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Institute for
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Futures

IMPLICATIONS OF POPULATION GROWTH IN AUSTRALIAN CITIES: CASE STUDY – KINGBOROUGH, TAS

2012

ABOUT THE AUTHORS

The Institute for Sustainable Futures (ISF) was established by the University of Technology, Sydney in 1996 to work with industry, government and the community to develop sustainable futures through research and consultancy. Our mission is to create change toward sustainable futures that protect and enhance the environment, human well-being and social equity. We seek to adopt an inter-disciplinary approach to our work and engage our partner organisations in a collaborative process that emphasises strategic decision-making.

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Case study summary

Kingborough is situated on the south-east coast of Tasmania, approximately 10 kilometres south of Hobart. The LGA consists of mostly low density residential and rural land. Kingborough is one of Tasmania's largest and fastest growing LGAs, and has experienced rapid population growth in the last ten years. With a 2011 population of 34,691 people, Kingborough is home to 7.2% of Tasmania's total population, and is now the fifth-largest of the 29 LGAs in Tasmania. Forecasts predict that the Kingborough population will continue to rise, and will reach 44,170 by 2031.

The data analysis conducted for this case study suggests a number of implications of recent and future population growth in Kingborough.

While environmental data for Kingborough is limited, it appears that population growth, and the associated increase in the number of dwellings in the area are contributing to a range of existing environmental problems from smoke pollution to the spread of weeds and the threats to native wildlife posed by domestic animals. Septic tank leachates and sewerage treatment, both of which potentially increase as population increases, have been identified as sources of water pollution in the area. An increase in recreational boating is also thought to be one of many activities that are having a negative impact on the water quality of the D'Entrecasteaux Channel. Waste management is a particular challenge in the area as waste production increases with population growth and existing landfill sites reach capacity.

The social indicators show that Kingborough is a relatively advantaged area. This is reflected in health data, which suggests that Kingborough residents have better health status than Tasmanians in general. Compared to Hobart or Tasmania as a whole, Kingborough residents are also more highly qualified, and the increase in the proportion of people with university qualifications has been greater in Kingborough. This suggests that population growth in the area can at least partly be characterised by the phenomenon of 'brain gain'; that is, highly educated residents relocating to the area, particularly to work in the world leading research centres that are located in Kingborough. Employment data reflects this highly qualified population, showing that over the past decade unemployment in Kingborough has been consistently lower than in Hobart or Tasmania as a whole. Socially, population growth is likely to continue to change the local demographics, possibly bringing more highly qualified workers and/or more 'sea change' or 'tree change' retirees to the area, and slowly increasing the proportion of overseas born residents. While the proportion of children (aged 0 to 15) has decreased in the past decade, the actual number of children in the area has increased, and the area currently has a higher proportion of children than the state average, meaning there will be an ongoing and possibly increased need for provision of schools and other children's and family services in the area.

The Kingborough economy comprises predominantly retail outlets, aquaculture, tourism, business services, manufacturing and primary production, and the estimated gross regional product (GRP) of the Southern Region of Tasmania (of which Kingborough is a part) was \$11.11b in 2009/10, which accounts for 47.6% of the gross state product. While data on household disposable income is only available at the regional level, it shows that the increase in disposable income in the Southern Tasmania region was less marked than in the rest of Australia between 2001 and 2007, and actually decreased between 2010 and 2012. However, average house prices in Kingborough are higher than the Tasmanian average, although as would be expected, they are below the average for the state capital of Hobart. The proportion of households suffering mortgage or rental stress is also lower in Kingborough than in Tasmania as a whole. Transport data shows Kingborough is a relatively car dependent community, and it appears that population growth may have contributed to this profile, as many new residents of Kingborough commute by car to work in Hobart.

Stakeholders interviewed for this case study pointed to a number of positive impacts of population growth, suggesting that it is helping to provide a 'critical mass' for services and infrastructure, and improving the capacity of what was previously a mostly rural area to attract investment and funding. Some stakeholders also suggested that the influx of people with new skills, attitudes, backgrounds and experiences is generating positive cultural and attitudinal shifts, and helping to modernise what was a fairly conservative, rural culture.

However, stakeholders also mentioned a number of significant negative impacts of population growth in Kingborough, or more precisely, negative impacts of the specific *nature* of that growth and the way that it has been managed. There was a general feeling that recent growth and development has been 'developer-led', and has not been well planned or managed as a result of a poor planning system in which developers, driven almost entirely by profit motives, have long exerted undue influence. As a result, many felt that development was poorly designed from both an environmental and social perspective, was not catering sufficiently well to the needs of the community, and was having a range of negative impacts. These are discussed in more detail in the case study.

Glossary

ABS	Australian Bureau of Statistics
ACE CRC	Antarctic Climate and Ecosystems Cooperative Research Centre
b	Billion
CBD	Central Business District
CD	Census Collection District
CR	Councillor
cvm	Chain volume measures
DEEWR	Department of Education, Employment and Workplace Relations
DPIWE	Department of Primary Industries, Water and Environment
DSEWPaC	Federal Department of Sustainability, Environment, Water, Population and Communities
EPBC Act	Environmental Protection and Biodiversity Conservation Act
GHHTS	Greater Hobart Household Travel Survey
GP	General Practitioner
IRSD	Index of Relative Socioeconomic Disadvantage
ISF	Institute for Sustainable Futures
kg	Kilogram
km	Kilometre
km ²	Kilometre square
LGA	Local government area
p.a.	Per annum
PHIDU	Public Health Information Development Unit
PM	Particulate matter
m	Million
NES	Non-English speaking country
NIEIR	National Institute of Economic and Industry Research
NIMBY	Not In My Back Yard
RDA	Regional Development Australia
SALMS	Small area labour markets survey
SEIFA	Socio-Economic Indexes for Areas
SoR	State of the Regions report
STCA	Southern Tasmanian Councils Authority
STRPP	Southern Tasmania Regional Planning Project
SWSA	Southern Waste Strategy Authority
TAS	Tasmania
WWII	World War II

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Background and context

Geography and features

The Municipality of Kingborough is situated on the south-east coast of Tasmania, approximately 10 kilometres south of Hobart. It covers a total area of 717 square kilometres and has one of the longest stretches of coastline in the state (336 kilometres). The municipality consists of mostly low density residential land use located within a natural setting along the Derwent Estuary and the D'Entrecasteaux Channel. Towns in Kingborough include Kingston, Blackmans Bay, Margate, Snug, Kettering, Woodbridge and Middleton. Taroona, whilst not a town as such, is a built-up urban area which, while lying within the Kingborough local government area, in effect operates as a suburb of both Hobart and Kingston. The municipality also includes Bruny Island, which lies just off the coast and can be reached by a car ferry from Kettering.

Kingborough LGA is physically separated from Hobart by sparsely populated wooded and conservation areas, and has limited connectivity directly to other activity centres apart from Hobart. For this reason, central Kingston, while still developing, is becoming more of a primary focus for Kingborough in terms of the provision of civic, commercial, and administrative services, and over time is expected to develop into a more substantial regional centre that is capable of servicing the wider hinterland.

Kingston is connected to Hobart via the Southern Outlet road, which is linked to the Channel Highway. The Southern Outlet is a dual carriageway which extends to Southport as the Huon Highway. The Channel Highway is a coastal highway which provides an alternative route between Kingston and Hobart, and also serves as the main link between central Kingston and other Kingborough settlements. The Huon Highway provides an east-west link between Kingston and Huonville. Access options to other regions within Australia are mostly through the Hobart International Airport, which is only accessible from Kingborough by car.

Local industries in Kingborough include primary production (including fish processing, aquaculture and viticulture), tourism, boat building and civil engineering. Kingborough is also the Australian headquarters for Antarctic Research, the Antarctic Division¹. Kingborough is also a major tourist destination, based on the natural attractions of Bruny Island and the picturesque towns along the D'Entrecasteaux Channel.

¹ See: <http://www.kingborough.tas.gov.au/>

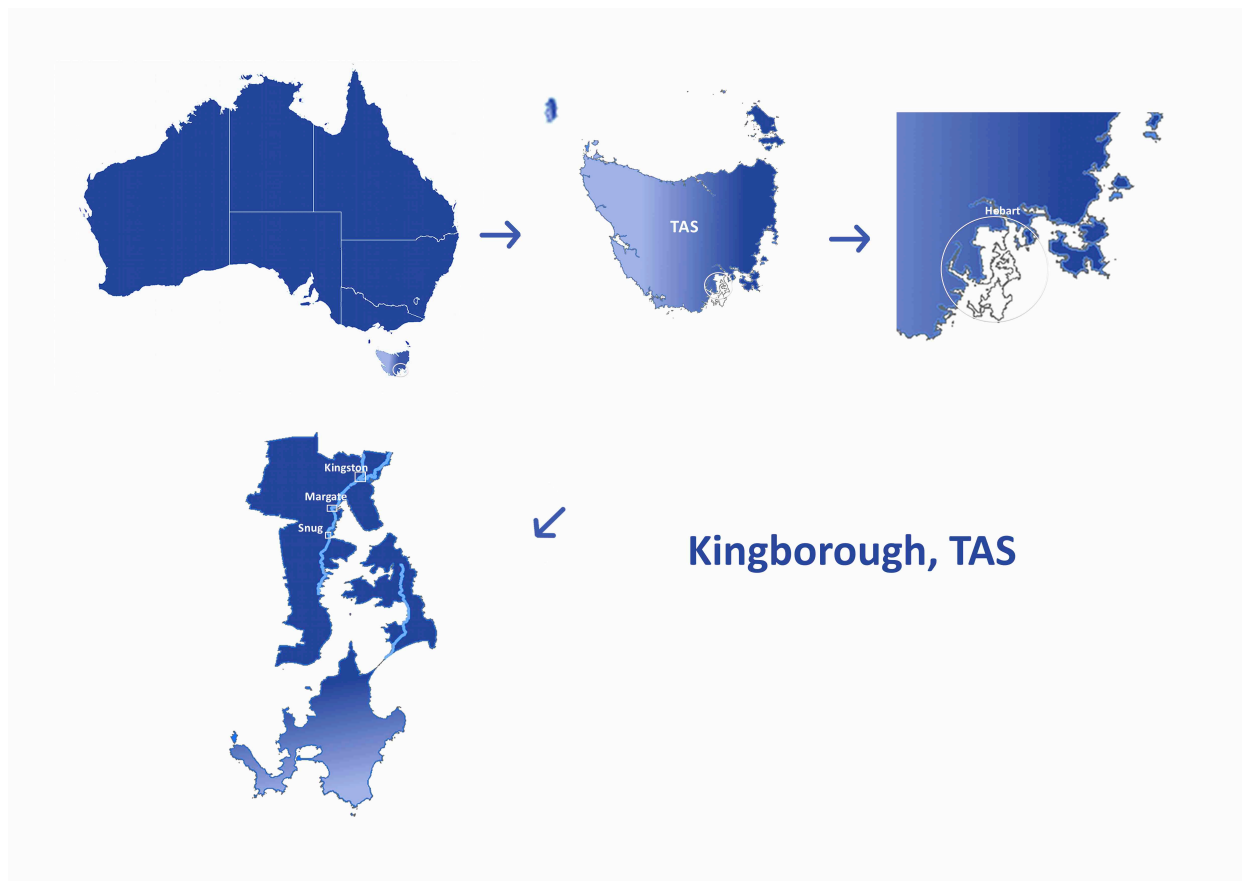


Figure 1: Geographical context map of Kingborough

Population summary

The population of Kingborough according to the 2011 Census is estimated to be 34,691 persons, which represents 7.2% of Tasmania’s total population. Kingborough LGA is one of Tasmania’s largest and fastest growing LGAs, and the fifth-largest of the 29 LGAs in Tasmania. Since the completion of the Southern Outlet in 1969 Kingborough has experienced continuous growth, driven by lifestyle choice and affordable residential land close to the amenities of Hobart. This growth has accelerated in the last ten years, making Kingborough one of the fastest growing municipalities in Tasmania. Over the period from 2001 to 2011, Kingborough’s population grew by 5,312 persons, a growth rate of 18.1% p.a. compared to the state growth rate of 8.35%.

It is anticipated that the LGA will continue to experience strong population growth of 8.7% p.a. between 2013 and 2017, dropping to 5.4% from 2008 to 2022, to 4.9% from 2023 to 2027, and to 4.4% from 2028 to 2031. Forecasts estimate that the Kingborough population will rise to 44,170 by 2031. To accommodate this growing population, residential development is most likely to be located south and west of the central Kingston area.

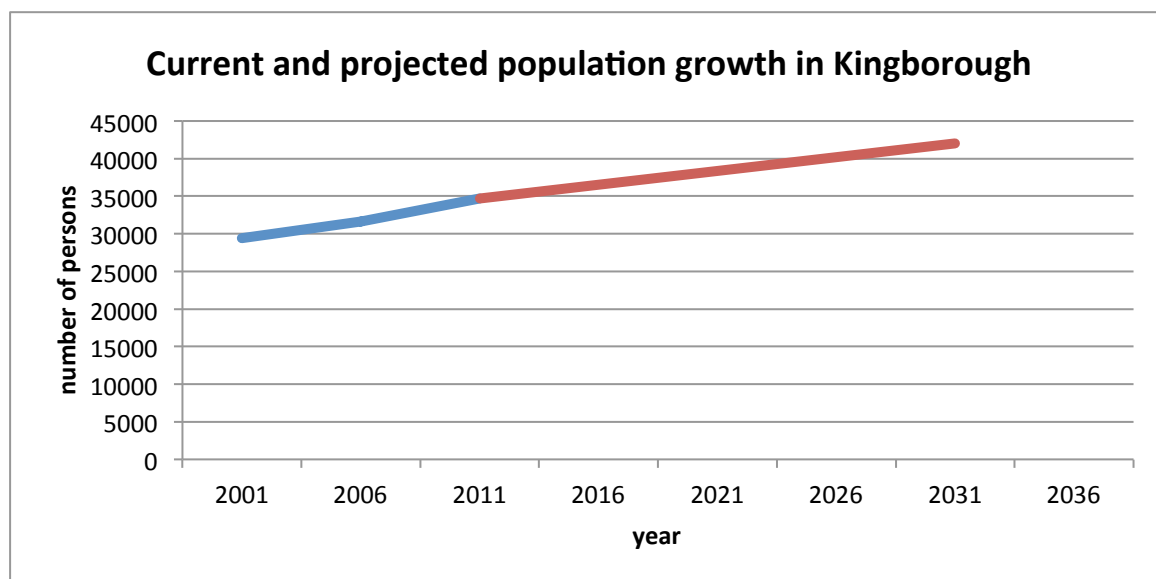


Figure 2: Current and projected population growth in Kingborough (Source: DCACT, 2008; ABS, 2012a) (Note: Population projections are shown in red.)

Table 1: Context indicator – population (Source: ABS, 2012b)

	Kingborough 2001	Kingborough 2011	Greater Hobart 2011	Tasmania 2011
Population (persons)	29,379	34,691	216,276	511,195
Rate of growth 2001-2011 p.a.		18.1%	9.1%	8.1%
Population density (people/km ²)	40.8	48.2	127.6	7.5



Figure 3: Two areas of Kingborough LGA

Table 2: Context indicator – population (Source: ABS, 2007)

	Pt A 2006	Pt B 2006	Greater Hobart 2006	Tasmania 2006
Population (persons)	31,329	2,842	206,593	489,951
Indigenous	2.5%	3.1%	2.9%	3.6%
Overseas born from predominantly English speaking countries	9.0%	12.7%	6.5%	6.5%
Overseas born from NES countries	5.3%	4.9%	5.6%	4.3%
Total overseas born	14.4%	17.6%	11.9%	10.6%

Characteristics of population growth in Kingborough

Kingborough has experienced two waves of growth – the first was in the 1960s, when several small ‘beach shack’ settlements along the coast grew into small rural towns after the Southern Outlet road was built and some water and sewerage services were provided to parts of the area. This original population is now ageing. The second wave of growth, which began in about 2001, is being driven by the release of new areas of land for residential development, particularly around Kingston. The new housing that has been built in this area has attracted an influx of new residents, mostly owner-occupiers who are largely younger residents and families. This housing provides affordable, relatively large houses yet is close to the city, providing residents with access to a wide range of goods and services, including a number of schools. The total number of dwellings in Kingborough has increased from 11,249 dwellings in 2006 to 12,638 dwellings in 2011, an increase of 12.4% over this five-year period (PHIDU, 2010 & 2012). This compares to an increase in dwellings in Greater Hobart and Tasmania of 7.0% and 6.0% respectively.

Kingston town centre, and the new residential areas are relatively close to Hobart, lying just 12 kilometres south, or 15 minutes’ drive on the Southern Outlet, and as such they are part of the Greater Hobart area. The majority of residents are employed in Hobart itself and commute to the city, as well as relying on the Hobart metropolitan area for many goods and services. However the sparsely populated areas immediately south of Tarooma, including the wooded Lea Conservation area located between Tarooma and Kingston, create a sense of physical separation from Hobart itself.

Recent commercial and retail development at Kingston is significant – the town centre has experienced significant growth in a short period. As well as providing some access to goods and services for Kingston residents, the town centre is becoming an alternative retail centre to Hobart for the residents in the southern areas of Kingborough.

Kingborough Council reports that there are few options for further development in the area, with land at Huntingfield and Springfield being the only viable options. Council staff suggest these areas have the capacity for approximately another 1,000 dwellings, and they are likely to be developed during the next ten years.

Social characteristics

Population profile

Consistent with the rest of Australia, Kingborough’s population is ageing. In 2006 Kingborough’s median age was 39 years, which was very slightly higher than the state average of 38.8 years (Demographic Change Advisory Council Tasmania, 2008). By 2011 Kingborough’s median age had increased to 40, which was also the same as the state average.

An obvious contributor to the ageing population is the increase in the proportion of the population aged over 65, as a result of longer life expectancy. The proportion of people in Kingborough aged 65 years and above rose from 11.8% in 2001 to 14.8% in 2011. This is slightly lower than the 2011 state average of 15.8%. See Figure 4.

This ageing trend is exacerbated by the numbers of working age people (and their children) who are leaving the area. In the decade between 2001 and 2011, while the percentage of residents aged 65 and over increased by 3%, the proportion of residents aged 15-64 years and 0-14 years decreased by 1.1% and 0.9% respectively. In 2011 the proportion of working-age people (15 to 64 years) in Kingborough was 64.1%, which is very close to the state average of 65.0%.

While the proportion of children in Kingborough has declined slightly in the past decade, as mentioned above, the actual numbers of children in Kingborough have increased, and the area currently has a higher proportion of children than the state average, with 21.1% of the population aged 0 to 14 years old in 2011 (compared to 19.2% in Tasmania as a whole).

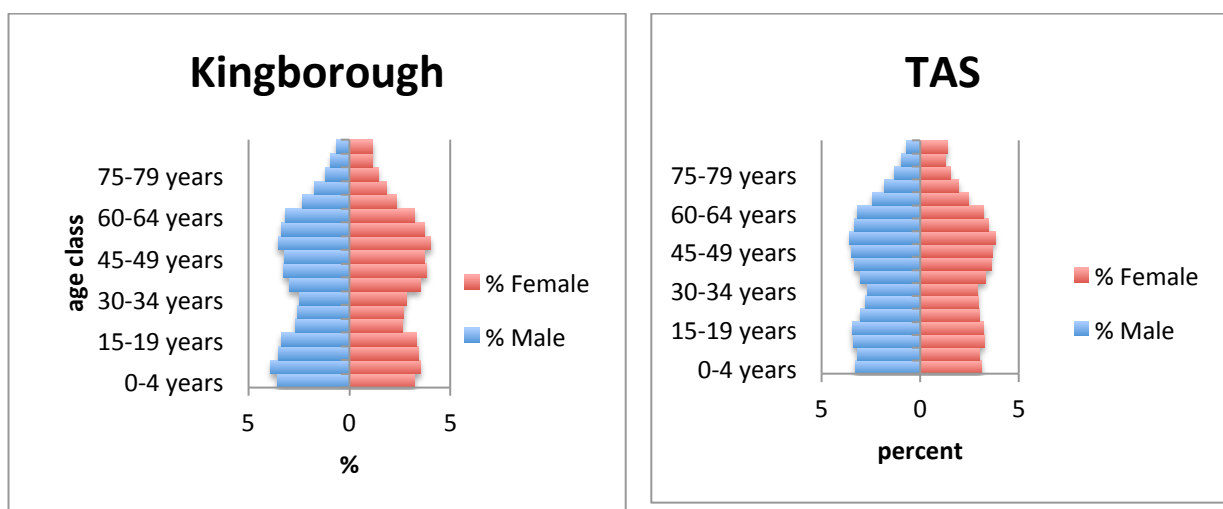


Figure 4: Age profile of Kingborough and Tasmania (2011) (Source: ABS, 2012a)

As shown in Table 3, according to the 2011 Census, 3.1% of Kingborough’s population identifies as Indigenous. This proportion has increased slightly since 2001, but remains below the average for both Hobart and Tasmania. The proportion born overseas has also increased to 17.2% in 2011, which is significantly higher than the average for either Hobart or Tasmania. However, the large majority of the Kingborough population was born in Australia (79.5%) or another English-speaking country (10.8%), with just 6.4% of Kingborough residents born in a non-English speaking country.

Table 3: Context indicator - culture and migration (Source: ABS, 2012a)

	Kingborough 2001	Kingborough 2011	Greater Hobart 2011	Tasmania 2011
% Born overseas	16.0%	17.2%	13.2%	11.7%
% Do not speak English well	0.4%	0.5%	1.0%	0.7%
Indigenous	2.7%	3.1%	3.3%	4.0%

Well educated, relatively advantaged population

As the data discussed below shows, the population of Kingborough is relatively advantaged compared to the state average, with higher levels of education and qualifications, higher levels of employment and better health status.

Economic characteristics

The dominant industries in Kingborough are retail, aquaculture, tourism, business services, manufacturing and primary production. According to the Tasmanian Economic Development Plan (DEDTA, 2012) the estimated gross regional product (GRP) of the Southern Region (of which Kingborough is a part) was \$11.11b in 2009/10, which accounts for 47.6% of the gross state product.

Kingborough house prices are higher than the Tasmanian average, and Kingborough residents experience lower levels of mortgage and rental stress.

Planning and governance

Influence of the Tasmanian State Government

Tasmanian Planning Commission

The Tasmanian Planning Commission is Tasmania's peak planning body, and manages the planning system at a state level. The Commission develops and maintains the planning framework and related planning schemes and assesses proposals for major developments. The Commission has oversight of the new regional land use strategy for Southern Tasmania, which includes Kingborough (see below).

Regional land use planning

The Tasmanian State Government has recently declared a 'regional land use strategy' for Southern Tasmania, under Section 30C of the *Land Use Planning and Approvals Act 1993* (Tas). This strategy was produced by the Southern Tasmania Regional Planning Project (STRPP) (2011) and is described further below. The strategy is an initiative resulting from an agreement between the state government, the Southern Tasmanian Councils Authority (STCA) (see below) and the 12 southern Tasmanian Councils, including Kingborough Council.

The *Southern Tasmania Regional Landuse Strategy* states that in the past, residential growth was 'not managed on a regional or, in the context of Greater Hobart, on a 'whole of settlement' basis due to the absence of a strategic planning framework' (STRPP, 2011: 10). It also notes that 'in the absence of a settlement strategy for the region, the growth of many of the coastal and rural areas has seen development occurring in an ad hoc manner, with some small settlements growing into permanent residential populations in the absence of physical, social and community infrastructure' (STRPP, 2011: 80). The strategy aims to address this past lack of strategic planning by providing a coordinated framework for land use planning in the region.

The strategy identifies Kingston as one of three 'principal activity centres' in the Southern Region. The Strategy sees these centres as the most significant centres in the region after the Hobart CBD, and expects that each of them will provide:

- a wide range of services and facilities (including offices for business and government) to serve the surrounding sub-region, with a strong focus on the retail and commercial sector
- a focus for employment at the sub-regional level
- sub-regional shopping facilities with a range of major supermarkets, department stores and a range of speciality shops
- a secondary location for regional and State facilities for the State and Federal Government, and district facilities for those tiers of government
- health facilities that include Integrated Care Centres and a range of medical practitioners;
- an urban public space as the focus for community facilities and events
- educational facilities either within or in close proximity (highly desirable)
- child-care centres to support employment (highly desirable)
- a centre for Local Government services within the relevant LGA
- some in-centre residential development above ground floor level, complemented by infill and consolidation of surrounding residential areas at higher densities (20+ dwellings per hectare)
- a range of dining and entertainment uses including night-time activities and sporting clubs/facilities, and
- a bus interchange with high frequency links to and from other major activity centres and key residential catchments. Ideally links a number of public transport modes and connects directly or readily to other Principal Activity Centres and the Primary Activity Centre (STRPP, 2011: 73-4).

Because much of the previous growth in the Southern Region has occurred in Kingborough, the strategy recommends the Kingborough LGA absorb just 5% (or 1,325 dwellings) of further residential infill growth over the next 25 years, with most infill to be distributed across other LGAs in the region (STRPP, 2011: 92).

The State Government Planning Commission has oversight of this (and other) regional land use strategies, and a role in assessing new planning schemes developed by local councils under the strategy. The intention of the state government is that planning schemes will be clearer and tighter than in the past, and the Commission hopes this will lead to fewer disputes. However, some suggest the new arrangement will also reduce local council and community control over development.

Former Kingston High School redevelopment and divestment

The state government is the owner of the former Kingston High School site, which it intends to redevelop and sell. The state government and Kingborough Council are currently in discussions concerning the sale of the site to the council (Department of Treasury and Finance, 2012). The area is covered by council's *Kingston Central Area Master Plan* (see below).

Influence of local government:

Southern Tasmanian Councils Authority

The Southern Tasmanian Councils Authority (STCA) is a regional organisation of councils created by the twelve southern councils to facilitate cooperative working partnerships and to improve the ability of councils to take joint actions to address regional development issues and progress sustainable economic, environmental and social outcomes for Southern Tasmania, its local communities and the state. In addition the STCA has a role in lobbying state and federal governments on issues that promote the combined interests of its member councils. The STCA has been instrumental in the development of a strategic approach to regional land use planning (see below).

Southern Tasmania Regional Planning Project and regional land use strategy

The Southern Tasmania Regional Planning Project (STRPP) is managed by the STCA and is an initiative resulting from an agreement between the state government, the STCA and the 12 southern Tasmanian councils.

As discussed above, in 2011 the STRPP produced a comprehensive regional land use strategy for the region, which was endorsed by the 12 southern councils and the Southern Tasmanian Councils Authority, and was subsequently endorsed by the Tasmanian Minister for Planning as a 'regional land use strategy' under the *Land Use Planning and Approvals Act 1993* (Tas).

The STRPP also aims to produce an infrastructure investment strategy for the region and to develop coordinated, consistent and contemporary planning schemes for all councils involved, based on the common strategy. These project outcomes will significantly influence the way Kingborough (as part of the Southern Region) develops over the next 20 years.

Kingborough Council

Strategic plan 2010-2020

Kingborough Council Strategic Plan names 'planning and managing growth' as one of five key directions for council, along with 'good governance', 'managing and protecting our natural environment', 'wellbeing and inclusiveness' and 'integrated transport systems'. In this sense the document is very much focused on multiple dimensions of sustainability.

The plan contains a number of strategies for achieving the desired strategic outcomes relating to planning and managing growth. It notes that in order to achieve these objectives, there is a need for a contemporary planning scheme that is 'founded on community values' and that can 'help manage a sustainable approach to growth and ensure Kingborough is developed in harmony with its unique natural environment'. It particularly notes the need to 'protect the precious agricultural land' and 'green open spaces and natural biodiversity' in the area. It also states that 'local employment opportunities and sustainable local enterprises are integral to our economic and social sustainability'. Kingston is identified as the 'recognisable "heart" for community and commercial services and activities' (Kingborough Council, 2010: 10).

Local planning scheme (forthcoming)

Kingborough Council is planning to develop a draft planning scheme by April 2013, which will be an implementation document for the local area, consistent with the new regional land use strategy.

Kingston Central Area Master Plan

The state government's decision to relocate the Kingston High School left a large area of land within the Kingston Central Area which could provide opportunities for commercial, community, residential and open space activities. Kingborough Council updated its *Kingston Central Area Master Plan* to capitalise on this land release by providing council with a framework within which future development can be guided and subsequently controlled. The Kingston Central Area Master Plan Review (Collie, 2008) identified the need for the development of a consolidated activity centre in the Kingston Central area. The specific development that is to occur on the school site is yet to be determined. However, the Master Plan provides a framework within which development can occur and presents a number of design concepts. The revised Master Plan identifies that the core retail area is to be focused on the Channel Highway. This will facilitate the upgrade and redevelopment of the Channel Highway by council, thereby maximising the streetscape amenity and actively discouraging traffic from using the Channel

Highway in preference to other routes. However, as noted above, the council is still in discussion with the state government about the sale of this land.

Federal government

Regional Planning Initiative

The federal government's Regional Development Australia (RDA) initiative is a partnership between the three tiers of government. There are 55 RDA committees across the country that have prepared regional plans. Kingsborough is part of the Southern Region, one of three sub-regions of RDA Tasmania. RDA Tasmania has a cooperative relationship with the Tasmanian Government and the Local Government Association of Tasmania which is outlined in a tripartite memorandum of understanding. The Tasmanian Department of Economic Development, Tourism and the Arts regional development program has developed a regional economic development plan. The plan focuses on attracting, facilitating and retaining investment in the region, identifying key industrial sites and 'support[ing] planning reform by encouraging greater collaboration between councils – such as sharing resources to achieve regional planning objectives and smoother development application processes'.

Contribution to road funding

The Kingston bypass, which was completed in December 2011, was jointly funded by the Australian (\$15 million) and Tasmanian Governments (\$26.5 million). The bypass commences south of the Kingston Interchange and passes underneath Summerleas Road west of the existing Channel Highway. The alignment runs approximately parallel to Whitewater Creek before re-joining the existing Channel Highway at Alonga Road. The bypass is a significant piece of new infrastructure and will facilitate several future developments in the area, including the further expansion of a Catholic secondary school, a housing development at Huntingfield, the relocation of Kingston High School and the Kingsborough Sports Centre expansion. Each of these developments is expected to reinforce the role of Kingston as the primary activity centre to the south-east of Hobart.

Environmental, social and economic indicators

The first component of the case study research was investigating themes and indicators presented in the indicator framework. Each theme and group of indicators is explored here using the indicators as headings and across the three sustainability domains (environmental, social and economic). Each domain draws on different data sources at the local level, the availability of which varies across the indicators.

The analysis presented shows that population growth is impacting on all three sustainability domains in a range of ways.

While environmental data for Kingborough is limited, it appears that population growth, and the associated increase in the number of dwellings in the area, is contributing to a range of environmental problems from smoke pollution from wood burning heaters, to the spread of weeds and the threats to native wildlife posed by domestic animals. Septic tank leachates and sewerage treatment, both of which potentially increase as population increases, have been identified as sources of water pollution in the area. An increase in recreational boating is also thought to be one of many activities that is having a negative impact on the water quality of the D'Entrecasteaux Channel. Waste management is a particular challenge in the area as population growth has increased pressure on existing landfill sites. The local waste facility has recently closed, having reached capacity, necessitating all locally generated waste to be transported approximately 60 kilometres to the Copping landfill.

Socially, Kingborough appears to be faring relatively well. Education levels are higher than in Hobart or Tasmania as a whole, and the proportion of residents with tertiary qualifications is also growing more rapidly in Kingborough. The existence of a number of world-class research facilities in the area is thought to be contributing to this. These facilities have attracted highly qualified employees to work and live in the area. In this sense, population growth in Kingborough includes an element of what is sometimes referred to as 'brain gain'. While there has been an increase in the rate of social security take-up in Kingborough over the past five years, Socio-Economic Indexes for Areas (SEIFA) scores suggest that Kingborough has few areas of socio-economic disadvantage, and remains one of the least disadvantaged areas in Tasmania. Unemployment is consistently lower in Kingborough than in the rest of the state. As health outcomes are closely related to socio-economic status, it follows that compared with the rest of the state, Kingborough residents have (on average) better health status. Comparatively low proportions of the population are smokers, overweight or obese or experience psychological distress, and self-reported health status is comparatively higher. Socially, population growth is expected to continue to change the local demographics, possibly bringing more highly qualified workers and/or more 'sea change' or 'tree change' retirees. The proportion of Kingborough residents born overseas, while small by Australian standards, is relatively large for Tasmania, and if population growth trends remain the same, will continue to increase slowly. While the proportion of children (aged 0 to 15) has decreased in the past decade, the actual numbers of children in the area have increased, and the area currently has a higher proportion of children than the state average, meaning there will be an ongoing and possibly increased need for provision of schools and other children's and family services in the area.

In economic terms, Kingborough appears to be reasonably comfortable. As in the rest of Australia, household disposable income has steadily increased in the past decade. However this increase has been less marked in the Southern Tasmania region than elsewhere and while household income has increased over the past decade, it has decreased slightly in the last five years. Household debt service ratios and the ratio of debt to income have also increased. Average house and unit prices in Kingborough, although lower than in Hobart, are higher than the state average. While the supply of public housing in Kingborough has increased recently, the area still has comparatively fewer dwellings rented from the government. The proportion of residents with broadband Internet connections is higher in Kingborough than in either Hobart or Tasmania. Transport data shows Kingborough is a highly car dependent area,

with the highest proportion of trips made by car for any LGA in the Greater Hobart area, and a lower level of public transport usage than in Greater Hobart. This high level of dependence on private vehicles likely reflects the relatively poor level of public transport infrastructure in the area, and has a number of negative implications for sustainability, as discussed further in the case study.

Environmental indicators

Climate and atmosphere

There are currently no air monitoring stations in the Channel area. The nearest monitoring stations are located in Hobart (at New Town and Clearys Gates, both of which are approximately 15 km north of Kingston) and Huonville (approximately 27 km south-west of Kingston), and therefore there is very limited locally available quantitative data on air quality in Kingborough. However one known air quality issue that does arise for the local area is smoke pollution from planned burning activities (for bushfire hazard reduction) and wood heaters (EPA Tasmania, 2011a). As a further indication of this, the adjacent areas of Geeveston and Huonville share many of the environmental qualities of the Kingborough area (though at a less urban scale), and these areas regularly show very high PM_{2.5}² concentrations at night in winter as a consequence of domestic wood smoke (EPA Tasmania, 2011b).

In order to improve the accuracy of modelling showing wood smoke dispersion from domestic heating practices, EPA Tasmania recently undertook home heating surveys across eleven regions, including the Kingston Blackmans Bay region. Results from the surveys are currently being analysed (EPA Tasmania, 2011a).

No data is available for energy usage or CO₂ emissions at the local level.

Table 4: Natural capital - climate and atmosphere (Source: EPA Tasmania, 2011b)

	Kingborough	Hobart comparison
No. of days exceeding air quality standards (PM ₁₀ ³)	N/A	0 days (2008), 1 day (2010)

Ecosystems and biodiversity

Like all Tasmanian municipalities, Kingborough has a range of weed problems which result in reduced productivity of agricultural land and degraded natural values in bushland, waterways and coastal reserves (Tasmanian Weed Management Committee, 2005). In Kingborough many weeds are spreading from urban properties along waterways, roads and bush tracks.

There are over 120 types of weed in Kingborough that have an impact or potential impact on native flora and fauna, agriculture and industry (Channel Weeds Strategy 2008-2013). There are also a number of weeds, some high risk, found in neighbouring municipalities that are not yet present in Kingborough. Time series data, which is not currently available, would allow analysis to be undertaken regarding the increase or decrease in weed presence; however as urban properties are one significant source of weeds it would be reasonable to assume that as new areas of land are developed for housing, the risk of weeds spreading into new areas will increase.

² PM_{2.5} means particulate matter up to 2.5 µm in effective aerodynamic diameter. In the Tasmanian context PM_{2.5} is a good measure of smoke concentrations, as smoke is largely composed of particles below 1 µm in effective aerodynamic diameter.

³ PM₁₀ means particulate matter up to 10 µm in effective aerodynamic diameter.

Data regarding the number of vulnerable and endangered species identified in Kingborough under the *Environmental Protection and Biodiversity Conservation Act (Cth)* (EPBC Act) is not available. However, the North West Bay River catchment, in which Kingborough is located, is home to 131 animal species including 93 species of birds, 28 species of mammals and 10 species of fish. Rare, endangered and vulnerable species in this catchment are the wedge-tailed eagle, the grey goshawk, the forty-spotted pardalote and the swift parrot (DPIWE, 2003).

It is of note that there have been local strategies and policies implemented to minimise the risks posed by domestic animals, particularly dogs and cats, to native species in the area. For example, the Kingborough Council Dog Management Policy, which is required by the *Dog Control Act 2000* (Tas), declares areas within the municipality in which dog activities are regulated. These include 21 sites where dog access is prohibited and 46 where it is restricted (Kingborough Council, 2012). As discussed in the stakeholder views section of this report, there have been recent incidents involving domestic dogs killing native wildlife, and this issue is of significant concern to many in the area.

Water

The provision of data related to the availability of water in the Kingborough area is poor. It has been acknowledged that there is a need for a water monitoring database for the area, especially considering that there have been various water quality monitoring activities carried out by a number of different organisations (e.g. *NW Bay River Environmental Flows: An evaluation for Kingborough Council*). Despite the lack of a central repository of data, various water quality issues have been documented. Erosion and contamination by septic tank leachates are identified as the most significant sources of pollution in the North West Bay River Catchment Management Plan (DPIWE, 2003). Erosion of the riverbanks, and particularly of creeks flowing through agricultural and other areas of cleared land, increases the turbidity of the water and results in siltation. While some erosion is a natural phenomenon, particularly in periods of high rainfall, excessive erosion occurs where the riparian vegetation has been cleared. Activities that impact on the water quality of the D'Entrecasteaux Channel are onshore activities that discharge directly into the Channel, such as sewerage treatment and seafood processing (though in most cases these activities treat effluent before discharge) and water-based activities, such as marine farming and boating.

In regards to drinking water, Southern Water is the recently created water corporation in southern Tasmania. Prior to the creation of Southern Water, councils controlled their water supplies separately, but the infrastructure was not present to collect data on per capita water consumption and therefore that data is not available at the local level.

Land

Local data regarding land use and open space in the Kingborough area is limited. However, the Southern Tasmania Regional Land Use Strategy 2010-2035 (STRPP, 2011) identifies the various land uses throughout the Southern Region (see Figure 5). The map indicates that most of the urban settlement, identified by the 'other' land use category is confined to the Kingston and Margate areas (or along the major road infrastructure). In line with the Kingborough City Council website description of the area, the two major land use categories are 'native vegetation' and 'grazing/dryland cropping'.

Since 1900, there have been three significant land use changes in the area. Following the end of World War II, the population in the area grew with the return of soldier settlers who took up governmental land incentives and expanded the apple industry, transforming the land use in this area. Later, during the 1960s a second wave of land use change occurred with the collapse of the apple industry and the 1967 bushfires, which virtually ended large-scale fruit production in the area. The final wave of land use change occurred following the completion of the Southern Outlet road, which brought Kingston and Blackmans Bay within easy commuting range of Hobart, and was a major contributing factor to subsequent rapid urban growth in this area.

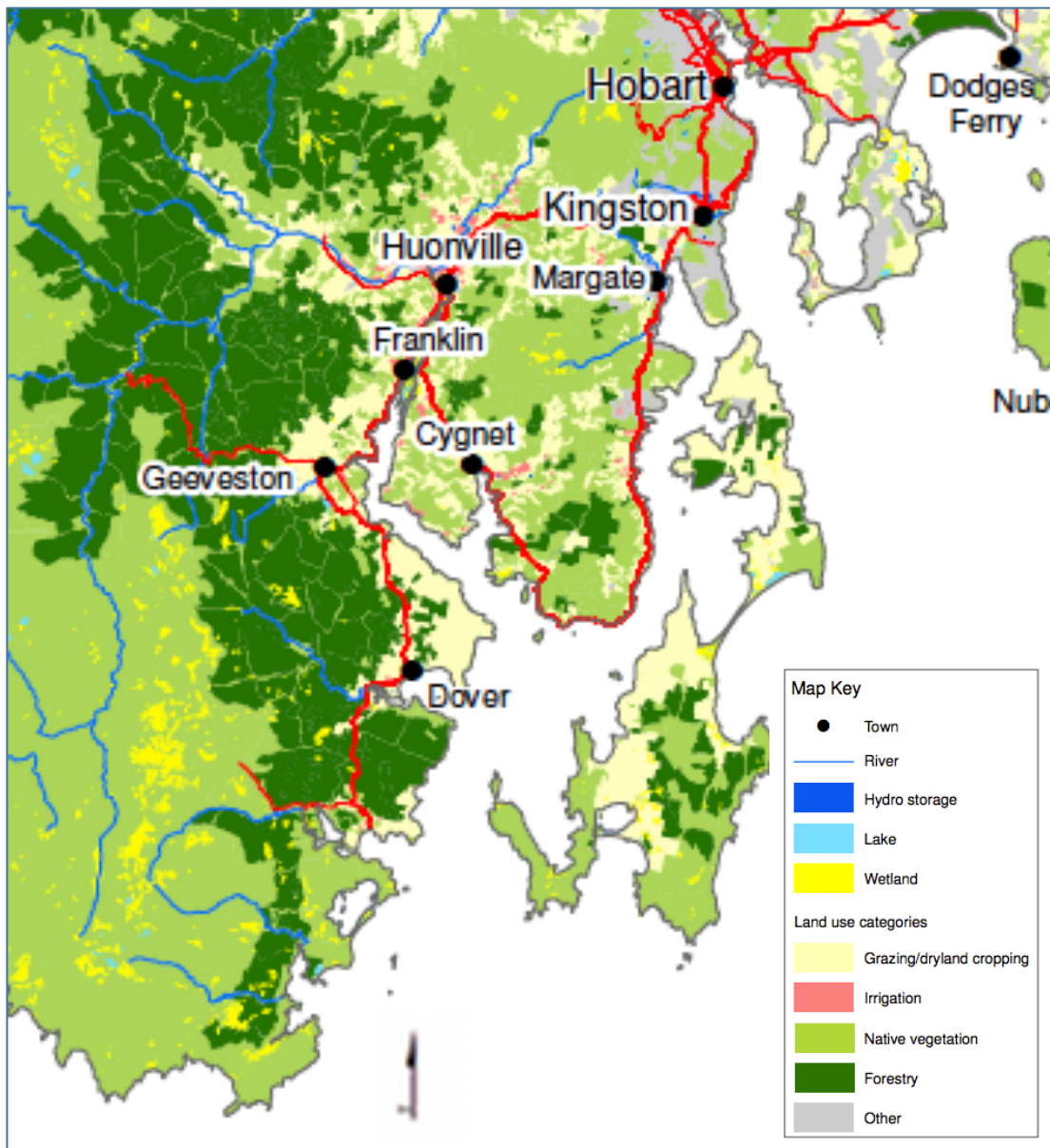


Figure 5: Southern region land use (Source: STCA, 2012)

Waste

While consistent time series data regarding waste in the case study area has proved difficult to obtain, a Southern Waste Strategy Authority (SWSA) review of waste management practices in Southern Tasmania provides details regarding waste practices during the 2009-10 financial year. Figure 6 suggests that per household, Kingborough produces significantly less general waste⁴ and total waste material than either the Hobart LGA or the Southern Tasmanian (SWSA) region,⁵ and a similar volume of recyclables as these two per household.

Table 5: Natural capital – waste (Source: SWSA, 2011)

	Kingborough (2009/10)	Southern Tasmania comparison
Waste collected per households serviced (kg)	.41 kg/household serviced	.69 kg/household serviced
Recyclables collected per household serviced (kg)	.18 kg/household serviced	.17 kg/household serviced
Organics collected per household serviced (kg)	N/A	.02 kg/household serviced
Total material collected per household serviced (kg)	.59 kg/household serviced	.91 kg/household serviced

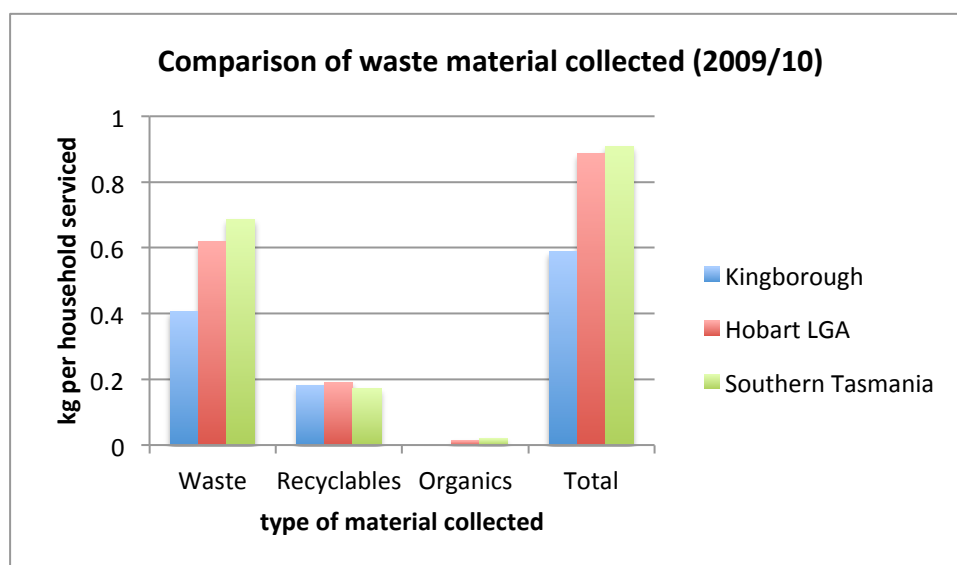


Figure 6: Waste material generation rates (kg per household) (Source: SWSA, 2011)

Population growth in the area has clearly increased the pressure on landfill capacity. The local landfill facility (Barretta Site) has recently closed, having reached capacity and as a consequence, all locally generated waste is now transported approximately 60 kilometres to the Copping landfill.

⁴ General waste means all the material that is not separated recyclable material or separated organic material.

⁵ The Southern Tasmania (SWSA) region comprises 12 member councils: Brighton; Central Highlands; Clarence City; Derwent Valley; Glamorgan Spring Bay; Glenorchy; Hobart City; Huon Valley; Sorell; Southern Midlands; Tasman.

Social indicators

Skills and education

There are a number of ways to assess educational attainment in populations. Common measures are the proportion of the adult population that has a bachelor's degree or higher, and the proportion that has a certificate or diploma qualification. On both of these measures Kingborough has a higher level of educational attainment than Greater Hobart or Tasmania as a whole. These results are shown in Figure 7 and Figure 8. The number of adults with university qualifications in Kingborough increased by 31.9%, from 7.6% of the population in 2001 to 9.1% in 2006. When they are released, 2011 Census figures will show if this is a continuing trend.

In comparison, the proportion of people with university qualifications across Greater Hobart increased by 24.3%, from 6.0% of the population in 2001 to 7.1% in 2006, and across Tasmania by 24.3%, from 4.4% of the population in 2001 to 5.2% in 2006. As these figures show, the proportion of people with university qualifications is not only higher in Kingborough than in Greater Hobart or Tasmania as a whole, but the recent increase has been greater.

In terms of certificate and diploma qualifications, attainment levels in Kingborough changed minimally over the five years between 2002 and 2006, from 14.5% of the adult population to 15.1%. Levels of attainment for these qualifications also grew minimally at the Greater Hobart and Tasmania level, but in both cases the proportion of the population holding these qualifications remains almost 10 percentage points lower than in Kingborough.

It appears that the relatively high proportion of educated people in Kingborough is a result, not necessarily of increased levels of education among the existing population, but of an influx of more educated residents – what is sometimes referred to as a 'brain gain'. One contributor to this phenomenon, for example, is the development of world-leading Antarctic and marine science research in Tasmania. As the Antarctic Climate and Ecosystems Cooperative Research Centre (ACE CRC) notes:

Hobart continues to grow as a significant global centre for Antarctic and marine science. The ACE CRC, as a focus for much of this research, especially on climate change, has attracted researchers and collaborations from around the world. The Antarctic and marine science sector is a major component of the Tasmanian economy and Australia is recognised as a significant contributor to Antarctic and Southern Ocean research, climate change science and to Antarctic and Southern Ocean affairs (ACE CRC, 2009: 6).

Kingborough is a convenient place to live for employees of the Australian Antarctic Division (located in Kingborough itself), and the ACE CRC located in nearby Sandy Bay.

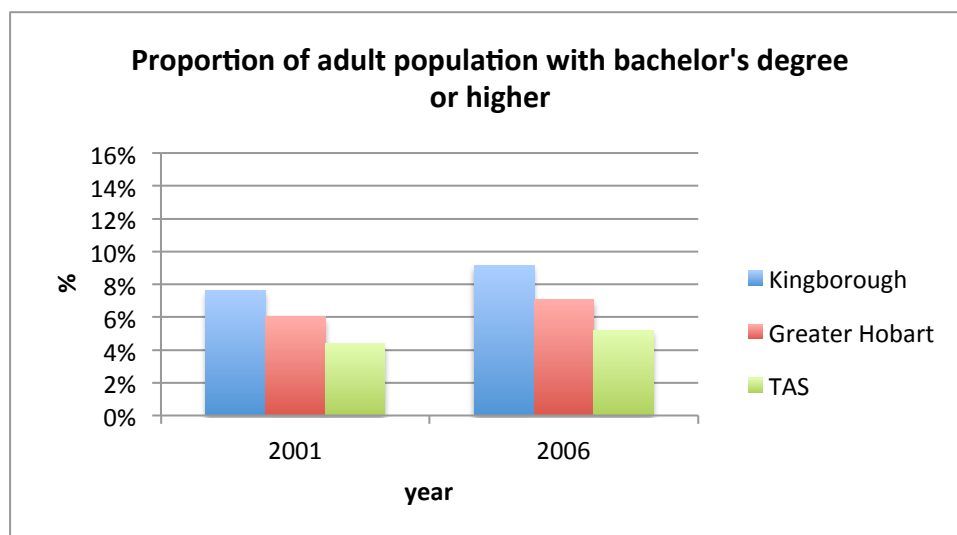


Figure 7: Comparison of adult population with bachelor’s degree or higher qualifications (Source: ABS, 2012b)

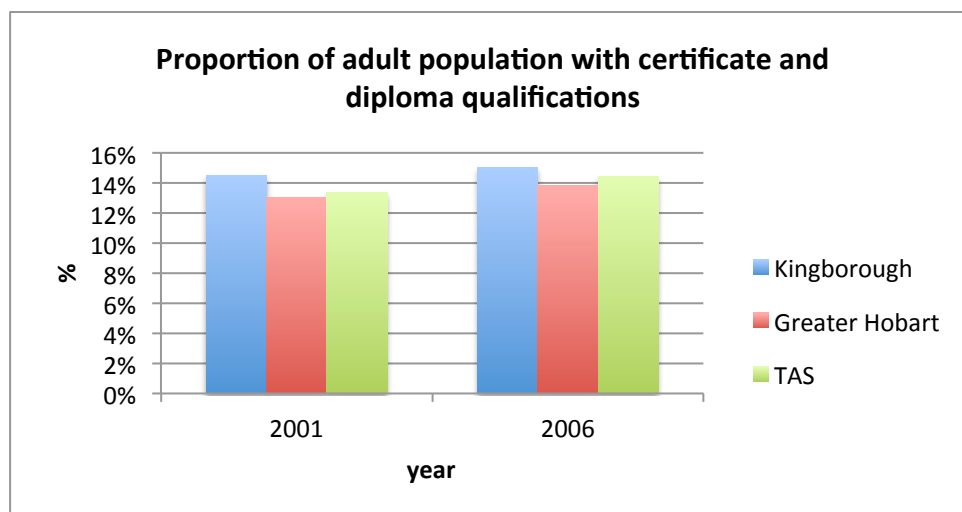


Figure 8: Proportion of adult population with certificate and diploma qualifications (source: ABS, 2012b. Includes Certificate I-IV, Diploma and Advanced Diploma)

Health and socio-economic disadvantage

As research on the social determinants of health has shown, health outcomes are closely related to socio-economic status (World Health Organisation, 2012). Socio-Economic Indexes for Areas (SEIFA) scores suggest that Kingborough has few areas of socio-economic disadvantage. They also show relatively little variability within the LGA, with a minimum census collection district (CD) score of 892 and a maximum of 1141. Kingborough was ranked 28 of 29 in the Index of Relative Socio-economic Disadvantage within Tasmania in 2006.

Table 6: Social and human capital – disadvantage (Source: ABS, 2008)

	Kingborough	Greater Hobart	Tasmania
SEIFA Index (IRSD) score	1040	982	961
Minimum IRSD score of CDs	892	630	582
Maximum IRSD score of CDs	1141	1159	1159
Rank in Tasmania	28 (of 29 LGAs)		
Rank in Australia	589 (of 667 LGAs)		

Compared with Tasmania as a whole, Kingborough has a lower proportion of the population who are daily smokers (12.9% in Kingborough compared with 16.6% of the Tasmanian population), and a lower percentage of people experiencing psychological distress (5.8% compared to 7.6% for Tasmania). Other key measures, such as self-reported health status and proportion of overweight or obese persons, Kingborough rates are below those of Greater Hobart and Tasmania as a whole (see Figure 9). However it should be noted that aggregation to the LGA level may be hiding higher concentrations in specific areas.

Table 7: Social and human capital – health (Source: PHIDU, 2010)

	Kingborough 2007	Greater Hobart 2007	Tasmania 2007
Proportion reporting fair to poor health	10.8%	13.4%	14.4%
Proportion of population that are daily smokers	12.9%	15.1%	16.6%
Proportion of population that are overweight or obese	33.8%	34.8%	36.1%
Proportion of population experiencing psychological distress ⁶	5.8%	7.2%	7.6%

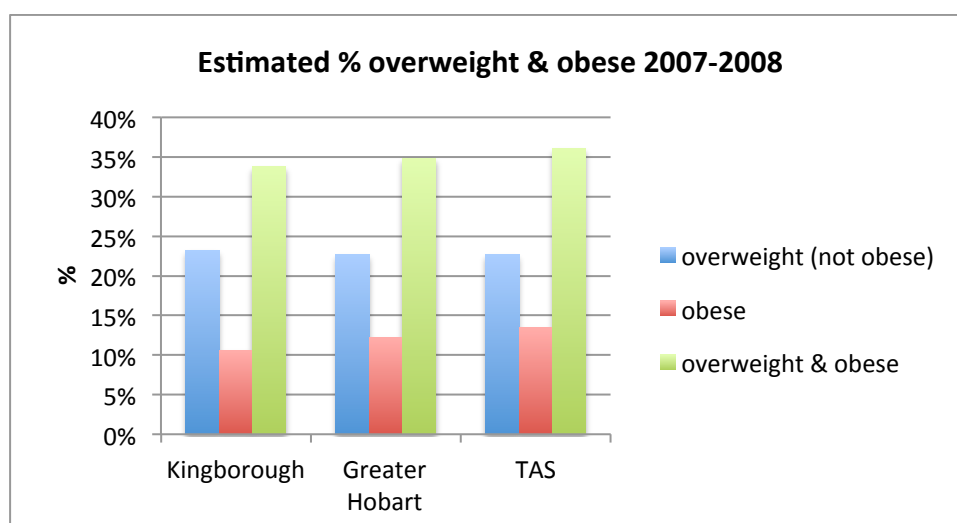


Figure 9: Comparison of estimated % overweight & obese (Source: PHIDU, 2010)

⁶ percentages are of people experiencing high or very high levels of psychological distress on the Kessler 10 scale

Employment and unemployment

Unemployment in Kingborough has been consistently lower than in Hobart or Tasmania as a whole. According to the latest figures from the *Small Area Labour Markets Survey (SALMS)* (shown in Table 8 below) Kingborough’s unemployment rate in March 2012 was 3%, compared to 5.9% for Tasmania as a whole. Unemployment has been falling in Kingborough, Hobart and Tasmania as a whole since 2001 (see Figure 10).

Table 8: Social and human capital – employment (Source: NIEIR, 2012; DEEWR, 2012a & 2012b) (Note: * data items marked with an asterisk use NIEIR data for the Hobart South region, which comprises all of Hobart, plus its commuter zones and the rural fringe, including Kingborough).

	Kingborough	Greater Hobart-Southern	Tasmania
Unemployment rate	3% (March 2012)	5.5% (July 2012)	6.5% (July 2012)
Participation rate	N/A	60.7% (August 2012)	60.6% (August 2012)
	Hobart South region	Tasmania North region	
Hours worked per week*	29.3 hours (2011)	22.6 hours (2011)	
Social security take-up*	16.7% (2011)	16.9 % (2011)	

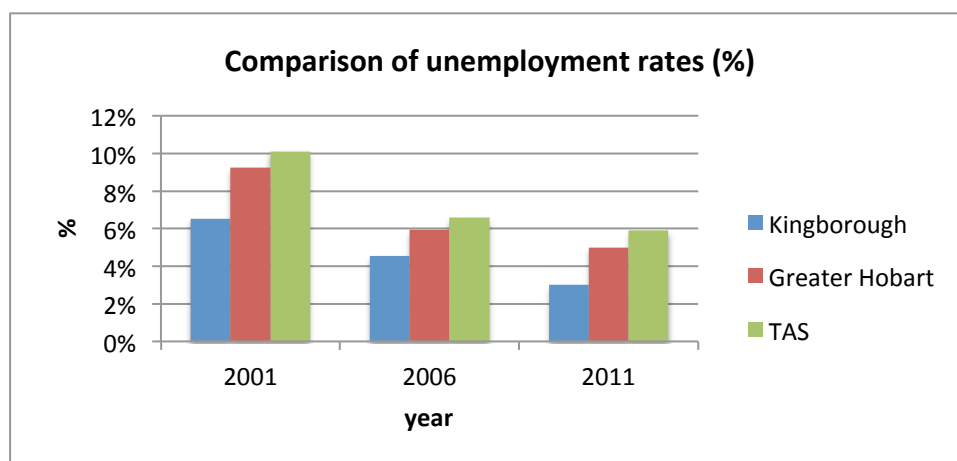


Figure 10: Comparison of unemployment rates (Source: ABS, 2007 & 2012a)

Security and crime

It is difficult to identify local level data on feelings of safety or security. Crime statistics provide some indication of the security or safety of an area, although it is well documented that caution should be exercised when interpreting crime statistics, not least because they include only *reported* incidents.

The Tasmanian Police report crime and justice data to ABS at a state level, but no local level data is available for Kingborough.

A recent news article regarding crime in the Kingston area reports that Kingborough Council received a \$145,000 grant from the federal government’s Safer Suburbs program to install new lighting and security cameras in the town’s main street (ABC News, 2012). According to the article, the Mayor of Kingborough Council reports that Kingston does not have a high crime rate, but that there is nevertheless community concern about safety.

Economic indicators

Wealth and housing affordability

Standard of living is usually measured by disposable household income, adjusted for household size and controlling for housing costs. In the period between 2001 and 2007 household disposable income across Australia grew on average by 3.1% a year, accelerated to 6.5% per year during the GFC (2008-2009) and in the years since has dropped back to 1.6% (NIEIR, 2012). In the Southern Tasmanian region (which includes all of Hobart plus its commuter zone and rural fringe), this growth has been significantly less marked, with disposable income increasing by a total of 5% in the period from 2007 to 2010, and then decreasing by a total of 0.6% from 2010 to 2012 (NIEIR, 2012).

The National Institute of Economic and Industry Research (NIEIR) report calculates household wealth as the value of dwellings owned by residents of an LGA plus holdings in financial assets less the stock of household liabilities. As the table below shows, household wealth has increased over the last decade, though it did decrease between 2007 and 2012. Household debt service ratios and the ratio of debt to income have also increased.

The 2012 (12 months to June 2012) average house price in Kingborough was \$375,000, compared to a state average of \$290,000 and \$450,000 for the Hobart LGA. Median unit price trends reflect a similar pattern, at \$255,000 in Kingborough, compared to \$311,000 in the Hobart LGA, and, \$227,000 across the state. While Kingborough has a lower median property price than Hobart, there is variability between suburbs with house price averages of \$420,000 to \$527,000 in some of the older, more established suburbs in the LGA (e.g. Blackmans Bay and Taroona) and averages of \$250,000 to \$328,500 in newer suburbs and more rural areas (e.g. Huntingfield and Cygnet).

Table 9: Economic capital - wealth and housing affordability (Source: NIEIR, 2012) (Note: Southern Tasmania includes all of Hobart plus its commuter zone).

*represents growth in chain volume measures (cvm) using ABS methodology.

	Southern Tasmania 2001	Southern Tasmania 2011
Wealth per household* (\$cvm)	\$401,000	\$559,000
Household debt service ratio	12%	14%
Household debt to gross income ratio	0.94	1.14
Average dwelling price	\$140,200	\$301,000
Average dwelling price to household disposable income	2.2	3.7

The proportion of Kingborough households experiencing mortgage stress or rental stress⁷ is slightly lower than in Hobart and Tasmania as a whole (see Figure 11 for a comparison). In 2006 in Kingborough, 5.8% of mortgaged owner-occupiers and 23.7% of private renters were classified as being in mortgage or rental stress, as shown in Table 10.

⁷ The definition of 'mortgage stress' or 'rental stress' encompasses those households in the bottom 40% of income distribution (with less than 80% of median income) that are spending more than 30% of household income on mortgage or rent.

Table 10: Economic capital – housing (Source: PHIDU, 2010; ABS, 2007)

	Kingborough	Greater Hobart	Tasmania
Mortgage stress	5.8%	6.3%	7.3%
Rental stress	23.7%	24.1%	24.2%

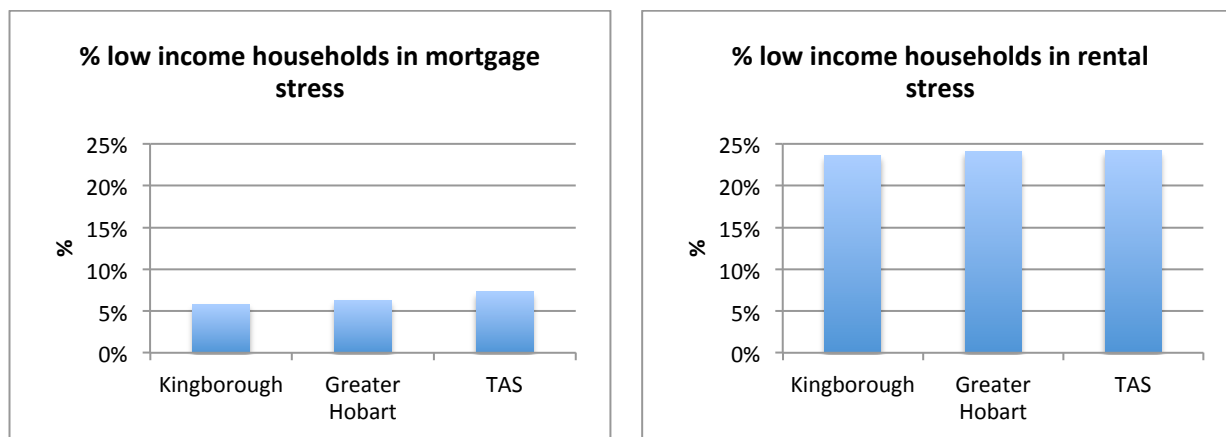


Figure 11: Comparison of low income households in mortgage and rental stress (2006) (Source: PHIDU, 2010; ABS, 2007)

Kingborough has a significantly lower percentage of dwellings rented from the government housing authority than Greater Hobart or Tasmania as a whole (2.7 % compared to 5.9% and 5.4% respectively). However, as Table 11 below shows, between 2006 and 2011, the proportion of government rental housing in Kingborough increased significantly, as new public housing was built in the area, while the proportion of government housing in Hobart and Tasmania decreased slightly.

Table 11: Economic capital – housing (Source: PHIDU, 2012; ABS, 2012a)

	Kingborough	Greater Hobart	Tasmania
Dwellings rented from the government housing authority (2011)	2.7%	5.9%	5.4%
Dwellings rented from the government housing authority (% change 2006-11)	+15.4%	-0.8%	-0.7%

Transport and infrastructure

The Greater Hobart Household Travel Survey (GHHTS) undertaken in 2008-09 by the Department of Infrastructure, Energy and Resources sought to understand how, where and why people are travelling in Greater Hobart, by investigating actual passenger transport patterns and needs.

Analysis from the survey on journey to work patterns of residents and workers shows that of all of the LGAs surveyed, the average numbers of weekday and weekend trips are highest in Hobart and Kingborough.⁸ The survey also indicates that Kingborough has the highest proportion of trips made by car. Public transport usage is higher than in Hobart LGA, but lower than in Greater Hobart (DIER, 2010).

Table 12: Economic capital – transport (Source: DIER, 2010)

	Kingborough	Hobart LGA	Greater Hobart
Car as driver	58.8%	49.0%	54.7%
Car as passenger	19.5%	17.0%	19.8%
Public transport	3.3%	2.4%	4.0%
Walking	17.5%	30.2%	20.2%
Other	0.9%	1.4%	1.3%

Other results of the survey indicate that Kingborough residents take a considerable number of trips within Kingborough and to Hobart, but relatively few trips to other parts of the Greater Hobart area, as illustrated in Figure 12.

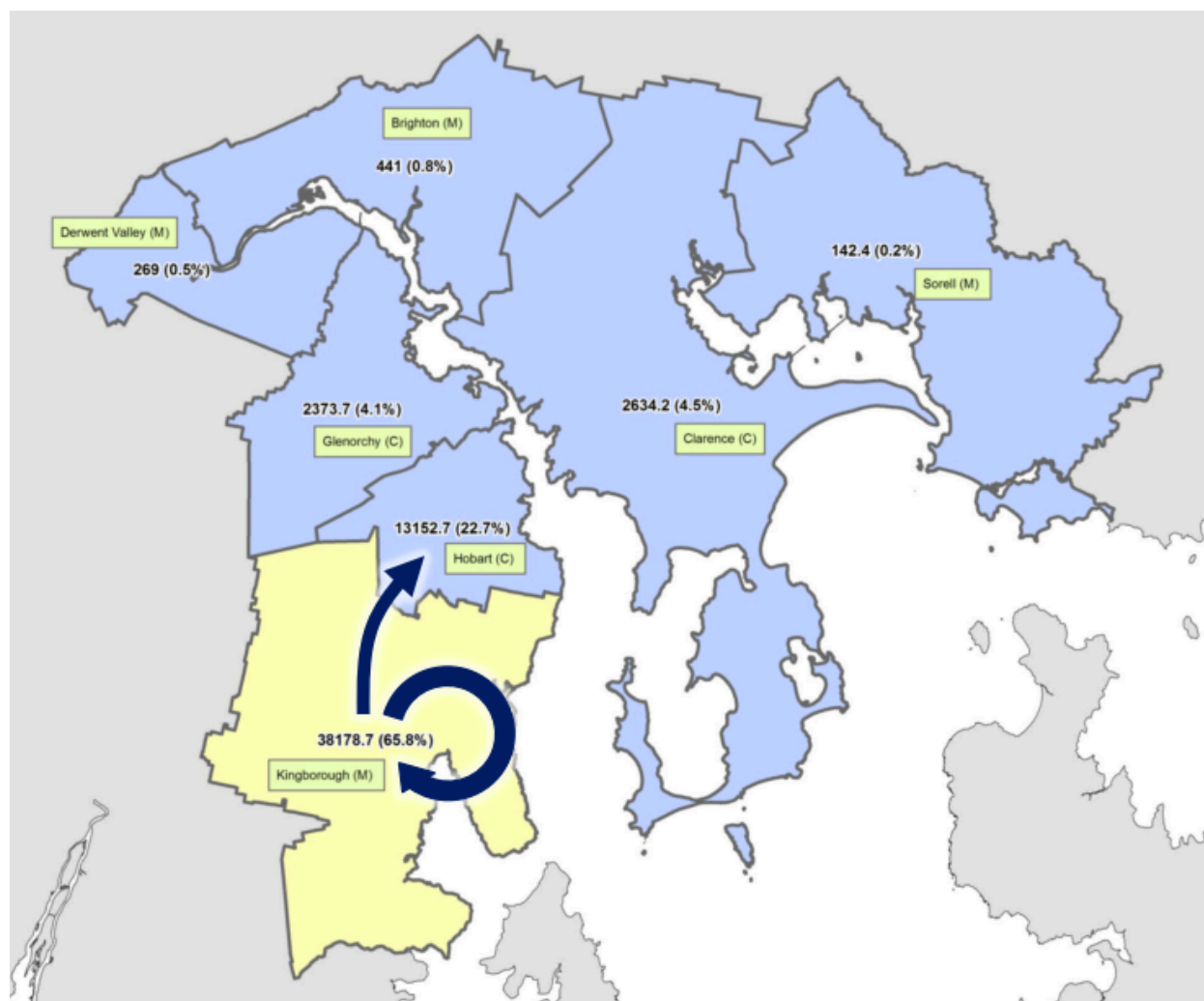


Figure 12: Trips made by Kingborough residents to LGAs across Greater Hobart (Source: DIER, 2010: 21)

⁸ This data is only for the area defined by the ABS as Kingborough Part A Statistical Local Area.

Access to broadband Internet connections is a common measure of communications infrastructure. The uptake of broadband services rapidly increased between the 2006 and 2011 census periods. In 2006 35.7% of Kingborough residents had access to a broadband Internet connection; this increased to 79.9% in 2011. The proportion of residents with a broadband connection is higher in Kingborough than in both Hobart and Tasmania as a whole (see Figure 13). However the rate of uptake in Kingborough (a 151.2% increase between 2006 and 2011) has been lower than in Tasmania as a whole (170.0% increase between 2006 and 2011) and only slightly higher than in the rest of Greater Hobart (143.2% increase between 2006 and 2011). This perhaps reflects the level of earlier uptake in Kingborough.

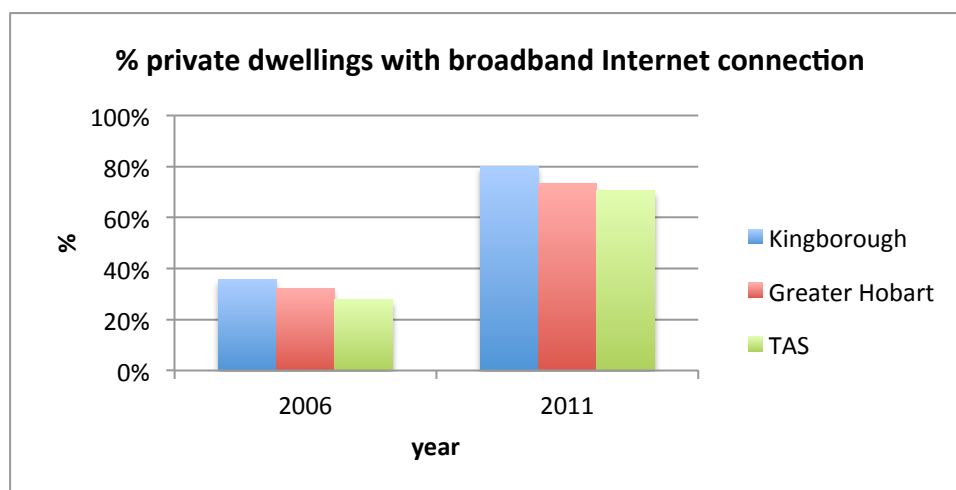


Figure 13: Comparison of broadband Internet connection (2006 & 2011) (Source: ABS, 2007 & 2012a)

Productivity

According to the Tasmanian Economic Development Plan (DEDTA, 2012) the estimated gross regional product (GRP) of the Southern Region was \$11.11b in 2009/10, which accounts for 47.6% of the gross state product.

Data regarding Kingborough's contribution to the Southern Region is not available. The local economy predominantly comprises retail, aquaculture, tourism, business services, manufacturing and primary production.

Business innovation

Local level business innovation data is virtually non-existent, unless it is collected through small, locally based surveys. Patent counts per population are often used as proxies for innovation, but this can be unsuitable, as patents are only used in certain types of innovation (technology-based and radical innovative activity) and exclude other more common forms of innovative activity such as service or organisational innovation.

The NIEIR State of the Regions report does calculate patent applications per 100,000 population for the Southern Tasmania region. NIEIR calculates 8.31 patent applications per 100,000 (applications between 1994 and 2011). This compares with the Australian average of 21.01.

Stakeholders

Stakeholders were identified from a process of stakeholder mapping. Eighteen stakeholders were identified from this process. This list was refined and the fifteen stakeholders were invited to participate in an interview.

Stakeholder interviews were conducted from 30 July to 3 August 2012. The list of stakeholders interviewed is shown below.

Table 13: List of stakeholders

Interviewee	Position and Organisation	Role of organisation	Category
Cr Michele Higgins	Councillor, Kingborough Council	Council	Environmental
Julian S Punch	Coordinator, Kingborough Residents Voice	Advocacy group for Kingborough	Social
Flora Fox	Councillor, Kingborough Council	Council	Economic
Melissa Staples	Community Development Officer, Kingborough Council	Council	Social
Daniel Smee	Manager, Community & Recreational Services, Kingborough Council	Council	Social
Tony Ferrier	Deputy General Manager, Kingborough Council	Council	All
David Cleary	Manager, Kingborough Community Enterprise Centre	Local Business organisation	Economic
Michael Douglas	Manager, Housing and Homelessness Services, Colony 47	Regional community service organisation	Social
Greg Alomes	Executive Commissioner, Tasmanian Planning Commission	Peak planning body in Tasmania	Planning
Dr Peter Wilde	Honorary Research Associate, School of Geography & Environmental Studies, University of Tasmania	Research	Planning/ Demographics
Paul Stewart Dimmick	Owner/operator Huon Bush Retreats; Resident/member Mt Misery Habitat Reserve	Local tourism business	Environmental
Linda Jamieson	Project Officer, Council of Aging Tasmania	Peak advocacy organisation in Tasmania	Social
Jen Newman	Strategic & Community Development, Regional Development Australia, Tasmania	Local RDA	Economic & Social
Wynne Russell	Policy & Research Analysis, Tasmanian Council of Social Services	Peak NGO body in Tasmania	Social
Bob Graham	Planning consultant, Honorary Research Associate, University of Tasmania	Research	Planning

Positive and negative views about population growth

Positive and negative views of population growth are discussed in further detail in their theme categories below. Quotations from the interviews are used throughout the text to further illustrate issues. Quotations are presented in *italics*.

Positive views about population growth

Provides a critical mass for services

Stakeholders expressed a number of positive views about population growth. Perhaps the most common perceived benefit was that population growth in the local area had created a 'critical mass' of residents to support new services and facilities of various kinds, both commercial and social.

'The increased population has created a critical mass. There are a greater diversity of commercial opportunities now, and the ability to provide a greater number of services.'

Others noted that a greater range of small businesses and community groups is now able to flourish because the area has the population to sustain them.

Reduces pressure elsewhere

Some felt that the provision of new areas of residential housing in Kingston had reduced the pressure for more development in Hobart itself:

'The growth of Kingston has been a bit of a pressure release valve for Hobart. Having an area that has provided an opportunity for new housing supply to be delivered is a positive.'

However (as discussed below) others held the opposite view, suggesting development in Kingston contributed to an undesirable level of low density 'urban sprawl'.

Some also suggested that the growth of Kingston had provided improved access to services for those living further south in the LGA who no longer have to travel to Hobart so much:

'The growth of Kingston has made this area more self-contained. Kingston is now a more significant feeder area for places down in the Channel and even further South. There is also now less stress on roads and infrastructure in Hobart itself, because people further south sometimes just travel to Kingston now to do their shopping and so on.'

On the other hand, because development has mostly been in the Kingston area, there is a perception among some that the needs of people living in other areas of the LGA are neglected. Others also suggested that environmental issues in the more rural areas (in the Channel) were receiving insufficient attention from council because there was such a focus on issues in the fast-developing urban area of the LGA (Kingston).

Brings new skills

A number of stakeholders suggested that the influx of people to Tasmania generally is good for the state. This is a trend to which the growth in Kingston contributes, to the extent that some new arrivals are from interstate. Stakeholders pointed out that population growth in this area has brought people with the kinds of skills, qualifications and business experience that are needed. In particular, the recent pattern of growth has seen large numbers of people of working age relocating to Tasmania (and particularly to the Greater Hobart area) which is seen as a positive given Tasmania's relatively old population profile.

The expansion of opportunities in particular types of local employment has attracted a range of people with new skills that were previously in low supply in the area. For example, a number of stakeholders pointed to the Antarctic Division as attracting highly educated and skilled employees, which in turn had invigorated the local community.

Generates positive cultural and attitudinal shifts

One interesting observation made by a number of stakeholders was that the nature of population growth in the area was such that it was creating positive cultural and attitudinal shifts.

Some pointed out that many of the new arrivals who have relocated to the area for employment tend to be highly educated, skilled and resourced. Others also noted that population growth had brought people to the area with *'new attitudes and new creative or innovative ideas'*. These characteristics in turn were thought to have helped generate further employment and business opportunities, including new and innovative small businesses.

'There are lots of small business that have set up as a result of people moving in to the area and bringing new ideas – and lots of examples of innovation and niche businesses. One guy for example set up a smokehouse in what was an old apple packing shed, and now that is a very successful business.'

A number also suggested that many new arrivals were particularly articulate and highly engaged in local issues, and had provided valuable resources to local organisations and community groups. Some suggested this was because newcomers tended to be more highly educated and articulate with more diverse life experiences, while others suggested that those who had moved from interstate had done so partly because of their high levels of appreciation for the natural environment and a more obvious passion for the area compared to some of the older generation who have lived in Tasmania for a long time and perhaps take it for granted.

'When mainlanders come here, they are very passionate about the area – the natural beauty and the lifestyle are the reasons they came. So they're passionate about protecting it. They also tend to be educated and articulate – so they bring extra resources to the community in that way. Urbanites that come here actually become quite involved in community groups and issues.'

While most saw the increased numbers of people who move to the area for its natural beauty and then actively seek to preserve it, as a positive, one interviewee suggested this could sometimes be a form of NIMBYism whereby people move to the area but then do not want others to do so, and oppose any form of change.

A number suggested that the influx of such people was beneficial to the community because they tended to become actively involved in community and environmental issues. As one stakeholder put it, new arrivals are seen as bringing an *'injection of social capital'*. As another put it, *'there are so many benefits of having an aware, intelligent and engaged community – and this is happening mostly because of new migrants to the area'*. Others pointed out that many of these highly educated and articulate new arrivals from interstate were also retirees, which increased their ability to play a more active role in the community. As one put it, *'retired mainlanders are usually the most active members of the community because they have time on their hands'*.

One stakeholder also specifically pointed to the way that population growth – particularly the influx of younger people, and people from interstate – had helped modernise Tasmanian culture, particularly in more rural areas:

'For a long time this area had really conservative values. It was that old rural culture – that was often difficult for women for example, and for gay and lesbian people, and there wasn't much respect for ethnic communities. The influx of new people with modern attitudes has changed that – it's improved the diversity of the area, and the attitudes, and that's been a positive.'

While the relocation of people to the area from other states was thought to bring mostly positive cultural changes, some also pointed out that it could present challenges when new attitudes and perceptions differed from those of existing residents:

'People who move to a new area have particular expectations, and that might relate to something that has been accepted as a longstanding activity in the area, such as agricultural or industrial practices. How people deal with rubbish is another one – traditionally there has been a lot of backyard burning, but new people are more likely to object to that, so now there is a new by-law about that. So population change is changing cultural attitudes and behaviours.'

Capacity to attract investment and funding

As well as providing a critical mass for services, population growth in the area was seen to provide a critical mass to generate investment and justify government spending in the area. The main example of private investment mentioned was the retail development at Kingston. In terms of public investment, several stakeholders pointed to the upgrading of the local school, and to the improved ability for council to secure external grant funding because of the area's growing population – by referring to current population statistics in its funding applications council can make a good case for increased funding for services and infrastructure. One recently successful example mentioned was the funding council has recently received to develop a digital hub.

Council staff also reported that the increased ratepayer base that is a result of population growth in the area provides council with a budget that now enables the provision not only of the basic local government services provided in the past, but also some new and additional or *'nice to have'* services. One also suggested that this increased population and budget was *'providing council with an opportunity to develop more creative thinking and innovative approaches than in the past'*.

Negative views about population growth

Stakeholders mentioned a number of significant negative impacts of population growth in Kingborough. For a minority of stakeholders, population growth in and of itself was viewed negatively, but for most it was the specific nature of that growth – or more accurately the kind of development that had occurred – that was of concern. There was a general feeling that this growth and development was *'developer-led'*, and as a result had not been well planned or managed and was not catering sufficiently well to the needs of the community. One suggested:

'It's too late, we've already lost the battle. Population growth is so strong now that we'll never get a good balance between social, economic and environmental. The environment has already lost out.'

It appeared that few people thought recent population growth in Kingborough had been well planned or managed.

Excessive influence of developers

Many stakeholders felt that to date developers had exercised an excessive level of influence over the type and pace of development in the area. Many described Kingborough's population growth as 'developer-led', and suggested that this had created a number of negative outcomes because developers (especially the small-scale developers common in Tasmania) focused almost entirely on profit rather than on delivering environmental or social benefits.

'The kind of development that gets put forward is determined by developers that's where the influence and the push comes from.'

'Developers are about short-term profit. There are a few exceptions, but basically they are trying to use the planning schemes to help themselves to the profits.'

For many, because development has been developer-led, there has been a lack of strategic thinking or high level planning, and insufficient regulation.

'It has been developer and landowner led, rather than planning for the needs of the community.'

One spoke directly of 'a history of petty corruption' in the land trading system that benefited landholders and developers and saw land converted from rural to residential use in the process, with little or no coordinated government oversight or strategic planning.

'The process is this: rural land is rezoned from rural to residential, then the owner sells it and makes money. Whoever buys it can get subdivision approval – all they have to do is provide internal infrastructure. They make some contribution to external infrastructure but it is very little in Tasmania – about \$2,500 per plot. Then they bring in builders to build houses. At each stage there is a profit made by the landowner and developer, but there is very little funding available for public services. And that rezoning also happens without any trunk infrastructure in place.'

Thanks to the power and influence of landowners and developers, the planning system (at least in the past) was perceived to have been largely reactive by many stakeholders, who suggested that the system was still, 'trying to keep up with pressure from developers'. Others pointed to the lack of community influence over the development, suggesting that 'the more power developers have, the less self-determination people have'.

Residential design criticised on social and environmental grounds

As a result of the excessive influence of developers and the lack of what they saw as an effective planning system, many stakeholders suggested that from both a social and environmental perspective, the kind of residential development that had occurred in Kingborough was badly designed. Some pointed out that the development of large detached houses on relatively large blocks was an inefficient use of land that resulted in low density developments whose residents were highly car dependent. This was viewed as a poor example of sustainable development. Others pointed to a lack of attention to building design standards, including a limited mandatory energy rating, weak mandatory insulation standards, and a lack of regulations governing solar orientation. One reported that while council has

good controls on water sensitive urban design, council engineering guidelines do not recognise these standards, so the implementation of this principle is very poor. Others pointed to a lack of diversity in housing choice, suggesting that the style of residential development occurring suited developers more than the broader community and was driven by cost rather than social or environmental considerations:

'What we're getting built are three-bedroom houses on a block of land with a car garage. But not necessarily because it's what people want or need, but because that's what's being provided, and it's what's cheapest.'

While some people saw development in Kingston as a positive because it reduced pressure for development in Hobart itself, others had the opposite view, suggesting that it contributed to an undesirable level of low density 'urban sprawl':

'It would have been wiser never to have built in Kingston, but instead develop in Hobart. Hobart is Australia's least dense capital city. So there was the capacity to increase density in Hobart before going outside of the capital.'

Retail development criticised on social grounds

Stakeholders also criticised the kind of retail development that had occurred in Kingston. Many viewed this development as excessive and/or poorly planned and designed.

Several separate retail areas have been built in Kingston, and many stakeholders commented on the lack of integration or linkage between them, suggesting they had been developed in isolation, with no coordinated planning and that this made access quite inconvenient for the community because the different shopping areas were so separate, and not within easy walking distance of each other.

'Kingston shopping centre is now three nodes that are not connected. They are poorly planned in terms of facilitating social interaction.'

It was also pointed out that the main Kingston shopping centre is very inward-looking in design, with 'unfriendly and inactive street fronts'. Many thought the physical, street-level feeling of the centre had been negatively impacted as a result – especially for pedestrians.

Others reported feeling a loss of community in Kingston, because the 'village feel' of the retail centre has been lost:

'When you look at the development in Kingston it doesn't have much of a community development focus, it's mostly about commercial development.'

'There is no public space [in Kingston] for young people, or elderly people. Young people are often asked to leave the shopping centres.'

'There has been a loss of a sense of community with the new Kingston development – it's really a commercial centre now.'

It was also suggested the pace of commercial development had moved ahead of residential development and would therefore not be sustainable. Some suggested council had been keen to see businesses establish in Kingston and had attracted them with rates concessions and incentives, but this had resulted in a commercial/retail centre designed around commercial rather than community needs.

Generates some problematic cultural and attitudinal shifts

As discussed above, many stakeholders pointed to numerous positive implications of people moving into the area with different attitudes, as discussed above.

However, some also mentioned negative aspects. There was a perception that while some people move to the area for its natural beauty, and seek to preserve it, others brought 'urban' attitudes and behaviours that were inappropriate for the area. For example, the problem of increasing numbers of domestic animals and their impact on the environment was mentioned by a number of people.

'Domestic animals are a big problem. People move to Tasmania with their dogs and cats and they don't understand the damage they can do because they've come from a big city. But here those animals can really damage the environment. So there are a lot of feral cats here now. And just recently someone's dogs escaped and killed a colony of penguins, which was tragic.'

Others suggested people moving from urban to rural areas don't necessarily understand issues of water scarcity or the importance of rainwater tanks, or septic tanks.

Environmental issues

There were mixed views on the environmental issues associated with population growth. Many suggested that past development in the area had been unnecessarily damaging to the environment, with some suggesting this was a result of 'developer greed' and others pointing to the 'short election cycle based regulation system, which means the councillors – and the state government – are always looking to win the next election – they are not thinking about the good of the planet in 100 years'.

Water

The water and sewerage infrastructure in the area is ageing and is not capable of meeting the needs of a growing population in the long term. Council reported that Kingston and Blackman's Bay sewage treatment facilities were already at or close to capacity.

Many stakeholders were concerned about a recent major change in which water and sewerage services were transferred from local to state government control. They reported that previously Kingborough Council monitored water use and had five-year plans for water and sewerage, and a strategic approach to upgrading infrastructure in order to keep pace with population growth in the area. However there was a feeling that the change has meant locals have lost control over future planning strategies for water and sewerage, and that, while the sewerage system in some parts of the LGA has reached capacity, the future plans of the state water agency (Southern Water) were not clear or well publicised. Council suggested that there was unlikely to be any further land released in the area until Southern Water addressed this infrastructure issue. There was also some resentment that Kingborough residents are now subsidising the water and sewerage costs of other councils.

A number of stakeholders mentioned water quality issues, reporting for example that Kingston Beach, Conningham and Kettering have experienced pollution problems as the population has increased.

'Water quality is an issue, there is virtually no storm water management in the LGA. There is a very good wetland, but that only handles water for Kingston Central. The stormwater system for the rest of the area is just a pipe from land to gutter to sea. Stormwater is probably the biggest pollutant for the Derwent River and D'Entrecasteaux area.'

One reported that there had been a very extensive study of the NW Bay River catchment that measured environmental flows and flora and fauna in detail, but that *'this has really not been taken up in the planning system'*.

Ecosystems

Some suggested that the population growth in Kingston had not had significant environmental impacts:

'The population growth in Kingston has not had huge environmental impacts – the loss of native species and biodiversity has not necessarily been an issue. It's mostly been urban infill, or the replacement of an already altered environment with residential development. We haven't lost lots of virgin bush to residential development.'

However most stakeholders were concerned about various environmental impacts – although it was sometimes difficult to ascertain to what extent all of the impacts mentioned had been caused or exacerbated by the recent population growth. Notwithstanding this, there were a number of negative impacts mentioned. Some claimed development had taken place on land *'that should have been protected'*, such as dunes and marshes. Others suggested new areas of development are *'starting to encroach on areas of high biodiversity'*.

'The loss of vegetation is a serious issue in South East Tasmania. We have five critically endangered species and some of the best quality woodland in Australia. Recent development in Kingborough – west of Margate, and Huntingfield, and south of Blackmans Bay – those developments have encroached upon this vegetation.'

'We need housing supply, but at the same time it has affected ecosystems. There is a lot of conflict between the need for housing and environmental needs.'

It was also suggested that the damming of the Brown and North West Bay rivers, or the volume of water removed from the rivers, had caused a reduction in environmental flows, as well as an increase in pollution because of reduced dilution. Some felt that this issue would be more difficult to address now that water was managed by Southern Water rather than council.

Others pointed to impacts on the D'Entrecasteaux Channel (the region of water between the mainland of Tasmania and Bruny Island):

'There have been impacts on the waterways – fish stocks have been reduced because of recreational fishing in the Channel – and the increase in fishing is attributable to population growth.'

In relation to terrestrial ecosystems, some stakeholders pointed to the negative environmental impact of land clearing for new development. However others pointed to the use of tree planting schemes to offset this clearing. Some also noted that the land in question had been cleared (of native vegetation) long before, and that it was current or potential farming land that was being lost to new development. However, this was still of concern from the perspective of food security. A number of stakeholders indicated a concern about the likelihood of areas of class 3 soils, which are valuable for agriculture, being allocated to development. Stakeholders pointed out that this would further reduce the capacity for Tasmania's population to produce at least some of the food it needs locally.

Some stakeholders pointed to the importance and vulnerability of the Peter Murrell Reserve in Huntington. Huntington is a new area of development just south of Kingston, but also contains this reserve, which plays a critical role in providing 'sea to mountain' wildlife corridors. Stakeholders were concerned about the potential for additional land adjacent to this area to be zoned residential, as they feared this would further threaten the reserve.

Car dependence

Many stakeholders pointed out that new areas of development were highly car dependent, which has obvious environmental implications. As noted above, the limited local employment and the relative lack of social services and recreation and entertainment options in Kingborough, combined with very limited public transport, means many people need to drive to Hobart on a regular basis. One suggested that the concept of transit-oriented design has not sunk in here at all.

Waste

The challenge of waste management with a growing population appears to be significant. A number of stakeholders pointed out that waste from the area is currently transported to a treatment site at Copping and many felt that this was an inefficient strategy. A number noted that the Hobart City Council landfill site is nearly at capacity, and that population growth had contributed to pressures on this site. However there was a perception that there is insufficient regional coordination and planning to identify improved solutions for this issue into the future.

Positive environmental initiatives

Stakeholders mentioned a number of positive environmental initiatives. While it was not always clear how many of these were strictly associated with population growth and development, they included:

- the creation of urban wetlands
- reasonable protection of beachfronts and skyline
- rehabilitation work
- the D'Entrecasteaux project – it was suggested this would not have been funded without the population increase
- good support at council for local environmental groups, and
- award winning interpretive trails at Taroona.

Improved environmental consciousness

In line with the perception (discussed above) that population growth had meant an influx of newer residents with more contemporary attitudes about a range of issues, some stakeholders suggested that newer residents perhaps tended to be more environmentally conscious – for example, older residents in rural areas might still bury their waste, whereas newer residents are demanding recycling services.

Social issues

As discussed above, many of the negative views about population growth derived from concerns about the social impact of the particular kinds of development that had occurred.

Provision of social services

Some stakeholders thought population growth had prompted an increase in some kinds of services.

'Population growth has now reached a level that it can sustain services and facilities – we have many more than in the past. Increased population has created a critical mass for those services.'

However many stakeholders pointed to the increased need for social services that they felt was not being met, suggesting that *'social services have not kept pace with the growth of population in this area'* or that *'local services are really having to play catch-up'*.

Stakeholders mentioned a lack of health services, suggesting that *'existing GPs in Kingborough have full books'*, and therefore did not have the capacity to meet the needs of a growing population. Apart from a need for more GPs in the area, it was pointed out that people need to travel to Hobart for most other health services. However, it was commonly acknowledged that this was probably appropriate as it made sense to centralise the more specialised health services.

Some stakeholders mentioned that very few non-government agencies operate services in Kingston, meaning that those who needed social support services mostly needed to travel to Hobart. It was also suggested that homelessness and emergency housing services, which are currently lacking in the area, may be needed given the likelihood of further population growth, because currently *'People who become homeless in Kingston come to Hobart. Hobart is where the services are'*. Some stakeholders suggested there was a hidden problem of homelessness among young people in the area, with a recent survey of school social workers revealing unexpected numbers of young people who are homeless and 'couch surfing' (i.e. staying with friends). However, a worker in a homelessness services reported that it was unlikely that this phenomenon was related to population growth.

A number of stakeholders suggested that while it is relatively close to Hobart, Kingston was far enough away that it needs additional services and infrastructure as a result of population growth, but that it had perhaps not received these services because of its relative proximity to Hobart. For example it was reported that some Hobart-based social services extend their outreach services to more remote areas but not to Kingston because it is considered too close and there is a view that Kingston residents will travel to Hobart.

This situation exacerbates the level of car dependence in the community, because most people travel to Hobart for goods and services (or struggle to access those services if they do not have a car).

'We are very Hobart-centric – it is just presumed that people [in Kingborough] can go to Hobart for services. But that just makes Kingborough a dormitory suburb. And it's also not easy for everyone to travel to Hobart.'

One stakeholder also suggested that the affluence of Kingborough compared to other areas meant there was poor service provision for those people in the area who do need support:

'Because we are a relatively affluent community, without large areas of social disadvantage, the state government sees Kingborough as fine – the perception is that the area is relatively affluent and so it doesn't need any new services. Or they think 'they can easily get to Hobart.' So that means we suffer from a lack of locally based services. And it means that if you are someone who has fallen through the cracks, then it's hard to get any help in the area. For example all the supported accommodation and youth health services are in Hobart.'

Many stakeholders mentioned the lack of services and entertainment options for young people. Others mentioned a lack of cultural facilities, recreational and leisure facilities, cinemas and restaurants.

Development not meeting community needs

As discussed above, many stakeholders felt that the nature of the population growth and development meant that some social needs were not being effectively met. Some pointed out that it is largely younger families that are moving into the new residential release areas, and that this has various implications. These residents are typically commuting into Hobart, so have less need of services in Kingborough. However other residents of Kingborough have greater difficulty accessing Hobart services and consequently have greater needs for local services. There is a perception among some that the needs of older residents, and residents in the parts of the LGA other than Kingston, are being overlooked because the recent population growth is focused in Kingston.

Again, as discussed above, many stakeholders felt that the retail development areas at Kingston were poorly designed from a social perspective.

'The shopping areas all so separate, there is no real hub or meeting place and there are limited opportunities for social connections, both intergenerational and intra-generational.'

Some noted that this area lacked community and public spaces and green space. The Kingston High School was recently moved away from the town centre and it was reported that many residents wanted the site to be retained as open space. However there is ongoing debate between local and state governments about the value of the site, and as one stakeholder suggested:

'People don't understand that the land has a value – they want open space but they may not be willing to pay for it.'

The urban design of the shopping areas was also considered to provide a poor level of access and amenity for older people, and was viewed as not designed with older people's needs in mind, and in particular was not pedestrian friendly in layout, or easy to access without a vehicle. Others pointed out that the vehicle-oriented design meant the shopping area was not easily accessed by younger people – and many added that the relocation of the high school away from the town centre shopping area had further reduced opportunities for young people to access and use the town centre, as the two are poorly connected. This was seen to reduce opportunities for positive social interaction.

Limited recreational and entertainment options for growing population

Another issue mentioned by many was the limited recreational and entertainment options in Kingborough – it was pointed out that unless this problem is addressed, the ongoing increase in population growth in the area will be accompanied by an increase in vehicle travel to Hobart as more people travel into the city to access entertainment and recreation. However, Council staff report that they are developing a recreational plan which will respond to the changing demographics and predictions about the future size and needs of the population. They reported that while previously recreational facilities mostly consisted of sports facilities, there is now a need to plan for more passive forms of recreation. Council has a particular focus on delivering more multi-use tracks, in response to the ageing population, community consultations and research by the Office of Sport and Recreation.

However, other stakeholders mentioned recreational opportunities had improved as a result of population growth, with the population having reached a critical mass to support new opportunities. One example given was the recent creation of the Southern Tasmania Football League, which provides local teams with greater opportunities to play at a higher level, and has been possible as a result of population growth creating sufficient support for additional teams.

Transport

Many stakeholders mentioned transport as a significant social issue. Many pointed to the lack of a dedicated public transport service in the area as a significant problem. As discussed above, the high level of car dependence was a concern for many.

'[Kingston] is really a satellite suburb that is totally reliant on cars and the highway. The new Kingston bypass will only increase the ability for people to live even further south of Hobart and travel greater distances to work. In this way unsustainability is being built in to these developments.'

'The Southern Outlet has become very busy during peak hour as a consequence of population growth in the area and the increased number of people commuting from Kingborough into Hobart by car.'

Some stakeholders noted that the bus service had recently improved, with more frequent buses to the south of the LGA. However many highlighted the bus service as poor, with issues mentioned including private rather than public operators, the high cost of fares from Kingston to Hobart, poor coordination and promotion of timetables, infrequent services, few buses that were accessible for wheelchairs or people with limited mobility and poor bus infrastructure – for example poor quality bus stops that do not provide sufficient shelter or safety to enable some people, particularly older people, to use them. Stakeholders also pointed to a lack of coordination between public and community transport.

For those without access to a car, the poor transport provision combined with the lack of services and entertainment options in Kingston was thought to contribute to social isolation. Several also noted that young people were particularly disadvantaged by the limited transport service, with one noting that some young people resort to hitchhiking in order to travel into Hobart.

Housing

Stakeholders felt that most of the recent development had provided houses suited to families. This was seen as beneficial for this group, but some pointed to a lack of suitable housing options for older existing residents who may want to downsize and stay in the area.

'There are few current options for aged care or retirement accommodation in Kingborough, and where there have been proposals the community has objected to them. This will need to be addressed into the future as the population is ageing and many people will want to continue living in the area as they age.'

It was suggested that local house prices had been pushed up in recent times by two aspects of population growth: the new developments in the area had pushed up the value of the local market; and this had coincided with an influx of people relocating from more valuable housing markets interstate who were *'cashed up as a result of selling property in more expensive cities'*. Some stakeholders reported a feeling among longer-term residents that they (and their children) are being priced out of the market – especially in Kingston. This is causing some people to move to more affordable areas in the south of the LGA.

'Four or five years ago Kingston was more affordable but now affordability has fallen there, so people on lower incomes are being pushed further and further away from Hobart.'

This shift outwards can be problematic because services and infrastructure are lacking in those more rural areas and because it can then push up prices in those areas too. In this sense, while population growth has mostly been in the north of the LGA it was seen to be *'creating a domino effect'* by pushing the various impacts of population growth further into rural areas.

Social isolation

Some stakeholders noted that new residents in Kingborough were relatively mobile, and comfortable in economic terms, and so were able to access the services they need in Hobart.

'The people moving into the new developments are in relatively good economic shape, so there's no sense that social dislocation in Kingborough is increasing because of the population increase.'

However, others pointed out that many areas of the LGA are poorly served by services and infrastructure, and that while new residents may be moving to the areas for the current lifestyle, there may be a risk that as they age and become less mobile they may become socially isolated. Internet access was also mentioned as severely lacking in Kingborough – with problems experienced even 10 kilometres from Hobart.

Some stakeholders pointed out that in addition to the relatively young new residents, the area was home to a large population of retirees – people who have moved to the area to retire, either from other parts of Tasmania or from interstate. It was suggested that as these people age, their service and infrastructure needs will change, and the planning systems will need to keep pace with this change if it is to prevent people from becoming socially isolated.

Crime and safety

There was a suggestion from one stakeholder that having been virtually 'crime free' in the past, the area was now experiencing an increase in crime because of the growth in population. However others suggested crime was not an issue, or that the problem was overstated. Council reported that evidence from police is that crime levels in the area are actually falling.

Economic issues

Stakeholders mentioned a number of economic issues associated with population growth.

Business and retail growth

A number suggested that population growth had driven the establishment of new small businesses, and created a critical mass of customers that had made small 'niche market' businesses possible.

There were varied views about the recent growth of retail outlets in Kingston. Some thought it was unsustainable because the area does not have the population to support them in the long term, while others thought the Kingston Central shopping area needed to grow even further, in order to become *'more of a destination in its own right, with a better diversity of shops'* so that more people would shop there rather than travel to Hobart, and further local employment opportunities would be generated.

Employment

Kingborough residents largely work in Hobart, meaning that Kingborough functions as a commuter suburb. Stakeholders suggested this made the need for improved public transport even more critical to reduce car dependence. Others pointed to a need for more local employment in the Kingborough area itself.

Some noted that employment has at times been a driver for population growth in this area, but has not always been sustained, and the impact of job losses in one employer could be significant. For example, the Margate area (south of Kingston) previously had a ship builder that employed many people. However, it ceased operation and former employees faced the challenge of finding other work in an area with relatively few opportunities.

Population growth was thought to have had a range of impacts on the local employment market. Some suggested that it had driven an increased demand for tradespeople, increasing job opportunities in that sector. Others suggested that service industries had benefited from additional retirees and older people moving into the area, and that jobs in this sector had expanded somewhat as a result. However, some stakeholders pointed to a lack of local jobs for those with higher levels of skill and education, meaning that many locals need to commute to Hobart or relocate to find suitable work. Others suggested there were few employment opportunities for young people in the local area.

House prices

New residential development in Kingston has provided relatively affordable new housing. However, to the extent that population growth has involved large numbers of people relocating from other parts of Australia to Kingborough, many stakeholders suggested this had pushed up local house prices, and that as a result, first home buyers could no longer afford to stay in the area in which they had grown up.

Challenges and issues of population growth in Kingborough

The nature of growth and development

For most stakeholders, it is not the fact of population growth that is a concern, but the specific nature of growth in Kingborough, and particularly the way this growth is managed.

'We need more strategic development. It's not the growth itself that's a problem, but rather how it's managed.'

For many the problem related specifically to the type, style or character of development occurring in the area. As already discussed, in particular there was a perception that the recent residential and commercial developments in Kingston were 'developer-driven', and as a consequence had been poorly designed and planned. The commercial centre was also seen to be inappropriate for community needs, with poor design and layout and poor pedestrian access. It was suggested that further development of this kind might create additional local conflicts:

'The character of the area is changing rapidly and there is some conflict in the community about that. We're starting to see that in some of the small rural towns in the area, with pressure from developers who want to bring in shopping malls and so on – that's really changing the rural nature of those areas.'

Many suggested recent low density residential developments did not represent good urban or environmental design and were car-dependent. However, some suggested that in the future there might be a shift in the kind of housing development people want:

'Most development in Tasmania is low density. But in the future we might see different expectations of housing types. People want to live close to a beach, so they may prefer to live in smaller more affordable units in a beach location – that could drive a demand for a different type of development – a higher density model. Increasing density in Kingston Central might help lower pressure for greenfield development in Blackmans Bay and other areas.'

Some stakeholders described the building industry in Tasmania as limiting the kinds of development that are possible. Tasmania has a large number of small-scale builders that have traditionally built a few units and then moved on. The state is lacking larger companies with the capacity to build a master-planned suburb – some suggested that this will continue to limit the range of development possible.

'The scale here is small so we can't attract those big developers like they do in Sydney and Melbourne that actually do good developments.'

'Tasmania has 1400 builders, and over 2000 registered building practitioners. So a builder has to compete with so many other builders – to do this they reduce their costs and their margins must be tiny – no wonder they go under when there's a slump.'

Governance and the planning system

There was a perception among many stakeholders that state and local government planning systems do not work well together and that planning 'seems to be ad hoc'. One example provided was that the state government has responsibility for the main road connecting Kingborough and Hobart (the Southern Outlet) but it is Kingborough Council that has allowed the population to grow, thereby putting pressure on the road. One stakeholder suggested that '*neither local nor state government takes responsibility for the resulting congestion*'. Another pointed out that recent road improvements will make it easier for others in the Kingborough LGA to commute to Hobart, which will in turn create new pressures for development in areas south of Kingston, such as Margate and Snug.

Some stakeholders shared the perception that council decisions to reject development applications for environmental reasons or because of a lack of infrastructure were often overturned by state government. For this reason there was a perception that local government had not had enough control over past development, and that areas that had previously been rural land had been subdivided and developed by landowners and developers, without sufficient strategic planning or consideration of what the implications of this might be (particularly for the local environment, services and infrastructure).

In general stakeholders saw the planning system in Tasmania as lagging behind that in other states, and as having left a legacy of poor planning decisions.

'The planning here has not been very forward thinking. It's been very slow, and the developments we are seeing now would have been approved a long time ago. There really needs to be a stronger emphasis on strategic thinking.'

One stakeholder stated that Tasmania spends less on planning than other states and suggested that this has resulted in a planning system with many flaws. A number mentioned as an example of the deficiencies in the Tasmanian planning system that the Hobart Capital City Plan is already many years late and that planning at this level lags behind that in other state capitals.

Kingborough is part of the Southern Region of Tasmania, and many local issues cross local government boundaries. However some interviewees pointed to a lack of cooperation, poor communication (or even competition) between different councils, which they felt led to inefficient planning of infrastructure. Examples of the duplication of expensive sporting infrastructure in neighbouring councils were given.

There were mixed views about current changes in the planning system. Some suggested that new arrangements whereby councils develop planning schemes to comply with state government regional land use strategies and regional planning models would reduce local council planning controls, to the detriment of the local area:

'There will be new common planning scheme templates that are tied back to regional land use strategies. Kingborough Council has some good controls for subdivision of rural residential land, but the new planning scheme will remove these controls. That's another lost opportunity.'

However others suggested that Kingborough Council is currently trying to move away from the previous trend of '*developer-led development*'. Other positive changes mentioned included the requirement for better insulation in houses, and the introduction of star-rating schemes for energy efficiency – although it was noted that '*this has really come too late – that should have been done 30 years ago before the spike in development*'.

Interrelationships and tensions

There were a number of interrelationships and tensions between the different domains of sustainability that were explored with interviewees, such that one phenomenon was sometimes seen to have had both positive and negative effects. For example, the expansion of some industries (e.g. aquaculture) has provided increased local employment opportunities but has also had negative environmental effects (pollution).

Another example mentioned was road infrastructure. The Southern Outlet has provided faster, easier access to Hobart for many in the Kingborough area, which was mostly seen as socially positive. However, there was also a perception that it had encouraged further car-dependent development – with associated negative environmental impacts – and that it had created a physical divide between different communities.

A further example of tension was the question of development for aged care facilities – some people wanted to see these built to provide housing for people to stay in the area as they aged, while others objected to them as not in character with existing area. Council staff pointed to a specific example in Woodbridge that had caused significant tension in the community:

'There has been a lot of conflict over a proposal at Woodbridge. An aged care provider wants to establish there, but the locals are divided. Some don't want to have it there because of what they see as the heritage value of the community. Some want it so they can age in place, but others say no, it's inappropriate for their area. So that's created conflict within the community.'

There were also tensions created by the multiple pressures on land. Some pointed to the ongoing challenge of balancing development and environmental conservation. This was seen to be a particularly pertinent issue in this area because of the large areas of intact native vegetation.

'There is always a lot of political tension in terms of what we need to conserve and what we need to provide for housing. Some of these areas have very high conservation values so this is a more difficult issue than in some other areas of Australia.'

Another stakeholder suggested that while development in Kingston was preferable to development spread more widely across the local rural area, it would still have been preferable to increase the density of Hobart before expanding suburban development to Kingston.

'It would have been better not to develop Kingston at all, but to build more in Hobart itself. I see areas of higher population density as a good thing – because then you can leave other areas sparsely populated, which helps to conserve them. From an environmental conservation perspective, concentrating growth in one area is better.'

Others argued that there may be pressure to develop remaining rural land to accommodate further population growth and that this had implications for food security as this is valuable agricultural land. One stakeholder mentioned the need for greater attention to be paid to the Protection of Agricultural Land Policy, particularly given the growing recognition of the need to address food security issues associated with population growth – on a national as well as a local scale.

'Questions about land use relate to food security issues for a growing population – the new Green Paper on national food policy highlights the potential to protect agricultural land close to urban development. But there needs to be leadership from the Commonwealth on this issue, because around here there is pressure to develop that land.'

A number of stakeholders suggested that the best way to protect high quality agricultural land in the area would be to require greater urban infill, or higher density development in existing residential and commercial areas, rather than releasing further residential land development. While it was acknowledged that many people were resistant to this kind of development, some stakeholders suggested this was because *'existing examples of high density development have not been the most beautiful'* and that *'there are much better ways of doing high density development'* that should be explored and trialled.

Responding to growth

Many suggested that while residential development has occurred relatively quickly, the responses have been slow. In particular many felt that the provision of services and infrastructure has not kept pace, leading many people to point to poor planning, which results in residential development happening in isolation. Many people pointed to a long lag time between population growth and the provision of sufficient services and infrastructure to respond to this growth and meet the needs of the new population.

Kingborough Council staff reported that (like other councils in Australia) council is facing the challenge of responding to community expectations for services and facilities that are beyond the traditional core business of local council, but that are not being provided by other levels of government (such as health services and programs and services for seniors). Population growth is causing a further increase in these demands on council. Council also pointed out that local government has traditionally been a provider of facilities rather than services and programs, but that now people are demanding a whole range of programs:

'The change in population has brought a change in expectations about service provision. People who come from a mainland area that have been used to that level of services, they come here with the same set of expectations. So they lobby for those services, and we see interest groups being set up to put pressure on governments to deliver. That's a governance challenge, about how to respond.'

Others also suggested that council had found it challenging to respond appropriately to the changing nature of the population:

'There are now more challenges for council, in responding not just to the population growth, but especially to the increase in diversity. I think there has been a view that council provides homogenous services, but they really do need to get better at developing specific services for specific communities, for example the gay community, and the different ethnic communities that are here now. The speed of growth has made it difficult for council to keep up with these issues – I think they are playing catch-up a bit.'

Council staff also reported that council is developing an arts and cultural strategy following research that surveyed the community and found that people had moved to the area because it was an inspiring place for their art. Council is responding by attempting to help create a gallery space for people to show their art locally rather than always taking it interstate. This is the kind of work that council has not done in the past.

Information gaps and opportunities

Detailed analysis of data availability, gaps and possible alternative measures is provided in the following Tables 14-17.

A summary of theme and indicator data is provided in Tables 18-21.

Spatial analysis of data using GIS could provide a further dimension to visualise the data picture emerging from these areas. This could be easily accomplished in some measurement variables with the release of the ABS census-mapping tool – and could provide the sub-LGA analysis that is essential to investigating the variance in socio-economic demographics in small and adjacent areas within Kingborough.

Table 14: Natural capital - data availability, gaps and alternative measures

Natural Capital				
Theme	Indicator	Measure	Data availability at case study level	Alternative case study level measure (if applicable)
Climate and atmosphere	1. Air quality	Number of days in year that key pollutants exceed national air quality standards	Not available	No. of days exceeding air quality standards (PM ₁₀)
	2. GHG emissions	Net greenhouse gas emissions	Not available	No alternative measure available
		Greenhouse gas emissions per capita	Not available	No alternative measure available
	3. Energy usage	Residential and non-residential electricity use	Not available	No alternative measure available
Ecosystems and biodiversity	4. Terrestrial ecosystems	Extent of native vegetation	Not available	No alternative measure available
		Extent and distribution of protected areas	Not available	No alternative measure available
	5. Vulnerable and endangered species	Number of endangered species, population and communities listed under the <i>EPBC Act</i>	Not available	Number of species in catchment; Number of sites per different type of dog-use area
	6. Reestablishment of local vegetation communities	Number of hectares under restoration by council and volunteers	Not available	No alternative measure available
Water	7. Water consumption and availability	Water consumption (per capita)	Not available	No alternative measure available
		Water availability to meet demand	Not available	No alternative measure available
Land	8. Ground cover	Ground cover	Not available	No alternative measure available
Waste	9. Waste disposed to landfill	Waste disposed to landfill	Not available	Waste collected per household serviced (kg); Total material collected per household serviced (kg)
	10. Recycling rates	Proportion of waste generated being recycled	Not available	Recyclables collected per household serviced (kg)

Table 15: Social and human capital - data availability, gaps and alternative measures

Social and Human Capital				
Theme	Indicator	Measure	Data availability at case study level	Alternative case study level measure (if applicable)
Skills and education	11. Educational attainment and qualification	Highest level of educational attainment	Available	n/a
	12. Education services	Ratio of childcare places to population of children aged 0-5 years resident in the LGA	Not available	No alternative measure available
		Ratio of primary school places to population of primary aged children resident in the LGA	Not available	No alternative measure available
Health	13. Self-reported health status	% reporting fair to poor health	Available	n/a
	14. Life expectancy	Life expectancy	Not available	Median age at death
	15. Persons who smoke daily	% of adults who are daily smokers	Available	n/a
	16. Obese persons	% of adults that are overweight or obese	Available	n/a
	17. Mental health	Proportions of adults rated as psychologically distressed	Available	n/a
	18. Access to open space	Open space per capita	Not available	No alternative measure available
Institutions and governance	19. Fair and functioning institutions and governance	Levels of trust in key institutions	Not available	No alternative measure available
	20. Community engagement	Proportion of people who volunteer	Available	n/a
Employment	21. Under-employment	Underemployment rate	Not available	Hours worked per week
	22. Unemployment	Unemployment rate	Available	n/a
	23. Local employment	% people working and living in the same LGA	Not available	Participation rate
Security	24. Security	Feelings of safety	Not available	No alternative measure available
		Incidence of personal and household crime	Not available	No alternative measure available

Table 16: Economic capital - data availability, gaps and alternative measures

Economic Capital				
Theme	Indicator	Measure	Data availability at case study level	Alternative case study level measure (if applicable)
Wealth	25. Household net wealth	Household net worth	Not available	Wealth per household
Housing	26. Housing supply gap	Net dwelling gap	Not available	Average dwelling price
	27. Housing affordability	Low income households in rental stress	Available	n/a
		Low income households in mortgage stress	Available	n/a
Transport and infrastructure	28. Mode of transport to work	Car as driver	Available	n/a
		Car as passenger	Available	n/a
		Public transport	Available	n/a
		Walking	Available	n/a
		Other	Available	n/a
	29. Transport infrastructure	Kilometres of dedicated cycling paths	Not available	No alternative measure available
	30. Access to broadband internet	% households with broadband connection	Available	n/a
Income	31. Income disparity	Disparity in disposable household weekly income	Not available	Social security take-up; Household debt service ratio; Household debt to gross income ratio
Productivity and innovation	32. Multifactor productivity	Multifactor productivity	Not available	Gross regional product
	33. Innovation	Business with innovative activity	Not available	Patent counts per population
Socio-economic status	34. Relative socio-economic disadvantage	ABS Index of Relative Socioeconomic Disadvantage (IRSD) score	Available	n/a

Table 17: Contextual indicators - data availability, gaps and alternative measures

Contextual Indicators				
Theme	Indicator	Measure	Data availability at case study level	Alternative case study level measure (if applicable)
Population	35. Population size	Number of persons	Available	n/a
	36. Rate of growth	Annual rate of population growth	Available	n/a
	37. Population density	Number of persons per square kilometre	Available	n/a
	38. Gender and age profile	Gender and age profile	Available	n/a
Land use	39. Land use change	Rates of greenfield development	Not available	n/a
Cultural diversity	40. Proficiency in spoken English	% do not speak English well or not at all	Available	n/a
	41. Indigenous population	% Indigenous	Available	n/a
	42. Country of birth	Country of birth	Available	n/a
Regional migration	43. Net overseas migration	Net overseas migration	Not available	No alternative measure available
	44. Overseas born	% born overseas	Available	n/a
	45. Domestic or internal migration	Net number of regional internal migrants	Available	n/a

Summary of theme and indicator data for Kingborough

Table 18: Natural capital - data figures

Natural Capital						
Theme	Indicator	Measure	Data	Frequency	Spatial resolution	Data source
Climate and atmosphere	1. Air quality	No. of days exceeding air quality standards (PM ₁₀)	0 days (2008), 1 day (2010)	Annual	Hobart	EPA Tas
	2. GHG emissions	Net greenhouse gas emissions	Not available	n/a	n/a	n/a
		Greenhouse gas emissions per capita	Not available	n/a	n/a	n/a
	3. Energy usage	Energy consumption	Not available	n/a	n/a	n/a
Ecosystems and biodiversity	4. Terrestrial ecosystems	Extent of native vegetation	Not available	n/a	n/a	n/a
		Extent and distribution of protected areas	Not available	n/a	n/a	n/a
	5. Vulnerable and endangered species	Number of species in catchment	131 animal species including 93 species of birds, 28 species of mammals and 10 species of fish	One off	North West Bay River catchment	DPIWE
		Number of sites per different type of dog-use area	11 Exercise Areas, 1 Training Area, 21 Prohibited Areas, 46 Restricted Areas	One off	LGA	Local Council

	6. Reestablishment of local of vegetation communities	Number of hectares under restoration by council and volunteers	Not available	n/a	n/a	n/a
Water	7. Water consumption	Water consumption (per capita)	Not available	n/a	n/a	n/a
		Total LGA water consumption	Not available	n/a	n/a	n/a
Land	8. Ground cover	Ground cover	Not available	n/a	n/a	n/a
Waste	9. Waste disposed to landfill	Waste collected per households serviced (kg)	.41 kg/household serviced (2009)	One off (2009)	LGA	SWSA
		Total material collected per household serviced (kg)	.59 kg/household serviced (2009)	One off (2009)	LGA	SWSA
	10. Recycling rates	Recyclables collected per household serviced (kg)	.18 kg/household serviced (2009)	One off (2009)	LGA	SWSA

Table 19: Social and human capital - data figures

Social and Human Capital						
Theme	Indicator	Measure	Data	Frequency	Spatial resolution	Data source
Educational attainment	11. Educational attainment and	% adults with tertiary qualifications	7.6% (2001), 9.1% (2006), Increase*	5 years (Census)	LGA	ABS
		% adults with certificate/ adv diploma	14.5% (2001), 15.1% (2006), Increase*	5 years (Census)	LGA	ABS
	12. Education services	Ratio of childcare places to population of children aged 0-5 years resident in the LGA	Not available	n/a	n/a	n/a
		Ratio of primary school places to population of primary aged children resident in the LGA	Not available	n/a	n/a	n/a
Health	13. Self-reported health status	% reporting fair to poor health	10.8% (2007), TAS 14.4% (2007)	2004 & 2007	LGA	PHIDU, compiled from ABS & NHS data
	14. Life expectancy	Median age at death (years)	80 years, TAS 79 years	2003 to 2007	LGA	PHIDU
	15. Persons who smoke daily	% of adults who are daily smokers	12.9% (2007), TAS 16.6% (2007)	2004 & 2007	LGA	PHIDU, compiled from ABS & NHS data
	16. Obese persons	% of adults who are overweight or obese	33.8% (2007), 36.1% (2007)	2004 & 2007	LGA	PHIDU, compiled from ABS & NHS data
	17. Mental health	% of adults rated as psychologically distress	5.8% (2007), 7.6% (2007)	2004 & 2007	LGA	PHIDU, compiled from ABS & NHS data

	18. Access to open space	Open space per capita	Not available	n/a	n/a	n/a
Institutions and Governance engagement	19. Fair and functioning institutions and governance	Levels of trust in key institutions	Not available	n/a	n/a	n/a
	20. Community engagement	% of volunteering	25.3% (2006), 25.1% (2011), Decrease*	5 years (Census)	LGA	ABS
Employment	21. Underemployment rate	Hours worked per week	29.3 hours (2011), 7% decrease from 2007	Annual	NIEIR region	SoR
	22. Unemployment rate	Unemployment rate	3% (March 2012), TAS 6.5% (July 2012)	Monthly	DEEWR labour force region	DEEWR, Labour Force Region
	23. Local employment	Participation rate	Greater Hobart-Southern 60.7% (July 2012), TAS 60.6% (July 2012)	Monthly	DEEWR labour force region	DEEWR, Labour Force Region
Security	24. Security	Incidence of reported crime	Not available	n/a	n/a	n/a

Table 20: Human capital - data figures

Economic Capital						
Theme	Indicator	Measure	Data	Frequency	Spatial resolution	Data source
Wealth	25. Household net wealth	Wealth per household	\$401,000 (2001), \$559,000 (2012) (2012), Increase*	Annual	NIEIR region	SoR
Housing	26. Housing supply gap	Average dwelling price	\$140,200 (2001), \$301,000 (2012) (2012), Increase*	Annual	NIEIR region	SoR
	27. Housing affordability	Households in rental stress	23.7% (2006); TAS 24.2% (2006)	5 years (Census)	LGA	PHIDU
		Households in mortgage stress	5.8% (2006), TAS 7.3% (2006)	5 years (Census)	LGA	PHIDU
Transport and infrastructure	28. Mode of transport to work	Car as driver	Kingborough 58.8% Greater Hobart 54.7%	One off (2009)	LGA	DIER
		Car as passenger	Kingborough 19.5% Greater Hobart 19.8%	One off (2009)	LGA	DIER
		Public transport	Kingborough 3.3% Greater Hobart 4.0%	One off (2009)	LGA	DIER
		Walking	Kingborough 17.5% Greater Hobart 20.2%	One off (2009)	LGA	DIER
		Other	Kingborough 0.9% Greater Hobart 1.3%	One off (2009)	LGA	DIER
	29. Transport infrastructure	Kilometres of dedicated cycling	Not available	n/a	n/a	n/a
	30. Access to broadband internet	% households with broadband	35.7% (2001), 79.9% (2006), Increase*	5 years (Census)	LGA	ABS
Income	31. Income disparity	Social security take-up	16.7% (2011), 3.7% decrease from 2007	Annual	NIEIR region	SoR
		Household debt service ratio	12% (2001), 14% (2011), Increase*	Annual	NIEIR region	SoR

		Average dwelling price to household disposable income	2.2 (2001), 3.7 (2011), Increase*	Annual	NIEIR region	SoR
Productivity and innovation	32. Multifactor productivity	GRP per capita	Not available	n/a	n/a	n/a
	33. Innovation	Patent counts per population	8.31 per 100,000 (1994-2011), national average 21.01	Annual	NIEIR region	SoR
Socio-economic status	34. Relative socio-economic disadvantage	ABS IRSD score	Kingborough 1040, Greater Hobart 982, TAS 961	5 years (Census)	LGA	ABS

Table 21: Contextual indicators - data figures

Contextual Indicators						
Theme	Indicator	Measure	Data	Frequency	Spatial resolution	Data source
Population	35. Population size	Number of persons	29,379 (2001), 24,691 (2011), Increase*	Annual	LGA	ABS
	36. Rate of growth	Annual rate of population growth	Average 1.7% per annum 2001-2011	Annual	LGA	ABS
	37. Population density	Number of persons per square kilometre	40.8 (2001), 48.2 (2011), Increase*	Annual	LGA	ABS
	38. Gender and age profile	Gender and age profile	See Figure 4	5 years (Census)	LGA	ABS
Land use	39. Land use change	% infill development	Not available	n/a	n/a	n/a
		% greenfield development	Not available	n/a	n/a	n/a
Cultural diversity	40. Proficiency in spoken English	% do not speak English well or not at all	0.4% (2001), 0.5% (2011), Increase*	5 years (Census)	LGA	ABS
	41. Indigenous population	% Indigenous	2.7% (2001), 3.1% (2011), Increase*	5 years (Census)	LGA	ABS
	42. Country of birth	Country of birth	See Table 22	5 years (Census)	LGA	ABS
Regional migration	43. Net overseas migration	Net overseas migration	Not available	n/a	n/a	n/a
	44. Overseas born	% born overseas	16.0% (2001), 17.2% (2011), Increase*	5 years (Census)	LGA	ABS
	45. Domestic or internal migration	Net number of regional internal migrants	Data inconclusive ⁹	Annual (2006-2010)	SLA	ABS

⁹ ABS (cat. no. 3412.0) Migration, Australia, 2010-11 experimental regional internal migration estimates. Data for Kingborough inconclusive.

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Appendix A

Table 22: Contextual indicators - country of birth (Source: ABS, 2012b)

Country of birth	2001	2011	Percentage point change 2001-2010
Australia	80.5%	79.8%	-0.7%
Bosnia and Herzegovina	0.0%	0.0%	0.0%
Cambodia	0.0%	0.0%	0.0%
Canada	0.3%	0.4%	0.1%
China (excl. SARs and Taiwan)	0.1%	0.4%	0.3%
Croatia	0.0%	0.0%	0.0%
Egypt	0.0%	0.0%	0.0%
Fiji	0.1%	0.1%	0.0%
Former Yugoslav Republic of Macedonia	0.0%	0.0%	0.0%
Germany	0.7%	0.8%	0.1%
Greece	0.1%	0.1%	0.0%
Hong Kong (SAR of China)	0.1%	0.1%	0.0%
India	0.2%	0.3%	0.1%
Indonesia	0.1%	0.1%	0.0%
Iraq	0.0%	0.0%	0.0%
Ireland	0.2%	0.2%	0.0%
Italy	0.2%	0.2%	0.0%
Japan	0.1%	0.1%	0.0%
Korea, Republic of (South)	0.1%	0.1%	0.0%
Lebanon	0.0%	0.0%	0.0%
Malaysia	0.2%	0.3%	0.1%
Malta	0.0%	0.0%	0.0%
Netherlands	1.3%	1.0%	-0.3%
New Zealand	1.1%	1.2%	0.1%
Philippines	0.2%	0.2%	0.0%
Poland	0.1%	0.1%	0.0%
Singapore	0.1%	0.1%	0.1%
South Africa	0.6%	0.9%	0.3%
South Eastern Europe	0.0%	0.0%	0.0%
Sri Lanka	0.1%	0.1%	0.0%
Thailand	0.0%	0.1%	0.1%
Turkey	0.0%	0.0%	0.0%
United Kingdom, Channel Islands and Isle of Man	7.9%	7.5%	-0.4%
United States of America	0.4%	0.6%	0.2%
Vietnam	0.0%	0.0%	0.0%
Born elsewhere	1.9%	2.2%	0.3%
Country of birth not stated	3.5%	3.0%	-0.5%