

our **Roads** for **Future**

Launceston traffic origin destination report May 2018





Introduction

Launceston, Tasmania's second largest city, sits on the Tamar River, where the North Esk and South Esk rivers meet. The central business district provides employment and services to the inner residential areas, and to those from rural locations up to an hour away in all directions. The five main routes providing access to the city from outer regions are the East Tamar, West Tamar, Tasman, Bass and Midland Highways.

In recent years the demand for the Launceston city road network has grown and the result has been an increase in congestion during morning and afternoon peaks. Future changes, such as the relocation of the University of Tasmania Launceston campus from Newnham to Inveresk, will also have an impact on where and how people move through the city.

To appropriately plan for, and manage future changes in traffic volumes and travel routes, an understanding of current travel patterns is required. Understanding how the road network is currently used can help provide understanding of the causes of congestion, and help predict how network usage might change in future.

In August 2017, the Department of State Growth conducted a study of traffic movements passing through inner Launceston. This report provides a snapshot of the data gathered during the study and details vehicle travel patterns throughout greater Launceston during morning and afternoon peak times.

Results show that in the morning peak just over half of the traffic from each of the outer regions had a destination of inner Launceston; and in the afternoon peak, for each of the outer regions, about half of the traffic originated in inner Launceston.



The survey

A number plate survey was used to observe the movement of traffic passing through Launceston. In August 2017, cameras were set up at key locations around Launceston to create a cordon, allowing the majority of cars entering and exiting the city to be observed. The data collected allows the origin and destination of trips that pass through inner Launceston to be analysed. For this study, greater Launceston was split into six regions, shown in Figure 1, and movements to and from these regions were captured using the cordon points at the following locations:

- North west of Launceston - Trevallyn Road and the West Tamar Highway (both at South Esk River)
- North east of Launceston - East Tamar Highway and Invermay Road (both south of Mowbray Link)
- East of Launceston - Penquite Road (south of Amy Road), Hobblers Bridge Road (between Penquite Road and Plevan Place), and Henry Street (at North Esk River) (east)
- West of Launceston - Bass Highway (east of Westbury Road) and Westbury Road (west of Normanstone Road)
- South of Launceston - Midland Highway (south of Bass Highway) and Hobart Road (south of Punchbowl Road)

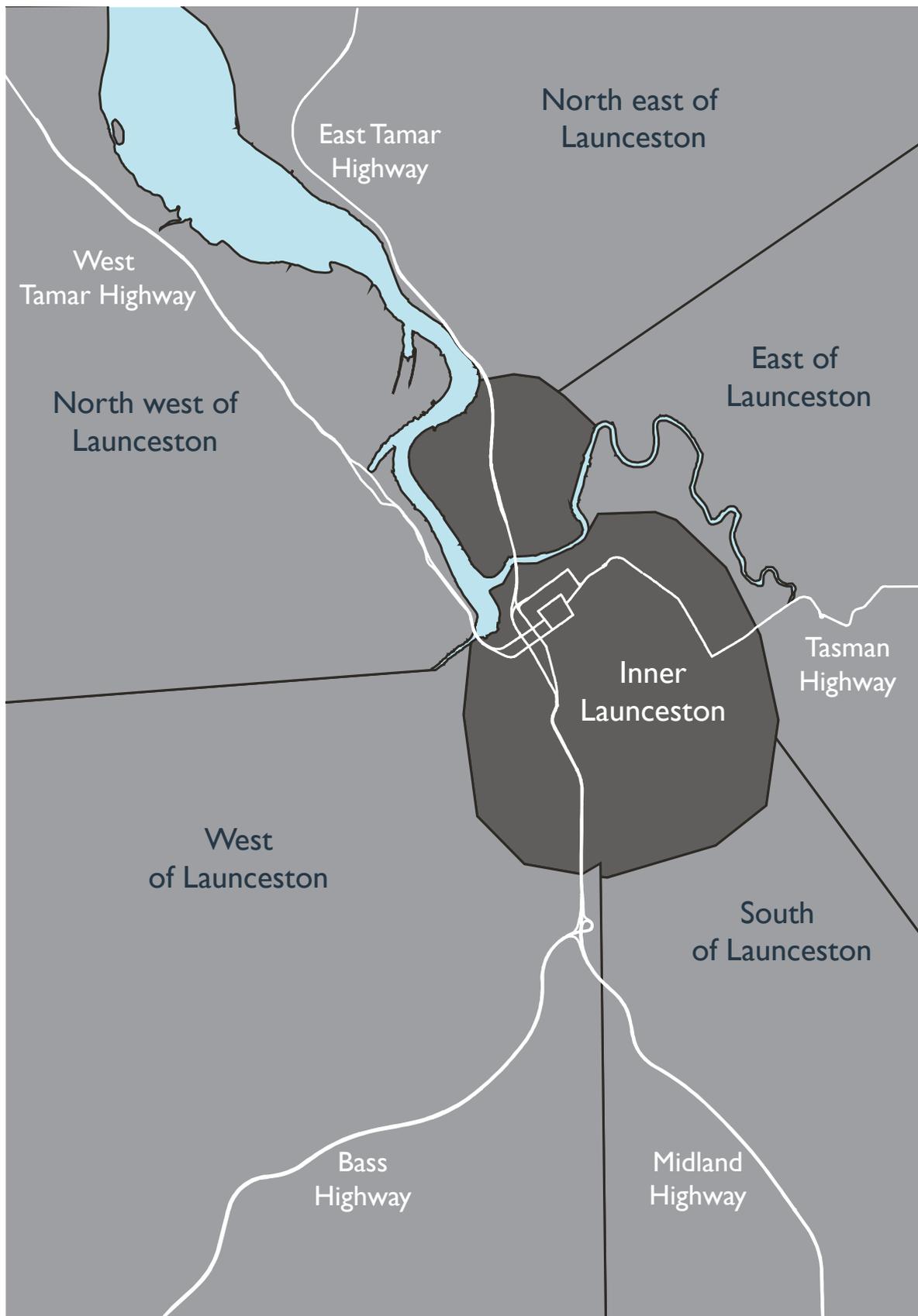
Inner Launceston is defined as the area bounded by all of the above locations.

Cameras were also located on Charles Street and Victoria Bridges to allow more detailed analysis in this area. These cameras were used to create a 'gate', which allowed the origins and destinations of traffic crossing the gate to be determined.

The cameras on Charles Street Bridge, Victoria Bridge, Invermay Road and East Tamar Highway were also used to create a cordon around Inveresk and Invermay, allowing the origins and destinations of trips to and from this sub-area of inner Launceston be identified.

Throughout this report, due to rounding of individual numbers, percentage totals may not sum to 100%.

Figure 1: Regions for the Launceston origin destination study





Results

General travel patterns

The results in Table 1 show that for trips starting outside inner Launceston during the morning peak and passing a cordon point, between 50% and 60% finished in inner Launceston, with the remaining 40 – 50% passing through. Correspondingly, in the afternoon peak, of all trips passing a cordon point and destined for an outer region about 50% originated in inner Launceston (Table 2), with the remainder passing through inner Launceston. During the morning peak, of those trips passing through the city, the largest volumes were destined for the south and north east, followed by the west and then smaller volumes destined for the east and north west.

Another significant pattern in both the morning and afternoon was the movement of cars between the south and west, in both directions, on the Midland and Bass Highways. There was also a notable movement from the north west to the north east in the morning, and reversed in the afternoon. In both the morning and afternoon peaks, there were also a significant number of round trips, from the outer regions to inner Launceston and return.

Table 1: Results from the Launceston traffic origin destination study, morning peak

Morning peak (7:00am – 9:00am)							
Number of trips measured	Origin	Destination					
		Inner Launceston	North west	North east	East	West	South
4594	North west	54%	8%	14%	5%	7%	13%
3466	North east	54%	7%	12%	5%	9%	14%
2464	East	58%	5%	7%	19%	5%	5%
4483	West	53%	5%	12%	4%	7%	20%
3322	South	52%	7%	11%	3%	17%	9%

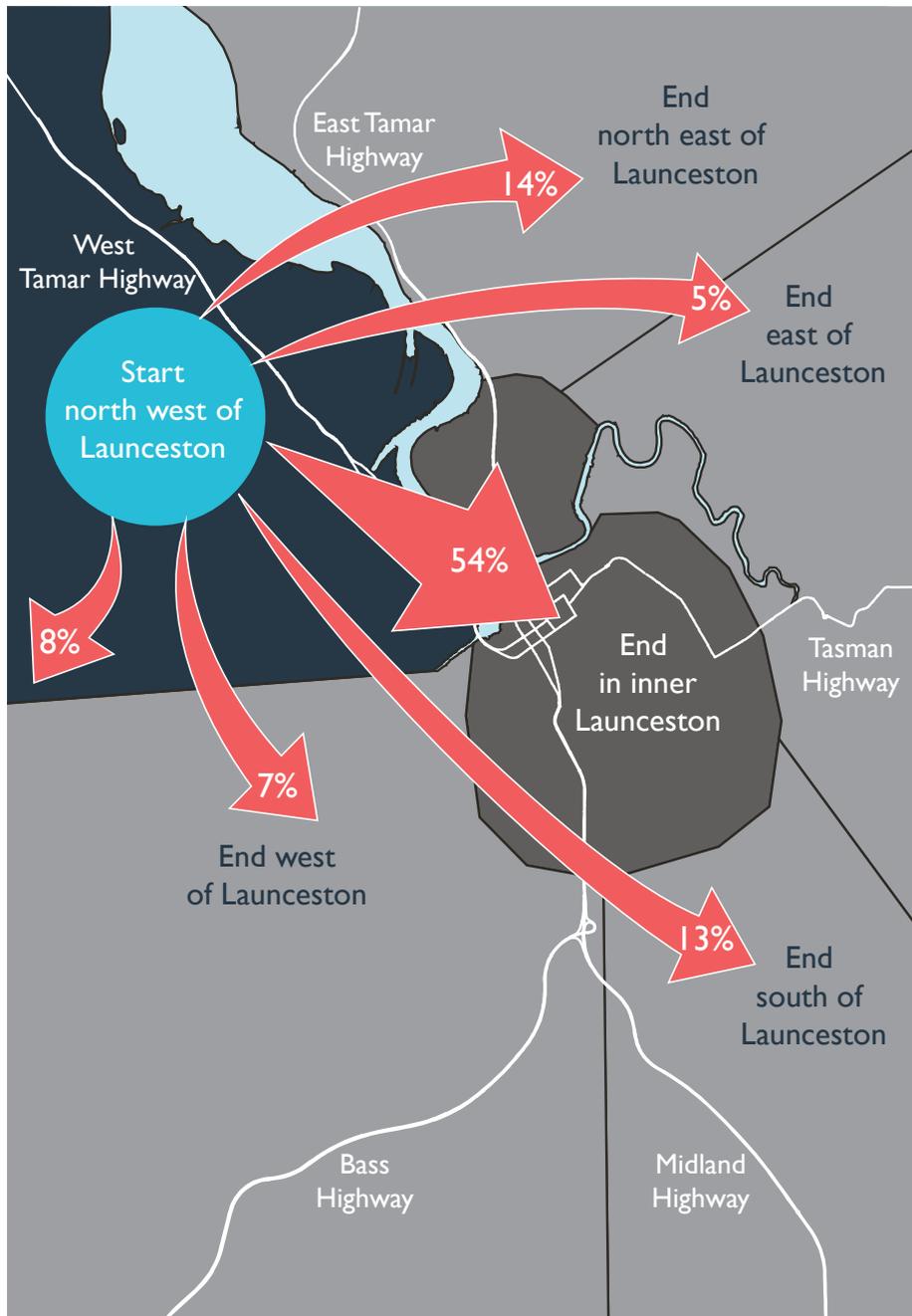
Table 2: Results from the Launceston traffic origin destination study, afternoon peak

Afternoon peak (4:00pm – 6:00pm)							
Number of trips measured	Destination	Origin					
		Inner Launceston	North west	North east	East	West	South
4611	North west	49%	14%	11%	6%	8%	14%
3561	North east	55%	7%	12%	5%	9%	12%
2737	East	51%	7%	5%	25%	6%	6%
4494	West	51%	5%	10%	4%	10%	20%
3820	South	50%	8%	9%	5%	17%	11%

North west of Launceston trips

Morning peak

Destination of trips originating north west of Launceston from 7:00am to 9:00am.

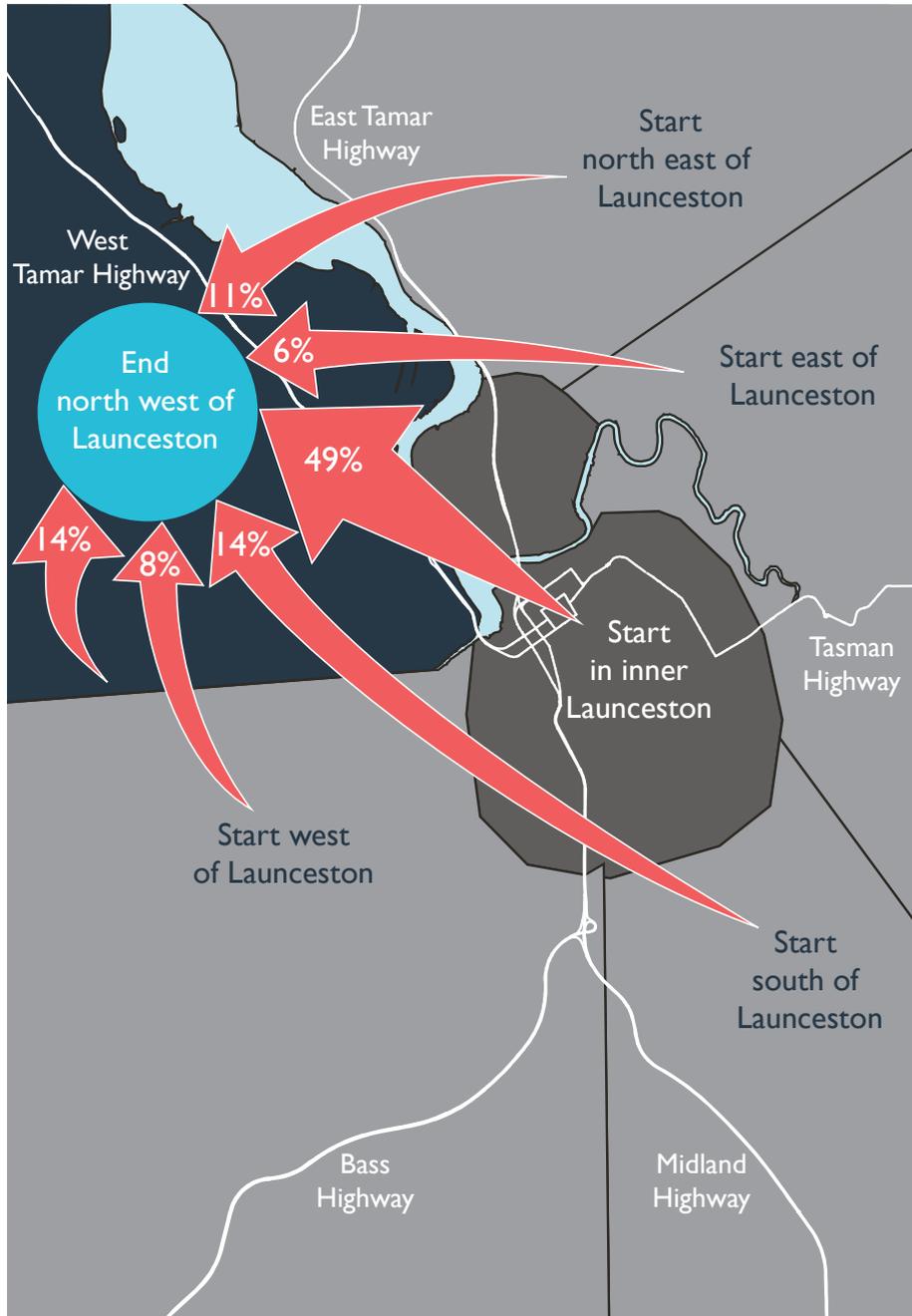


Of trips starting north west of Launceston:

- 54% ended in inner Launceston
- 8% ended north west of Launceston
- 14% ended north east of Launceston
- 5% ended east of Launceston
- 7% ended west of Launceston
- 13% ended south of Launceston

Afternoon peak

Origin of trips finishing north west of Launceston from 4:00pm to 6:00pm



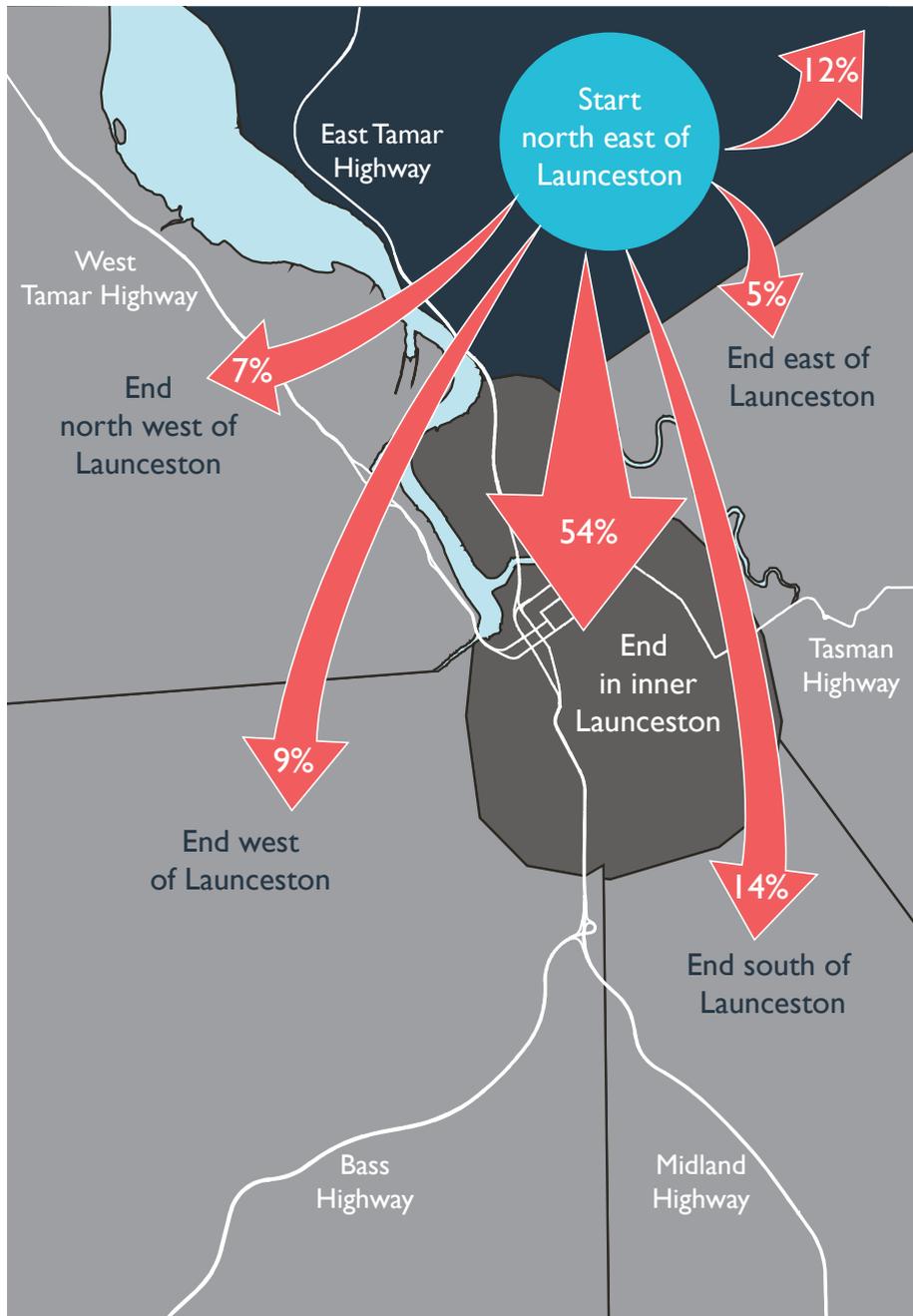
Of trips finishing north west of Launceston:

- 49% started in inner Launceston
- 14% started north west of Launceston
- 11% started north east of Launceston
- 6% started east of Launceston
- 8% started west of Launceston
- 14% started south of Launceston

North east of Launceston trips

Morning peak

Destination of trips originating north east of Launceston from 7:00am to 9:00am

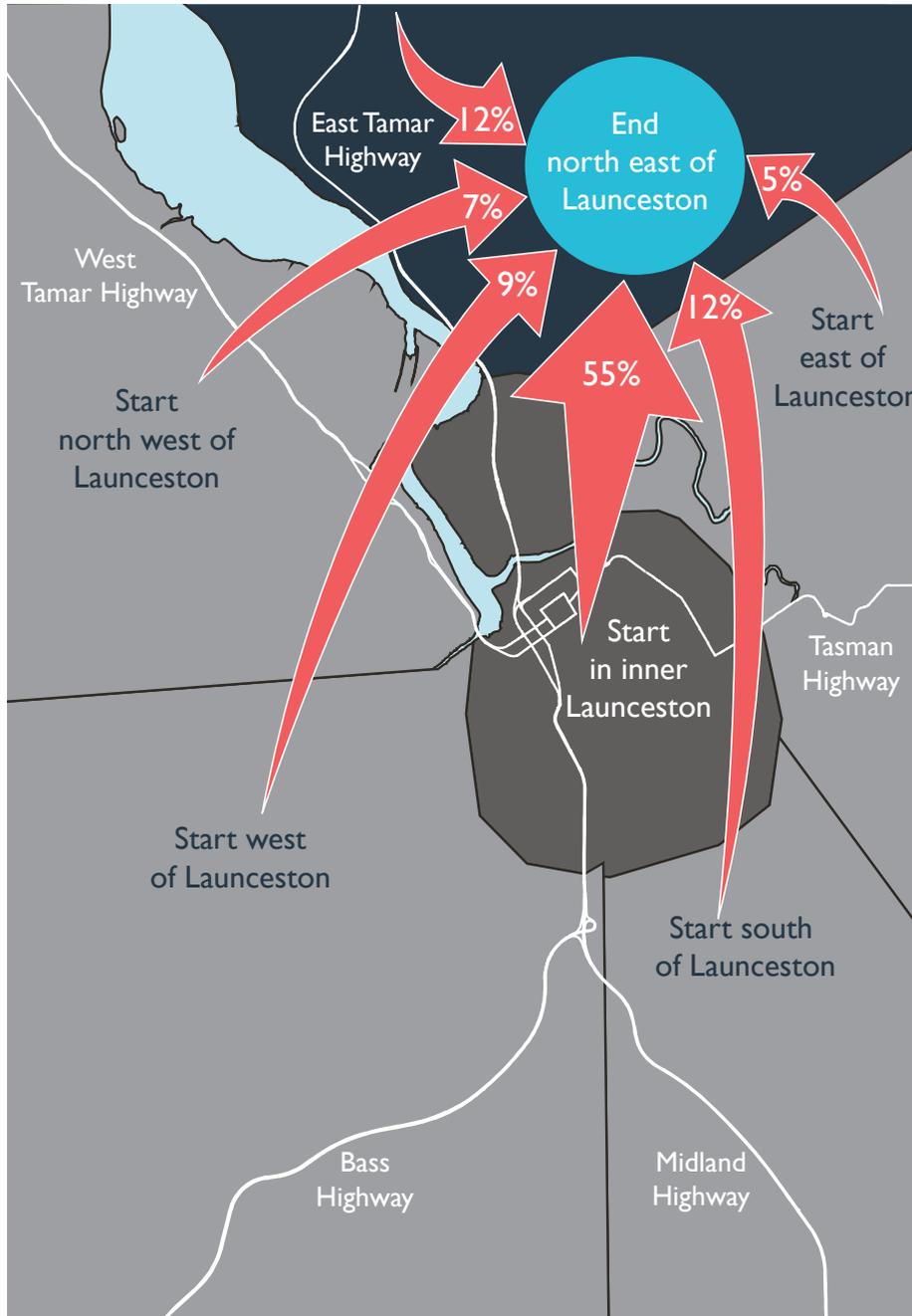


Of trips starting north east of Launceston:

- 54% ended in inner Launceston
- 7% ended north west of Launceston
- 12% ended north east of Launceston
- 5% ended east of Launceston
- 9% ended west of Launceston
- 14% ended south of Launceston

Afternoon peak

Origin of trips finishing north east of Launceston from 4:00pm to 6:00pm



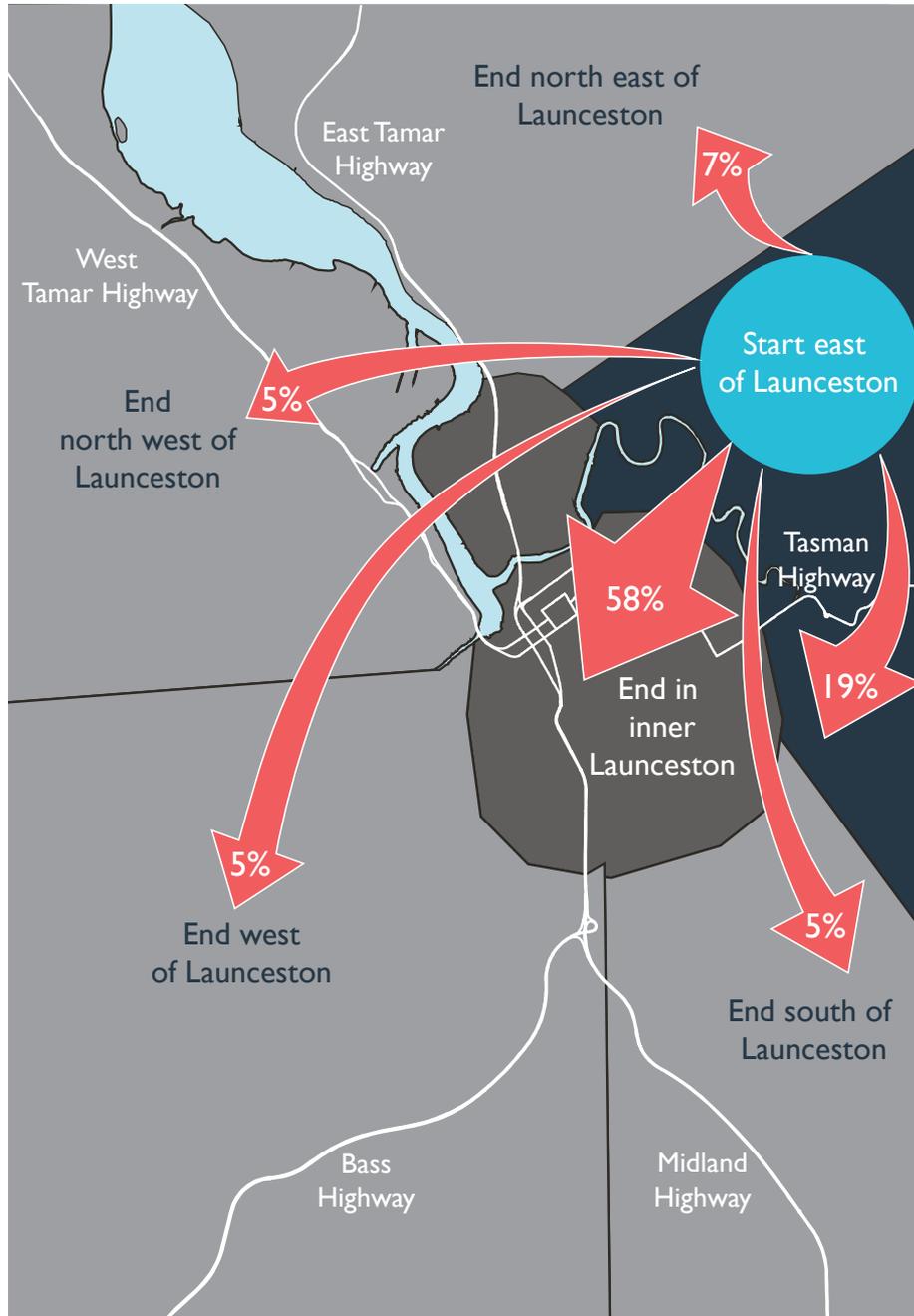
Of trips finishing north east of Launceston:

- 55% started in inner Launceston
- 7% started north west of Launceston
- 12% started north east of Launceston
- 5% started east of Launceston
- 9% started west of Launceston
- 12% started south of Launceston

East of Launceston trips

Morning peak

Destination of trips originating east of Launceston from 7:00am to 9:00am

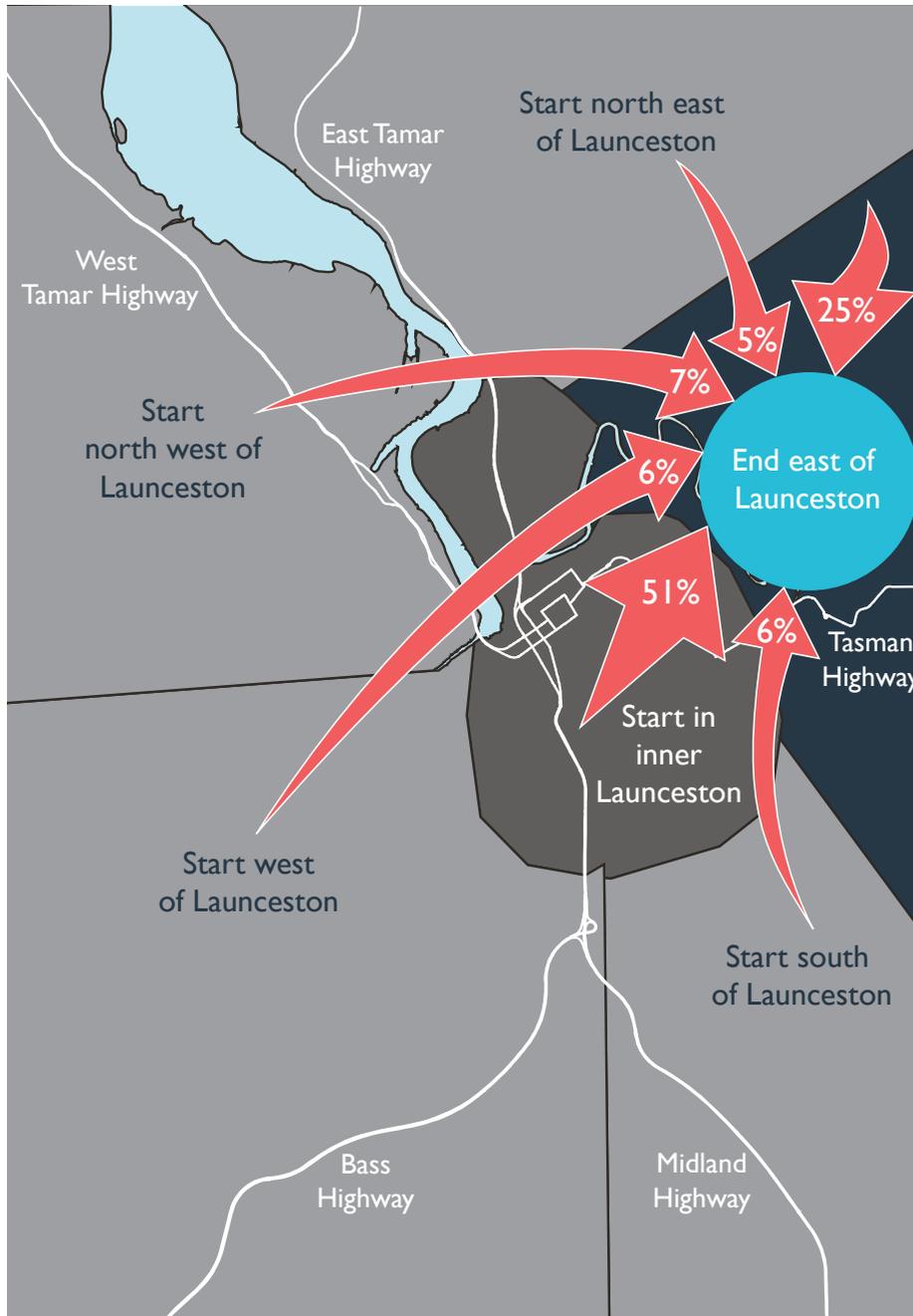


Of trips starting east of Launceston:

- 58% ended in inner Launceston
- 5% ended north west of Launceston
- 7% ended north east of Launceston
- 19% ended east of Launceston
- 5% ended west of Launceston
- 5% ended south of Launceston

Afternoon peak

Origin of trips finishing east of Launceston from 4:00pm to 6:00pm



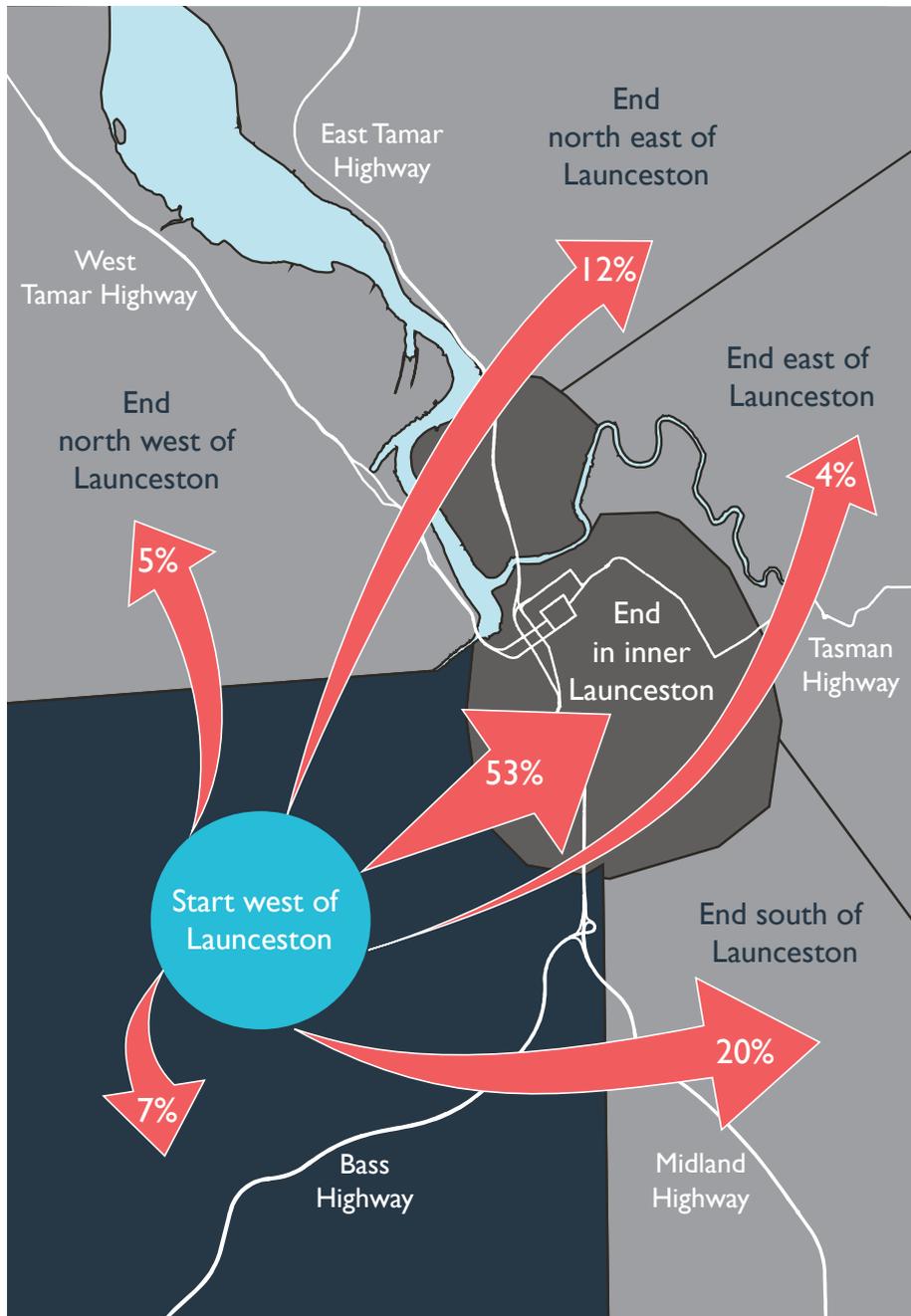
Of trips finishing east of Launceston:

- 51% started in inner Launceston
- 7% started north west of Launceston
- 5% started north east of Launceston
- 25% started east of Launceston
- 6% started west of Launceston
- 6% started south of Launceston

West of Launceston trips

Morning peak

Destination of trips originating west of Launceston from 7:00am to 9:00am

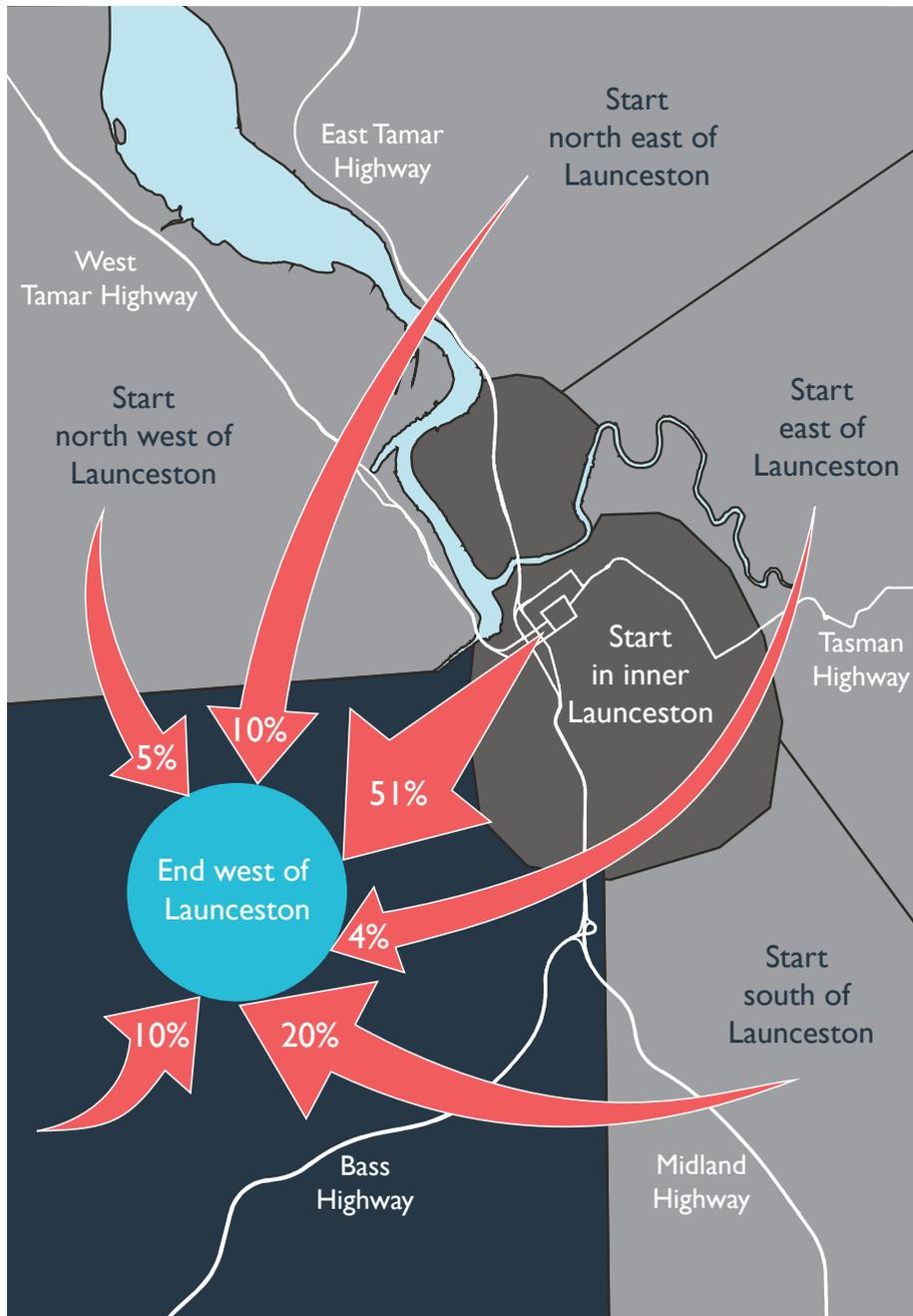


Of trips starting west of Launceston:

- 53% ended in inner Launceston
- 5% ended north west of Launceston
- 12% ended north east of Launceston
- 4% ended east of Launceston
- 7% ended west of Launceston
- 20% ended south of Launceston

Afternoon peak

Origin of trips finishing west of Launceston from 4.00pm to 6.00pm



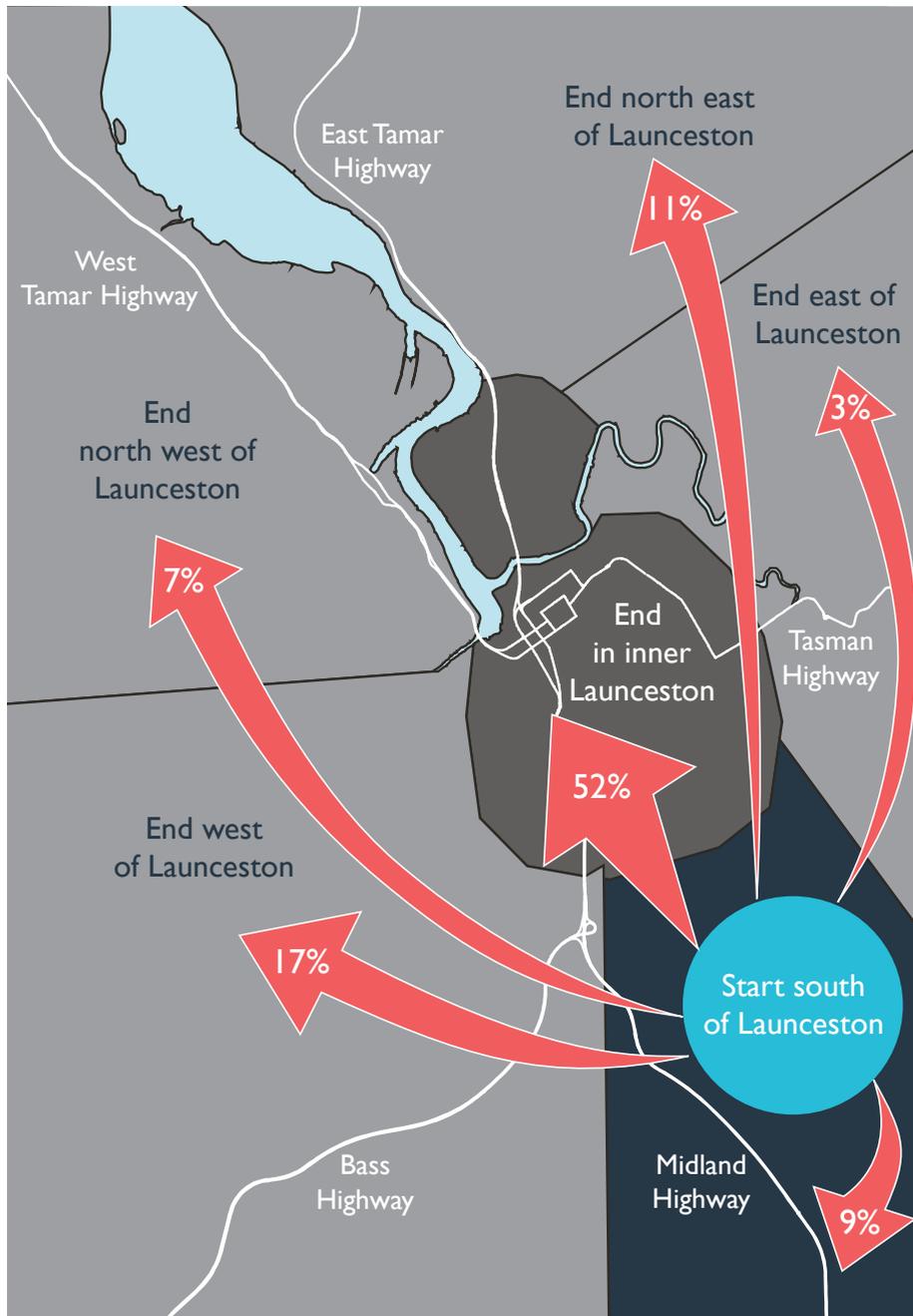
Of trips finishing west of Launceston:

- 51% started in inner Launceston
- 5% started north west of Launceston
- 10% started north east of Launceston
- 4% started east of Launceston
- 10% started west of Launceston
- 20% started south of Launceston

South of Launceston trips

Morning peak

Destination of trips originating south of Launceston from 7:00am to 9:00am

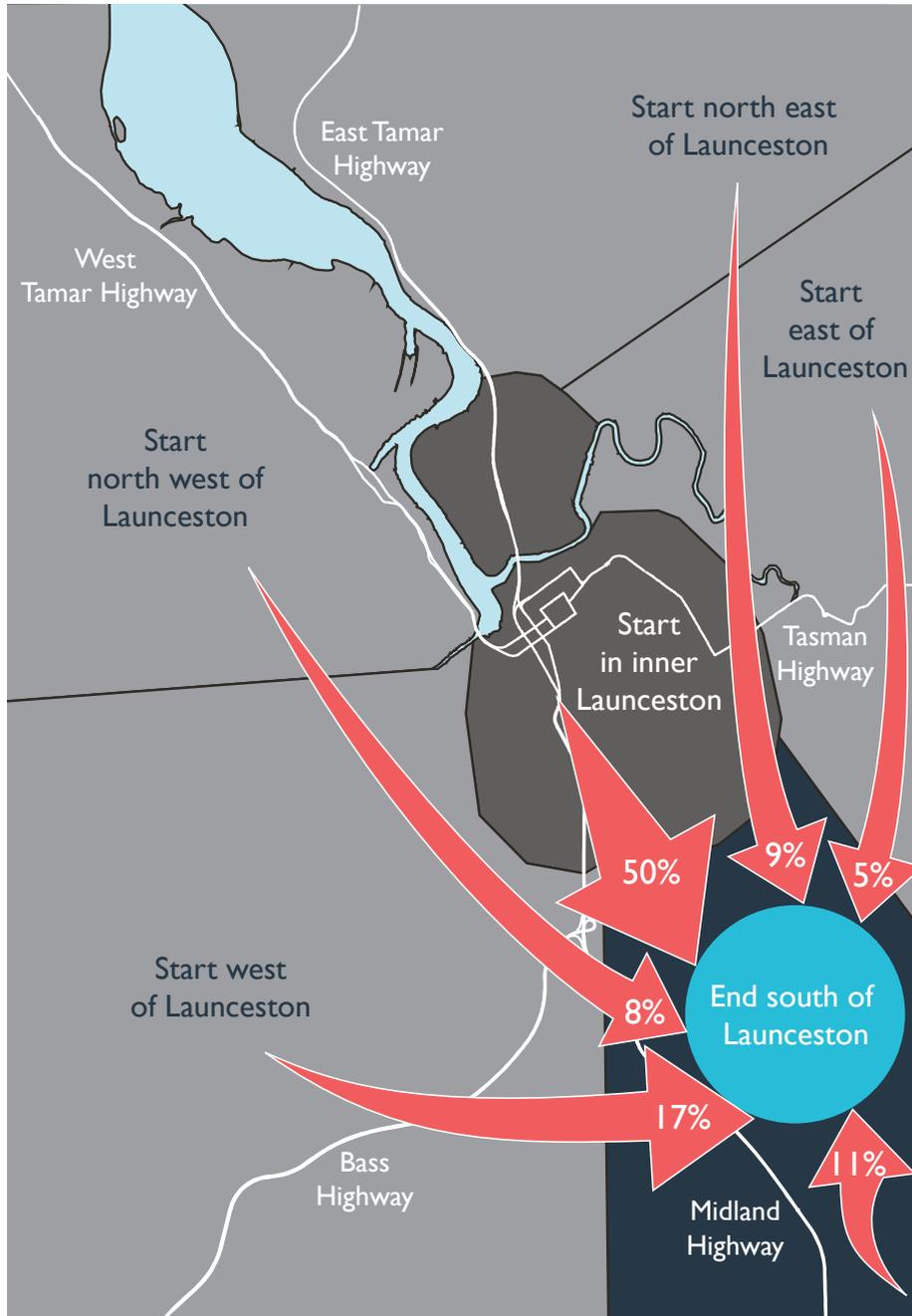


Of trips starting south of Launceston:

- 52% ended in inner Launceston
- 7% ended north west of Launceston
- 11% ended north east of Launceston
- 3% ended east of Launceston
- 17% ended west of Launceston
- 9% ended south of Launceston

Afternoon peak

Origin of trips finishing south of Launceston from 4.00pm to 6.00pm



Of trips finishing south of Launceston:

- 50% started in inner Launceston
- 8% started north west of Launceston
- 9% started north east of Launceston
- 5% started east of Launceston
- 17% started west of Launceston
- 11% started south of Launceston

Usage of Charles Street and Victoria Bridges

Trips across the North Esk River can occur via the Charles Street Bridge or the Victoria Bridge on Tamar Street. The origins and destinations of north and southbound trips in the morning and afternoon peaks were analysed to understand the travel patterns of users of these bridges. In the morning peak, northbound trips were primarily destined for the north east or inner Launceston, originating primarily in inner Launceston. Southbound trips primarily began in the north east and inner Launceston, ending primarily in inner Launceston.

Patterns in the afternoon peak were roughly the same as the morning peak, with the majority of northbound trips destined for the north east or inner Launceston, and originating primarily in inner Launceston. The majority of southbound trips began in the north east and inner Launceston, ending primarily in inner Launceston.

Figure 2: Origins and Destinations of Northbound users, morning peak

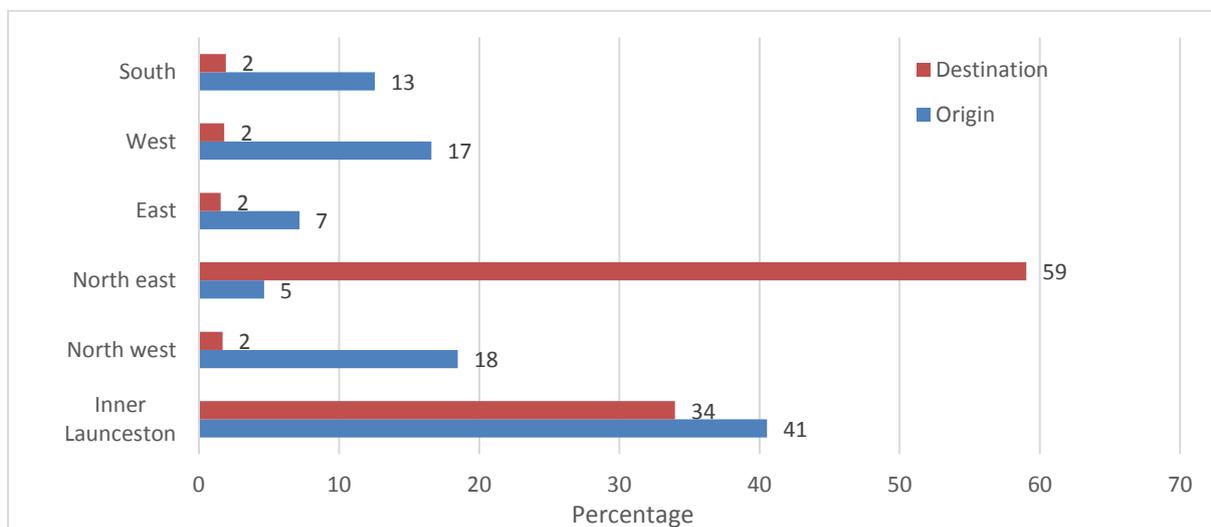


Figure 3: Origins and Destinations of Northbound users, afternoon peak

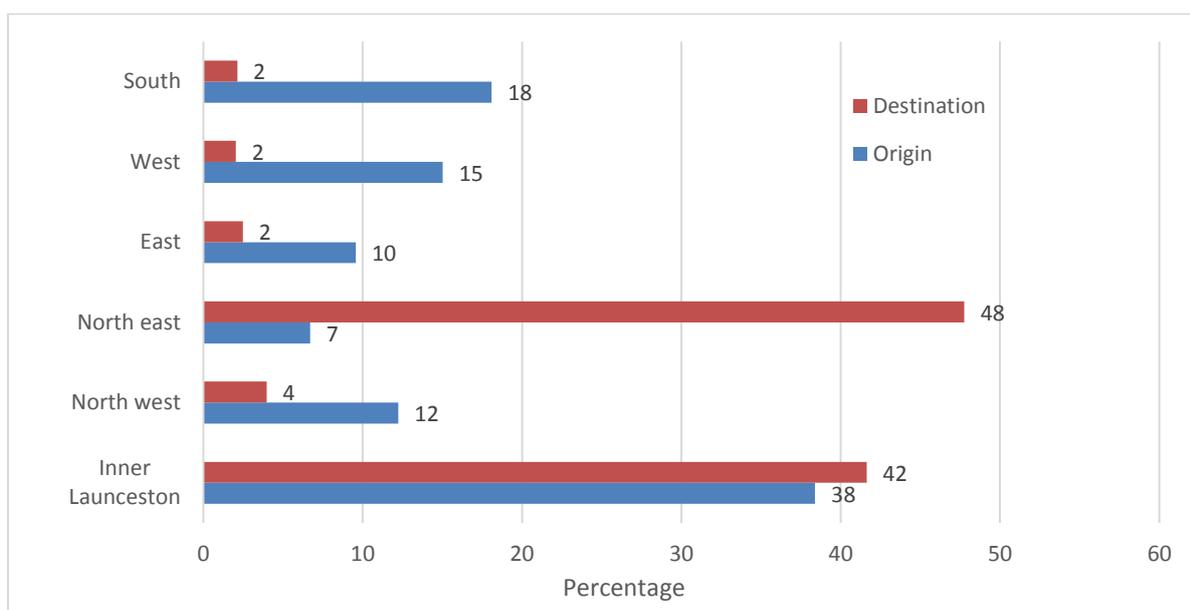


Figure 4: Origins and Destinations of Southbound users, morning peak

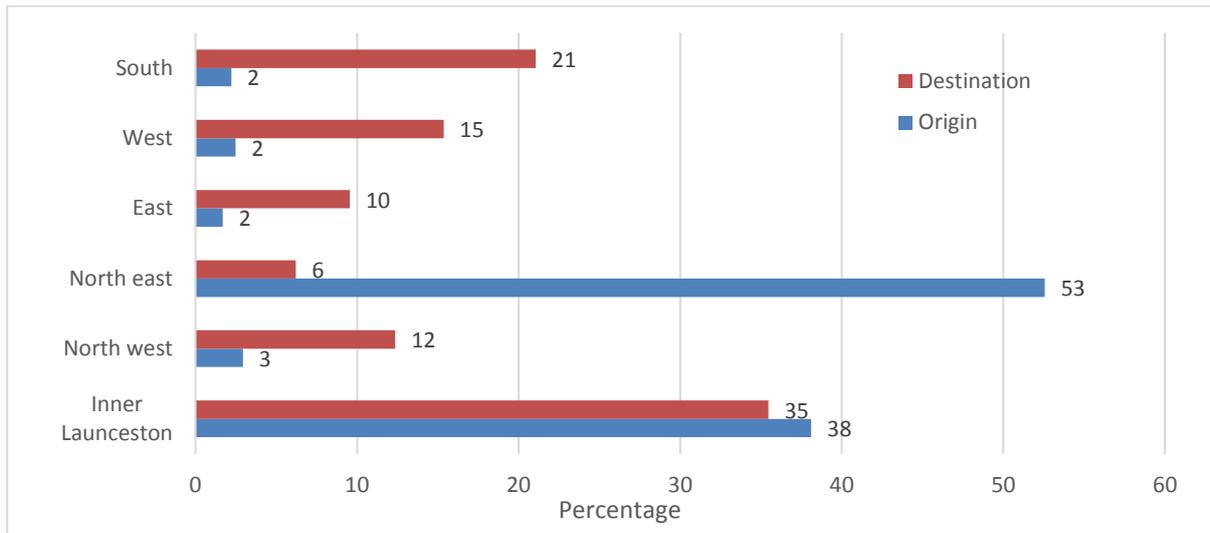
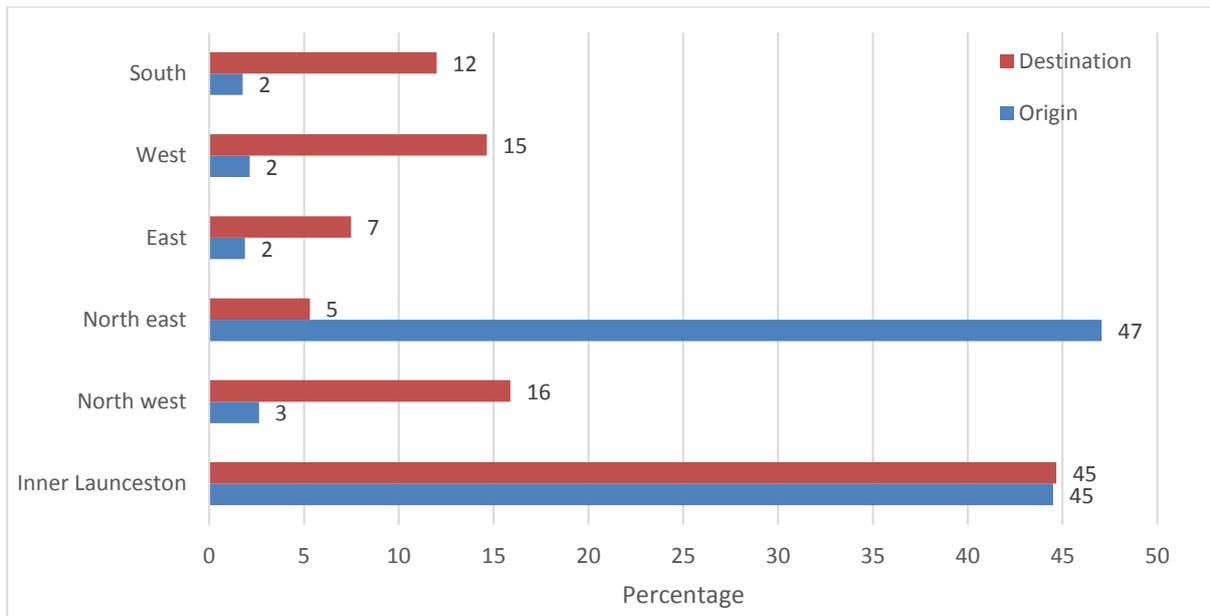


Figure 5: Origins and Destinations of Southbound users, afternoon peak



Origins and destinations of trips to Invermay/Inveresk

In the morning peak the majority of trips to Invermay/Inveresk originate from the north east region, followed by inner Launceston. In the afternoon peak the destination of the majority of trips that begin in Invermay/Inveresk is the north east or inner Launceston.

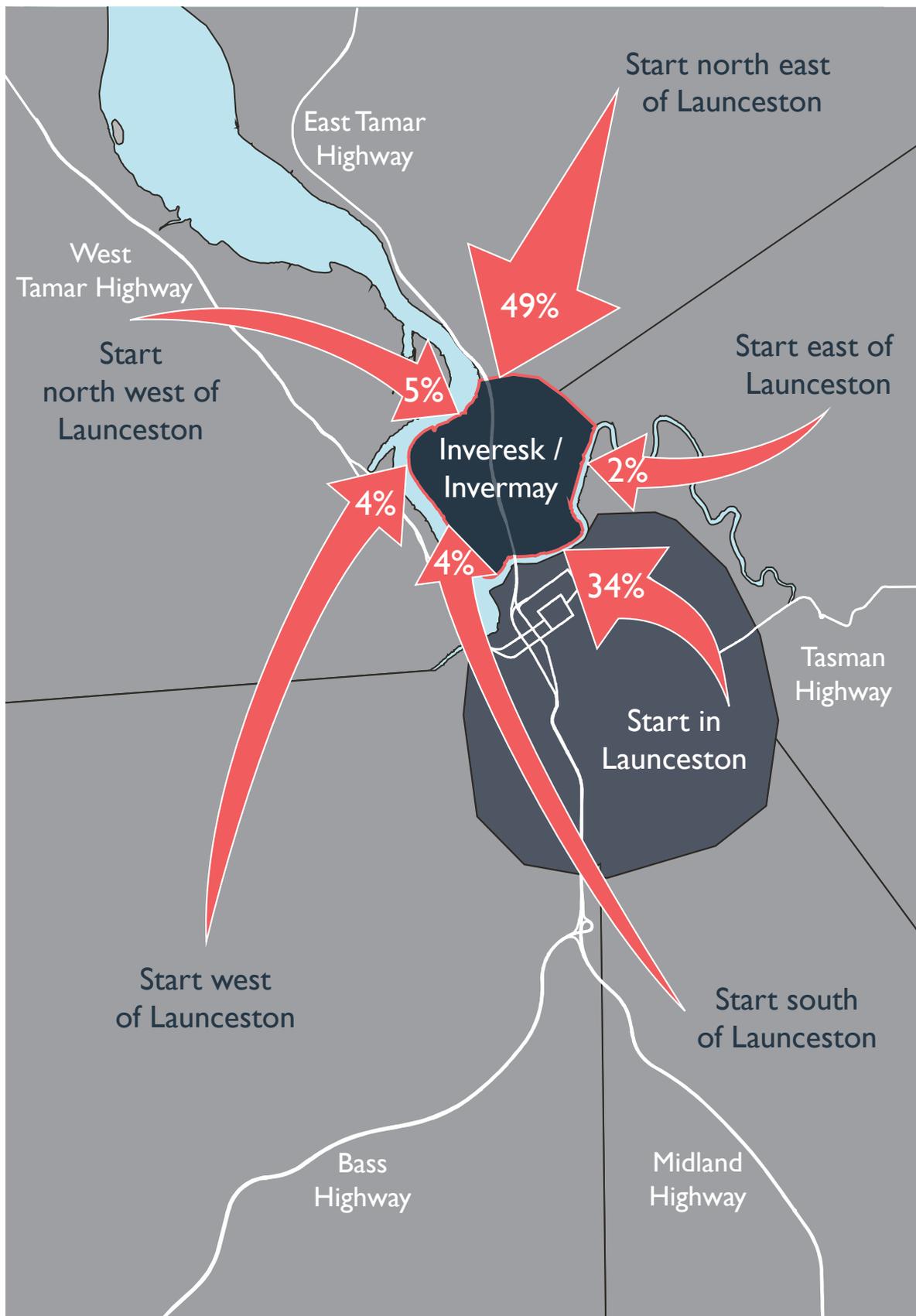
Table 3: Trips ending in Invermay/Inveresk during morning peak

Morning peak (7:00am – 9:00am)						
Trips	Origin					
	Inner Launceston	North west	North east	East	West	South
Trips measured	1007	135	1455	64	150	129
% of total	34%	5%	49%	2%	5%	4%

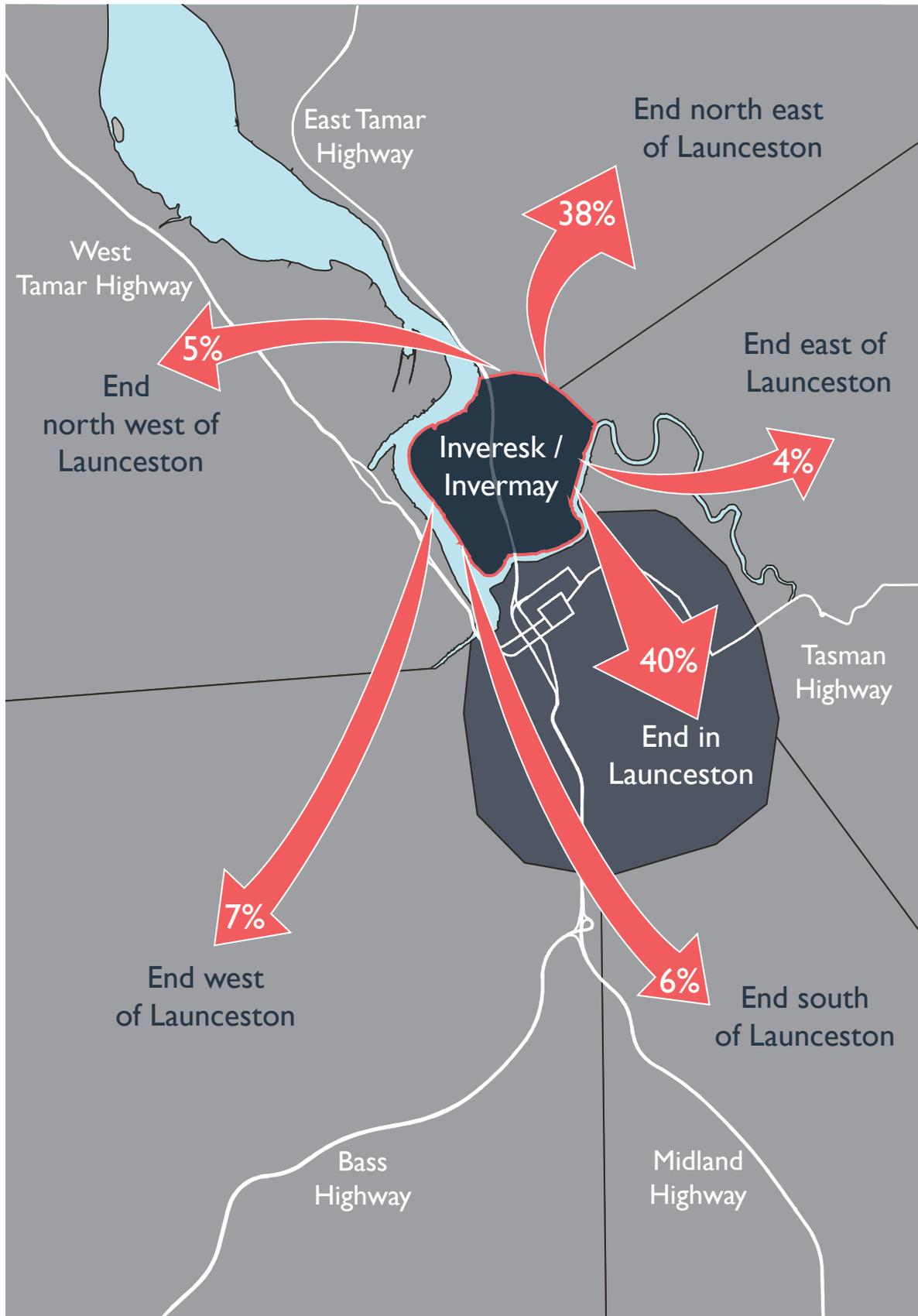
Table 4: Trips originating in Invermay/Inveresk during afternoon peak

Afternoon peak (4:00pm – 6:00pm)						
Trips	Destination					
	Inner Launceston	North west	North east	East	West	South
Trips measured	1488	194	1387	157	242	208
% of total	40%	5%	38%	4%	7%	6%

Morning peak trips arriving into Invermay/Inveresk



Afternoon peak trips departing from Invermay/Inveresk





Contact

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