CITY OF HOBART TRANSPORT STRATEGY 2018–30

CONSULTATION PAPER 3: PUBLIC TRANSPORT

City *of* HOBART

CITY OF HOBART TRANSPORT STRATEGY 2018–30

CONSULTATION PAPER 3: PUBLIC TRANSPORT

City *of* HOBART

HOW TO MAKE A SUBMISSION

Your submission can be as long or short as you want. You do not have to answer all or any questions in the paper, they are there as a guide. An online survey is available at the Your Say City of Hobart website.

Online

yoursay.hobarcity.com.au

Email

coh@hobartcity.com.au

Transport Strategy in the Subject Line.

Post

Transport Strategy
City of Hobart
GPO Box 503
Hobart TAS 7001

Submissions should be lodged by 31 May 2017

Image credit: Alastair Bett

TABLE OF CONTENTS

LIST OF MAPS, TABLES AND CHARTS

MAPS

TABLES

CHARTS


199
199
Metro
13 11 20

SECTION 1

ABOUT THE CITY OF HOBART'S TRANSPORT STRATEGY

The City of Hobart is planning for the future transport needs of our community. We want to ensure that as we move into the next part of the 21st century, we have strategies in place to support growth in our population and the economy. Transport plays a vital part in delivering the food we eat and the products we export and import. Transport affects so many parts of our lives—how we travel to work or get to school and sport and leisure activities. It helps us to stay in touch with family and friends. It is time to review our current transport strategies to meet the needs of Hobart into the future. This is why we are developing the Transport Strategy 2018–30 for Hobart.

On any given day, the Hobart municipal area may host up to 48 700 residents, 46 000 workers, 33 000 students and a large number of people shopping or visiting the city. The safety and efficiency of the city's transport and road network is of paramount importance to businesses, residents, road users, transport operators, parents and school children, the government sector, tourists and visitors alike.

Although there is diversity in the transport task in Hobart, most people want the same thing. They want to be able to move about with ease and safety, in a timely manner, whether they are in a bus or a car, on foot or riding a bicycle.

It is essential to involve the community in discussions about how these sometimes conflicting needs can be met into the future. We need to have an understanding of the full breadth of issues, views and ideas, based on different health and education needs, age groups, occupations and day-to-day activities, so that we can develop the best strategies for our transport network.

We also need to make sure that the City of Hobart's transport strategies for the future are effectively integrated with the policies and activities of the Tasmanian Government, the federal government, and other local councils, all of whom have responsibilities for land-use planning, infrastructure and transport networks and services.

Because Hobart is many things to many different people, it is time to ask some important questions and to discuss the future of transport for the Hobart municipal area with as many people as possible. That is why we intend to engage with you over the next six months, to find out what you think should be in the City of Hobart's Transport Strategy. We have ideas and we want to hear yours.

WHAT ARE THE CITY OF HOBART'S GOALS AND OBJECTIVES?

The development of the City of Hobart's Transport Strategy follows the release of our *Capital City Strategic Plan 2015–2025*. This contains the agreed goals and strategic objectives that are relevant to the development of the Transport Strategy:

Vision

In 2025 Hobart will be a city that is highly accessible through efficient transport options.

Goal 2 – Urban management

City planning promotes our city's uniqueness, is people-focussed and provides connectedness and accessibility.

Strategic Objective 2.1

A fully accessible and connected city environment

2.1.1 Develop and implement a transport strategy

2.1.2 Enhance transport connections within Hobart

2.1.3 Identify and implement infrastructure improvements to enhance road safety

2.1.4 Implement the parking strategy *Parking – A Plan for the Future 2013*

2.1.5 Identify and implement measures to support the use of public transport

2.1.6 Implement the Principal Bicycle Network

2.1.7 Review network operation of city streets and adopt a network operating plan.

Goal 3 – Environment and natural resources

An ecologically sustainable city maintains its unique character and values our natural resources.

Strategic Objective 3.2

Strong environmental stewardship

3.2.4 Regulate and manage potentially polluting activities and protect and improve the environment.

There are other interrelated goals and strategic objectives in the City of Hobart's *Capital City Strategic Plan 2015–2025* which will have a bearing on the final Transport Strategy, including social inclusion objectives, building community resilience and supporting city growth.

Further information on the *Capital City Strategic Plan 2015–2025* is available at hobartcity.com.au/Publications/Strategies_and_Plans/Capital_City_Strategic_Plan_2015_-_2025

DISCUSSION

The City of Hobart has set the broad objectives within which this Transport Strategy will be developed, but we can also consider more detailed guiding objectives that are not only specific to Hobart but are also relevant to improving regional outcomes. This approach recognises Hobart's role as the capital city of Tasmania and the hub of southern regional Tasmania, which includes Brighton, Central Highlands, Clarence, Derwent Valley, Glamorgan Spring Bay, Glenorchy, Huon Valley, Kingborough, Sorell, Southern Midlands and Tasman local government areas.

Through the Southern Tasmanian Councils Authority, these councils have agreed on a vision for a regional transport system that:

- maximises the efficient use of current infrastructure, assets and services
- is well maintained, resilient and managed in a sustainable manner for the long term
- supports seamless intermodal connections for passengers and freight
- is capable of supporting future economic growth and meeting the needs of our communities, while supporting quality of life
- improves accessibility and safety for all users
- provides an integrated and well connected transport system for rural and urban areas
- improves environmental and health outcomes for our community
- responds to climate change and an oil constrained future by lowering greenhouse gas emissions and reducing car dependency
- is integrated with land-use planning
- is planned, coordinated and funded through a cooperative partnership approach between different levels of government and the community. [1]

More information on the *Southern Integrated Transport Plan* is available at stategrowth.tas.gov.au/freight/planning/regionalplans/southern

QUESTIONS

Have we provided you with enough information to understand the links between the City of Hobart's strategic plan and the development of this Transport Strategy?

Do you think these are suitable guiding objectives for us to plan for Hobart's future transport needs?

[1] Department of Infrastructure, Energy and Resources, *Southern Integrated Transport Plan 2010*, p.3.

HOW WILL WE DEVELOP THE TRANSPORT STRATEGY?

The City of Hobart has a strategic objective to enhance community engagement so it is essential to engage with all sectors of the community to identify issues and discuss the best way forward as early as possible. Developing the Transport Strategy for the City of Hobart 2018–30 is a big and complex task and we do not expect that everyone will want to comment on every aspect. For example, residents and ratepayers may not be interested in 'last mile' freight delivery to Salamanca Place and freight operators may have no interest in arrangements for residential parking. Therefore, consultation on the transport task will be broken up into modules for comment and discussion. You can choose to engage with one or as many you feel are important to you or your user group.

Anticipated timeframes for release and engagement of the modules:

Module 1: Freight, Port and Air
September–October 2016

Module 2: Private Transport
November–March 2017

Module 3: Public Transport
April–May 2017

Module 4: Local Area Traffic Management
June–July 2017

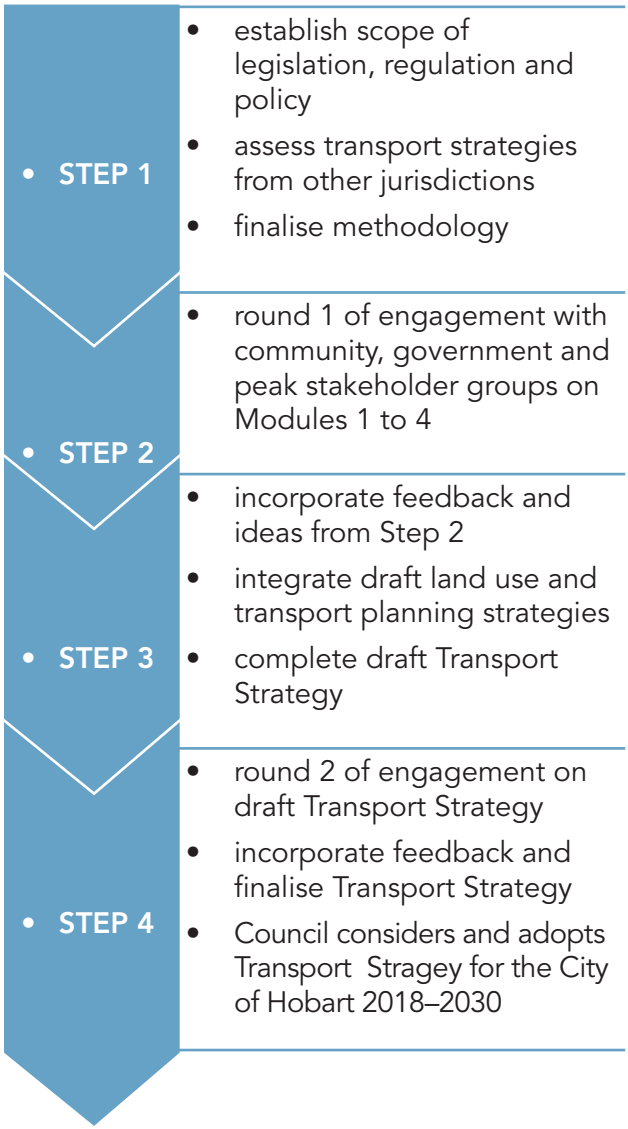
Our role will be to provide you with background information and discussion points and to record your views, issues and ideas. We have also included questions that are designed to generate thinking and ideas around each topic. You do not have to answer each question. You may have other comments, issues or ideas to contribute.

We will connect with you through social media, newspapers, letters, workshops and websites. You will see public notices, information in City of Hobart buildings and facilities, and there will be interviews and discussion in the media with the Lord Mayor and transport experts.

You will have the opportunity to give us your feedback through the City of Hobart's Your Say website, feedback forms, meetings and public forums.

At the end of the first round of consultation, your feedback and further research on each of the four modules will be brought together to form a draft 'integrated' Transport Strategy for the City of Hobart 2018–30.

There will be another opportunity for you to comment on the draft Transport Strategy before it is finalised. The target date for releasing the final Transport Strategy is the beginning of 2018.



QUESTIONS

Are you aware of the City of Hobart's Your Say website, which is used to provide feedback on projects and programs for Hobart?

To assist with refining our engagement processes, would you like to see any particular type of consultation method? For example, is it easier for you to access information about the Transport Strategy through a website or by visiting one of the City of Hobart's offices to obtain relevant papers and information?

For future modules would you prefer to attend forums or to provide feedback through written or website submissions?

ABOUT THE MODULES

In Australia, local councils, states and territories, and the Australian Government have responsibility for delivering services and the day-to-day function of our transport network. Each consultation paper we release will include information on who is responsible for various aspects of Tasmania's transport network.

More detailed information on relevant legislation, regulation and policy is included in the 'Background papers and further reading' section.

Relevant statistics and data are provided when available. More extensive data is often available in the references and materials listed under 'Background papers and further reading' at the end of this document.

Impacts on social, economic and environmental issues are important across the whole of the transport network. Therefore, the consultation papers contain information and discussion on topics such as road safety, tourism, climate change, health and the environment. Some papers will also cover topics that are specific to that particular module only.

If you have difficulty accessing any of the referenced websites or any of these documents, please contact the City of Hobart by email with Transport Strategy in the subject line: coh@hobartcity.com.au or call 03 6238 2930.

ABOUT THE CITY OF HOBART AND TASMANIA

The City of Hobart is a defined Local Government Area (LGA) that has direct boundaries with the City of Glenorchy, the City of Clarence and Kingborough Council.

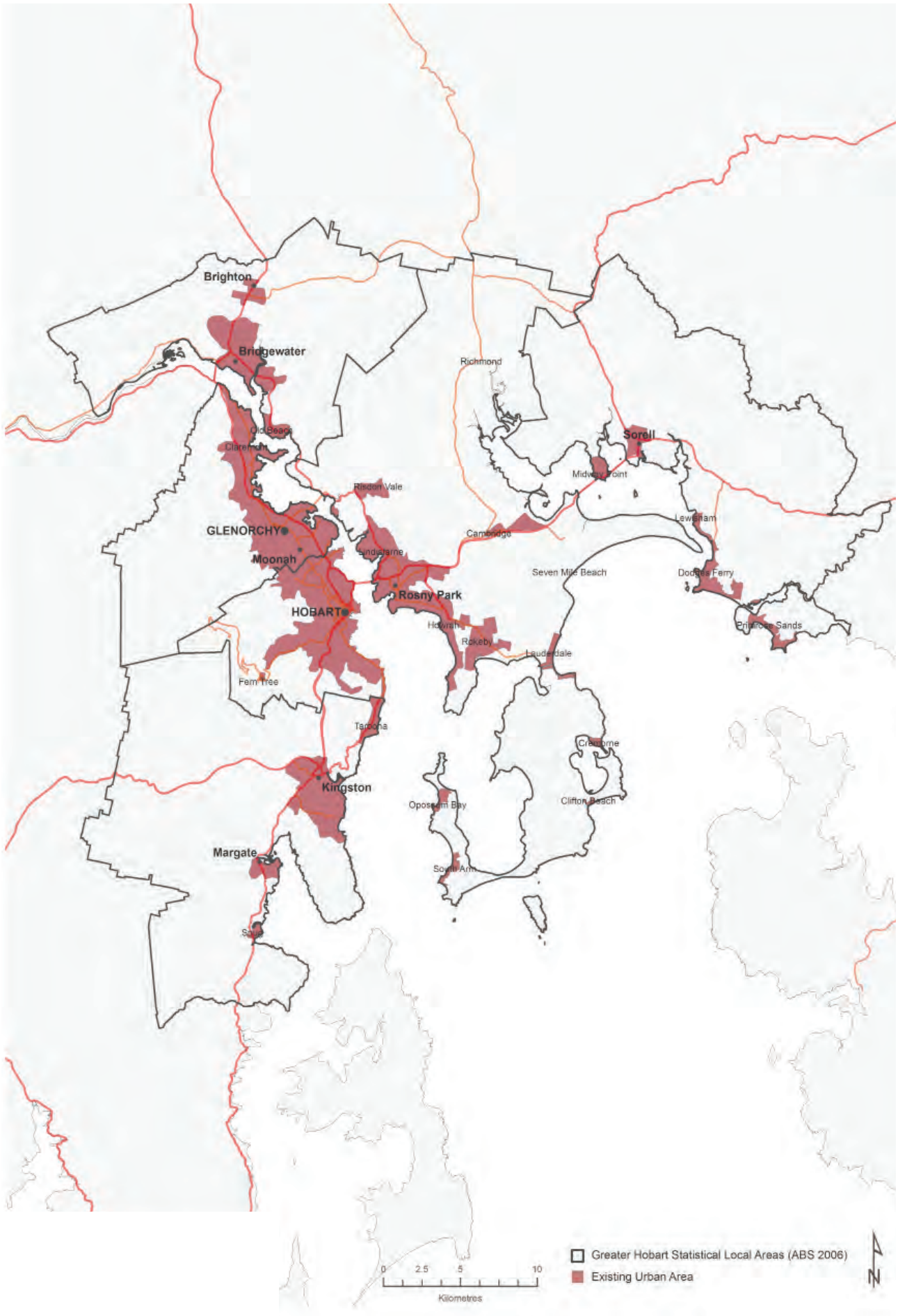
Southern Tasmania is defined as a regional planning unit for the purposes of the *Land Use Planning and Approvals Act 1993* (LUPAA). The metropolitan centre of the region is Greater Hobart which incorporates the LGAs of Brighton, Clarence, Glenorchy, Hobart, Kingborough and Sorell.

As well as being Tasmania's capital city, Greater Hobart is the most populous urban area in Tasmania. The Hobart municipal area is its geographic and historical centre.

The Hobart city centre and surrounds, is the highest order activity centre in Tasmania. It is the centre of government and the primary focus for Tasmania's peak legal, finance and banking services, specialised health and education precincts, speciality retail, tourism and cultural facilities. It provides uses and services not found elsewhere in the region or state.

Map 1: Southern region

Source: STCA – Southern Tasmanian Regional Land Use Strategy 2010-2035



Population

As at 30 June 2015, the Australian Bureau of Statistics (ABS) estimated that Tasmania's total population grew by 1860 people (or 0.4 per cent) compared to the previous year, to 516 586. The ABS estimated that the population of the Hobart municipal area was 50 668 as at 30 June 2015. Approximately 42 per cent of the total population of Tasmania lives in the Greater Hobart region (211 656 people)[2]. Tasmania's population, as a proportion of Australia's population, was 2.2 per cent over this period. Through the year to 30 June 2015, the majority of population growth was in the Hobart and south-east region. Over the past decade, this region has grown at a faster rate than the north and north-west regions, contributing the majority of growth at a state level.

Modelling undertaken by the Tasmanian Department of Treasury and Finance indicates that by June 2062, Tasmania's population is projected to be almost 589 000, with an average growth rate of 0.3 per cent each year[3].

The 2011 Census recorded 82 007 people aged 12 to 25 years in Tasmania. This group represented 16.6 per cent of the total population of Tasmania; 49 per cent of the group was female (40 190) and 51 per cent (41 817) was male. At this time, the LGA with the highest proportional population of young people aged 12 to 25 was Hobart (19.8 per cent).

Age profile and population growth

As the population of Tasmania (and Australia) has aged over recent decades, the proportional population of children has decreased. At the 2011 Census, children (from zero to 14 years of age) accounted for approximately 19 per cent of the Tasmanian population (compared to 19.3 per cent nationally), down from 22.5 per cent in the 1996 Census (21.6 per cent nationally). In 2011, the fertility rate among Tasmanian women was 2.17. It is projected that over the next ten years the proportional population of children from zero to 14 years of age will decline to about 17.6 per cent, and that over the next 20 years the proportional population of this age group will decline by around 8.7 per cent. It is projected that the proportional population of the 15- to 39-year-old age group will also decrease over this period[4].

Tasmania has the oldest and slowest-growing population in Australia. It is projected that 25 per cent of the state's population will be 65 or more years old in 2030, an increase of nearly 60 000 Tasmanians in that age group in 2030 compared to 2011. According to the 2011 Census, one in six Tasmanians were aged 65 or older in 2011 and it was projected that one in five will be in that age group in 2020, and one in four by 2030[5].

The Hobart municipal area has a younger population profile than some of the surrounding LGAs and is forecast to age less rapidly than, for example, the population of the Glenorchy City Council. In 2007, 12.3 per cent of Hobart's population was aged between 18 and 25 compared with the state average of 7.7 per cent. Hobart's lower median age can be attributed to the local university student population[6].

The Tasmanian Government has committed to increasing Tasmania's population to 650 000 by 2050 to offset the impacts of a declining population, which include a slowing economy, fewer people in the workforce to support those who are unable to work, and a reduced ability to fund essential services, such as health and education and the transport network.

Further information on the implications of an ageing Tasmanian population can be found at: stategrowth.tas.gov.au/__data/assets/pdf_file/0017/100376/Background_issues_paper.pdf

Further information on the Tasmanian Government population growth strategy can be found at: stategrowth.tas.gov.au/__data/assets/pdf_file/0014/124304/Population_Growth_Strategy_Growing_Tas_Population_for_web.pdf

---

2 Australian Bureau of Statistics, Census of Population and Housing, 2011, cat. no. 2001.0 6GHOB, ABS, Canberra.

3 Department of Treasury and Finance, Tasmania, viewed 9 November 2016, treasury.tas.gov.au/domino/dtf/dtf.nsf/v-ecopol/397D0680E5DCC583CA257CEC0005F727

4 Department of Premier and Cabinet, Tasmania, viewed 9 November 2016, dpac.tas.gov.au/divisions/csr/information_and_resources/children_and_young_people_in_tasmania_snapshot/demographics

5 Department of Premier and Cabinet, Tasmania, viewed 9 November 2016, dpac.tas.gov.au/divisions/csr/information_and_resources/children_and_young_people_in_tasmania_snapshot/demographics

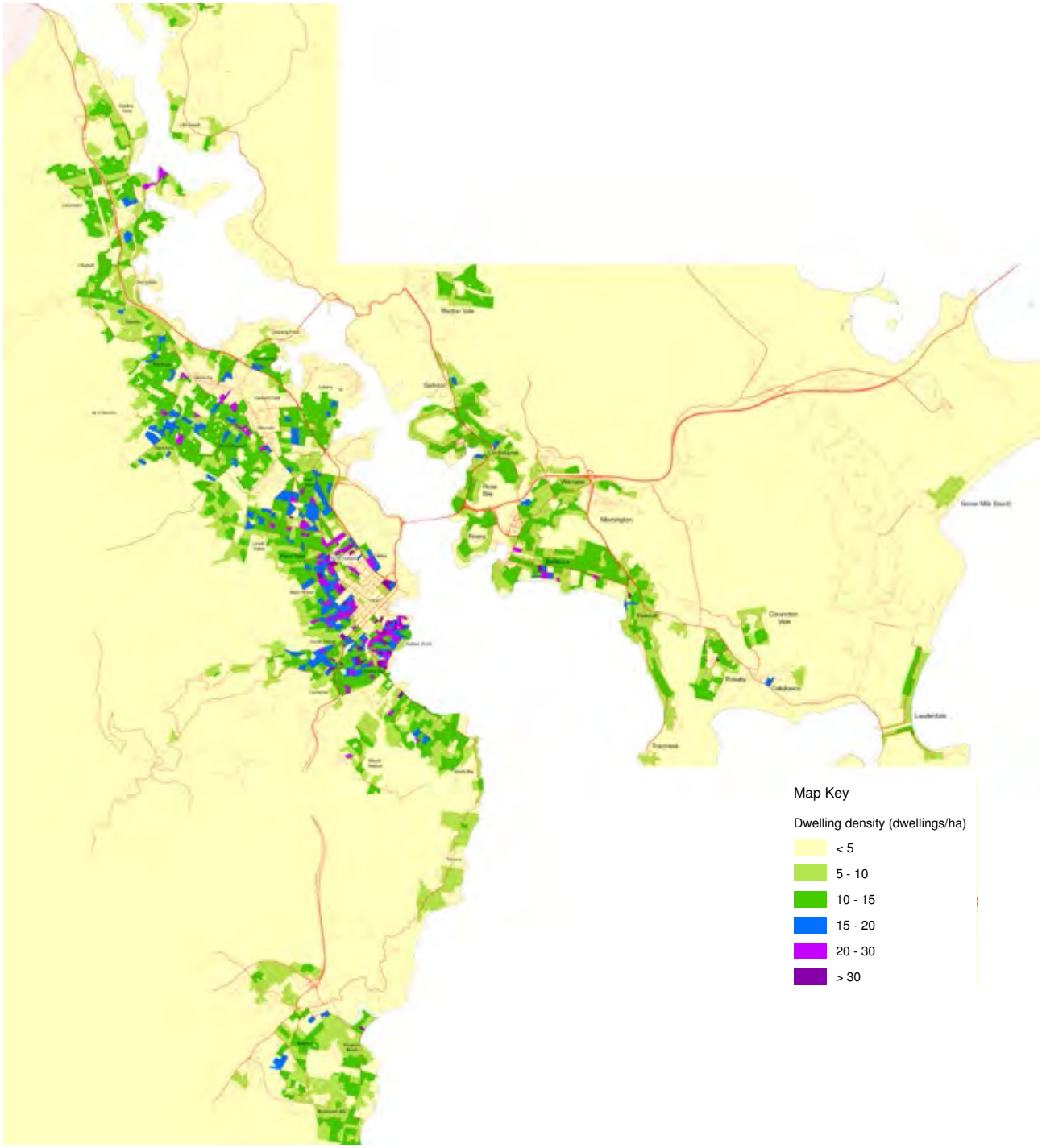
6 Department of Infrastructure, Energy and Resources, *Glenorchy to Hobart city centre Transit Corridor: Transit Corridor Assessment Report – Stage 1, Demographic Influences and Travel Patterns*, Tasmania, 2012.

Settlement patterns

Tasmania has the most regional and dispersed population of any state or territory in Australia, with 58 per cent of the population living outside the greater capital city area. Greater Hobart's settlement pattern is strongly influenced by its physical environs, with the River Derwent, kunanyi/Mount Wellington and Meehan Range restricting the location of urban development and transport networks. Hobart's geography, along with limited planning restrictions on greenfield subdivisions, has resulted in a highly dispersed settlement pattern. Low-density urban areas often have high levels of car ownership and use. In comparison, denser urban areas often have high levels of alternative transport use such as public transport, walking and cycling, because origin and destination points are closer together.

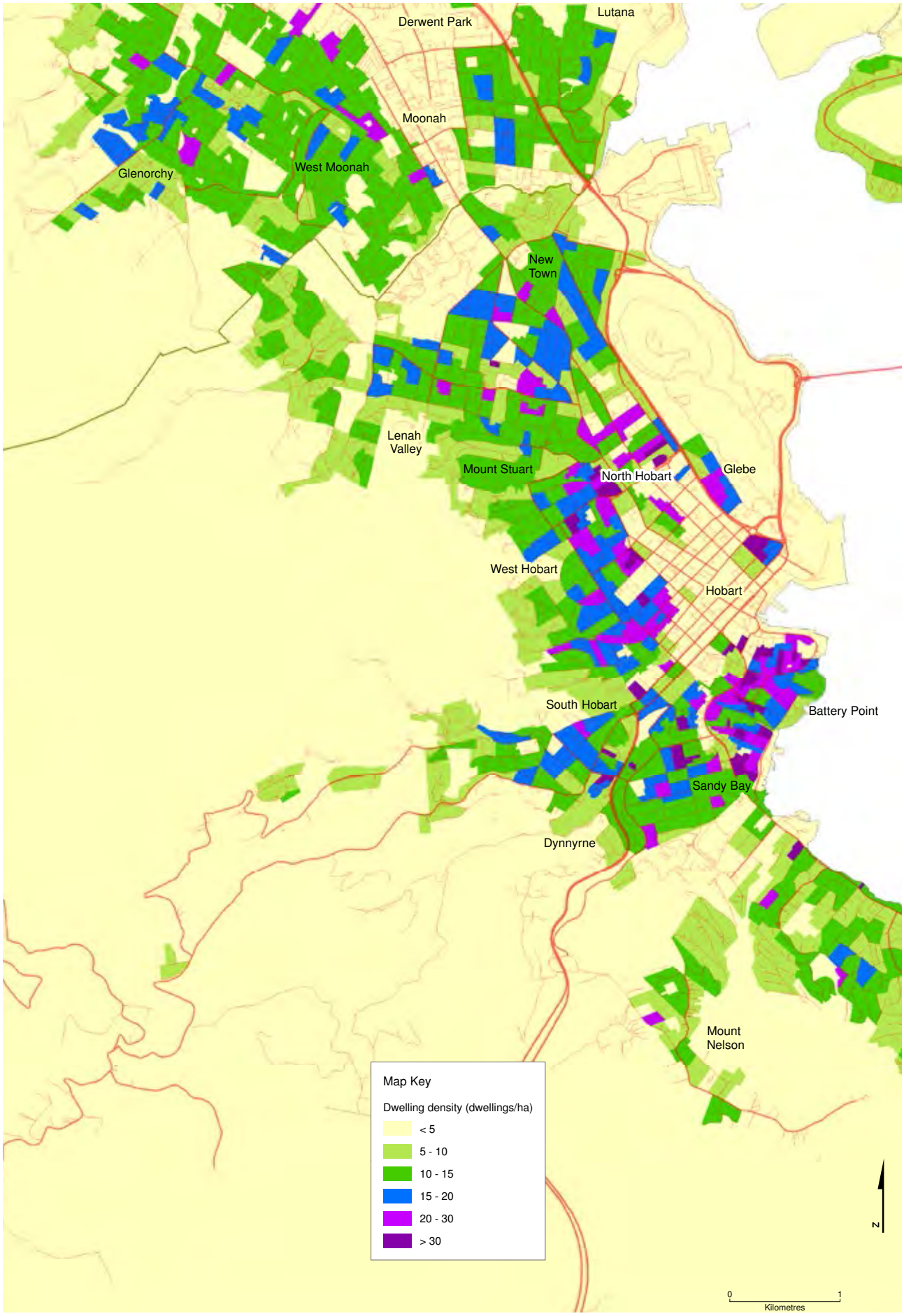
Map 2: Southern region—dwelling density

Source: Southern Tasmanian Regional Land Use Strategy – Background Reports (STCA Website)



Map 3: Southern region dwelling density—Lutana to Sandy Bay

Source: Southern Tasmanian Councils Authority



Greater Hobart has an average population density of approximately 12 people per hectare, which is low for Australian cities. Housing and population growth for Greater Hobart predominantly occurs in outer urban areas of Clarence, Kingborough, Sorell and Brighton, based on choice and housing affordability. Historically, the majority of affordable housing stock has been located on the urban fringe in public housing estates, although this continues today through greenfield subdivisions appealing to first home buyers and lower income groups.

The Southern Tasmania Regional Land Use Strategy 2010–2035 identified a Greater Hobart Residential Strategy to manage residential growth by establishing a 20-year urban growth boundary based upon 50 per cent of growth occurring in existing suburbs and 50 per cent on greenfield sites. Currently, 15 per cent of growth is in existing suburbs and 85 per cent on greenfield sites. It recommended distributing residential infill growth across the existing urban areas for the 25-year planning period as follows:

Glenorchy LGA	40 per cent (5300 dwellings)
Hobart LGA	25 per cent (3312 dwellings)
Clarence LGA	15 per cent (1987 dwellings)
Brighton LGA	15 per cent (1987 dwellings)
Kingborough LGA	5 per cent (662 dwellings).[7]

[7] Southern Tasmania *Regional Planning Project, Southern Tasmania Regional Land Use Strategy 2010–35*, 2013, 97.

Employment and sources of income

The ABS estimated that employment decreased overall in Tasmania in the year to June 2016, compared to the previous year. In this period, an increase was recorded in the west and north-west regions (up by 4 per cent or 2000 people). However, both the Hobart and south-east region (down by 1.8 per cent or 2200 people) and the Launceston and north-east region (down by 0.6 per cent or 400 people) recorded decreases in this period. Table 1 includes further detail on employment and participation rates[8].

Table 1: Tasmanian employment and participation rates

Source: Tasmanian Government: Treasury

Original data, year-average	Jul 15	May 16	Jun 16	Jul 16
Employment ('000)				
Hobart and south-east	123.0	121.1	120.7	120.5
Launceston and north-east	65.8	65.5	65.5	65.5
West and north-west	51.1	52.9	52.9	52.8
Tasmania	239.9	239.5	239.1	238.7
Employment, change from prev year average ('000)				
Hobart and south-east	3.6	-1.6	-2.2	-2.5
Launceston and north-east	1.2	-0.4	-0.4	-0.3
West and north-west	1.9	2.1	2.0	1.7
Tasmania	6.7	0.1	-0.6	-1.2
Employment, change from prev year average (%)				
Hobart and south-east	3.0	-1.3	-1.8	-2.1
Launceston and north-east	1.8	-0.6	-0.6	-0.5
West and north-west	4.0	4.1	4.0	3.3
Tasmania	2.9	0.0	-0.2	-0.5
Participation rate (%)				
Hobart and south-east	62.6	60.9	60.7	60.5
Launceston and north-east	59.7	59.7	59.8	59.8
West and north-west	59.6	60.5	60.3	60.1
Tasmania	61.1	60.5	60.4	60.2
Participation rate, percentage point change from prev year				
Hobart and south-east	1.1	-1.7	-1.9	-2.1
Launceston and north-east	-0.2	-0.3	0.0	0.1
West and north-west	1.5	1.3	0.9	0.5
Tasmania	0.8	-0.6	-0.7	-0.9
Unemployment rate (%)				
Hobart and south-east	6.5	6.0	6.1	6.1
Launceston and north-east	6.5	7.4	7.5	7.6
West and north-west	7.8	6.4	6.1	6.0
Tasmania	6.8	6.5	6.5	6.5
Unemployment rate, percentage point change from prev year				
Hobart and south-east	-0.5	-0.7	-0.5	-0.4
Launceston and north-east	-1.6	0.6	0.9	1.1
West and north-west	-0.7	-1.3	-1.7	-1.8
Tasmania	-0.9	-0.4	-0.4	-0.3

In 2009, the ABS reported that Tasmania had the lowest average total annual per capita income (or wage-derived income) in Australia. More than one-third of Tasmanian households were reliant on government benefits and allowances, with 31.5 per cent of Tasmanians receiving federal income support payments or on low incomes.

In 2009, the Tasmanian Department of Premier and Cabinet reported that approximately 13 per cent of the total Tasmanian population was living below the poverty line, with approximately 69 000 households dependent on government pensions and allowances. The report included data on locational disadvantage, and service and transport exclusion[9].

The ABS reports statistics on estimates of personal income, including regional data on the number of income earners and amounts they received, in the 2012–13 financial year for the following categories: employee income; own unincorporated business income; investment income; superannuation and annuities; other income; and total income. This enables comparisons between regions and sources of income and median incomes. However, when considering the statistics for those regions with higher levels of low-income earners, superannuated retirees or people living on pension benefits, it should be noted that these people may not be required to report part of their income or lodge tax returns at all.

Table 2: Median income by source greater capital city statistical areas and rest of state/territory, 2012–13

Source: Australian Bureau of Statistics, Estimates of Personal Income for Small Areas 2012–13, 6524.0.55.002, 28 January 2016.

Region	Employee	Own unincorporated business	Investment	Superannuation & annuities	Other Income (excl. Govt pensions & allowances)	Total income from all sources (excl. Govt pensions & allowances)
New South Wales	**48,322**	**10,981**	**413**	**16,456**	**113**	**44,780**
Greater Sydney	50,422	13,475	433	14,885	125	47,281
Rest of NSW	44,560	7,473	370	18,318	93	40,702
Victoria	**46,644**	**9,778**	**437**	**13,789**	**105**	**43,867**
Greater Melbourne	48,053	11,141	429	14,261	115	45,533
Rest of Victoria	42,417	6,775	455	12,610	80	39,172
Queensland	**47,567**	**8,792**	**255**	**16,800**	**110**	**44,574**
Greater Brisbane	49,578	10,008	243	17,470	114	46,790
Rest of Queensland	45,600	7,991	263	16,108	105	42,568
South Australia	**46,050**	**10,267**	**348**	**22,656**	**123**	**43,472**
Greater Adelaide	47,196	11,063	340	23,476	134	44,672
Rest of South Australia	41,726	8,788	357	19,371	94	39,317
Western Australia	**53,446**	**13,625**	**309**	**18,686**	**130**	**51,465**
Greater Perth	54,216	14,344	309	19,318	141	52,225
Rest of WA	50,155	11,498	295	15,098	97	48,318
Tasmania	**43,524**	**7,781**	**308**	**18,422**	**109**	**40,749**
Greater Hobart	45,766	9,944	308	20,520	116	42,992
Rest of Tasmania	41,820	6,448	305	15,803	103	39,040
Northern Territory	**54,445**	**11,283**	**103**	**23,939**	**83**	**53,707**
Greater Darwin	57,617	12,476	102	24,964	83	56,621
Rest of NT	50,292	7,852	100	21,123	88	49,782
Australian Capital Territory (b)	**61,846**	**8,677**	**298**	**32,319**	**117**	**58,613**
Australia (c)	**48,030**	**10,268**	**364**	**18,079**	**112**	**44,940**

[8] Department of Treasury and Finance, Economic Analysis Unit, Viewed 9 November 2016, treasury.tas.gov.au/domino/dtf/dtf.nsf/LookupFiles/Regional-Labour-Markets.pdf/$file/Regional-Labour-Markets.pdf

[9] Social Inclusion Commissioner, *A Social Inclusion Strategy for Tasmania*, 2009.

Key industry sectors

Public administration and safety

As Hobart is a capital city and the seat of the Tasmanian Government, it is not unexpected that public administration and safety is the largest industry sector in terms of employment, comprising around 20 per cent of the workforce. Parliament, ministry offices and head offices of most state government agencies are located in Hobart, mostly in the city centre. In addition, the Australian Government has a number of administrative roles based in Hobart. Local government employment is also included in this sector.

Health care and social assistance

The health sector is clearly important in meeting the needs of the local community, but it also plays a broader role. As the second largest employment sector, it brings a large part of the workforce to the city. The many thousands of patients and visitors and medical specialists that the Royal Hobart Hospital attracts also add to the economic activity of the city. Employment in the health care and social assistance sector accounts for around 16 per cent of Hobart's workforce.

Education and training

Education and training is Hobart's third largest employment sector. Hobart hosts much of the state's tertiary sector and is the main destination for international students in Tasmania. There are 30 education providers in the Hobart municipal area, including primary, secondary and senior secondary schools, TAFE and one of Australia's oldest and most respected universities, the University of Tasmania.

Retail and trade

Retail is Hobart's fourth largest employment sector. The Hobart municipal area has about 25 per cent of the Greater Hobart population, but more than 40 per cent of the total retail employment. This shows the extent to which residents of Greater Hobart shop in the city. The city provides 52 per cent of Greater Hobart's total employment, bringing over half of the working population to the city most days and making it easy for these people to do their shopping in Hobart.

Professional, scientific and technical services

This sector is the fifth largest in Hobart, accounting for around 8 per cent of employment. There are several large employers, such as the Institute for Marine and Antarctic Studies, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the Menzies Institute, which are breaking new ground in Antarctic and health research.

Tourism

Although tourism is not a recognised stand-alone sector within standard industry classifications, it clearly generates significant employment. Visitor numbers to Tasmania have been growing steadily. More than 1 million people visited Tasmania on scheduled air and sea services during the year ending March 2014 (not including cruise ship visitors). Numbers of interstate visitors rose from 2010–11 to 2013–14 by 14.2 per cent, to 903 148. Within the tourism industry in Hobart, accommodation is the largest sector, accounting for more than 42 per cent of all employment. This is closely followed by the retail trade (18 per cent) and cafes and restaurants (15 per cent).

Further statistical information on the tourism sector can be found at:

tourismtasmania.com.au/__data/assets/pdf_file/0003/43662/TVS-Snapshot-March-2016.pdf

DISCUSSION

A key role of national, state and local government is the provision of transport networks that are affordable and facilitate access and mobility for all members of the community. At a national and state level, transport costs represent a major expense for many households, whether using public transport or a private vehicle. This is especially true in Tasmania, where median incomes are lower than the national average, a high proportion of the population relies on government income, the population is relatively dispersed and there is limited public transport infrastructure.

QUESTIONS

If the Tasmanian Government reaches its population targets—to increase the population of Tasmania to 650 000 by 2050—what challenges will this pose for Hobart's transport network?

How can the Transport Strategy contribute to achieving population growth targets in Hobart, the southern region and the rest of Tasmania over the next 12 years?

Will the current arrangements for transport in and out of Hobart be able to cope with growth in population in infill areas within the municipal area?

How can the City of Hobart plan for and manage an increasingly ageing population using our transport networks?

How can the City of Hobart plan for and manage increases in the resident (post-secondary) student population on our transport networks?

What are the challenges facing those who travel in and out of the city who are on low incomes?


DERWENT VALLEY LINK
STOP
SERVICES DEPART HERE TO:
New Norfolk
Ellendale
Dromedary
Bothwell
SIGNAL DRIVER
Tassielink COACHES
BUS STOP
SIGNAL DRIVER
1300 300 520
New Norfolk 130
40
IRIZAR
DERWENT VALLEY LINK
E 21 JY

SECTION 2

MODULE 3: PUBLIC TRANSPORT

This is the third of four background papers (modules) for the development of the City of Hobart Transport Strategy 2018–30.

Module 1: Freight, Port and Air

Module 2: Private Transport

Module 3: Public Transport

Module 4: Local Area Traffic Management

SUMMARY MODULE 3: PUBLIC TRANSPORT

Hobart is Tasmania's capital city and southern Tasmania's regional centre. It is the home of the Tasmanian Government and a vibrant hub of tourism, business and the retail sector. The Hobart city centre and surrounds is the largest employment district in southern Tasmania.

Large numbers of people travel in to and out of Hobart every day with a proportion relying upon public transport to do so. This includes residents of southern Tasmania travelling to and from work, others journeying to Hobart as the seat of government and a centre of business for the state, primary, secondary and tertiary students along with tourists based in Hobart making day visits to surrounding areas.

The development of the City of Hobart Transport Strategy is an opportunity to plan for the future of Public Transport services and facilities in collaboration with the community, peak stakeholder groups, other local councils, private bus operators and Metro Tasmania, the public bus operator, along with the Tasmanian Government.

How do we define public transport?

Public transport is any transport that is available to the public in shared vehicles usually at a set fare. It includes trains, planes, buses, ferries, taxis and ride booking systems such as Uber, GoGet, community transport services or bicycle share schemes.

Public transport task in Tasmania

An essential element of people's daily lives is the movement between places: to access jobs, schools, shops, key services and participate in social and recreational activities. With the exception of freight movement, the transport system's key function is the movement of people between places.

As we get busier, we travel more, often over longer distances and involving more complex trips. For example, Tasmanians often do school drop-offs and pick-ups on the way to and from work, or stop at the local shops and supermarket. Depending upon where we live and work and our preferences in regards to schooling and child care, shopping and other daily needs, people may need to travel to multiple destinations.

While the movement of people between these destinations is primarily undertaken by private cars—part of the private transport task—the public transport task is critical to meeting the needs of people who have limited access to a car, are not of driving age, do not have a licence or choose not to encumber themselves with the expense of owning and operating a motor vehicle.

Into the future, the public transport task is likely to be an important element in resolving a range of current transportation issues caused by an over reliance upon the private motor vehicle.

In Tasmania, there is relatively low use of public transport. Across the state buses account for only 3 per cent of all journeys to work, although people travelling to work in Greater Hobart are more likely to use public transport, with 8 per cent of all journeys to work via bus and 0.4 per cent via taxi.[10] Between 2001 and 2011 there has been a small increase in the use of public transport.

Also of note is that public transport (bus) use is a function of home and destination location in relation to proximity to a regular public transport service. A person living near a high frequency public transport service is more likely to use public transport. Aggregated statistics often mask this effect.

---

[10] Department of Infrastructure, Energy and Resources, Journey to Work Data Analysis, 2011.

[11] Department of Infrastructure, Energy and Resources, Glenorchy to Hobart CBD Transit Corridor, July 2012.

[12] Metro Tasmania, statistics provided in private email, 2017

While buses are the dominant form of public transport in Tasmania, the public transport task also includes taxis and more recently Uber, car-sharing schemes, community transport services and ferries. There has also been significant discussion over the past few years regarding the western shore public transport corridor and light rail.

Public transport use

Suburbs beyond walking distance of the Hobart city centre have higher levels of public transport use in the journey to work:

- New Town: 9.3 per cent
- West Moonah: 8.5 per cent
- Moonah: 8 per cent (ABS 2006)

Despite using sustainable transport more than other Greater Hobart residents, public transport use is still very low for all trips:

- Glenorchy: 4.7 per cent
- Hobart: 2.4 per cent (Greater Hobart Household Travel Survey 2008–09).

Where people do use public transport for different trip purposes, the results are as follows:

- 14 per cent in Hobart and Glenorchy use public transport for education trips
- 5 per cent in Hobart and Glenorchy use public transport for work trips
- 4 per cent in Glenorchy and only 1 per cent in Hobart use public transport for shopping trips: (Greater Hobart Household Travel Survey 2008–09).[11]

Metro public bus use

In 2016 there were more than 7.5 million boardings on Metro services in Hobart—that's more passengers than a capacity crowd at the Blundstone Arena, every day.

Metro buses travelled over 7 million in-service kilometres in Hobart last year (or to the moon and back more than nine times!), delivering over 99.9 per cent of planned services—this makes Metro one of the most reliable public transport operators in Australia.

In 2016 nearly half (42%) of Hobart residents travelled at least three times a week using a Metro bus. Most of these journeys took place in the morning or afternoon peak hours, taking customers to work, school or university.

In 2009 Metro introduced the Greencard, making it easier and quicker to board a bus without a cash ticket. Nearly 200 000 Metro customers are active Greencard users and Greencards were used for 82 per cent of journeys in Hobart in 2016.[12]

Public transport network

The public transport network is a spatial network that provides for the movement of people and goods. In Tasmania, it is predominantly road based. Only limited transport is via rail, and even then, it is restricted to the movement of goods (freight) or occasional short tourist trips. A significant number of tourist trips are carried on Hobart's River Derwent to and from the Museum of Old and New Art (MONA) via a ferry service.

Tasmania has approximately 23 000 km of improved roads which are primarily owned (and therefore managed and maintained) by both state government, through the Department of State Growth, and local government. While local government owns the majority of the road network (approximately 14 600 km), the highest traffic volumes generally occur on the state roads which are Tasmania's major intrastate and regional arterial roads.

Within southern Tasmania, there are key regional links that play an important role in moving people in motor-vehicle-based public transport.

Within the Greater Hobart area there are four identified major metropolitan links and urban transport corridors that are critical to the effective movement of people around the metropolitan area, three of which feed into the city centre: Brooker Highway, Tasman Highway, Southern Outlet and the fourth—the Macquarie Street and Davey Street couplet—connecting them.

Outside of these metropolitan links there are key urban transport corridors which include Sandy Bay Road, Main Road (New Town to Glenorchy), Kalang Avenue–Augusta Road and Domain Highway. With the exception of the Domain Highway, which is managed by the Department of State Growth, all these other road corridors are managed by the City of Hobart.

The metropolitan links are supported by a network of local roads owned and managed by local government.

The provision and maintenance of public roads in Tasmania is generally split between state and local government (see Section 2: Context: roles and responsibilities for further detail). The Australian Government provides some funding for the National Highway (which includes the Midland Highway) and other selected projects.

One of the key measures that has been identified as a way to improve public transport (bus) use are transit corridors.[13] A true transit corridor will have high frequency services, high quality passenger waiting facilities, shelter and bus information (real-time information) facilities. Ideally, bus priority measures are also a feature of transit corridors to ensure delays are limited and service scheduling reliability remains intact. Within Greater Hobart there are two major transit corridors[14] based on function, population catchment and service frequency:

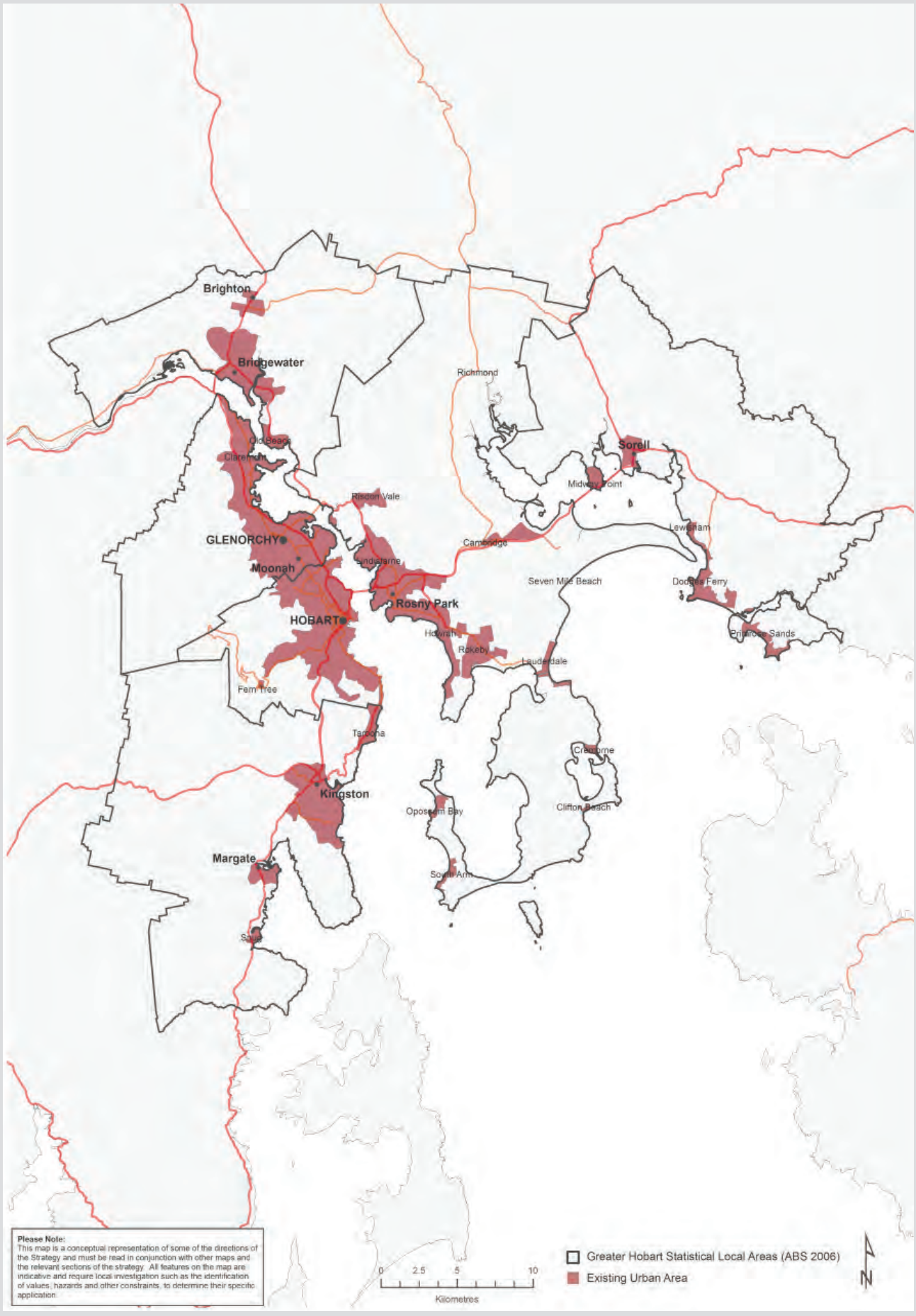
- Sandy Bay to Claremont, passing through Sandy Bay, Hobart city centre and Glenorchy using Sandy Bay Road, New Town Road and Main Road
- South Hobart to Howrah, passing through the Hobart city centre, Rosny and Bellerive using Macquarie Street, Tasman Highway, Rosny Hill Road, Cambridge Street and Clarence Street.

[13] Department of Infrastructure, Energy and Resources, Tasmanian Urban Passenger Transport Framework, 2010.

[14] Department of Infrastructure, Energy and Resources, Hobart Passenger Transport Case Study, 2011.

Map 4: Southern region—principal roads, transit corridors and settlement areas

Source: Southern Tasmania Regional land Use Strategy 2010-2035 (STCA)



The Glenorchy to Hobart component of the first transit corridor is one of the key public transport routes in the City to Hobart, providing the highest frequency service of all bus routes.

Further information about the Department of State Growth's transit corridor project can be found at stategrowth.tas.gov.au/passenger/framework/transit-corridors

While planning and public consultation for the Glenorchy to Hobart transit corridor (Main Road transit corridor bus priority and bus stop optimisation) was undertaken by the Department of State Growth in 2014, funding and direction for implementation from the department has not been provided to the City of Hobart.

The former rail line that is generally aligned with this transit corridor—except where it takes an alternative route from the city centre to New Town on the eastern side of Queens Domain—is also recognised as a potential transit corridor into the future.

Challenges in the future

Typical of many other Australian cities, Tasmania's urban areas and towns have evolved in response to car-based travel. While not the only determinant of settlement patterns, significant investment in arterial roads, particularly during the post World War Two period, made outlying urban areas and towns more attractive places to live by reducing travel times. In comparison, investment in support of other transport modes has been minimal in southern Tasmania.

Residential growth has continued to expand the urban fringe into surrounding rural areas, where there is strong reliance upon cars to access employment opportunities and services. In addition, previously isolated settlements, such as the southern beaches (Sorell, Dodges Ferry) or Margate and Snug south of Hobart, are now transitioning to satellite suburbs of Greater Hobart because of housing affordability and lifestyle choices combined with good highway connections.

The Tasmanian Government has announced targets for increasing Tasmania's population by the year 2050. The increase seeks to offset population decline due to an ageing population and to improve Tasmania's long-term economic and social future.

The City of Hobart has goals and objectives within its Hobart 2025 Strategic Framework to deliver improved social, economic and environmental outcomes, for example, through better integration of land use and transport planning.

While there is increasing employment, services and retail activity in centres outside of central Hobart, the Hobart city centre and surrounds remains the primary commercial and employment centre for Greater Hobart and the southern Tasmania region. It is also the seat of government in the state.

The Hobart waterfront and city area are significant focal points for visitors to the region, with a large proportion of all visitor accommodation in southern Tasmania as well as the cruise ship terminal at Macquarie Wharf. The Tasmanian Government has set a target of 1.5 million visitors to Tasmania by 2020, an increase of 500 000 from 2014 when Tasmania reached the milestone of 1 million visitors. Providing public transport system options that make it easy for visitors to navigate their way to, around and through the Greater Hobart area will be an important consideration for the new City of Hobart Transport Strategy.

A significant number of people journey in and out of Hobart each day and this is only likely to increase into the future if we follow a business-as-usual path. Current evidence is showing that private car use as the dominant means of transport is increasing from all areas except Hobart; while at the same time the capacity of the existing road network is reaching saturation, particularly at peak periods.

School transport is also an area of increasing interest. Student transport is a major focus for Metro and privately operated buses. School student movement is thought to be a growing problem for transport arrangements, with the location of state high schools for Hobart (Taroona, Ogilvie and New Town) along with some private schools placing strain on existing transport systems at peak times.

The role of public transport in meeting the transportation needs of Greater Hobart and surrounding towns' growing populations will be one of the key challenges for resolving increasing congestion in the transport network into the future.

Providing for a reliable, efficient and effective public transport system is also essential to creating a socially inclusive environment for those who, for a range of reasons, cannot or may not have access to private cars.

Further challenges exist in the reallocation of existing road space to provide for public and active transport modes. The removal of on-street parking or the reduction of vehicle lanes to provide for bus priority lanes, bicycle lanes or pedestrian space, has sometimes generated strong resistance.

The City of Hobart also recognises the importance of strong environmental stewardship and resilience to climate change. Increasing the use of public transport as a mode of transport assists in reducing emissions of pollutants from the transport sector.

The City of Hobart, other councils and the Tasmanian Government all rely on data and statistics to make informed decisions about the operation of the transport network. Intelligent transport systems, which generate road-use and passenger data, have proven a valuable tool to assist long-term strategic asset management interstate and overseas. The role ITS can play over the next 20 years in planning and managing transport demand as well as improving services to customers will be considered in the development of this Transport Strategy.

PUBLIC TRANSPORT TASK IN TASMANIA

"task: a piece of work to be done or undertaken."

'While transport for many is a necessity of daily life and can of course always be improved, the true value of transport only becomes fully apparent when transport networks fail, become congested, incur delays, or are unsafe or unaffordable. The objective of transport planning and investment should be to maintain transport networks as enablers, globally and locally, rather than barriers to increased personal and business mobility. This chapter focuses on transport infrastructure not only because of the rapid increase in demand but also because transport infrastructure plays a crucial role in shaping cities, their economies and, ultimately, our urban lifestyles.'[15]

Public Transport

Public transport performs many critical functions in Australia's cities. As a minimum, public transport provides a base level of mobility essential to everyday life for many who cannot or choose not to own or drive a car for certain trips.

Beyond this important social equity function, public transport plays a critical role in delivering the cities' residents to their workplaces, as evidenced in the journey to work transport mode shares graphs (figures 6.3a, 6.3b and 6.4). As explored in the Economy chapter, agglomeration economics mean that across Australia's cities a high proportion of jobs are clustered in central city CBD locations or other employment clusters.

As economies increasingly become more knowledge intensive, this clustering intensifies, driving intense patterns of demand for travel into inner cities and city CBDs.

With such inward-focused travel demand and with space in city centres at a premium, leaving less for parking or for roads, the travel needs of many city centre workers can only be met by mass public transport. As Australia's urban economies have transitioned and more jobs are located in city centres, patronage on public transport has grown significantly. In the past decade, the rate of average annual growth of public transport patronage (2.4 per cent) surpassed the rate of population growth in capital cities (1.8 per cent).

Additionally, the presence of public transport infrastructure attracts higher-density development, with corridors of higher density housing and commercial premises locating along transit routes. This is an increasingly common urban form change in Australian cities.'[16]

[15] Department of Infrastructure and Regional Development, State of Australian Cities 2014–2015, p. 101.

[16] Department of Infrastructure and Regional Development, State of Australian Cities 2014–2015, p. 111.

A general understanding then of the city-shaping ability of employment centres, transport systems and the politics surrounding them, is useful to consider what the role of public transport is now and what it could be in Hobart and southern Tasmania in the future. It can also be useful to understand trends around Australia to counter claims that people in Australia cannot use public transport for their busy linked-trip lifestyles.

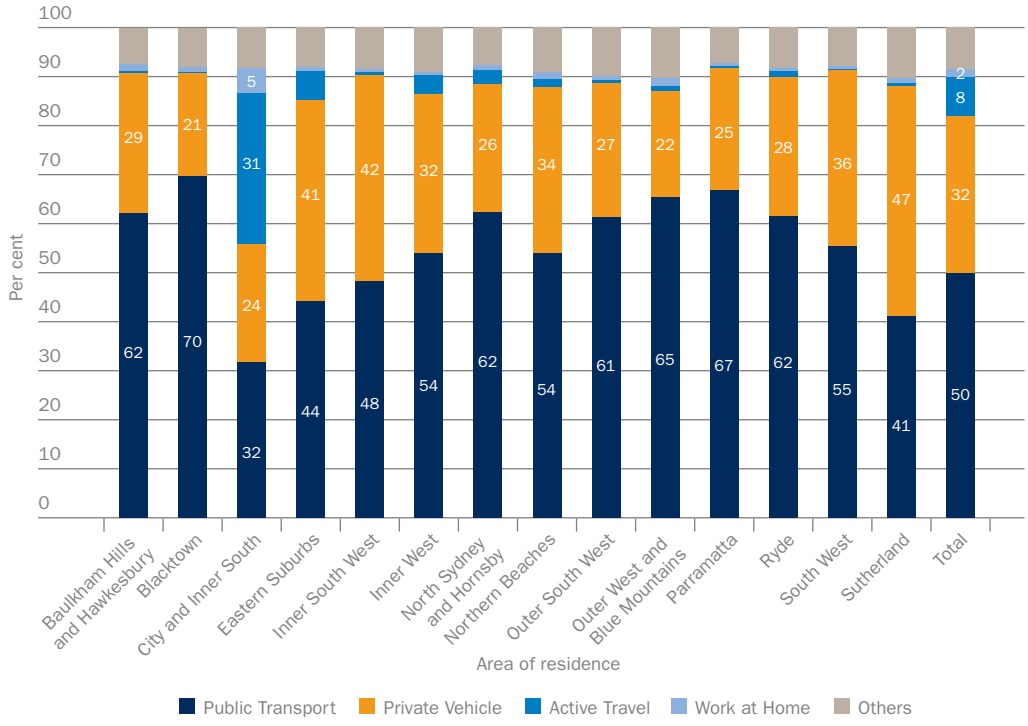
The ABS also collects and publishes data relating to transport. The Australian Bureau of Infrastructure, Transport and Regional Economics (BITRE) also publishes regular information and statistics. Information sheet 59 analyses current trends and compares recent growth in patronage in Australian cities' urban public transport networks with private road vehicle use.

Information sheet 59 is available at: bitre.gov.au/publications/2014/files/is_059.pdf

The Sydney Australia data reproduced below (using ABS data) shows the very real role public transport plays in delivering workers to the Sydney city and inner south area. Sydney has long established train, ferry and bus systems to support this commute to the city, along with very high parking charges, and in places a variety of toll roads. Services, densities and land uses are of course vastly different in Sydney to that existing in Hobart. Greater Sydney, like other Australian cities, is still highly dependent on the private motor vehicle—but there are significant indications that trends apparent last century (pre 2000) are changing.

Chart 1: Mode share of commuting by area of residence to city and inner south area of work, Sydney, 2011

Source: Department of Infrastructure and Regional Development, State of Australian Cities 2014–2015, p. 106.



The situation in Hobart is somewhat different.

'The Tasmanian capital, Hobart, once had considerable passenger rail infrastructure, with a tram network, operating over eight lines, as well as a commuter train line (running north from Hobart station). Though the tram system was once extensive (reaching most of Hobart's suburbs) and well patronised (carrying over 25 million passengers per annum during the mid-1940s), the tramways were closed by 1960, in favour of bus services. By the 1970s, the urban heavy rail passenger services ceased as well.'[17]

Development of, and funding for, a public transport network in Hobart was instead replaced with a reliance on the private motor vehicle as the settlement expanded outwards. While this approach has probably provided (to state government transport agencies) a low-cost transport solution to land development in adjoining LGAs, there is a growing body of evidence to suggest that this approach has now reached a tipping point.

Peak-hour road congestion is a concern to many road users and is becoming a political football.[18] Discussions about urban density and outer-fringe development are similarly politicised, without a full understanding of the associated individual and societal health impacts and physical infrastructure costs (water, sewerage, roads, schools, etc.) to service low-density urban areas which are growing substantially. Respected economists, along with transport, planning and health experts around the world, are seriously questioning if a business-as-usual (low-density, car-dependant, urban-sprawl development) option can be sustained. Further discussion on these issues is presented in Section 3 of this paper.

There are various data sources providing information on the use of different modes of transport as a means to journey from one place to another. Following the release of statistical data from each Census, the Department of State Growth provides what is known as the 'Journey to Work' data analysis. Discussed in more detail in Section 3, this data provides information on origin and destination of journeys to work and the transport mode used to get there.

The Greater Hobart Household Travel Survey undertaken by the Department of Infrastructure, Energy and Resources in 2010, provides data about all types of journeys undertaken by households in Greater Hobart, not just those undertaken for work purposes. Statistics were compiled from a representative sample of the population in Greater Hobart. While not regularly updated, key findings of this study highlight:

- an average 2.7 trips per person per weekday are undertaken across Greater Hobart, with an average of 2.2 trips per person on weekend days
- the reliance upon private cars as the primary modes of personal transport
- around 4 per cent of all trips are made using public transport, including school buses
- the purpose of trips is evenly spread between trips to work, shopping and recreation/entertainment
- the greatest use of public transport as a mode of transport by trip purpose is education (9.5 per cent) followed by work (4.6 per cent).
- public transport is the least likely mode of transport when the purpose of the trip is for shopping (1.9 per cent) or recreation and entertainment (1.3 per cent).

[17] BITRE, Information sheet 59, 2013, p. 16.

[18] Minister for Infrastructure, 'Traffic congestion in Hobart CBD', viewed 21 March 2017, www.premier.tas.gov.au/releases/traffic_congestion_in_hobart_cbd.

Table 3: Weekday trip mode share by LGA of residence

Source: Department of Infrastructure, Energy and Resources, Greater Hobart Household Travel Survey, December 2010, p. 7.

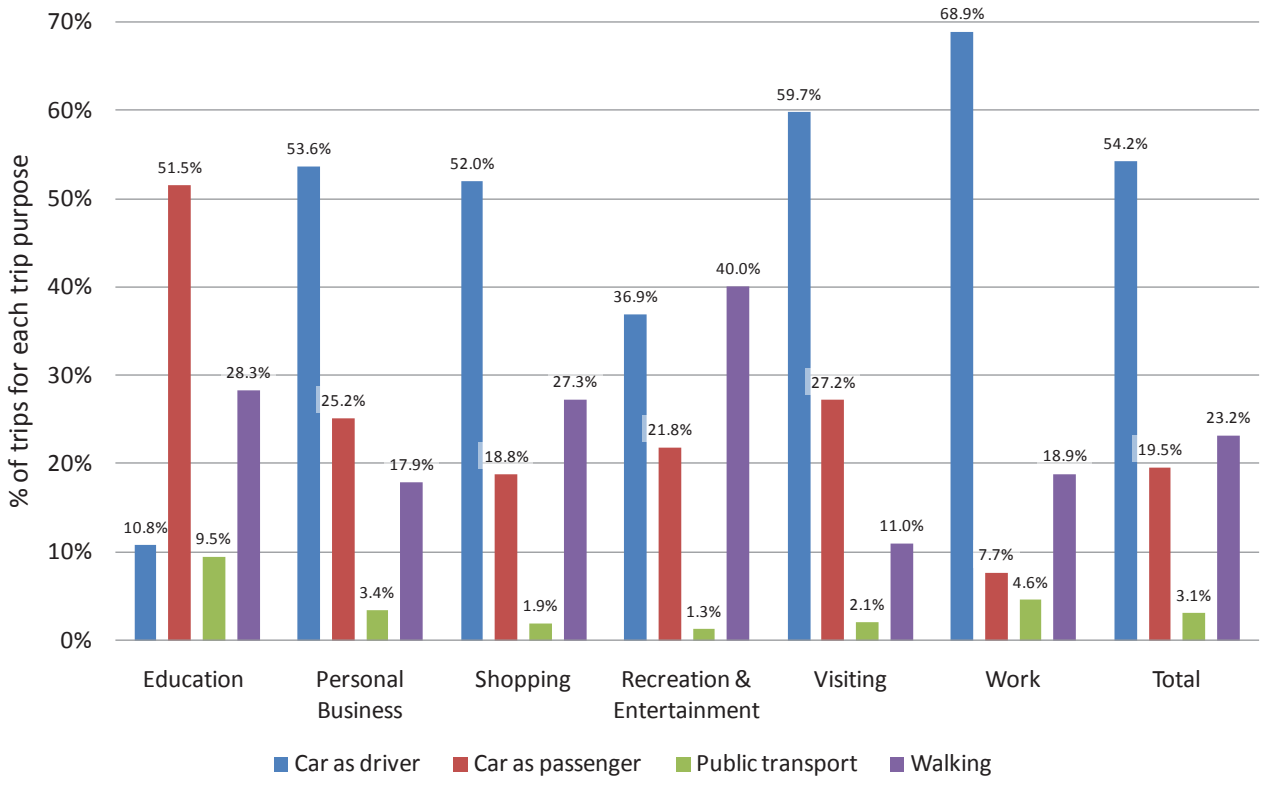
LGA	Car as driver	Car as passenger	Public transport	Walking	Other
Brighton	58.5%	25.1%	5.2%	10.3%	0.8%
Clarence	56.3%	20.4%	4.7%	17.0%	1.6%
Derwent Valley*	56.7%	21.9%	2.6%	18.6%	0.2%
Glenorchy	54.6%	21.1%	4.7%	17.9%	1.7%
Hobart	49.0%	17.0%	2.4%	30.2%	1.4%
Kingborough*	58.8%	19.5%	3.3%	17.5%	0.9%
Sorell*	58.7%	20.2%	7.2%	13.9%	-
Greater Hobart	54.7%	19.8%	4.0%	20.2%	1.3%

* Pt A Statistical Areas only.

Note: Analysis of the percentage modal share at LGA level needs to be interpreted carefully, due to small sample sizes.

Chart 2: Percentage mode share by trip purpose (weekdays only)

Source: Department of Infrastructure, Energy and Resources, Greater Hobart Household Travel Survey, December 2010, p. 10.



What is a rapid bus transit system?

A rapid bus transit system has fast and cost-effective public transport services provided through the provision of dedicated lanes or corridors. It is supported by high quality bus 'stations' with high frequency and high speed operations. It many ways it is similar to a light rail system but is generally less expensive and has greater flexibility in connecting areas not located adjacent to the corridor. It avoids typical delays caused by regular bus systems that rely on main roads because of its dedicated corridor.

One of the more well known rapid bus transit systems is the Transmilenio in Bogota, the capital of Colombia. It is the largest and among the fastest systems in the world. This system began operating in 2000 as a low-cost solution to resolving what was in the 1990s known as one of the world's worst cities for traffic congestion. The cost of providing a rail-based system was seen as beyond the capacity of the city's finances.

For more information about the Greater Hobart Household Travel Survey go to: transport.tas.gov.au/road/plans_strategies/greater_hobart_household_travel_survey

Infrastructure Australia releases a State of the Australian Cities report, which provides a comparative analysis of a range of issues across the 17 major cities in Australia, including the transport system and reliance upon different modes of transport.

The State of the Australian Cities report can be downloaded at: www.infrastructure.gov.au/infrastructure/pab/soac

When the detailed data is examined it becomes obvious that the transport task is highly related to the greater Hobart land use pattern, including housing locations, employment locations, school and education facilities, shopping and recreation areas. As such, the modal opportunities for servicing an individual's transport task are highly dependent on a person's home address, the service and infrastructure options available, service timing and incurred cost, be that monetary or travel time, and the various destinations an individual needs to access.

The following sections examine the principal modes available for individuals to travel using public transport.

Servicing the public transport task in Tasmania is often thought to just comprise the public bus system: Metro Tasmania. While Metro Tasmania is the largest public transport provider in the state, the public transport task is also serviced by:

- a bus system, generally operated under contract arrangements between private operators and the state government. In southern Tasmania, for example, this system provides public transport access between satellite areas such as Sorell, New Norfolk and Huonville to the main urban area of Greater Hobart, along with services to more remote areas, such as the Tasman Peninsula
- taxis and ride sourcing services (i.e. Uber)
- carpooling and car sharing (i.e. Coolpool and Go Get)
- community transport services
- bike sharing
- ferries (specifically in the provision of tourist services).

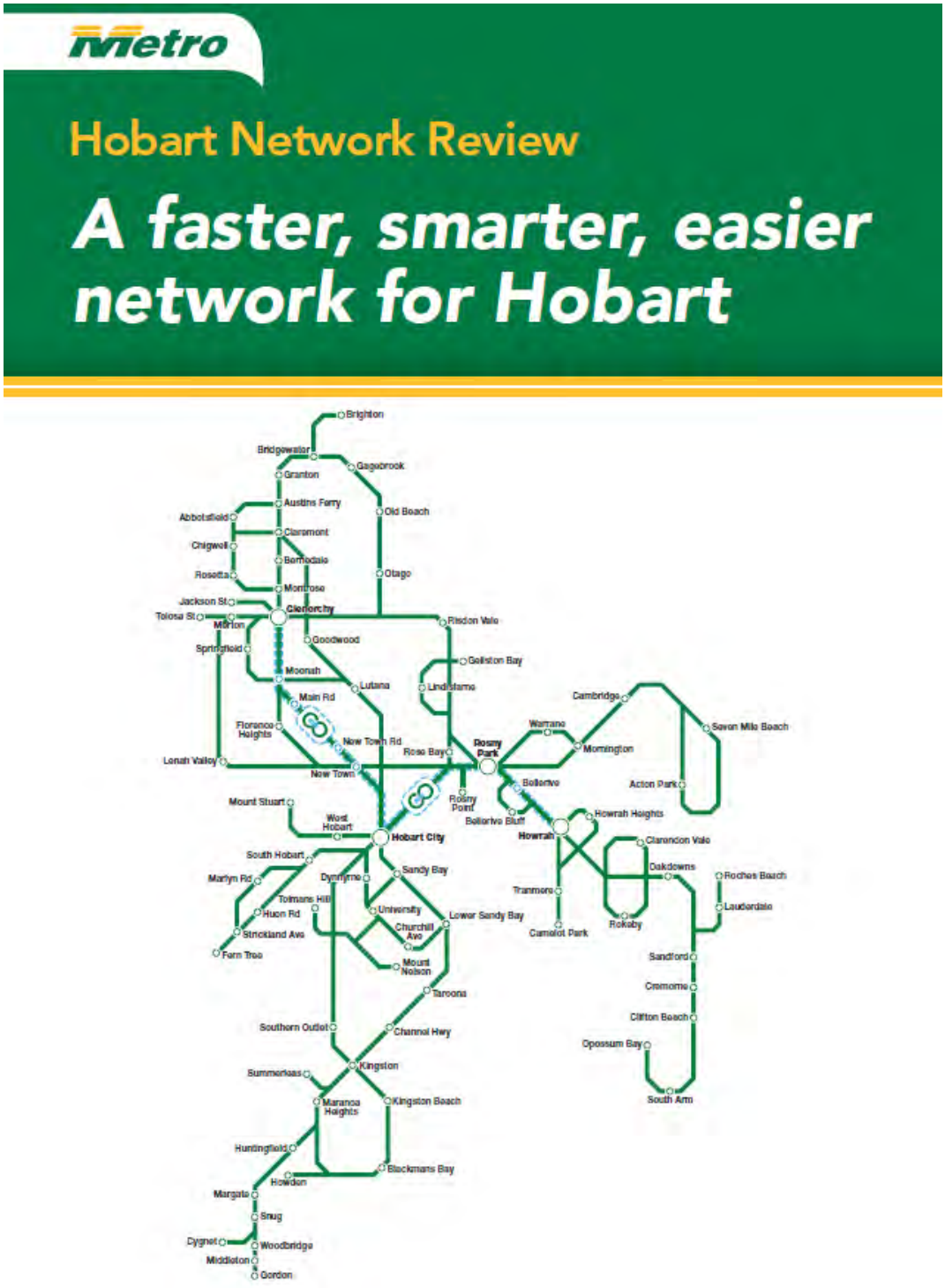
Metro buses

Metro Tasmania, a state-owned company, is the largest public transport provider in Tasmania. It provides public transport services within Hobart, Launceston and Burnie. It has a fleet of around 219 buses[19], of which 113 are compliant with the Disability Discrimination Act requirements.

Metro Tasmania provides services to the metropolitan area of Greater Hobart as well as connections from the Channel area and South Arm through to the metropolitan area. Bus services connecting the metropolitan area and other areas including the Huon Valley, Sorell and Derwent Valley and Southern Midlands are provided by private bus companies (see below).

Map 5: Metro Hobart network–simplified route map (post January 2016)

Source: Metro Tasmania



[19] Metro Tasmania, Annual Report 2015–2016.

In January 2016, Metro implemented a major review of the Hobart passenger transport network, the first in 30 years. The key features of the new network include:

- a simplified network with fewer route variations to achieve more frequent and regular services
- new Turn Up and GO service between Hobart, Rosny Park and Howrah in addition to the existing service between Hobart and Glenorchy (see discussion of transit corridors in Section3)
- new direct routes from Glenorchy, Hobart City and the eastern shore to the University of Tasmania's Sandy Bay campus
- longer operation of services to Kingston via the Southern Outlet, including direct peak-hour services between Glenorchy and Blackmans Bay
- improved connections and less waiting time at bus interchanges
- servicing new areas of Summerleas in Kingston and Oakdowns and Camelot Park on the eastern shore
- trial of services between Bridgewater and Rosny Park via Old Beach and Risdon Vale
- increased services between the University of Tasmania's Sandy Bay campus and the city centre to every 10 minutes
- new express services with faster and more direct services and a higher frequency on key routes

The following tables illustrate why Metro passengers take a trip. While journeys to work are a significant component of the transport task, only 32 per cent of passengers have stated that this is a reason they use a Metro bus service, compared to going shopping which accounted for 45 per cent. Since 2012 it appears the number of these journeys has been decreasing. It is as yet unclear how the new network arrangements adopted in 2016 have changed these statistics. Notwithstanding this, the network review has resulted in a 3.5 per cent increase in passenger journeys in the first six months compared to the same period the year before.

Table 4: Survey—reason for travelling on Metro service in 2016

Source: Metro Tasmania, - Annual Report 2015-16

REASONS FOR TRAVEL	PERCENTAGE				
	2012 Percentage (n=600)	**2013** Percentage (n=600)	**2014** Percentage (n=600)	**2015** Percentage (n=600)	**2016** Percentage (n=600)
To go shopping	49	46	49	49	45
To go to work	35	33	32	34	32
Visit friends or relatives	24	23	23	21	23
Health or welfare	19	22	22	21	18
Entertainment or performance	23	20	21	20	17
To do business i.e. banking etc.	27	23	23	18	14
To go to school	12	14	10	11	11
Sport and recreation	12	14	9	9	10
To go to University or TAFE	6	8	7	7	5
Car in being serviced/ unavailable/ not enough room	2	2	2	2	1
Volunteer work	-	-	-	-	1
To get home	2	3	1	1	1
Pick up/ take children	1	-	-	1	1
To go to the library	-	-	1	-	-
Other	4	1	3	2	-

Table 5: Survey—satisfaction with Metro Tasmania's passenger service in 2016

Source: Metro Tasmania, - Annual Report 2015-16

STATEMENTS	PERCENTAGE							
	Very satisfied	Satisfied	Neither satisfied nor dissatisfied	Dissatisfied	Very dissatisfied	Unsure	Very satisfied/ satisfied	Very dissatisfied/ dissatisfied
Personal safety on board the bus	49	37	11	2	1	1	86	3
The service provided by bus drivers	46	39	12	1	1	1	84	3
The length of time it takes to travel	42	35	14	3	5	1	77	8
The directness of the route	43	32	14	5	5	1	76	10
The cost to use the service	33	39	18	6	3	1	72	10
The services provided by Metro Tasmania overall	30	43	17	6	4	1	72	9
Personal safety at the bus stop	38	32	20	5	3	2	70	8
The bus route coverage	34	32	22	6	4	1	66	10
The reliability of the services	34	30	10	3	3	22	63	5
The operating hours of the services	31	31	18	8	8	5	62	15
The service provided by the Metro Customer Service team	29	30	20	11	7	3	59	17
The frequency of the services	26	31	21	12	9	1	58	21
The ease of transfers between services	22	22	20	3	3	31	43	6

DISCUSSION

Buses are the dominant mode of public transport in Tasmania. Within Hobart most public transport journeys are on a Metro-run bus service. Public transport and other active modes of transport can support the high concentration of jobs in the city centre and other major employment nodes.

Buses have the benefit of being a relatively low cost and flexible solution to providing public transport. However, they are underutilised by the Tasmanian community.

Some commentators argue this is because public transport does not provide the same flexibility to accommodate multi-purpose trips as a private car would.

The use of public transport is, however, also hampered by Greater Hobart's low-density settlement pattern, meaning there are simply fewer people per bus route. As a result, some of Metro's bus routes can be described as providing high penetration but low service frequency. Low service frequency in turn make buses a less attractive transport option because of the level of associated inconvenience.

Metro's customer satisfaction survey show that the number one reason for customer dissatisfaction is the frequency of the service, followed by customer service and the operating hours.

While Metro Tasmania, through its network review, has undertaken significant changes to the system to improve frequency and the length of operations throughout the day, there remain fundamental challenges in encouraging public transport use because of Greater Hobart's urban form (see Section-3).

That said, the service levels and availability of public transport are highly dependent on the support provided by funding agencies. Public transport provision, as with the provision of all government goods and services, costs money. There are trade-offs to be made. Building new road infrastructure to provide for peak hour private vehicle use may not provide the most efficient outcome for the Tasmanian community. The capital expenditure required for a major road project may be used for other, more beneficial, community outcomes, especially if congestion relief and transport mode alternatives can be provided which assist in shaping the greater Hobart region for the future. Ultimately, this is a complex situation, controlled by government policy at all levels.

As the dominant and most accessible form of public transport for Hobart, Metro buses do provide a critical service. Some sectors of the community are highly reliant upon Metro bus services, particularly younger and older people without driving licences, low-income earners who cannot afford the costs of motor vehicle ownership and operation, and people with disabilities.

While the City of Hobart has a limited role in the service that Metro Tasmania provides, it does have a greater role in the provision of supporting infrastructure. This includes the bus interchange facility in Hobart's city centre, providing space for the layover of buses between trips and assisting the state government in providing bus priority measures.

QUESTIONS

Have you utilised a Metro Tasmania bus service in the past six months?

What would encourage you to use Metro Tasmania bus services?

Do you believe catching a bus is good value for money when considering fuel and parking costs for a private car?

Would implementing bus priority lanes to improve travel-time reliability encourage you to catch a bus to work?

Would improved park-and-ride facilities encourage you to use buses more often?

Private buses

In addition to bus services provided by Metro Tasmania, private bus transport operators also operate in southern Tasmania. Operators such as Redline Coaches, Tassielink, and O'Driscoll Coaches all provide services from Hobart to outlying areas. These are provided on a contract basis to the state government.

In addition, services to destinations like the airport are provided by the Airporter bus service, and services between Jane Franklin Hall and the University of Tasmania for students are also provided by private companies.

These companies provide an important link in service provision to ensure access to regional areas can still be achieved. For members of the community, the distinction between a private service and a public service such as Metro is negligible. But the operation and contracts provided by the state government are quite different.

Contracts and service arrangements for bus contracts are currently under review by the state government. The review and re-contract project is called Project 2018. The state government has published a document entitled Public Bus Transport Network, Purchasing Principles and Design Approach.

Objective

The objective of the Project 2018 Bus Service Re-contracting Project is to procure bus services that support improved access to employment, education and services and to improve the overall social connectivity of Tasmanians.

This objective is to be interpreted within the Government's overall public transport policy context and the project governance and objectives for Project 2018 set out by the Minister.

In implementing this objective, it is understood that transport needs are complex and cannot be fully resolved through the purchase of public transport services.

Similarly, while the Government expends a very significant amount on bus services each year, resources are finite. It is, therefore, important to prioritise expenditure to best meet community needs. It is also very important that a network of services is procured in such a way to maximise the quality and effectiveness of services on the one hand and reduce costs of services provision on the other.[20]

For further information on Project 2018:

www.transport.tas.gov.au/__data/assets/pdf_file/0006/142683/Network_Design_Principles.pdf

[20] Department of State Growth, Project 2018: Public Bus Transport Network, Purchasing Principles and design approach, n.d., p. 1.

DISCUSSION

Having an efficient bus service for the southern region is reliant upon a number of factors, including the provision of those services by different operators. The difficulties facing the region include the large service peak caused by the movement of primary and secondary (years 7–12) school students, along with the region's disparate settlement pattern, meaning that the community is so spread out that providing cost-effective, reliable and regular bus services is challenging. This can result in a reduction in frequency in buses, which in turn can often result in these buses being under-utilised as the number of people needing them at specific times is limited.

QUESTIONS

Is there a private bus provider operating in your community?

Have you used a private bus provider either within Hobart, or to travel to a regional area of Tasmania?

Taxis

Taxis have been providing a transport service to Tasmanians for many years but comprise only a small component of the public transport task. Unlike buses and other dominant forms of public transport, taxis can take passengers directly where they want to go and when they want to go. They are, however, a relatively high-cost option, except where specific concessions are provider by government.

There are regulated taxi fares calculated responding to the distance travelled, and the industry itself is regulated by the State Government.

Currently a regulatory review is being undertaken in Tasmania by the State Government which is focussed on the dramatic change that has been taking place in the industry in response to the ride sharing economy (I.E. UBER). Submissions were open to the Consultation Paper until the 31 of March 2017 with targeted stakeholder consultation undertaken by the state government.

Taxis provide a critical service to the community, particularly for people who are older or have disabilities and otherwise isolated from other service providers. Some members of the community receive taxi concessions as recognition of the limited options available to them, and they have established relationships with certain drivers.

In addition, taxis exist which can accommodate wheelchairs, or large groups in a Maxi Taxi. They are a more openly regulated industry, giving comfort to users that may have reservations about other ride-sharing programs on the market. They also have both physical and virtual infrastructure support thereby supporting the efficiency and effectiveness of the service. Unlike other ride-sharing platforms, taxis have access to taxi ranks and can be hailed by passengers walking down the street.

Taxis also have a significant role in supporting the tourist and 'night-time' economy of the city.

DISCUSSION

While taxis provide considerable flexibility as a mode of public transport, particularly in terms of meeting trip demands, they do remain a high-cost option. Costs are often higher than ride sharing and are considerably higher than the dominant modes of public transport such as buses.

Despite the established nature of the business, both in terms of the number of vehicles available but also the support infrastructure, waits for taxis can often be long at peak times or during major events so there is an element of unreliability in taxi services that doesn't necessarily exist with other public transport providers. Notwithstanding this, taxis remain utilised within the community and provide an additional option and sometimes important option for passenger transport. Taxis are also particularly well used during peak tourist and festive seasons, as well as providing regular services to certain sectors of the community who would be otherwise isolated.

The City of Hobart is responsible for the management and provision of supporting infrastructure for taxis such as taxi ranks. Recent improvements facilitated by the City of Hobart include the upgraded taxi rank adjacent to Salamanca Place. The development of this Transport Strategy is an opportunity to consider whether there is a need for further improvements within the city area.

QUESTIONS

Have you used a taxi in the past 12 months?

Why do you use taxis and is there anything that would encourage you to use taxis more often?

Does supporting infrastructure influence whether you use taxi services?

Ride sharing

The sharing economy is a socio-economic system built around the sharing of human, physical and intellectual resources. Ride-sharing services, such as Uber, Lyft and Hailo, are part of the sharing economy and becoming a more frequently used mode of transport across the world.

From November 2016, ride-sharing services have been permitted in Tasmania, although Uber is the only ride-sharing platform provider that currently operates here.

Generally, ride-sharing services are pre-booked via a smart phone booking application and payment system. They provide a service that is similar to that of taxi although ride-sharing services do not have access to taxi ranks and are not permitted to pick up passengers hailing on the street or solicit passengers on a street.

Given that ride-sharing platforms are new in Tasmania there is limited information available on their use and effectiveness. Across Australia, Uber report that in its first year of operation there were over 2 million trips. Uber also reports that it is a cheaper and quicker option than taxis—although peak pricing (surge pricing) can impact fare prices paid.

DISCUSSION

Ride sharing as a transport option is becoming a more popular choice. It is, however, likely to constitute a relatively minor component of the public transport task. Ride sharing is an alternative to using a taxi. Taxis account for a very small proportion of all journeys as discussed above.

QUESTIONS

Would you contemplate using ride sharing as a mode of transport? Is this as an alternative to a taxi?

Would you use ride sharing instead of your private car for any journey? If so, why?

Car pooling

Car pooling involves more than one person sharing a journey by private car. Traditionally, car pooling was organised between colleagues or friends, although there are now online platforms which allow drivers and passengers to find a travel match. Cool Pool Tas is a local online system: www.coolpooltas.com.au/home

A key difference between car pooling and ride-sharing platforms such as Uber is that the driver is not earning money from the journey, although travel expenses such as fuel can be equally shared.

Car pooling has the benefits of reducing reducing traffic congestion, carbon emissions and air pollution because of the fewer cars on the road.

There are a range of measures that can support car pooling, including:

- access to priority lanes (such as transit lanes for vehicles with 1 or 2 passengers)
- access to priority car parking areas or reduced parking fees. For example, the University of Tasmania has been trialling a Cool Pool parking zone that allows users to register to park in special areas closer to the buildings
- workplace incentives.

DISCUSSION

Car pooling can assist in reducing traffic congestion, carbon emissions and air pollution. It is a particularly effective option for people who have limited access to other forms of public transport such as buses.

The development of this Transport Strategy could consider what type of measures can be taken to encourage car pooling.

QUESTIONS

Do you use car pooling for your journeys to work?

What would encourage you to participate in a car pooling arrangement with others in your community?

Car sharing

Car sharing is a type of car rental system where people can rent cars for short periods of time. Bookings are made via a website or mobile phone app. Billing occurs automatically to a pre-established account. A traditional car-sharing business has cars owned by companies that can be rented on a limited basis (i.e. for an hour at a time), versus peer-to-peer cars where people have made their private cars available for others to use. There are a number of car-sharing organisations in Australia including GoGet, Car Next Door, and Flexicar.

The purpose of car sharing is to encourage fewer personal car owners, and provide greater integration between car usage as combined with walking, cycling and usage of other public transport such as buses or ferries. It is primarily designed for shorter distances, although longer trips may be available in certain circumstances.

The advantages of car sharing include reduced costs associated with individual car ownership and greater fuel efficiency through reduced usage. In the case of peer-to-peer car sharing, it utilises vehicles that may otherwise be sitting unused.

There are challenges to car sharing within Tasmania more broadly and Hobart in particular. These include our population and associated low-density settlement patterns. Establishing car sharing as a business would require a certain level of usage to make it viable and it is unclear whether Tasmania is able to support such a service at this stage. That said, there are indications that selected higher residential density areas in Hobart, such as University of Tasmania accommodation facilities and areas of Battery Point and North Hobart could have the required densities to allow a trial car-sharing operation.

DISCUSSION

Car sharing is well used in America and Europe and larger cities in Australia, although is yet to have a presence in Tasmania. It represents opportunities to reduce car ownership, save money by only using vehicles when required, and improve efficiencies in accessing places. However, it has not been utilised formally in Tasmania.

QUESTIONS

If a car-sharing platform was available in Tasmania, is it a service you would use?

What would encourage you to use car sharing in Tasmania?

What sort of costs would you be willing to pay to use a car-sharing service in Tasmania?

Community transport services

Community transport services are run throughout the southern region, and are either run by Community Transport Services Tasmania (ctst.org.au)—a not-for-profit organisation funded by the federal and state governments—or by other community-based organisations. It provides transport options for people who would otherwise struggle to use public or private transport such as the elderly, people with disabilities or who are otherwise disadvantaged. Such services are heavily supported by volunteers as drivers with clients making a contribution through a fee which is decided upon based on distance.

Community transport provides services to people who could otherwise be very isolated, either within an urban setting or in a more remote or regional setting (the services are run throughout the state). They also provide great benefits to the volunteer drivers in terms of establishing relationships with others in their communities and an improved sense of well being and community contribution. There are benefits environmentally as there are often opportunities to 'car pool' where one trip may take a number of community members to a destination, saving on multiple individual trips.

More funding can support community transport in Tasmania to enable the service to expand and encourage more volunteers, or provide for more paid staff to improve the management of the service.

DISCUSSION

Community transport is a critical public transport provider for our ageing population as well as those with disabilities. Without such services, members of our community with barriers to accessing transport could find themselves very isolated. With an ageing population, this is a service that is likely to be increasingly important and needs to be supported with good organisational systems and support for volunteers to enable them to continue to provide this service.

QUESTIONS

Is community transport something you have used?

If you have used community transport, have you found accessing it easy and have you been provided with the service when you have needed it?

Have you ever, or would you consider volunteering for a community transport services organisation?

Ferries

Use of water craft or ferries for transport has a long history in Tasmania, with Aboriginal people using canoes for access and European settlers using ferries to cross the River Derwent. River Derwent ferry transportation had its heyday after the collapse of the Tasman Bridge in 1975. Since then, ferry usage has dropped. Today, with the exception of tourist-based services, there are effectively no passenger transport ferries operating in Hobart.

That said, the ferry operation to MONA carries a significant number of passengers, with approximately 300 000 trips provided in 2015.

There has, however, been a resurgence of interest in using ferries as an alternative means of public transport, particularly given the physical relationship between the metropolitan area and the River Derwent.

Key issues associated with increasing ferry usage within Hobart include:

- improved ferry terminals at Kangaroo Bay, and other higher residential density nodes to encourage cross-river and tourist ferry services
- active transport access networks to feed services (e.g. bicycle network connections to Kangaroo Bay)
- population densities and activity centre development around potential ferry terminal points
- integration of ferry and bus timetables to enable a seamless transition for commuters and other passengers
- integration of commuter ferries with tourist ferries to provide greater opportunities for usage
- consideration of how to maximise the use of existing infrastructure, both shore and vessel
- consideration of any trial operation to provide only peak-hour commuter services initially to reduce day-time 'dead running'.

The benefits of improved ferry usage and infrastructure include reducing congestion on roads, providing alternative public transport options and providing improved tourist and commuter transport options.

Experience in Brisbane with River Cat terminals, and elsewhere in Australia and globally, has shown that such public transport infrastructure (ferry terminal and associated service) can provide the catalyst for development and investment.

DISCUSSION

Ferries are utilised successfully in many Australian cities to supplement land based public transport systems and they could be used in to improve public transport within Greater Hobart given the spatial layout of the metropolitan area along the River Derwent. It may be a particularly useful option for areas where the distance by road is greater than the distance by water.

Improving ferry infrastructure and timetabling can encourage people who would otherwise take their personal car, to take a ferry. Depending on the vessels chosen, ferries can be faster than buses (avoiding traffic congestion during peak times for example), and have a level of 'romanticism that doesn't necessarily exist with bus transport. It also provides an appealing form of public transport for tourists who can also enjoy viewing the city from an alternative outlook.

The Hobart waterfront area would likely be a key start and end point for any new ferry-based public transport system. The area around Brooke Street Pier is already the location of tourism-focused ferry operations and is close to the city centre.

That said, there are currently only a few locations on either shore of the River Derwent with a realistic residential catchment density and activity centre/destination appeal that are within short travel distances and have relatively sheltered access for terminal infrastructure. It is probably important for any new proposal to start small and test the water, so to speak.

QUESTIONS

If there were regular ferries travelling the River Derwent from the eastern shore, with associated infrastructure, would you use them?

What would encourage you to use ferries instead of buses?

Western shore public transport corridor

There has been considerable public discussion over the past ten years regarding the use of the rail corridor from the Hobart waterfront to Brighton for public transport. This corridor was used by heavy rail for the transport of freight through to the railyards at Macquarie Point until late 2014 and is now unused following the relocation of the railyards to a new intermodal facility at Brighton (see Consultation Paper 1: Freight, Port and Air).

With the exception of the initial section from Macquarie Point (Hobart waterfront) to New Town, the corridor extends through established urban areas. From Moonah to Glenorchy it effectively runs parallel to the main road (a key Metro transit corridor). Historically, the rail line was a double track between Hobart and Claremont, but one track was decommissioned and replaced with the Intercity Cycleway nearly 30 years ago.

There is general acceptance in state and local government that the corridor is strategical important for long-term use associated with public transport. It is however quite derelict with the actual rail infrastructure in poor condition.[21] TasRail has removed road crossing signals and it would appear is not in a position to provide any investment to improve rail infrastructure between Hobart and Bridgewater.

Notwithstanding this, public advocacy has focused heavily on its reuse for a light rail system. The state government has commissioned independent consultancies over the past eight years to examine the economic viability of a light rail service under different scenarios.

A consistent issue in these reports is the lack of population living in proximity (400 to 800 metres) of the corridor. Unlike a bus service, which can utilise both dedicated corridors and the public road system, a light rail service can only travel in a designated corridor. Over the past century most of the surrounding land uses have been industrial. This has limited the nearby residential population.

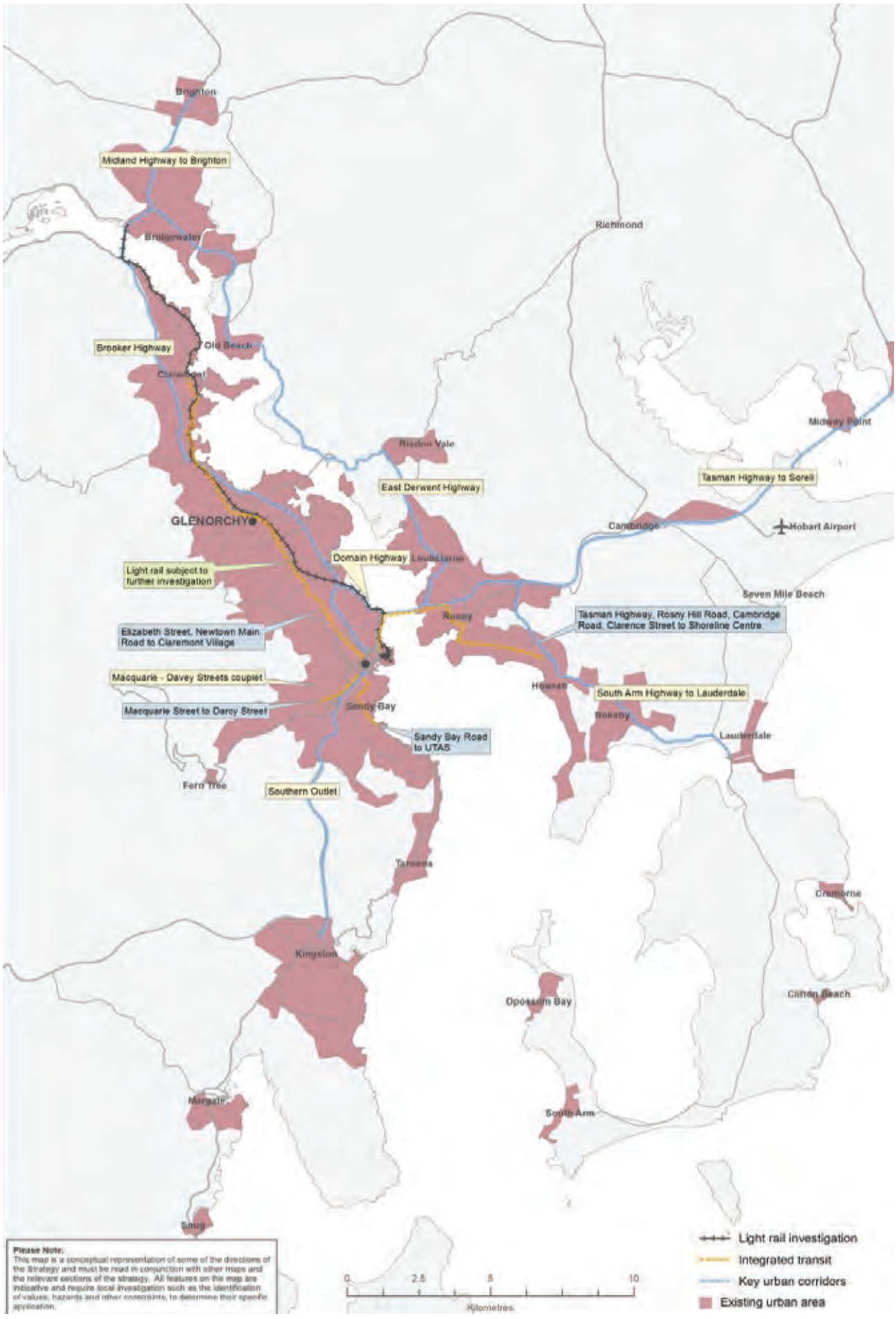
There have been other public transport options for the rail corridor floated. In 2008, the Housing and Community Research Unit of the University of Tasmania, Planning Institute of Australia and Australian Institute of Architects prepared a submission to Infrastructure Australia promoting a rapid bus transit system along the corridor.

The submission outlined that a rapid bus transit system along the corridor would enable buses to enter and exit off the corridor to access suburbs (where people primarily live) while allowing for express services that would be unaffected by road congestion conditions in peak hour. It also outlined that rail access for tourist rail or long-term light rail could still be maintained.

[21] Stanley, p14

Map 6: Southern region—western shore public transport corridor (rail line)

Source: Southern Tasmania Regional land Use Strategy 2010-2035 (STCA)



Infrastructure Tasmania undertook a further review of the proposed light rail system and presented its report in early 2016. As part of this work, it identified the following strategic factors that might benefit from further examination:

- The role of light rail in facilitating urban renewal. Urban transformation occurs when a major intervention provides the catalyst for land use change. In other Australian cities, it has been proven that early provision of key infrastructure including transport or open space assists in facilitating land use change such as increased housing density or increased commercial development, because the area is then seen by the private sector as being desirable and involving less risk.
- Greater and more targeted engagement with local government. Further and more detailed engagement with the City of Hobart and Glenorchy City Council is seen as necessary to understand and identify the opportunities associated with development adjacent to the rail corridor and as a precursor to engagement with the private sector.
- Measures to generate interest in development adjacent to the corridor. Infrastructure Tasmania identifies that in some other states, the development of light rail has been subject to competitive bids and such a concept could extent to opportunities for the exclusive development of land around rail sections.

For further information on the examination of light rail options along the corridor visit www.stategrowth.tas.gov.au/__data/assets/pdf_file/0004/129613/Light_Rail_Strategy_210116.pdf

In July 2016 the Bus Industry Confederation commissioned a special research paper by Adjunct Professor Dr John Stanley and Yale Wong, of the Institute of Transport and Logistics Studies, Business School, University of Sydney. The paper, Improving public transport service: Hobart – A corridors case study, provides an excellent analysis of where Hobart currently finds itself. It sets out issues, problems and solutions for improving bus operations in Hobart. The paper is available at: bic.asn.au/solutions-for-moving-people/bic-policies

More recently, the City of Hobart and Glenorchy City Council initiated a Public Transit Corridor Urban Utilisation and Economic Benefit project to examine the rail corridor. The work was undertaken by consultants GHD and the key objectives of the project brief were as follows:

- examine the potential for urban regeneration in Hobart and Glenorchy capitalising on public transit corridor use
- identify a vision for urban regeneration in Hobart and Glenorchy arising from use of the public transit corridor, including visualisations to assist with communication
- understand the planning changes required to facilitate urban regeneration along the public transport corridor
- focused engagement to understand potential private sector investment along the public transit corridor
- identify economic development opportunities arising from urban regeneration along the public transit corridor.

The full GHD report and the report to the Hobart City Council City Planning Committee meeting of 14 Feburary 2017 (Report 8.1) can be found at: hobart.infocouncil.biz/Open/2017/02/CP_14022017_AGN_623_AT_WEB.htm

The Hobart City Council meeting of 20 February 2017 resolved that:

1. The Glenorchy to Hobart Public Transit Corridor Study Reports (GHD Oct 2016) be provided to the state government.
2. The Council engage with state and federal governments in relation to process and opportunities for governance change to help drive urban renewal projects such as proposed with the Glenorchy to Hobart Public Transit Corridor Project.
   (i) A report be prepared on the formation of a steering committee, which is to be chaired by the Lord Mayor, to undertake the work required.
3. The Glenorchy to Hobart Public Transit Corridor Study outcomes (GHD Oct 2016) be considered as part of a future City Deal proposal.
4. A communications strategy be developed in relation to the Glenorchy to Hobart Public Transit Corridor Study Reports (GHD Oct 2016).
5. A further report be prepared regarding the potential for a medium density mixed use development project on the Hobart-owned land forming part of the corridor

Glenorchy to Hobart Public Transit Corridor Study

Value Capture Funding Analysis Report

"There is a body of international literature that highlights the potential for transport infrastructure, such as that which is being proposed for Tasmania, to increase property prices of surrounding residences.

Property prices typically increase as a result of improved access to public transport services through general improvements to the area in conjunction with the project, capitalisation of access benefits and improved desirability of the area

This international literature has highlighted that fixed infrastructure investment, such as light rail, is valued higher in the market as it creates a perceived level of certainty of future supply (i.e. given the large upfront sunk cost) relative to other forms of transport services (i.e. buses). Previous estimates of price increases as a result of transport infrastructure (SGS Economics and Planning) have estimated that property within a close and easily accessible distance to a station/stop could increase by between 5% to 10% for dedicated bus rapid transit and between 10% and 15% for light rail."

– GHD | Report for Hobart City Council-Glenorchy to Hobart Public Transit Corridor - Value Capture, 3218083 | Page ii

DISCUSSION

The use of the rail corridor from Hobart through to Brighton for public transport is an important consideration in the future of the public transport task for Hobart.

It is clear that it must be planned for in an integrated approach with strategic land-use planning (see section 3).

The City of Hobart has a direct role in facilitating land-use change along the corridor, although the majority of land which could be used for urban renewal is situated within the boundary of the Glenorchy City Council.

The City of Hobart has recently endorsed the final report of a joint project with Glenorchy City Council known as the Glenorchy to Hobart Public Transit Corridor Project—referred to and linked in the previous section. This project identifies specific opportunities for urban renewal along the corridor that use of the rail corridor for public transport could act as a catalyst for. The City of Hobart recently completed—in partnership with the Glenorchy City Council and Department of State Growth—the Infill Development Pilot Project, which identified specific pilot projects for infill development along the Glenorchy to Hobart Transit Corridor that could be achieved in the short term.

The development of this Transport Strategy is an opportunity for the City of Hobart to consider what broader role it can play in facilitating the use of the rail corridor for public transport. Potential roles not only include advocacy but the provision of local area infrastructure along the corridor, including public open space.

QUESTIONS

Do you support the use of the rail corridor for public transport?

Do you have a preference for a particularly mode such as rapid buses or light rail?

Would you consider living in medium-density housing (a density similar to say Battery Point) along the rail corridor if you had access to a public transport system and other services and schools along the rail corridor?

CONTEXT ROLES AND RESPONSIBILITIES

The transport network operates in a complex legislative, regulatory and policy environment across local, state and federal governments.

Australian Government

The Australian Government supports major road infrastructure and transport projects through specific funding programs. Funding for these projects can be directed either to the state or local government. Direct funding to local government is usually related to road network, upon which the public transport task relies. This funding is distributed according to a formula set by the Local Government Grants Commission in each state.

Infrastructure Australia is an independent statutory body which provides advice to all jurisdictions. It also provides decision makers within the Australian Government advice and guidance on specific infrastructure investments of national priority, through the Infrastructure Priority List.

Any funding support by the Australian Government for major public transport projects in Hobart, such as the western shore public transport corridor, major highway bypasses or tunnels is likely to be considered by Infrastructure Australia.

For more information on Infrastructure Australia visit infrastructureaustralia.gov.au

The Australian Government also supports the provision of community transport services through funding. Funding support for community transport services is provided in two ways:

- direct funding to providers, such as Community Transport Services Tasmania for the provision of transport services to the aged
- Indirect support for the provision of community transport services, through the National Disability Insurance Scheme. Participants in the scheme are able to access funding for transport assistance if they cannot use public transport without substantial difficulty due to the disability.

For more information on participant transport funding within the National Disability Insurance Scheme visit www.ndis.gov.au

Tasmanian Government

Tasmania's public transport system is supported by state government subsidies, which focus on ensuring the delivery of high priority services in non-peak periods and the provision of low-cost concession fares. The Tasmanian Government is also the owner of Metro Tasmania which is the largest public transport company in Tasmania providing bus services in Hobart, Launceston and Burnie.

In addition, the Tasmanian Government provides funding support to student bus services and awards contracts for the provision of bus services for the public through private companies

The Department of State Growth provides more information: stategrowth.tas.gov.au/passenger

Such funding supports a level of community-wide access to services, work and education. It also assists in providing a transport alternative and removes vehicles from the road.

The Tasmanian Government is also responsible for setting the policy and regulatory framework for taxis and ride-sharing platforms in the state and they often work with other levels of government to improve public transport facilities.

For more information visit stategrowth.tas.gov.au/passenger/taxis-and-hire-vehicles or transport.tas.gov.au/passenger/ride-sourcing

In addition, the Tasmanian Government, through the Department of Health and Human Services' Home and Community Care scheme, provides funding support to providers of community transport services.

For more information about community transport services in Tasmania visit ctst.org.au

Infrastructure Tasmania is responsible for providing advice to the Tasmanian Government to provide a statewide approach to the planning and delivery of infrastructure in Tasmania. This includes whether the Tasmanian Government should fund new public transport projects, such as the proposed light rail system.

For more information on Infrastructure Tasmania visit: stategrowth.tas.gov.au/home/about_us/infrastructure

For more information on other responsibilities: transport.tas.gov.au

The Tasmanian Government is also responsible for statewide and regional land-use planning, which is given effect through the Resource Management and Planning System of Tasmania. LUPAA is an integral piece of legislation within that system and established the legislative framework for the declaration of Regional Land Use Strategies, as well as the approval of planning provisions controlling use and development. Both the Minister for Planning and the Tasmanian Planning Commission (an independent statutory authority) are tasked with relevant approval powers relating to these functions.

Local government

In Tasmania, local government is responsible for the planning and management of the local road network upon which the public transport task is primarily reliant.

The principal legislation granting powers to local government for this function is the Local Government (Highways) Act 1982. Local roads are categorised into a hierarchy which is partially used to determine the allocation of funding from the Australian Government.

Local government also has powers under the Local Government Act 1993 to make by-laws to regulate and control conduct on local roads in a municipal area. This includes on-street parking controls such as taxi stands.

Local government works with the other levels of government to identify and deliver urban improvement projects related to the public transport network, such as the Hobart bus interchange planning project, and provide daily traffic management for bus stops and bus layovers.

The City of Hobart has, over many years, modified elements of the road network to support improved bus operations and the operation of Metro's larger fleet vehicles. Although local government is not responsible for bus stop infrastructure, the City of Hobart has also planned, funded and built higher quality bus stop facilities within and around the city centre.

Through the Southern Tasmanian Councils Authority, local government in the southern Tasmania region has coordinated its advocacy and generated state and federal election funding requests, including for improved public transport.

Local government plays an important role in the land-use planning system. Through coordination with other councils, they have been involved in the development of the Regional Land Use Strategies, declared by the Minister for Planning. They are currently responsible for their own planning scheme controls and in the future will continue to be responsible for the spatial allocation of state planning provisions through zone and overlay maps.

DISCUSSION

The complex world of legislation, regulation, policies and funding agreements and programs at the local, state and national levels provide the context within which the City of Hobart is developing this Transport Strategy. It also provides the scope of the objectives and goals that the community may want to see reflected in the Transport Strategy. Attachment 1 provides a detailed listing of the regulatory and legislative framework within Tasmania.

There are legislative powers that the City of Hobart has that enable the day-to-day activity of the transport and road network that is operated and managed byCity. The Land Use Planning and Approvals Act 1993 provides powers to support the integration of transport plans and strategies involving the City of Hobart with the land-use planning system. There are specific regional policies that are part of the the declared Southern Tasmanian Regional Land Strategy 2010-2035 which also need to be followed by the City.

Although these arrangements impose constraints, they also enable opportunities for partnerships and agreements. Councils within the southern Tasmania region have demonstrated that major transport and infrastructure projects can achieve better economic, social and environmental outcomes through strategic partnerships with the state or federal governments than if one local council acts alone. That is because an improved transport network has positive effects beyond the immediate locality.

Hobart plays a crucial role in delivering these widespread benefits as the capital city, the seat of government and the hub of business and commerce in Tasmania.

The City of Hobart cannot act independently to manage major transport related issues in the short, medium and long term. For example, while the City of Hobart may have aspirations to increase the number of people using public transport to decrease congestion and other negative impacts of single occupancy car use, those services are undertaken by Metro Tasmania, which is a Tasmanian government-owned and funded business. So, the City's role is one of advocacy and cooperation.

Likewise, the City of Hobart cannot act independently to deliver land-use planning outcomes that are integrated with the transport system. It can, however, provide a lead role, advocating and educating other decision makers and the community about the transport benefits of particular land-use planning outcomes. It can also ensure that its own planning controls support an integrated approach to land-use and transport planning.

Collaboration and cooperation are also important when considering ideas that have attracted community interest, such as the River Derwent ferry services or a new public transport service from Hobart to Glenorchy utilising the existing rail corridor, or improved bus priority measures and services to connect adjacent local government areas. The City of Hobart has to consider the broader community, stakeholder groups, the Tasmanian Government and any other local councils and authorities that may have an interest in or be affected by such proposals.

It is recognised that the City of Hobart will experience constraints as well as opportunities over the next 10 to 15 years. Opportunities include further collaboration with other councils and the Tasmanian Government to deliver future economic growth.

Ultimately, Australian and Tasmanian government investment and policy decisions will play a large role in deciding whether real support is given to supporting public transport to play a much greater role in moving people and shaping the settlement pattern of Greater Hobart.

QUESTIONS

Do you support the use of the rail corridor for public transport?

Do you have a preference for a particularly mode such as rapid buses or light rail?

Would you consider living in medium-density housing (a density similar to say Battery Point) along the rail corridor if you had access to a public transport system and other services and schools along the rail corridor?


POST
AIR CONDITIONED CB60
30
anywhere

SECTION 3

INTEGRATED TRANSPORT AND LAND-USE PLANNING

Transport planning is the process by which the government defines specific policies and desired outcomes for the delivery of transport-related infrastructure and services. These policies and desired outcomes are expressed in strategies or plans which are then used to guide public investment in specific projects.

Strategic land-use planning involves the development of policies to achieve desired outcomes for specific locations and appropriate intensity of land uses. It involves strategic direction for the growth of settlements and towns. In Tasmania, there are three regional land-use strategies declared under LUPAA—the Southern Tasmania Regional Land Use Strategy 2010–2035 was declared by the Minister for Planning and came into operation on 27 October 2013.

The strategy document is available at: stca.tas.gov.au/rpp/wp-content/uploads/2011/05/land_use_strategy_2013_Amended_8thnov_web.pdf

The past few decades in Australia have seen an increasing emphasis on integrating land-use planning with transport planning. There are now policies to support the integration of transport and land-use planning at a national, state and local level. This means that there is greater recognition of the relationship between general spatial and land-use patterns, transport volumes and supporting transport infrastructure.

Changes in transport technology have, over the past 70 years, strongly influenced the pattern of urban growth in Australian cities. Early last century, most activities in towns and cities occurred within a short distance of each other. The compact nature of early settlements was shaped by the transport options available then: people walked, rode horses or used horse-drawn vehicles. Cities were compact because people had to be close to employment and services.

During the late 1800s and early 1900s, cities in Australia began to expand with rail and tram networks making it possible for people to live a greater distance from their place of work. Hobart had early public transport systems with the opening of a tram network connecting inner suburbs to the city centre in 1893 with a passenger rail system operating by the 1920s. The rail system not only connected Hobart's suburbs but provided direct links to major industrial employers such as the zinc works and Cadbury's chocolate factory.

The post World War Two era then saw increasing car ownership, and with the 1960s and 1970s the era of major road transport infrastructure projects. This made it possible for people to live even further away from employment and services. The development of the Southern Outlet, the Tasman Highway and the Brooker Highway provided easy access to settlement areas distant from the main city area.

Public transport patronage declined. Tram services ceased in the 1960s in Hobart—although for a time they were replaced by trolley bus services—and the passenger rail system was closed in 1974.[22] With the evolving urban footprint, bus services were seen as a flexible and adaptable system of providing public transport into the newer suburbs and were capable of accessing a high proportion of the population compared to trams or heavier rail.

Greater Hobart has now evolved over the past 60 years to be a sprawling metropolitan area at very low densities. Today, Greater Hobart has a development footprint comparable to Sydney, New York City and London, but with significantly lower population densities. Greater Hobart has an average population density of 217 people per kilometre^2 compared to 2058 people per kilometre^2 in Sydney, 4761 people per kilometre^2 in London and 10 194 people per kilometre^2 in New York.[23]

It is, however, important to recognise that the transport system has not been the only determinant of settlement patterns. Past land-use policies across Australia encouraged low-density development patterns and the separation of land uses, which has created high dependency on the car, which continues in Greater Hobart today.[24]

There have also been other determinants of settlement patterns, such as specific economic drivers, the protection of natural areas or physical limitations. For example, the physical geography of Hobart has had a profound influence on the city's settlement pattern and urban form. Unlike other cities with access to flat and accessible areas of adjacent land, Hobart is limited by hilly terrain—the Mount Wellington Range and Meehan Range, river crossings, the River Derwent and Pittwater Lagoon. These constraints have had a major influence on the settlement pattern as well as providing challenges for transport infrastructure.

While Greater Hobart's low density may be seen as an advantage by some, it does ensure relatively long work trips, reinforces car dependency and makes effective public transport provision more difficult.

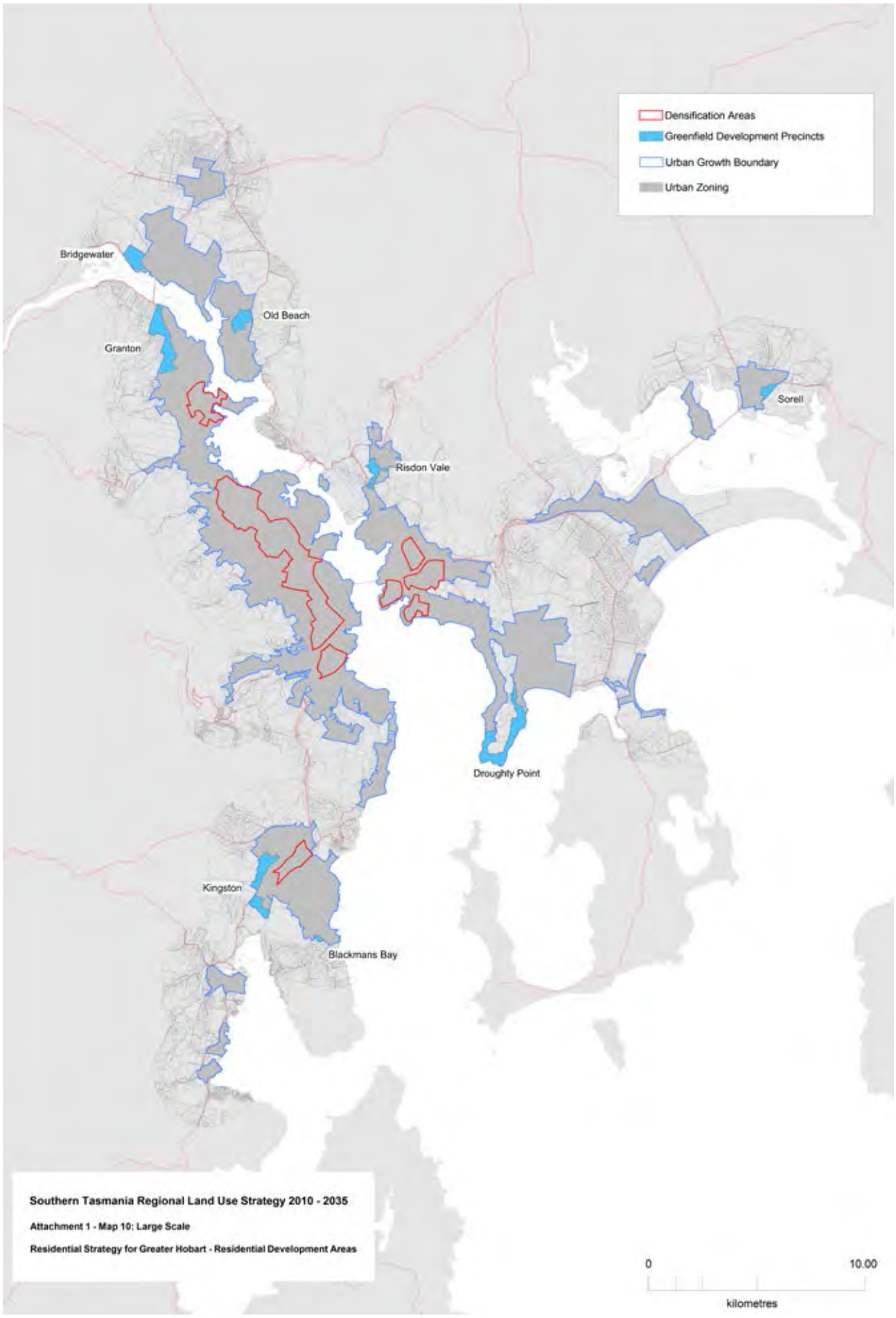
[22] Department of Infrastructure, Energy and Resources, Tasmanian Urban Passenger Transport Framework, 2010, 9.

[23] Department of Infrastructure, Energy and Resources, Tasmanian Urban Passenger Transport Framework, 2010, 7.

[24] Approximately 85 per cent of new residential development occurs through greenfield subdivision with average densities of between seven to ten dwellings per hectare.

Map 7: Greater Hobart residential development areas

Source: Southern Tasmanian Councils Authority, Southern Tasmania Regional Land Use Strategy 2010–2035, 2013.



One of the most effective things to improve public transport use is to deliver more compact cities and link development density to public transport service level.[25] This notion has been recognised by both state and local governments in progressing the concept of transit corridors in Greater Hobart and associated transit orientated development.

The preceding map (Map 7: Greater Hobart residential development areas) showing the urban growth boundary for residential areas for greater Hobart, along with densification areas, indicates how the area could develop over the next 20 years.

The Southern Tasmania Regional Land Use Strategy promotes densities of at least 25 dwellings per hectare along the Glenorchy to Hobart transit corridor. Research does, however, indicate that even at this density a highly effective public transport system is difficult, as shown in the suggested density thresholds developed by the Ontario Ministry of Transport and used by the Victorian Government in the development of its metropolitan strategies.[26]

Table 6: Suggested density thresholds for transit service

Source: BIC – Improving public transport service: Hobart – A corridors case study Stanley,Wong, p10

Transit Service Type	Suggested Minimum Density
Basic transit service (one bus every 20–30 min)	22 units per ha/50
Frequent transit service (one bus every 10–15 min)	37 units per ha/80
Very frequent bus service (one bus every 5 min with potential for BRT or LRT)	45 units per ha/100
Dedicated Rapid Transit (LRT/ BRT)	72 units per ha/160
Subway	90 units per ha/200

[25] BIC – Improving public transport service: Hobart – A corridors case study Stanley,Wong, p10.

[26] ibid, pg 10.

That said, even in new greenfield areas, the potential for greater accessibility can be achieved through good subdivision design that minimises cul-de-sacs and maximises connectivity through the road network. This alone can make the creation of a new bus route a more viable prospect and increase the opportunity to rely upon public transport rather than private modes of transport.

Into the future, as the population grows, there are opportunities to see Greater Hobart's physical constraints as a transport opportunity. The increasing spread of the urban area along the coastal areas of the River Derwent and surrounds has resulted in much of the population living close to the water. In the same way that increased residential development around transit corridors can increase the use of buses as a mode of transport, consolidation of densities around potential future ferry departure points may contribute to the future viability of passenger ferries. In Clarence for example, note the densification area around Kangaroo Bay and Eastlands in Map 7.

At a regional level, strategies to develop and integrate the transport network with Tasmania's land-use planning system can be found at planning.tas.gov.au/old/planning_our_future/tasmanian_planning_reform/regional_strategies or transport.tas.gov.au/road/plans_strategies/southern_integrated_transport_plan

What are transit corridors and transit-orientated development?

Transit corridors are key public transport routes that link activity centres to central business districts. The integration of transit corridors into the land-use planning system, through consolidation of density and transit-orientated development, is one of the key measures to improve public transport use.

Transit-orientated development is an approach to land use that focuses certain land uses around transit stations or corridors and encourages a mix of uses so that residents can access daily services in walkable environments but rely upon public transport to access broader employment, shopping and recreational activities.

Transit corridors are also generally supported by a range of improvements that enhance the attractiveness and reliability of public transport. These include high frequency bus services, bus priority measures and off-bus infrastructure (such as bus waiting facilities and information).

The first transit corridor that has been planned by the state government for Greater Hobart is the Main Road corridor between Glenorchy and Hobart city centre. This corridor is supported through the Regional Land Use Strategy for Southern Tasmania as an infill corridor, which encourages increased densities of at least 25 dwellings per hectare and changes to the local planning schemes to allow for higher densities within this area.

DISCUSSION

The spatial relationship between where people live, work, shop and go for entertainment and recreation fundamentally influences both the private and public transport task. Many individuals need to 'trip chain' or attend to several tasks in any given journey. For example, combining shopping with a journey to work can be a common trip chain. Cities and towns that have low-density suburban sprawl are generally far more reliant upon private rather than public transport modes for such trip chains.

Consolidation of densities and promoting mixed use in and around established activity centres and along transit corridors can allow for a range of tasks to be achieved within a journey, not reliant on a private vehicle. This can, however, create planning challenges around balancing amenity and local character with the desired strategic outcome. In the context of the Hobart to Glenorchy transit corridor, there are also challenges associated with maintaining a supply of industrial land for local service industries, while allowing for conversion of land to residential purposes.

The development of the Transport Strategy for the City of Hobart is an opportunity to consider issues around greater integration of land use and transport planning and the potential changes that could occur in inner suburbs to facilitate increased densities and further transit corridors. This strategy should also highlight what local level projects the City could undertake to assist in integrating these land-use changes within the existing urban fabric.

The City of Hobart not only regulates use and development (within the constraints of the planning scheme) to achieve the desired strategic land-use direction, but is responsible for delivering public spaces, infrastructure and urban design outcomes that can assist in better integration of land use and transport planning objectives.

The City of Hobart can also play a role in managing congestion and travel demand as well as use other transport planning tools and frameworks, such as the Victorian Government's SmartRoads, which recognises that some roads will need to provide more effectively for some user groups and transport modes and sometimes at different times of the day.

In many cities, car sharing has become a feasible alternative to actual car ownership, especially once dwelling densities support such a sharing economy arrangement. Private companies such as Go Get offers cars which are parked in local streets and neighbourhoods and can be booked in advance using a smart phone or computer. For shopping trips or longer trips that may require a vehicle, such a service negates the need to actually own a car.

Land uses supporting park-and-ride facilities are also starting to feature in the outer suburbs of Hobart such as Kingston and Sorell. At the Metro Springfield depot at Moonah (Glenorchy), park-and-ride facilities for cars and bicycles exist. A more dispersed arrangement exists in areas on well-serviced bus routes around central Hobart beyond parking controls, where people park their car and then walk, ride or catch a bus into the city. Park-and-ride facilities can provide commuters with an opportunity to park their vehicle closer to their home (the last mile), and utilise public transport for much of their trip into the urban centre of Hobart. Including facilities such as dedicated bus lanes encourages this approach, as it is often faster for people to bus into the city, than to sit in traffic for sometimes quite lengthy waits, to only have the challenge of then finding parking.

The City of Hobart, in concert with other LGAs and the Southern Tasmanian Councils Association, can also advocate for particular objectives at the metropolitan and regional level. It is recognised that there may need to be different transport strategies to address the needs of residents within Hobart compared to those commuting from other LGAs into Hobart. Indeed, while there may be similarities, different strategies will no doubt need to be employed for different geographic areas in adjoining LGAs.

QUESTIONS

Are you aware of the current land-use strategy for southern Tasmania?

Would you be interested in living along a transit corridor if it meant easy access to employment and services on public transport?

What other characteristics of residential living would attract you to live in a higher density area?

If you lived close to a transit corridor or activity centre like the Hobart city centre, would you still see a need to have more than one car or a car at all?

Could the occasional need for a car be satisfied by a car-sharing program in your area (e.g. GoGet)?

JOURNEY TO WORK

Journeying to work accounts for just over 32 per cent of all types of trips;[27] greater than any other trip purpose. The vast majority of these trips occur in morning and afternoon peak hours. This is also when Hobart experiences a level of traffic congestion. The Hobart city centre and surrounds is Tasmania's largest journey to work destination. Of the approximately 109 400 jobs in southern Tasmania, nearly 45 000 or 41 per cent, are within the Hobart municipal area.

The Hobart municipal area has what is referred to as high levels of self-sufficiency.[28] This means that there are more jobs within the area than there is population. Of the nearly 45 000 jobs, only 37 per cent are occupied by residents,[29] with the rest living in other municipal areas. This means that more than 28 500 people are travelling into the Hobart municipal area each weekday for work from surrounding municipal areas.

While there is some traffic movement across the Hobart municipal area to other municipal areas, as well as some movement of residents outwards, traffic movement into Hobart during morning peak and out during afternoon peak, remains the dominant spatial traffic pattern arising from journeying to work.

Table 7: Major LGA journey to work, origin and destination

Source: ABS 2011 Census—journey to work data—table created by City of Hobart

		JWT Destination 2011						
		Brighton	Clarence	Glenorchy	Hobart	Kingborough	Sorell	TOTAL
JWT Origin 2011	Brighton	975	614	1 678	1 565	103	54	4 989
	Clarence	230	7 401	2 937	9 490	442	323	20 823
	Glenorchy	457	1 469	7 059	7 159	328	81	16 553
	Hobart	141	1 453	2 240	17 050	798	75	21 757
	Kingborough	61	678	1 148	6 551	5 452	23	13 913
	Sorell	67	1 102	631	1 528	91	1 570	4 989
	TOTAL	1931	12 717	15 693	43 343	7 214	2 126	83 024

- Data from ABS 2011 Journey to Work Census
- Over 52 % of all JTW is to Hobart
- Over 71% of all JTW is shared between Hobart and Glenorchy
- Blue shading indicates individuals who live and work in the same council area
- The light blue areas show the "Through Hobart JTW Traffic" – 2,874 journeys (3.5%)

[27] Department of Infrastructure, Energy and Resources, Infrastructure Strategy Division, Greater Hobart Household Travel Survey, Tasmania, 2010.

[28] Southern Tasmanian Councils Authority, Southern Tasmania Regional Land Use Strategy: Background Report No 2: The Regional Profile, March 2011.

[29] Department of Infrastructure, Energy and Resources, Tasmania, Journey to Work Data Analysis, 2011.

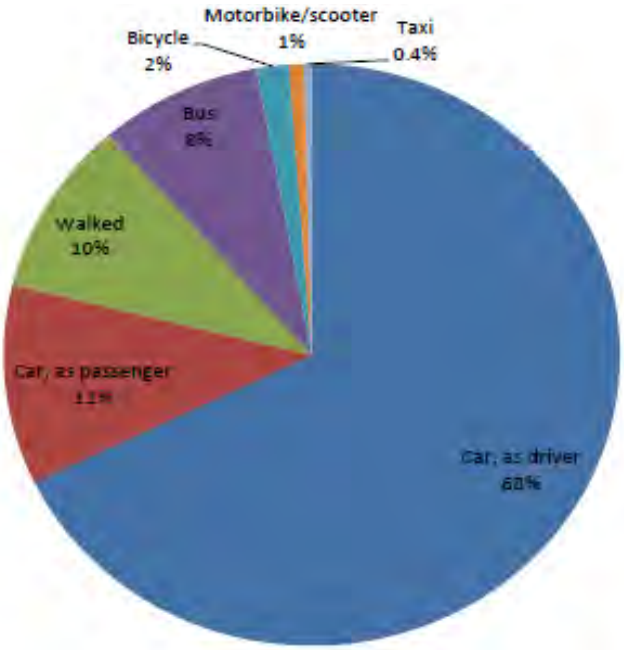
Compared to statewide modal share for people travelling to work, people living and working in Greater Hobart are more likely to use public transport: 8 per cent of all journeys to work are by buses and 0.4 per cent are by taxi. In comparison, statewide modal share has only 3 per cent of all journeys to work by bus and 0.3 per cent by taxi.

The use of public transport for journeys to work is also proportionally higher than its use for all types of journeys. Journeys to work can involve a less complex trip with a simple A to B journey with the destination usually in key activity centres, which are the focus of the bus network.

Chart 3: Southern region—journey to work—modal share 2011

Source: Department of Infrastructure, Energy and Resources, Journey to Work Data Analysis, pp. 12–13.

Greater Hobart (incl. Clarence, Glenorchy, etc.)



Mode of journey to work to Hobart

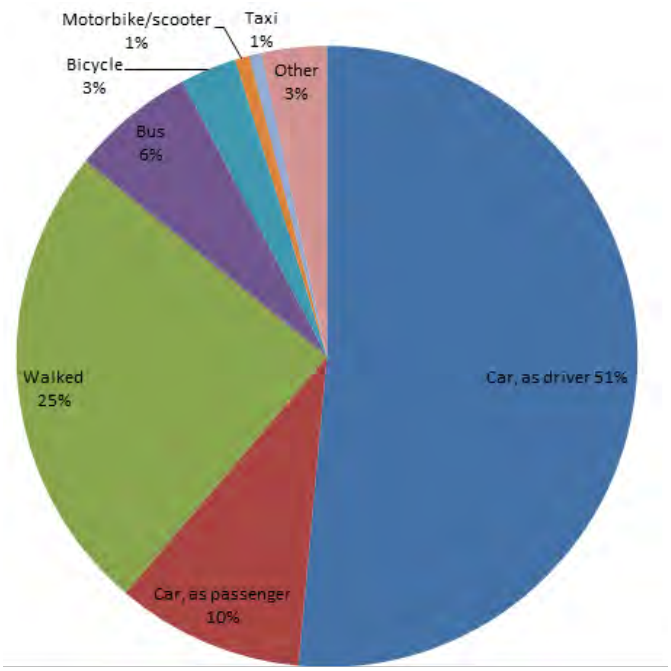
Mode	Number Travelling by Mode
Car, as driver	25 392
Car, as passenger	4 135
Walked	3 663
Bus	3 177
Bicycle	634
Motorbike/scooter	297
Taxi	145
Other	1 259
TOTAL	38 702

IMPACT OF SELF-CONTAINMENT ON MODE OF TRANSPORT TO WORK

For people who live and work in the Hobart municipal area, the proportion of people using active transport to travel to work increases, with fewer people using public transport and the private car. Interestingly, however, while the proportion of people using buses decreases from 8 per cent to 6 per cent, there is a higher proportional use of taxis, increasing to 1 per cent from 0.4 per cent.

Chart 4: Hobart LGA—journey to work—modal share

Source: Department of Infrastructure, Energy and Resources, Journey to Work Data Analysis, pp. 12–13



Mode of journey to work to Hobart: Hobart residents[30]

Mode	Number Travelling by Mode
Car, as driver	7175
Car, as passenger	1362
Walked	3427
Bus	901
Bicycle	409
Motorbike/scooter	104
Taxi	89
Other [31]	473
TOTAL	13 940

[30] Values exclude those who did not go to work and those who worked at home.

[31] Includes journeys undertaken by truck, ferry and by more than one mode of transport.

DISCUSSION

Journeying to work is the most significant aspects of the public transport task. While the private car is the dominant means of transport and its usage is proportionally increasing, the state government's journey to work Census 2011 analysis report noted that the number of journeys is increasing and in Hobart there has been a shift away from car usage (for drivers and passengers). Journeys by bus, bicycle, motorbike/scooter and walking have all increased.

The story here is a tale of two situations. Individuals living close to the Hobart city centre, or indeed job centres in other municipalities, have better options for travel modes (other than private motor vehicle) for their journey to work, while people living more remotely from the major central area of jobs, with less access to transport mode alternatives, are more reliant on private motor vehicles. Improving walking, bicycle riding and public transport options for people living close to Hobart (and indeed around other LGA job-rich areas) helps remove motor vehicles from the road network freeing up road space for those who do not have access to or the ability to change modes.

While there are significant economic and social benefits arising from the concentration of employment and retailing activity within the Hobart city centre, the road network around the city centre and key metropolitan arterials leading into it from neighbouring local government areas are now at or approaching saturation during peak periods. The increasing reliance on private cars as the primary mode of transport to work creates long-term challenges for transport around greater Hobart.

Major road projects to cope with peak hour commuting congestion issues are not necessarily the obvious solution. Building new roads, tunnels and elevated freeways are very expensive and come with significant impacts on existing property owners. They are often contentious and challenged in planning appeal courts. Furthermore they do not 'solve. the problem if population growth and fringe area low-density settlement continues with a continued reliance on the private motor vehicle as the mode of choice.

As discussed in the integrated transport and land-use planning section, part of the potential solution can be in increased opportunities to live around transit corridors and therefore increase reliance upon public transport.

Providing for multi-modal trips involving public transport may also be part of the potential solution. This could be through park-and-ride facilities involving a mix of private car and bus transport or ensuring that buses are equipped to carry bicycles. Additionally, the location of schools, shops, childcare and other facilities relative to workplaces and home locations plays a large role.

The development of this Transport Strategy is an opportunity to also consider other potential solutions, such as travel demand management measures that the City of Hobart can either directly facilitate or advocate for. For example, the City of Hobart is currently undertaking a project to produce a workplace travel plan for each of its main employment sites. This project could create a template for other employers to research their workforces and undertake similar travel planning exercises.

There are a broad range of travel demand management measures, including ones which increase use of public transport.

Do you think there are differences in meeting the needs of Hobart residents in journeying to work with meeting the needs of people journeying to work from outside the Hobart municipal area?

How much time do you spend on your journey to work?

What would encourage you to utilise public transport in your journey to work?

CURRENT ROAD USE AND PEAK HOUR CONGESTION

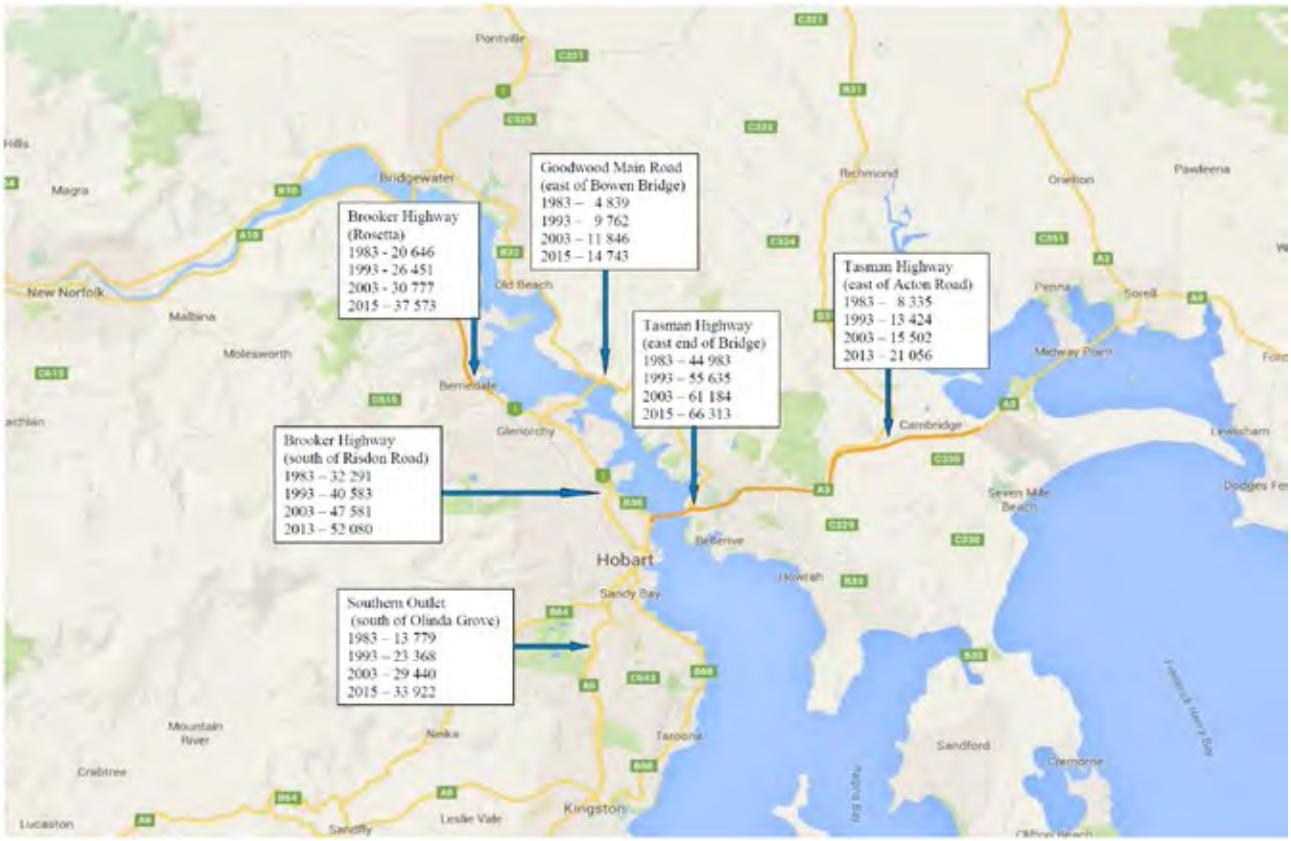
The Hobart city centre and surrounds attract a large volume of traffic throughout the day and rely upon the three major metropolitan arterials for access: Tasman Highway, Brooker Highway and the Southern Outlet.

Major roads into central Hobart have the highest traffic volumes. The Brooker Highway, Tasman Highway and the Southern Outlet have the highest average annual daily traffic and are forecast to remain the highest volume roads for the foreseeable future. There is, however, a significant difference between the traffic volumes experienced on the Brooker Highway (approximately 52 000 vehicles per day) and Tasman Bridge (approximately 66 000 vehicles per day) compared to volumes on the Southern Outlet (approximately 34 000 vehicles per day).

Traffic congestion occurs when traffic (volumes) demand exceeds the available transport network capacity. The functionality of the network when traffic (volumes) equals capacity is known as 'saturation'. During periods of traffic congestion, small disruptions to traffic flow can have dramatic effects on vehicle speeds, with stop-and-start conditions proliferating. If demand continues to increase, particularly at the same time as disruptions (for example, road works or a crash), traffic flow can reduce to zero speed, which is known as 'gridlock' if the 'no movement' situation continues to occur. Aside from road works or a vehicle crash, this can also occur through multiple changes of traffic lights.

Map 8: Average annual daily traffic on key arterial roads in Hobart

Source: City of Hobart with data supplied by Department of State Growth



The road network within Hobart and on the major metropolitan links extending outwards is consistently nearing capacity during the morning and evening peak period. Typically, this has existed for a short period, however, in the past five years or so this has extended to a true peak hour. Thus, relatively small changes in traffic conditions are resulting in large impacts. This was seen in February 2016, with road works on the eastern side of the Tasman Bridge affecting outbound traffic and causing significant delays during the afternoon peak period across the Hobart city centre.

All routes generally experience some delays in the morning peak on the inward run into the Hobart city centre. However, the Brooker Highway experiences the greatest delays, followed by the South Arm Highway and East Derwent Highway (which feed into these metropolitan arterials), followed by the Tasman Highway and Southern Outlet.

Afternoon peaks tend to be less concentrated. This reflects the greater variation in school pick-up time through to the traditional work finishing times of between 4 and 6 pm. Optional trips such as shopping also tend to be undertaken in the afternoon, contributing to staggered departure times. In comparison, morning departure times tend to be highly predictable, with people departing their homes generally within the same five to ten minute block each weekday.

Chart 5: Southern region—major highways—delay/km (in seconds)

Source: Department of Infrastructure, Energy and Resources, Congestion in Greater Hobart, July 2011.

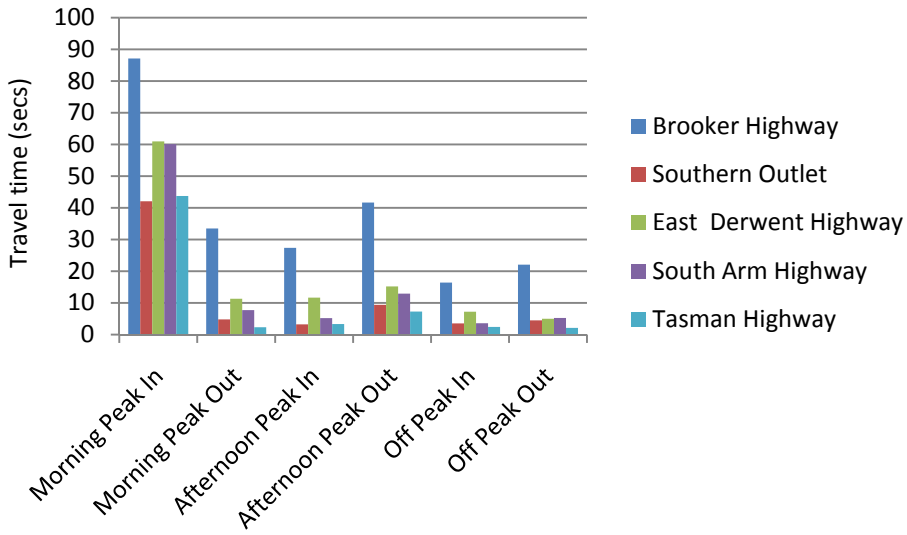


Table 8: Hobart area traffic volumes—normal daily, AM–PM peak, school holidays

Source: Department of State Growth, Tasmania, congestion summit presentation, 10 June 2015

Traffic Volume - Difference between week commencing 4/4 (normal week) and 11/4 (school holidays)		Mon 4/4	Tues 5/4	2 Day Avg	Mon 11/4	Tues 12/4	2 Day Avg	Avg Diff	% Diff
Brooker/Risdon Rd	Total	66,752	67,929	67,341	64,729	66,689	65,709	1,632	-2.4%
	AM Peak	15,674	15,843	15,759	14,448	14,669	14,559	1,200	-7.6%
	PM Peak	14,339	14,611	14,475	13,965	14,447	14,206	269	-1.9%
Southern Outlet/ Davey St	Total	23,708	23,549	23,629	22,007	22,994	22,501	1,128	-4.8%
	AM Peak	6,403	6,476	6,440	5,856	6,015	5,936	504	-7.8%
	PM Peak	5,597	5,631	5,614	5,254	5,608	5,431	183	-3.3%
Tasman Bridge - Eastern Entry	Total	36,688	37,859	37,274	34,975	36,155	35,565	1,709	-4.6%
	AM Peak	10,889	10,971	10,930	9,778	9,962	9,870	1,060	-9.7%
	PM Peak	8,428	8,833	8,631	7,810	8,249	8,030	601	-7.0%
Summary Total	Total	127,148	129,337	128,243	121,711	125,838	123,775	4,468	-3.5%
	AM Peak	32,966	33,290	33,128	30,082	30,646	30,364	2,764	-8.3%
	PM Peak	28,364	29,075	28,720	27,029	28,304	27,667	1,053	-3.7%

There is some difference in peak hour traffic volumes between school days and non-school days as shown in Table 8. Interestingly, the total traffic volume difference is relatively small at around a -3.5 per cent total difference. However, the peak hour difference, at around eight per cent, makes a vast difference to the operation of the network. People generally indicate that there are 'no problems' during school holidays in terms of road network congestion.

For more information on current road use and congestion, the Department of State Growth has two reports that can be downloaded:

The Greater Hobart Congestion Report at: transport.tas.gov.au/__data/assets/pdf_file/0016/110644/Greater_Hobart_Congestion_full_report.pdf

The Hobart Congestion Traffic Analysis 2016 at: transport.tas.gov.au/__data/assets/pdf_file/0011/132986/Hobart_Traffic_Congestion_-_Traffic_Analysis.pdf

DISCUSSION

In 2016 there has been a significant amount of discussion regarding road use and congestion around Greater Hobart. While congestion of arterial roads in Greater Hobart remains noticeably less severe than in other major Australian cities, there is an increasing community perception and supporting statistics that traffic congestion is worsening. In some parts of Hobart, concern is being raised within the community about localised impacts arising from what is seen as displaced traffic from the arterial roads. Congested traffic conditions generally appear during the school terms and between 7.30 am and 9 am and around 4 pm to 6 pm. At other times, the current road network generally has spare capacity.

Our proportional reliance upon cars as a mode of transport from areas outside Hobart is increasing, and this will result in increased traffic on existing roads and potentially worsen the levels of current congestion. Road congestion also affects the reliability of bus-based public transport systems.

Some people have canvassed major infrastructure responses as potential solutions, such as a western bypass around the city or a tunnel under the city centre. Analysis of the data and journey to work patterns indicates that the main traffic flows are to the Hobart city area—not through the city. The cost of constructing such major infrastructure responses—such as cross-city tunnels or highway bypasses—in urban areas is significant and is sometimes seen as out of proportion to the issue when compared with other active transport, public transport and travel demand management measures—especially when such measures have not been pursued at a regional level.

It is also reflective of an infrastructure focus rather than a network or system-wide perspective to traffic issues. It has been consistently demonstrated across the world, that building new roads only generates more traffic as it induces people to use their car who might not otherwise have done so by making it more convenient. Over time, the same levels of congestion return. This phenomenon is referred to as 'induced demand'. This will also tend to occur with a business-as-usual approach where housing growth predominantly occurs in outer suburban areas and employment growth occurs in the core city area.

The development of this Transport Strategy provides an opportunity to consider what measures there are to increase the use of public transport as a means to reduce road congestion and related negative impacts of private motor vehicle dependence. Potential public transport measures include:

- provision of bus priority lanes (such as the partial lane, inbound on the Southern Outlet) on highway approaches to the city
- providing bus priority measures on key routes within the Hobart city centre
- making it easier to change buses
- improving the quality of supporting infrastructure such as bus waiting areas
- providing more high frequency services and additional capacity on key routes
- investigating other public transport modes (i.e. ferries) to assist with peak hour passenger movement
- Improving park-and-ride facilities
- having real-time data on bus arrivals and departures
- making system data more easily available, such as bus routes on google maps
- making it easier for people to use public transport as part of a multi-modal journey, for example providing on-bus facilities for the storage of bicycles.

Other related aspects to explore to alleviate peak hour congestion include other travel demand management measures such as:

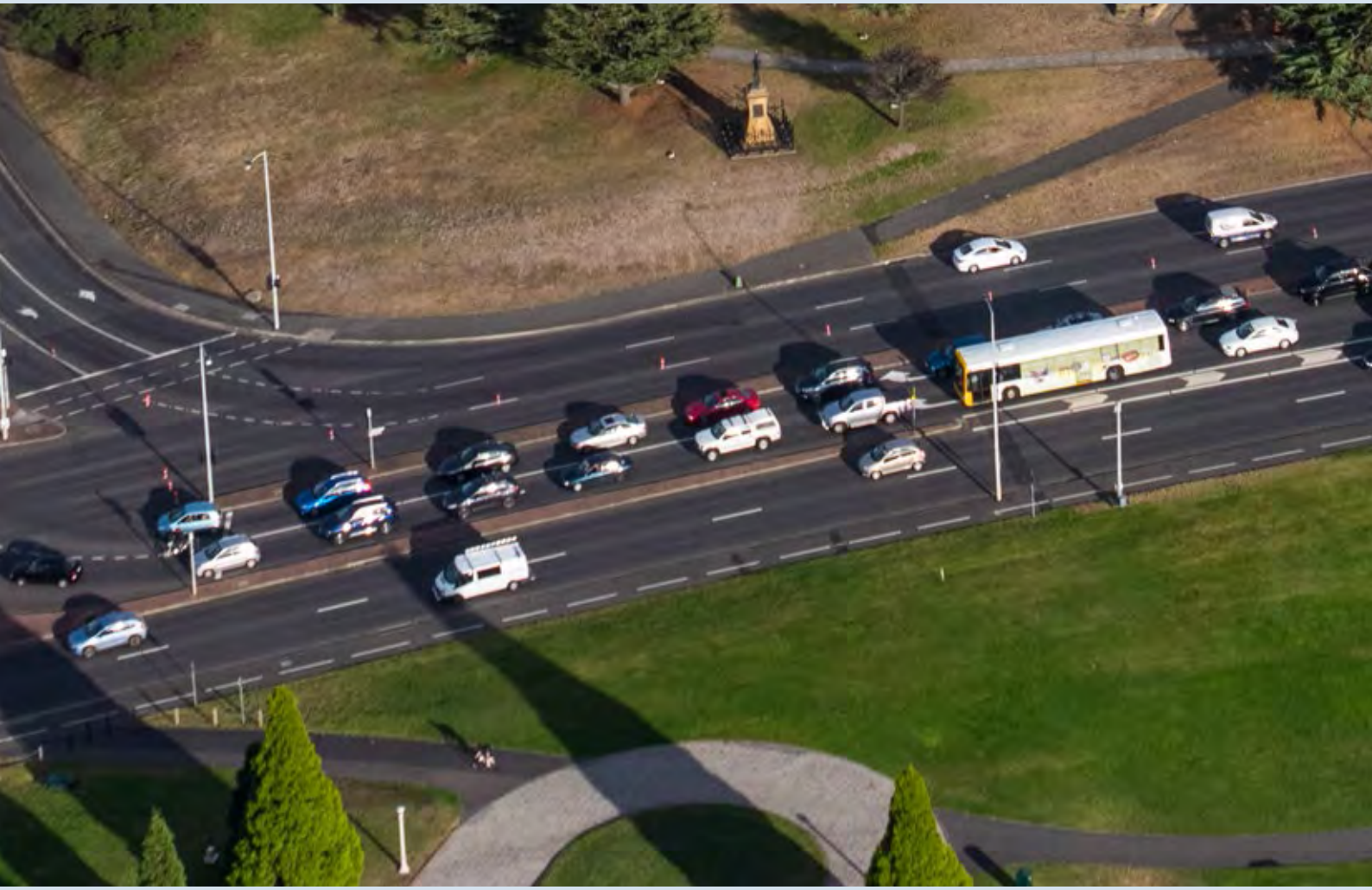
- workplace travel plans
- school transport arrangements
- car pooling and ride sharing
- road user and congestion charging schemes.

QUESTIONS

Do you leave home at the same time each day?

How much does school starting and finish times influence your travel each day?

What measures would make it more likely for you to use public transport on your commute to work?



ROAD SAFETY

The Tasmanian Government's Towards Zero—Tasmanian Road Safety Strategy aims to achieve a safe system, with the ultimate goal of zero deaths and serious injuries as a result of road crashes.

For the ten-year period 1995 to 2004, more than 5000 people were seriously injured or killed on Tasmanian roads. For the period 2005 to 2014, coinciding with the introduction of the Tasmanian Road Safety Strategy 2007–2016, there were almost 3500 deaths and serious injuries on Tasmanian roads. In the current strategy, a target was set which would see serious casualties almost halved between 2005 and 2020. Although the road trauma level has been decreasing, it is considered unlikely that the ambitious target will be achieved if new measures are not implemented.[32]

In the road safety space, crashes include all injuries and deaths that occur on the road network including those involving pedestrians, bicycle riders and motorcyclists. In general, road users who are not in a car, or similar enclosed vehicle with a range of safety features, that is pedestrians, bicycle riders and motorcyclists, are referred to as vulnerable road users.

The City of Hobart, the National Road Safety Strategy and the Tasmanian Government base their road safety policies on the safe system approach.[33] This approach has four essential elements, where all elements must work together. If a crash occurs as a result of a specific weakness of one element, the other three elements are strong enough to counteract the effects of the crash.[34] The safe system approach recognises that people will make mistakes and may have road crashes—but the system should be forgiving and those crashes should not result in death or serious injury.[35] The Towards Zero strategy is reflective of this approach.

The data available to road safety researchers shows that (poor) driver behaviour, driving under the influence of alcohol or drugs, inattention, mobile phone use, failure to wear seatbelts or a helmet and speeding, can influence the likelihood of a crash occurring and the severity of injuries sustained on the road. Increasing traffic volumes, including higher freight volumes, can also be contributing factors to road safety outcomes.[36]

That said, cross-modal safety comparisons in Australia indicate that bus and rail passengers have about one-fifth the fatality rates of occupants of private motor vehicles (per passenger distance travelled).[37]

---

32 Department of State Growth Road Safety Branch, Tasmania, Towards Zero – Tasmanian Road Safety Strategy 2017 – 2026 Discussion Paper, 2016.

33 ibid.

34 ibid.

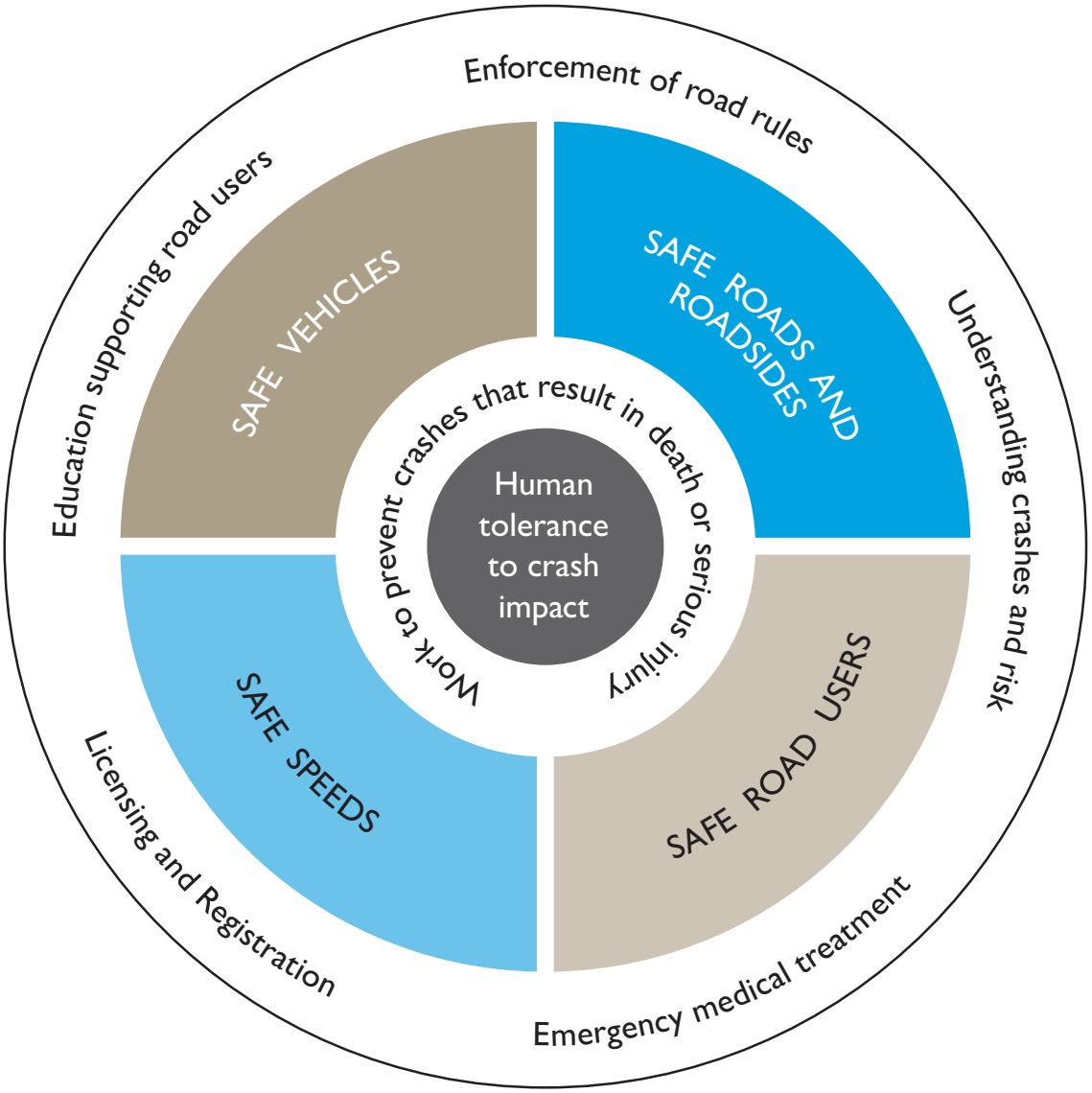
35 National Road Safety Strategy, Australia, 'The Safe System approach', viewed 17 October 2016, roadsafety.gov.au/nrss/safe-system.aspx.

36 Department of Infrastructure, Energy and Resources, Southern Integrated Transport Plan 2010, p.36.

37 Australian Transport Safety Bureau, Discussion Paper: Cross Modal Safety Comparisons, n.d.

Chart 6: Safe system diagrammatic representation

Source: Department of State Growth Road Safety Branch, Tasmania, Towards Zero—Tasmanian Road Safety Strategy 2017–2026 Discussion Paper, 2016.



Safe System Principles

1. People make mistakes.
2. People are fragile.
3. We need to create a more forgiving road system.
4. We need to share responsibility for road safety.

The four essential elements recognised in the safe system approach are:

1. Safe people

Encouraging safe, compliant behaviour through education, enforcement and regulation; facilitate safety through the learning and development of safer road users.

The City of Hobart generally relies upon the campaigns of the state government, public transport providers and the federal government. Metro Tasmania provides safety information for its bus users, including basic tips such as standing back from the kerb when waiting for buses, holding the handrail when getting on the bus and as it starts to move, and waiting for the bus to stop before getting up from your seat.

Metro Tasmania has also joined forces with the Department of State Growth, the Tasmanian Bus Association and the Road Safety Advisory Council to develop the Smart Stop initiative for school-aged children travelling to and from school on a bus.

For more information on the Smart Stop initiative visit bussafety.transport.tas.gov.au

The Smart Stop initiative means working together to encourage children to:

STOP–LOOK–LISTEN–THINK

- stop back from the kerb
- look right, look left, then look right again.
- listen for vehicles approaching
- think where or not it is safe to cross.

Dumb Ways to Die

Metro Trains in Victoria launched a public service announcement campaign in November 2012, called Dumb Ways to Die in response to unsafe behaviour in and around train stations and train lines. The campaign video went viral through sharing and social media. It features 21 characters killing themselves in increasingly stupid ways culminating in the last three characters being killed by trains due to unsafe behaviour.

2. Safe roads and roadsides

The City of Hobart seeks to reduce conflict between vulnerable road users and vehicles by improving the quality of the road environment for all users—threshold treatments, pedestrian crossings, road narrowing, pavement markings, median islands and other measures help to achieve this.

In the context of public transport, the City of Hobart seeks to provide safe environments for passengers getting on and off buses. Improvements to areas such as Franklin Square, including covered waiting areas, improved seating and better lighting, go some way to encouraging people to use buses as a form of transport. The City of Hobart seeks to place pedestrian crossing points near highly used bus stops to allow bus passengers to cross the road safely on their walk to the bus stop.

The state government maintains a database of road crash locations reported to police. This data is mapped geographically and allows both state and local government officers to find candidate projects for the Australian Government funded black spot program. This produces an evidence base for the identification of projects where physical changes to the road environment may be beneficial to reduce the crash rate at a particular location.

Further information can be found at: hobartcity.com.au/transport/managing_the_transport_network

Details on Tasmanian crash statistics can be found at: transport.tas.gov.au/roadsafety/crash_statistics

Australian Government black spot program details can be found at: investment.infrastructure.gov.au/funding/blackspots/

3. Safe speeds

Setting appropriate speed limits that complement the road environment is the third element to the safe system approach. Speeds just 5 km/h above the speed limit in 60 km/h zones and above, are sufficient to double the risk of a crash occurring where an injury is likely.[38] Regardless of the cause of crashes, speed is an aggravating risk factor for all crash types, affecting the chance and outcome of all crashes.

There are also a specific speed limits of 40 km/h when within 50 metres of buses, where a bus displays a warning sign or warning light.

The City of Hobart can continue to reduce conflict between vulnerable road users such as pedestrians, cyclists and motorcyclists by reducing speeds on local roads and especially in urban areas. The state government is the authority that sets speed limits on all roads, so the City of Hobart is required to apply for a change to speed limits within its municipal area. In 2014, the City of Hobart led the state in an overall reduction of speed limits in an LGA by reducing limits within the urban area to 50 km/h.

4. Safe vehicles

The design of vehicles can protect occupants, lessen the likelihood of a crash and simplify the driving task.

All public transport operators in Tasmania participate in an accreditation system.

Metro Tasmania has a program of regular fleet maintenance and replacement. In 2016 the Tasmanian Government committed a budget amount of $31 million towards replacing 100 ageing Metro buses, with the new buses to be built in Tasmania.

Information about obtaining accreditation for driving and operating public passenger vehicles and taxis is available at: transport.tas.gov.au/passenger/operators

[38] Department of State Growth, Tasmania, Third Action Plan 2014–2016, n.d.Modal Safety Comparisons, n.d.

DISCUSSION

Road safety is a shared responsibility between the infrastructure providers, road managers and road users. The City of Hobart is responsible for delivering safe roads and roadsides as well as safe speeds, with road safety the number one priority when making decisions about the road network.

Road safety issues are not new, indeed many of the issues of poor road user behaviours were the subject of road safety campaigns in Tasmania 50 years ago. Driver inattention, the absence of common courtesy, excessive speed and inevitable crashes are all covered in this 1960s Tasmanian road safety film: youtube.com/watch?v=wOIHK_QLYY0

The City of Hobart wants to ensure that safe access and amenity can continue to be provided for residents, visitors and vehicles alike. The Capital City Strategic Plan 2015–2025 explicitly recognises this in Objective 2.1.3: 'Identify and implement infrastructure improvement to enhance road safety'.

Projects funded under the Tasmanian Government's road safety levy are delivered with the cooperation of local councils, including the City of Hobart.[39] The City of Hobart co-funds projects under the Australian Government's road safety black spot program.

The Tasmanian Road Safety Advisory Council has identified tourists as being at particular risk.[40] Due to language barriers and being unfamiliar with the road rules in Tasmania, they may not understand the local road environment.

Nearly every journey involving public transport requires a passenger to use the road network as a pedestrian. This is the most dangerous aspect of any public transport journey. As such, lower speed limits around significant public transport interchanges and schools and further pedestrian road crossing points near bus stops for example, are areas where further changes could be made.

In a network that involves mixed land use and transport access, such as the Hobart city centre, the future challenge is to improve road safety and efficiency with mixed traffic conditions and vulnerable road users.

[39] Road Safety Advisory Council, 31 October 2012, 'What We Do', viewed 11 November 2016, www.rsac.tas.gov.au/what-we-do.

[40] Tasmanian Road Safety Advisory Council, 'Road Safety Strategy for Tourists', viewed 11 November 2016, www.rsac.tas.gov.au/wp-content/uploads/2012/08/Tourist-Road-Safety-Strategy1.pdf.

QUESTIONS

Do you think improved safety outcomes for all road users should be the most important factor in managing the road and transport network?

Would you support lower speed limits to protect vulnerable road users across Hobart, or only in targeted locations?

Do you consider public transport to be safer than driving a private vehicle?

SMART ROADS AND NETWORK OPERATION PLANS

There is an increasing focus by road authorities on a smarter and more proactive approach to managing and using the existing road network. While there will always be a need to maintain quality roads and undertake road and public transport infrastructure improvements, it is increasingly important to 'get more' out of the existing network. This would then balance the competing demands for limited road space, reduce the social and economic costs of congestion and minimise impacts on the environment.

The Victorian Government has developed a leading framework for delivering upon the objective of an integrated and sustainable transport network. SmartRoads has been developed to improve the long-term operational management of roads across Victoria. It establishes a 'road use hierarchy' that allocates priority road use by transport mode, place and time of day.

By deciding which modes have priority on which routes, the road network can work better for everyone. Key changes to how roads are operated include:

- facilitating good pedestrian access into and within activity centres in periods of high demand
- prioritising public transport on key routes that link activity centres during morning and afternoon peak periods
- encouraging cars to use alternative routes around activity centres to reduce the level of 'through' traffic
- encouraging bicycles by further developing the cycle network
- prioritising trucks on important transport routes that link freight hubs and that aim to reduce conflict with other transport modes.

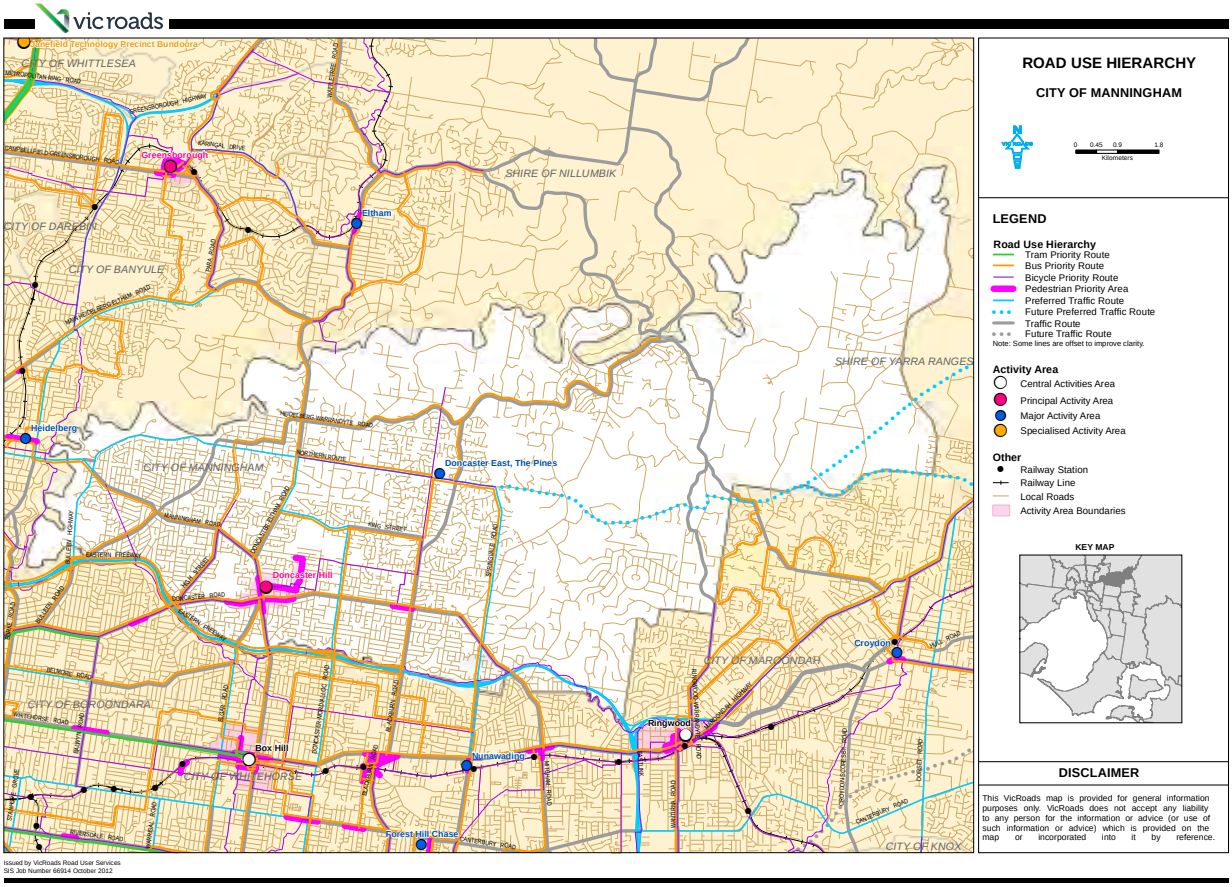
The prioritisation of these movements are assigned through network operating plans for particular areas. This SmartRoads system will become increasingly relevant as the economy becomes more knowledge intensive, which may contribute to the clustering of jobs in the city centre, thereby driving concentrated patterns of demand for travel into the inner city and city centre. With such inward focused travel demand and with space in the city centre at a premium, leaving less for parking and roads, the travel needs of many city centre workers are best met by public transport.[41]

For more information on the Victorian Government's SmartRoads framework go to: vicroads.vic.gov.au/traffic-and-road-use/traffic-management/smartroads

[41] Department of Infrastructure and Regional Development, State of Australian Cities 2014–2015: Progress in Australian Regions, 2015, p. 111.

Map 9: City of Manningham road use hierarchy

Source: Vicroads – Website



The City of Hobart has examples of the 'smart road' concept. For example:

- The North Hobart activity centre (the restaurant strip) has a traffic bypass which allows the limiting of through traffic coming from the north of the City.
- Clearways and time-restricted parking areas are an example of time-of-day controls which allow improved movement during peak times.
- The recent works in Morrison Street on the Hobart waterfront are an example of prioritising walking and bicycle space provision over motor vehicle capacity.
- A section of bus lane on the Southern Outlet which operates during peak times, enabling public transport commuters a quicker trip into the city.

DISCUSSION

A critical part of managing the transport system around Hobart into the future is recognising that there will be different functions for different roads at different times, and this will be the basis for the level and prioritisation of capital expenditure on the transport network into the future.

The Hobart 2025—A Strategic Framework identifies that an efficient road and travel network through an integrated approach is a specific objective for the municipal area.

The City of Hobart has an integral role, not only as the local road authority and public infrastructure provider, but also in engaging the community in a new way of thinking about the way the road network needs to operate. The Victorian Government's SmartRoads framework is an example of how this can be achieved. It demonstrates how to engage communities on where they want to prioritise traffic movement, the mode of transport usage and where they want to encourage greater interaction between people and places.

Of course Melbourne is a much larger city than Hobart, with additional transport modes available (for example trams and trains), but the principles of SmartRoads and network operating plans are tools that will prove valuable in the management of the transport network in Hobart.

In Hobart, prioritising different modes on different routes will not always be easy as there are limited alternative options on several key corridors, however, the principles of Smart Roads are still applicable and the use of time of day to prioritise certain modes could provide improvements for public transport modes.

QUESTIONS

Do you think that prioritising modes of transport at certain times of day would assist in making better use of the transport system?

Would prioritising modes of transport, such as a priority bus lane or car-pooling lane, change your transport patterns at different times of day?

Should public transport be preferred in the planning and funding of infrastructure?

TRANSFORMING HOBART AND INNER-CITY MOVEMENT

In 2005, the City of Hobart initiated an extensive community consultation process to create the Hobart 2025 Vision. This process highlighted the community's desire for the inner city to become more vibrant and people focused and to see improved opportunities for alternative transport options, with an aspiration to create a city which is highly accessible through efficient transport options.

Following this consultation process, the City of Hobart engaged internationally acclaimed urban planner and architect Professor Jan Gehl and his team of consultants, Gehl Architects, to explore ways to improve Hobart's public realm.

Their report, Hobart 2010 Public Spaces and Public Life—A city with people in mind, provided recommendations for the future of Hobart, with a focus on improving movement and engagement in and around the city centre. The Gehl report highlights the need to rethink and simplify the public transport system.

Feedback from further community engagement in 2011 on the Gehl report was used to develop the Inner City Action Plan. The plan outlines 15 recommended projects—several have been implemented and several others are in the implementation stage.

One of recommended actions was to redesign the bus mall, between Collins and Macquarie streets. The Gehl report recommended that the mall itself becomes a destination.[42]

'In order to develop a good city for people and to improve the overall city quality the number of private motor vehicles driving through the centre needs to be decreased and/or driving speeds reduced. Other means of transport need to be developed in order to offer people an alternative to the car'.[43]

The Gehl report envisages a bus mall that is a place to meet for coffee, eat lunch on a bench or get something cold after a jog along the waterfront.[44]

The redesign of the bus mall is intended to increase the efficiency as a transport hub and create a space that is safe and people friendly. The project could involve:

- extending and improving paving surfaces to create a pedestrian priority space
- improved kerbs or platforms to ease boarding and alighting from buses
- new waiting shelters providing adequate seating and weather protection
- accessible and understandable timetable information, including electronic signage for route arrival and departure information.

The significant upgrading of the Franklin Square bus shelters, in conjunction with the upgrade of Franklin Square in 2016, has significantly improved the user experience and space available for waiting passengers.

42 GEHL Architects, Hobart 2010 Public Spaces and Public Life—A city with people in mind, 2010, 96.

43 Jan GEHL, Hobart A city with People in Mind p. 32

44 Jan GEHL, Hobart A city with People in Mind p. 98

The City of Hobart has a current project to upgrade other central bus interchange facilities in and around the city centre, however, foreshadowed building development works in Elizabeth Street, along with ongoing negotiations with Metro and the Department of State Growth on the final interchange configuration have delayed this project.

The Inner City Action Plan projects, along with other major projects, has been funded through the City of Hobart's capital works program and is collectively referred to as 'Transforming Hobart'. Many of the projects have been completed and the improvement of the pedestrian environment in the Hobart waterfront area and within the city is creating an improved walking network, which is an important factor for public transport users, workers and visitors in the city.

For more information on the Transforming Hobart projects: hobartcity.com.au/Projects/Major_Council_projects

DISCUSSION

The City of Hobart is focused on bringing life and energy to our city and making it a place where people can move easily and efficiently through key public and urban spaces. It is about recognising that the city is not about the movement of cars and trucks, but about the movement of people and goods. The provision of an effective public transport system can contribute to the overall reduction of private vehicles within the city.

It is intended that inner Hobart will become more people focused, with well-designed public spaces, a pedestrian network that enables smooth movement between destinations, and an urban environment that encourages cycling as a safe, alternative mode of transport. Traffic will flow more smoothly and our public transport system will become more usable, efficient and reliable.

QUESTIONS

Are you aware of the projects under the Transforming Hobart banner?

For you, what will make the city more people focused and a more enjoyable place to spend time?

BUS PARKING AND CITY CENTRE INTERCHANGE FACILITIES

The City of Hobart controls many thousands of on-street car parking spaces as well as off-street car parks, with the most important of these located within and adjacent to the city centre, Hobart waterfront and the shopping centres of North Hobart and Sandy Bay.

Since 1955, the City has managed its parking supply using a combination of people, procedures, policies and equipment to achieve core objectives which include:

- ensuring needs of residents and their visitors are met
- assisting traffic flow on arterial roads
- meeting demands of public transport usage
- making parking space available on street and off street for shoppers, visitors and businesses to allow commercial centres to compete successfully with surrounding suburban centres.

Car parks are placed in strategic locations to allow shoppers, visitors and businesses to access parking within walking distance of key destinations in the city centre. These car parks consist of on-street and off-street parking and privately supplied off-street parking.

Commuter parking also surrounds the city centre, North Hobart shopping area, Sandy Bay shopping area and the University of Tasmania. Although commuter parking was discussed in Consultation Paper 2: Private Transport, residential parking schemes, urban parking controls and yellow lines will be discussed in Consultation Paper 4: Local Area Traffic Management.

Parking controls are also used to provide bus operators, both Metro and private coach companies, with pick-up and drop-off locations throughout the city and suburbs. As tourist and hotel numbers increase in Hobart, many tour operators and airport services will require space around the city. Additionally, bus layover facilities close to the city will become important to provide in more places.

At present, regional and intrastate bus operators are dispersed around the city cente. This is not an optimum arrangement. Tourist and intrastate bus operations generally require longer time to load and unload luggage and this can have an impact on the amount of kerb side space required. Ideally, regional, intrastate and local public transport bus services would be sufficiently closely located in order to provide for easy movement between services, in a location which would be easy for visitors and locals to find, with associated services such as toilets and waiting facilities.

In the past, the City of Hobart has had areas of land, close to the city centre, dedicated to public transport servicing. Many of these areas have been progressively sold and redeveloped, for example the Hobart rail terminal (now the site of the ABC and Baha'i centre adjacent to the Railway Roundabout) and the Metropolitan Transport Trust tram and bus depot (opened in 1893, which was located on lower Macquarie Street, adjacent to the Hobart Gas Works).

Metro has begun to utilise part of the Macquarie Point site, in the location of the previous concrete batch plant, to park and stage buses before starting a service from the city bus interchange. The Macquarie Point area provides possibly the last easily developable opportunity for the creation of a public passenger transport hub, with bus stabling and staging areas.

More information regarding parking in Hobart can be accessed at: hobartcity.com.au/Publications/Strategies_and_Plans/Parking_-_A_Plan_for_the_Future_2013

DISCUSSION

A core tool that the City of Hobart uses to influence transport systems is control of vehicle parking. The City owns and operates car parking facilities, and while private providers have a stake, the City is in a position to use the parking under its control to encourage behavioural change. Various schemes identify how removal of parking and dependency on vehicles can help create a thriving city that maintains its convenience and accessibility through the greater use of transport alternatives and effective road and travel networks.

To work towards the City's goals and objectives and realise the vision contained in the Southern Integrated Transport Plan, agreed to by the Southern Tasmanian Council Authority and the state government, the various tiers of government need to reduce dependency on motor vehicles and provide improved access to alternative transport methods and modes. Public transport plays an important part in reducing the dependency on private vehicles.

The City of Hobart has previously taken action to reach these goals by setting higher parking fees to discourage long-term parking on inner city parking meters, as well as keeping low fees for short-term visits to the city centre car parks. This has resulted in vehicle turnover and a discouragement for long-term parking. The City is also continuing to expand parking for bicycles and motorcycles as the demand increases.

The City of Hobart has been actively engaging with Metro and the Department of State Growth to work through options and future layouts for bus interchange and associated facilities in and around the city centre. This work will need to continue to determine future arrangements which provide sufficient high quality passenger waiting space for Metro and regional operators.

QUESTIONS

Do you understand the City's pricing regime of paying a higher fee for parking closer to the city centre, compared to paying a lower fee for parking further from the city centre?

Should the City increase long-term parking fees while keeping low fees for short-term visits within the city centre to encourage shoppers and visitors, while discouraging commuter parking in the city centre?

Would you consider an alternative mode of transport, such as public transport, if all-day parking was charged in currently free commuter parking areas?

Do you think the development of a city bus interchange, for metropolitan and regional bus services, with high quality passenger waiting facilities is important for the future of public transport in greater Hobart?

TOURISM

Tasmania is a popular destination for visitors. For the year ending June 2016, there were 1.17 million visitors to Tasmania, up two per cent from the previous year.[45] Of these, more than 750 000 stayed overnight in Hobart (an increase of 20 per cent from the year ending June 2013); 853 000 people visited the city centre (a slight decrease of 0.1 per cent on the previous year but an increase of 22 per cent from the year ending June 2013).[46]

In addition to public transport such as buses and ride-sharing services, there are important public transport services available to specific destinations, including the Airporter Bus, that travels between the Airport and inner-city destinations; the MONA ferry and bus service that travel between Brooke Street Pier and MONA and/or the Airport and MONA; and the Red Decker Bus that stops at key tourist destinations within the Hobart municipal area such as Cascade Brewery, kunanyi/Mount Wellington and the Royal Tasmanian Botanical Gardens. Similarly, tour companies offer day trips to popular destinations including Mount Field National Park, Port Arthur Historic Site and Freycinet National Park.

Slightly more than half of the visitors to the state are here on holiday. They often use Hobart as a central point, not for only visiting destinations within the city, but for making day trips to surrounding regional areas, such as Port Arthur, Huon Valley, the D'Entrecasteaux Channel and the Derwent Valley. The average length of stay within the city centre for the year ending June 2016 was 4.4 days.

Around 20 per cent of all visitors to the state are here for business. As the seat of government and government administration and commerce for the state, many of them come to Hobart. Supplementing these numbers are the visitors journeying to Hobart for business from elsewhere within Tasmania.

Visitor accommodation is a dominant land use within the city centre and waterfront area and with the expected increase in visitation it is only likely to increase. The Tasmanian Government has a target to increase visitor numbers to 1.5 million by 2020, which is achievable based on current growth. In addition, the advent of accommodation through portals such as Air BnB has resulted in many people in the community providing visitor accommodation within their homes.

A key arrival mode for many tourists is via the air links to Tasmania.

Based on existing data provided by Hobart Airport, approximately 2 million passengers per year currently pass through the airport. Passenger demand forecasts indicate that Hobart Airport will manage 4.6 million passengers per year by 2035. Spreadsheet analysis using the passenger forecasts and traffic count data estimate that this level of passenger demand will result in approximately 16 100 passenger-related vehicle trips per day.[47]

The waterfront is also home to the primary cruise ship terminal for Tasmania, at Macquarie Wharf. In addition to the more than 750 000 people staying overnight in Hobart, there were an additional 69 586 visitors arriving as cruise ship passengers this year. This is forecast to double in the next two seasons.

---

45 Tourism Tasmania, 'Tourism Fast Facts', viewed 25 October 2016, www.tourismtasmania.com.au/__data/assets/pdf_file/0006/44574/Fast-Facts-September-2016.pdf .

46 Tourism Tasmania, Tourism Visitor Statistics Analyser, viewed 25 October 2016, www.tvsanalyser.com.au

47 Hobart International Airport, submission to City of Hobart Consultation Paper 1: Freight, Port and Air.

Table 9: Cruise ship calls and passengers/crew to Hobart

Source: Tasports – suplied to CoH

2017–18 (forecast)				2016–17 (forecast)				2015–16			
Ships	Total Arrivals	Passen-gers	Crew	Ships	Total Arrivals	Passen-gers	Crew	Ships	Total Arrivals	Passen-gers	Crew
66	192 627	135 478	57 149	48	144 973	101 415	43 558	32	98 915	69 586	29 329

The Tasmanian community is increasingly dependent on the economic contribution of the tourism industry; with a 60 per cent increase in expenditure by visitors to Tasmania for the year ending December 2013.[48] Further, when combining both direct and indirect jobs, the tourism sector supported approximately 40 000 jobs or about 17.4 per cent of total Tasmanian employment (for the year 2012–13).

Did you know?

The percentage of visitors to Tasmania, be it for holiday, business or visiting family, is reasonably consistent regardless of the visitor numbers; slightly more than 50 per cent for holiday, 20 per cent for business and 30 per cent visiting family.

[48] Department of State Growth, Tasmania, 'Sector Summary 2014', viewed 25 October 2016, www.stategrowth.tas.gov.au/__data/assets/pdf_file/0008/89585/Tourism.pdf.

DISCUSSION

Tourism is a significant driver in Tasmania's economy, with Hobart a major destination for visitors. Achieving targets to increase visitor numbers to 1.5 million by 2020 could translate into further direct and indirect economic and social benefits throughout Hobart, the region and Tasmania. This includes further employment opportunities for service industries such as retail, accommodation and restaurants. With Hobart as the natural focus for activities and arrivals, providing for the visitor economy is front and centre to strategies and plans for our future.

The City of Hobart has recently installed a network of contemporary way-finding signage. Such signage is useful for all visitors and tourists. Creating safe and pleasant pedestrian environments will benefit the tourism industry as well.

There are challenges associated with managing large numbers of tourists. Their transport needs are different, and unlike residents, tourists are unfamiliar with the public transport system, specific destinations and how to get there.

Many tourists use a hire car during their stay in Tasmania; although this is less true for short stay visitors, who may be more inclined to rely on public transport such as the MONA ferry or the Red Decker Bus. Assisting tourists to understand the public transport options for activities before their arrival in Hobart could delay the need for a hire car or van until their travel itinerary requires it. That said, current pricing structures for the hire of a vehicle in comparison with public transport and taxi costs, along with the flexibility of visitor experiences in the southern Tasmanian region a hire car can offer, see many tourists simply acquire a vehicle upon arrival at Hobart Airport.

QUESTIONS

What measures can be put in place to provide alternative transport options for tourists?

Do you think information about public transport is adequate for tourists?

Have you seen or used the new way-finding signage in Hobart?

What can the City of Hobart do to improve the use of public transport by tourists?

INTELLIGENT AND EMERGING TRANSPORT SYSTEMS

Intelligent transport systems (ITS) describe technology that applies to transport and infrastructure to transfer information between systems for improved safety, productivity and environmental performance.[49]

A national ITS framework was agreed to by all states and territories at the Transport and Infrastructure Council in 2011. The Policy Framework for Intelligent Transport Systems in Australia provides guidance to ensure that the technology used in each jurisdiction is compatible and is developed around a set of agreed policy principles.[50]

ITS are capable of improving the quality of public transport systems, in turn encouraging greater modal shift. Examples include:

- traffic management systems—these can both assist in prioritising and encouraging public transport on roads or lanes by providing real-time information to manage road congestion and potentially re-route public buses
- integrated transit fare systems
- real-time arrival and departure systems
- on-board information systems
- mobile-based interactive applications providing route information
- road user charging systems—including tollways and congestion charging arrangements.

Emerging transport technologies include car sharing such as GoGet, ride sharing applications such as Uber, and autonomous vehicles (driverless cars).

One of the emerging transport technologies that has the potential for greatest impact upon the greenhouse gas and particulate (air quality) emissions from public transport in Tasmania is electric technology in buses. There are technologies that mean electric buses are capable of running across time periods and distances similar to diesel buses.

Milton Keynes in the United Kingdom has introduced—in a five-year trial commencing in 2014—a new fleet of electric buses that will run seven days a week and are able to recharge their batteries wirelessly through the day. This means that for the first time electric buses will be capable of the equivalent load of the diesel buses they will be replacing. Data will be collected from the trial to demonstrate the economic viability of low carbon public transport, and it is envisaged that this could be used to kickstart electric bus projects in other towns and cities worldwide.

The buses are able to charge for 10 minutes at the beginning and end of each cycle without interrupting the timetable. Air pollution from tailpipe emissions will be removed from the roads and carbon dioxide emissions reduced.

[49] Department of Infrastructure and Regional Development, Australia, 'Intelligent Transport Systems', viewed 19 October 2016, infrastructure.gov.au/transport/its/.

[50] Department of Infrastructure and Regional Development, Australia, 'Intelligent Transport Systems', viewed 19 October 2016, https://infrastructure.gov.au/transport/its/.

DISCUSSION

The capacity of ITS to provide data and statistics to improve the performance of the transport network is proven at a national and international level.

Hobart's traffic signals operate using the Sydney Coordinated Adaptive Traffic System software and are owned and managed by the Department of State Growth. While the software has had various upgrades over the years, much of the physical infrastructure is ageing. This results in incompatibility issues with newer versions of the software, as well as loop detector failures,[51] which then affects the efficiency of the road network. The Department of State Growth is currently undertaking a major traffic light physical infrastructure (signal control box) upgrade in Hobart.

Pricing mechanisms linked to ITS technology have delivered direct and indirect benefits in high-profile global implementations, for example the London Congestion Charge.[52] Social benefits include improved transparency in the allocation of costs associated with peak hour travel and in many instances, greater use of public transport. Other ITS systems can provide an improved road safety outcome arising from targeted enforcement of road rules and demonstration of compliance with operating conditions (registration of vehicles, speed, heavy vehicle mass limit compliance, etc.).

Importantly, ITS technology is also beneficial to improving the quality and therefore attractiveness of public transport modes. For example, vehicle tracking systems are now commonplace and the ability to integrate information to accurately predict arrival and waiting time allows for real-time information displays for travellers on public transport systems. Such facilities are commonplace in mainland Australia, and provide comfort and certainty to passengers.

Such systems can also be integrated with traffic lights and signalling systems to allow for bus priority. Queue jump systems for buses allow for time savings and can assist in removing public transport vehicles from congested road networks. Maintaining bus and public transport timetabling can assist in instilling user confidence and reduces the need for operators to schedule additional public transport vehicles, thus providing optimum utilisation of all fleet vehicles to satisfy the task.

Emerging transport technologies can play a role in changing the nature of the public transport task. For example, can the City of Hobart play a role in facilitating access to a vehicle rather than ownership of vehicles? It is estimated that one car-share vehicle replaces about nine privately owned vehicles, with car-share members driving half the distance of non-car-share members. Furthermore, this type of service may also result in a more flexible and accessible public transport network.

---

[51] Department of State Growth, Tasmania, Hobart Congestion: Traffic Analysis 2016, 2016.

[52] Transport for London, 'Congestion Charge', viewed 14 November 2016, www.tfl.gov.uk/modes/driving/congestion-charge.

QUESTIONS

Would ITS on public transport, such as real-time arrival and departure information, encourage you to use public transport more?

Do you see ITS as useful for managing road use, priority and congestion?

What you support a road user charging system to remove pricing distortions between different transport modes and the negative effects of single-car occupancy road use?

If a car-sharing system operated in Hobart, would you be likely to use it?

HEALTH AND MOBILITY

There is considerable research on the health benefits of public transport. Public transport users are generally more active. Individuals using public transport get noticeably more physical activity per day than those who don't because they integrate active modes of transport (walking and cycling) into their journey. For example, walking to and from the bus stop.

The Victorian Integrated Survey of Travel and Activity showed that public transport users spent an average of 41 minutes walking or cycling as part of their travel compared to eight minutes for those who used private transport only.[53] The Heart Foundation of Australia in its Move It—Australia's Health Transport Options paper, sets out the case for embracing active transport as a priority.

Increased use of public transport assists in reducing air pollution from private motor vehicles. Recent studies have also identified the economic cost of public health impacts of ambient and household air pollution for Organisation of Economic Cooperation and Development countries, including Australia. Current estimates of the joint effects of ambient and household air pollution include an estimated 7 million premature deaths globally each year, representing one in eight of the total deaths worldwide.[54]

Transport is also a key factor in social inclusion: the ability of a person to access employment, services, shops, recreation and entertainment. Low-income earners, older people and people with a disability are particularly at risk of social isolation and are often reliant upon public transport to achieve social equity.

Tasmania's population is ageing both numerically and structurally. Since 1996, the median age of residents within southern Tasmania has increased from 34.1 to 39.6 years.[55] According to research by the University of Tasmania, by 2051, 33.8 per cent of the population is projected to be aged over 65 years compared to 16.3 per cent in 2011.[56]

Older people often find it difficult to undertake the most essential trips, such as buying groceries or travelling to medical appointments.[57] Some of the barriers within the transport system faced by older people include being unable to walk to bus stops, inability to access buses due to physical barriers and fear of safety and falls. Lack of access to transport is one of the key issues older people highlight as a major barrier in feeling connected to their community and therefore impacting on their quality of life.[58]

In some cases individuals may be eligible for special concessions to assist with taxi use. Information relating to available concessions is available at: transport.tas.gov.au/passenger/taxi

Greater public transport use can also foster a sense of community by providing greater opportunity for social interaction. It is also cheaper and less stressful for some users than city driving.

53 Department of Transport Victoria, Victorian Integrated Survey of Travel and Activity, 2007, www.transport.vic.gov.au/research/statistics/victorian-integrated-survey-of-travel-and-activity.

54 World Health Organization, Economic cost of the health impact of air pollution in Europe, 2015.

55 Australian Bureau of Statistics, Census of Population and Housing, 2011, cat. no. 2001.0 6GHOB, ABS, Canberra.

56 Southern Tasmanian Councils Authority, Southern Tasmania Regional Land Use Strategy, Background Report No 2: The Regional Profile, 2011.

57 Royal Automobile Club of Victoria, Transport and Mobility: Challenges, Innovations and Improvements, 2006.

58 Council on the Ageing Tasmania, Addressing Transport Issues for Older People, Position Paper May 2013, 2013.

DISCUSSION

The use of public transport has a number of health benefits: to the individual by increasing the likelihood of physical activity and reducing stress associated with driving; to the broader community by reducing road congestion and air pollution and lessening the costs of healthcare associated with inactivity.

Public transport is also an important consideration in providing for a socially inclusive and equitable society. Low-income earners, young people, older people and people with disabilities all have greater reliance upon public transport.

Improved supporting infrastructure in both city and suburban areas is an essential part of promoting active transport, public transport use and incidental physical activity in communities. The Heart Foundation has been active in promoting the need for Tasmanian policy to ensure appropriate infrastructure provision to encourage and support healthy lifestyles is incorporated into planning scheme arrangements and the initial building of new residential areas.

The City of Hobart can advocate for a greater focus on the health and mobility benefits of public transport along with continuing to improve pedestrian conditions generally and to access key public transport locations specifically.

QUESTIONS

Do you rely upon public transport as principal mode of transport for health and mobility reasons?

Do you experience any issues in accessing mainstream public transport services, such as public buses, due to mobility issues?

Do you think there should be a greater focus on the health and mobility aspects of providing public transport?

COST OF TRANSPORT

Transport is a major, and in most cases, unavoidable cost for households.

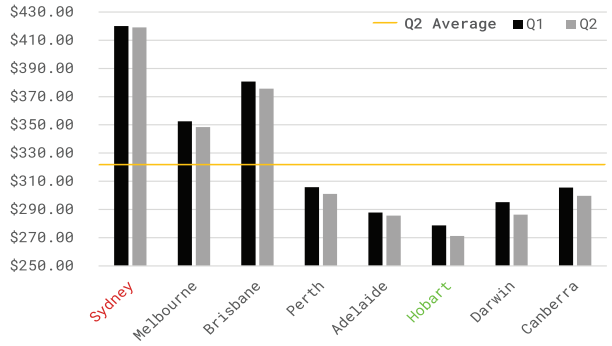
The Transport Affordability Index[59] provides a snapshot of the costs of transport for a typical household in Australia's capital cities. While the overall total weekly transport cost for households in Greater Hobart is the lowest of all capital cities in Australia, when analysed as a share of income, Hobart ranks as the fourth most expensive capital city for transport costs.

When, however, considering the cost of public transport only, Hobart improves on its affordability ranking. Metro fares are related to zones and distances travelled. The Metro fare structure for urban zones changed on 1 January 2017. Full information is available at: metrotas.com.au/fares/urban-fares/

Table 10: Hobart total weekly transport cost compared to other capital cities

Source: SGS Economics and Planning, Transport Affordability Index, Australian Automobile Association, 2016

Household total weekly transport costs

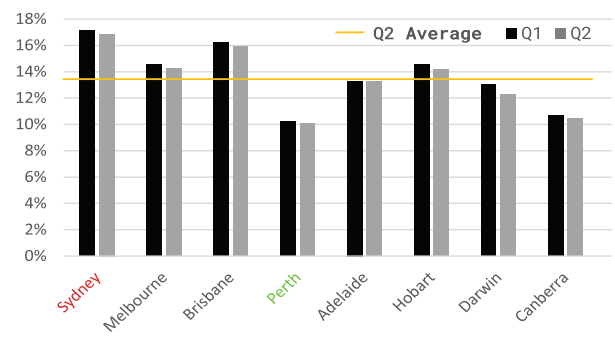


Q2 Ranking	State	Q1	Q2
1	Sydney	$420.11	$419.06
3	Melbourne	$352.52	$348.49
2	Brisbane	$380.71	$375.64
4	Perth	$305.80	$300.99
7	Adelaide	$287.79	$285.66
8	Hobart	$278.73	$271.17
6	Darwin	$295.14	$286.28
5	Canberra	$305.52	$299.61
Average	National	$328.29	$323.36

Table 11: Hobart total transport costs as share of income

Source: SGS Economics and Planning, Transport Affordability Index, Australian Automobile Association, 2016

Household total transport costs as a share of income



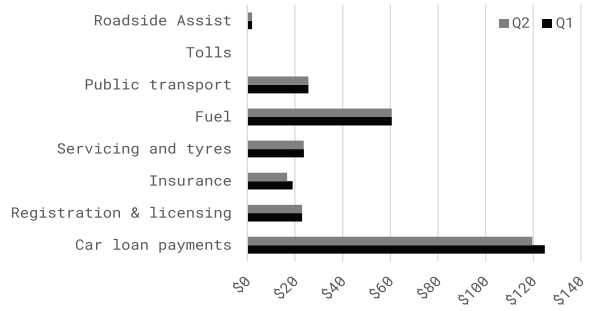
Q2 Ranking	State	Q1	Q2
1	Sydney	17.1%	16.8%
3	Melbourne	14.5%	14.1%
2	Brisbane	16.2%	15.9%
8	Perth	10.2%	10.1%
5	Adelaide	13.3%	13.2%
4	Hobart	14.6%	14.2%
6	Darwin	13.0%	12.0%
7	Canberra	10.7%	10.5%
Average	National	13.7%	13.3%

[59] SGS Economics and Planning, Transport Affordability Index, Australian Automobile Association, 2016.

Table 12: Hobart weekly costs of transport

Source: SGS Economics and Planning, Transport Affordability Index, Australian Automobile Association, 2016

Hobart weekly costs of transport



Q2 Ranking	Expenses	Q1	Q2
7	Roadside Assist	$2.02	$2.02
8	Tolls	$-	$-
3	Public transport	$25.60	$25.60
2	Fuel	$60.66	$60.65
4	Servicing and tyres	$23.72	$23.67
6	Insurance	$18.98	$16.69
5	Registration & licensing	$22.93	$22.93
1	Car loan payments	$124.83	$119.61

The proportional costs to households across Greater Hobart is not, however, even. People living in Hobart are generally more wealthy: the median weekly income for the Hobart municipal area is $1260 compared to the median for Greater Hobart of $1065.[60] However, this demographic has the benefit of potentially greater transport choice because they live close to where they work, shop and access services.

Less wealthy households tend to live on the urban fringe where there is a predominance of affordable and social housing stock and if they do not have a car, must rely upon a low frequency bus service.

The Tasmanian Government commissioned the Tasmanian Oil Price Vulnerability Study 2012 to consider the economic impacts of volatile oil prices on the Tasmanian economy. The study found that the Tasmanian economy is particularly vulnerable to risks associated with increases in oil prices and considered how to mitigate these risks. The cost of transport is thus not just of concern to individuals, but to governments at all levels. Transport is a very big business, affecting all of society, with the ability to seriously impact on the Australian economy.

Further information on the Tasmanian Oil Price Vulnerability Study 2012 can be found in the 'Background papers and further reading' at the end of this document.

Further information about the price of petrol and diesel fuel can be found at:

bitre.gov.au/publications/2017/files/is_082.pdf

When talking about the cost of private transport and the cost of public transport fares, an informed economic assessment will include both the internal and external costs and benefits to individuals and society more generally. This is a complex area. Much has been written on the subject. This background paper is ill placed to explore in detail pricing determinations of regulators and governments in setting public transport fare levels.

The following excerpt from BITRE's Information sheet 59 begins to explain the situation.[61]

[60] Australian Bureau of Statistics, Census of Population and Housing, 2011, cat. no. 2001.0 6GHOB, ABS, Canberra.

[61] Bureau of Infrastructure, Transport and Regional Economics (BITRE), Information sheet 59, 2014, pp. 12–13.

'Explicit urban passenger transport (UPT) subsidies and grants can be contrasted with the implicit subsidy offered to road vehicle use from construction and maintenance of the road network. As well, some of the main beneficiaries of public transit provision make little direct contribution to its funding levels (apart from general taxation) – such as car drivers (especially on inner-city roads) benefiting from reduced traffic levels; or property-owners and businesses located close to major train stations or UPT interchanges benefiting from ease of access – which raises the prospect of conceivably using means other than the farebox to adequately capture the value of public transport services to the community.

The Independent Pricing and Regulatory Tribunal of New South Wales (IPART) periodically conducts evaluations of efficient cost recovery levels for UPT operations. In a recent review (IPART 2013) they note: "It is relatively easy to identify the direct benefits that passengers receive from public transport services. For example, access to their place of work, essential services and shopping and leisure facilities. However, the external benefits of public transport services – those that accrue to the wider community – can be difficult to quantify. If there was a system of road use pricing that made the cost of car travel equal to both the internal and external costs it imposes, then it would not be necessary take these costs into account in setting bus fares. However, without such a system, government subsidisation of buses (and other public transport services) is the next-best approach to encourage optimal choices between modes of transport."

Similarly, Infrastructure Australia (2013) states that, "The optimal approach to public transport charging depends on arrangements for road charging. For places where road users do not directly face financial and external costs, fares that seek to recover the full financial costs of public transport is not a viable option. Attempts to fully recover costs would reduce the significant benefits that public transport delivers to non-users of public transport."

When making travel choice decisions, people will typically consider their own direct (i.e. internal) costs and benefits from taking that trip – such as fuel use or probable time savings – but will generally not take into account the (external) costs and benefits to other people that are generated by their trip decision. The possible external benefits of public transport can include reduced congestion (from having less cars on the road), enhanced social inclusion, reduced costs of traffic accidents, overall fuel savings, potential agglomeration (arising from clustering city growth around activity centres) or landscape (arising from less road-intensive urban design) advantages, or reductions in air pollution and associated health costs. The lack of suitable pricing frameworks – which would have travellers consider all the costs imposed by each trip, both internal and external – will generally lead not only to sub-optimal mode choices but also to higher amounts of overall travel (and related costs of transport infrastructure and service provision) than would have otherwise occurred.'

DISCUSSION

Considering the cost of transport is an important component of delivering an equitable and socially inclusive transport system. Within Hobart, many people have a range of transport options available for their daily travel requirements, including walking, cycling and public transport, which can reduce the reliance on a private motor vehicle and the overall household expenditure committed to transport. This is not necessarily the case for residents in adjoining local government areas.

Heavy reliance on private cars within the transport system can give rise to 'transport disadvantage', where people who cannot drive or afford to have access to a car are disadvantaged by greater difficulty in accessing employment, education and services, as well as experiencing isolation.

The City of Hobart can play a role in reducing transport disadvantage and inequity by lobbying and advocating for continuing and additional Tasmanian Government and Australian Government support for public transport services and active transport facilities.

The City of Hobart can also support modal shift to public transport by providing and working with other local councils to deliver a land-use planning system that supports increased densities along major public transport corridors, such as the Hobart to Glenorchy corridor.

QUESTIONS

Can you estimate how much your weekly transport costs are?

Do you find transport a significant part of your household costs?

Does the cost of transport influence your transport decisions?

ENVIRONMENT AND CLIMATE CHANGE

Our climate is changing. The 2016 State of the Climate[62] report identifies that our climate has already warmed by 1 degree celsius. There has been an increase in extreme weather events, including extreme bush fires, and sea levels have risen around Australia.

These changes are impacting on our coastal settlements, infrastructure and ecosystems and these impacts will continue to worsen. In Tasmania, between 12 000 and 15 000 residential buildings, with a current value of $4 billion, are at risk of inundation from a sea-level rise of 1.1 metres by 2100. A sea-level rise of this magnitude will also put at risk up to 2000 kilometres of Tasmania's roads, up to 160 kilometres of Tasmania's railways and up to 300 commercial buildings. These assets have an estimated value of up to $4.5 billion, $700 million and $1 billion respectively.[63]

Under the Climate Change (State Action) Act 2008, Tasmania has a legislated target of reducing greenhouse gas emissions to 60 per cent below 1990 levels by 2050. The Tasmanian Climate Change Office has developed Tasmania's Draft Climate Change Action Plan 2016–21, for more information see: dpac.tas.gov.au/divisions/climatechange

The City of Hobart recognises the importance of strong environmental stewardship and resilience to climate change. The City has been formally involved in climate change action since 2000 and is continuing to reduce greenhouse gas emissions and adapt to climate impacts and hazards.

In 2010 the City had already reduced its own emissions by 70 per cent from 2000 levels and has committed to reducing its greenhouse gas emissions by 17 per cent from the 2010 levels by 2020. The City has also committed to a reduction target of 35 per cent for its energy use from 2010 to 2020.

Our transport choices have a significant impact on emissions. In Tasmania, transport is the energy sector's largest sub-sector emitter; making it a key area for emission savings.

Fuel use has reduced slightly in the Tasmanian transport sector recently, reducing emissions. The high proportion of walkers and cyclists in Hobart is one contributing factor, as well as changes in vehicle ownership and improvements in fuel efficiency. Changes in some industrial transport tasks could be a contributing factor.[64]

We have more choices than ever before. New bike paths, walking tracks, park-and-ride facilities and electric vehicle battery technology advancements, have provided a greater range of options in Hobart.

The City has taken a lead with its own fleet management. For example, it has purchased a range of hybrid vehicles for its construction and maintenance vehicle fleet. The fleet now includes five compressed natural gas and three hybrid 6.5 tonne works trucks. All new diesel fleet vehicles purchased comply with the European Union's Euro 6 emission regulations.[65] It has installed two recharging connections for electric vehicles in the Hobart Central car park in Melville Street.

Further information on the City of Hobart's climate change policies can be found at: hobartcity.com.au/Environment/Climate_and_Energy

---

62 CSIRO and Australian Bureau of Meteorology, State of the Climate 2016, 2016.

63 Department of the Environment and Energy, Australia, 'Climate change impacts in Tasmania', viewed 14 November 2016, www.environment.gov.au/climate-change/climate-science/impacts/tas

64 Tasmania's latest greenhouse gas accounts for 2013–14 were released on 6 May 2016 as part of the Australian Government's State and Territory Greenhouse Gas Inventories 2014.

65 European Commission, 'Transport Emissions', viewed 14 November 2016, ec.europa.eu/environment/air/transport/road.htm

DISCUSSION

Transitioning away from fossil fuel use remains the internationally accepted approach to changing our emissions trajectory and limiting longer term catastrophic climate change. This could include:

- increasing the uptake of public transport and active transport options
- switching to low-emission vehicles
- switching to biofuels
- improving vehicle fuel efficiency
- improving freight efficiency
- travel demand management
- improved urban design.

The City of Hobart is limited in its ability to adopt some of these measures, as most are policies under the control of either the Tasmanian or Australian governments. But the City of Hobart can be a strong advocate for state and national policy settings that may encourage improved fuel efficiency and switching to low-emission vehicles or biofuels.

In addition, the City of Hobart can ensure that it provides infrastructure to support the use of active transport, public transport and low-emission vehicles.

QUESTIONS

Do you understand the impacts of climate change on successive generations?

Do you make choices about your transport because of climate change concerns?

Should more attention be given to reducing emissions from the transport sector?

LIST OF ABBREVIATIONS

ABS	Australian Bureau of Statistics; collects and disseminates official national, regional, capital city and local statistics
BITRE	Bureau of Infrastructure, Transport and Regional Economics
CSIRO	Commonwealth Scientific and Industrial Research Organisation
ITS	Intelligent Transport Systems: technologies applied to transport and infrastructure to transfer information between systems for improved productivity, safety and environmental performance
km/h	kilometres per hour
LGA	local government area
LUPAA	Land Use Planning and Approvals Act 1993; Tasmania's primary land-use management legislation
MONA	Museum of Old and New Art, Berriedale
STCA	Southern Tasmanian Councils Authority

GLOSSARY

activity centres

Places which are the focus for services, employment and social interaction in cities and towns. They provide a broader function than just retail and commercial centres. They are also community meeting places, centres of community and government services, locations for education and employment, settings for recreation, leisure and entertainment activities, and places for living through new forms of high-density housing with good levels of amenity, in mixed land-use settings.

Capital City Strategic Plan 2015–2025

Contains the City of Hobart's agreed goals and strategic objectives that are relevant to the development of the Transport Strategy.

Census

The Census of Population and Housing is undertaken by the Australian Bureau of Statistics and records a wide range of data about the Australian population.

congestion

When traffic (volumes) demand exceeds the available transport network capacity and vehicles experience significant travel time delay

couplet

The two major one-way streets, Macquarie Street and Davey Street, which provide a major cross-city route.

greenfield

A term used in urban planning for land that has had no previous construction and development.

greenhouse gases

Greenhouse gases trap heat in the atmosphere and make the Earth warmer. Those with the most significant impact on climate change and global warming are water vapour, carbon dioxide, methane and nitrous oxide. Other common greenhouse gases include ozone and chlorofluorocarbons.

gridlock

When traffic flow reduces to zero speed.

induced demand

Demand for driving that is created by building more roads.

infill development

Development of vacant or under-used parcels within existing urban areas that are already largely developed.

last mile

Final destination of freight in the logistics chain, often on roads managed by local government.

local government area (LGA)

The geographical area that a local council is responsible for managing.

local road network

Part of the road network for which local government is responsible.

modal shift

A change between transport modes; for example, from private vehicle to public transport.

public realm

Is defined as any publicly owned streets, pathways, right of ways, parks, publicly accessible open spaces and any public and civic building and facilities.

STCA

Southern Tasmanian Councils Authority, comprising 12 southern Tasmanian councils—Brighton, Central Highlands, Clarence, Derwent Valley, Glamorgan Spring Bay, Glenorchy, Hobart, Huon Valley, Kingborough, Sorell, Southern Midlands and Tasman.

transport disadvantage

Where people who cannot drive or afford to have access to a car are disadvantaged by greater difficulty in accessing employment, education and services as well as experiencing isolation. It can also relate to people for whom no alternative travel mode is available, i.e. few or no bus services.

transport task

A piece of work to be done, in the transport sense the task is to move a person or good (physical item) from a to b.

KEY RELEVANT LEGISLATION

(Note: A more complete listing is provided as Attachment 1)

COMMONWEALTH

National Land Transport Act 2014

Environment Protection and Biodiversity Conservation Act 1999

Disability Discrimination Act 1992

National Heavy Vehicle Regulations

Airports Act 1996 – provides the overarching framework for the operation of privatised airports in Australia.

TASMANIAN STATE

Land Use Planning and Approvals Act 1993

Southern Tasmanian Land Use Strategy 2010–2035

EMPCA – Environmental Management and Pollution Control Act 1994

Roads and Jetties Act 1935 – The main source of law on state roads and subsidiary roads

Transport Act 1981 – Regulates and controls transport services on roads, water or air through the Transport Commission

Traffic Act 1925

Vehicle and Traffic Act 1999 – Regulates the licensing of drivers, registration of vehicles and traffic management.

LOCAL GOVERNMENT

Local Govt Act 1993

– Highways By-Law (By-Law 3 of 2008) – (Local Government Act 1993)

Local Government (Highways) Act 1982 – The main source of law on local government roads

ATTACHMENT 1 – REGULATORY AND POLICY FRAMEWORK

LOCAL GOVERNMENT

Hobart 2025 Strategic Framework:

www.hobartcity.com.au/Publications/Strategies_and_Plans/Hobart_2025_Strategic_Framework

Covers all areas of the HCC's operations including Economic Development, Equal Access etc

CITY OF HOBART

Inner City Development Action Plan:

www.hobartcity.com.au/Hobart/A_City_with_People_in_Mind/Inner_City_Action_Plan

15 projects being implemented

Sullivans Cove Planning Scheme 1997 and Hobart Interim Planning Scheme 2015:

www.hobartcity.com.au/Development/Planning/Planning_Schemes

Outcomes of State Planning Review may impact. There are adequate current provisions and all local govt in Tasmania is in same situation

Parking – a Plan for the Future 2012–2017:

www.hobartcity.com.au/Publications/Strategies_and_Plans/Parking_-_A_Plan_for_the_Future_2013

Being implemented

Sustainable Transport Planning 2009–2014:

www.hobartcity.com.au/Transport/Sustainable_Transport_Planning

The new Transport Plan for the City of Hobart will supercede this document

Hobart 2010 Public Spaces and Public Life – a city with people in mind:

www.hobartcity.com.au/Hobart/A_City_with_People_in_Mind

Jan Gehl's Report to the City of Hobart

Highways By-Law 2008, Car Parks and Parking By-Law 2008, Car Parks and Parking Amendment By-Law 2012:

www.hobartcity.com.au/Council/Legislation

The Local Government Act 1993 states that by-laws expire 10 years after the date on which it takes effect unless it is expressed to expire sooner

GREATER HOBART AND SOUTHERN TASMANIAN COUNCILS

Glenorchy City Council, Clarence City Council, Kingborough and Huon Strategic Plans

These can be referenced through the Southern Tasmanian Regional Land Use Strategy 2010-2035 and Southern Tasmanian Integrated Transport Plan 2010

TASMANIAN GOVERNMENT

Local Government Act 1993:

www.thelaw.tas.gov.au/tocview/index.w3p;cond=;doc_id=95%2B%2B1993%2BAT%40EN%2B20150 929000000;histon=;prompt=;rec=;term=

Peak legislation for local government sector

Land Use Planning and Approvals Act 1993:

www.thelaw.tas.gov.au/tocview/index.w3p;cond=;doc_id=70%2B%2B1993%2BAT%40EN%2B20150929000000;histon=;prompt=;rec=;term=

Peak legislation for local government sector. To be amended by outcomes of State Planning Review in new legislation due for completion by 2017

Environmental Management and Pollution Control Act 1994:

www.thelaw.tas.gov.au/index.w3p

Resource Management and Planning Appeal Tribunal Act 1993

Local Government (Highways) Act 1982

Roads and Jetties Act 1935

Traffic Act 1925

State Grants Commission:

www.treasury.tas.gov.au/domino/dtf/dtf.nsf/v-stategrants/home

Makes recommendations to the Treasurer re distribution of Australian Government financial assistance grants to local government under the *Local Government (Financial Assistance) Act 1995*.

Tasmanian Aboriginal Relics Act 1975:

www5.austlii.edu.au/au/legis/tas/consol_act/ara1975159/

Revised Bill abandoned 2013

Wellington Park Management Plan 2013:

www.wellingtonpark.org.au/management-plan-2013/

State Policies and Projects Act 1993:

cg.tas.gov.au/home/major_projects/projects_of_state_significance

Major Infrastructure Development Approvals Act 1999:

www.thelaw.tas.gov.au/tocview/index.w3p;cond=;doc_id=108%2B%2B1999%2BAT%40EN%2B20151008000000;histon=;prompt=;rec=;term=

Southern Regional Land Use Strategy 2010–2035:

stca.tas.gov.au/rpp/wp-content/uploads/2011/05/land_use_strategy_Gazettal-version.pdf

Declared by the Minister for Planning (Section 30C of the LUPAA), including Background Reports.

State *Coastal Policy 1996*:

dpipwe.tas.gov.au/Documents/Tasmanian_State_Coastal_Policy_1996_revised.pdf

No action on this for several years

State Policy on the Protection of Agricultural Land 2009:

www.dpac.tas.gov.au/divisions/policy/state_policies

Tasmania's Road Safety Strategy 2007–2016:

www.transport.tas.gov.au/roadsafety/tasmanian_road_safety_strategy

To be superceded by Towards Zero 2017–2026

Tasmania's Affordable Housing Strategy 2015–25 Ministerial Statement:

www.premier.tas.gov.au/releases/ministerial_statement_affordable_housing_strategy

Tasmanian Open Space Policy and Planning Framework 2010:

www.dpac.tas.gov.au/__data/assets/pdf_file/0007/234691/Tasmanian_Open_Space_Policy_-_Summary.pdf

Positive Provision Policy for Cycling Infrastructure 2013:

www.transport.tas.gov.au/?a=112630

Tasmanian Walking and Cycling for Active Transport Strategy 2014:

www.stategrowth.tas.gov.au/__data/assets/pdf_file/0004/88780/Tasmanian_Walking_and_Cycling_for_Active_Transport_Strategy.pdf

Greater Hobart Congestion Summit Ministerial announcement, March 2016:

www.premier.tas.gov.au/releases/greater_hobart_traffic_congestion_summit

Timeframe unknown. All Southern Regional Councils and Tasmanian Government

Passenger Transport Reviews:

www.stategrowth.tas.gov.au/passenger/reviews/legislation-implementation/safe_community_transport_review

Metro Tasmania New Timetables:

www.metrotas.com.au/media/new-metro-timetables-starting-on-10-january-2016-available-now/

New routes/timetables part of discussions with Tasmanian Govt on traffic congestion

Metro Tasmania Draft Main Road Transport Corridor Plan 2013:

www.stategrowth.tas.gov.au/__data/assets/pdf_file/0004/89158/Main_Road_from_Glenorchy_to_Hobart_CBD_Draft_Transit_Corridor_Plan.pdf

Unknown status

Metro Tasmania Disability Action Plan:

www.metrotas.com.au/corporate/publications/disability-action-plan/

The Taxi and Hire Vehicle Industries and Amendment Bill 2016:

www.parliament.tas.gov.au/bills/pdf/4_of_2016.pdf

Taxi and Hire Vehicle Industries Act 2008 amendments to allow a person to operate a vehicle as a ride-sourcing service, subject to similar rules that apply to a luxury hire-car licence

Taxis and hire vehicles Regulations:

www.transport.tas.gov.au/passenger/taxi

Tourism operators vehicles Regulations:

www.transport.tas.gov.au/passenger/operators

State Road Hierarchy 2007:

www.stategrowth.tas.gov.au/__data/assets/pdf_file/0003/88563/Tasmanian_State_Road_Hierarchy_2007.pdf

Tasmanian Local Government Road Hierarchy 2015

Arising from Auditor General's Report No 5/2013 Infrastructure & Financial Accounting in Local Government, to be adopted by all Tasmanian local governments. Unclear status across local govt sector

Greater Hobart Household Travel Survey 2010:

www.transport.tas.gov.au/__data/assets/pdf_file/0003/109731/Household_Travel_Survey_Summary_-_Final.pdf

Data out of date

Journey To Work Report:

www.stategrowth.tas.gov.au/passenger/journey

Data from Australian Bureau of Statistics 2011

Heavy vehicle PBS Network Access Regulations:

www.transport.tas.gov.au/__data/assets/pdf_file/0004/109633/State_Road_Access_Policy_for_PBS_Heavy_Vehicles_2.pdf

High Productivity Vehicle Network 2010:

www.transport.tas.gov.au/__data/assets/pdf_file/0014/110714/Review_of_Gazetted_Route_Network_Current_Version_-_FINAL_at_10-06-2011.pdf

Tasmanian National Heavy Vehicle Reform Project:

www.transport.tas.gov.au/?a=112543

Regulate all heavy vehicles more than 4.5 tonnes GVM, including special purpose vehicles and buses. Includes monitoring of heavy vehicles on road network through Intelligent Access Program and Transport Certification Australia

Southern Integrated Transport Plan 2010:

www.transport.tas.gov.au/__data/assets/pdf_file/0004/112468/DIER_Southern_Integrated_Transport_Plan_2010.pdf

Current status unknown - with Infrastructure Tasmania

Tasmanian Infrastructure Strategy:

www.stategrowth.tas.gov.au/infrastructure

Brooker Highway Transport Plan 2011:

www.stategrowth.tas.gov.au/__data/assets/pdf_file/0011/88535/Brooker_Highway_Transport_Plan.pdf

and

www.stategrowth.tas.gov.au/__data/assets/pdf_file/0003/88536/Brooker_Highway_Transport_Plan_Partnership_Agreement.pdf

Significant infrastructure investment involved

Tasmanian Urban Passenger Transport Framework:

www.stategrowth.tas.gov.au/passenger/framework

Greater Hobart Infill Development Report:

www.stategrowth.tas.gov.au/passenger/framework/infill-development

Main Road Transit Corridor Plan (Glenorchy to Hobart CBD):

www.stategrowth.tas.gov.au/passenger/framework/transit-corridors/background_information

Light Rail Business Case 2016:

www.stategrowth.tas.gov.au/__data/assets/pdf_file/0004/129613/Light_Rail_Strategy_210116.pdf

Infrastructure Tasmania completed report. A federal election year. Would have a high impact on transport planning in the relevant transport corridors

Tasmanian Freight Survey 2014–2015:

www.stategrowth.tas.gov.au/__data/assets/pdf_file/0004/88564/Tasmanian_Freight_Survey_Data_Summary_Report_2013.pdf

Data still reflects forestry heavy vehicle transport task from Southern Forests through CBD

Draft Tasmanian Integrated Freight Strategy 2016:

www.stategrowth.tas.gov.au/home/about_us/infrastructure/freight

Consultation completd January 2016

Tasports 30 Year Plan 2043:

www.tasports2043.com.au/

Tasports Cruise and Tourism:

www.tasports.com.au/port_services/cruise_shipping.html

Tasports Waterside Restriction Zones, Port of Hobart:

www.tasports.com.au/pdf/security-maps-may-2010/waterside-restriction-zones-port-of-hobart.pdf

Under the provisions of the Maritime Transport and Offshore Facilities Security Act 2003

Macquarie Point Development Corporation Act 2012:

www.austlii.edu.au/au/legis/tas/consol_act/mpdca2012422/

Macquarie Point Master Plan 2015–2030:

masterplan.macquariepoint.com/static/pdf/masterplan_full.pdf

Tasmanian Government Sullivans Cove Master Plan 2010:

www.justice.tas.gov.au/__data/assets/pdf_file/0011/151796/SCMP_maindoc_FINAL_web_a3.pdf

Planning Reform Taskforce 2014–2017:

www.stategrowth.tas.gov.au/__data/assets/pdf_file/0010/124399/Fact_Sheet.pdf

Delivering a state-wide consistent planning framework. To be clarified, if it will incorporate existing plans for City of Hobart, such as Sullivan's Cove Master Plan, Capital City planning process etc. Proposals to maintain current planning function with local government

Land Use Planning and Approvals Amendment (Tasmanian Planning Scheme) Bill 2015:

www.justice.tas.gov.au/community-consultation/previous_consultations/new-tasmanian-planning-scheme

Amendments giving effect to a state wide consistent planning framework. Includes 'Local Provisions Schedules'

Macquarie Point Railyards Precinct Remediation Project 2013:

www.federalfinancialrelations.gov.au/content/npa/infrastructure/macquarie_point_railyards_precinct_remediation/Project-Agreement.pdf

Funding of $50 million. Progress re removal of toxic waste held up due to delays with C Cell development at Copping

Tasmanian Government Tourism Tasmania Events Strategy 2015–2020:

events.tas.gov.au/__data/assets/pdf_file/0015/107007/Tasmania_Events_Strategy_Web.pdf

Related to annual growth figures for tourism in Tasmania and impacts on tourism infrastructure

AUSTRALIAN GOVERNMENT

National Land Transport Act 2014:

www.austlii.edu.au/au/legis/cth/consol_act/nlta2014258/

Key Commonwealth Land Transport Funding Act

Local Government (Financial Assistance) Act 1995:

www.comlaw.gov.au/Details/C2009C00214

Administered by State Grants Commission

COAG Reform Agenda (infrastructure, transport regulation, cities, road reform (incl heavy vehicles), National Ports Strategy etc), Homelessness and Housing, Seamless Economy, NDIS, etc:

www.coag.gov.au/reform_agenda

COAG agreed to develop a new competition reform agreement, drawing on the Harper Competition Policy Review, for its consideration in 2016. This will include the potential for productivity payments for delivery of reforms, recognising the need for a flexible approach and noting there is no 'one size fits all' solution. Consideration will also be given to new ways to apply competition policy in regional and remote Australia.

COAG Reforma Agenda Capital City Planning Project – Greater Hobart: Draft at June 2010

Prepared by Tasmanian Planning Commission

COAG Reform Agenda Macquarie Point Railyards Precinct Remediation Agreement:

www.coag.gov.au/node/383 and http://macquariepoint.com/wp-content/uploads/2013/04/Doc-I.pdf

Dept of Infrastructure & Regional Development Financial Assistance Grants:

regional.gov.au/local/assistance/index.aspx

Contributes approx 7% revenue to Council's budget

Dept of Infrastructure & Regional Development Infrastructure Investment Program, includes Bridges Renewal, Black Spot, Investment Road & Rail, Roads to Recovery, Heavy Vehicle Safety & Productivity, National Highway Upgrade:

investment.infrastructure.gov.au/

Through the Infrastructure Investment Program made up of a number of individual programmes, each providing targeted funding for land transport projects

Dept of Infrastructure and Regional Development investment programmes specifically available to local government:

regional.gov.au/local/programmes-for-local-government.aspx

Includes Black Spot road safety funding

Department of Infrastructure and Regional Development 'State of Australian Cities' 2014–2015:

infrastructure.gov.au/infrastructure/pab/soac/

National Cycling Strategy 2011–16:

www.austroads.com.au/road-operations/bicycles/resources/national-cycling-strategy

Infrastructure Australia Audit Report 2014–2015:

infrastructureaustralia.gov.au/policy-publications/publications/Australian-Infrastructure-Audit.aspx

Recent announcement to update audit report

Infrastructure Australia Projects:

infrastructureaustralia.gov.au/projects/

Environment Protection and Biodiversity Conservation Act 1999:

www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/

The primary environmental legislation in Australia

Infrastructure Australia Rapid Transit public transport report 2015:

infrastructureaustralia.gov.au/policy-publications/publications/Rapid-Transit-Investing-in-Australias-Transport-Future-March-2014.aspx

Infrastructure Australia Urban Transport Strategy 2013:

infrastructureaustralia.gov.au/policy-publications/publications/Infrastructure-Australias-Urban-Transport-Strategy-December-2013.aspx

Our Cities, Our Future — A National Urban Policy for a productive, sustainable and liveable future 2011:

infrastructureaustralia.gov.au/policy-publications/publications/Our-Cities-Our-Future-2011.aspx

Regional Development Australia Tasmanian Development Plan 2013–2016:

www.rdatasmania.org.au/client-assets/documents/documents-and-reports/RDA%20Tasmania%20Regional%20Plan_2015%20-%202016_FINAL.pdf

National Heavy Vehicle Reform /Heavy vehicle National Law:

www.nhvr.gov.au/

Under implementation across all jurisdictions

Hobart International Airport Master Plan 2015:

hobartairport.com.au/corporate/environment-planning/master-plan-2/

Includes landside transport

Antarctic Division – shipping, freight, air 2015:

www.antarctica.gov.au/living-and-working/travel-and-logistics/shipping-and-air-schedules

CSIRO Hobart RV Investigator:

www.csiro.au/en/Research/Facilities/Marine-National-Facility/RV-Investigator

Institute of Marine and Antarctic Studies:

www.imas.utas.edu.au/antarctic-gateway-partnership

University of Tasmania 10 Year Strategic Plan 2015:

www.utas.edu.au/__data/assets/pdf_file/0003/263874/OPEN-TO-TALENT-STRATEGIC-PLAN.PDF

ATTACHMENT 2 BACKGROUND PAPERS AND FURTHER READING

- *Glenorchy to Hobart CBD Transit Corridor Assessment Report. Demographic Influences and Travel Patterns*, 2012
- *Guidelines for the Preparation of Transport Plans*, Western Australian Government, 2012
- *Hobart's Capital City Strategic Plan*, City of Hobart, 2015-2025
- *Hobart Congestion Traffic Analysis*, Tasmanian Government, 2016
- *Hobart International Airport Master Plan*, Hobart Airport Tasmania, 2015
- *Macquarie Point Redevelopment Master Plan*, Macquarie Point Corporation, 2016
- *Road and Rail Infrastructure Pricing*, Productivity Commission, 2006
- *Smart Roads,* VicRoads, 2011
- *Southern Tasmania Regional Land Use Strategy*, Southern Tasmanian Councils Authority, 2010–2035
- *Southern Integrated Transport Plan 2010*, Tasmanian Department of Infrastructure, Energy and Resources
- *State Roads Audit*, Infrastructure Tasmania, 2016
- *Towards Zero – Tasmanian Road Safety Strategy 2017–2026 Discussion Paper*, Road Safety Advisory Council,
- *TasPorts 30 Year Plan 2043*
- Transport strategies for City of Melbourne, City of Greater Geelong, Fremantle City Council and Newcastle City Council.

Hobart Town Hall,
Macquarie Street,
Hobart,
Tasmania 7000 Australia
t (03) 6238 2711
f (03) 6238 2186
e coh@hobartcity.com.au
w hobartcity.com.au