2 A population sensitive to economic conditions 12
2.3 Population scenarios 13
3 Settlement Patterns 18
3.1 Wynyard 18
3.2 Somerset 22
3.3 Waratah 24
3.4 Smithton 26
3.5 Circular Head Rural 28
3.6 West Coast 28
3.7 King Island 29
4 Social Geography 30
4.1 Murchison region 30
4.2 Sub regions 33
5 Community Wellbeing 48
5.1 Drawing from different liveability indices 48
5.2 Murchison's liveability indicators 49
6 Social and Recreation Needs 54
6.1 Influencing trends and factors 54
6.2 Social and recreation provision 55
7 References 63
8 Appendix 64
Methodology 64

Tables

Page

Table 1 Estimated Resident Population by SA2 4
Table 2 Urban Centres 4
Table 3 West Coast Community Plan Action Area and Visions 7
Table 4 Murchison Region School Campuses 8
Table 5 Population and Dwelling Scenarios (short, medium, long-term) 15
Table 6 Estimated Change in Popn and Dwellings (2011-2036) 16
Table 7 Liveability Ranking Categories 49
Table 8 Community Wellbeing Indicators 50
Table 9 Recreation and Community Facilities Gaps, Somerset 56
Table 10 Recreation and Community Facilities Gaps, Wynyard 57
Table 11 Recreation and Community Facilities Gaps, Waratah 58
Table 12 Recreation and Community Facilities Gaps, Smithton 59
Table 13 Recreation and Community Facilities Gaps, Circular Head Rural 60
Table 14 Recreation and Community Facilities Gaps, West Coast 61
Table 15 Recreation and Community Facilities Gaps, King Island 62
Table 16 Summary of Assumptions, State Forecasts 65

Figures

Page

Figure 1 Murchison Region and SA2 Boundaries 2
Figure 2 Murchison Settlements by Population 3
Figure 3 Dispersed Urban Centres 5
Figure 4 Alternative Approaches to Population Projections 13
Figure 5 Population Scenarios to 2036 14
Figure 6 New Dwelling Approvals, Wynyard 20
Figure 7 New Lot Approvals, Wynyard 21
Figure 8 New Dwelling and Lot Approvals, Somerset 23
Figure 9 New dwelling and Lot Approvals, Waratah 25
Figure 10 New Dwelling Approvals, Smithton 27
Figure 11 Murchison Population, 1991-2014 31
Figure 12 Murchison Population by Age, 2001-2014 31
Figure 13 Net Migration to Rest of Tasmania 32
Figure 14 Net Migration to Burnie 32
Figure 15 Net Migration to Rest of Australia 32
Figure 16 Household Structure, West Coast 33
Figure 17 Household Structure, King Island 33
Figure 18 Population Change, Somerset 34
Figure 19 Age Structure, Somerset 34
Figure 20 Household income, Somerset 34
Figure 21 Need for Assistance, Somerset 34

Figures Page

Figure 22 Household Tenure Type, Somerset 35
Figure 23 Access to Internet, Somerset 35
Figure 24 Industry Diversity 35
Figure 25 Industry Specialisation index, Somerset 35
Figure 26 Population Change, Wynyard 36
Figure 27 Age Structure, Wynyard 36
Figure 28 Household Income, Wynyard 36
Figure 29 Need for Assistance, Wynyard 36
Figure 30 Household Tenure Type, Wynyard 37
Figure 31 Access to Internet, Wynyard 37
Figure 32 Industry Diversity, Wynyard 37
Figure 33 Industry Specialisation Index, Wynyard 37
Figure 34 Population Change, King Island 38
Figure 35 Age Structure, King Island 38
Figure 36 Household Income, King Island 38
Figure 37 Need for Assistance, King Island 38
Figure 38 Household Tenure Type, King Island 39
Figure 39 Access to Internet, King Island 39
Figure 40 Industry Diversity, King Island 39
Figure 41 Industry Specialisation Index, King Island 39
Figure 42 Population Change, Circular Head Rural 40
Figure 43 Age Structure, Circular Head Rural 40
Figure 44 Household Income, Circular Head Rural 40
Figure 45 Need for Assistance, Circular Head Rural 40
Figure 46 Household tenure type, Circular Head Rural 41
Figure 47 Access to Internet, Circular Head Rural 41
Figure 48 Industry Diversity, Circular Head Rural 41
Figure 49 Industry Specialisation Index, Circular Head Rural 41
Figure 50 Population Change, Smithton 42
Figure 51 Age Structure, Smithton 42
Figure 52 Household Income, Smithton 42
Figure 53 Need for Assistance, Smithton 42
Figure 54 Household Tenure Type, Smithton 43
Figure 55 Access to Internet, Smithton 43
Figure 56 Industry Diversity, Smithton 43
Figure 57 Industry Specialisation Index, Smithton 43
Figure 58 Population Change, Waratah 44
Figure 59 Age Structure, Waratah 44
Figure 60 Household Income, Waratah 44
Figure 61 Need for Assistance, Waratah 44
Figure 62 Household Tenure Type, Waratah 45

Figures Page

Figure 63 Access to Internet, Waratah 45
Figure 64 Industry Diversity, Waratah 45
Figure 65 Industry Specialisation Index, Waratah 45
Figure 66 Population Change, West Coast 46
Figure 67 Age Structure, West Coast 46
Figure 68 Household Income, West Coast 46
Figure 69 Need for Assistance, West Coast 46
Figure 70 Household Tenure Type, West Coast 47
Figure 71 Access to Internet, West Coast 47
Figure 72 Industry Diversity, West Coast 47
Figure 73 Industry Specialisation Index, West Coast 47

1 Introduction

This Community Study describes the community values, as well as the current and future needs of the Murchison region. It will inform the Sustainable Murchison Community Plan 2040, the principal guide to strategic development in the region over the next 25 years.

1.1 Purpose of this document

The Community Study (the Study) forms one part of the Murchison Community Plan 2040 (the Plan). The rest of the Plan comprises:

- Murchison Framework Plan. This is the lead document. It brings together the community's vision for the region with analysis of the region's resources, community infrastructure and social ecology.
- Murchison Community Vision Statement. This is a summary of the community's key concerns, themes and vision. The vision was developed through a series of community engagement sessions across the region; an online survey; a school program; council workshops; and community leaders' fora. Over 2,000 responses have been incorporated into the Statement; and
- Murchison Regional Resource Analysis. An analysis of the region's resources (natural, heritage, economic and infrastructure) that provides an evidence base to guide development. The analysis includes land and water used for production as well as conservation, and cultural assets across Aboriginal as well as European heritage. Land suitability, economic assets, and infrastructure are considered and future opportunities identified for the region's prosperity.

This document provides an evidence base that consolidates an analysis of the region's settlement pattern, population and household forecasts, social ecology by subregion, community infrastructure needs and suggested indicators of community wellbeing with consideration to physical, emotional and mental health.

1.2 Features of the study area

The Murchison study area comprises the entire Tasmanian West Coast, north west Tasmania, and King Island, covering approximately 19,000 square kilometres, much of which is managed forest and agricultural land. As Figure 1 shows, the region is made up of eight Australian Bureau of Statistics (ABS), geographical areas (Statistical Area 2s - SA2). These have formed the spatial basis of the regional analysis. Populations for each are shown in Figure 2 and Table 1.

Figure 1 Murchison Region and SA2 Boundaries

Figure 2 Murchison Settlements by Population

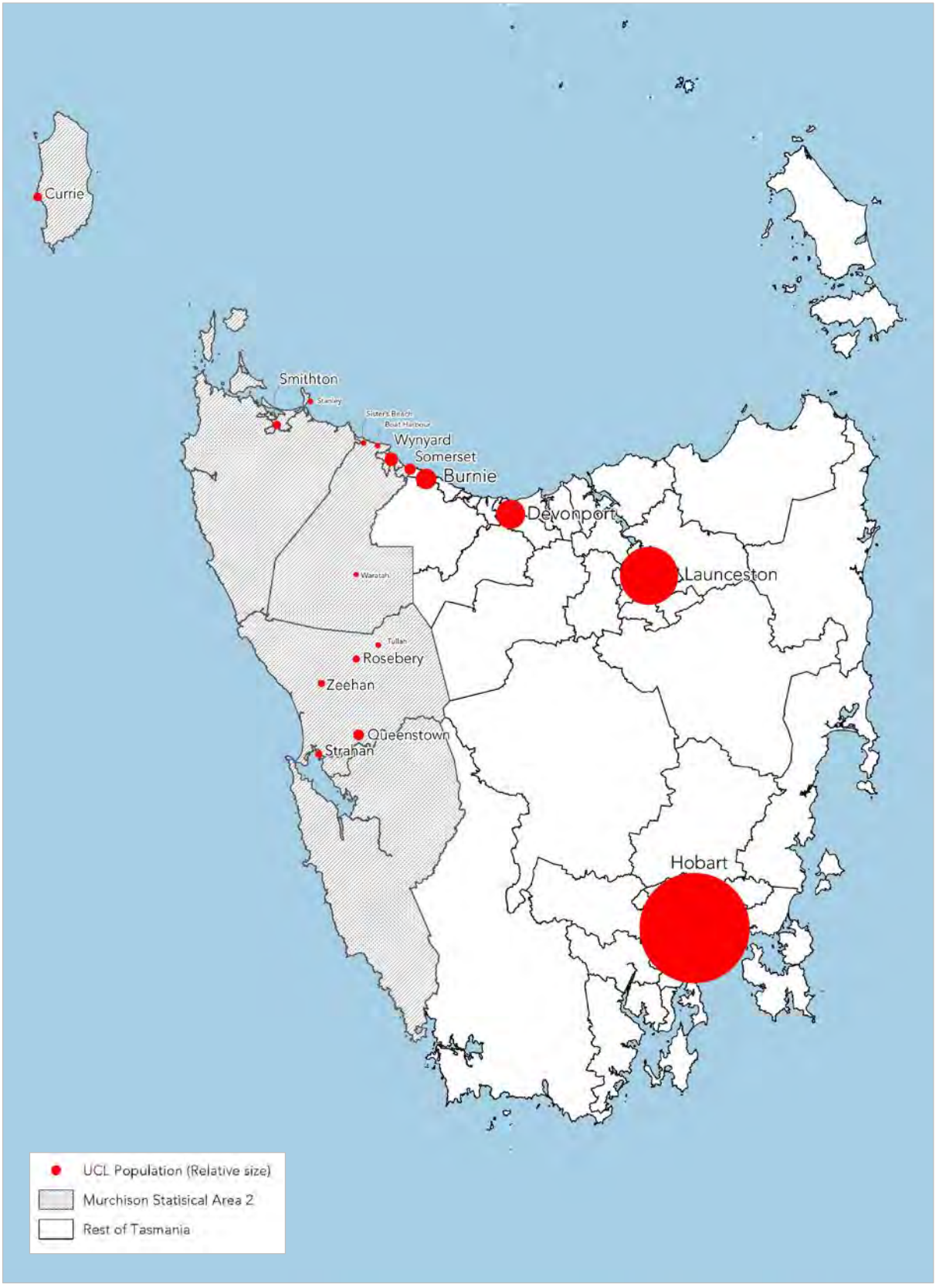


Table 1 Estimated Resident Population by SA2

Local Government Area	Statistical Area - SA2	Estimated Population
Waratah-Wynyard	Wynyard	6,276
	Somerset	4,087
	Waratah	3,940
Circular Head	Smithton	4,099
	Circular Head Rural	4,202
West Coast	West Coast	4,528
	Wilderness West	0
King Island	King Island	1,610
Total		**28,742**

Source: ABS, 2014

1.2.1 Dispersed urban centres

To analyse the distinctive settlements, the ABS geography Urban Centres or Localities (UCLs) have been used (Table 2 and Figure 3).

Table 2 Urban Centres

Local Government Area	Urban Centre	Population
Waratah – Wynyard	Wynyard	5,229
	Somerset	3,100
	Waratah	261
	Sister's Beach	458
Circular Head	Smithton	3,398
	Stanley	542
West Coast	Queenstown	2,009
	Rosebery	928
	Zeehan	724
	Strahan	650
	Tullah	195
King Island	Currie	704

Source: ABS, 2013

Figure 3 Dispersed Urban Centres

1.2.2 *Burnie is the regional centre*

There is no main regional centre in Murchison. Instead, Burnie (population ~20,000) plays the role of main regional centre.

Burnie's container port is the nautical gateway for Murchison's agricultural, forestry and mining outputs. Burnie has a mature advanced manufacturing sector, in particular underground mining equipment, and other mining industry suppliers. Having grown on the back of Murchison's mining resources, manufacturing is moving beyond this to other heavy industry machinery, such as trucks and military vehicles.

Major transport connections throughout the region for road, rail, and sea converge in Burnie, whilst air travel is accessible in nearby Wynyard at the airport owned by Burnie City Council. All the major Australian financial institutions have branches in the City, and provide retail and agribusiness services.

Various education facilities are centralised in Burnie. The University of Tasmania, TasTAFE and Hellyer College campuses are in close proximity with one another on Mooreville Road. The College is a major gateway to education post Year 10 for students seeking vocational education and training as well as matriculating to university. The campus is at capacity three days a week and the University plans to move to a larger facility which can accommodate up to 2,000 students.

Marist Regional College provides the option for Year 11 and 12 students to move through the catholic school system.

The North West Regional Hospital and Smithton District Hospital have 24-hour accident and emergency medical treatment for Murchison residents along the north coast. The West Coast District hospital at Queenstown serves mainly West Coast residents.

Like Murchison's coastal towns, Burnie has picturesque beaches and hinterland, and tourism links between Murchison and Burnie are essential. Burnie provides restaurants, accommodation and facilities that make it a suitable base for exploring north west Tasmania.

Burnie's Community Plan, *Making Burnie 2030*, outlines six future directions:

1. An attractive place to live and work
2. An inclusive and healthy community
3. A centre for information, knowledge and learning
4. A secure, innovative and diverse economy
5. A natural and built environment that is respected and cared for
6. A regional hub

The linkages between Murchison and Burnie are considered in the Framework Plan.

1.2.3 *Sustainable future outcomes for West Coast*

In 2015, more than two thousand people were involved in the preparation of the West Coast Community Plan. It summarises their desired future vision, and strategies for the region and specific towns (Table 3).

Table 3 West Coast Community Plan Action Area and Visions

Action Area	Vision Statement
Our people, our community	Residents & visitors feel safe, healthy and connected to their community through access to appropriate and relevant services, activities and facilities.
Our economy	We have a strong and diversified economic base and are recognised as a leading regional centre in Tasmania to live, work and visit.
Our infrastructure	We have a sustainable asset and infrastructure base to meet the lifestyle and business needs for residents, visitors and industry.
Our environment	Our natural assets are protected and enhanced for future generations through environmental leadership.
Our partnerships, our leadership	We welcome and foster partnerships. Our Council demonstrates sound leadership, transparency and inclusive decision making processes and delivering outcomes that best meets the needs of the West Coast.

1.2.4 *A declining, urbanising and ageing population*

Since the 1980s, Murchison's total population has declined steadily from 35,236. As is common in regional Australia, the remaining population has drifted towards the larger urban settlements. Notably, Wynyard's population has grown by about 500 residents since 1991.

The population in Murchison is also ageing. The key dimensions to this are: 15-30 year olds leaving and 55+ year olds moving to Murchison from elsewhere in Australia. These changes are discussed in more detail in Section 2 of the Study.

1.2.5 *Education across the region*

Education is delivered through several channels including Child Family Centres, schools, vocational and higher education institutions.

State-funded Child Family Centres integrate services, such as preschool, healthcare, parent services, education psychology, kids' services and pre-school early years' programs. They are located in Burnie and Queenstown.

The Tasmanian Department of Education's surveys show that communities are largely satisfied with schools in the region. Table 4 lists the State and non-state school system.

Table 4 Murchison Region School Campuses

School System	School level	Region: Waratah Wynyard	Circular Head	West Coast	King Island	Burnie
State schools	Primary	Somerset Table Cape Boat Harbour	Smithton Stanley Edith Creek Redpa Forest	Strahan Rosebery Zeehan	King Island District,	Burnie Montello Upper Burnie Romanie Park Havenview Natone Ridgely Cooee
	High school / college	Wynyard Yolla	Smithton	Rosebery District Mountain Heights Queenstown	King Island District, Currie	Burnie Parklands Hellyer College
Non-State schools	Primary	St Brigid's, Catholic Seabrook Christian School	St Peters Chanel, Smithton Circular Head Christian School, Smithton*	St Joseph's, Queenstown St Joseph's, Rosebery	Ballarat Clarendon College, Grassy***	Stella Maris Catholic Leighland Christian School of Special Education
	High school / college		*No catholic high school* Circular Head Christian School, Smithton*			Marist Regional College

* Junior school – Kinder to Yr 5; Middle school – years 6, 7 and 8; Senior school – years 9, 10, 11 and 12
** To Year 10 only.
*** This is a private school campus of the College, which caters to Year 9 students that spend a term on the island for outdoor education and studies.

The schools within each local government area (LGA) have developed their own attitudes toward interdependence. For example, typically, schools in Circular Head work together because of the community's belief in self-reliance. The schools collaborate to perform activities together, using their critical mass to obtain better outcomes through resource sharing. The State primary schools in Circular Head have formalised their collaboration by creating a Federation to promote public education, world class teachers and leaders, share expertise and foster local aboriginal culture.

Local government plays an important role in supporting schools by delivering community infrastructure for sport and recreation, such as football fields and swimming pools, as well as intellectual development, such as libraries and digital hubs. Local government also diversifies student experiences through education programs, such as recycling and waste management, as well as community participation in extra-curricular activities. For example, Waratah Wynyard Council supports the Wynyard School Community Partnership to improve health outcomes and break cycles of disadvantage, and teach students to develop vital life skills and stay engaged in education.

A drop in apprenticeships and the increasing sophistication and complexity of skills required for the workforce, mean that most students need an education that extends beyond Year 10. Consequently, the State has implemented several initiatives to encourage students to complete Year 12, prior to pursuing vocational education.

Tertiary education is offered by the University of Tasmania (UTAS) and TasTAFE. UTAS has a campus in Burnie, with future plans to expand the course offering to better meet the needs of local industries. TasTAFE also has a campus in Burnie, as well as a smaller campus in Smithton. *The Education-Driven Economic Revitalisation of Northern Tasmania* is considered a once-in-a-generation opportunity to renew the capabilities of the communities and economies of north west Tasmania. The positive changes to tertiary education are discussed in more detail in Section 6.2 of the Regional Resource Analysis.

1.2.6 Productive forest, agricultural land and national parks

Mainland Murchison is covered by forest and vegetation suitable, in varying degrees, for agriculture. National Parks create an eastern boundary, separating it somewhat from the rest of Tasmania. The terrain is mostly hilly, susceptible to land slide, and punctuated by several mountains, including neighbouring Cradle Mountain.

Waterbodies, wetlands and extensive river systems are formed by the terrain, which has created opportunities for hydroelectricity and water storage. The areas around the region are notable for lakes such as Saint-Claire in the Cradle Mountain area, Gordon in the Franklin-Gordon Wild Rivers National Park, Burbury and King William.

The Tasman sea bounds the south and west coasts, and Bass Strait to the north. At the centre of the region is Macquarie Harbour, which is connected to the Tasman Sea by a small inlet at Macquarie Heads. This aquatic area is home to important aquaculture leases. Further south is Port Davey in the wilderness area of the south west.

King Island is located almost half-way between the Australian and Tasmania mainlands. It is blanketed by largely flat, productive agricultural land.

1.2.7 A temperate climate

The climate is generally cool to mild. In mid-summer, the average temperature on the north coast ranges from about 12 to 21C. South, around Strahan, the temperature range is similar.

In mid-winter, the average temperature ranges from 6 to 13C.

Murchison experiences mostly winter and spring rain. It ranges from 900mm/yr in the north (Burnie), to 1,500 mm/yr in Strahan.

It is particularly important to note that the impacts of climate change are expected to be moderate.

1.2.8 Road, rail, sea and air links

Murchison is serviced by several key roads, airports, marine ports and limited rail.

Road transport is the primary mode for freight movement. Key roads include:

- **Bass Highway** (A2) runs along the north coast from Devonport to Burnie as a national highway, then Burnie to Marrawah on the west coast;
- **Murchison Highway** (A10) from Somerset to Waratah and south to Tullah, Rosebery, Zeehan, Queenstown and Strahan;
- **Waratah Road** (B23) from Waratah to Savage River; and
- **Lyell Highway** (A10) from Queenstown to Derwent Bridge and beyond.

The road network includes a system of bridges many that are close to the end of their average economic life of 70 years. Many of these bridges are not designed to carry the masses presented by the present freight task and heavy vehicle fleet. The Department of State Growth has acknowledged funding streams for remediating these assets. However, it not yet clear if any funding will be specifically allocated to the Murchison region.

The region has airports in Wynyard, Smithton, Currie and Strahan. Operators include REX and smaller private operators.

Marine ports connect Tasmania back to Melbourne, where freight is forwarded for distribution in the Australian mainland, or onward to global markets. The port at Burnie attracts several passenger cruise ships between September and March.

The Melba Rail Line is the only active line in Murchison and used to transport mining products to the port of Burnie via Rosebery. Remnant rail track is located throughout the region in varying condition. The West Coast Wilderness Railway originates from Queenstown offering three different railway experiences on the following routes:

1. Queenstown-Dubbil Barril-Queenstown

2. Strahan – Dubbil Barril – Strahan
3. Strahan – Queenstown – Strahan

Access and Infrastructure are discussed in more detail in Section 7 of the Regional Resource Analysis.

1.3 Background to the Plan

The Murchison Sustainable Community Plan 2040 is a collaboration between Waratah-Wynyard, Circular Head, West Coast and King Island councils. The Plan will be based on sustainable use of land and water resources described in the Resource Analysis, including consideration of the impacts of climate, as well as separate analysis of community resources, strategic directions, and economic development.

Specifically, the Plan will be informed by:

- This document – The Community Study considers community values; needs and dynamics necessary for strategic and policy planning; measures of social needs and well-being; the policy development framework; and population and household forecasts for the study area.
- The Sustainable Murchison Regional Resource Study - An evidence-based analysis of the region's land and water resources; and an assessment of the strengths and opportunities in current and emerging industries, resources and services.
- Context and Strategic Directions - Supporting policy, planning environmental and economic context; community based principles; and spatial and strategic principles for productive, sustainable and liveable places.
- Economic development & land use planning - Economic profile and future requirements; ecological and heritage context; and land use requirements and principles.

The community had opportunities to contribute to the vision for Murchison at different stages through the development of the Plan.

2 Population Forecasts

Trend-based projections for Murchison suggest a declining and ageing population. However, the region's sensitivity to economic conditions means there are possible scenarios in which population growth accelerates in response to economic development.

2.1 Global population growth is slowing and shifting

In 2015, the world's population exceeded 7 billion, with 60% in Asia and 16% in Africa. We are currently adding around 83 million people to the world per year (1.18% per annum). The current UN forecast is for total world population to plateau between 9.5 and 13.3 billion.

The links between economic development, fertility, mortality and migration are well-known. Not surprisingly, then, as Asian countries have moved up the income profile, growth by natural increase has decelerated. This transition is also starting to occur in Africa.

The developed world went through this process of ageing and slowing growth in the 20th Century. By contrast, migration to developed regions increased. Together with a continuation of rural to urban migration, these factors are likely to define global demographic trends for next 100 years.

While these global patterns have little *direct* impact on regions like Murchison (which is mostly influenced by National and State factors), what they emphasise is the importance of the links between economic conditions and population growth.

2.2 A population sensitive to economic conditions

The current trajectory for Murchison's population is one of decline and ageing. As Section 3 will show, these trends describe much of the region's population trajectory and profile. Moreover, the State Government's own projections for the region's constituent LGA's, all forecast a decline, or, in the case of the high series scenario, a very minor increase in population.

As with all small regions around Australia, Murchison's population is sensitive to economic conditions. That is, as employment fortunes wax and wane, so too does the population growth rate. This is very characteristic of a region with a relatively high proportion of working age residents (albeit older working residents).

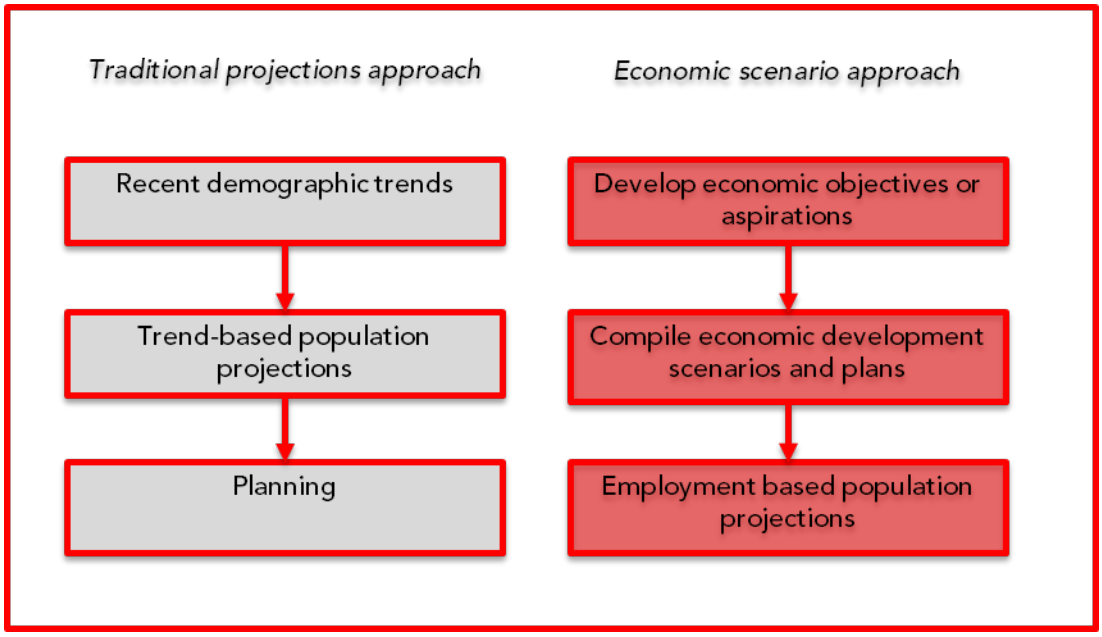
Both in and out-migration can increase rapidly in response to new local job opportunities or losses. For a relatively small population this can have a substantial effect. Moreover, economic migrants are usually in the childbearing age range and, if jobs are secure, family

households are formed, further increasing population growth. Just as rapidly, a downturn can compel large numbers of working families to leave.

The sensitivity of Murchison's population to economic conditions has implications for planning. Specifically, despite being based on a relatively robust, well-tested forecasting methodology, the State (trend-based) projections for the region are not designed to model economic fluctuations (boom or bust) and there is a body of research that suggests an economic scenario approach is more appropriate (Figure 4). That is:

1. Develop a set of aspirations of economic objectives.
2. Compile scenarios that might emerge from these aspirations.
3. Calculate employment based population projections.

Figure 4 Alternative Approaches to Population Projections

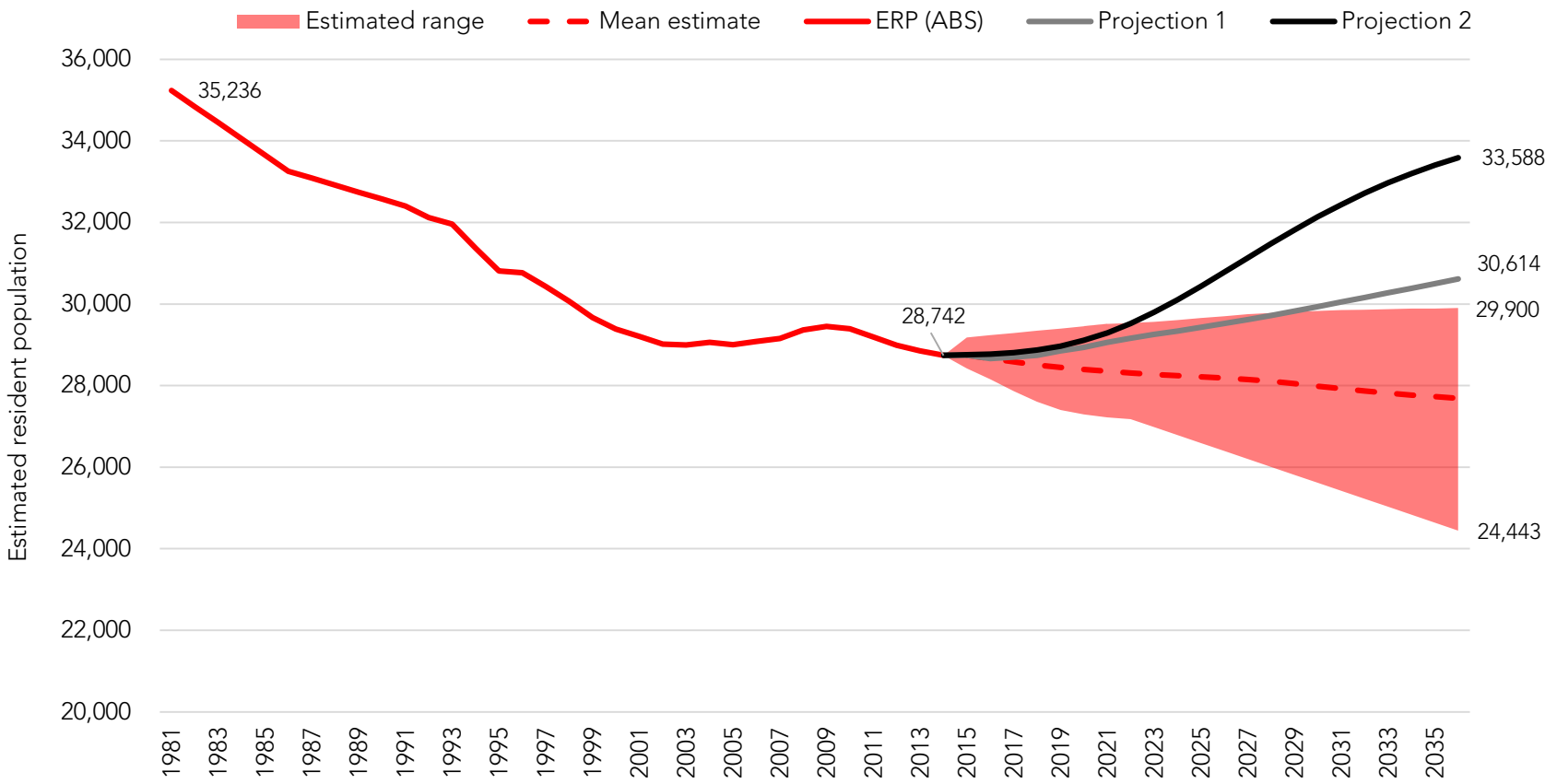


2.3 Population scenarios

The economic scenario approach has been used to derive two alternative population growth trajectories and compare them with the State, trend-based scenarios (Figure 5)[1].

[1] Details of the methodology are found in the Appendix. It is important to note that these are hypothetical scenarios drawing on assumptions about known investments. They are not based on detailed employment forecasting.

Figure 5 Population Scenarios to 2036



The red shading indicates the range of current State Government population projections. Projections 1 and 2 are derived from an analysis of the existing population and employment profiles in the region and assume different employment growth scenarios based on known investments. Source: Tasmanian Treasury, 2015; Geografia, 2016

Table 5 Population and Dwelling Scenarios (short, medium, long-term)

	Population			Dwellings			Population Change (2011)			Dwelling Change (2011)		
	2021	2027	2035	2021	2027	2035	2021	2027	2035	2021	2027	2035
Low	27,630	26,853	25,688	11,503	11,244	10,946	- 1,562	- 2,339	- 3,504	- 643	- 963	- 1,443
Mean	28,408	28,059	27,432	11,827	11,749	11,689	- 784	- 1,133	- 1,760	- 323	- 467	-725
High	29,447	29,748	29,886	12,260	12,457	12,735	255	556	694	105	229	286
Projection 1	29,062	29,619	30,500	12,099	12,403	12,996	-130	427	1,308	- 53	176	539
Projection 2	29,292	31,131	33,405	12,195	13,036	14,234	100	1,939	4,213	41	799	1,735

Source: Geografia, 2016

There are three population scenarios:

1. **Business as Usual.** This the red band in Figure 5, which draws on the low, medium and high growth scenarios prepared by the Department of Treasury and Finance. Given the uncertainty in relation to which scenario may eventuate, they have been merged into a ranged estimated.
2. **Projection 1:** Projections based on Commonwealth Government Department of Employment job forecasts for the region.
3. **Projection 2:** Projection based on population growth plus adjustment for public and private sector investment creating jobs in the region over the next ten years.

Further explanation of the scenarios modelling is provided in the Appendix methodology in Section 8.

In summary, the population scenarios are based on the Commonwealth (Department of Employment) regional employment projections, with additional 'above expectation' employment growth derived from market intelligence provided by councils in relation to major public or private investments.

In combination, plausible scenarios have been derived in which Murchison's population climbs back towards its recent historic peak of around 33,000 residents.

Given that these higher growth scenarios are in response to improved economic conditions, and, therefore, in-migration of working age residents and families, it is reasonable to assume housing demand will emphasise detached family dwellings[2]. An approximation of this change in dwelling demand is summarised in Table 6.

Table 6 Estimated Change in Popn and Dwellings (2011-2036)

Scenario	Popn Change	Dwelling Count	% Change
Low series	-3,670	-1,570	-14%
Medium series	-1,854	-793	-7%
High series	+3,102	+1,327	+12%
Projection 1	+1,422	+594	+5%
Projection 2	+4,396	+1,836	+16%

Source: Geografia, 2016

[2] This is why the Projection 1 scenario results in a smaller demand for new housing than the high series Treasury projection.

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3 Settlement Patterns

Settlement patterns in the Murchison region are largely fixed. Over the last ten years, residential development has been orderly and usually within existing urban areas of Somerset, Wynyard and Smithton. Little change in the settlement pattern is expected over the next 25 years.

Settlement patterns in Murchison are guided by the Cradle Coast Regional Land Use Planning Framework 2010-2030. This framework:

1. Outlines a pattern of centres that are compact, well connected and separate, with their own individual character and identity.
2. Encourages the development of centres in a way that optimises the use of land and infrastructure services to minimise the impact or reduce the value of economic, natural or cultural resources.

Over the past decade, the patterns of settlement for the centres has largely been consistent with this framework. In the future, some areas, such as Wynyard and Somerset, may experience modest growth, particularly as older residents move in to take advantage of low house prices, quality of life and proximity to Burnie. By stimulating the development of a diverse mix of housing, councils can encourage people to remain in the region as they grow older.

The settlement patterns for each SA2 are summarised below. This is based on development data from 2007 to 2015.

3.1 Wynyard

Wynyard is located to the north of the Airport, and south of the Inglis River and the coast. The established areas are within 3 km of the local business centre. To the south of the Airport, the settlement is bounded by the Bass Highway. Around the airport, the land is zoned largely for general industrial and rural purposes, with additional industrial land potentially available further east of the airport. Minor residential development is also found north of the Inglis River. This land is in close proximity to the CBD, though access is limited to access points via Table Cape Road.

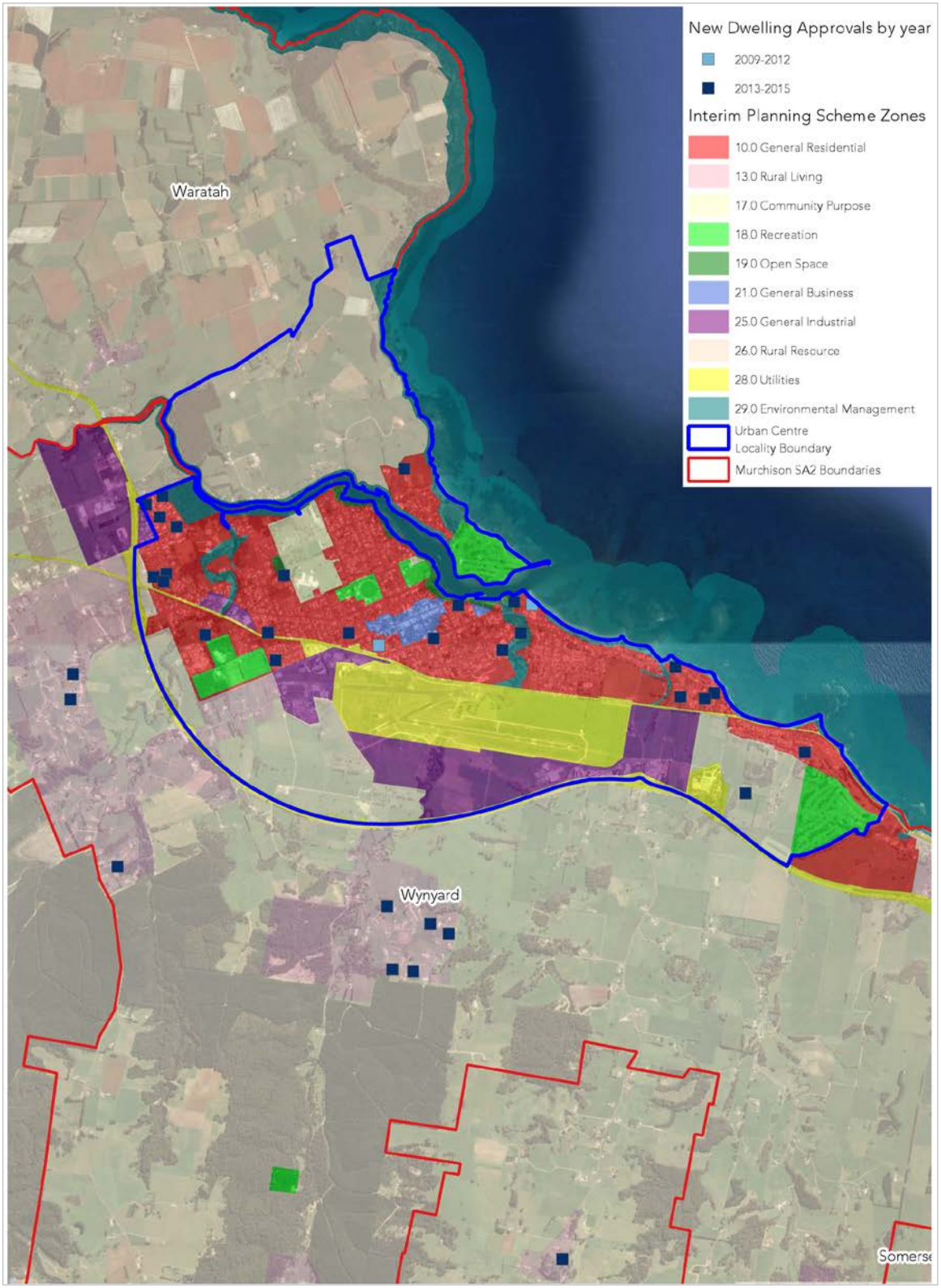
Wynyard is the only location that may experience population growth, through intra-regional migration, as well as migration from the rest of Australia, particularly older persons.

Key points are:

- Since 2012, there has been more dwelling and subdivision development within the UCL than outside it. This suggests residents may prefer to live within established areas closer to existing amenities. There are suitable sites within the UCL for infill development, potentially in and around the showgrounds, and the edges of the current settlement;
- As expected, subdivisions of five or fewer lots have occurred evenly across the UCL. Subdivisions for 20 or more lots, such as the 103 lot development of Seabrook Golf Course, are confined to the edges of the settlement, where there is land available;
- Subdivision design needs to take account of future development in adjoining lands. Some subdivisions, completed over the past 15 years, finish in cul-de-sacs rather than through streets, reducing permeability. If future development limits the use of cul-de-sacs the street network will allow pedestrians, cyclists and vehicles to move more easily through the urban centre;
- Beyond the UCL and south of the Bass Highway, pockets of development have appeared, suggesting a market for rural living. The conversion of land zoned Rural Resource land to Rural Living appears to be occurring in an orderly pattern. These areas are accessible to the local business centre at appropriate access points across the Bass Highway. Council is investigating whether there is latent demand for this type of living;
- Subdivision development is increasing outside the fringe of the UCL on land zoned Rural Living. Over time, this area may form part of a ring around a denser inner core of the settlement. The current level of density prescribed in the Interim Planning Scheme 2013 is not less than one hectare per dwelling for this land use zone; and
- Upgrade works are planned to Wynyard sewage treatment works, which will increase capacity as well as treatment quality.

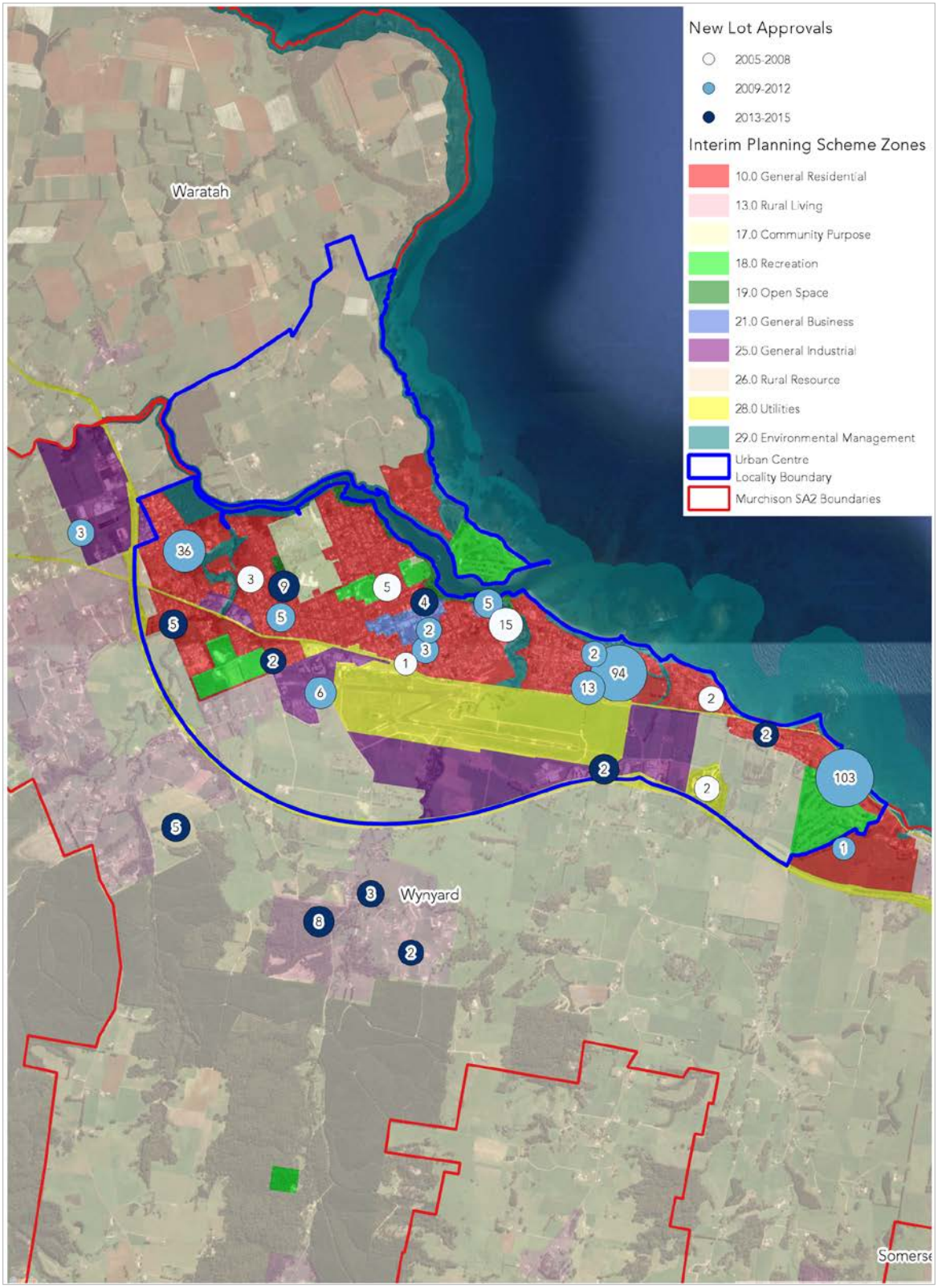
Overall, settlement within the UCL appears to follow an orderly pattern and conform with the Land Use Framework (Figure 6 and Figure 7).

Figure 6 New Dwelling Approvals, Wynyard



Source: Waratah-Wynyard Council, 2016, Geografia, 2016

Figure 7 New Lot Approvals, Wynyard



Source: Waratah-Wynyard Council, 2016, Geografia, 2016

3.2 Somerset

The Somerset settlement is bounded to the east by the Cam River and north by Bass Strait. It is in close proximity to Burnie, and well connected by the Bass Highway, which runs east-west through the north of the settlement.

The settlement pattern has evolved outward from the local business centre (Figure 7). Large parcels of land with general residential zoning are not yet developed in the south of the settlement. Land zoned for industrial use to the west may be suitable for either industrial or residential development, subject to further investigation.

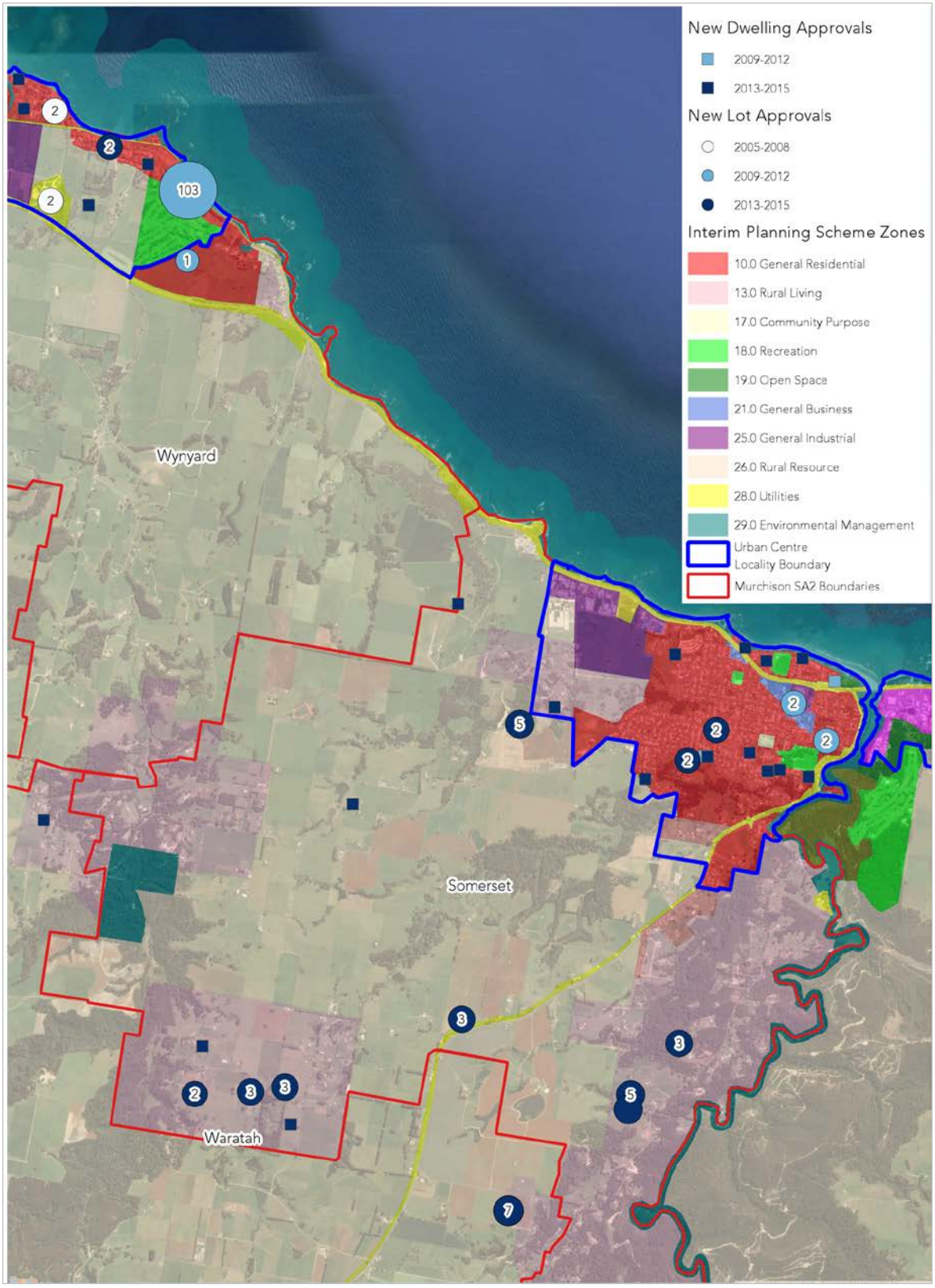
Similarly, Somerset has two recreation ovals, one of which could be redeveloped for commercial, residential and/or mixed use. The loss of one of these facilities may be compensated by co-locating facilities with Somerset Primary School.

Subdivision and dwelling development appears mostly at the edge of the settlement and as two-lot subdivisions only.

Outside the UCL, there appears to be market demand for rural living in the vicinity of the Murchison Highway, Little Village Lane and Seabrook Road. Several land owners have subdivided land from 12 ha or more into smaller lots. Each of these rural living clusters is approximately 10-15 minutes' drive from the local business centre. These locations are not serviced by public transport.

Upgrades to Wynyard sewage treatment works will remove the need for a treatment plant at Somerset, and result in an increase in capacity as well as treatment quality.

Figure 8 New Dwelling and Lot Approvals, Somerset



Source: Waratah-Wynyard, 2016, Geografia, 2016

3.3 Waratah (including Boat Harbour and Sister's Beach)

Waratah has four minor settlements: Waratah, Yolla, Sister's Beach and Boat Harbour Beach. Each has a distinct character created by their proximity to the sea and surrounding land form.

Waratah and Yolla settlements experienced no change.. Over the long term, population decline is likely to be relatively stable. However, the preference to live near the coast may put pressure on these settlements, as can be seen from development at Sister's Beach and Boat Harbour. Any population decline, therefore, is likely to be felt in rural, rather than coastal, areas.

Boat Harbour has a picturesque beach and retail shop located at the end of a narrow, winding road into the settlement, which is the only road in and out. It has grown, albeit slowly. A 12-lot subdivision was approved, as well as a 10-lot strata subdivision in a settlement that is otherwise a village (Figure 9).

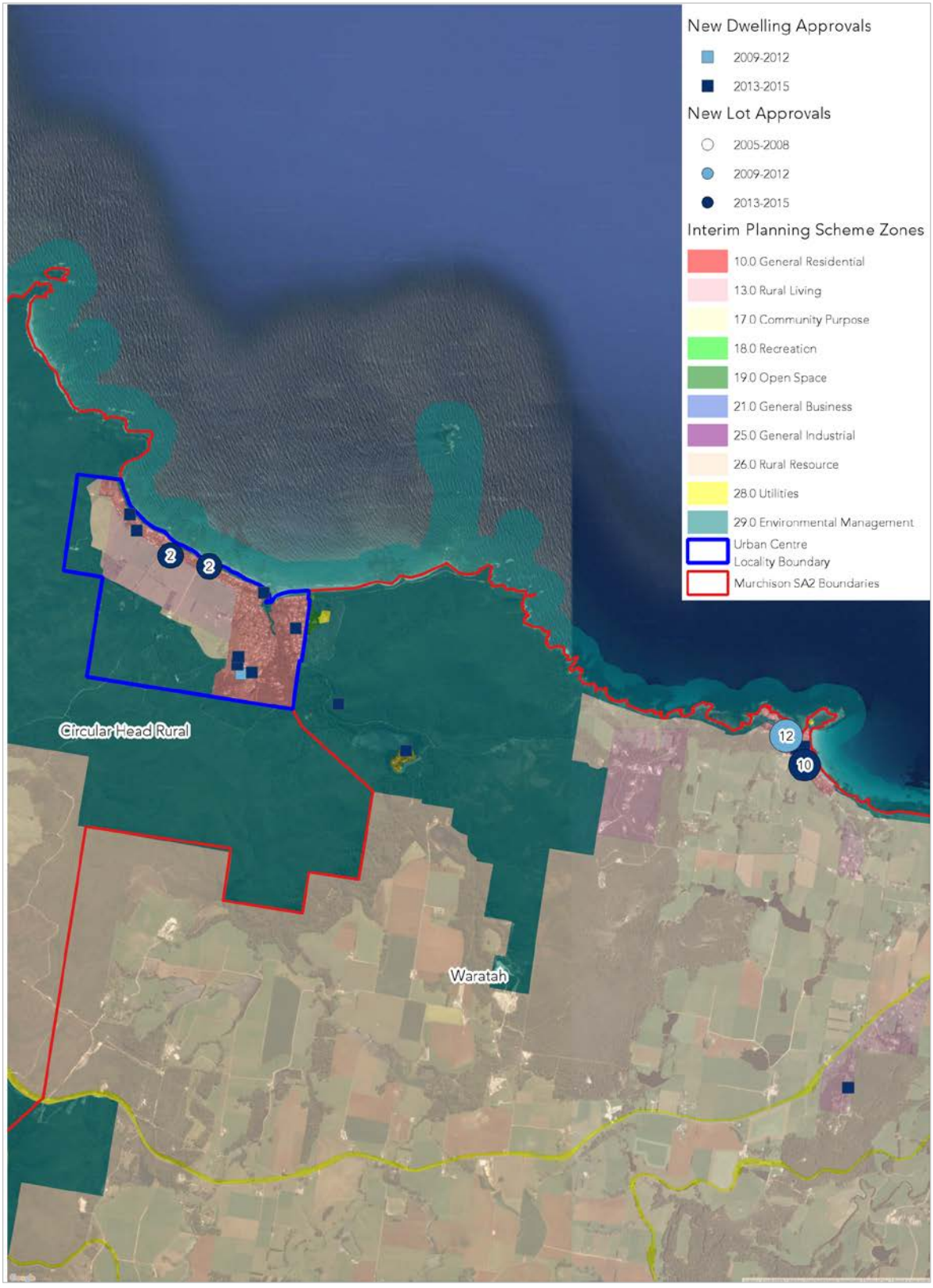
The north-facing, steep slope of the settlement in places may be more suitable for a small number of high-end dwelling development, rather than typical residential development, particular given the limitations of the existing road network.

Sister's Beach is a coastal village adjacent to an environmental management area. The settlement does not have a local business centre. The settlement has experienced reasonable growth, with 11 new dwelling approvals since 2012. Several were additional dwellings on subdivided lots whilst on other lots substantial beach style dwellings were erected.

Boat Harbour and Sister's Beach have a beachside community lifestyle that is quite different to rural township living offered by Wynyard and Somerset. The limited availability of beachfront land and land the form constraints may limit demand to more affluent settlers, or commercial accommodation / resorts. Rural townships nearby, such as Somerset and Wynyard, are likely to be more affordable and accessible to more new settlers in this area.

Future development at Boat Harbour and Sister's Beach may be given lower development priority compared to established settlements. Neither settlement has a local centre at the present time, and may be less suitable in view of the principles in the Cradle Coast Land Use Framework. Rather, growth pressures may be better accommodated in Somerset and Wynyard, which have both services and fewer environmental constraints.

Figure 9 New dwelling and Lot Approvals, Waratah



Source: Waratah-Wynyard Council, 2016, Geografia, 2016

3.4 Smithton

Smithton lies at the mouth of Duck River, mostly to the east and south side. The general business and commercial areas run north-south both sides of Nelson Street, which almost divides the settlement. East and west of these areas, residential development dominates.

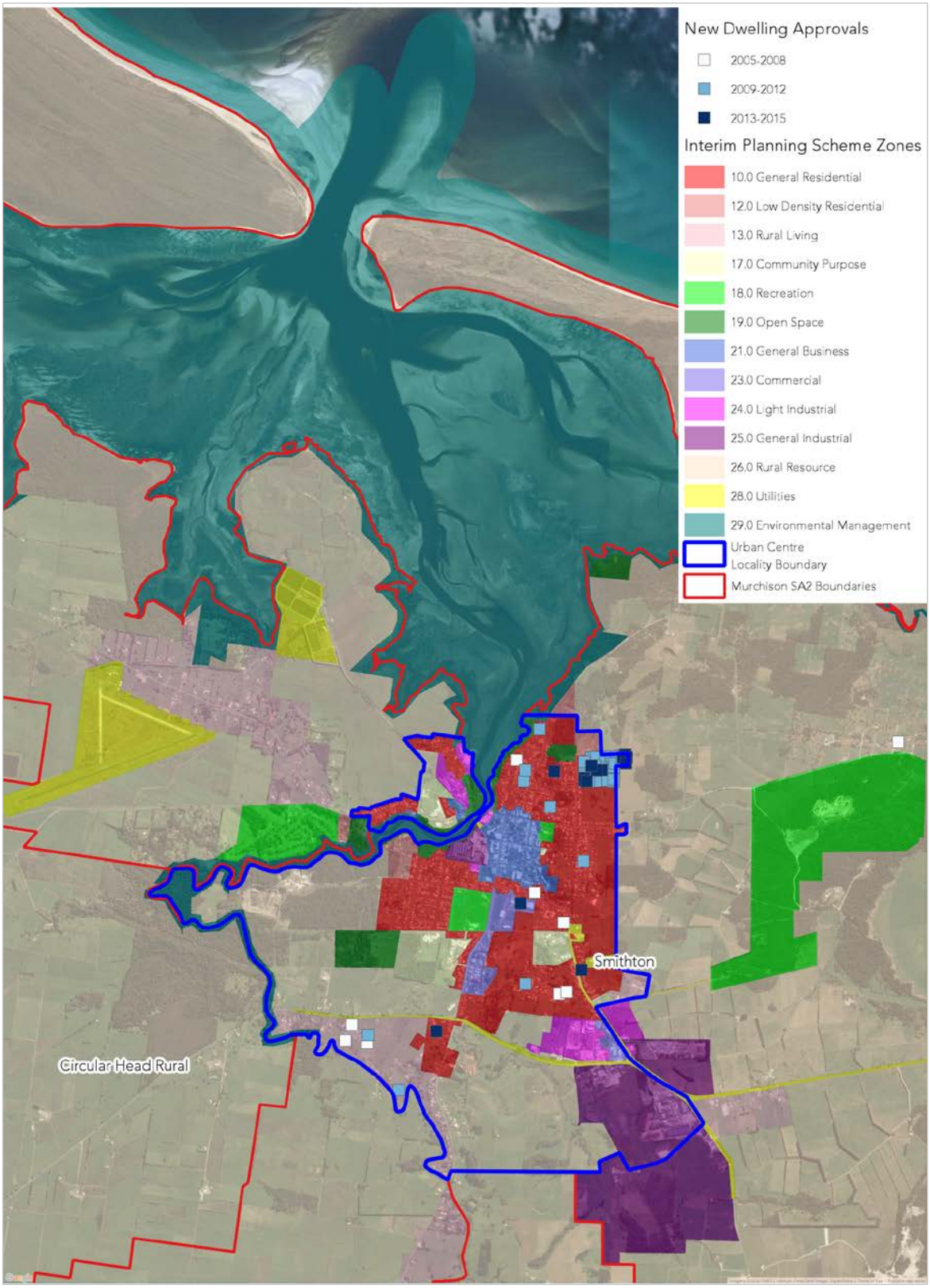
The settlement has expanded entirely at the eastern edge of the UCL. Subdivision and dwelling development appear to occur in a timely manner, evidenced by development in Tier Hill Drive. Infill development has been sporadic and minimal. Minor levels of development on rural living land occurred in the south of the Smithton UCL in 2007 (Figure 10).

Large, suitably zoned lots are available for subdivision, sufficient to accommodate population growth at current densities.

Some minor dwelling development has occurred outside the UCL. Though there is suitable land, at this time there does not appear to be pressure from population growth to warrant conversion of this for residential development at higher densities.

Subdivision data was not available for analysis.

Figure 10 New Dwelling Approvals, Smithton



Source: Circular Head Council, 2016, Geografia, 2016

3.5 Circular Head Rural

Circular Head Rural comprises several villages, such Stanley, Irishtown, Edith Creek, Montagu, Redpa, Marrawah and Arthur River.

New dwelling approvals occurred sporadically throughout Circular Head Rural. To date, population change within Circular Head Rural has been stable.

Stanley is a historic picturesque village located on a peninsula punctuated by a massive rock formation that is known as "The Nut". It attracts tourists for sightseeing, dining, walking and fishing.

However, Stanley received several applications between 2009-2012 that suggests pressure may be increasing. Though most development occurred within the UCL, new lots will be required outside the UCL, along with connection to services which are limited.

Future development of Stanley may be limited. However, this does not factor in significant growth in demand for coastal living.

3.6 West Coast

The SA2 of West Coast is comprised of several settlements: Strahan, Queenstown, Zeehan, Roseberry and Tullah.

None of the settlements are expected to face growth pressure. Rather, it will be a question of how to manage the declining population and increasing tourism. Each settlement appears to have sufficient available land already subdivided into lots for development if required.

Notwithstanding the tourism visitation to Queenstown, Zeehan, Rosebery and Tullah, these settlements exist mainly to accommodate mine workers. For the most part, the land has been suitably zoned and subdivided.

However, there are some examples of subdivisions in each settlement that have not been appropriately zoned, constructed or built out. Taswater has projects planned to improve water and sewer infrastructure in Rosebery, and water in Queenstown.

In Gormanston the cadastre provides suitable lots for dwelling development for land zoned general residential, whereas the current land zoning and level of development is more consistent with rural resource. Two dwellings were approved for development in this settlement in the past two years. The experience in Tullah, Zeehan, and Rosebery is similar.

Strahan largely services the tourism and aquaculture industries. The local business area hugs the coast line, with residential development following the grid-like cadastre mostly in an orderly pattern. Minor developments have occurred on the opposite side of Risby Cove as

the lots exist for low density residential development though not all the land is suitably zoned.

Since 2005, there have been several 1 into 2 lot subdivisions within the established settlement footprint on land zoned for general residential use. However, no further development occurred on them. Several dwelling approvals were granted on other lots within the settlement footprint during the same period.

The level of development activity is low, and there are lots available within the settlement footprint for future development. The amount of available land for development is expected to be sufficient for the level of expected population change, including subdivision for smaller lots/dwellings in response to the ageing population and growing demand for smaller houses.

In West Coast, it is recommended that compact urban settlements are maintained. This could be facilitated by extinguishing residential lots from the cadastre where no development has occurred, particularly at the edge or outside the UCL and the land is not suitably zoned – subject to the ownership of the lots.

3.7 King Island

The population of King Island may experience gradual decline over the next 25 years, although this can be counteracted by increasing economic activity, including, tourism and, possibly, lifestyle seekers. The opening of Cape Wickham golf course may generate demand for tourist (and staff) accommodation and facilities on the island.

However, any growth or decline is unlikely to affect the settlement pattern and would probably be dispersed across the island.

4 Social Geography

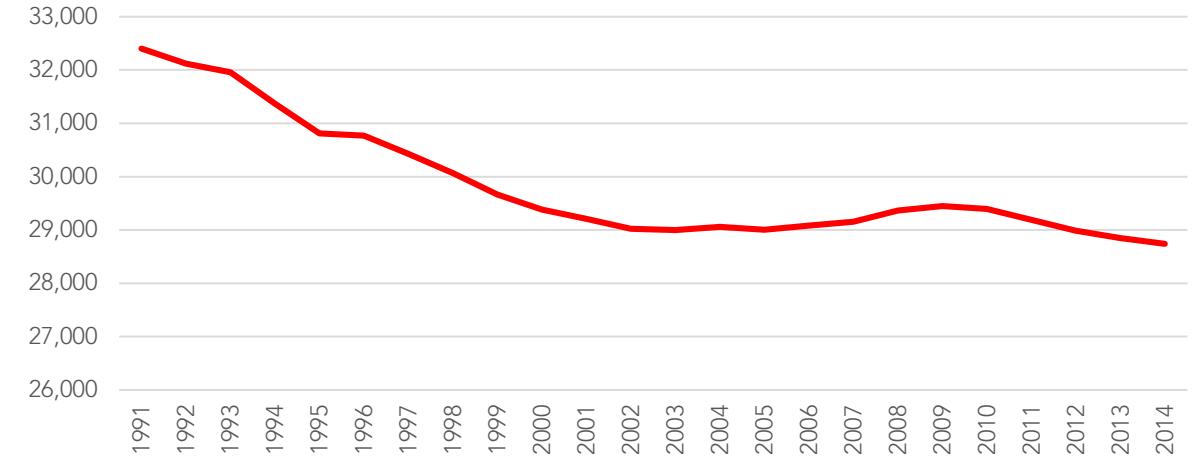
Murchison's population is shrinking and ageing, with most of the loss coming from the out-migration of young families. Notwithstanding current trends, inward migration to the region from other parts of Australia by persons 60+ presents opportunities.

4.1 Murchison region

Key demographic trends in the Murchison region are:

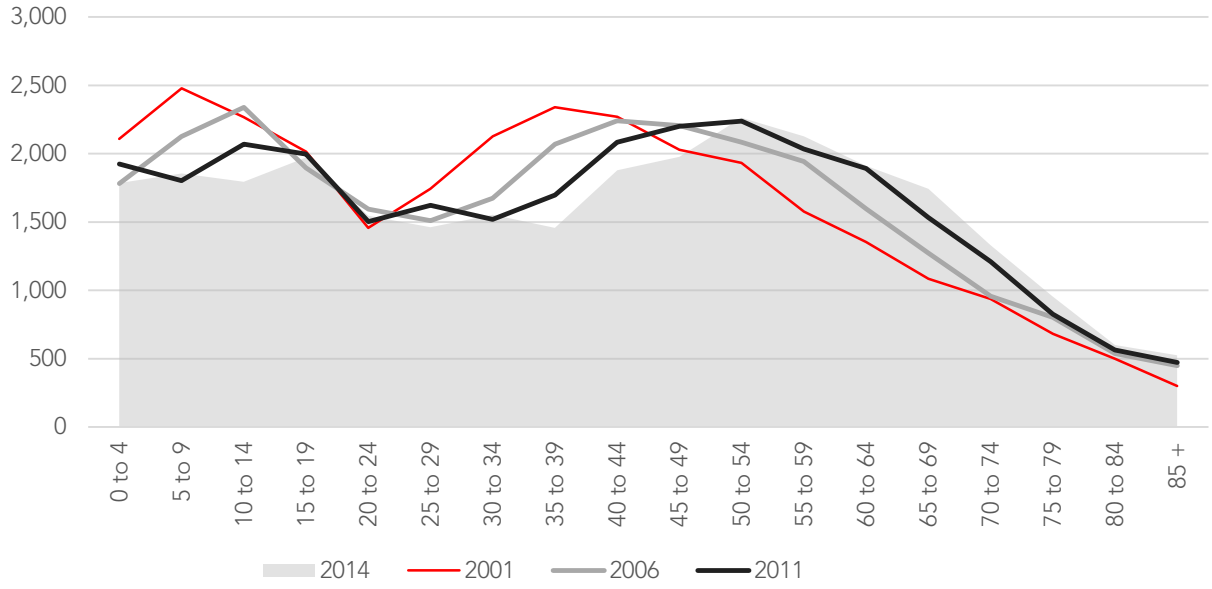
- A substantial loss in population over the past 20 years (Figure 11). Despite stabilising in the years from 2000 to 2010, population is currently experiencing a renewed decline. This is one of the consequences of an increasingly urbanised and mechanised economy, and in Murchison, this decline is intensified by restructuring within the region's significant mining industry. Without an ongoing and strategic effort, the communities of Murchison may continue to see their populations decline;
- Substantial ageing over the past 10 years, with notable growth in the number of 50+ residents (Figure 12). Over the same time period, the number of those aged 24-40 and 0-14 (i.e. young families) has declined;
- A skills gap emerging as the population shrinks and ages. This will limit the capacity of the economy to diversify and attract investment. Eventually it will result in a loss of the services and resources which sustain quality of life in the region;
- Murchison still loses population to the rest of Tasmania (Figure 13). The impact of this is seen across all age groups, but is particularly strong in younger residents (aged 15-24) as well as residents aged 60+. It is likely that this trend is driven by the lure of broader services - education services for younger people and health and social services for older residents;
- Despite its proximity to Murchison, Burnie has attracted a relatively small proportion of these net migration movements with the exception of young adults, who are most likely relocating to be in the region's urban centre (Figure 14);
- The Murchison region continues to attract a substantial number of migrants from interstate – in particular, those aged 60+ (Figure 15). Consequently, Murchison has potential advantages in affordability and rural lifestyle opportunities, that make it a popular destination for retirees; and
- While the majority of households in Murchison are families (approx. 66%), there are two exceptions. West Coast, which is typical of a mining sub-region and has a lower proportion of family households (56%) (Figure 16), and King Island, where single households are more common (31%) and families are less dominant (59%) than elsewhere (Figure 17).

Figure 11 Murchison Population, 1991-2014



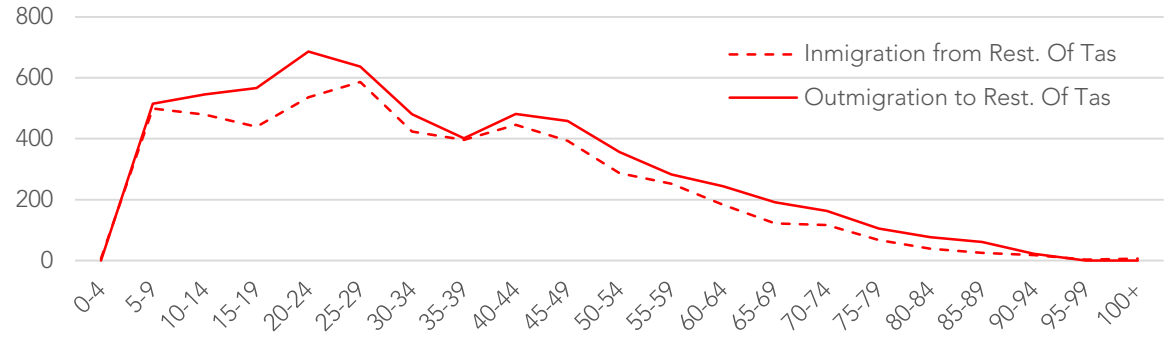
Source: ABS, 1991, 2014

Figure 12 Murchison Population by Age, 2001-2014



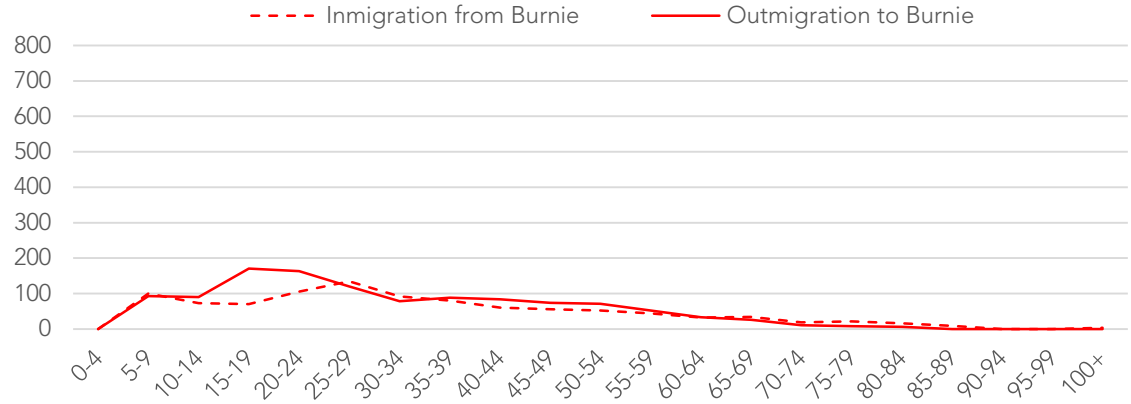
Source: ABS, 2001, 2014

Figure 13 Net Migration to Rest of Tasmania



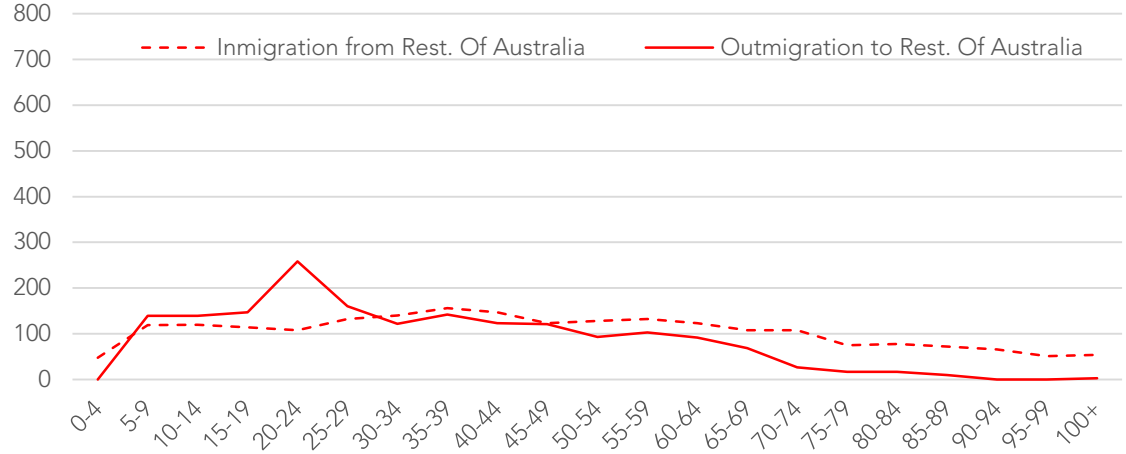
Source: ABS, 2006, 2011

Figure 14 Net Migration to Burnie



Source: ABS, 2006, 2011

Figure 15 Net Migration to Rest of Australia



Source: ABS, 2006, 2011

Figure 16 Household Structure, West Coast

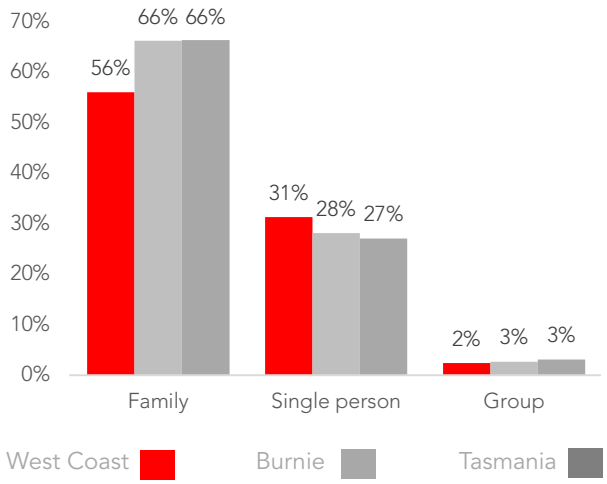
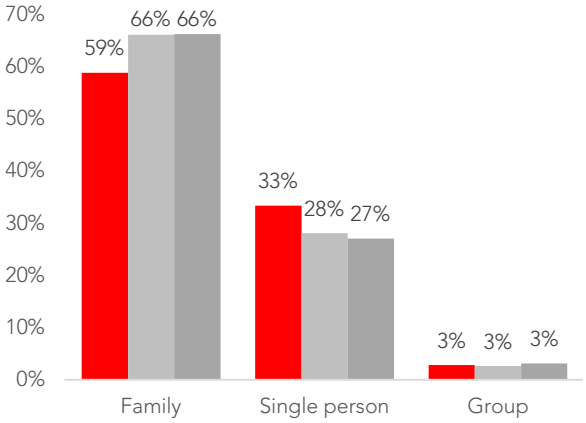


Figure 17 Household Structure, King Island



Source: ABS, 2011

4.2 Sub regions

The Murchison region is made up of eight sub regions. Key findings for each are presented in the following section, with the exception of Wilderness West, which has no population.

Summary:
Somerset

- Equipment and machinery wholesalers employ 22% of the working population.
- Somerset is inevitably affected by positive and negative growth in the primary industries it services. However, diversity across manufacturing, construction and services industries cushions the negative impact of, for example, the mining scale back.
- Somerset is most likely a dormitory suburb for Burnie, given its proximity.
- Population is stable, with a reasonably high rate of home ownership, even though household incomes are relatively low
- Highest single age group is under 40 (306 residents are 15 to 19 year olds).
- High numbers (8.4%) of people needing assistance. These are most likely to be young children and seniors.
- Relatively good proportion of the community connected to the internet.

Figure 18 Population Change, Somerset

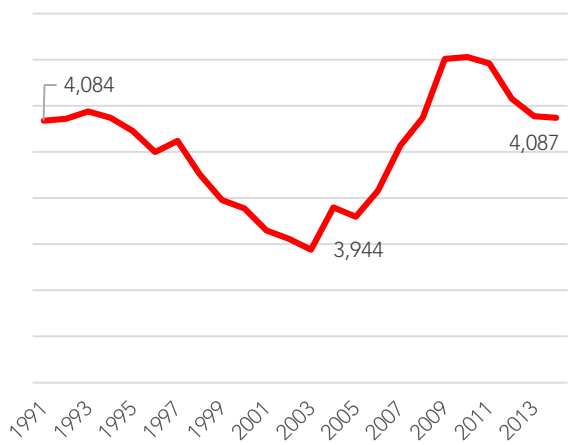


Figure 19 Age Structure, Somerset

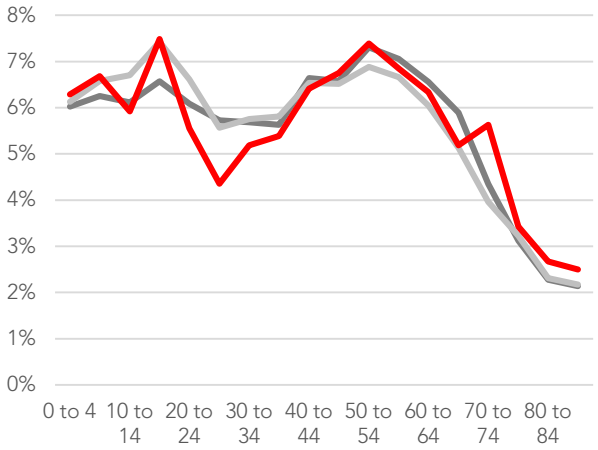


Figure 20 Weekly Household Income

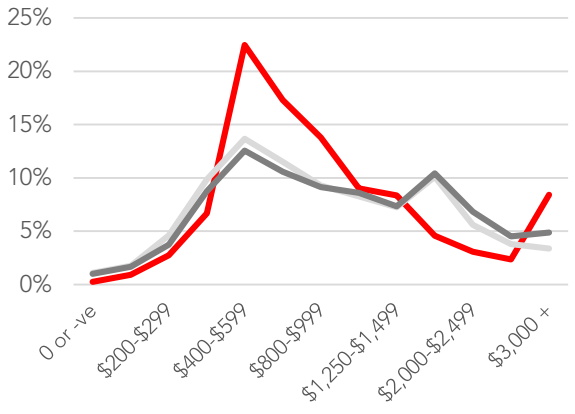
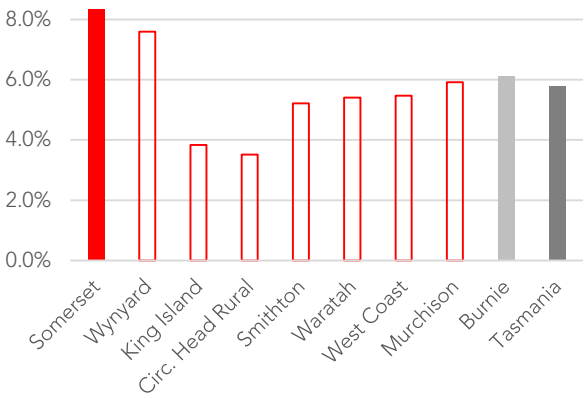


Figure 21 Need for Assistance[3], Somerset



[3] People who, because of a disability, long term health condition or the effects of old age, report a need for assistance in their daily lives with at least one of the core activities of self-care, mobility or communication. Source: ABS.

Summary:
Somerset

SOCIAL GEOGRAPHY
Somerset
Burnie
Tasmania

Figure 22 Household Tenure Type, Somerset

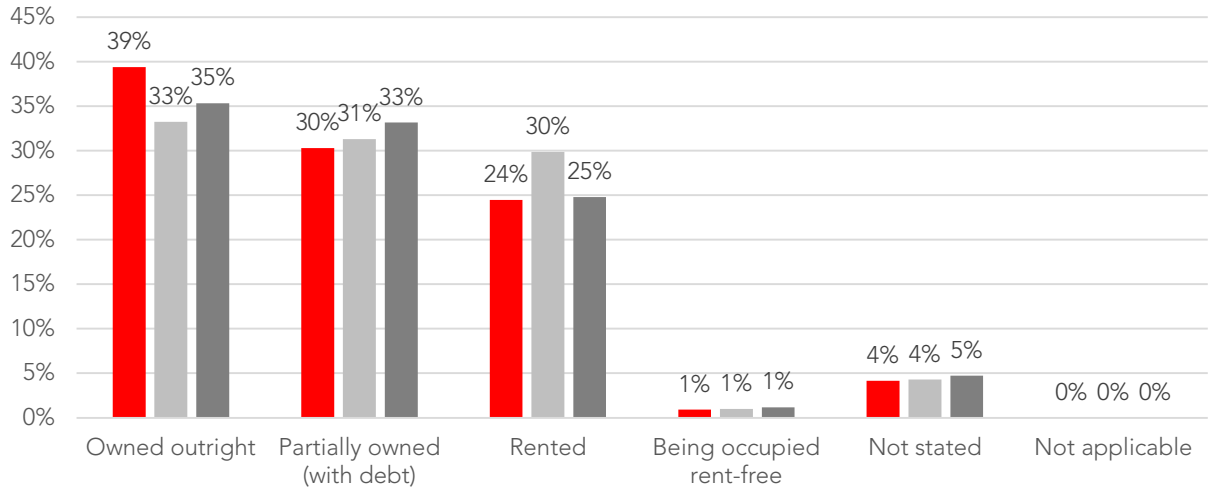


Figure 23 Access to Internet, Somerset

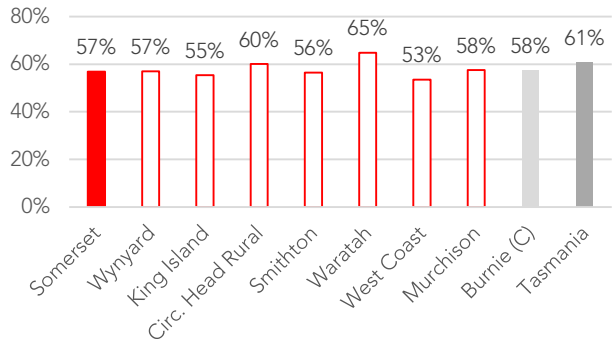


Figure 24 Industry Diversity

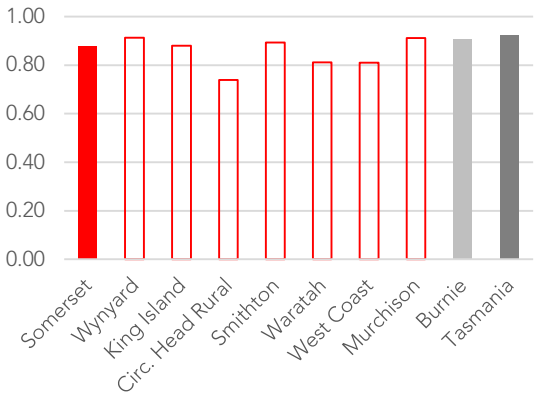
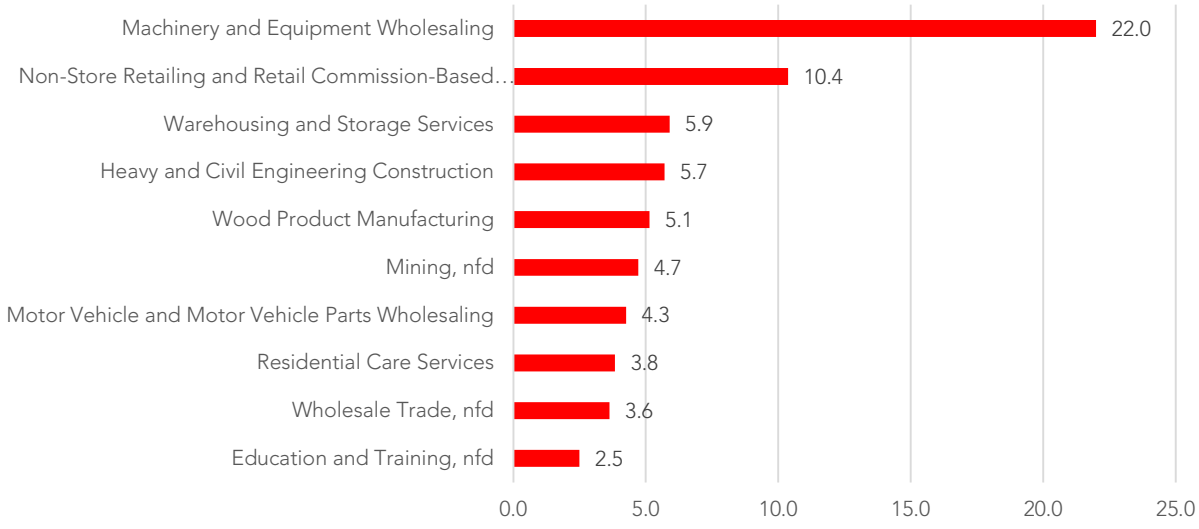


Figure 25 Industry Specialisation index, Somerset



Summary:
Wynyard

SOCIAL GEOGRAPHY

Wynyard
Burnie
Tasmania

- Wynyard has the most diverse industry range in the region.
- Diversity is created by strong manufacturing and wholesale bases that support the mining industry and related activities.
- Population growth has been steady over the past 20 years. This is largely a result of the rural to urban migration trend, facilitated by the increase in service jobs in urban centres.
- Like Somerset, there is a high number of people needing assistance. However, in contrast to Somerset, which has a large population of young children, this number is mostly made up of older residents (Wynyard's biggest age group is 65 to 69, one of the oldest 'age peaks' in the region).
- Low household income relative to the other sub regions.

Figure 26 Population Change, Wynyard

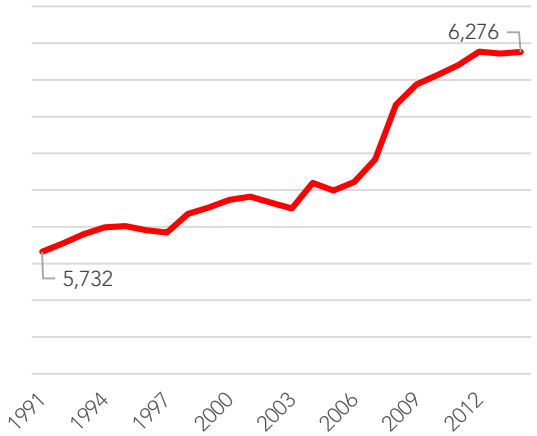


Figure 27 Age Structure, Wynyard

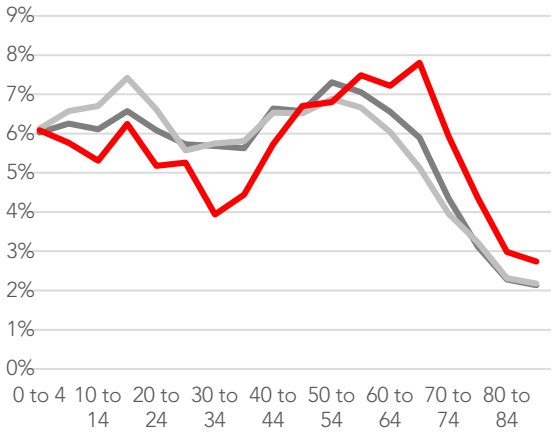


Figure 28 Weekly Household Income

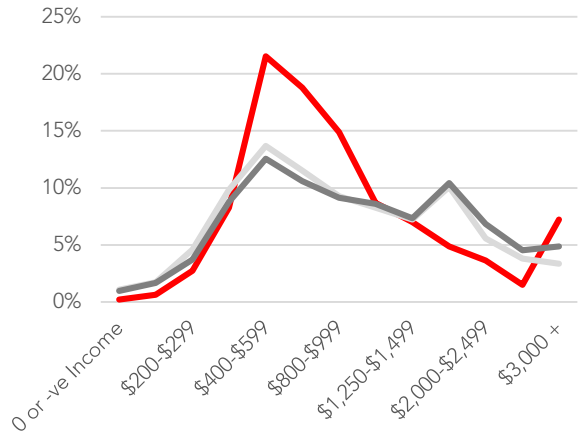
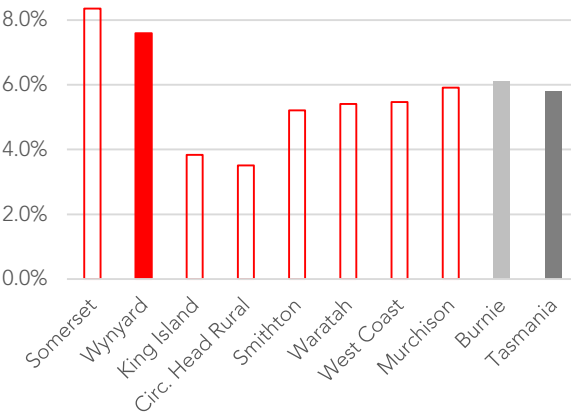


Figure 29 Need for Assistance, Wynyard



Summary:
Wynyard

SOCIAL GEOGRAPHY
Wynyard
Burnie
Tasmania

Figure 30 Household Tenure Type, Wynyard

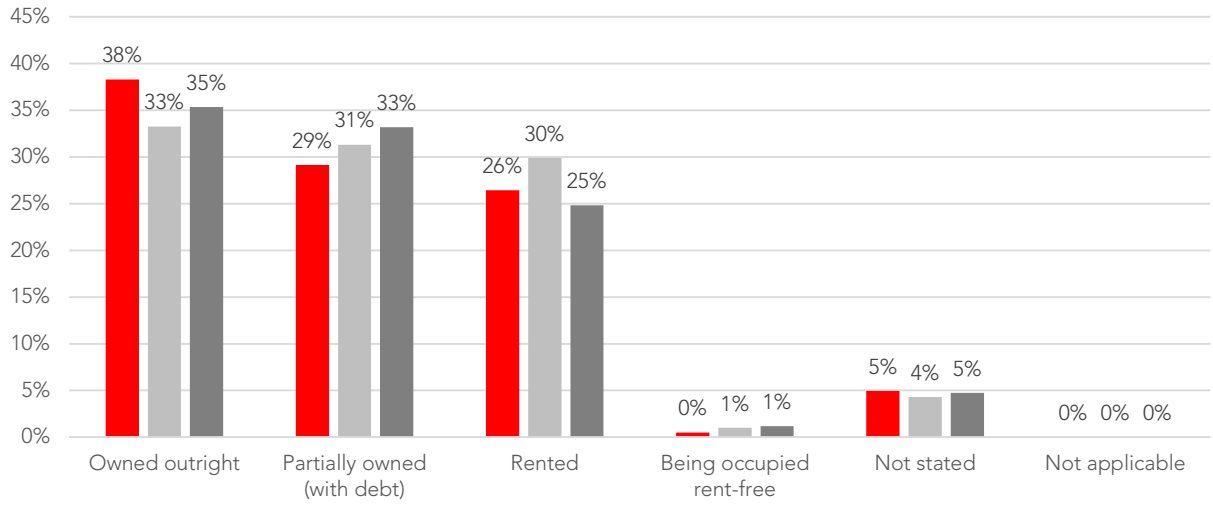


Figure 31 Access to Internet, Wynyard

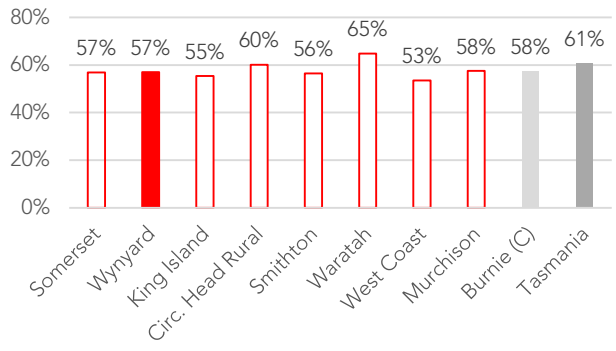


Figure 32 Industry Diversity, Wynyard

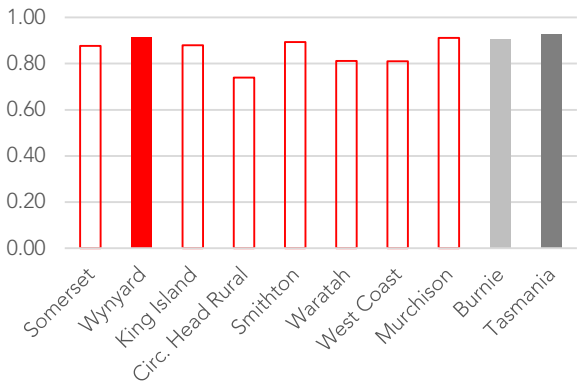
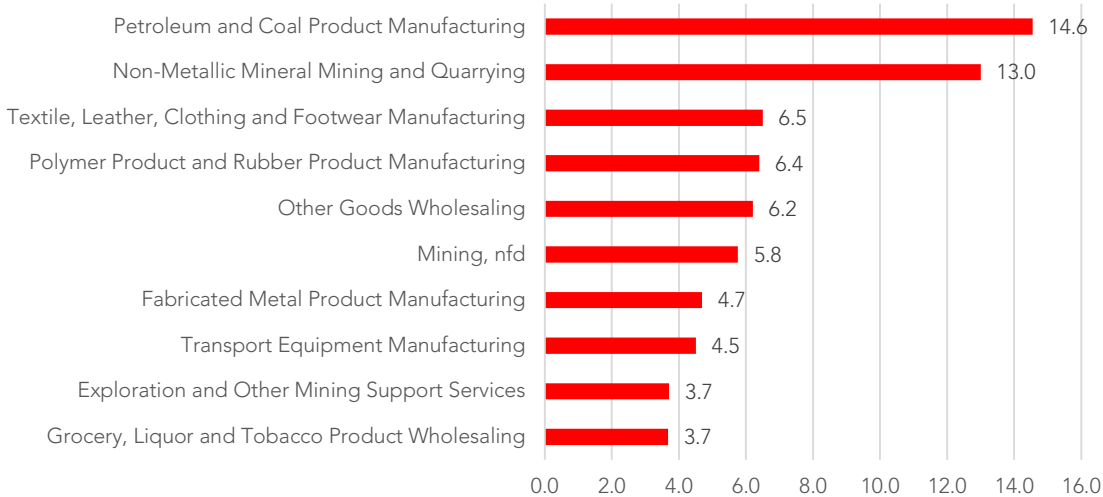


Figure 33 Industry Specialisation Index, Wynyard



Summary:
King Island

- Population is steadily and naturally decreasing due to its conspicuous ageing.
- The ageing factor means that household structure is less weighted towards families than elsewhere in the region. The inward migration of sea-changers and holiday makers is not enough to offset the outward migration caused by the mechanisation of farming and its impact on employment prospects on the island.
- King Island residents have high rates of tertiary education, and higher household incomes are consistent with this and with the increasing sea-change population.
- The island has poor internet access and industry diversity and is increasingly reliant on opportunities in tourism. In turn, attracting tourists and new residents alike depends upon successful niche farming industries such as cheese, beef and lobster to make the island a rich epicurean destination. Golf tourism is increasing, which compliments food tourism.

Figure 34 Population Change, King Island

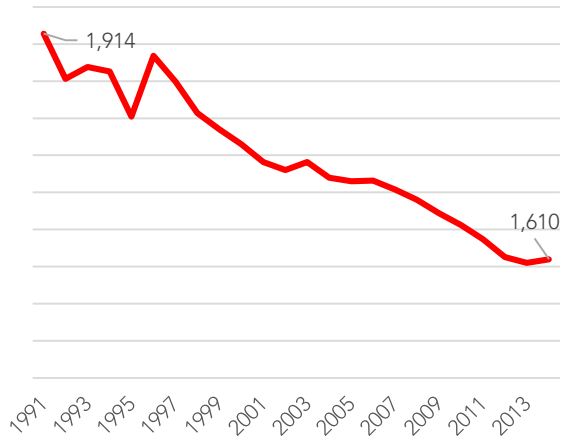


Figure 35 Age Structure, King Island

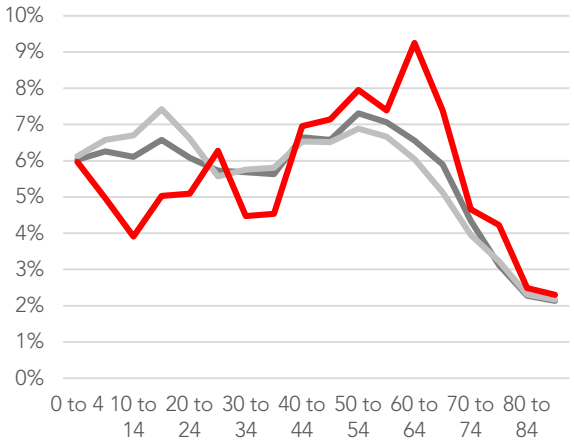


Figure 36 Weekly Household Income

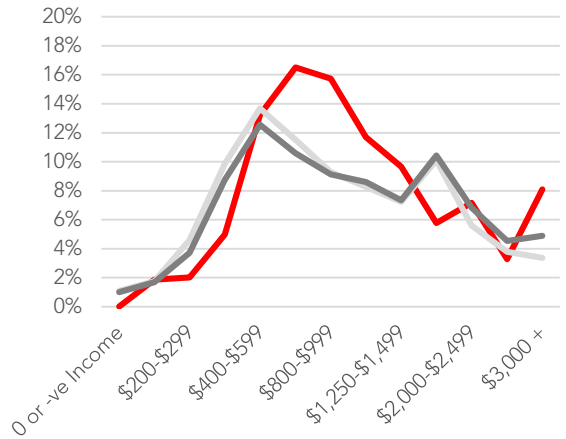
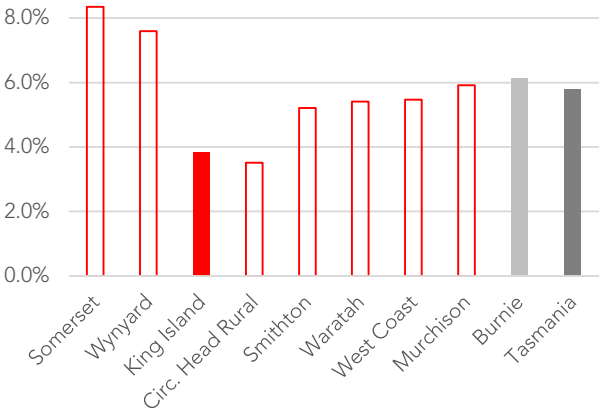


Figure 37 Need for Assistance, King Island



Summary:
King Island

SOCIAL GEOGRAPHY
King Island
Burnie
Tasmania

Figure 38 Household Tenure Type, King Island

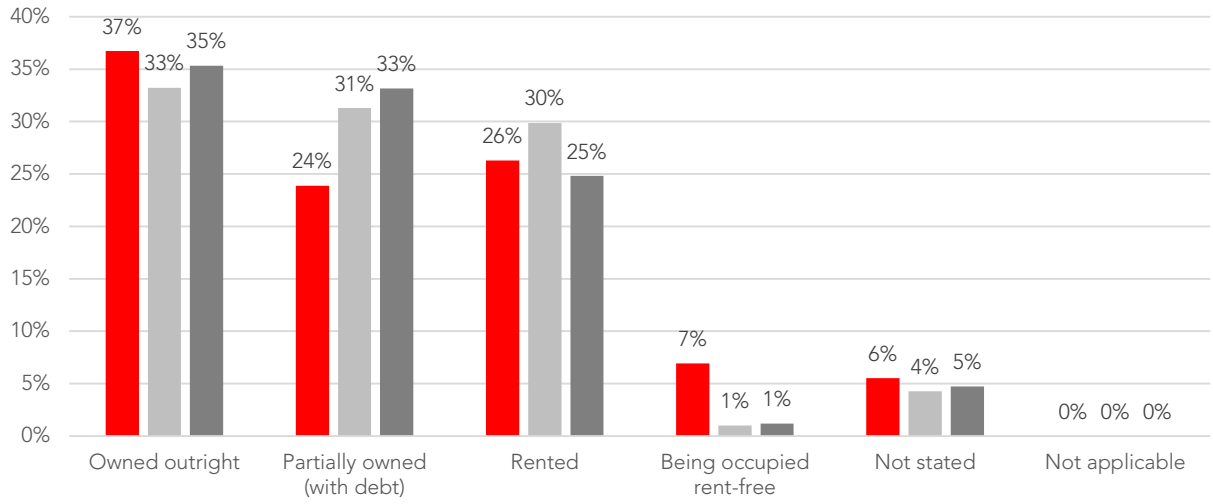


Figure 39 Access to Internet, King Island

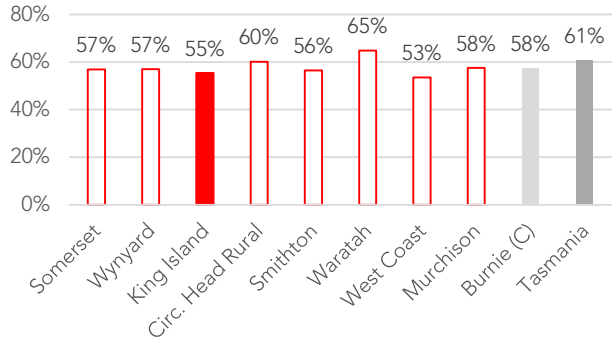


Figure 40 Industry Diversity, King Island

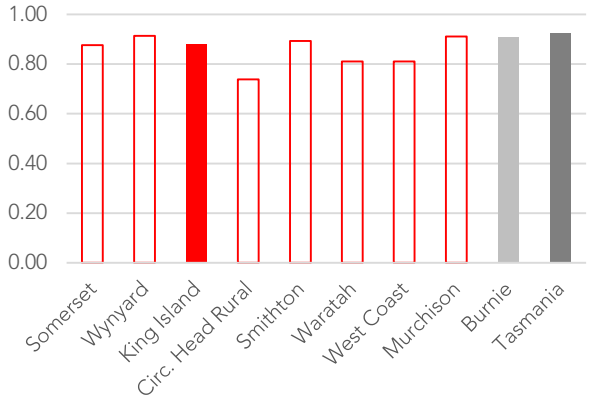
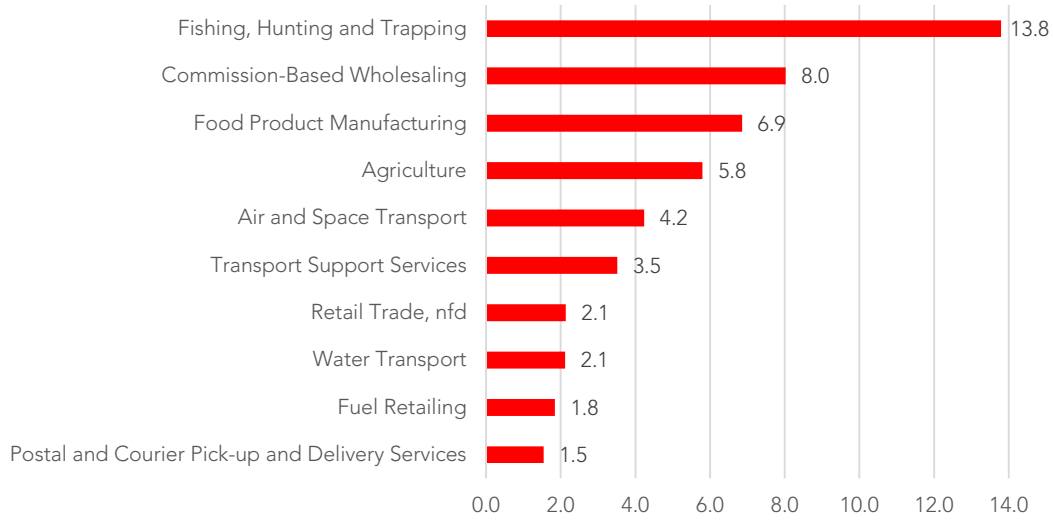


Figure 41 Industry Specialisation Index, King Island



Summary:
Circular Head Rural

SOCIAL GEOGRAPHY

Circular Head Rural
Burnie
Tasmania

- Agriculture and mining are the dominant industries in Circular Head Rural.
- Industry diversity is the lowest in the region. However, the resilience of its agricultural sector sustains a stable population and a household income profile that is 'bell-shaped', with a good spread of middle incomes.
- There are a larger proportion of families (71%) and few single and group households (9%) than elsewhere in the region, typical of agricultural and mining districts.
- High rates of vocational qualifications which far outweigh tertiary qualifications, again, typical of farming and mining areas.

Figure 42 Population Change, Circular Head Rural

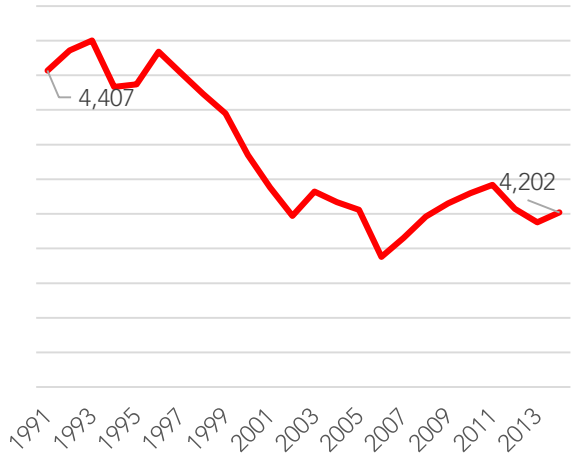


Figure 43 Age Structure, Circular Head Rural

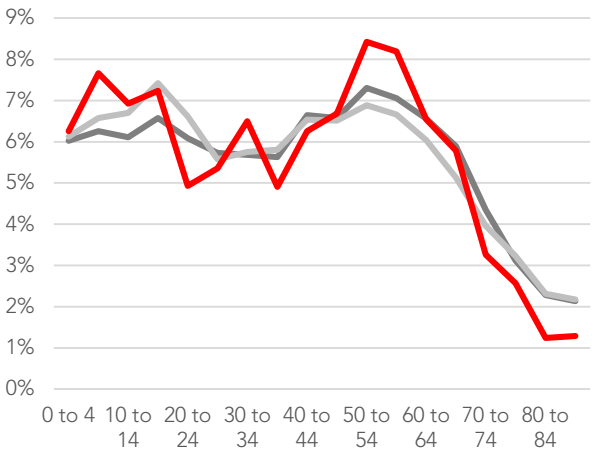


Figure 44 Weekly Household Income

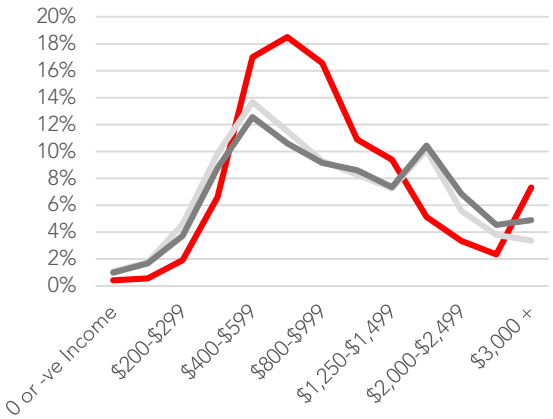
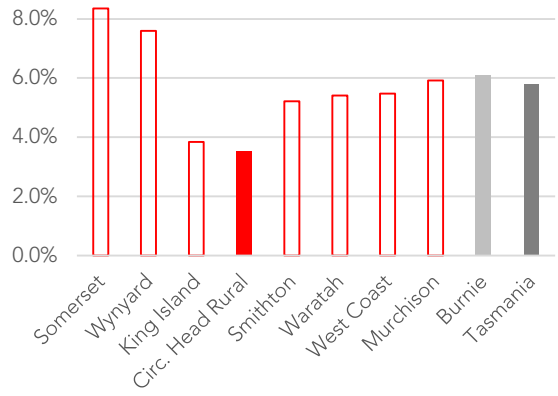


Figure 45 Need for Assistance, Circular Head Rural



Summary:
Circular Head Rural

SOCIAL GEOGRAPHY
Circular Head Rural
Burnie
Tasmania

Figure 46 Household tenure type, Circular Head Rural

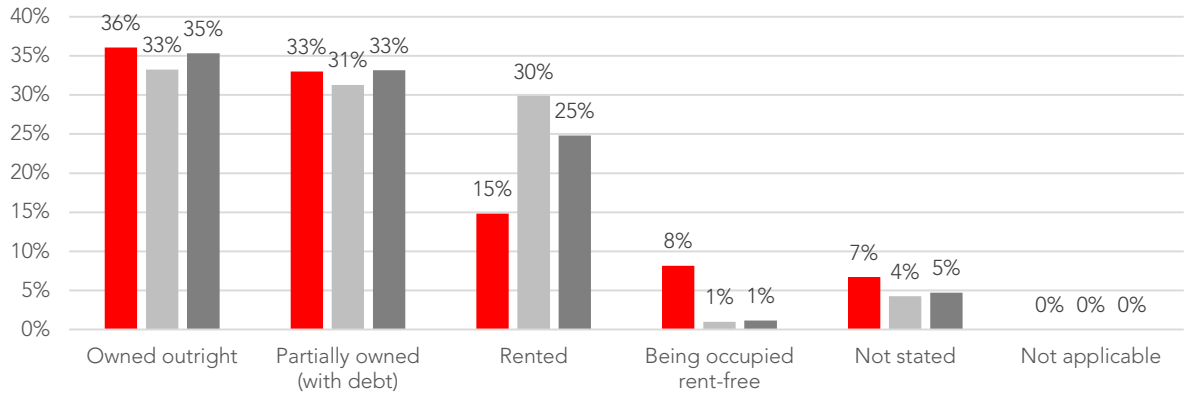


Figure 47 Access to Internet, Circular Head Rural

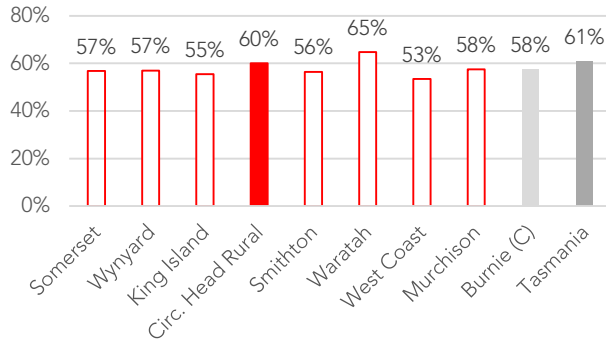


Figure 48 Industry Diversity, Circular Head Rural

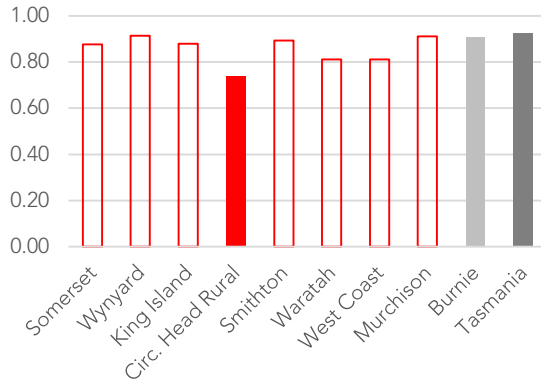
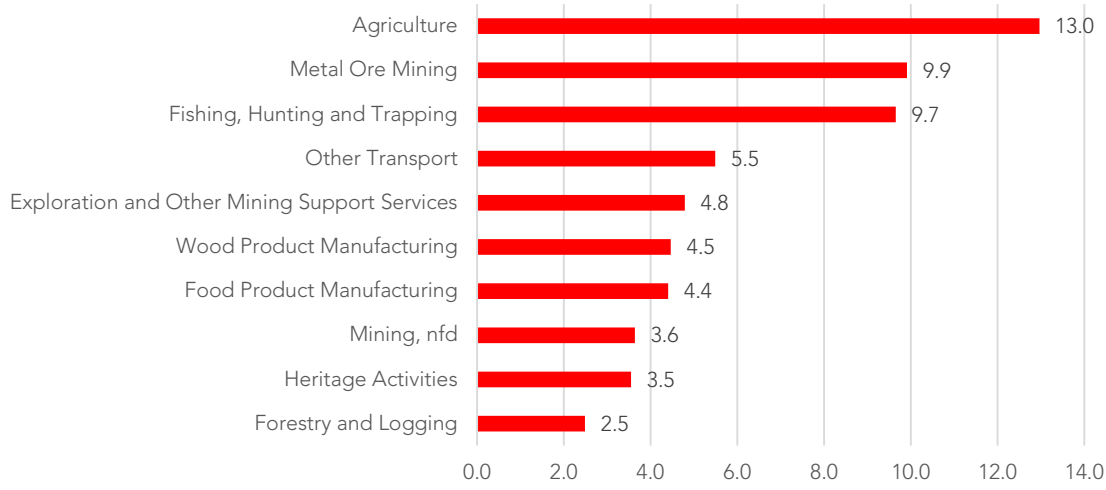


Figure 49 Industry Specialisation Index, Circular Head Rural



Summary:
Smithton

- The population is still recovering from a 20-year low (in 2001). The decline and resurgence in population may be attributable to restructuring in forestry and food processing sectors.
- Smithton has a relatively diverse economy spread across manufacturing and agriculture. Dairy, beef and fisheries production feeds a variety of food processing and export businesses.
- There is a relatively high number of children in Smithton, but a smaller 60-75 age group than elsewhere. Older people relocating from rural areas around Smithton, may be attracted to Burnie's more significant health and aged care services
- Middle income earners dominate the region's income profile.
- Unlike elsewhere in the region, residents of Smithton are more likely to have a mortgage than not. This reflects the high number of young families.

Figure 50 Population Change, Smithton

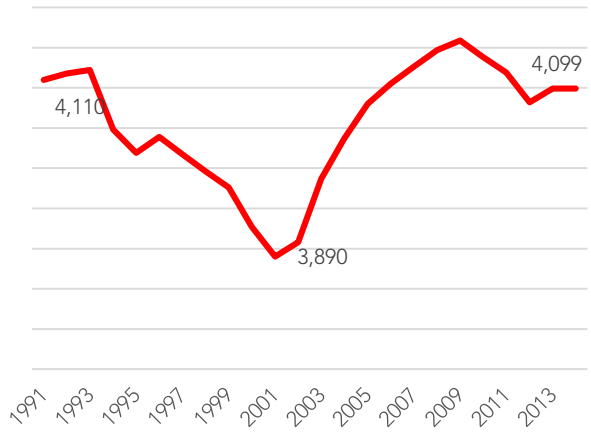


Figure 51 Age Structure, Smithton

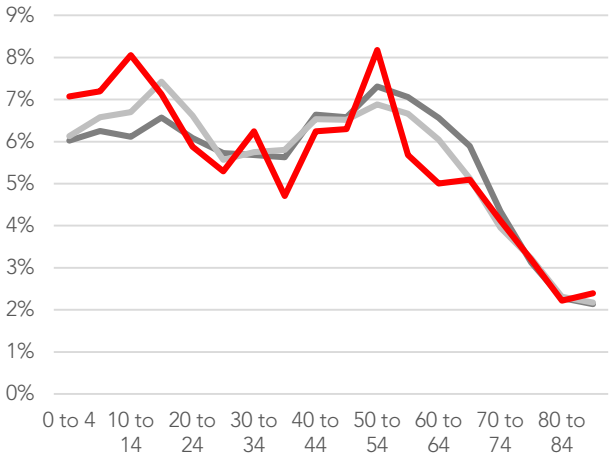


Figure 52 Weekly Household Income

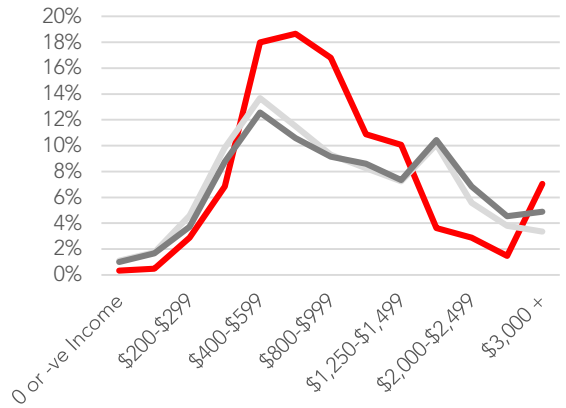
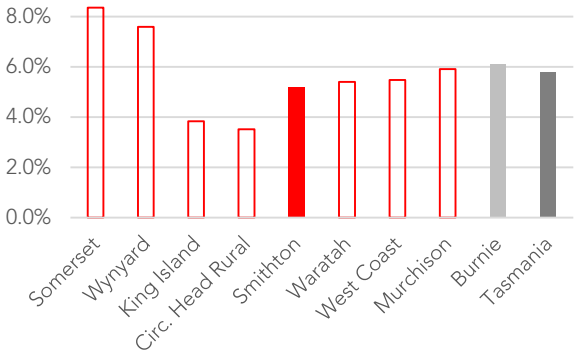


Figure 53 Need for Assistance, Smithton



Summary:
Smithton

SOCIAL GEOGRAPHY
Smithton
Burnie
Tasmania

Figure 54 Household Tenure Type, Smithton

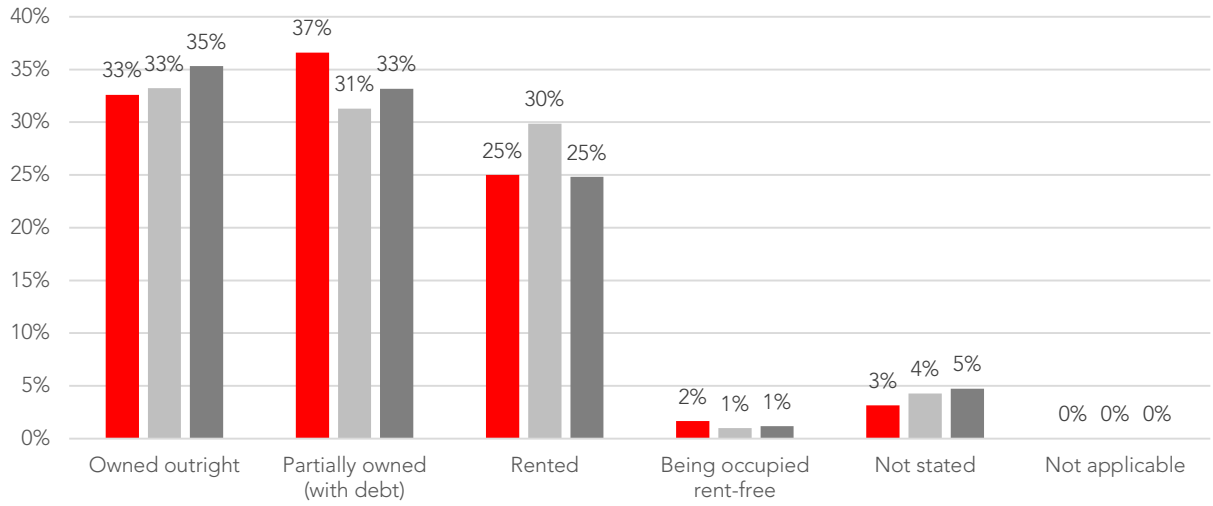


Figure 55 Access to Internet, Smithton

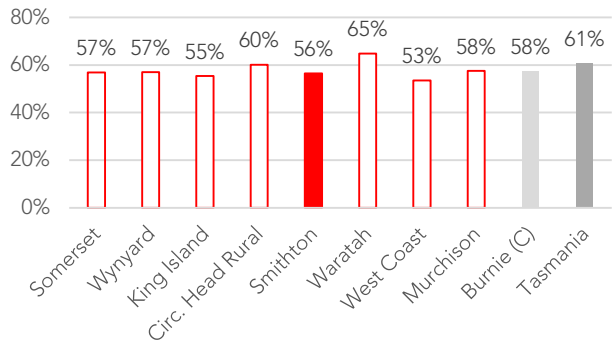


Figure 56 Industry Diversity, Smithton

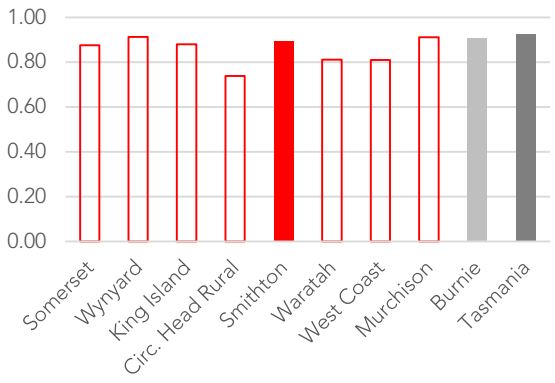
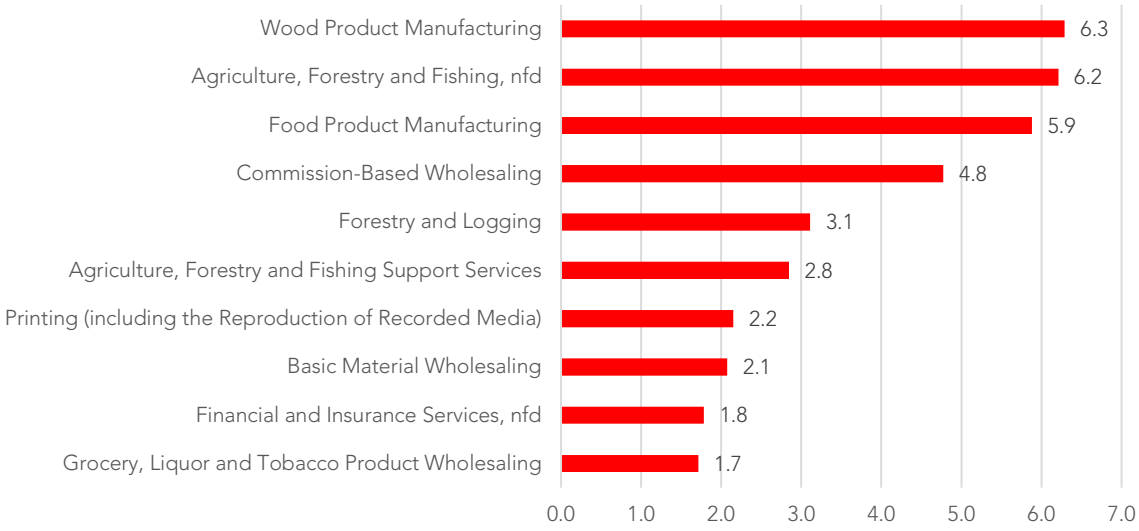


Figure 57 Industry Specialisation Index, Smithton



Summary:

Waratah

Including Boat Harbour and Sister's Beach

SOCIAL GEOGRAPHY

Waratah
Burnie
Tasmania

- Waratah's population has now stabilised after a steep decline.
- The economy continues to be dominated by the mining industry and its support services.
- The mining industry is long established in the area and the regular income it generates, together with the relatively affordable housing has led to the highest rate of home ownership in the region.
- Residents in beachside settlement of Boat Harbour and Sister's Beach are likely to have higher incomes than other settlements in Waratah.
- There are more families and fewer single households in relation to elsewhere.
- However, the area has very low numbers of young working age people (ages 20-35), reflective of a commonplace rural to urban shift.
- Every area shared the common characteristic of a sharp rise at the upward end of household income. It was most pronounced in Waratah, indicating a relatively large number of high income earners in the area.

Figure 58 Population Change, Waratah

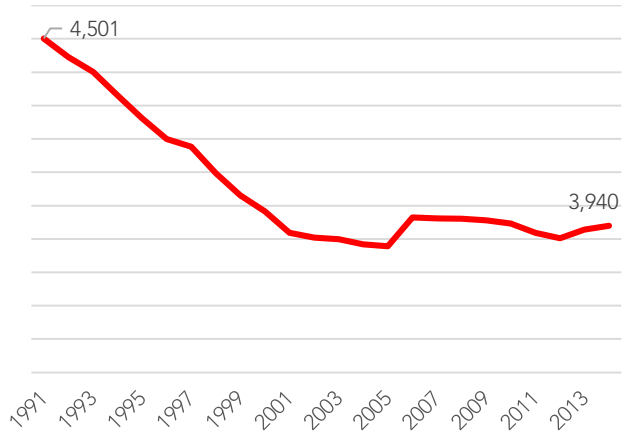


Figure 59 Age Structure, Waratah

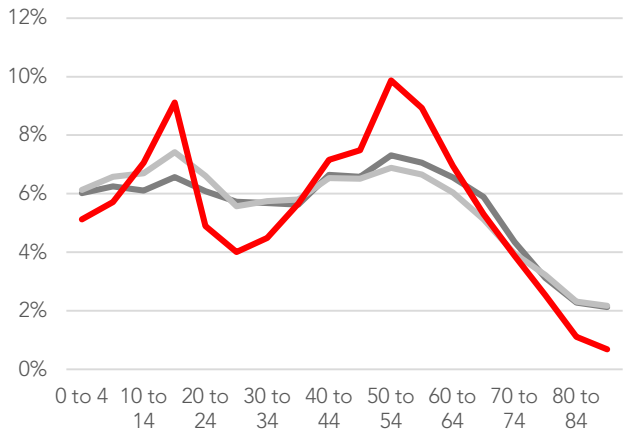


Figure 60 Weekly Household Income

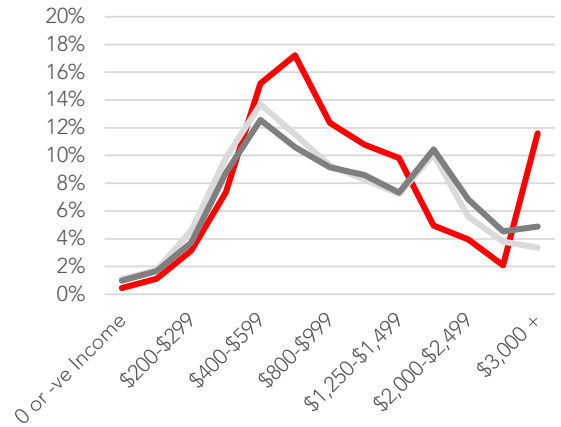
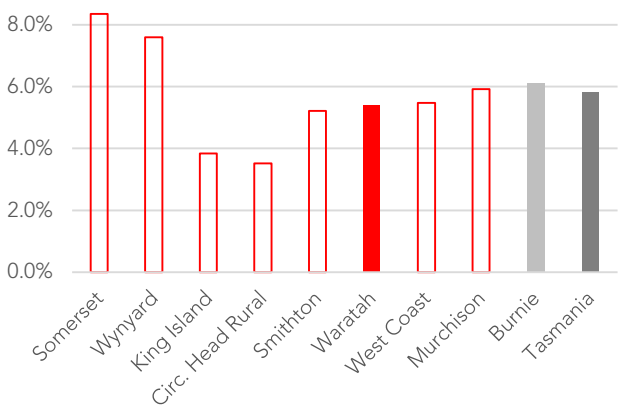


Figure 61 Need for Assistance, Waratah



Summary:

Waratah

Including Boat Harbour and Sister's Beach

SOCIAL GEOGRAPHY

Waratah
Burnie
Tasmania

Figure 62 Household Tenure Type, Waratah

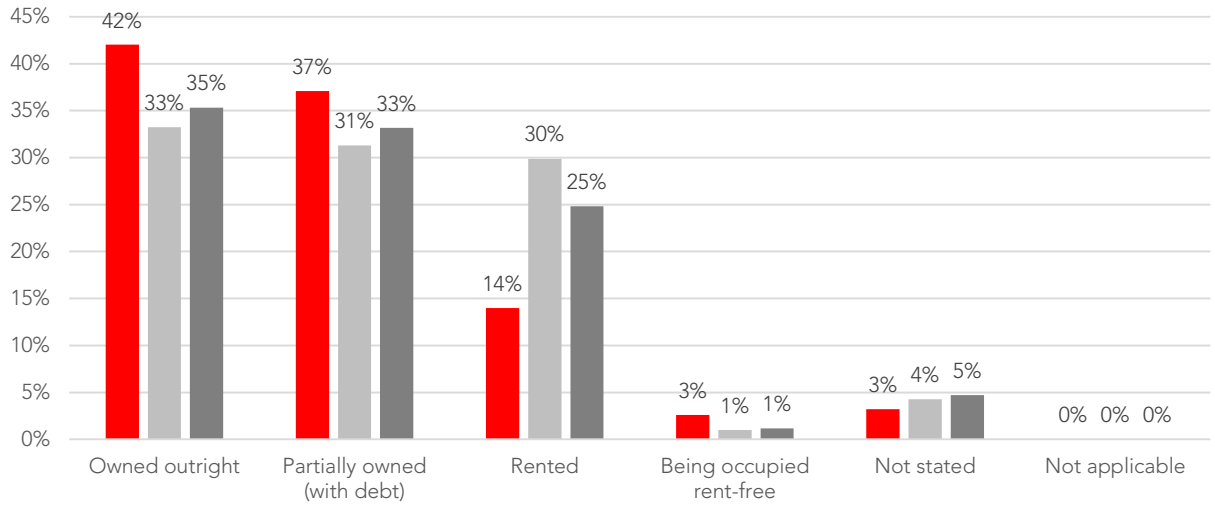


Figure 63 Access to Internet, Waratah

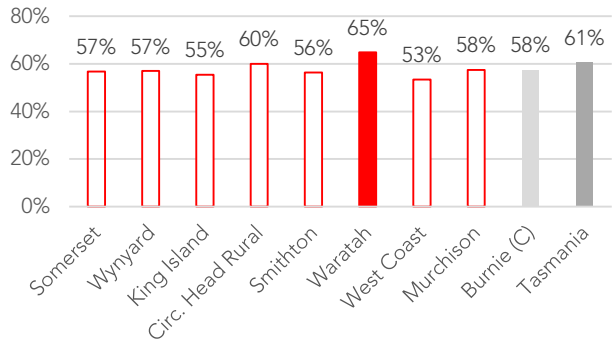


Figure 64 Industry Diversity, Waratah

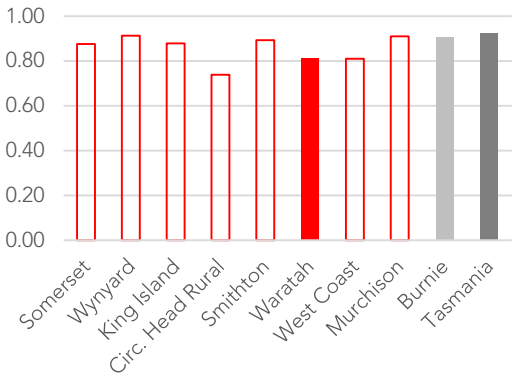
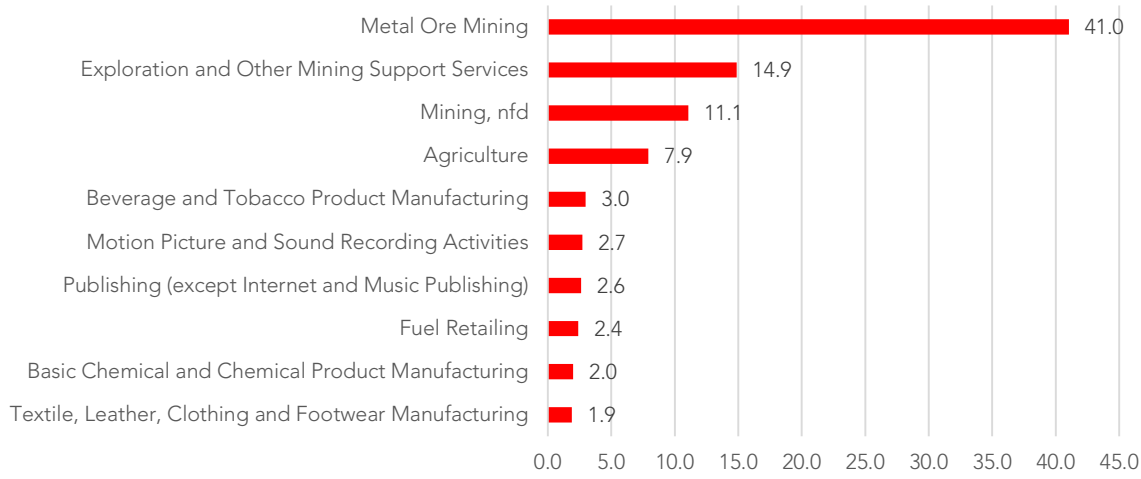


Figure 65 Industry Specialisation Index, Waratah



Summary:
West Coast

- Population is in steady decline. Age groups are spread more evenly, with relatively low numbers of children and young adults.
- Dominated by mining, the economy of the West Coast area is less diverse than some other parts of the region.
- There are fewer families, and a relatively high number of single households.
- More unusual for a mining area are the lower incomes and the low numbers of middle income households. This is an indication that some mining areas provide greater returns, (i.e. sustainable jobs and consistent incomes), than others.
- West Coast has the poorest internet access in the region (36%).

Figure 66 Population Change, West Coast

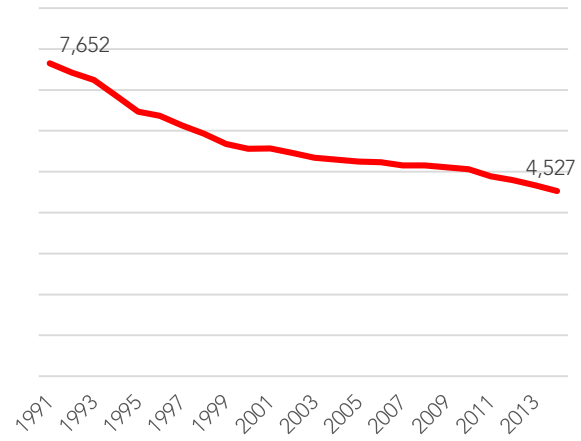


Figure 67 Age Structure, West Coast

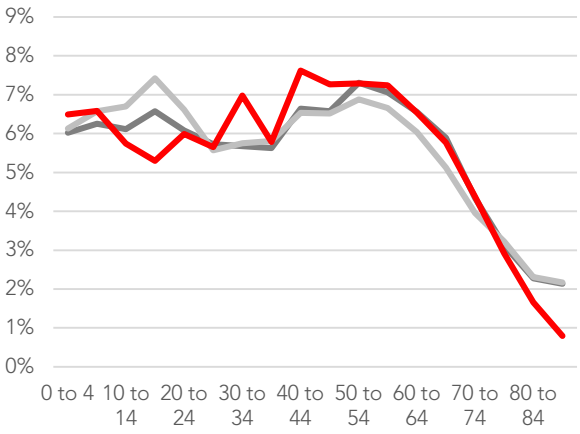


Figure 68 Weekly Household Income

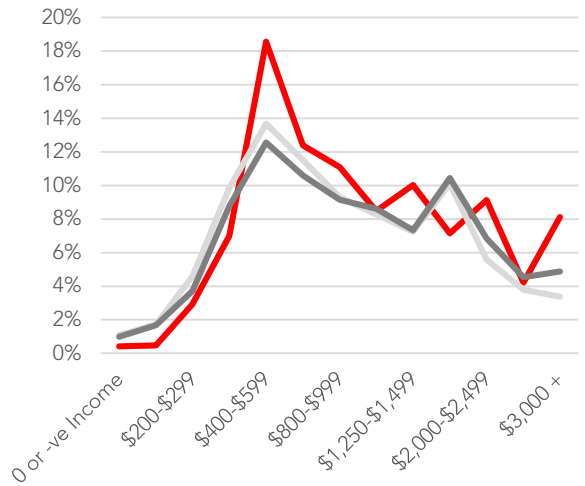
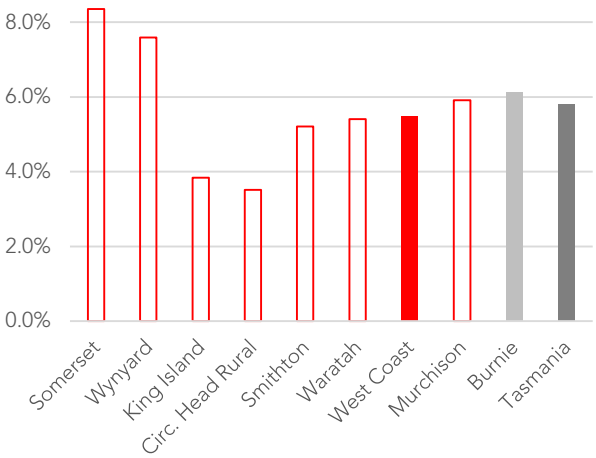


Figure 69 Need for Assistance, West Coast



Summary:
West Coast

SOCIAL GEOGRAPHY
West Coast
Burnie
Tasmania

Figure 70 Household Tenure Type, West Coast

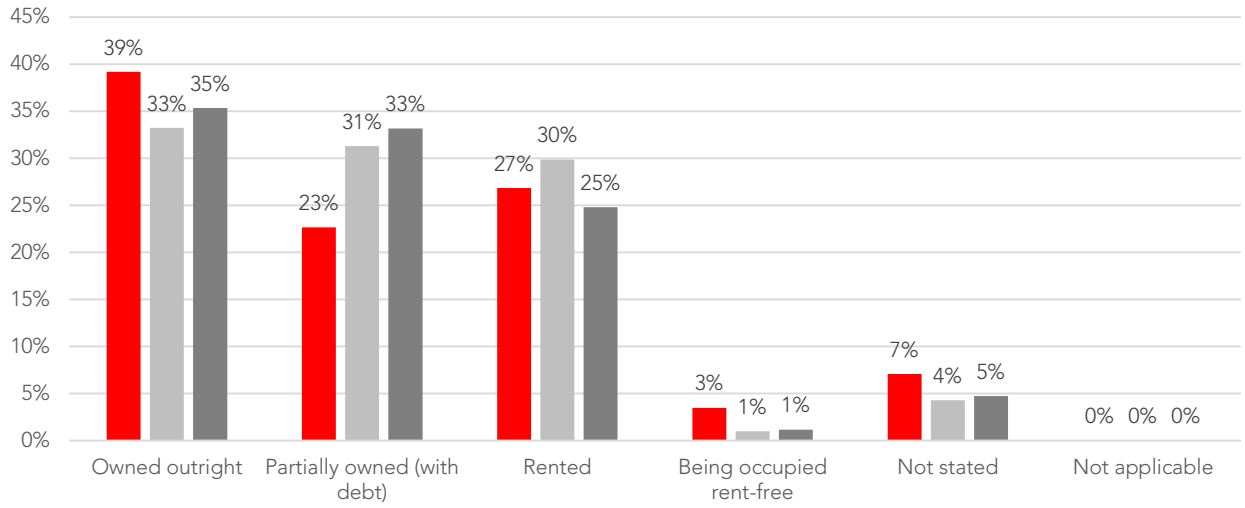


Figure 71 Access to Internet, West Coast

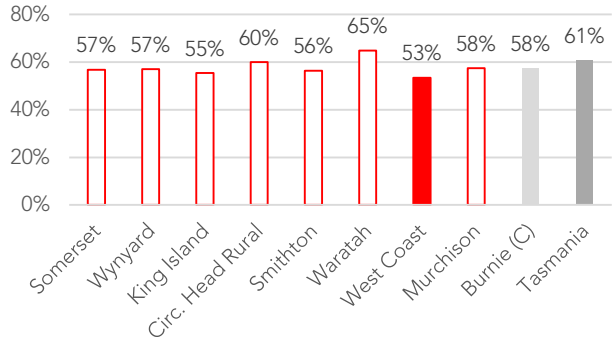


Figure 72 Industry Diversity, West Coast

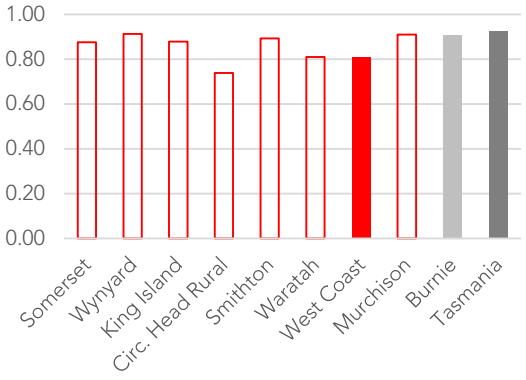
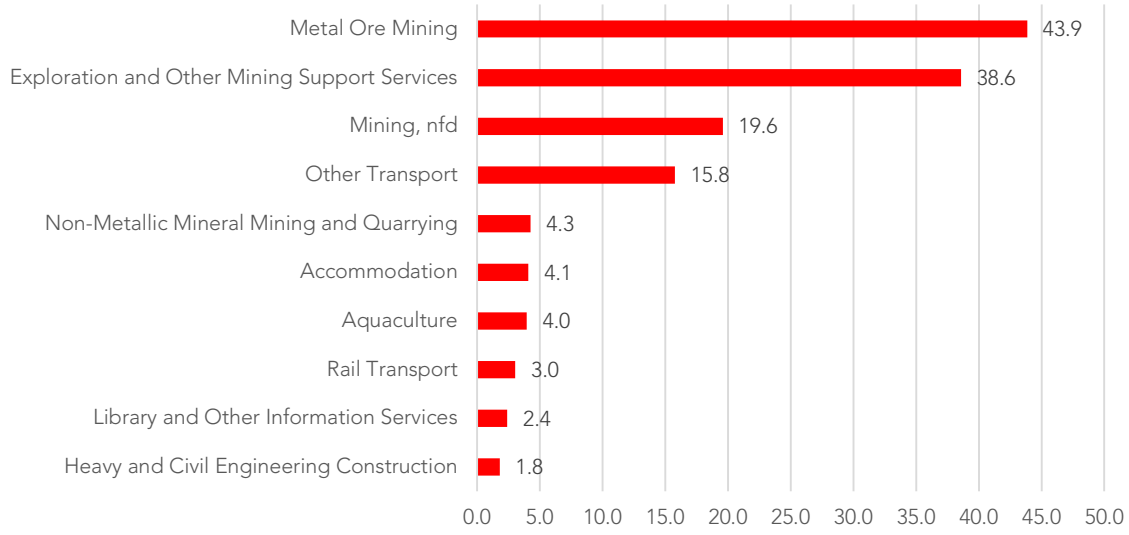


Figure 73 Industry Specialisation Index, West Coast



5 Community Wellbeing

A series of liveability indicators have been suggested for monitoring community wellbeing in Murchison. The indicators are a set of objective measures that are easy to collect, understand and monitor.

Liveability indicators are useful for measuring regional resilience and attractiveness. An appropriate selection of indicators can help understand and guide development and management of Murchison so that it becomes more attractive to higher skilled and upskilling workers; supports leadership and development of new and existing industries; and benefits the community as a whole.

5.1 Drawing from different liveability indices

Liveability can be measured in a variety of ways. Global studies, such as the Mercer Quality of Living Survey, the Economist Intelligence Unit's Spatially Adjusted Liveability Index, are used to guide investment or expat salaries, while Monocle's Quality of Life Survey values simple experiences. Underpinning liveability is resilience, which is particularly important in regional areas. Such areas typically have less flexibility to respond and recover from shocks or significant structural changes in their economies, demographics and environment.

Mercer's Quality of Living Rankings consider 230 destinations for globally mobile talent. It assesses living conditions to assist multinational companies and other employers in their compensation decisions for employees when placing them on international assignments (Table 7). Australian cities perform well in the rankings against other global cities. In the 2016 Survey, Sydney and Melbourne ranked 10th and 15th, respectively. For personal safety, Pacific cities also rank high, Canberra, Melbourne, Perth, and Sydney sharing 25th place[4].

Economist Intelligence Unit's (EUI) Spatially Adjusted Liveability Index also focuses on features of cities to attract highly skilled people, with the addition of spatial factors for the natural environment (Table 7). Using a methodology adjusted for spatially factors resulted in quite different rankings for cities compared the regular EUI Liveability Index. Generally, rankings improved as density increased. So, in 2012 Sydney's ranking actually fell from second to fifth owing to its sprawl. Unfortunately, Melbourne was not ranked.

Monocle's Quality of Life Survey values simple experiences, such as inclusive places for all, places to sit, independent retail and the ability of craftsmen and essential workers to work in a city centre. There are also numerous indicators available to measure these different forms of liveability.

[4] http://www.mercer.com/newsroom/western-european-cities-top-quality-of-living-ranking-mercer.html

Table 7 Liveability Ranking Categories

Mercer Quality of Living rankings 10 categories, 39 factors	EIU Spatially Adjusted Liveability Index	Australian Regional Capacity Index
Housing	Stability	*Economic capacity:*
Climate and physical conditions	Healthcare	Income equality
Pollution	Culture	Economic diversification
Disease and sanitation Medical facilities	Environment	Regional Affordability
Education facilities	Education	Economic dynamics index
Infrastructure	Green space	*Socio-demographic:*
Physical remoteness	Pollution	Educational attainment capacity
Political and social environment	World heritage	Female labour force participation
Crime	Natural landscapes	Poverty
Communications		*Community:*
Cultural and recreation facilities		Life expectancy
Availability of goods and services		Incarceration rates
Political violence and repression		Net overseas migration
		Participation in sporting activities
		Voter participation

Source: Mercer, State of Australian Cities, 2010; KPMG, 2015

5.2 Murchison's liveability indicators

Murchison's liveability indicators draw on the above-mentioned categories to focus on the physical, mental and social wellbeing of the region. To this end, we have identified thirty-three indicators across ten themes (Table 8). These indicators have been chosen for their ease of access and usefulness. Some indicators are updated frequently, such as public safety statistics, while others are every few years, such as Census statistics. In addition, several spatial indicators to measure the average time and distance to particular services, such as General Practitioners, have been selected, which need only be calculated every two years or so to remain current.

Importantly, these indicators are intended to be objective. They are determined independently and have little scope for misinterpretation. They are also comparable. This is important for highlighting key features that make the region attractive to new residents.

In the future, Murchison may adopt subjective indicators to calculate and monitor itself, such as bicycle connectivity networks, outdoor public seating, proportion of children with access to a school bus, or healthy living awareness. Publication of the results of these indicators may also be useful way to attract new residents.

Table 8 Community Wellbeing Indicators

Theme	Indicator	Description	Source
Housing	Housing affordability	Households with housing costs 30% or more of gross income. Expressed as a percentage of all households.	ABS
	Housing affordability	Median house or unit/flat price.	ABS
	Housing affordability	Average cost of private rented accommodation.	Census
	Housing diversity	Proportional mix of dwellings.	Council records
Education	Educational attainment	People aged 25+ who have a non-school qualification.	Census
	Educational attainment	Highest level of qualification of people aged 25+.	Census
	Apprenticeships and vocational training enrolments	People aged 25-64 years enrolled in vocational education and training expressed as rate per 100.	NCVER
	School retention	People aged 17 years still attending secondary school.	Census
	Access to government secondary schools	Average distance to the nearest government secondary school with Year 11 and 12 (km). Measured via GIS.	Drive time analysis[5], PT analysis
Employment & Income	Unemployment rate	Unemployed as a percentage of the labour force. Measured by Census data.	Census
	Participation rate	People who are employed, expressed as a percentage of people aged 15 years and over. Measured by Census data.	Census
	Income	Median equivalised gross weekly household income	Census
	Farm income	Value of agricultural commodities produced	ABS
	Employment diversity	No. of enterprises by industry sector	Site counts
Health and social services	Access to allied services	Access to the services of doctors, hospitals, dentist, child and care.	Drive time analysis
	Distance to medical clinics with a GP	Average distance to nearest medical clinic with a GP. Measured via GIS.	Drive time analysis
	Elderly care facilities per population	Ratio of elderly day centre places/population over 65.	Bespoke analysis[6]
	Education and awareness programs	Awareness of and participation in preventative health care	Community survey

[5] Drive time analysis is a calculation of the amount of time taken to drive between two points. The analysis assumes regular traffic conditions and speed limits are observed.
[6] A calculation created for this indicator from publically available data.

Theme	Indicator	Description	Source
Population services	Proximity to key services	Supermarkets, stores, banks, libraries, community centres within 1,600m of all residential areas.	Drive time analysis, walking time and distance analysis
Transport	Access to public transport	Proportion of General Residential zone within 400m of a bus stop or 800m of a train station.	GIS analysis
	Commute time	Average commute travel time.	Census/GIS[7]
	Travel mode to work	Method of travel to work.	Census
Public open space	Amount of public open space	Total hectares of green and open space for recreation, including public parks and playgrounds.	GIS analysis of Interim Planning Scheme
	Distance to open space	Local open space within walking distance (400-500 metres) of residents.	GIS analysis
Public safety	Rates of crime against the person	Recorded offences for crimes against the person per 100,000 population including homicide, rape, robbery, assault, and abduction/kidnap.	Tasmania police
	Property crime rates	Recorded offences for crimes against property including arson, property damage, burglary, deception, handling stolen goods and theft.	Tasmania police
	Rates of family violence	Recorded incidents of family violence per 100,000 population.	Tasmania police
Connectivity	Volunteering	People who help out as volunteers, expressed as a percentage of the adult population.	Census
	Internet connection	Proportion of households with internet connection.	Census
	In Migration	Proportion of people from interstate and overseas	Census
Leisure and culture	Number of entertainment venues and activities per population	Ratio of entertainment venues and activities to population.	Search
	Number of sports clubs per population	Ratio of sports and leisure clubs to population.	Search
	Availability of, and participation in, leisure and cultural activities	People who would like or do participate in leisure and cultural activities	Community Survey

[7] Analysis using geographical information systems to measure particular spatial attributes of data.

Further rationale for the selected indicators is provided below.

Housing
Indicators suggest that more liveable areas have a greater mix of land uses, and access to housing people can afford on their income.

Education
A key determinant of health and liveability, with lower levels of formal education contributing to poorer health outcomes over the life course[8]. These measures are chiefly concerned with accessibility to, and achievements gained from, formal educational.

Employment and income
There are few, if any, indicators of job satisfaction or working conditions, so the focus is on employment and income levels, jobs growth and accessibility. Employment and income are considered to be key determinants of liveability, and indeed, quality of life.

Additionally, farm income may assist to understand the long term fortunes of agriculture. Despite the concentration in large farms (family and corporate business) in recent decades, the majority of Australia's farms are still comparatively small, family-owned operations, turning over less than $100,000 per annum. As farmers age and retire, the region's income may be affected, particular if no succession arrangements have been made.

Health and social services
Healthcare indicators can include a broad range of essential social infrastructure services such as childcare, youth services, community centres, public toilets and post office access. Three objective indicators have been selected focusing on accessibility to, and availability of, services important to the elderly as well as the wider population.

Whilst access is important, preventative health action and health literacy are vital. Education and awareness programs will be useful and require community support and promotion for greater participation. Ultimately, they can help resolve issues of access and availability by reducing demand medical intervention in later life as well as improve life expectancy.

Population services
An accessibility indicator for essential social infrastructure required for liveable communities.

Transport
Public transport is considered to be 'active transport', in other words, it requires some physical activity (and includes walking and cycling). Access to bus stops and train stations is the best indicator of usage. The 'Commute Time' and 'Travel Mode to Work' could equally be covered under 'employment and income' because of the relevance to job accessibility.

[8] Wilkinson, R. and M. Marmot, eds. *Social determinants of health: The solid facts*. 2003, World Health Organisation: Copenhagen, Denmark.

Public open space

Good access to open space can promote liveability, health and wellbeing. The location and quality of public open space is important, as well as the overall quantity.

Public safety

Crime and safety indicators are a key construct of liveability, with well researched links to health and wellbeing outcomes. Evidence suggests that lower rates of crime and fear of crime make places more liveable. One objective indicator is included here at this stage.

Connectivity

Internet connectivity is an indicator of educational outcomes and employment opportunity, particularly with home-based business becoming increasingly important. Connectivity will also aid the delivery of health services to people in their homes, or to specialists in major centres with the aid of local medical practitioners. Digital hubs in community spaces can help nurture skills and confidence of new users of smart phones and tablets. They can also provide creative outlets for technology enthusiasts in media, arts and entertainment, further contributing social inclusion and community spirit.

In-migration is one potential indicator for measuring liveability. Immigration brings people with skills, knowledge, experience, income and other resources to transfer within the destination geography (KPMG, 2015).

Leisure and culture

It is implied that the greater the accessibility and opportunity for entertainment, leisure and recreation activities, the higher the participation, and subsequently the greater the liveability of an area. This data could be collected by periodic survey of the community to better understand and reflect the needs of the community. Indicators for negative behaviour, such as gambling and alcoholism, may also be necessary.

6 Social and Recreation Needs

Social and recreation infrastructure largely meets the needs of the community. Against benchmarks, the region has few gaps in the provision of parks, ovals, schools and libraries. However, it scores poorly on higher education, with facilities limited to Smithton and Burnie.

6.1 Influencing trends and factors

The demographic and preference changes in the Murchison community will impact upon the social and recreational needs of the community. These are likely to be a combination of:

- **Declining user base for specialist facilities.** Purpose-built sport and recreation facilities, once popular amongst earlier generations, have not fared well in attracting new members. For example, some lawn bowls clubs have had limited success replacing dwindling memberships, whilst other have disappeared. Although these could have a resurgence with growth in the number of over 60s moving into the region. Tennis courts are disappearing as children turn to other activities, such as martial arts and activities that take place in multi-function community facilities shared with other community groups.
- **Infrastructure condition.** With pressure on the rates base and without government grants, councils struggle to replace community assets at the end of their useful life, or that require major maintenance. Circular Head Council made the difficult decision to close The War Memorial Swimming Pool at Smithton. However, Council is investigating replacing the pool. Though Smithton is close to the coastal swimming beaches, these are not a viable substitute for an ageing population or for teaching new or young swimmers.
- **Changing preferences.** Marketing, latent desire, group pressure, or a combination thereof, affects the community's preferences for recreation. For example, cycling has become a popular pursuit in Australia. Whilst the number of male on-road cyclists has increased, recreational off-road cycling has increased in popularity, which has increased through the provision of various trails. Consequently, projects like the Northwest Coastal Pathway Plan aim to improve access to cycling routes along linear settlements of the north west coast, such as the section that has been completed along the foreshore in Wynyard. Passive recreation (particularly walking) is also increasingly important around Australia, especially for older residents.
- **Car dependence.** The spatial arrangement of community and recreation facilities effects participants' ability to engage in activities. Cars are usually needed to access activities. This has a negative impact on the transport disadvantaged or stressed, but may be able to be relieved by community transport or other transport intervention.
- **NBN rollout.** Access to faster and more reliable Internet may attract residents to use more of their recreation time online, reducing time for engagement within the community.

- **Disposable income.** Families or residents may be dissuaded from activities that have high equipment or engagement costs.

These phenomena are not exhaustive and by no means particular to Murchison, but reflective of the general pattern of changing social and community needs.

6.2 Social and recreation provision

Murchison's settlements are mostly well serviced with various social and recreation facilities. Where they are not, they can be found in Burnie. These include the main TasTAFE campus, University of Tasmania campus, aquatic centre, and arts and culture centre.

The most significant social and recreation needs is assessed for each SA2. The tables in the following pages show the gap for each SA2 area. They are based on the mean population scenario discussed earlier. Note that each municipality may have more facilities than identified.

Benchmarks have been used to assess the level of need to identify whether any gaps exist in the provision of facilities. Bearing in mind that benchmarks are indicators only, and these are largely based on metropolitan provisions, it is fair to say that Murchison's residents are reasonably serviced for most facilities.

With respect to the provision of schools, the Tasmanian Department of Education is responsible for the provision of public schools in the region, while several non-government schools also operate. These providers determine school numbers based on demographic, spatial, community and economic considerations. Therefore, school provision may differ from the benchmarks in this assessment. For example, communities with populations lower than the benchmark will have primary schools because of considerations other than population thresholds.

Waratah Wynyard and Circular Head have been engaged in a process with the community to prepare open space, sport and recreation needs for the period 2016-2026. The findings and recommendations of this plan are expected later in 2016.

West Coast's Sport and Recreation Plan 2010 – 2020, prepared with the assistance of Sport and Recreation Tasmania, is half way through its life. Monitoring of the community's requirements and service delivery is ongoing, and consistent with the West Coast Community Plan 2025.

Somerset

Overall, Somerset has few infrastructure gaps. The urban centre has sufficient supply of sports ovals, indoor recreation centre, primary schools, and early childhood centres. Gaps in neighbourhood parks can be substituted by access to the foreshore. Gaps in education facilities can be meet by facilities in Burnie and Wynyard, which are accessible by public transport.

Table 9 Recreation and Community Facilities Gaps, Somerset

Facility	Provision Benchmark	Existing Provision	Short term (5-7 years) 2021	Medium term (7 - 12 years) 2027	Long term (13 - 25 years) 2035
Population			3,969	3,919	3,835
Recreation Facilities					
Neighbourhood Park	2,500	1	-1	-1	-1
Sports Oval	5,000	2	1	1	1
District Sport Precinct	20,000	0	-0	-0	-0
Indoor Rec Centre	55,000	1	1	1	1
Regional Aquatic Centre	100,000	0	-0	-0	-0
Community Facilities					
Community Centre	10,000	0	-0	-0	-0
Library	22,500	0	-0	-0	-0
Primary School	5,000	2	1	1	1
High School	15,000	0	-0	-0	-0
Youth Centre	35,000	0	-0	-0	-0
TAFE Campus	35,000	0	-0	-0	-0
University	100,000	0	-0	-0	-0
Arts Cultural Centre District	120,000	0	-0	-0	-0
Early Childhood Centre	9,000	6	6	6	6

Note: For the given level of population:

- *"0" indicates the there is no gap in the facility provision.*
- *"-0" indicates a minor gap in the facility provision.*
- *A positive number shows that the facility provision exceeds the indicator.*

Wynyard

Wynyard is well provided with essential recreation and community facilities. However, facilities for youth and further education represent gaps. These facilities may be available in Burnie, which is accessible by public transport from Wynyard.

Table 10 Recreation and Community Facilities Gaps, Wynyard

Facility	Provision Benchmark	Existing Provision	Short term (5-7 years) 2021	Medium term (7 - 12 years) 2027	Long term (13 - 25 years) 2035
Population			6,525	6,737	7,008
Recreation Facilities					
Neighbourhood Park	2,500	3	0	0	0
Sports Oval	5,000	2	1	1	1
District Sport Precinct	20,000	1	1	1	1
Indoor Rec Centre	55,000	0	-0	-0	-0
Regional Aquatic Centre	100,000	0	-0	-0	-0
Community Facilities					
Community Centre	10,000	1	0	0	0
Library	22,500	1	1	1	1
Primary School	5,000	2	1	1	1
High School	15,000	1	1	1	1
Youth Centre	35,000	0	-0	-0	-0
TAFE Campus	35,000	0	-0	-0	-0
University	100,000	0	-0	-0	-0
Arts Cultural Centre District	120,000	1	1	1	1
Early Childhood Centre	9,000	2	1	1	1

Waratah

This assessment considered the entire Waratah SA2 region. Statistically, the region is not notably disadvantaged in any one facility. Obviously, residents will need to travel to participate in team sports and attend education facilities.

Table 11 Recreation and Community Facilities Gaps, Waratah

Facility	Provision Benchmark	Existing Provision	Short term (5-7 years) 2021	Medium term (7 - 12 years) 2027	Long term (13 - 25 years) 2035
Population			3,791	3,713	3,601
Recreation Facilities					
Neighbourhood Park	2,500	1	-1	-0	-0
Sports Oval	5,000	0	-1	-1	-1
District Sport Precinct	20,000	0	-0	-0	-0
Indoor Rec Centre	55,000	0	-0	-0	-0
Regional Aquatic Centre	100,000	0	-0	-0	-0
Community Facilities					
Community Centre	10,000	0	-0	-0	-0
Library	22,500	0	-0	-0	-0
Primary School	5,000	0	-1	-1	-1
High School	15,000	0	-0	-0	-0
Youth Centre	35,000	0	-0	-0	-0
TAFE Campus	35,000	0	-0	-0	-0
University	100,000	0	-0	-0	-0
Arts Cultural Centre District	120,000	0	-0	-0	-0
Early Childhood Centre	9,000	0	-0	-0	-0

Smithton

Smithton is serviced adequately with recreation and community infrastructure. Whilst it does not have a District Sports Precinct, the Hockey Complex was recently upgraded in response to the sport's popularity amongst adults and children. Gaps in facilities include a regional aquatic centre, university and arts centre. However, Council is taking action to create a new 25-metre indoor heated pool.

Table 12 Recreation and Community Facilities Gaps, Smithton

Facility	Provision Benchmark	Existing Provision	Short term (5-7 years) 2021	Medium term (7 - 12 years) 2027	Long term (13 - 25 years) 2035
Population			3,987	3,938	3,855
Recreation Facilities					
Neighbourhood Park	2,500	5	3	3	3
Sports Oval	5,000	1	0	0	0
District Sport Precinct	20,000	0	-0	-0	-0
Indoor Rec Centre	55,000	1	1	1	1
Regional Aquatic Centre	100,000	0	-0	-0	-0
Community Facilities					
Community Centre	10,000	1	1	1	1
Library	22,500	1	1	1	1
Primary School	5,000	2	1	1	1
High School	15,000	2	2	2	2
Youth Centre	35,000	1	1	1	1
TAFE Campus	35,000	1	1	1	1
University	100,000	0	-0	-0	-0
Arts Cultural Centre District	120,000	0	-0	-0	-0
Early Childhood Centre	9,000	3	3	3	3

Circular Head Rural

Similar to Waratah, the entire circular Head Rural SA2 region was considered. Statistically, the region has no notably disadvantage in any one facility. Whilst sports ovals may be under the benchmark, children most likely make use of fields at school, while adults travel to attend team sports in Smithton. The region has four primary school – one in each of the villages and two youth centres. However, teenagers need to travel for high school.

Table 13 Recreation and Community Facilities Gaps, Circular Head Rural

Facility	Provision Benchmark	Existing Provision	Short term (5-7 years) 2021	Medium term (7 - 12 years) 2027	Long term (13 - 25 years) 2035
Population			4,089	4,022	3,920
Recreation Facilities					
Neighbourhood Park	2,500	0	-2	-2	-2
Sports Oval	5,000	0	-1	-1	-1
District Sport Precinct	20,000	0	-0	-0	-0
Indoor Rec Centre	55,000	0	-0	-0	-0
Regional Aquatic Centre	100,000	0	-0	-0	-0
Community Facilities					
Community Centre	10,000	0	-0	-0	-0
Library	22,500	0	-0	-0	-0
Primary School	5,000	4	3	3	3
High School	15,000	0	-0	-0	-0
Youth Centre	35,000	2	2	2	2
TAFE Campus	35,000	0	-0	-0	-0
University	100,000	0	-0	-0	-0
Arts Cultural Centre District	120,000	0	-0	-0	-0
Early Childhood Centre	9,000	0	-0	-0	-0

West Coast

West Coast communities are well placed on most recreation and community benchmarks. The settlements have sports ovals, neighbourhood parks, aquatic centres (pools), community centre, libraries and primary schools.

Students have access to high schools in Queenstown and Rosebery, but none in Strahan. Access to vocational and further education is problematic, as West Coast is isolated from facilities in Burnie, Smithton and Derwent Bridge.

Overall, West Coast's mean population is forecast to decline by 8% over the long term. However, this is across several settlements. With current outmigration trends, some community facilities, such as primary and high schools, will be under pressure to rationalise. Though, the spatial separation between settlements and potential economic development initiatives, may combat this.

Table 14 Recreation and Community Facilities Gaps, West Coast

Facility	Provision Benchmark	Existing Provision	Short term (5-7 years) 2021	Medium term (7 - 12 years) 2027	Long term (13 - 25 years) 2035
Population			4,386	4,253	3,995
Recreation Facilities					
Neighbourhood Park	2,500	5	3	3	3
Sports Oval	5,000	4	3	3	3
District Sport Precinct	20,000	0	-0	-0	-0
Indoor Rec Centre	55,000	2	2	2	2
Regional Aquatic Centre	100,000	3	3	3	3
Community Facilities					
Community Centre	10,000	2	2	2	2
Library	22,500	2	2	2	2
Primary School	5,000	5	4	4	4
High School	15,000	2	2	2	2
Youth Centre	35,000	0	-0	-0	-0
TAFE Campus	35,000	0	-0	-0	-0
University	100,000	0	-0	-0	-0
Arts Cultural Centre District	120,000	2	2	2	2
Early Childhood Centre	9,000	2	2	2	2

King Island

Overall, King Island has few recreation and community facilities gaps. The island has one school that caters for students from kindergarten to Year 10.

As with all the other areas in Murchison, access to TAFE and university is a considerable gap. Consequently, residents are reliant on the Internet, each other, and visitors to bring knowledge and skills to the island community.

Table 15 Recreation and Community Facilities Gaps, King Island

Facility	Provision Benchmark	Existing Provision	Short term (5-7 years) 2021	Medium term (7 - 12 years) 2027	Long term (13 - 25 years) 2035
Population			1,602	1,567	1,517
Recreation Facilities					
Neighbourhood Park	2,500	2	1	1	1
Sports Oval	5,000	3	3	3	3
District Sport Precinct	20,000	0	-0	-0	-0
Indoor Rec Centre	55,000	0	-0	-0	-0
Regional Aquatic Centre	100,000	0	-0	-0	-0
Community Facilities					
Community Centre	10,000	1	1	1	1
Library	22,500	0	-0	-0	-0
Primary School	5,000	1	1	1	1
High School	15,000	1	1	1	1
Youth Centre	35,000	1	1	1	1
TAFE Campus	35,000	0	-0	-0	-0
University	100,000	0	-0	-0	-0
Arts Cultural Centre District	120,000	1	1	1	1
Early Childhood Centre	9,000	1	1	1	1

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8 Appendix

Methodology

Purpose of the Community Study

This Community Study provides guidance for the strategic and policy planning based on community values, needs and dynamic over the next twenty-five years.

Key components in the preparation of this Community Resource Study were:

- **Population and household size forecasts**. The Study forecasts the changes to population and household sizes over three time horizons: Short (5 -7 years), medium (7 - 12 years) and long (13 – 25 years).
- **Settlement patterns.** There is a strong focus in the Sustainable Murchison Community Plan to understand and assess the past and current settlement patterns. Together with population forecasts, the Study illustrates the potential changes to settlement patterns for population growth and decline.
- **Social geography**. Analysis of the social geography to identify socio-demographic patterns and trends emerging in Murchison. This analysis has been performed at the SA2 level.
- **Community Wellbeing**. Provides a snapshot of resident's wellbeing for each of the communities, at SA2 level, for several liveability indicators, including physical, mental and social wellbeing.
- **Social and Recreation Needs**. Taking into account likely changes in population and household size, the Study provides an assessment of the likely social and recreation needs of the communities in the Study area in the short, medium and long terms.

Steps to prepare the study

The Community Resource Study was prepared as follows:

1. Define the study area and appropriate smaller areas within the study area for closer analysis.
2. Identify and assemble reliable data that can describe the study area, as well as adjoining areas for some datasets, such as transport and community assets.
3. Forecast population and household size over the short (5 - 7 years), medium (8 – 12 years) and long (13 – 25 years).
4. Assessment of the past and likely future settlement patterns based on the likely population and household size forecasts.
5. Analysis of current social geography by SA2.
6. Indicators of social wellbeing of residents within each community at SA2 level.

7. Assessment of the current and likely social and recreational needs of the populations of the communities at SA2 level, taking into consideration the resident population and likely demographic changes over the short, medium and longer terms.

Defining the study area

The Murchison region is made up of eight Statistical Local Areas (SLA) defined by the ABS. The SLA boundaries largely follow the SA2 boundaries, with the exception of three townships, and West Coast Council. At the SA2 level, Somerset, Wynyard and Smithton are separately identified, while West Coast is spilt in two: West Coast and Wilderness. The SA2 level is used to allow analysis of demographic and economic time series data provided by the ABS.

The hinterland of Murchison was considered, taking in the municipality of Burnie, which inncludes the town of Burnie - the nearest marjor regional centre. Burnie has an an airport and marine port that accept goods for export from the region, as well as providing population serving amenties.

Population forecasts

Baseline population estimates for the region were taken from the Tasmanian Treasury and Finance' low, medium and high series scenarios, reallocated to SA2 level, using fixed ratios from the 2014 ABS ERPs.

Table 16 Summary of Assumptions, State Forecasts

Series	Fertility (total fertility rate)	Mortality (life expectancy at birth)	Net Interstate Migration	Net Overseas Migration
Low	2.15 babies per woman in 2013, decreasing to 1.85 by 2023 and remaining constant thereafter.	Reach 82.8 years for males and 85.0 years for females by 2062.	Net loss of 1 000 persons per year.	Net gain of 500 persons per year.
Medium	2.15 babies per woman in 2013, decreasing to 1.95 by 2023 and remaining constant thereafter.	Reach 85.4 years for males and 87.5 years for females by 2062.	Zero net interstate migration.	Net gain of 1 250 persons per year.
High	Constant rate of 2.15 babies per woman.	Reach 90.8 years for males and 92.5 years for females by 2062.	Net gain of 1 000 persons per year.	Net gain of 2 000 persons per year.

Source: Tasmanian Department of Treasury and Finance 2014

These were compared with an employment-driven population scenario in which it was assumed:

Projection 1 - The Commonwealth Department of Employment – DoE - job growth projections for the larger region were applied to Murchison. This increased local employment. To translate this population, an average of employment by industry by household structure and age ratios for 2006 and 2011 were used to convert each industry job to a total number of residents. To benchmark and validate this, population/job ratios from 1996 to 2011 were applied to an exponential smoothing projection (which was the best fit projection for historical data). This projected ratio was then used to ensure the estimated population figures calculated earlier did not significantly deviate from known ratios.

Projection 2 – for this scenario, the same methodology was applied. However, additional jobs were assumed based on market intelligence from participating councils about major investments, which were:

1. The Burnie Port upgrade (50 new FTEs in transport/warehousing and construction).
2. The Advanced Manufacturing Framework (100 FTEs in manufacturing and education).
3. Increased flight schedule to West Coast (40 new tourism FTEs).
4. Wynyard foreshore upgrade (20 tourism FTEs).
5. NW Coastal Pathway investment (20 tourism FTEs).
6. Cradle Mountain Master Plan 40 tourism FTEs).
7. Bike trails in West Coast (20 tourism FTEs).
8. Circular Head Irrigation Scheme (50 agribusiness FTEs).
9. Food processing (100 manufacturing FTEs).
10. UTAS expansion (100 education FTEs).

This totalled 595 new FTEs, smoothed over 10 years and in addition to the DoE job growth projections. Other major project investments were considered to be part of the 'BaU' scenario (e.g. road upgrades). Additional projects in the future, such as the $70m resort at Table Cape will raise this scenario further.

Settlement patterns

The assessment of past and current settlement patterns is based on a combination of mapping development approvals for residential dwellings, units and land subdivisions (for those municipalities in which data are available) and population change. This is complemented by examination of the urban morphology by major activity type of proposed future land use zones.

In view of the size of the region and the project population change, three settlements were examined in detail: Somerset, Wynyard and Smithton. Other SA2 were examined at the high-level as little development activity occurred in the periods for which development data was provided.

Development for new dwelling and subdivisions of residential and rural were examined.

Social geography and demographic trends

Small area profiles were derived at the SA2 level from the 2001, 2006 and 2011 Censuses. Other data sources were drawn on where required.

Social and recreation needs

The recreation and social needs assessments is based on a combination of emerging demographic and recreation trends, projected population increase, provision standards and spatial analysis. At the time of this analysis, Waratah-Wynyard and Circular Head also had work underway to assess the open space and sports recreation requirements for the municipality, which have been considered in this assessment.