

# Greater Hobart Household Travel Survey

**Summary of analysis and key findings**

**Infrastructure Strategy Division**

**Department of Infrastructure, Energy and Resources**

**December 2010**



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## Greater Hobart Household Travel Survey

The Greater Hobart Household Travel Survey (GHHTS) is a comprehensive survey of how, where and why people are travelling in Greater Hobart.

The Survey was conducted in 2008-09 and is the first of its kind in Tasmania. It makes a significant contribution to better understanding actual passenger transport patterns and needs, to inform the development of appropriate policy and planning responses.

### Overview of the Survey

The Survey was undertaken by consultants on behalf of the Department of Infrastructure, Energy and Resources (DIER) over the financial year 2008-09.

The Survey covered the Greater Hobart metropolitan area, with data collected from the following seven Statistical Local Areas – Derwent Valley, Brighton, Glenorchy, Clarence, Hobart, Kingborough and Sorell.

A range of variables were examined, including:

- Purpose and frequency of trips;
- Mode of transport;
- Trip route and distribution.

Over 2,400 households were interviewed across Greater Hobart, between July 2008 and July 2009.

### Using the Survey results

As a result of the Survey, we now have, for the first time, detailed information on how people are actually travelling within Greater Hobart. In this context, the Survey will inform a wide range of policy and planning initiatives, including metropolitan, corridor and network planning, and the examination of individual measures (e.g. park and ride sites, ferries and light rail).

### Survey parameters

#### Survey Period

July 2008 to June 2009

#### Sample Size

2,400 Households (5,400 people)

#### Study area

- Hobart Local Government Area (LGA);
- Glenorchy LGA;
- Clarence LGA; and
- Brighton LGA.
- Derwent Valley Part A Statistical Local Area (SLA);
- Kingborough Part A (SLA); and
- Sorell Part A (SLA).

#### Sample selection

Households were selected on the basis of a stratified sample. Within each LGA areas were split in clusters. Within each cluster there was a random selection of collectors districts from which households were selected.

#### Survey Method

All members of a surveyed household were asked to fill in a travel diary for two consecutive days. The survey was administered in a similar way to the ABS census, with survey staff dropping off and picking up self completed diaries.

#### Survey Content

All travel outside the home was recorded from a simple short walk to trips outside the Greater Hobart area. Basic household and demographic information was collected

#### Future Surveys

Future surveys are anticipated but are subject to future resourcing.

#### Future release of data

Additional analyses of the GHHTS will be gradually released on the DIER website.

#### More Information

Web: [www.dier.tas.gov.au/ghhts](http://www.dier.tas.gov.au/ghhts)

E-mail: [ptframework@dier.tas.gov.au](mailto:ptframework@dier.tas.gov.au)

Information from the GHHTS will be used for key initiatives, including:

- **Development of park and ride sites.** Travel patterns for persons travelling to and from work and for shopping will be considered when selecting new sites and planning for related bus services
- **Analysis of demand for future public transport services,** such as the Northern Suburbs light rail business case and Metro's Greater Hobart bus network plan.
- **Development of future Principal Bicycle Network and initiatives to encourage walking.** Non motorised movements will be examined for insight into developing future plans and providing appropriate infrastructure.

The Survey builds on the Government's existing passenger transport plans and policies, including:

- Tasmanian Urban Passenger Transport Framework  
<http://www.dier.tas.gov.au/passengertransportframework>
- Tasmanian Walking and Cycling for Active Transport Strategy  
[http://www.dier.tas.gov.au/passengertransportframework/tasmanian\\_walking\\_and\\_cycling\\_for\\_active\\_transport\\_strategy](http://www.dier.tas.gov.au/passengertransportframework/tasmanian_walking_and_cycling_for_active_transport_strategy)
- Southern Integrated Transport Plan  
[http://www.transport.tas.gov.au/road/southern\\_integrated\\_transport\\_plan](http://www.transport.tas.gov.au/road/southern_integrated_transport_plan)

## KEY FINDINGS

- An average of 2.7 trips per person per weekday are undertaken across Greater Hobart
- The highest percentage of trips are undertaken by car – almost 75% of all trips are by car as driver or passenger
- Walking is a significant mode in all Local Government Areas – around 20% of all trips are by walking
- Trip purpose is evenly spread between trips to work, shopping and recreation/ entertainment, across all local government areas demonstrating that it is important to consider and plan for a diversity of travel needs.
- Trips to work recorded the longest average trip distance of 11.2km, demonstrating the significance of the trip to work and people's preparedness to travel longer distance to undertake income earning activities.
- During the week, around two-thirds of trips that people made were within their home Local Government Area



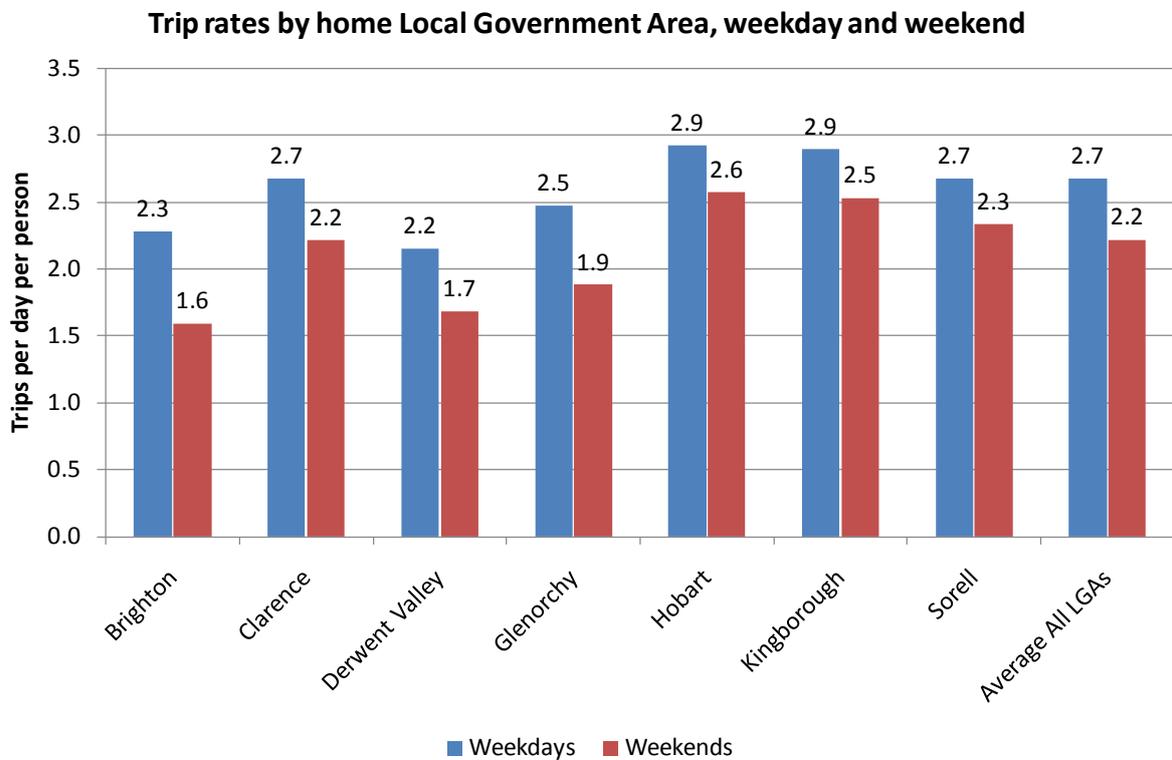
## SURVEY OVERVIEW

### How many trips are undertaken in Greater Hobart?

#### Trip rates

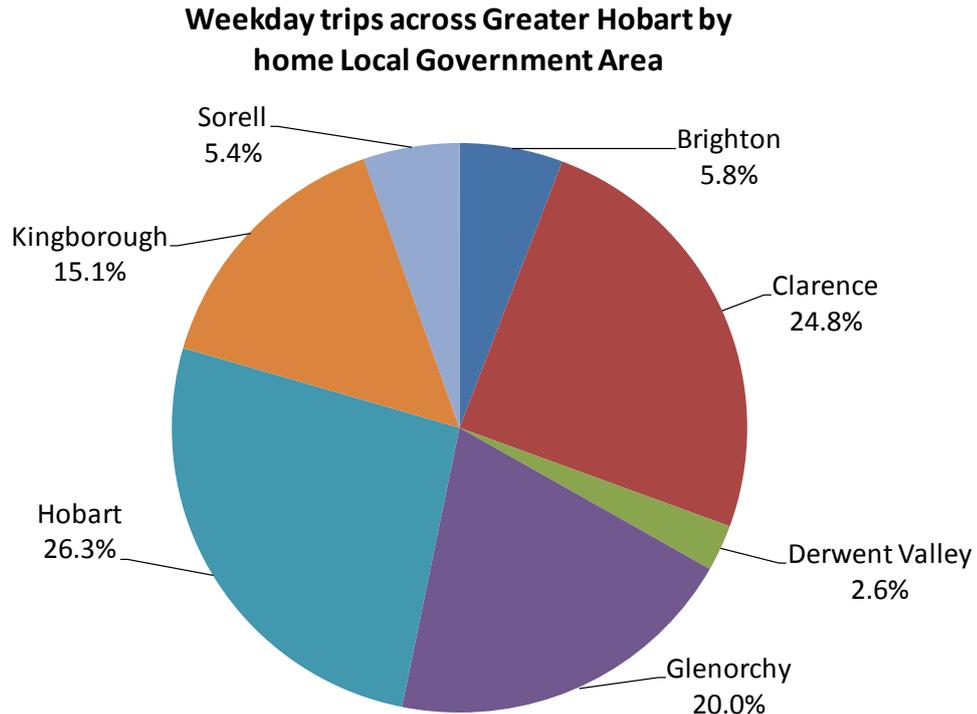
On average, each resident of Greater Hobart makes 2.7 trips per day on a typical weekday and 2.2 trips on a typical day on the weekend.

The average number of weekday and weekend trips is highest in Hobart and Kingborough, and lowest in Derwent Valley and Brighton.



#### Average weekday trips

The distribution of weekday trips between Local Government Areas is shown below, with the origin of each trip shown by local government area.



The highest percentages of weekday trips are made from Hobart (26.3%), Clarence (24.8%) and Glenorchy (20%).

The distribution of weekend trips by Local Government Areas is similar to that on weekday, however the proportion of trips undertaken by residents in Hobart LGA increases from a weekday proportion of 26.3% to 34.7%.

### How do people travel?

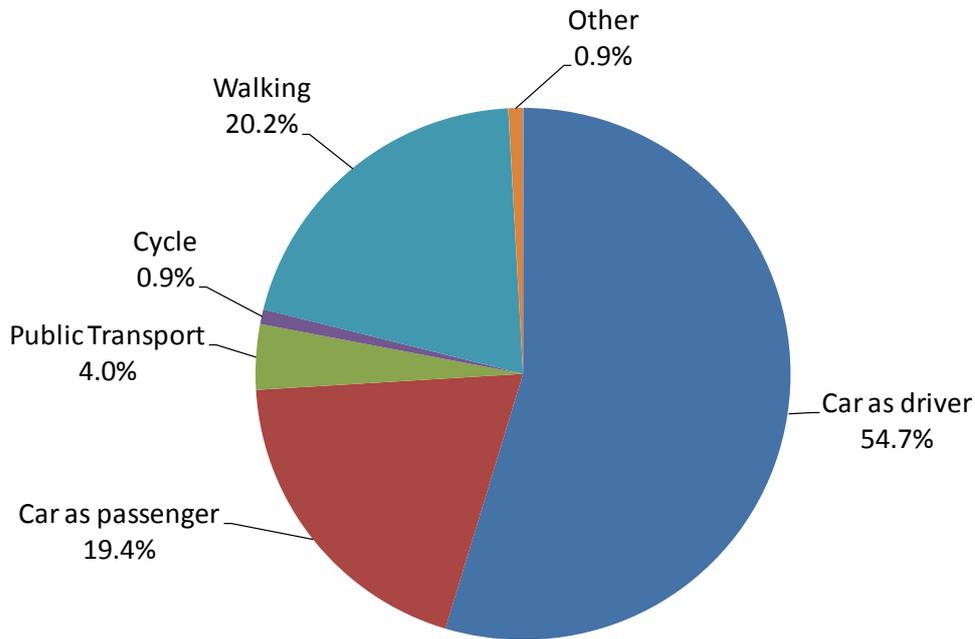
#### *Modal split*

Trips made in a car as driver or passenger is the dominant mode of travel, accounting for around three quarters of all trips.

Walking is also a significant travel mode across all Local Government Areas – over 20% of total trips across the metropolitan region are undertaken by walking, which represents a relatively high proportion of trips undertaken when compared to other Australia states. Walking as a mode of transport is high in all Local Government Areas.

There is little overall use of other modes. Around 4% of trips are made using public transport, including school buses, and less than 1% of trips are made by bicycle. There is relatively little use of other modes, such as motor cycles or taxis.

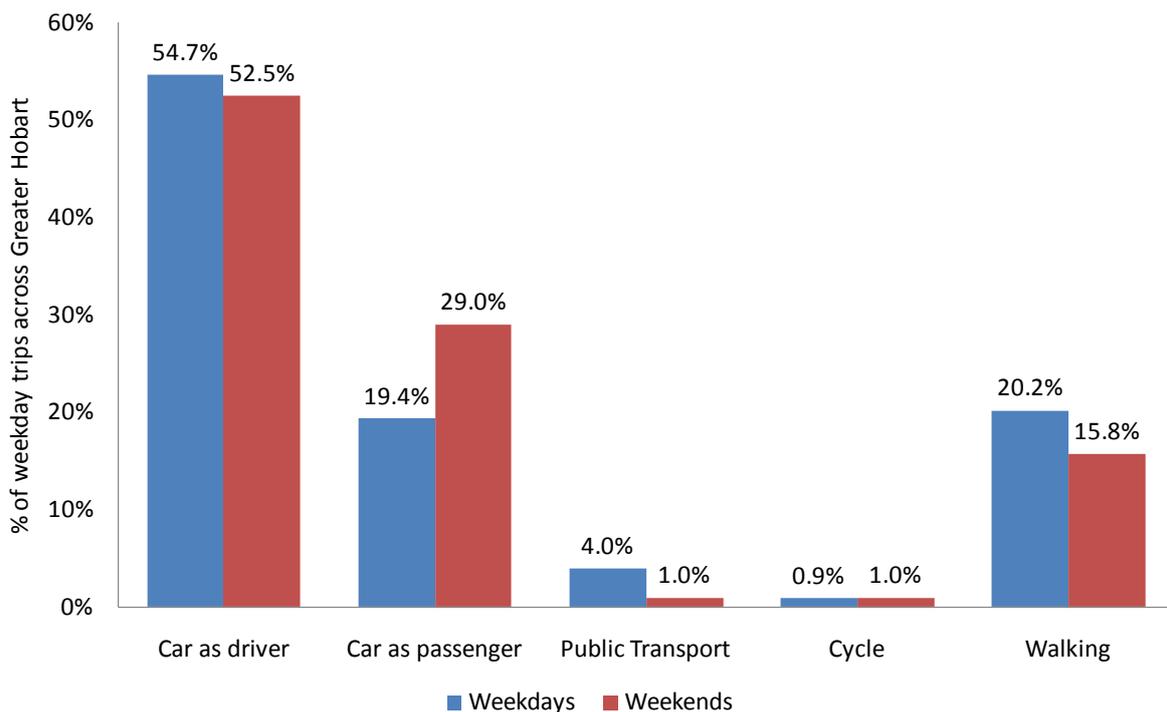
**Mode share across Greater Hobart - weekdays only**



*Modal share: Weekdays and weekends*

The distribution of weekend trips by mode is similar to the weekday distribution of trips. However, there are significantly more trips made in a car as a passenger on weekends, increasing from 19.4% to 29%, with fewer walking and public transport trips. Public transport mode share falls from 4% on weekdays to 1% of trips on weekends.

**Mode share across Greater Hobart, weekday and weekend**



*Modal share by Local Government Area*

Generally, a higher proportion of trips are made by car outside Hobart LGA, with Brighton, Derwent Valley, Kingborough and Sorell having the highest proportion of car-based trips. Public transport use is highest in Sorell, Brighton, Clarence and Glenorchy, with lower utilisation of public transport in other regions.

Trips made by walking are highest in Hobart (30.2% of total trips compared to 20% of trips completed by walking across Greater Hobart), and is lowest in Brighton and Sorell.

**Table 1 – Weekday trip mode share by Local Government Area of residence**

<b>Local Government Area</b>	<b>Car as driver</b>	<b>Car as passenger</b>	<b>Public transport</b>	<b>Walking</b>	<b>Other</b>
Brighton	58.5%	25.1%	5.2%	10.3%	0.8%
Clarence	56.3%	20.4%	4.7%	17.0%	1.6%
Derwent Valley <sup>1</sup>	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 <sup>2</sup>	58.8%	19.5%	3.3%	17.5%	0.9%
Sorell <sup>3</sup>	58.7%	20.2%	7.2%	13.9%	-
<b>Greater Hobart</b>	<b>54.7%</b>	<b>19.8%</b>	<b>4.0%</b>	<b>20.2%</b>	<b>1.3%</b>

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

<sup>1</sup> Figures for Derwent Valley only include the area defined by the ABS-defined Derwent Valley Part A Statistical Local Area.

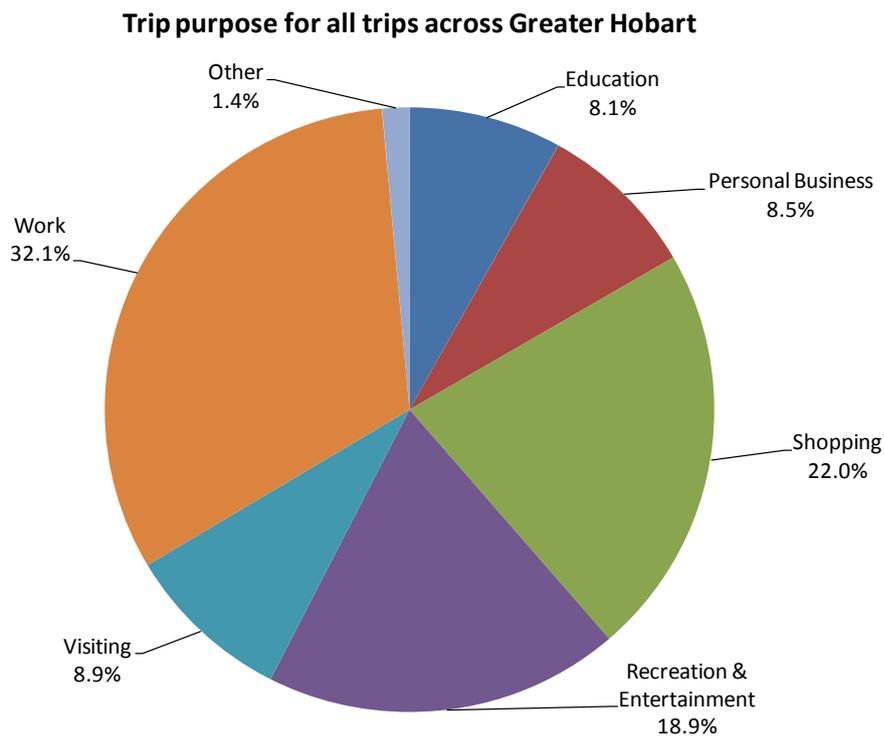
<sup>2</sup> Figures for Kingborough only include the area defined by the ABS-defined Kingborough Part A Statistical Local Area.

<sup>3</sup> Figures for Sorell only include the area defined by the ABS-defined Sorell Part A Statistical Local Area.

## Why do people travel?

During the week, the major reason people travel is relatively evenly spread between work (32.1%), shopping (22%) and recreation and entertainment (18.9%).

While work-based trips are the highest single reason to travel, almost two thirds of trips are undertaken for a different purpose, and it is important to consider and plan for this diversity of trip needs. There was no significant variation in trip purposes across Local Government Areas.



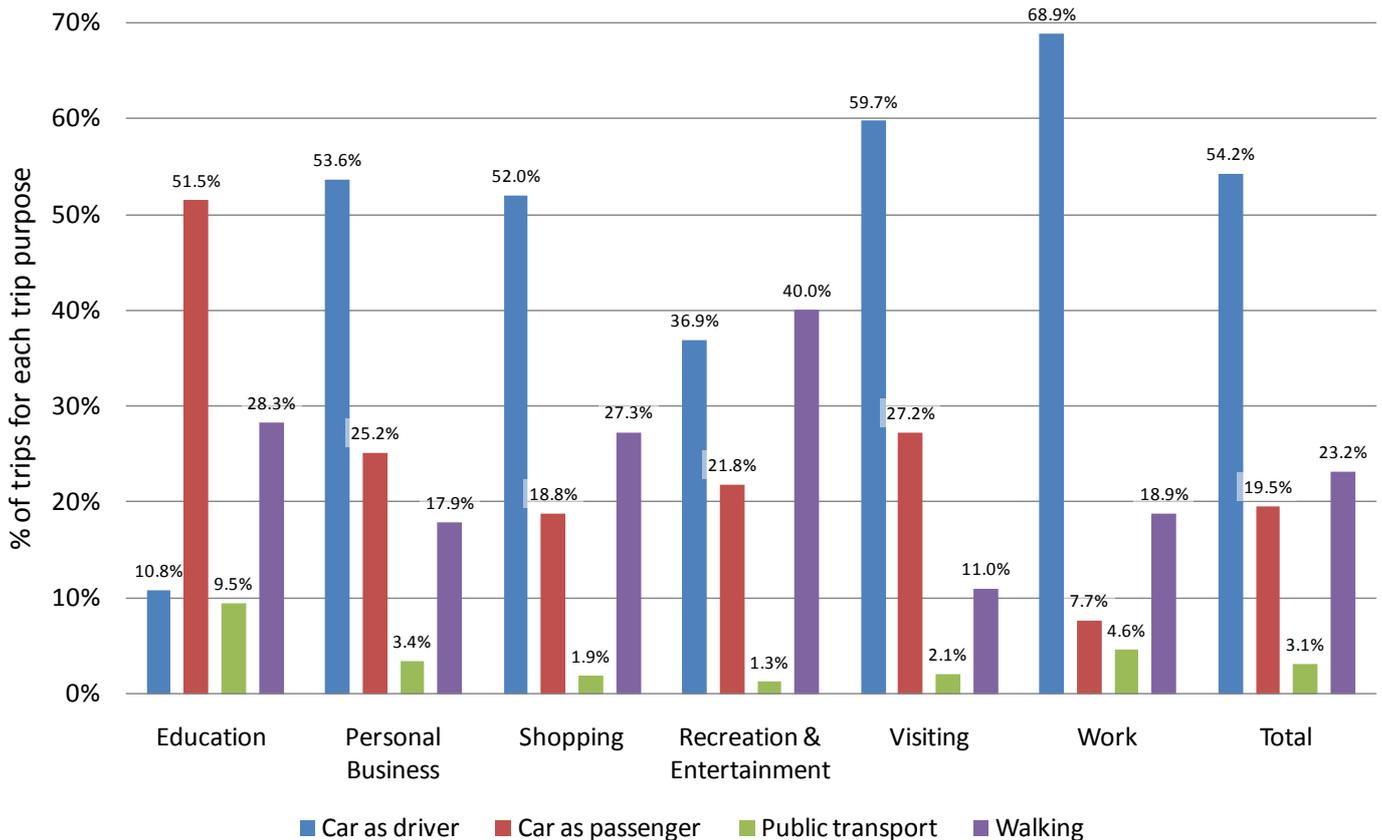
The survey also records trips to home – generally around 40.5% of all trips across Greater Hobart are trips home. While home trips are the predominant trip purpose for all trips across Greater Hobart, they have been excluded from the above diagram.

In terms of trip purpose by mode:

- Trips to work are heavily dominated by car as driver, with fewer trips completed in a car as a passenger

- Educational trips are the only example where the majority of trips are completed by car as a passenger. This trip purpose also has the greatest percentage of trips completed by public transport.
- While mode share for the purposes of Personal Business, Shopping and Visiting are similar to overall mode share, walking is most likely to be used to undertake Recreational and Entertainment based trips.

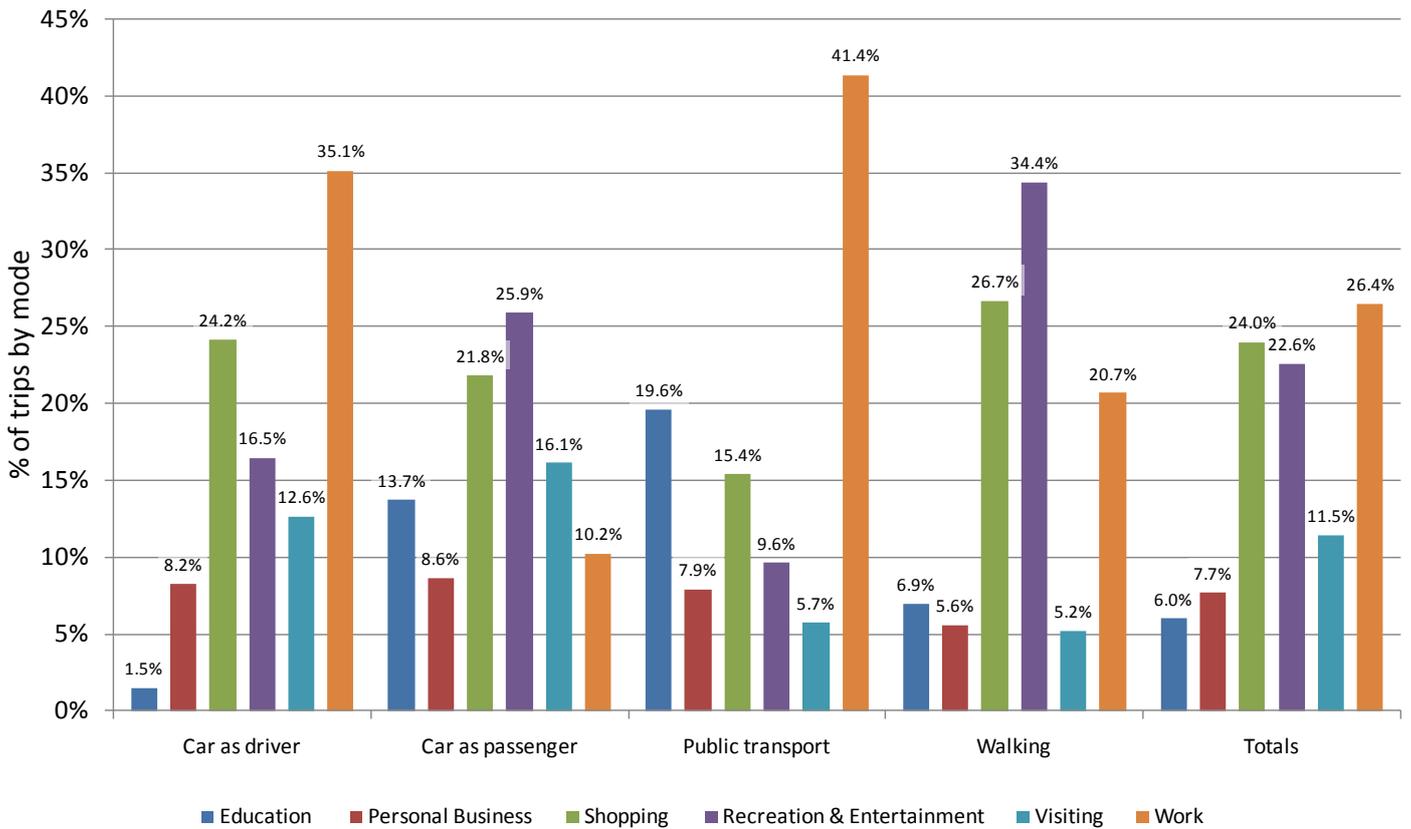
**Percentage mode share by trip purpose (weekdays only)**



The importance of trip purpose for each mode is shown in below.

Car as driver and public transport are the major modes for trips to work, while walking and car as passenger are the major modes for trips to recreational and entertainment activities. Car as passenger and public transport are the major modes for trips to education.

**Percentage mode share by trip purpose (weekdays only)**

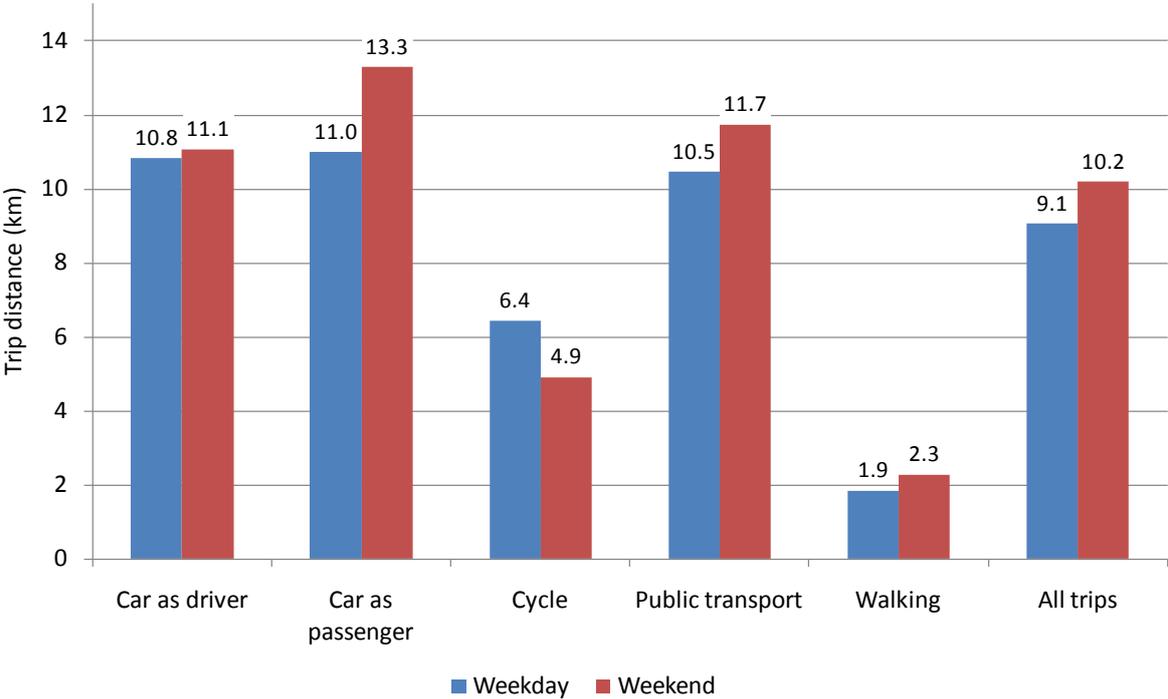


**What is the length of trips?**

The average length of a weekday trip is 9.1 km and around 10.2km for weekend trips. Trips undertaken as passengers in a car showed the highest increase in total length between weekday and weekend.



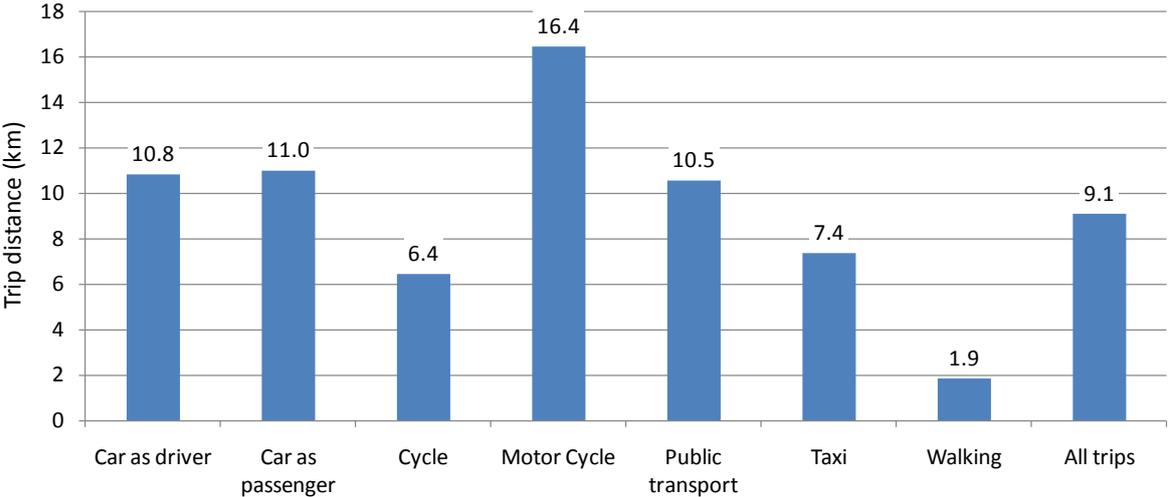
**Average trip distance weekday and weekend, by mode**



*Note: Estimates for cycling should be used with caution due to the small percentage of trips made using this mode.*

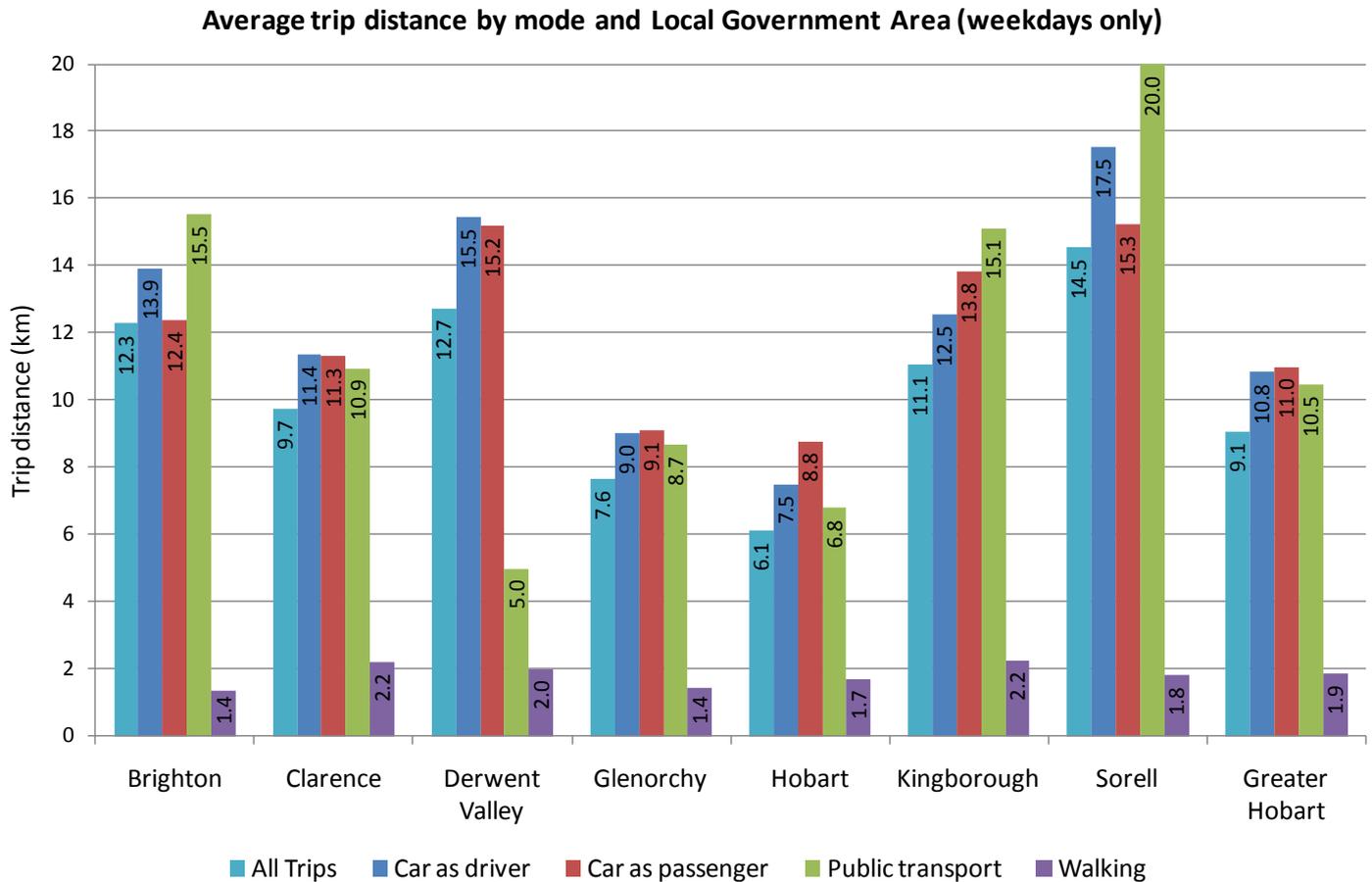
Average weekday trip lengths for all modes across Greater Hobart are shown below. Typically, motorised transport is used to undertake longer trips, with shorter trips more likely to be undertaken by cycling (6.4 km) and walking (1.9km).

**Average weekday trip length, all modes**

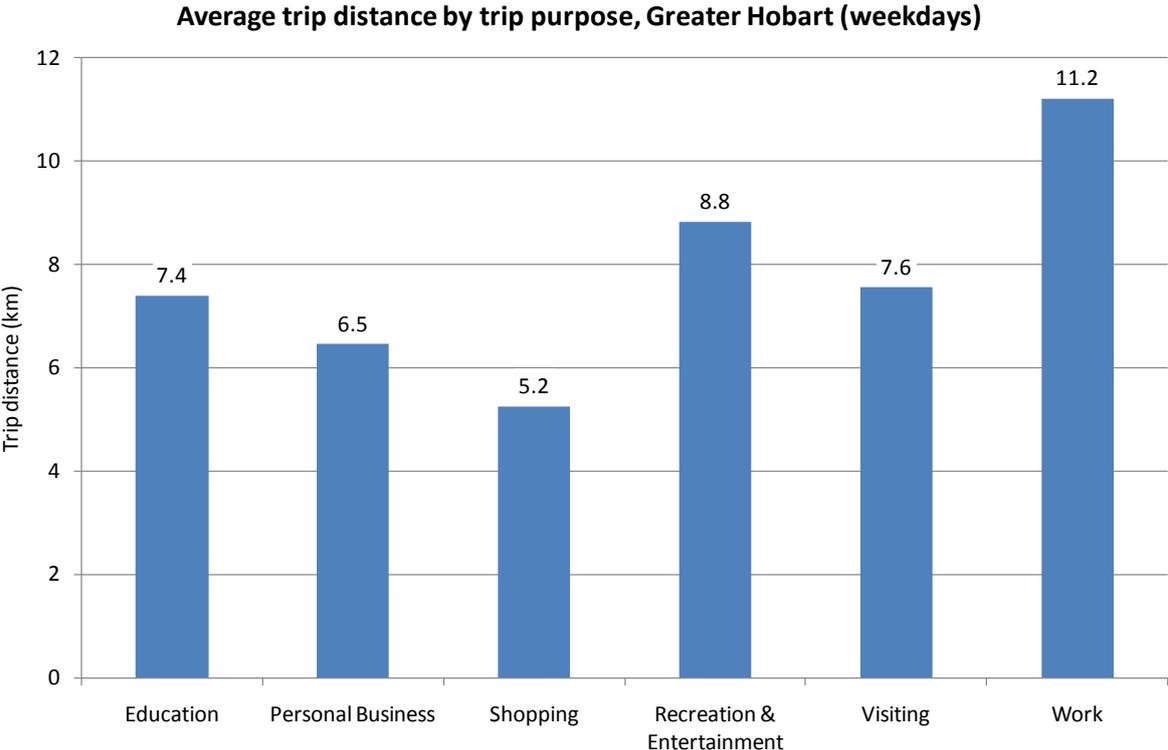


*Note: Average trip lengths calculated for Cycling, Motor Cycles and Taxi must be used with caution as they are based on small samples.*

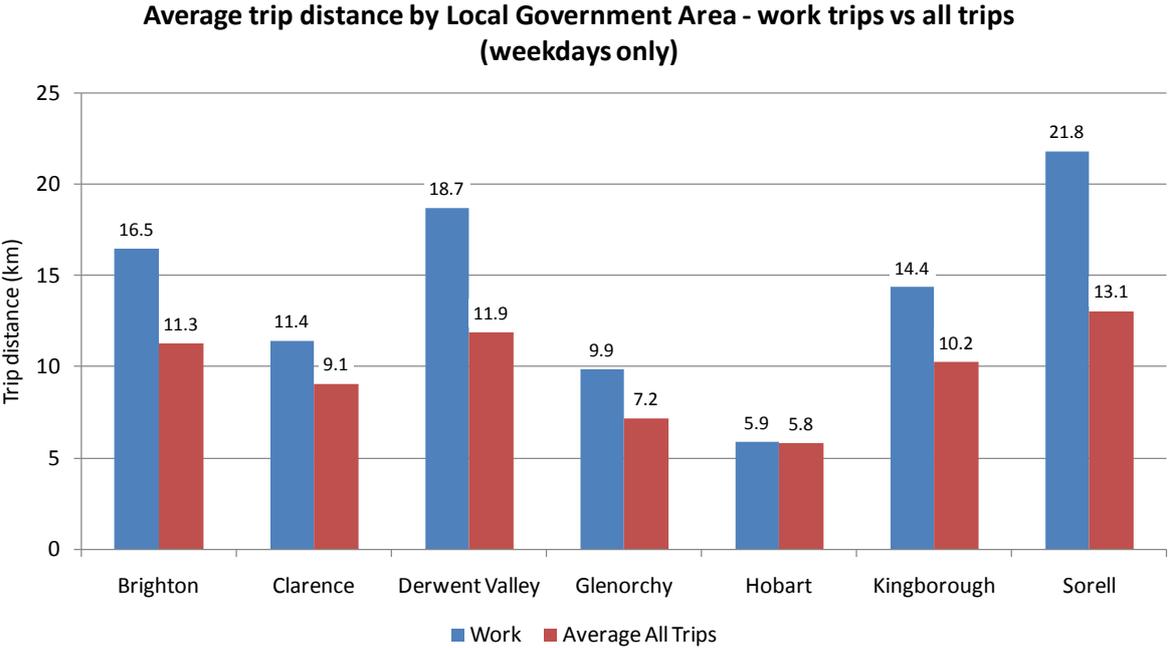
Proximity to Hobart affects average trip length. Shorter than average motorised trips are associated with Hobart and Glenorchy, with longer than average trips associated with trips originating from outlying Local Government Areas.



The longest average trip distance was for trips to work, at 11.2km, highlighting people’s preparedness to travel longer distance to undertake income earning activities. It potentially also shows a relationship between where people can afford to live and where they need to travel in order to work.



Trip distances are longer in outer urban areas, such as Brighton, Derwent Valley and Sorell; and shorter in Clarence, Kingborough and Glenorchy; and shortest in Hobart. Additionally, work trip distances are generally much longer than the average trip distance in outer LGAs, but in Hobart, work trip distances are roughly similar to the average trip distance for all trips in the LGA.



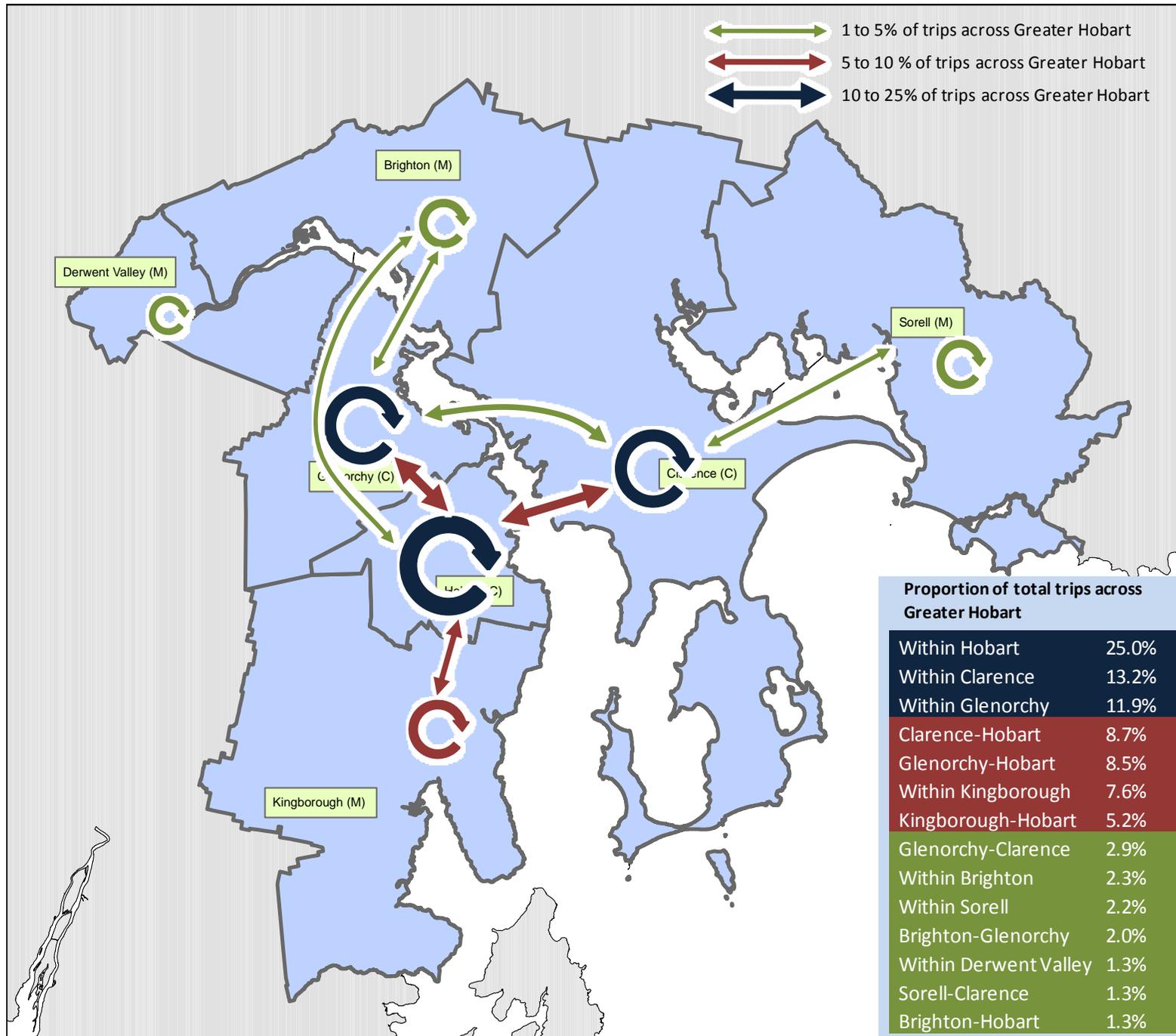
### Where do people start and stop trips?

During the week, the majority of people (63.4%) undertake trips within the same local government area in which they live. Of the remaining out of area trips (36.6%), the most popular destination was Hobart which attracts about a third of all trips, followed by Glenorchy and Clarence Local Government Areas which attract approximately one fifth of out of area trips.

Most out of area trips to Hobart are made from adjacent Local Government Areas. For example, whereas 20.5% of trips originating in Brighton end in Glenorchy, only 13.4% end in Hobart.

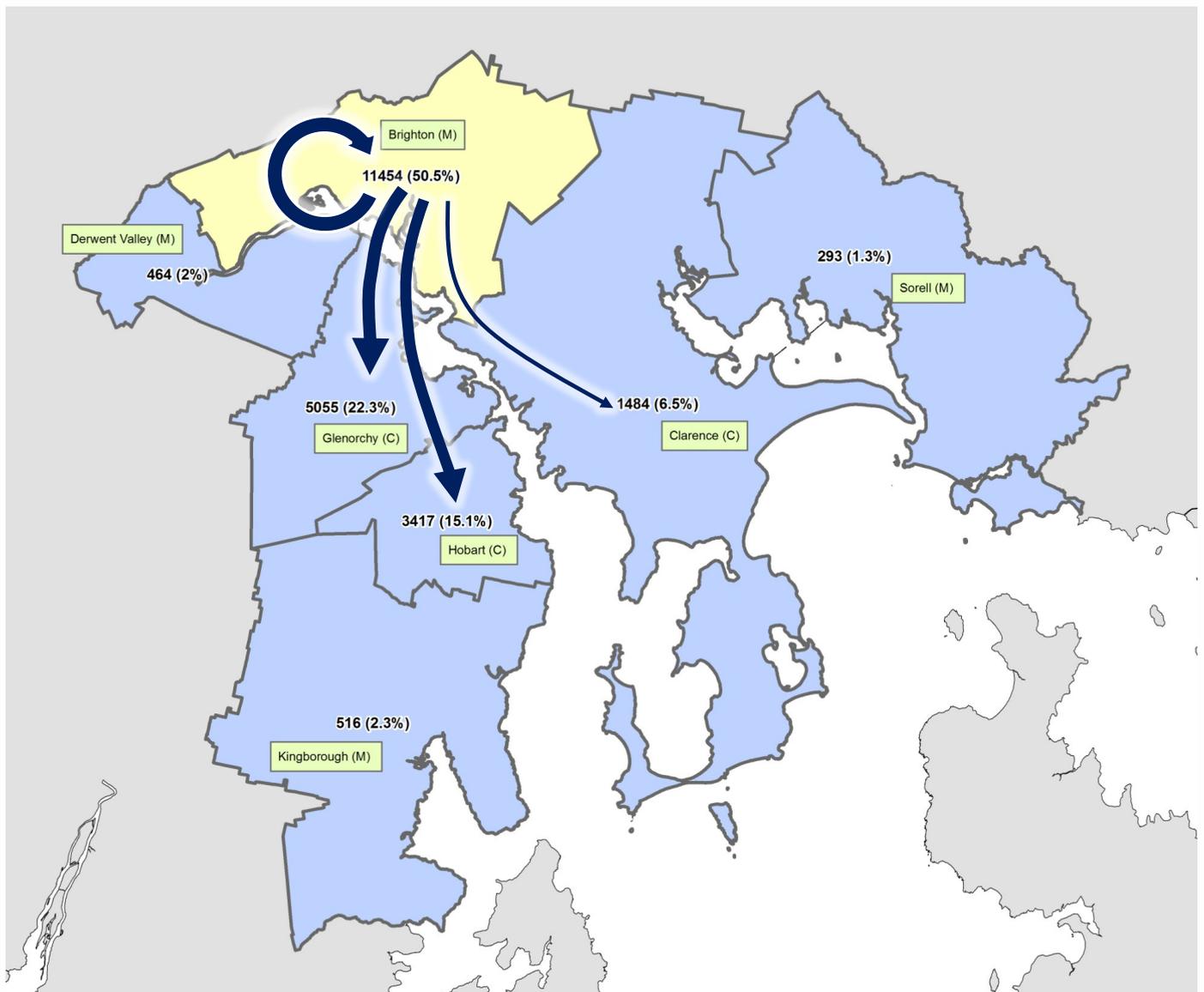
Key movements across Greater Hobart are shown on the map below. Around a quarter of trips across Greater Hobart are made within the Hobart LGA, with another 25% made within the Clarence and Glenorchy LGAs. Trips between Clarence and Hobart and Glenorchy and Hobart each comprise nearly 9% of trips across Greater Hobart, with trips within Kingborough and between Kingborough and Hobart comprising nearly 13%. Other trips both within and between LGAs comprise around 20% of the overall task across Greater Hobart, and the major movements are highlighted on the map on the next page.





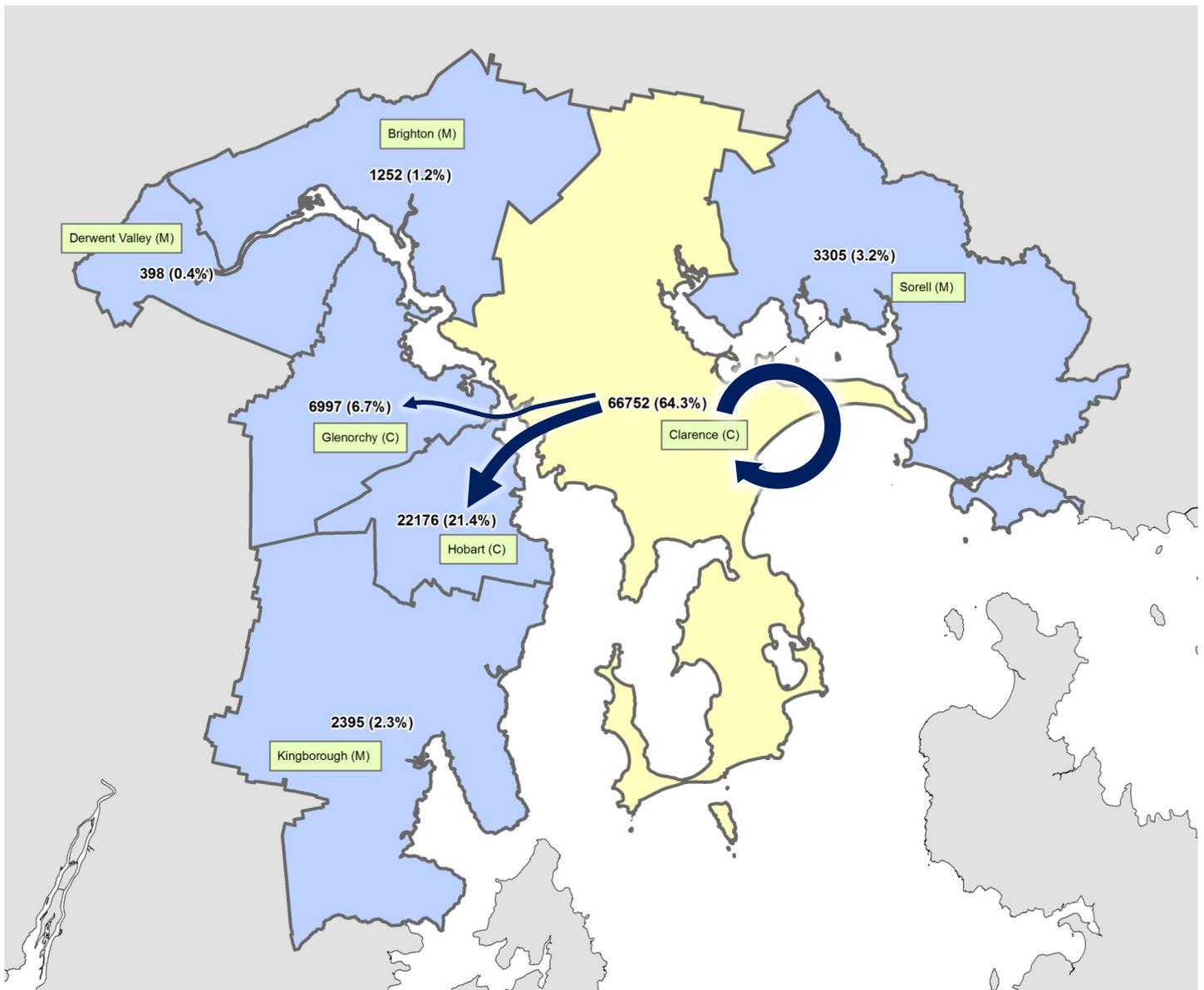
**Brighton** residents undertake a significant proportion of their daily trips within their home LGA, but this is the lowest proportion of home LGA trips (50.5 %) in comparison to other Local Government Areas. Glenorchy and Hobart are also important destinations for Brighton residents.

**Map 2** – Trips made by Brighton residents to LGAs across Greater Hobart



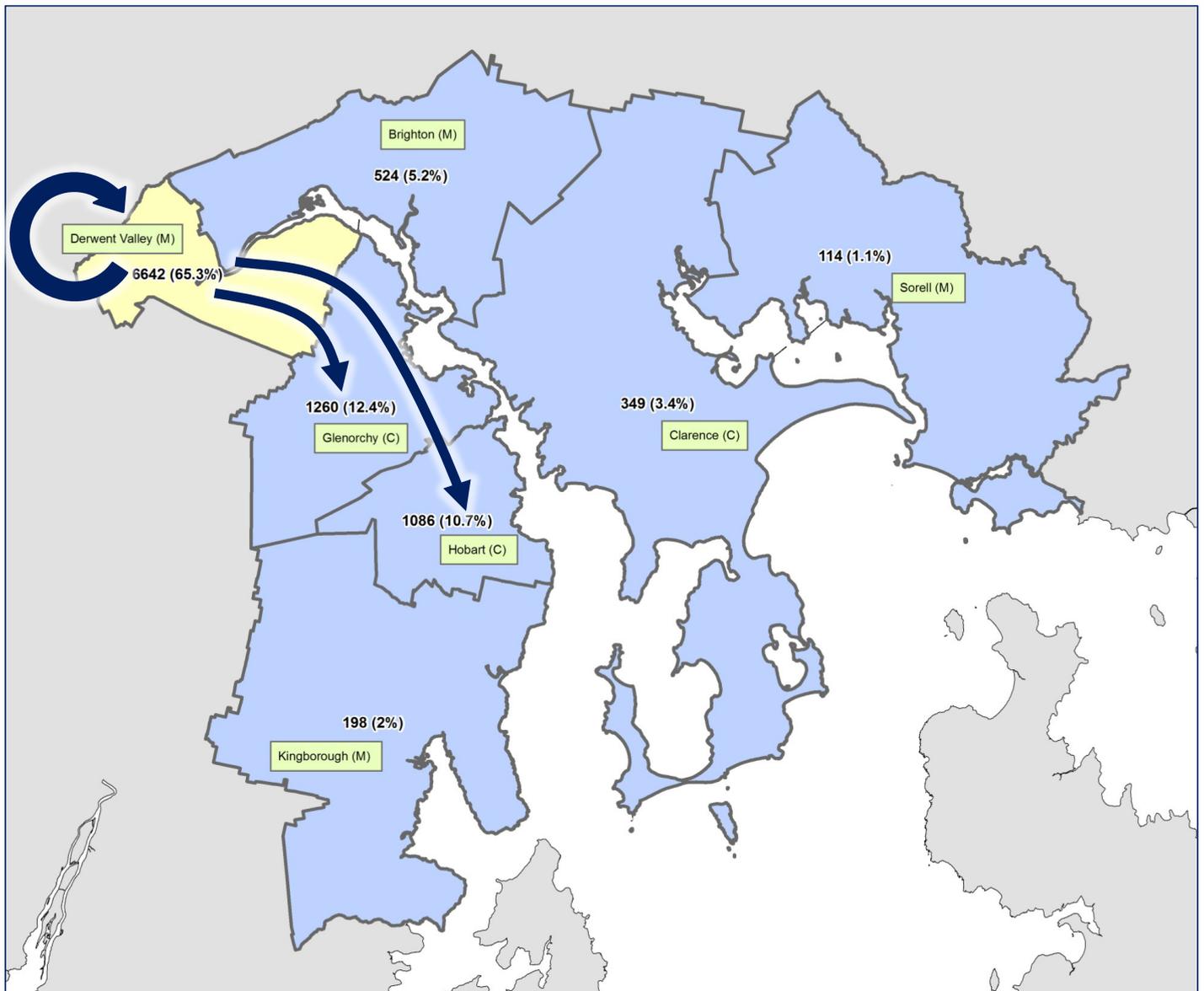
**Clarence** residents take a considerable number of trips within their LGA, and to Hobart. There are relatively few trips to other areas, but Glenorchy is the most frequently travelled destination of the other LGAs. This is somewhat similar to the travel patterns of Kingborough residents.

**Map 3** – Trips made by Clarence residents to LGAs across Greater Hobart



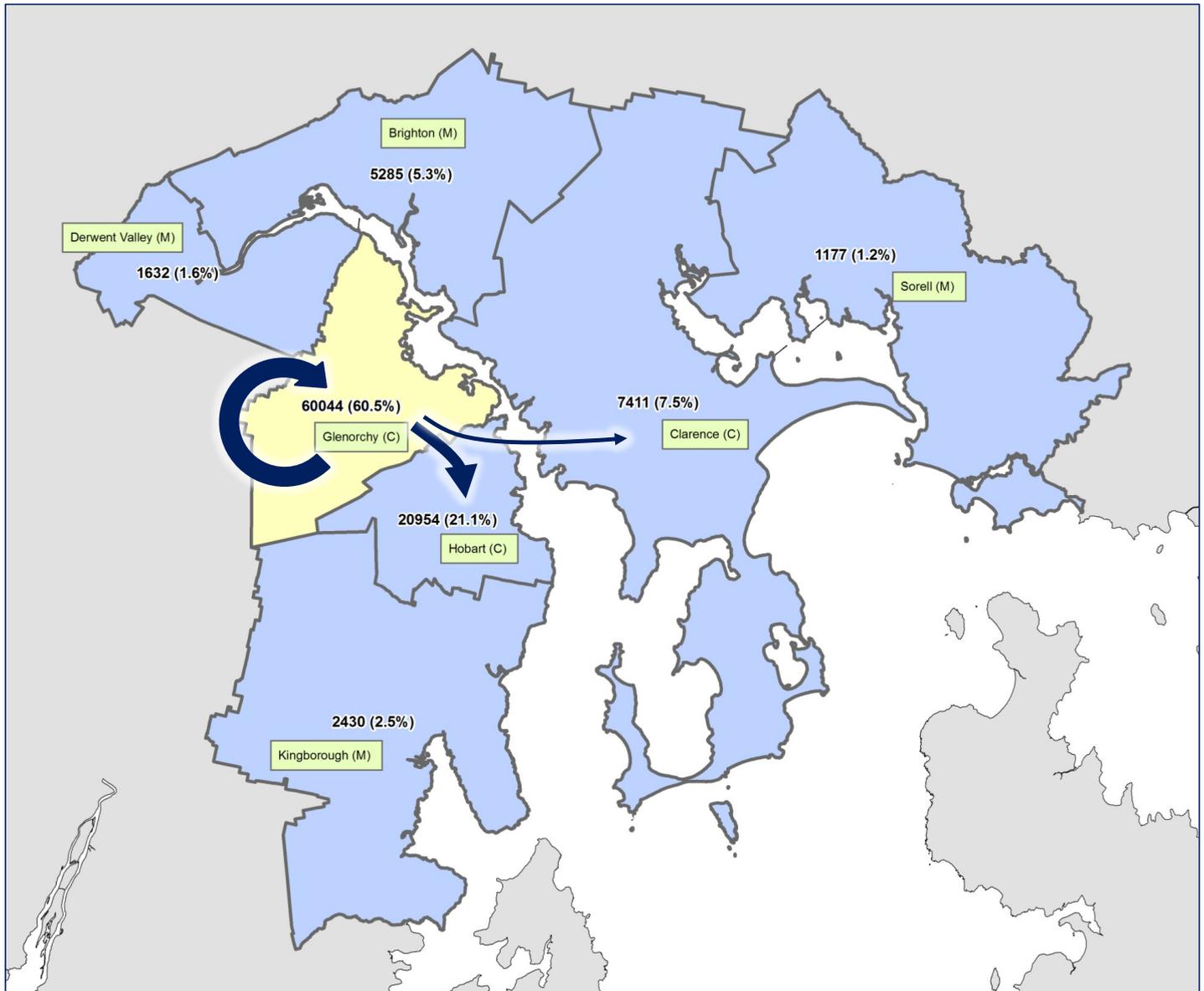
**Derwent Valley** residents take a considerable number of trips within their home LGA, but both Glenorchy and Hobart are important destinations for some trips. The travel patterns exhibited by Derwent Valley residents are somewhat similar to those from Sorell with Glenorchy, Clarence in the case of Sorell a more important secondary destination than Hobart.

**Map 4** – Trips made by Derwent Valley residents to LGAs across Greater Hobart



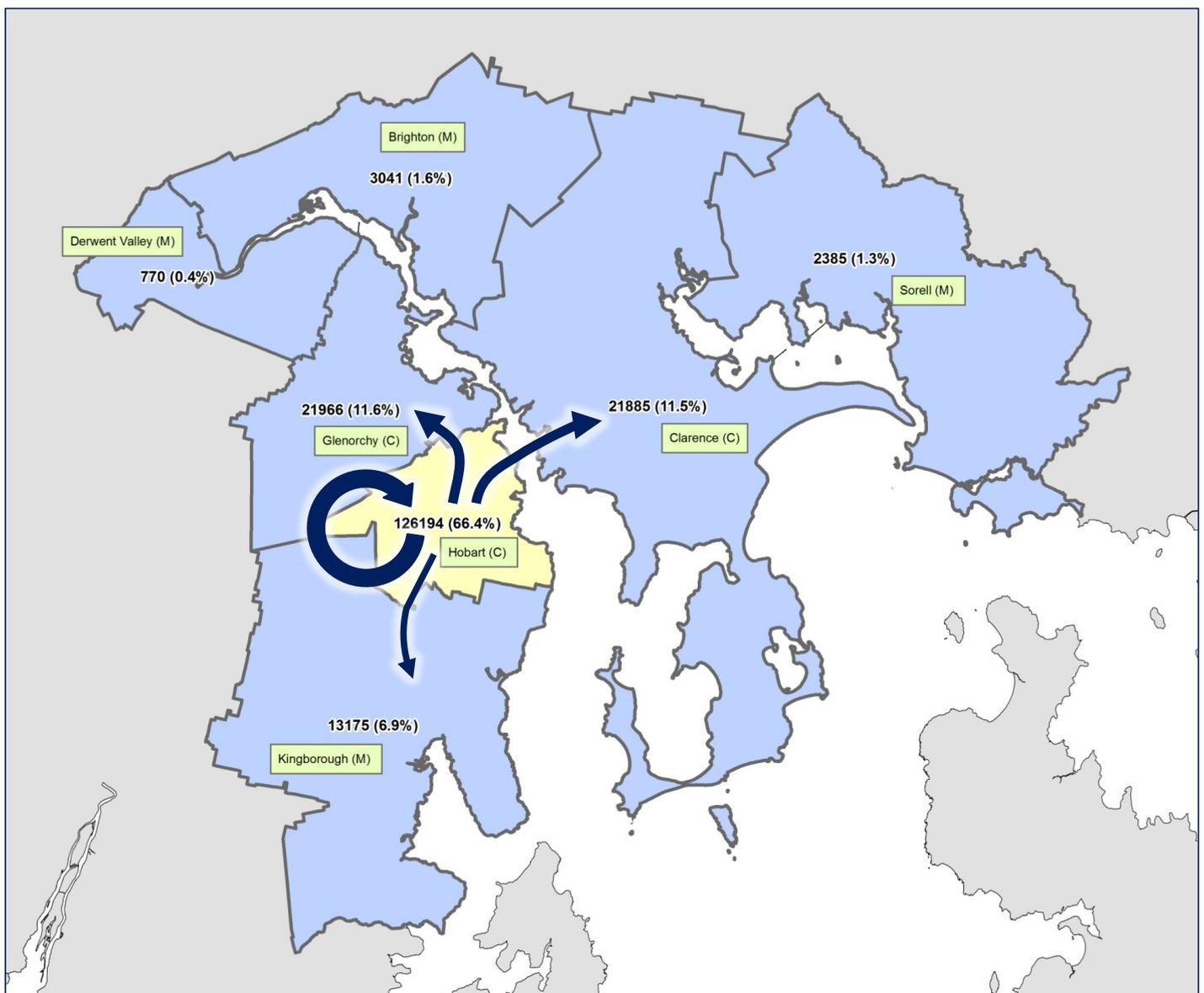
**Glenorchy** residents take a considerable number of same area trips and as a secondary destination to Hobart. There are relatively few trips to other areas, but Clarence is the most frequently travelled destination of the other LGAs.

**Map 5 – Trips made by Glenorchy residents to LGAs across Greater Hobart**



Approximately two thirds of trips made by **Hobart** residents are within the Hobart Local Government Area – the highest proportion of intra-LGA trips of all the LGAs across Greater Hobart. This pattern is part of the reason why Hobart residents generally travel the shortest trip distances of all residents in Greater Hobart. Of trips going to other destinations both Glenorchy and Clarence destinations are equally represented.

**Map 6** – Trips made by Hobart residents to LGAs across Greater Hobart



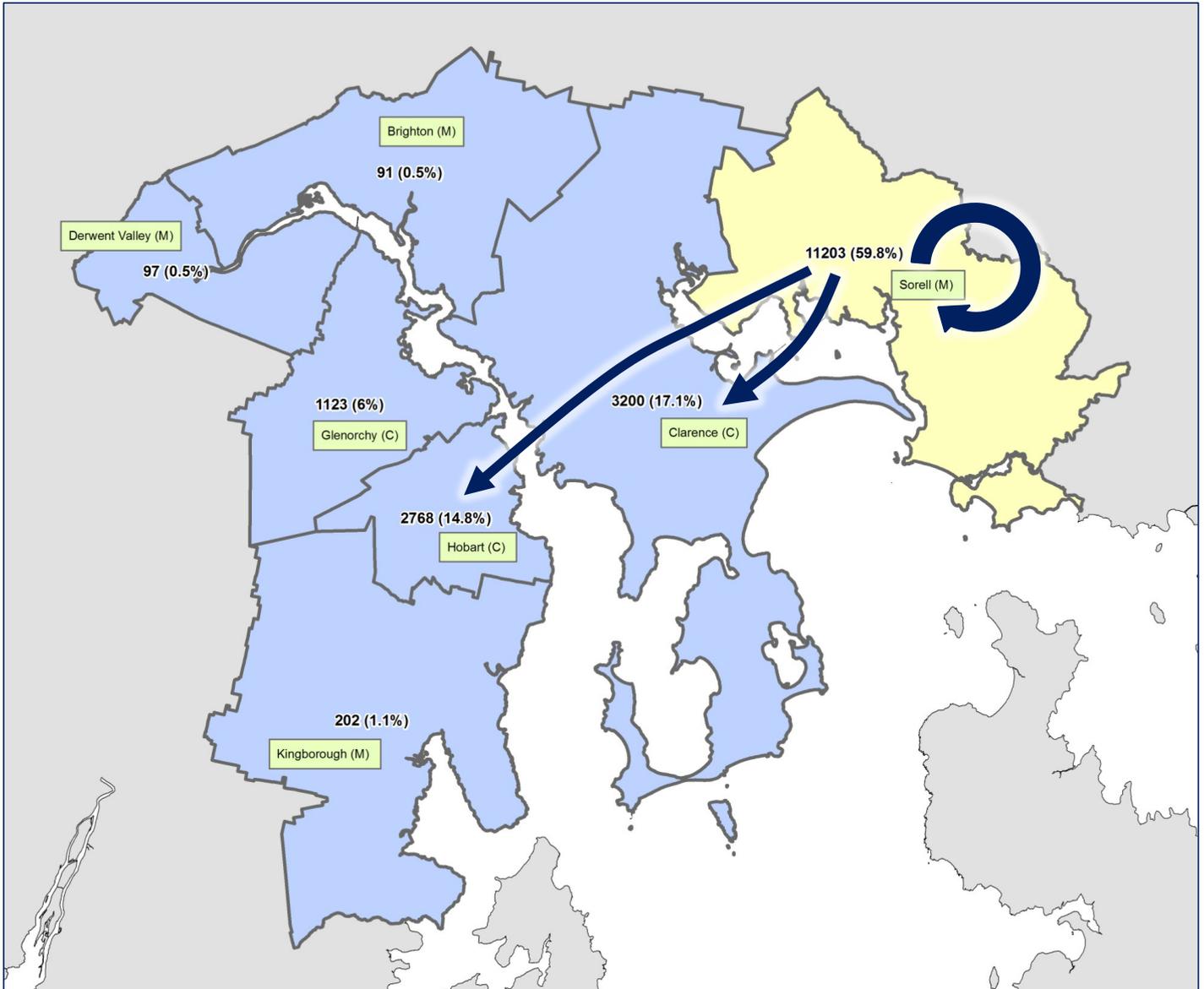
**Kingborough** residents take a considerable number of same area trips and secondly to Hobart. There are relatively few trips to other areas. This is somewhat similar to the travel patterns of Clarence residents.

**Map 6** – Trips made by Kingborough residents to LGAs across Greater Hobart



**Sorell** residents take a considerable number of same area trips but both Clarence and Hobart are important destinations for other trips. The travel patterns exhibited by Sorell residents are somewhat similar to those from Derwent Valley with Clarence, Glenorchy in the case of Derwent Valley a more important secondary destination than Hobart.

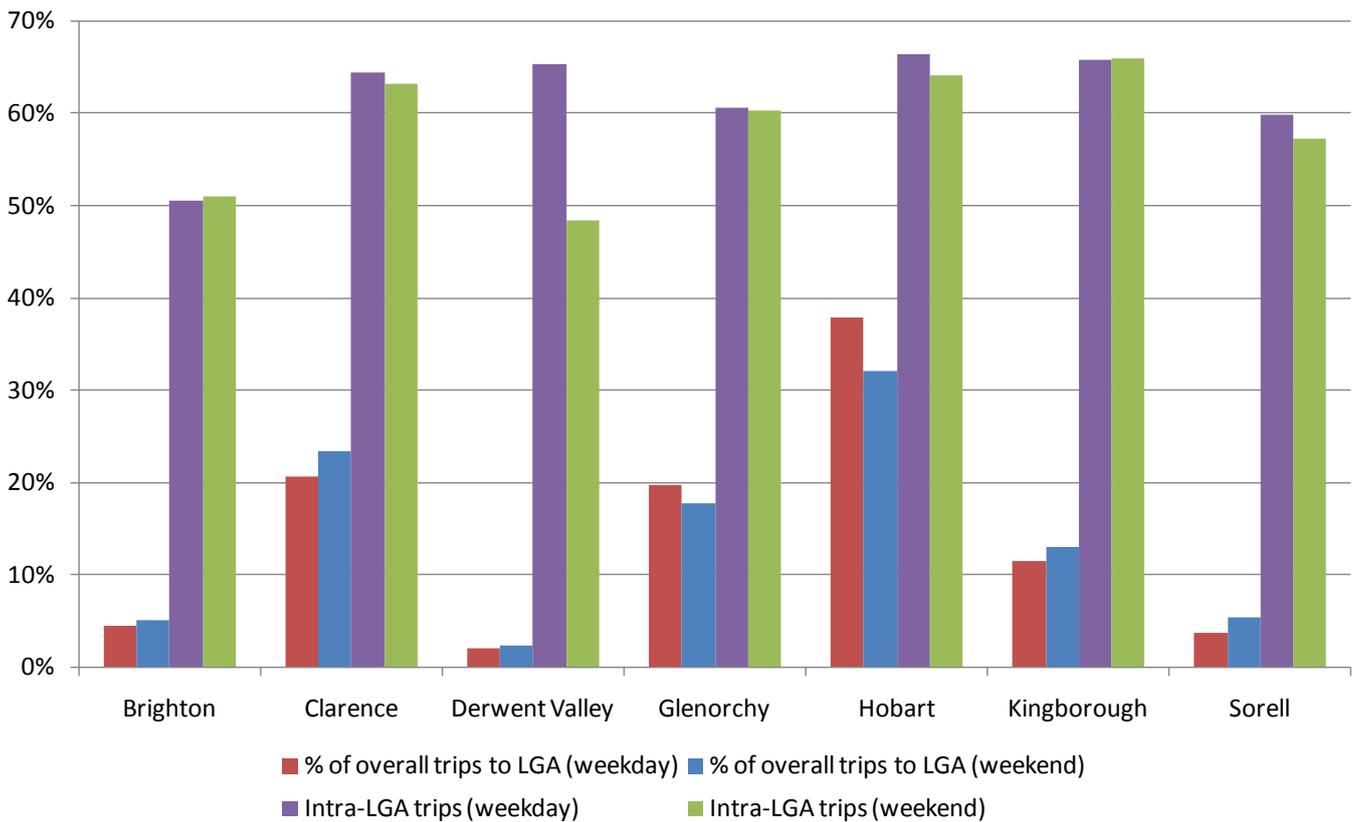
**Map 7 – Trips made by Sorell residents to LGAs across Greater Hobart**



### Trip destinations

Trip destination did not vary significantly between weekdays and weekends. This is a theme throughout the survey. However, the proportion of overall trips to Hobart and Glenorchy declined on weekends, with a corresponding increase in trips to Clarence, Kingborough and Sorell. Generally speaking, the survey shows that people generally undertake the majority of their trips within the Local Government Area they reside in.

**Trip destinations by LGA across weekdays vs weekend**



### When do people travel?

Generally, there are higher numbers of trips undertaken on a typical weekday compared to weekends. On weekdays, the highest numbers of trips occur in the morning peak, with a second smaller peak in the late afternoon – early evening. Weekday trips peak twice a day – between 8am and 9am, and 3pm and 4pm. A secondary peak is observed between 5pm and 6pm. After 6pm the number of trips falls significantly and is very low after 10pm.

Generally, trip making on weekends occurs later than on weekdays, with a minor peak of trips between 10am and 1 pm, but trip making is relatively steady between 9am and 4pm. Similar to weekdays, there are low numbers of trips made after 7pm on weekends.

**Number of Trips per hour (weekday vs weekend)**



## Glossary

**Trip** - Defined as all travel between the origin and ultimate destination. A trip can comprise multiple trip stops and trip segments, however should have one overall purpose for being undertaken.

### Trip mode definitions

For all mode definitions, the mode refers to the method of transport that comprises the longest part of a trip in terms of time. For example, a trip to work that involves a five minute walk and a fifteen minute public transport journey would be defined as a public transport.

**Walking** - A trip undertaken predominantly by foot (including walking, running or jogging) or with the aid of a skateboard.

**Cycle** - A trip undertaken predominantly with the use of a bicycle, tri-cycle, or any device utilising 'pedal power'.

**Motorcycle** - A trip predominantly undertaken on a motorcycle driver or passenger

**Car as Driver** - A trip predominantly undertaken as the primary driver of a private motor vehicle.

**Car as passenger** - A trip predominantly undertaken as the passenger in a private motor vehicle.

**Public Transport** - A trip predominantly undertaken using any form of public transport, predominantly using Metro buses or school buses.

**Taxi/hire car** - A trip predominantly undertaken in a rented vehicle or a taxi, wherein passengers pay for the use of the vehicle or driver.

### Trip purpose definitions

**Work** – Work trips include trips to the survey respondent's typical workplace, and trips associated with the respondent's work.

**Shopping** – Shopping trips are defined as trips to any premises which sell goods. Shopping is defined as any time the respondent entered a "shop" whether or not a purchase is made.

**Education** – Educational trips comprise travel by students only (part-time or full-time) to institutions such as primary and secondary schools, technical colleges and universities. This does not include travel to educational institutions by employees (teachers, lecturers etc), travel by parents to pick up children from school, or courses relating to hobbies.

**Personal Business/Services** – Trips for personal business or services were made for personal business or business affairs where no goods are involved. Examples include banking, hairdressing, trips to libraries, solicitors or insurance offices; paying bills for services/utilities; trips to obtain repairs on any good; and trips to government offices (e.g. Councils, Service Tasmania). This also includes trips made for respondent's personal medical or dental needs, and trips to welfare services/agencies (e.g. Centrelink, Guidance Counsellors).

**Recreation / Entertainment** – Trips for recreation or entertainment includes a wide range of activities, including participation in or watching sporting activities, and all entertainment activities occurring in a public or private place, (e.g. going out for lunch, dinner, clubs, hotels, concerts, movies, hobby courses, and barbeques).

**Visiting** – Visiting trips include trips to visit family or friends at a variety of locations, including visits to a private home; hospital).





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**Department of Infrastructure,  
Energy and Resources**

10 Murray Street,

Hobart TAS 7001

Ph: 1300 135 513

Visit: [www.dier.tas.gov.au/ghhts](http://www.dier.tas.gov.au/ghhts)