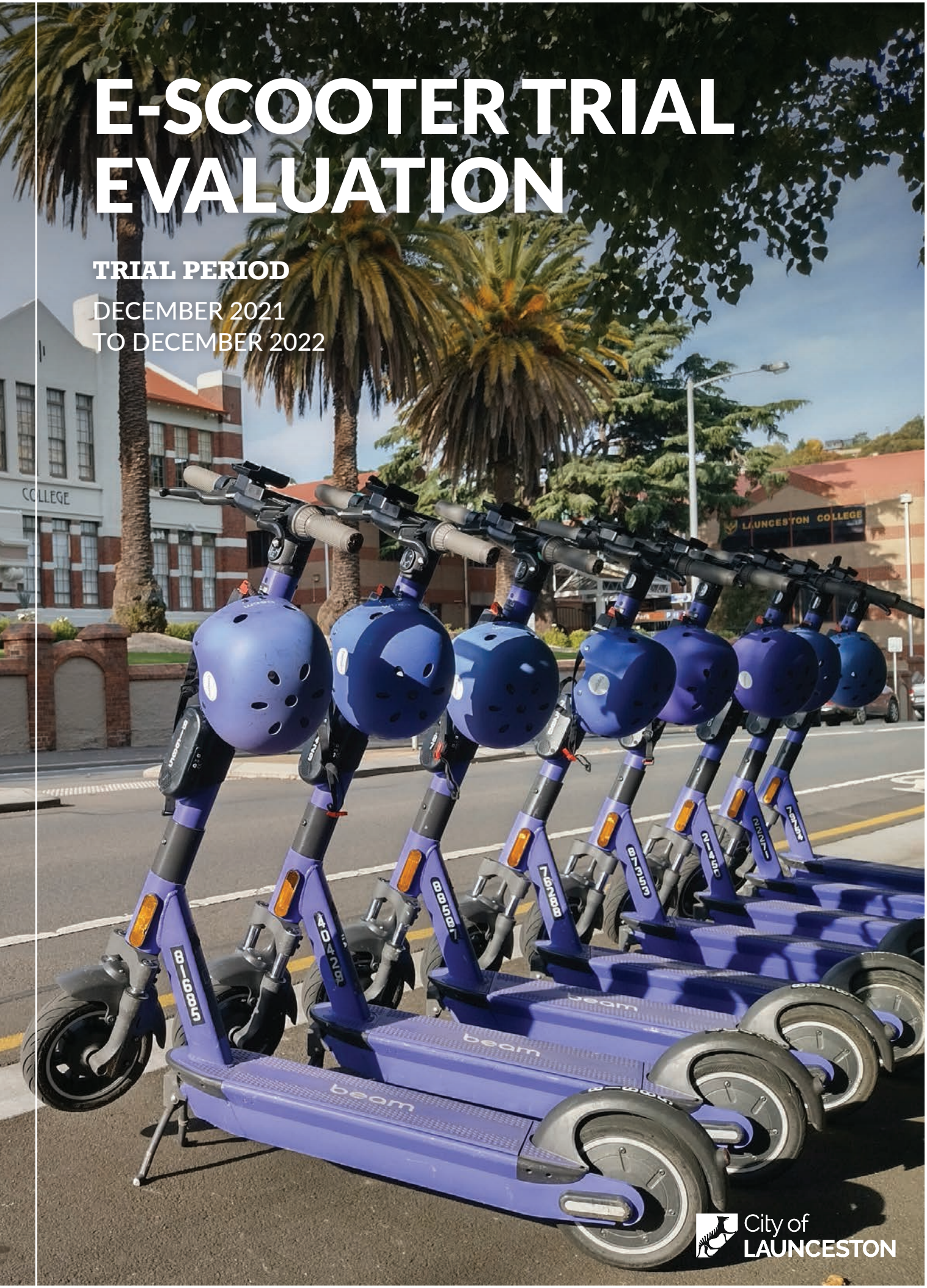
E-SCOOTER TRIAL EVALUATION

TRIAL PERIOD

DECEMBER 2021
TO DECEMBER 2022



City of LAUNCESTON

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Cover image credit: *City of Launceston, Paterson Street*

1. Executive Summary

From 18 December 2021 to 17 December 2022, the City of Launceston monitored the introduction of commercial e-Scooter hire in Launceston through a trial with two operators, Beam Mobility Holding Pte. Ltd and Neuron Mobility (Australia) Pty. Ltd, referred to as Beam and Neuron respectively throughout. Council's role in the trial enabled the impact on the community to be identified, concerns addressed and the ongoing usage of e-Scooters to be monitored. A review of the trial has been undertaken, which incorporates feedback from the community and stakeholders and extensive analysis of numerous datasets from local and national data sources. The result is a comprehensive review which informs recommendations for future commercial e-Scooter hire in the Launceston municipality.

Micro-mobility such as e-Scooters and Personal Mobility Devices (PMD's) are recognised as having potential to help progress the three major themes of the *Launceston Transport Strategy 2020-2040*. The three themes are; A Liveable Launceston, A Healthy Launceston, and A Connected Launceston. From the strategy, Council prioritised 16 initiatives, including a shared micro-mobility trial:

> *Undertake a trial of shared micro-mobility (e-Scooters / e-bikes) in Launceston. If successful, facilitate a more permanent micro-mobility solution for the City.*

This new form of transport is gaining traction globally, and in 2021 the Tasmanian Government advised its intention to legislate and legalise the use of e-Scooters in Tasmania. Accordingly, the City of Launceston determined to take a proactive approach to the introduction of e-Scooters through a commercial e-Scooter hire trial. This type of commercial hire is known as rideshare, also sometimes referred to as Hire-and-Ride.

In February 2021, 10 months prior to the trial, e-Scooters were first discussed at a Council workshop and subsequently the City of Launceston and City of Hobart established a partnership to develop a plan to share learnings on the rideshare trial in each city. This has been a productive relationship from the onset, with a joint invitation to rideshare operators to demonstrate their devices and businessand business models, and regular communication has continued throughout the trial and into the review. The permit and mechanics of the trial are different in each City, which adds to the depth of information available. This report focuses on the Launceston rideshare trial.

The City of Launceston Project Team worked closely with the two rideshare operators, Beam and Neuron, to listen to the community, assess the challenges and make suggestions throughout the trial to mitigate and resolve issues. Both operators were responsive to requests and suggestions and their voluntary cooperation has proved invaluable to put longer term management options in place for the future.

During the trial period, each operator deployed up to 200 e-Scooters and in that time, over 227,000 trips (average 622/day) covering 452,000 kms were made (1.99 km/trip). From a sustainability perspective, if the 452,000 km travelled by the e-Scooters over the trial period, were replaced by a medium-sized car, the emissions saved would be 49 tonnes carbon dioxide equivalent.

Extensive relationships have been developed with stakeholders and community groups throughout the trial, and the City of Launceston team have listened and responded to concerns. Through a continuous feedback process, 134 items of feedback were received during the trial, 88 in the first 2 months (66%), reflecting the intense interest. Ride behaviour and accessibility, primarily due to inconsiderate parking, were prime issues. The review report includes three 'lived experiences' of people who use e-Scooters or are affected by their use, and one description from someone whose business involves e-Scooters.

The scope of the review included analysis of accidents. There are anomalies with crash and accident data however, during the trial period, the casualty rate was 5.27 crashes per 100,000 km travelled with no fatalities. Circa 90% of injuries were due to not wearing a helmet. Both operators have run safety events and use their phone apps to promote safe riding.

The City of Launceston reached out to the Launceston General Hospital (LGH) and Tasmania Police for more

information, which has been forthcoming: The LGH cannot differentiate between injuries specifically related to e-Scooters and Tasmania Police have proceeded against 148 offenders, 124 (84%) for not wearing a helmet.

Geofencing technology is a mechanism for rideshare operators to limit speeds, prevent parking and prevent riding in certain areas. Due to by-laws, e-Scooters are not permitted in the mall and geofencing has been invaluable here.

The City of Launceston and the operators have worked closely to modify geofences for; events such as AFL, ANZAC day Junction Festival; operational changes for example The Seaport and University of Tasmanian pedestrian bridge; and general changes. This ability to modify the operation of e-Scooters based on location has been vital.

Operators have shared commercial and demographic information with the City of Launceston to help us understand use and patterns, for example 39% of riders are over 35 years, 43% of rides are for entertainment and 15% are for commuting.

Heat map analysis shows hotspots for destinations in the operating area. Invermay accounts for 18% of all trips with 41,000 trips, the Central Activity District at 103,000 trips (45%) and East Launceston, Newstead and South Launceston account for 34,000 trips (15%). Further spatial analysis to generate 'common paths' showing where e-Scooters regularly travel has also been performed. The operating area did not include Kings Meadows and residents in this area have raised concerns about future expansion of rideshare e-Scooters in the suburb. The recommendations will ensure controls are in place to work collaboratively with operators to identify high risk areas and apply appropriate measures.

The City of Launceston has facilitated and encouraged rideshare Operators to work with the community. Beam have developed direct relationships including Scotch Oakburn College where they ran a 10-week trial which had good outcomes and the University of Tasmania is considering some form of micro-mobility strategy.

Both Beam and Neuron have also considered the 12 month e-Scooter trial as a trial of their business models, identifying usage patterns, refining operations and testing financial viability. At the conclusion of the 12 month trial, Neuron opted to wind up Launceston operations, citing the market as not viable financially. Beam have continued operating, indicating that they see Launceston as a viable market with growth potential through community partnerships.

Overall, the trial is considered to be successful in terms of the high levels of use, and decreasing complaints and incidents. The trial has highlighted ongoing issues with the parking of rideshare e-Scooters and when e-Scooters are being irresponsibly used.

The Review Report is sectioned into three main parts:

1. Background, why council are involved, responsibilities and regulatory framework.
2. Results and findings from the trial, including feedback from the public, survey results, safety and incidents as well as usage and statistics.
3. Evaluation with focus on the key concerns raised by the community, the permit, legislation and recommendations.

The review period is 18 December 2021 to 17 December 2022 with only data and incidents within that period being considered. Community feedback received prior to the review period as well as within the period is also considered.

The Review Report contains a series of recommendations for the City of Launceston Councillors to consider. The recommendations will support the integration of rideshare e-Scooters with other forms of transport in the Launceston municipality, as well as the community's interaction with rideshare e-Scooters.

The recommendations include:

- promotion and clearer delineation of roles and responsibilities across the parties involved
- inclusion in the permit for operators to deliver safety campaigns and initiatives,
- dedicated e-Scooter parking spaces in high-activity areas
- Signage changes
- Permit conditions to include reporting requirements, operating area expansion and conditions to support service levels.
- Advocacy to the Tasmanian Government for legislative alignment and consistencies, including reporting metrics.

Image credit: *Rob Burnett Images*

2. Council's Involvement

In December 2021 changes were made by the Tasmanian Government to legalise personal mobility devices within the Tasmanian road rules. This enabled devices such as e-Scooters to be used on footpaths and some roads from that point. With the changes to the road rules, the operators could have otherwise started operations without Council support.

Personal mobility devices are recognised as having potential to help progress the three major themes of the *Launceston Transport Strategy 2020-2040*, A Liveable Launceston, A Healthy Launceston, and A Connected Launceston. It was imperative for the City of Launceston to have some level of involvement in the commencement of this new mode of transport to realise the greatest benefit for the community. From the strategy, Council prioritised 16 initiatives, including a shared micro-mobility trial:

> *Undertake a trial of shared micro-mobility (e-scooters / e-bikes) in Launceston. If successful, facilitate a more permanent micro-mobility solution for the City.*

Council granted permission to conduct a commercial activity of hire and ride scooters in the Launceston Municipality.

Council took the opportunity to work with operators of rideshare e-Scooters to introduce them on a trial basis which would provide knowledge of how they worked, manage impacts on residents and give the mode of transport the best chance to succeed in our community. The providers have voluntarily co-operated with Council in the trial and have been very responsive to requests to change speeds in areas of high pedestrian activity, shift parking locations and other management options as required.

The trial allowed Council to identify specific concerns and work out how to best address them; it also enabled the Council to monitor ongoing usage of the e-Scooters and to use the voluntary cooperation of the vendors through this trial period to put longer term management options in place should they are to continue post trial.

During the trial, there has been a requirement for an intensive amount of time from council staff. Skill sets from multiple areas have been leveraged to get the best outcome for the community. During the lead up to the trial, it's estimated that the resourcing requirement was 0.6 FTE and during the trial 1 FTE.

Refer to Appendix B to view the 12 month permit for the Personal Mobility Device Trial.

Image credit: *Neuron Mobility Royal Park Promotional Event*

3. Responsibilities & Regulatory Framework

This section describes the responsibilities and capabilities of the Council and the regulatory framework it must adhere to. It also defines what is meant by a Personal Mobility Device (PMD), the user of a PMD, where they can legally travel and what further offences might be applicable to PMD's.

The legislative changes made by the Tasmanian Government in December 2021 included the following definitional changes to the Tasmanian Road Rules:

A Personal Mobility Device (PMD) is defined as a device that –

a. *has at least one wheel; and*
b. *is designed to be used by one person; and*
c. *is propelled by an electric motor or motors; and*
d. *when propelled only by the motor or motors, is not capable of travelling over 25 kilometres per hour on level ground; and*
e. *is fitted with an effective stopping system controlled by using brakes, gears or motor control; and*
f. *is not more than 1,250 millimetres in length by 700 millimetres in width by 1,350 millimetres in height and, when the device is not carrying a person or other load, 45 kilograms in weight – but does not include a bicycle, motorised scooter, motorised wheelchair or wheeled recreational device; Motorised scooters have been permitted to travel on footpaths in Tasmania since 2009, and are defined as a scooter that:*
g. *if it is fitted with an electric motor or motors, complies with the following requirements:*
    i. *its maker certifies (either by means of a plate attached to the motor or each motor, or by means of engraving on the motor or each motor) the ungoverned power output of the motor, or each motor;*
    ii. *the maximum power output of the motor, or the combined maximum power output of the motors, is not more than 200 watts;*
    iii. *when propelled only by the motor or motors, the scooter is not capable of going faster than 10 km/h on level ground;*

An e-Scooter that exceeds 200 watts in power, or is capable of going faster than 10 km/h on level ground, is therefore defined as a PMD under the Road Rules, rather than a motorised scooter. e-Scooters used by rideshare (hire-and-ride) operators generally exceed these power and speed thresholds and are therefore considered to be PMDs.

PMDs are not considered to be vehicles under the Road Rules, where the definition of a vehicle includes:

a. *a motorised wheelchair that can travel at over 10 kilometres per hour (on level ground) – but does not include another kind of wheelchair, a personal mobility device, a train, or a wheeled recreational device or wheeled toy.*

Users of PMDs are defined as pedestrians under the Road Rules, with the definition of a pedestrian including:

a. *a person in or on a personal mobility device, unless otherwise expressly stated.*

Beyond these definitional changes, the amendments to the Road Rules permit the use of PMDs on footpaths (since PMD users are defined as pedestrians), bike paths, separated footpaths designated for the use of bicycles, and roads. However, a PMD user must not travel on:

a. *a road with a dividing line or median strip unless the road is a declared road; or*
b. *a road on which the speed-limit is greater than 50 kilometres per hour; or*
c. *a one-way road with more than one marked lane unless the road is a declared road.*

In addition to these amendments to the Road Rules, changes were also made to the Traffic Act 1925, which allows that for a road with a speed limit of not greater than 50 km/h, a road authority (such as City of Launceston) may, by notice published in the Gazette, declare that road to be a road on which a PMD user may travel, subject to such terms and conditions as are specified in the notice. Before

declaring a road in this manner, the road authority is to consider the following in respect of the road:

a. *(a) safety;*
b. *(b) efficiency;*
c. *(c) use of the road;*
d. *(d) risk mitigation.*

In other words, provided that an appropriate assessment is undertaken, the road authority may declare that PMD use is permitted on roads which, by the default Road Rules, their use is prohibited.

Under the Road Rules, a user of a PMD must wear an approved bicycle helmet, must not carry another person or animal on the PMD, and must be 16 years or older. PMD users also must not exceed 15 km/h when traveling on a footpath, or 25 km/h on a shared path, separated footpath, bicycle path or road.

City of Launceston's Facilities and Highways By-Law 2021 aims to control, regulate and protect facilities and local highways throughout the Launceston municipality. In the by-law, it is an offence to drive a vehicle in a mall. The definition of a vehicle in the by-law is in accordance with the Traffic Act 1925, which appears to include PMDs, as it states the definition of a vehicle includes "any description of vehicle designed to move or to be moved on one or more wheels or revolving runners, and any truck, barrow, or similar vehicle, but, except as may be expressly prescribed by regulations, does not include a vehicle constructed or adapted for propulsion on rails only."

Based on that definition of a vehicle, it is therefore an offence to use a PMD in the following malls, as defined in the by-law:

1. *Brisbane Street Mall (between Charles and St John Streets)*
2. *Quadrant Mall (between Brisbane and St John Streets)*
3. *Civic Square (Cameron Street between Charles and St John Streets)*
4. *The Avenue (the footpaths on Brisbane Street between St John and George Streets)*
5. *Charles Street (the footpaths on Charles Street between Paterson and York Streets)*
6. *St John Street (the footpaths on St John Street between Paterson and York Streets)*

A Facility is defined under the by-law as "a Public Reserve, Aquatic Centre, or York Park Stadium;" A Public Reserve is defined as a "reserve, rockery, area of bushland, planted embankment, nature strip, median strip, plantation, sports ground, park, flood levee or garden usually open to the public and under the control and management of the Council;"

It is an offence under the by-law to drive a Vehicle in a Facility, (described as some land open to the public and under the control and management of the Council) unless it is "on a road, parking space, path or track provided for such Vehicles within a Facility." It is also an offence to drive a Vehicle in a Facility at greater than 5 km/h, and an offence to abandon a Vehicle in a Facility. A vehicle is considered to be abandoned if it:

i. *Has been left parked or stationary at any Facility for a period in excess of 48 hours;*
ii. *Is unreasonably obstructing the public use of a Facility; or*
iii. *Is parked or used in breach of this by-law;*

A further offence under the by-law involves creating or causing a Nuisance in a Facility or Local Highway, where the relevant definition of Nuisance includes "causing Damage to a tree, shrub or any other thing." The definition of Damage includes any of the following, without the permission of an Authorised Officer:

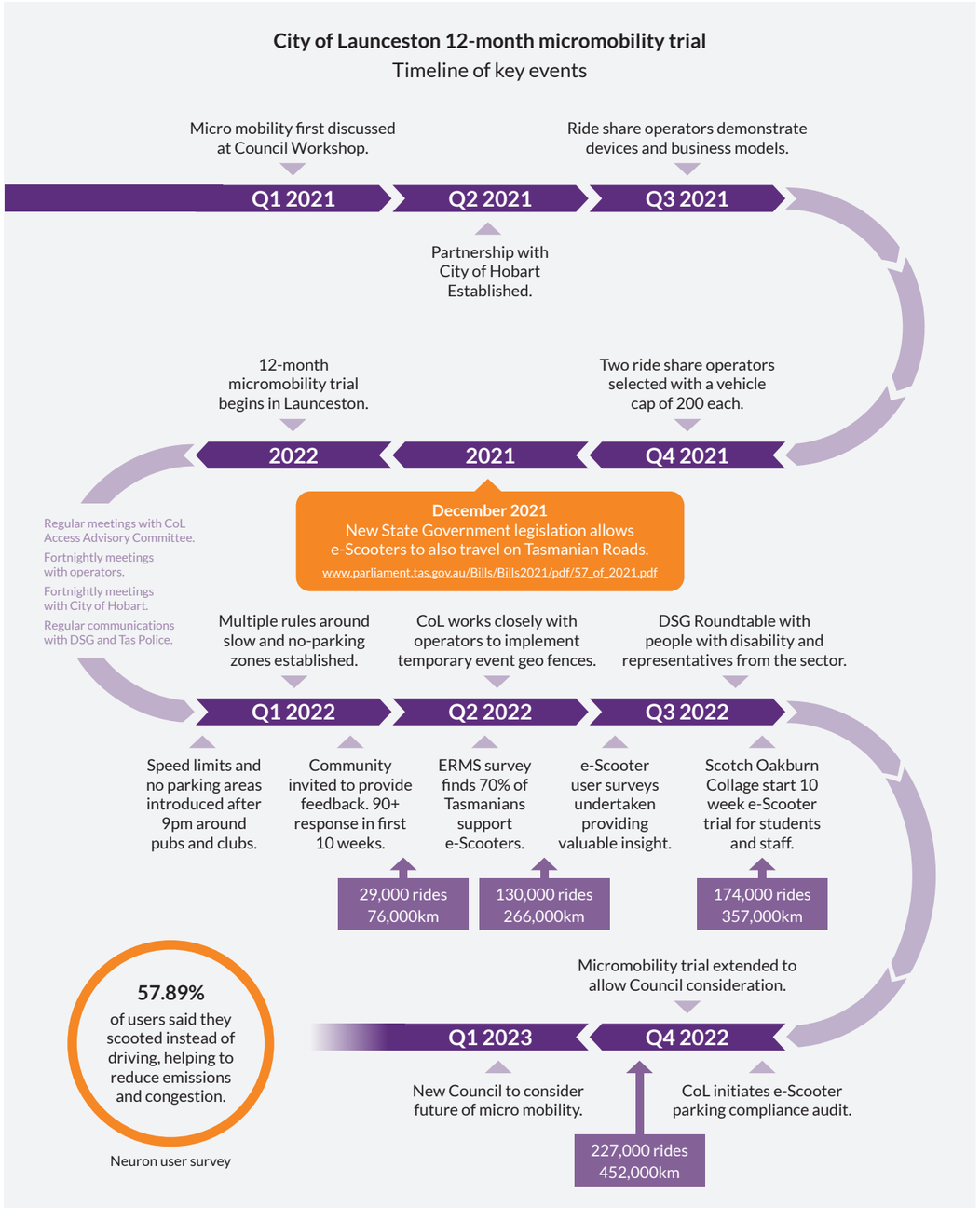
a. *To destroy, tamper with, remove, mark, write on, deface, or in any other way injure;*
b. *Collect or remove any wood or timber;*
c. *Open or keep open an entrance to a Public Reserve; and*
d. *Place or dump objects or materials;*

Further offences under the by-law include engaging in unauthorised Commercial Activity, Occupation, or depositing an object (in a manner that an Authorised Officer determines may interfere with the amenity, comfort, convenience, or safety of the public) in a Facility or on a Local Highway. The definition of Commercial Activity includes the promotion of an undertaking that provides goods or services, even if no transaction occurs.

From these definitions and offences in the by-law, there are several restrictions imposed on the operation of PMDs on Launceston roads and facilities. There are also a number of avenues in the by-law through which City of Launceston may limit or prohibit the placement of e-Scooters or other devices on Launceston roads and facilities by rideshare operators.

3.2 Timeline of Events

Figure 1. *City of Launceston 12-month micromobility trial*



4. Results & Findings

4.1 General Public Feedback

The community was first invited to provide feedback to the Council in August 2021, which was the pre-trial phase of the project, through to the end of the trial in December 2022. The last request and invite to public to provide feedback prior to the trial ending, was 24 November 2022 by a media release and social media. Feedback has been continually received from the community throughout the trial by phone calls, emails, ad-hoc and prearranged 'in person' sessions and at Council Meetings, including a petition.

Feedback received has been categorised into themes, for example, highlighting the particular concern(s) from the member of the community.

Where an incident or injury has been reported or a location mentioned, those details have also been captured. If the community member has provided a recommendation within the feedback, that has also been captured.

Enquiries to Council relating to e-Scooters have been received by the Customer Service Centre and attended to by the project team or forwarded to the relevant area based on the nature of the query, such as e-Scooter operators, Tasmania Police or the Department of State Growth.

4.2 Tomorrow Together Program

Through the Tomorrow Together program, initiated in 2018, Council is changing the way it engages with the community. Rather than asking for feedback on each individual project, a single-entry point was created for the community to learn about issues and provide further insights and feedback. The community are also asked to work with Council to help develop plans and strategies solutions.

The program focuses around six overarching themes that cover many of the big issues that we are facing as a city. These conversations also include opportunities to learn about the projects Council is currently working on.

The current theme, "A well-designed City", aims to plan for new residential and business development while preserving our character and liveability.

The way we design and build our city impacts the look, feel and vibrancy of our city. Launceston is looking to grow, and we need good design to make sure that we preserve what makes Launceston special, while being an inviting city for more people and investment.

A well-designed and built city is one that provides affordable housing and ensures everyone has local access to the goods and services, education, transport and jobs they need. It has a neighbourhood character that we are proud of. It's designed and built to last.

As part of the "A well-designed City" theme, a public survey was launched to the public in mid December 2022. The survey includes questions relevant to the e-Scooter Trial in Launceston. Although the timing is outside of the period of data capture, it will provide an ongoing mechanism to engage with the community. Future themes such as "A Mobile and Accessible City" and "A Focused and Sustainable Council" will also provide further opportunities for the City of Launceston to engage with the public on topics relevant to Micro-mobility and Active Transport.

At the time of writing in January 2023, the preliminary results from the survey indicate that people see the primary ways in which e-Scooters benefit the community being: as a good option for tourists and visitors; recreation and socialising; and commuting to work.

4.3 E-Scooter User Surveys

Both Beam and Neuron surveyed their users during the second quarter of the trial, in May 2022. The intent was to better understand how and why people were using their e-Scooters. Data that Council has received from operators has been anonymised, with no personally identifying data being included. Whilst survey questions from each operator were similar, they are not directly transferable so have been analysed separately from each other.

Some highlights from the data:

1. 39% of riders are over 35 years
2. 36% of riders work in sales and related areas, management occupations or are healthcare practitioners
3. 43% of trips are for entertainment
4. 15% of trips are for commuting

Image credit: *Launceston Place Brand*

4.3.1 Neuron User Survey Summary

Figure 2.1 *Neuron user survey summary*

J / female 35-44 / Food & Beverage industry

J uses Neuron 10+ per week to commute to and from work, especially likes it when she can use Neurons to get home after late shifts. Loves that it's a much cheaper alternative to Uber and taxis.

D.G. / female 25-34 / Hospitality, Tourism, and Sport industry

D.G. uses Neuron 10+ per week to commute to and from work, running errands, and for leisure. Especially appreciates the convenience of being able to "hop on and off", as opposed to waiting for public transportation.

A.H. / male 45-54 / Hospitality, Tourism, and Sport industry

A.H. uses Neuron 5-10 times per week mostly for leisure (visiting restaurants, cafes, etc). Very happy that Neuron scooters are an alternative mode of transportation with a clean carbon footprint.

Figure 2.2 *Neuron user survey summary continued*

57.89%
of users would have used a car or booked an Uber if Neuron was not available.

81.58%
of users believe Neuron has created a positive impact for the city.

73.37%
of users made a purchase at either start and/or the end of their most recent trip.

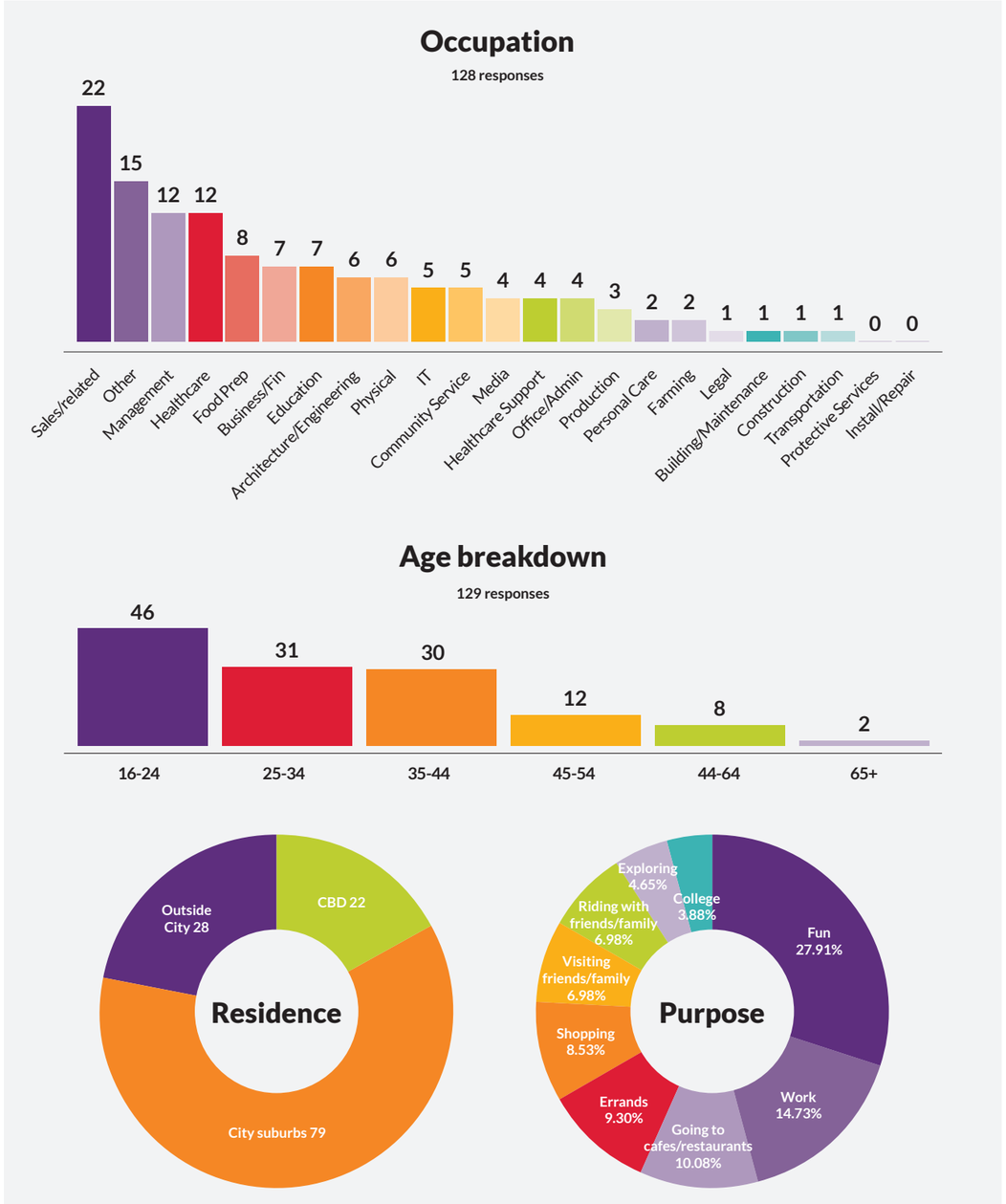
75%
of users use scooters to commute to work, study, shopping, or restaurants.

6.58%
of users wouldn't have made the trip of Neuron was not available.

66%
of users believed that e-Scooters brought them more fun and enjoyment.

4.3.2 Beam User Survey Summary

Figure 3. *Beam user survey summary*



4.3.3 Example Beam User Survey Comments

"Because I live in the city and walk a lot I am often seen by people I know. They say things like every time we go through "town" we always see you walking. Now it's "I saw you on a scooter the other day" Up York Cafe even commented that my scooter skills are getting really good! Not bad for a 60 year old."

"I find if I am by myself the scooter is a viable option but if with my wife an uber or public transport is more economical"

"I would happily buy a monthly pass if there were more scooters in my immediate area :)"

"I love the scooters and feel like I will use them more going into the future"

"Love the scooters "

"Expanding the area of access in launceston to further into prospect and kings meadows"

"Good GPS prompted system, slowed down when it was supposed to. Enjoyable."

4.4 Social Media

The City of Launceston is active on Facebook with 35,000 followers. Prior to and throughout the e-Scooter trial, the Council has used Facebook as a mechanism to reach the community and provide updates. A post on the update of the e-Scooter trial, which invited community feedback was published on 28 November 2022. On 17 December 2022, the post had reached 1,969 people, with 62 clicking through to the article and three comments were provided.

4.5 Kings Meadows Petition

On 26 September 2022, the City of Launceston received a petition with 512 signatures. The statement of the petition is below:

> *We the undersigned, strongly object to the proposal to introduce e-Scooters to the footpaths of the shopping centre of Hobart Rd, the Meadow Mews, and those footpaths connecting these sites.*

The petition was taken to the Council meeting on the 17 November 2022, item 16.6 Petition Response - e-Scooters in Kings Meadows. The recommendation was that Council includes consideration of the concerns identified in the petition as part of the review of the e-Scooter trial. A representative also spoke to the topic at the council meeting, providing more detail.

Whilst specific issues related to the footpath were not highlighted, it is assumed the concern relates to already busy footpaths, narrow footpaths and footpaths that do not have adequate separation between pedestrians and riders. It is also assumed that there is concern with unrestricted parking that may create accessibility issues. Councillors spoke to the topic suggesting that restrictions could be considered to limit riders to the Eastern footpath through the Kings Meadows shopping precinct and limiting usage where there is not adequate separation between a shop entrance and pedestrians on the footpath. The use of geofencing technologies and bylaws were both topics raised for consideration.

Image credit: *Launceston Place Brand / Nick Hanson*

4.6 Central Launceston Statement of Support

The Council have been in regular discussion with Central Launceston Marketing Inc an organisation focused destination marketing, place activation and advocacy for Central Launceston. Discussions have continued throughout the trial in relation to micro-mobility and what it means for the businesses they represent and visitors to the city. Amanda McEvoy, Executive Officer of Central Launceston Marketing provided the following statement:

"As Launceston's marketing and promotions organisation, I am emailing to register the support of our board and organisation for the scooters to continue in Launceston.

They without doubt, add vibrancy and activity to the city just by their presence. They make getting around easier and reduce likelihood of cars in the city which is a key part of developing a people-centric busy city centre.

The research shows that there is more incidental spending in local businesses and the feedback from our business stakeholders that we've received is overwhelmingly positive and in favour of the scooters remaining.

We believe they will also play a critical part in connecting the new UTAS precinct in Inveresk/ Invermay. This is important for many reasons, but predominantly unless we see movement of the students and increasing activity in Invermay into the city centre, we risk all economic gain to the city lying in the surrounding streets of UTAS at the expense of businesses and hospitality venues in the city.

The scooters will enable students and staff at UTAS to visit the city for lunch, to grab shopping items and meet friends and study in the city. This is very important, as is the street beautification and way finding between these two locations being invested in.

Launceston may not yet be big enough population wise to have two 'centres' so it is important the businesses and activity over the river compliment and help the city grow, but that it is not at the expense of the city centre which represents so much for our retail, economic, visitor and investment attraction and growth.

They also provide another activity for young people and commuters which is a major benefit."

4.7 Department of State Growth – Round Table Events

The Department of State Growth Round Table events were organised in response to community feedback in relation to the regulatory framework for PMDs in Tasmania. The events were facilitated by an independent group, 3P Advisory with one being held in Launceston and another in Hobart, they were held in July 2022.

The sessions aimed to capture discussion about general views and experiences, rules or using PMDs, safety specific concerns, user & public education, as well as clarity of roles and responsibilities.

Attendees represented a number of groups such as Guides Dogs Tasmania, VisAbility, Expression Australia, Disability Voices Tasmania, Launceston Access Advisory Committee, University of Tasmania, Beam, Neuron, Premier's Disability Advisory Council, City of Hobart and City of Launceston.

Topics discussed echo the feedback that Council has received from the community directly, with the key themes being unsafe riding on footpaths and poor parking, both resulting in a number of injuries. Difficulty reporting incidents to operators was also raised, highlighting the need for processes and mechanisms to be improved. Attendees also discussed concern with the lack of adequate insurance to cover third parties in an accident and the need for improved compliance and enforcement. There was also in depth discussion about regulatory and policy changes that should be considered.

During the roundtables attendees were given the opportunity to inform the Tasmanian Government's review of the PMD regulatory framework. The following were raised as important principles for the review:

- an emphasis on the value of qualitative data to understand the communities' understanding of the impacts of PMDs
- open communications and active involvement with key community stakeholders during and after the review process
- the use of a co-design approach
- the application of a human rights lens
- responding to questions of legal liability of State Government and councils transparency as to review objectives, data sources & evaluation criteria

Image credit: *City of Launceston Mowbray Shopping Precinct*

5. Safety & Incidents

5.1 Accident Comparison with other Transport Modes

The comparison between accident rates between PMDs and other transport modes is a difficult one to make, because it requires the combination of various datasets with disparate classifications of crash severity and transport type. Most datasets do not include a separate category for PMDs, due to the recent legalisation of these devices as a transport option.

The first dataset is from the Launceston Multi-Modal Model (LMM), which provides an estimate of the number and proportion of trips by travel mode. It should be noted that there is no separate category for PMDs, so they are included in the "pedestrian" category along with other types of e-Scooter. Motorcycles are also included in with car traffic.

Figure 4. *Daily Trips Per Transport Mode*

Daily Trips Per Transport Mode - As Per LMM Outputs (2016 Base Year)						
Mode	**AM Peak Trips**	**Inter-peak Trips**	**PM Peak Trips**	**Off-peak (Night) Trips**	**Total Daily Trips**	**Mode Share**
Car and Motorcycle	69,713	189,389	66,285	77,049	402,436	86.54%
Commercial Vehicles	4,063	12,450	3,543	4,697	24,752	5.32%
Public Transport	1,050	2,141	716	189	4,095	0.88%
Walking	4,065	15,236	4,359	6,720	30,380	6.53%
PMD / e-Scooter						
Mobility Scooter / Scooter						
Cycling	638	1,200	731	805	3,374	0.73%

Launceston Multi-Modal Model (LMM) Dataset

The second dataset is the State crash database, which categorises crashes by travel mode and severity of injuries involved. The crash data has been extracted for the first nine months of the trial period and is shown in the table below. The two datasets are combined in the last two columns, to give an approximation of crash rate per 100,000 trips for each transport mode. It is noted that there were three e-Scooter crashes reported in this period, and all three involved private e-Scooters.

Figure 5. *Crash by Severity*

Crash by Severity - Injuries (Individuals Involved) (18/12/2022 - 31/8/2022)							
Mode	**Fatal**	**Serious**	**Minor**	**First Aid**	**PDO / Unknown**	**Non-Injury Crashes Per 100k Trips**	**Injury Crashes Per 100k Trips**
Car	2 (3)	8 (22)	116 (243)	52 (100)	696 (1188)	0.482	0.140
Motorcycle	3 (3)	5 (6)	16 (16)	4 (4)	12 (12)		
Commercial Vehicles	0 (1)	0 (2)	1 (9)	0 (3)	35 (35)	0.387	0.011
Public Transport	-	-	-	-	-	-	-
Walking	0 (0)	8 (10)	11 (13)	5 (5)	5 (5)	0.054	0.316
PMD / e-Scooter	0 (0)	1 (1)	2 (2)	0 (0)	0 (0)		
Mobility Scooter / Scooter	0 (0)	0 (0)	2 (2)	0 (0)	1 (1)		
Cycling	0 (0)	1 (1)	9 (9)	2 (2)	2 (2)	0.162	0.974

Tasmanian Government Crash Statistics

The final dataset is the accidents reported to the City of Launceston by Beam and Neuron. There are several flaws with this dataset, as the two companies classify the severity of crashes differently, and neither classification aligns with the State crash database. The data provided by the e-Scooter operators also does not cover the full extent of the trial period, and there are concerns about the accuracy of accident reporting, as most of the incidents are reported directly by users and are not verified. To address these issues, the data in the below table has been adjusted (to the extent that is possible) to align the reported crashes to the definitions used in the State database. Under these classifications, a Property Damage Only (PDO) crash is one where no person is physically injured.

First Aid crash is where first aid is provided at the scene, but the patient is not transported to hospital.

A Minor crash is one where the patient is taken to hospital (such as the emergency department), but is not admitted

A Serious crash is one where the patient is admitted to hospital overnight.

A Fatal crash obviously involves a fatality.

Figure 6. *Operator reported incidents*

	Reported Crashes					Non-Injury Crashes Per 100,000 Trips	Injury Crashes Per 100,000 Trips
	Fatal	Serious	Minor	First Aid	PDO		
Beam	0	1	1	2	9	7.089	3.151
Neuron	0	3	3	1	10	9.947	6.963
Cyclists	0	1	9	2	2	0.162	0.974

The above data suggests that Beam e-Scooters have injury crashes at three times the rate of cyclists, which is a comparable transport mode in terms of velocity and other characteristics related to the potential for injury. Neuron has recorded incidents in Launceston at almost twice the rate of Beam. However, there are several caveats with these crash rates. Firstly, the crashes for rideshare e-Scooters are likely reported at a much higher rate than private e-Scooters or bicycles, simply because there is a reporting mechanism, but also because there are potential incentives to report an accident, such as claiming under the operator's insurance, which is unlikely to occur in the State crash database where accidents are reported to Tasmania Police. The crash rates of pedestrians, cyclists, and PMD users are likely vastly under-reported to the State crash database, particularly when no injury (or a minor injury) is involved, because such crashes would not meet the threshold for reporting. It is also noted that both rideshare companies operating in Launceston, reported most crashes occurred in the first two months of the trial, when PMDs were a novel transport mode and users were inexperienced.

Accident Reporting in Other Jurisdictions

Other jurisdictions have had similar difficulty in assessing the crash risk of e-Scooters. Department for Transport in the UK assessed 14.5 million e-Scooter trips across England between July 2020 and March 2022. The report indicates that the crash rate of rideshare e-Scooter collisions was higher than for bicycles, although this was "likely to be driven in part by the novel nature of the mode." The Royal Society for the Prevention of Accidents in the UK produced a report in 2022, which suggested crash rates of 0.208 per 100,000km for bicycles and 0.04 per 100,000km for e-Scooters. The report noted that most of the crashes involved private e-Scooters rather than rideshare e-Scooters.

City of Adelaide, in their e-Scooter trial between January 2020 and June 2021, recorded a non-injury crash rate of 5.58 per 100,000 trips, or 4.11 per 100,000 km. Their injury crash rate was 1.07 per 100,000 trips, or 0.79 per 100,000km.

Various reports, from Brisbane, Auckland, Finland, and the USA, among others, suggest that the crash rate for e-Scooters is greater than for bicycles, although all locations had similar issues to Launceston with the immaturity of PMDs as a transport mode. All jurisdictions mentioned report that:

- Around 90% of injuries were to e-Scooter users who were not wearing a helmet;
- Around 80% of e-Scooter crashes were single-vehicle crashes, with the rider falling from the PMD;
- Two thirds of crashes involved inexperienced riders;
- Most e-Scooter crashes involve young males;
- Approximately half of those admitted to hospital because of an e-Scooter crash had alcohol in their system.

A journal article by the Royal Hobart Hospital looked at the Emergency Department presentations in Hobart during the first six months of their hire-and-ride e-Scooter trial. Their research found that 135 people presented to the ED with e-Scooter related injuries, although they do not distinguish between hire-and-ride and private e-Scooter use. Of those, 31 were admitted, most of whom were discharged within 24 hours. All 135 were riders or passengers of e-Scooters, no pedestrians presented to the ED with e-Scooter related injuries. Similar to other jurisdictions, only 36% of ED presentations were confirmed to be wearing a helmet, and 41% were intoxicated with alcohol (71% for those admitted). The conclusion of the report was that "the Hobart eScooter trial has been associated with few major injuries."

Menzies Research Institute Tasmania undertook a study in 2014 to find the crash rate for cyclists in Tasmania. The rate of Minor and Major accidents was found to be 3.7 and 1.6 per 100,000km respectively.

The City of Hobart commissioned an external transport consultant to compile the accident comparison table below. This dataset is also incomplete, but it appears to indicate that the rate of mild injury for PMD users in Tasmania is equivalent to cyclists and pedestrians, on a per 100,000 population basis. In terms of severe injury, *the observed rate for PMD users in Tasmania is approximately one-fiftieth of the rate for cyclists and one-fifteenth the rate for pedestrians*. There have been no recorded catastrophic (permanent injury, disability or death) injuries for PMD users in Tasmania.

Figure 7. *Hospitalisations by mode of transport*

	Crash by Severity - Injuries (Individuals Involved) (18/12/2022 - 31/8/2022)											
	e-Scooter (2021)			Car (driver or passenger)			Bicycle			Pedestrian		
	M	S	C	M	S	C	M	S	C	M	S	C
TAS (Year) [*]	10 (2022) [1.84]	4 (2022) [0.74]	0 (2022) [0]	?	404 (2018) [74.73]	38 (2020) [7.03]	?	189 (2018) [34.96]	0 (2020) [0]	?	59 (2018) [10.91]	5 (2020) [0.92]
VIC (Year) [*]					6.102 (2018) [91.14]	134 (2020) [2]		2143 (2018) [32.01]	13 (2020) [0.19]		832 (2018) [12.42]	29 (2020) [0.43]
NSW (Year) [*]				590 (2020) [7.23]	4103 (2020) [50.26]	184 (2020) [2.25]	125 (2020) [1.53]	2308 (2020) [28.27]	14 (2020) [0.17]	110 (2020) [1.35]	924 (2020) [11.32]	48 (2020) [0.59]
QLD (Year) [*]		529 (2021) [10.22]	1 (2021) [0.02]		5285 (2020) [102.14]	183 (2020) [3.54]		367 (2020) [7.09]	7 (2020) [0.14]		317 (2020) [6.13]	34 (2020) [0.66]
WA (Year) [*]					1484 (2018) [27.87]	111 (2020) [2.09]		667 (2018) [12.53]	5 (2020) [0.09]		188 (2018) [3.53]	11 (2020) [0.21]
SA (Year) [*]					1193 (2018) [67.43]	64 (2020) [3.62]		496 (2018) [28.03]	2 (2020) [0.11]		148 (2018) [8.36]	88 (2020) [0.45]
NT (Year) [*]					488 (2018) [198.37]	23 (2020) [9.35]		71 (2018) [28.86]	1 (2020) [0.41]		73 (2018) [29.67]	3 (2020) [1.22]
ACT (Year) [*]		38 (10 wks) [45.8]			287 (2018) [66.57]	7 (2020) [1.62]		217 (2018) [50.34]	0 (2020) [0]		24 (2018) [5.57]	0 (2020) [0]

Legend –M = Mild injury (bumps, knocks and grazes) | S = Severe injury (4 or more days in hospital) |
C = Catastrophic (permanent injury, disability or death) [*] – Rate per 100000 state population (2020)

Future common 17-06-22

There is no State, National, or international database that records comparative accident statistics for transport modes. If such statistics were available for Launceston or elsewhere, it is highly likely that the crash rates (both injury and non-injury) for PMDs would be very similar to those for bicycles, particularly once PMD use has become normalised as a transport option. Increased user experience and education, maturation of the technology and embedding of enhanced safety features, better enforcement of the Road Rules, and the ending of the 'novelty factor' for e-Scooters, should all help to improve the safety of PMDs as a valid travel mode.

5.2 Accessibility Issues

An accessibility issue typically relates to a situation where there is an obstruction to the footpath that may impact someone from passing by or may create a trip hazard. This includes consideration for people with a vision impairment and those using shorelining to navigate.

Within the trial period, written feedback from the community highlighted accessibility issues on 48 occasions including some incidents. Accessibility is the second most frequently raised topic within community feedback behind poor rider behaviour.

A common issue highlighted by the community, and observed by the City of Launceston was the frequency of poor parking, usually resulting in an accessibility issue. Accessibility concerns have also been raised by the Launceston Access Advisory Committee, at the Department of State Growth round table event, Disability Voices Tasmania and via a community petition with 512 signatures which focused on the Kings Meadows area.

Council has worked with operators to promote user education, detailed in section 5.10. Council has also conducted an e-Scooter Parking audit detailed in section 5.5 to gain quantiative data for analysis.

5.3 Poor Rider Behaviour

Poor rider behaviour typically relates to an instance where a rider disobeys road rules that have been established by State Government on how to share footpaths and roads with other users. The road rules within the legislations are detailed within section 3.

Many reports from community members of poor rider behaviour have been submitted to Council throughout the trial. Of the 134 community responses, 67 highlighted poor rider behaviour as a particular concern, exactly half of all responses and the most highlighted topic.

Poor rider behaviour was raised at the Department of State Growth round table event by the Launceston Access Advisory Committee and the Disability Voices Tasmania.

Figure 8. *Rob with his Dog Guide Jerry*

Image credit: *Rob Whyte*

5.4 Lived Experiences – Meet Rob

Throughout the trial, the Council received over 130 items of feedback from the general public and some of them agreed to speak in more detail about their 'Lived Experience' of e-Scooters. The first of these is Rob.

Meet Rob,

Rob has lived and worked in Launceston for most of his life. You may recognise Rob roaming the city streets with his Dog Guide Jerry!

Rob describes himself as a tech savvy open minded person with a focus on helping the community.

When the legislation was changed in December 2021 to legalise e-Scooters and other micro-mobility devices on footpaths in Tasmania, Rob soon noticed an influx in people riding e-Scooters, often speeding past him quite closely whilst he was walking on the city footpaths. Often Rob has been caught unaware and sometimes Jerry is startled by the surprise. Before the legislation changes, he experienced similar situations with bicycles, but far less frequently and he suspects bicycles are usually ridden by children when on the footpaths. Being a parent, he is understanding with children and doesn't have a big problem with bikes.

Another situation that Rob has encountered on several occasions is e-Scooters blocking access on footpaths. Thankfully, Jerry is normally able to guide him around, however in some cases they have been forced to back track and take an alternate route, sometimes walking on the road. If Rob were to take his cane rather than Jerry for assistance, he is confident that he would have challenges more frequently navigating around the additional obstacles. Poor e-Scooter parking has given Rob both safety concerns and cause for frustration.

Rob considers himself open minded and understands the benefit that e-Scooters and micro-mobility may have for some of the community. However, he would like to see changes to encourage responsible parking, potentially some dedicated areas with accessibility issues in mind. A simple change that Rob would like to see, is people being considerate around all pedestrians, something as simple as ringing a bell and telling someone that you are coming past would help a lot.

5.5 E-Scooter Parking Audit

In response to feedback regarding accessibility issues highlighted in section 5.2, the Council initiated an e-Scooter parking audit. It is recognised that poor parking is generally a user issue rather than an operator deployment issue. It is also recognised that the operators endeavor to remediate the issue as soon as practicable when a user has poorly parked.

Users often do not realise they have parked in an inappropriate manner and may not be aware of the issues that it could cause for others. For example, parking against a building rather than against the curb, parking over tactile markers or parking over a footpath. On occasions an e-Scooter may be moved or knocked over after a user has correctly parked it. In these cases, the audit captures it as a non-compliant instance of parking as it reflects what a member of the community would encounter.

The Council opted to audit e-Scooter parking across the city, taking photos of e-Scooters while parked and identifying if they were parked in a compliant way. The Audit occurred between 21 October and 11 November 2022. The aim was not to look for e-Scooters directly at a specific location or time or day, but to take note during routine travels, simulating what a member of the public may identify in their routine. The audit covered 303 e-Scooters in total, with 20 believed to be deployed by operators and 283 by users. If an e-Scooter was considered non-compliant for multiple reasons, the most significant issue was selected.

The data captured was analysed and categorised by council staff. An independent assessment of the findings was coordinated by VisAbility Tasmania, also assessing a sample of the findings.

Of the e-Scooters believed to be parked by users, 142 were parked in a compliant manner and 141 in a non-compliant manner, effectively a 50% compliant/ non-compliant split. The most common issue being e-Scooters parked on the building edge rather than the curb side of the footpath, impeding on the ability of visually impaired members of the community to use the shorelining technique of navigating. e-Scooters blocking footpaths also rated quite highly.

Of the e-Scooters audited within the Launceston Central Activity District (CAD), parking compliance was marginally worse than other areas such as residential. Within the CAD area, compliance was 44% and non-compliance 56%. This is potentially because there are fewer suitable parking locations and more existing obstacles. There are also more pedestrians so more people impacted.

Figure 9. *Non-compliant e-Scooter parking*

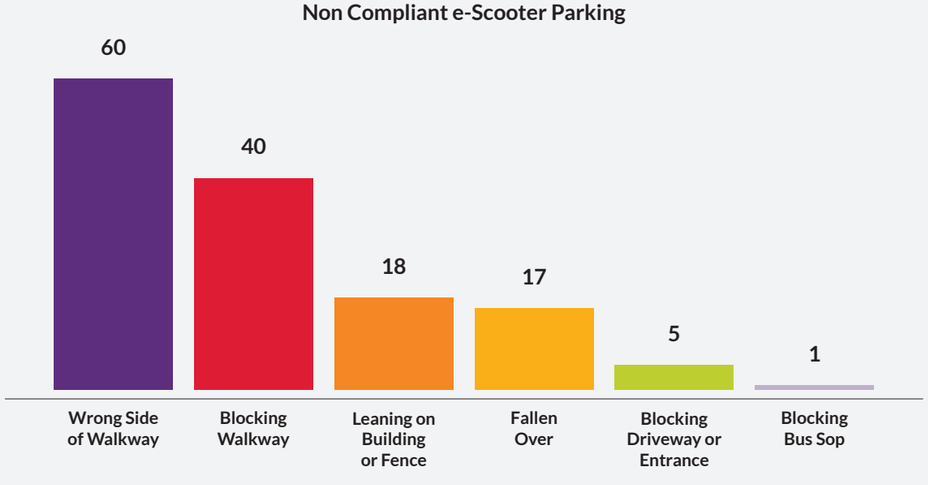


Figure 10. *Map indicating locations of e-Scooters audited for parking compliance.*

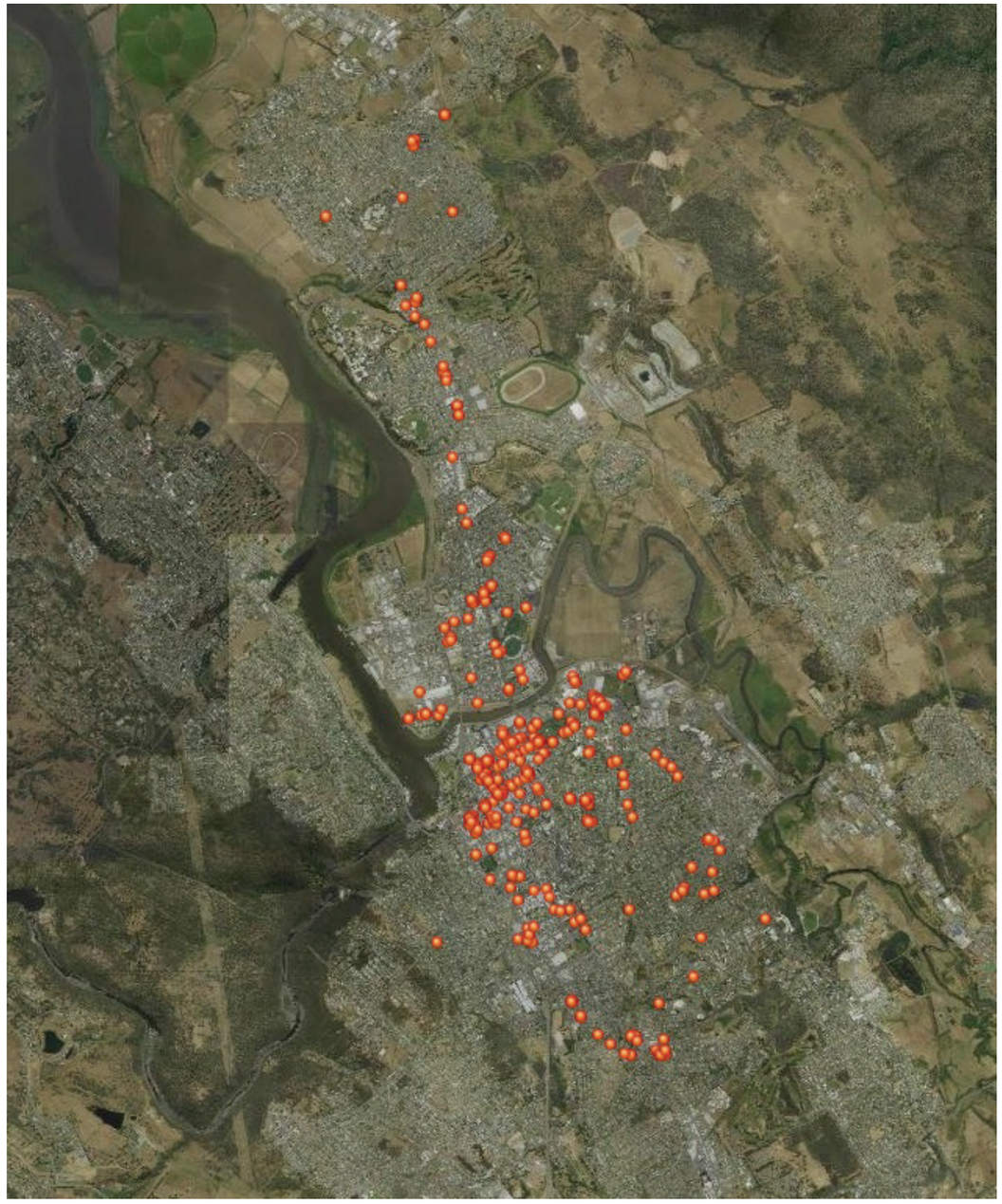


Image credit: Image taken using the ESRI ArcGIS product suite.

5.6 Parking Compliance Measures

Through working collaboratively, there are several tools and strategies the City of Launceston and operators can be applied to address parking compliance issues in areas identified as presenting issues:

- No-Parking-Zones – areas defined by a geo-fence where trips cannot be ended by riders. This does not stop a rider from abandoning the scooter, but as they have not ended their trip, they are charged a 10-minute penalty on their ride before the trip is automatically ended. Operator marshals can see vehicles left in a No-Parking-Zone on their view of the app and prioritise moving these.
- Fine Zones – Beam can define an area with a geo-fence, within which any vehicle can be parked but incur a fine. In some cases, this is used to cover the additional costs of marshal retrieval and is a low amount. In other cases, where there is more concern with parking, the fine could be quite substantial. Launceston currently does not have any 'deterrent' fines of this nature.
- Marked Parking Bays – City of Hobart is testing some marked parking areas in 'sensitive' areas such as shopping zones and high-foot-traffic areas. Initial results suggest that having a demarcated area encourages a high level of correct parking compliance from riders.
- Enforced Parking Bays – The first level of 'enforcement' is to create a No-Parking-Zone geofence around the marked parking bay which prevents parking unless the vehicle's GPS location reports that it is within a specific distance of the parking spot. The second level which might be considered where GPS accuracy is not sufficient to ensure that parking is fully within the marked parking bay, is to provide a QR code on a sign (or ground-marked) that the rider must scan before being allowed to park. This has been tested in sensitive parking areas in the City of Adelaide with good results. New technologies including 'beacons' which will detect the scooter as being accurately parked are currently being tested in other cities.

Reporting Bad Parking

- Beam provides several methods of reporting bad parking which include using the app, making a report on Beam's website, calling the operators customer service help-line, as well as a new automated system that is currently being rolling out in Launceston, especially designed for people with low-vision or other disability, but useable by all community members – where a tactile plate with the raised words, in yellow colour, "IN THE WAY, SCAN:…." and a QR code. Scanning this code with a phone camera reports the scooter number and its location directly to our marshals with no requirement for the user to enter any details.

5.7 Incidents & Injuries Reported to Council

Aside from incidents reported to Council by rideshare operators, the Council received a further seven incidents reported. One of these incidents involved an injury to a rider, one case of damage to third party property, four involved injuries to pedestrians and one case which was both an injury to pedestrian and damage to third party property. When a person reporting an issue contacts the Council, the feedback is captured in relation to the trial and the person is made aware of operator insurances and how to contact them to make a claim. With both the Council and operators maintaining privacy of user and community members data, it is not possible to identify whether a person that the Council referred to an operator made contact or not.

5.8 Feedback from Launceston General Hospital

The Launceston General Hospital (LGH) confirmed there have been presentations to the hospital because of scooter accidents. There is no way of quantifying this without a time-consuming search of all patient records, as the LGH do not record injuries as specifically being from e-Scooters.

A media statement on this issue from the Department of Health was shared with the Council in October 2022:

Over the past few months, the Royal Hobart Hospital and Launceston General Hospital have seen an increase in presentations involving injuries consistent with scooter-related incidents.

"However, it is unable to be determined if these are from the introduction of a trial of e-Scooters in Hobart and Launceston in mid-December, or from personal scooters, the usage of which has also grown exponentially over the same period.

"A number of surgeries have been undertaken as a result of these presentations to the hospitals.

"However, we are unable to differentiate between injuries that are related to e-Scooters, those from private scooters, or those from other forms of personal transport (like bikes)."

Image credit: *Neuron Mobility Royal Park Promotional Event*

5.9 Feedback from Tasmania Police

The City of Launceston has been in regular contact with Tasmania Police in regard the e-Scooter trial. Mid-trial, Tasmania Police was able to provide infringement statistics and supporting commentary. With the continuation of the partnership with Tasmania Police, we anticipate being able to have access to future infringement statistics. Statistics in the table are captured from 17 December 2021 to 30 June 2022.

- Tasmania Police have proceeded against 148 PMD Offenders in the period 17 December 2021 to 30 June 2022, which equates to approximately three offenders every four days, or 0.75 offenders per day state-wide.
- The dominant offence committed by PMD Offenders was helmet compliance. This offence was committed by 124 of the 148 offenders proceeded against by police, which equates to 5 out of 6 offenders. This offence type was dominant in both the Northern and Southern Police Districts.
- Other offences committed by PMD Offenders ranged from carrying passengers, failing to travel on roads lawfully, operating a PMD under-age and operating a PMD while using a mobile phone. All these non-helmet compliance offences were recorded in small, single-digit numbers. See the table below for further details.
- Note that for most of the reporting period the e-Scooter trial was restricted to Hobart and Launceston. On 23 June 2022, the trial was extended to Burnie. The trial may subsequently be extended to Devonport. No PMD Offenders were recorded in Western Police District up until the end of the reporting period (30 June 2022).
- Also note that both commercially-hired and personally-owned scooters are included in the statistics and they are not distinguishable statistically.

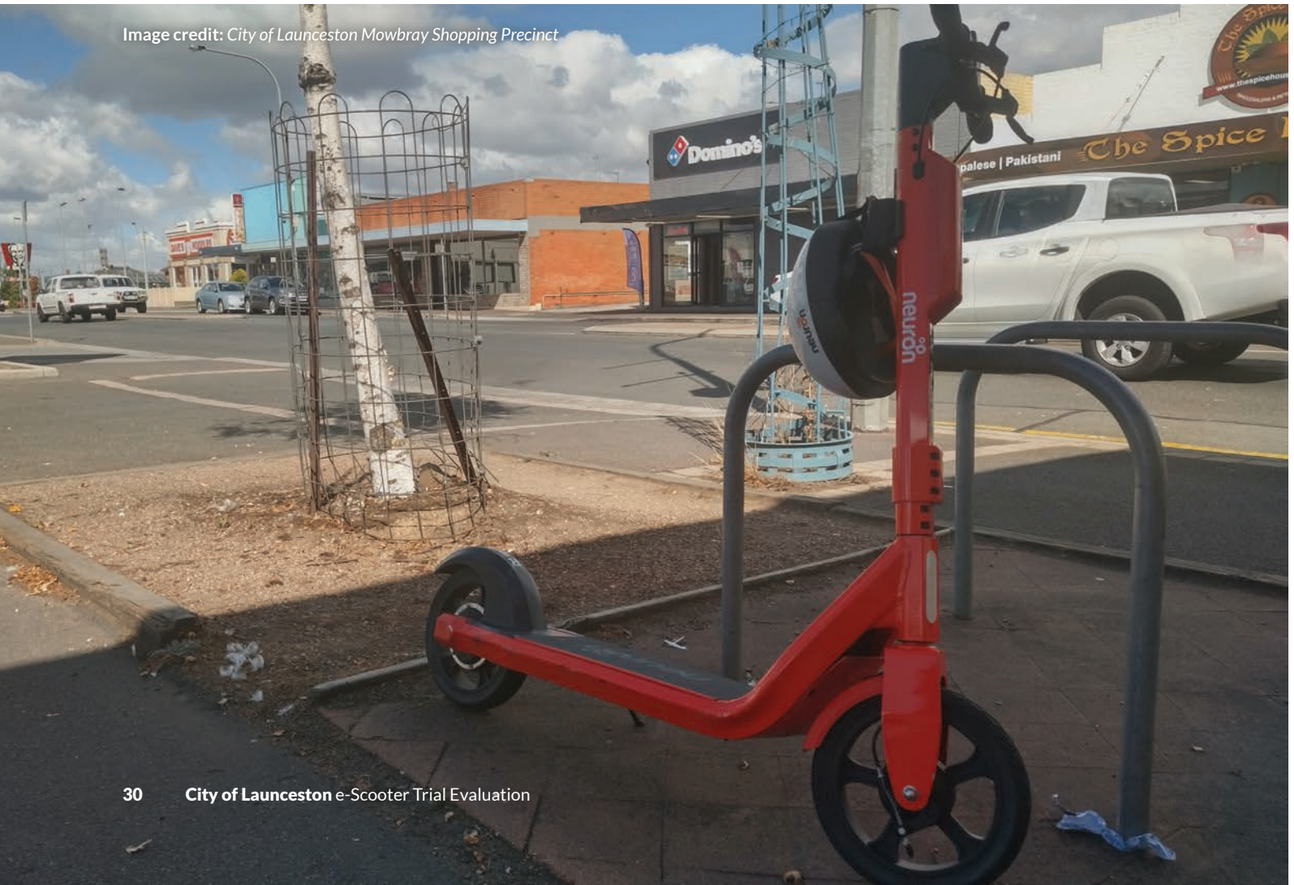


Image credit: *City of Launceston Mowbray Shopping Precinct*

Figure 11. *Personal Mobility Device (PMD) Offenders Proceeded Against by Police*

Proceeding type	Offence Type	Northern	Southern	State Wide
Prosecutions	PMD user carry another person or animal	2	0	2
	PMD user fail to wear securely fitted and fastened approved bicycle helmet unless exempt	2	1	3
Subtotal Prosecutions		**2**	**1**	**3**
TINs	Drive at night or in weather-reduced-visibility conditions without flashing or steady white light visible for at least 200m from front of Personal Mobility Device	0	1	1
	PMD user carry another person or animal	5	3	8
	PMD user fail to keep to left of road	0	1	1
	PMD user fail to wear securely fitted and fastened approved bicycle helmet unless exempt	79	38	117
	PMD user travel on certain prohibited roads	2	5	7
	PMD user travel on road prohibited to personal mobility devices	0	4	4
	Using mobile phone in hand while using personal mobility device	1	5	6
Subtotal TINs		**85**	**56**	**141**
Youth Cautions	PMD user carry another person or animal	1	1	2
	PMD user fail to wear securely fitted and fastened approved bicycle helmet unless exempt	2	2	4
	PMD user not 16 years or older	1	2	3
	Using mobile phone in hand while using personal mobility device	0	1	1
Subtotal Youth Cautions		**2**	**2**	**4**
Total		**89**	**59**	**148**

Source: Fines and Infringement Notices Database, Prosecution System and Information Bureau. (2 September 2022)

Note: The subtotal and total rows did not match the sum of offence types due to some offenders proceeded against for committing multiple offences.

5.10 Safety Events & Measures by Operators

The City of Launceston permit: *Authorisation to conduct commercial activity, Condition 3 states*:

> *all reasonable steps to ensure the safety of its users and other users of the road, footpaths and areas owned or under the control of Council, including but not limited to the provision of sufficient information to enable utilisation of the PMDs in a safe and lawful manner.*

Both Operators have coordinated safety events where the public can try an e-Scooter and learn how to use them safely, along with learning the road rules and being safe around other footpath users. Beam promote their event as the Beam Safety Academy and Neuron promote theirs as Scoot Safe.

Neuron held 7 Scoot Safe events within the trial period, most of which were at Park Street near Royal Park. Sessions were also held at the University of Tasmania campuses at Newnham, and Inveresk. In total, around 140 people actively engaged, with many more having a brief chat or taking a pamphlet.

Beam held 8 Safety Academy events across several locations including the Inveresk Precinct, Royal Park, Riverbend Park & Scotch Oakburn College. They estimate 200+ attendees took the opportunity to learn a range of e-Scooter manoeuvring skills and techniques under the guidance of professional safety instructors in a practical training session.

Beam ran a Safety Academy at the Big Picture School reserve in January 2022, which attracted more than 50 attendees. They provide an on-line safety academy where users review the rules and answer questions relating to good parking, wearing helmets, observing speed limits and riding only where permitted. Riders passing the test receive credits towards their next ride.

Beam advised they have a strong safety focus with their marshals regularly engaging personally with riders that are detected not doing the right thing and offer corrective advice. Where personal engagement is not possible, their marshals report misuse through their communications tools, and Beam's customer services department engages with these riders through email. All instances of misuse are entered into Beam's 'three-strikes' system, which involves a first-warning (for minor issues such as not wearing a helmet or inconsiderate parking) with reminders of correct procedures/rules, then a final-warning (for repeats of minor issues), a third offence results a period of suspension or permanent ban. Serious misdemeanours are escalated to the Beam's Operations Specialist (Launceston) and/or the State Manager who can permanently ban riders from using Beam's e-Scooters and, where scooters have been damaged or lost, seek financial compensation.

Both operators have used their user phone apps as a mechanism to promote safe riding, Tasmanian road rules and suitable parking. They have also highlighted infringements and fine amounts as an alternate way to draw attention to safety. The apps 'pop up' details with the user needing to acknowledge before proceeding to ride. Both operators have further programs within their app that allow users to progress through more in-depth training with an incentive of a discount if completed. Phone apps also require users to photograph the scooter at the end of trip, providing a mechanism for operators to audit parking and provide targeted information to improve.

Operators have used Social Networking as a tool to provide updates throughout the trial in relation to events, safety campaigns, safe parking, road rules and more. Beam have a reach of 1400 followers nationwide and Neuron 1300 followers worldwide.

Beam and Neuron have employed staff members with a primary role of promoting safety. The staff frequent popular locations and known problem areas, helping riders understand how to use scooters in a safe way. They also focus on events where there is likely to be more e-Scooter usage. Operators reported that on average, the safety ambassadors will speak with 30-40 people per shift, including both riders and non-riders. The ambassadors also report any bad riding they see during their shift and explain to the public how they can do the same.

Neuron have launched a series of safety videos they promote through social media and to users of their platform. Themes include, Wear a Helmet, Don't Drink & Ride, Park Responsibly and Slow Down and Give Way.

5.11 Case Study — Seaport & UTAS Pedestrian & Cycle Bridge

In the first weeks of the trial, Council began to receive feedback from the community regarding the Seaport area and paths along the North Esk. Members of the community highlighted particular concern with scooters being ridden fast in congested areas and unsafe riding in general. Another concern was the damage to the pedestrian surface being caused by e-Scooter tyre marks and burn outs. The Council also identified similar tyre mark issues on the newly built University of Tasmania (UTAS) pedestrian bridge.

The topic involving both locations was raised with operators as a matter of urgency. Both Beam and Neuron then implemented an additional geofence covering all waterfront pedestrian paths to force scooters to 15kph or less to match the legislated road rules or riding on footpaths. The speed limit would impose safer riding and reduce the ability of e-Scooters to leave tyre marks on the surface. In addition, acceleration rates were reduced to a level where scooters could not initiate a burn out. Lower acceleration rates also help improve safer riding on paths that may be congested.

Council outdoor cleansing team pressure cleaned the surfaces at Seaport and the UTAS pedestrian bridge to remove tyre marks in the first week of February 2022. The areas were closely monitored over the following 8 weeks with the surfaces remaining in an acceptable state with minimal markings. After the surface cleaning and geofence changes, the Council received one submission from the community relating to these areas. Prior to the changes there were nine submissions.

Figure 12. *Tyre marks, UTAS pedestrian bridge (Jan 11th 2022)*

Image credit: *City of Launceston*

Figure 13. *UTAS pedestrian bridge, 8 weeks after cleaning and changes made by operators*

Image credit: *City of Launceston*

5.12 Rider & 3rd Party Insurance

Council Officers were requested by Councillors to investigate what happens if a pedestrian is injured by a rider that was breaching insurance conditions for example, riding while under the influence of alcohol, underage etc.

There is no general requirement for insurance to utilise vehicles that are not motor vehicles on public streets in Tasmania.

Unless a PMD meets the definition of a motor vehicle, there is no requirement for insurance under Tasmanian law. Such a position is consistent with other modes of transport, such as regular scooters, skateboards and bicycles.

Any change to the requirements for insurance to operate a vehicle on a public street is a policy decision for the State Government.

Notwithstanding the above, Council requires that commercial PMD hiring companies in Launceston maintain public liability insurance with at least $20,000,000 cover. The extent to which a commercial PMD operator is liable for any injuries or damage is a matter to be determined by the affected parties and, if relevant, the applicable contract of insurance and determination of the courts.

Operator Beam provided a response regarding insurances:

- *Beam holds $30M public liability insurance which provides a high level of protection to the City of Launceston through its contract with Beam, in the unfortunate event of a major incident.*
- *Beam provides two insurance policies automatically to all its riders. These cover the rider for 3P damage, and for personal and 3P injury claims. Similar to the Tasmanian compulsory 3P insurance for motor vehicles provided through the Motor Accidents Insurance Board (MAIB), the injury insurance protects riders against claims from 3rd parties for injury and damage to property.*
- *Beam is not able to provide statistics on the number of insurance claims excepted and rejected by its provider of rider insurance. At the time of writing, they stated they have not received any negative feedback to Beam from riders that have been provided with the details and process of making an insurance claim.*

5.13 National Considerations

There is inconsistency in e-Scooter legislation between States and Territories, for example in New South Wales, Victoria, South Australia and Northern Territories it is legal to buy and sell an e-Scooter, but it can only be used on private property, and all four states run rideshare schemes. In Tasmania you can ride an e-Scooter of under 200W power on shared paths and roads. However, most commercial e-Scooters exceed the 200W power limit, making them illegal to use in public.

When assessing e-Scooter incidents, private and rideshare e-Scooters are not differentiated at hospitals, and this is also the case for injury reporting and crash statistics. This differentiation matters because the shared e-Scooter market and private e-Scooter market have significant regulatory differences. Shared e-Scooters are more regulated, particularly with speed limits, geofencing and GPS tracking requirements allowing councils and governments to understand how incidents occur on them.

Private e-Scooters are not regulated, with varying engine sizes and e-Scooters going up to maximum speeds exceeding the legal limit. Where shared e-Scooter incidents are reported to councils in every city with rideshare operations under way, incidents involving private e-Scooters are not reported to any official body in Australia. These represent the majority of incidents reported in the media, and the majority of serious injuries and fatalities that have occurred on e-Scooters. However, it is difficult to draw conclusions regarding causation, or indeed how the risks of these incidents can be reduced, due to a lack of reporting breaking down incidents by rideshare and private e-Scooters. Accordingly, the incidents reported in the media cannot be verified.

Throughout the trial in Launceston, Council Officers have focused on working with operators to mitigate incidents. Officers requested a statement from Beam regarding their approach to safety, and as at 9 January 2023, Beam reported they have a leading safety record, with only 1 out of every 100,000 trips resulting in a reported hospitalisation. Beam stated they are committed to Australia's Vision Zero pledge, and are also committed to developing an industry-standard for incident reporting, which will allow further analysis into the causation of e-Scooter incidents and hence how they can be prevented. Beam has had no fatalities in Australia, supporting Vision Zero.

Image credit: *City of Launceston Lindsay Street*

6. Usage & Statistics

6.1 Total Usage Statistics for Trial

The comparison of accident rates between PMDs and other transport modes is a difficult one to make, because it requires the combination of various datasets with disparate classifications of crash severity and transport type. Most datasets do not include a separate category for PMDs, due to the recent legalisation of these devices as a transport option.

The first dataset is from the Launceston Multi-Modal Model (LMM), which provides an estimate of the number and proportion of trips by travel mode. It should be noted that there is no separate category for PMDs, so they are included in the "pedestrian" category along with other types of e-Scooter. Motorcycles are also included in with car traffic.

Figure 14. *Total usage statistics for trial as at Dec 17th 2022*

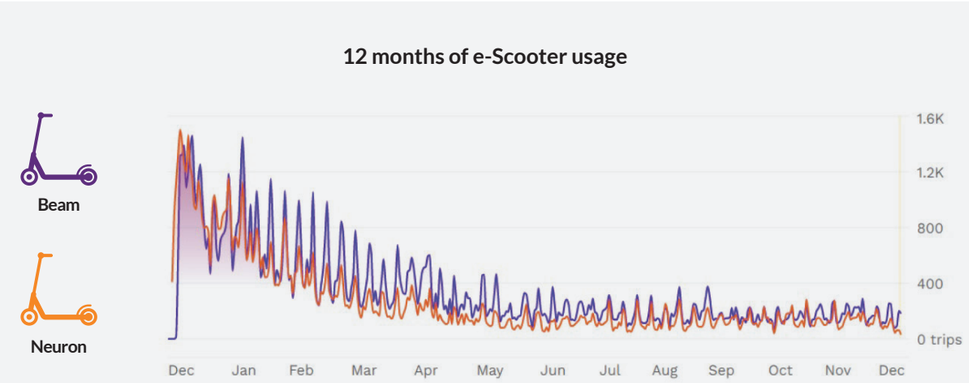


Image credit: *Image taken from the Ride Report platform*

227,000 Total trips	**452,000km** Distance covered	**622** Average trips per day	**1.99km** Average trip	**Popular destinations:** · Mowbray Shopping Precinct · CBD · Royal Park · Riverbend Park · Newstead Shopping Precinct · McDonalds Invermay
49 tC02e Emissions saved	**99.99%** Incident free trips	**4** Hospitalisations	**89** Infringements	

Statistics as at – Dec 17 2022

Infringements as at – June 20 2022

6.2 Increasing Community Use

Beam were asked to provide details of how they have worked with different sectors of the community during the trial. They provided a number of examples and emphasised that they look forward to developing more community partnerships as opportunities present.

- *Beam partnered with Scotch-Oakburn College to provide e-Scooter services for their older students (minimum age 16) to move between the boarding campus and the schooling campus. The trial has been successful and will continue into 2023.*
- *In Hobart, Beam have piloted several 'e-Scooters for Older Tasmanians' events targeted at more mature community members. They intend to run a similar event in Launceston in 2023.*
- *Beam is working with Blueline Laundry in both Launceston and Hobart, and an employer of people with disability or other barriers to employment, to facilitate their use of e-Scooters for transport to and from work.*
- *Beam is working closely with the University of Tasmania to provide special arrangements for both staff and students, encouraging the use of e-Scooters for transport to and from its multiple campuses in the cities of Launceston, Burnie, and Hobart.*
- *Beam provides a 30% discount on the total price of trips at all times of day on a high percentage of its fleet in all parts of its operating areas in Hobart and Launceston. Users seeking discounted rides can use a 'toggle' switch on the app which will display the nearest discounted scooters. They use a sophisticated algorithm to choose scooters for discounted rides based on providing a good distribution across the operating area, and targeting scooters that are not in parking spots or have not been used for a while. They advised this also improves the efficiency of their marshalling.*

Image credit: *City of Launceston Paterson Street*

6.3 Embedding in Community – Scotch Oakburn College

In July 2022 Scotch-Oakburn College recognised a potential opportunity for the use of e-Scooters between education campuses in Launceston. On Elphin and Penquite Roads the boarding house is 2kms from the senior campus with students and staff regularly passing between the sites at irregular intervals. Year 11 and 12 students are over the age of 16, so legally allowed to ride e-Scooters in Tasmania. Parking is limited at their sites and there is often traffic congestion which can be avoided.

A 10-week trial was launched which included six Beam e-Scooter subscriptions, the aim was to learn about uptake, convenience and flag any safety concerns. The College assigned a staff member with a senior role to coordinate the trial, demonstrating safe riding to students and checking in throughout the trial. They also worked with Beam to introduce dedicated parking areas within the campuses to prevent accessibility issues and clutter.

The trial formally concluded in mid-October, but e-Scooter usage has continued in the same vein. It was quickly realised that e-Scooters are a genuine option for students with good uptake. Throughout the trial, no incidents occurred, and no complaints were recorded. In summary, Scotch Oakburn College advised they see e-Scooters as a sustainable option that is quick and convenient. It was noted that the scooters have helped give students awareness of traffic situations, which also help in preparation for driver training. In addition, the College is committed to sustainability and reducing their carbon footprint, so the e-Scooters aligned with this intent.

6.4 Embedding in Community – University of Tasmania

Council has been in regular discussion with the University of Tasmania (UTAS) in relation to micro-mobility and what it means for their students, staff and visitors. UTAS have a focus on sustainability, including supporting environmentally friendly modes of transportation and provided the following statement:

"The University of Tasmania is committed to supporting staff and students to choose sustainable transport options and has developed a Sustainable Transport Strategy to guide and support investments and actions that deliver more socially, economically, and environmentally sustainable transport outcomes and travel behaviours.

The University is building a new campus at Inveresk in the heart of Launceston. The campus will become central to the life of the city – a vibrant place where the community, business and industry, and the University can connect and collaborate. This development with see a staged approach with the transition from Newnham to Inveresk campus occurring over the next 2-3 years. This will see an increase in staff and students looking to travel between both these campuses and as well as into the central city seeing an increase in the use of micro-mobility transport options.

UTAS is currently in discussions with BEAM to deliver a corporate offering for staff to travel utilising e-Scooters for work travel across all campuses as well as interstate and internationally for work travel. They are in the process of conducting an independent risk assessment in conjunction with BEAM to support the safe implementation of this initiative."

6.5 Handling of Major Events: Anzac Day, Junction Festival, AFL

Throughout the trial, the Council has advised e-Scooter operators of major events to ensure additional considerations for handling e-Scooter usage and e-Scooter parking. Typically, events of interest would involve an influx of people into a public area and consideration is given to the event area and the paths that people may use to commute. Whilst the primary focus is to prevent issues, there have also been examples where e-Scooters have provided an alternative transport option for people commuting to or from an event, such as AFL events and the Junction Arts Festival.

Operators have utilised temporary slow-zone and no-riding-zone geofences to ensure safety, modify or create parking locations to accommodate demand requirements and provide safe parking. Operators' apps provide a mechanism to advise riders of changes and suggest alternate routes. For some events such as AFL, BBL, Junction Arts Festival and Mona Foma, operators have deployed additional staff in key areas to help manage usage of the e-Scooters.

ANZAC Day 2022 was an example where extra measures were taken to ensure e-Scooters did not detract from the event whilst allowing them to be used effectively and safely. A difficult requirement given the size of the crowd involved.

The Dawn Service, ANZAC Day Parade and AFL at UTAS Stadium all received close attention with thorough planning. Operators and event organisers worked closely together to achieve a mutually satisfactory outcome. For ANZAC day, all e-Scooters were removed from the Cenotaph area on the evening of the 24 April 2022 with no-parking zones introduced to prevent e-Scooters being left in the area prior to the Dawn Service starting. Similarly, parking and riding was blocked on the path of the parade whilst it was underway.

Regarding the AFL events it was recognised that e-Scooters could be an effective mode of transport to and from UTAS Stadium with the location being a short ride from most hotels in the city and car parking in the area often being a challenge for visitors and locals alike. The increased risk of e-Scooters being used and parked around a highly congested area was recognised and temporary, additional slow riding zones were introduced via geofences within 200m of the venue. Dedicated parking areas were introduced in suitable locations to the north and south of the venue, again enforced by geofences to prevent accessibility issues. Both operators rostered additional staff to properly handle the area.

Throughout 2022 there were four AFL events at UTAS Stadium. In total, 403 e-Scooter trips were started from the event area at the conclusion of the event with most heading south towards the city.

6.6 Destination Analysis

An analysis of destinations was performed using heat map data. The focus has been on destinations as the destination gives some indication as to what the rider may be using the e-Scooter for. Whilst start points can also be analysed, there is less of a story to them, as most trips start from areas where the operators deployed the e-Scooters. For this analysis, the operating area has been separated in to four groups, the first being the Northern most suburbs, Mowbray, Newnham & Mayfield. The second area being Invermay, third the Central Activity District including Royal Park through to City Park, and fourth East Launceston, Newstead & South Launceston including the Six-Ways Intersection at Sandhill.

Mowbray, Newnham and Mayfield

Mowbray, Newnham, and Mayfield are the northern most suburbs covered in the current operating area. The three suburbs have been the destination of 15.5% of all trips, or over 36,000 trips throughout the 12-month trial. The key destination within the area is the Mowbray shopping precinct on Invermay Road. Typically, a shopping precinct would not be considered a destination that users would ride to for recreation, indicating that users are commuting to shops to make purchases, run errands, appointments etc.

Figure 15. *Heat map showing popular destinations in Launceston's north*

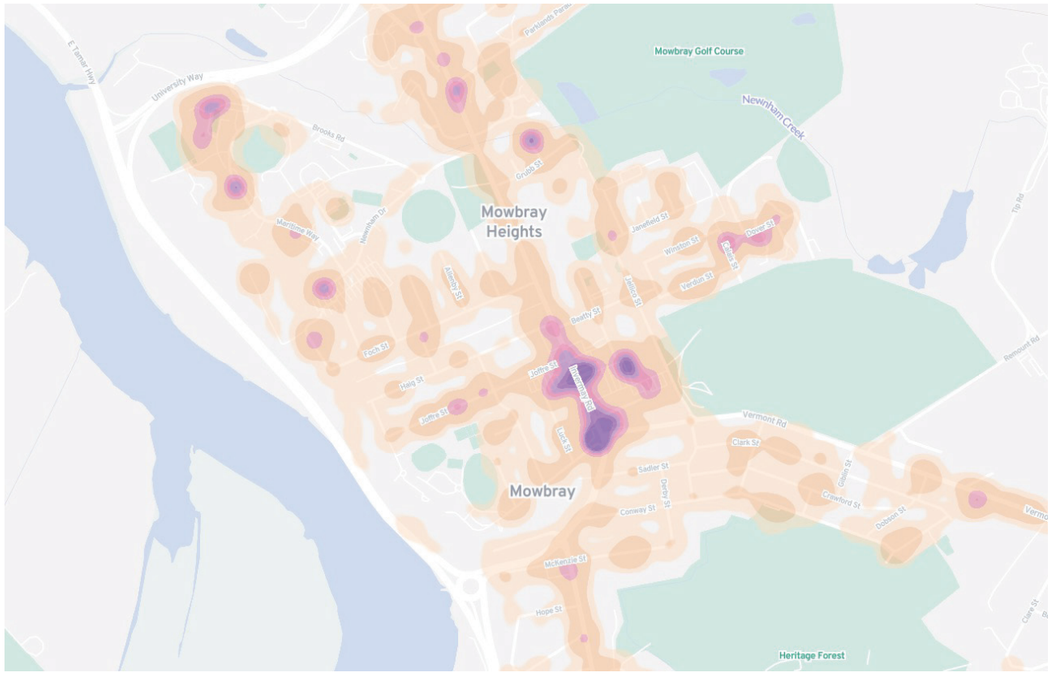


Image credit: *Image taken from the Ride Report platform*

Invermay

Invermay was a destination for over 41,000 trips, making up over 18% of the total trips during the 12-month trial. Riverbend Park being both the busiest starting point and destination across the city. Most Riverbend Park trips are likely examples of recreation with the start point and destinations being the same spot, i.e., out and back. The trails along flood levees in the area being appealing for a recreational ride.

The intersection of Forster Street and Goderich Street has also been one of the busiest destinations with McDonalds and Beta Park Bouldering being notable attractions nearby.

The Inveresk Precinct, particularly around University of Tasmania and the Queen Victoria Musuem (QVMAG) has also been identified as a key destination in Invermay. Likely signs of commuting between student campuses or boarding house, or visitors to QVMAG.

Figure 16. *Heat map showing popular destinations in the Invermay area*

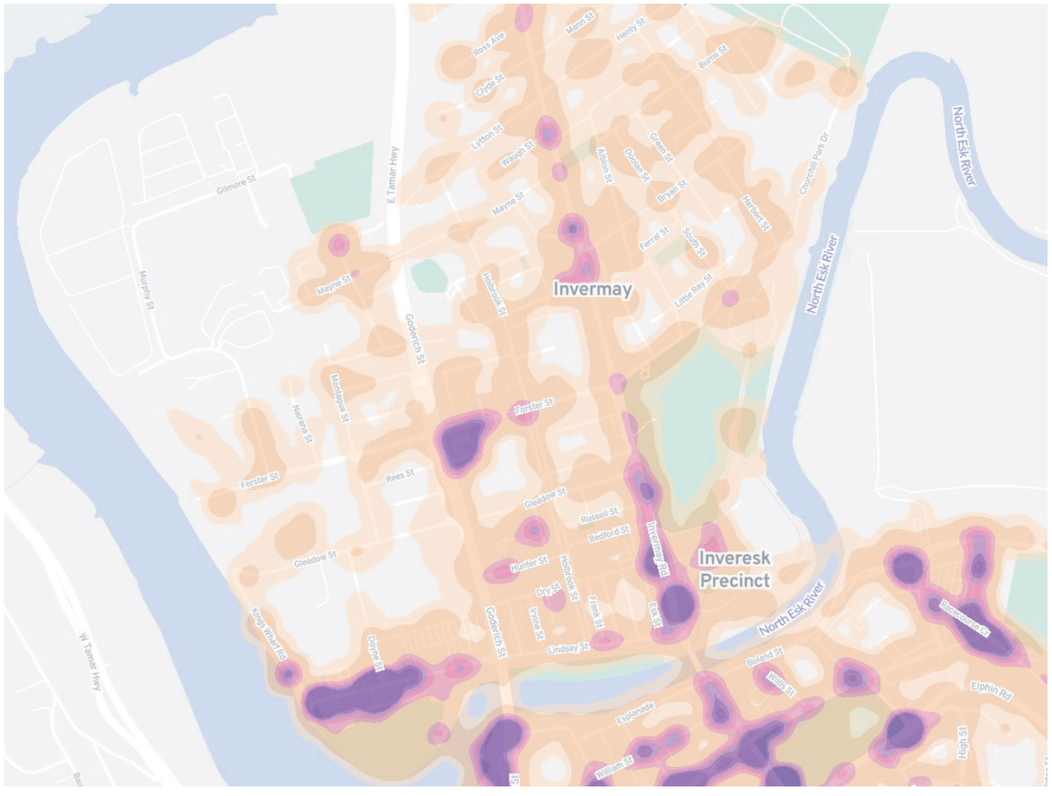


Image credit: *Image taken from the Ride Report platform*

Central Activity District

The Central Activity District, which includes the central city area and City Park to Royal Park was the destination for over 45% of all trips, some 103,000 trips. There are many hot spots in the area for both trip starts and destination as expected, likely a combination of multiple ride purposes. 41% of trips ending within the Central Activity District were initiated from outside of the district, most commonly originating from the Riverbend Park and the Racecourse Crescent area.

Figure 17. *Heat map showing popular destinations in Launceston's Central Activity District*

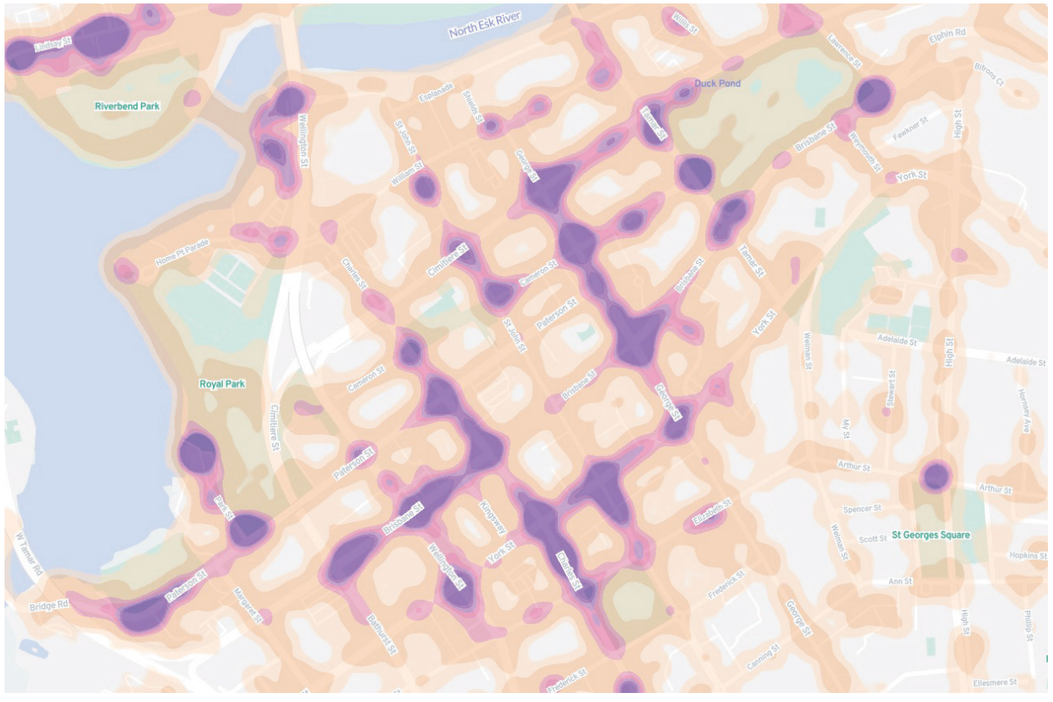


Image credit: *Image taken from the Ride Report platform*

East Launceston, Newstead and South Launceston

The East Launceston, Newstead and South Launceston area was a destination for almost 15% of all trips, or over 34,000 trips. Trip start and destination numbers matched quite closely for the areas, potentially an indication of two-way commutes; people commuting to work or the city, then returning. The Newstead shopping precinct was a notable destination hot spot, likely an indication of people shopping, running errands or appointments. The Launceston General Hospital was also a popular destination, potentially being used by staff or visitors with car parking often being a challenge in the area. This assumption is also supported by the survey showing that 9% of riders are in healthcare professions. The Six-Ways Intersection at Sandhill was also a popular destination with a few businesses nearby, Six-Ways Intersection is also at the edge of the operating area. It is quite likely that many riders were intending to continue riding further to areas such as Punchbowl, Kings Meadows, Youngtown or Prospect, yet needed to end their trip early.

Figure 18. *Heat map showing popular destinations in Launceston's south*

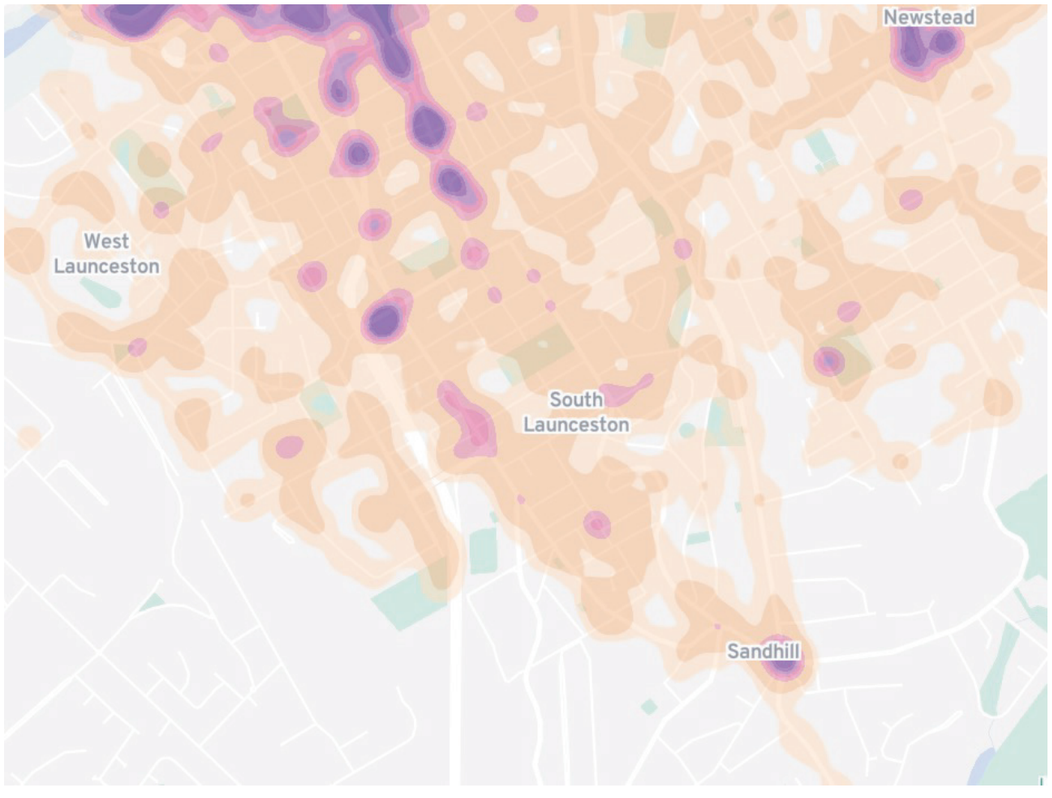


Image credit: *Image taken from the Ride Report platform*

6.7 Geographical Trends (Common Paths)

The route map below shows the common paths that are used by e-Scooters. Dark purple being the path most frequented and light orange being the least. The most commonly used paths being around the Central Activity District, Royal Park, the North Esk flood levee network and Invermay Road. Those paths have all been included in over 16,000 trips, over 44 times per day on average.

Image credit: *Neuron Mobility Royal Park*

Figure 19. *Common paths used by e-Scooters in Launceston*

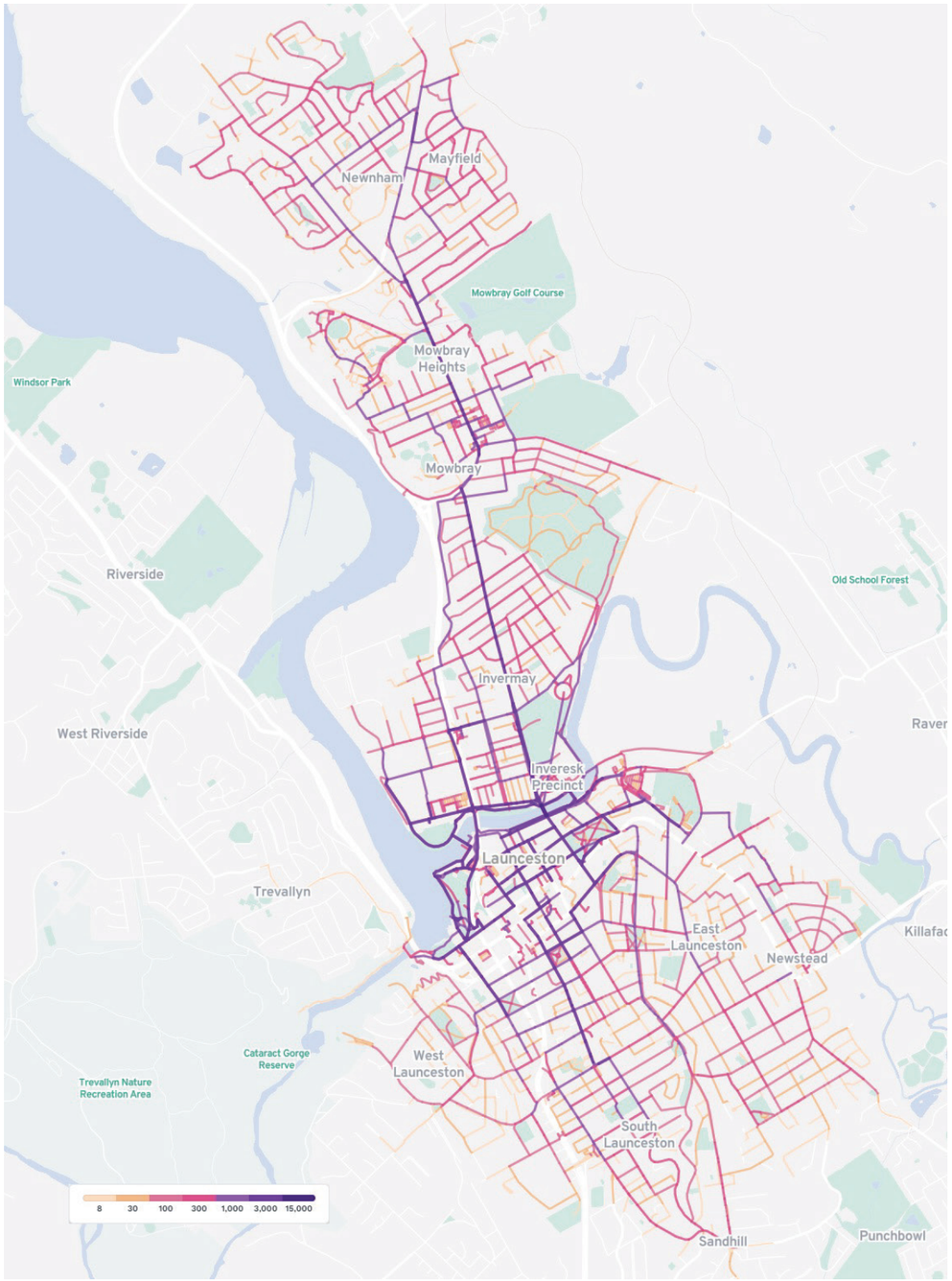


Image credit: *Image taken from the Ride Report platform*

Figure 20. *Simon, privately owned e-Scooter*

Image credit: *Simon Gurteen*

6.8 Lived Experiences – Meet Simon

Meet Simon,

Simon is a long-term Launceston resident, living in South Launceston with his wife and two teenagers. He works in the Health Care industry, repairing and servicing equipment with a routine commute to work of about 6 kms from home.

Simon first rode a Neuron rideshare e-Scooter with his family when they launched last summer (2021/22) and said he was immediately hooked. It was an enjoyable way to get around and he quickly realised that it could be a viable transport option for commuting to work, no parking or traffic congestion issues and environmentally friendly without a petrol bill.

Soon after, Simon purchased an e-Scooter which has since became his primary mode of transport. He mentions that between February 2022 and Month September 2022, he has driven to work just 30 times, generally only when the weather is poor. In this time, he has covered over 700kms and has upgraded to a higher end model. He uses his e-Scooter occasionally for small shopping trips and for recreation when he has time, he's part of a fast-growing group of likeminded enthusiasts.

Simon noted that he has seen a lot more private e-Scooters popping up in recent times with several local shops now selling and maintaining them. He would like to see e-Scooters allowed in more areas, such as more of our parks and reserves with suitably low speed limits. He would also like to see e-Scooters allowed in bike lanes on roads such as Elphin Road which is a 60kph limit to keep separation from pedestrians and driveways.

He would like to see some more maintenance to existing bike paths with a particular issue being a lot of two way tracks that have dangerous blind spots. He also mentioned that additional lock up cages around the city, like the Paterson Street car parks would also be great.

Simon expects to see the uptake to continue to grow as e-Scooters and other micro-mobility devices become more advanced, cheaper and more readily available.

6.9 Private e-Scooter Ownership Analysis

The privately owned e-Scooter market differs from the rideshare market in several ways: there is no legal requirement to register ownership of a privately owned e-Scooter, they are generally stored out of sight when not used, and are purchased from many different businesses including online outlets. Additionally, usage data is almost impossible to gather as the e-Scooters do not report data to a central platform as do the rideshare e-Scooters. These factors combine to make ownership numbers of privately owned e-Scooters an estimate at best.

The private e-Scooters differ from the rideshare scooters physically as well; they are typically more powerful than rideshare scooters and often able to achieve much higher speeds. They do not include mechanisms to enforce safety such as geofences for speed limiting, restricting riding and controlling parking. As they do not report back to a central platform, they do not report usage patterns.

Industry research performed by Australian group '*The Micro-mobility report*' estimated over 250,000 privately owned e-Scooters in Australia in February 2022. Growth has since continued to increase rapidly with laws changed to support private e-Scooters being ridden in public places in Tasmania, Western Australia, Queensland and the ACT. Noting that in South Australia, Victoria, New South Wales & the Northern Territory, rideshare e-Scooters are legal to use in public places, yet privately owned e-Scooters are only legal on private properly. From this research it is estimated that approximately 35% of Australians can legally ride an e-Scooter in public spaces where they reside. The remaining 65% of Australians are only able to ride an e-Scooter on private properly, which is likely to impact sales and private ownership. It's also likely that e-Scooter ownership is much higher per capita in states where the laws are less restrictive.

Based on research from '*The Micro-mobility Report*' in February 2022, Launceston's population and likely market growth over the past 12 months, it's estimated that there are now over 2000 privately owned e-Scooters in Launceston with numbers and usage continuing to grow.

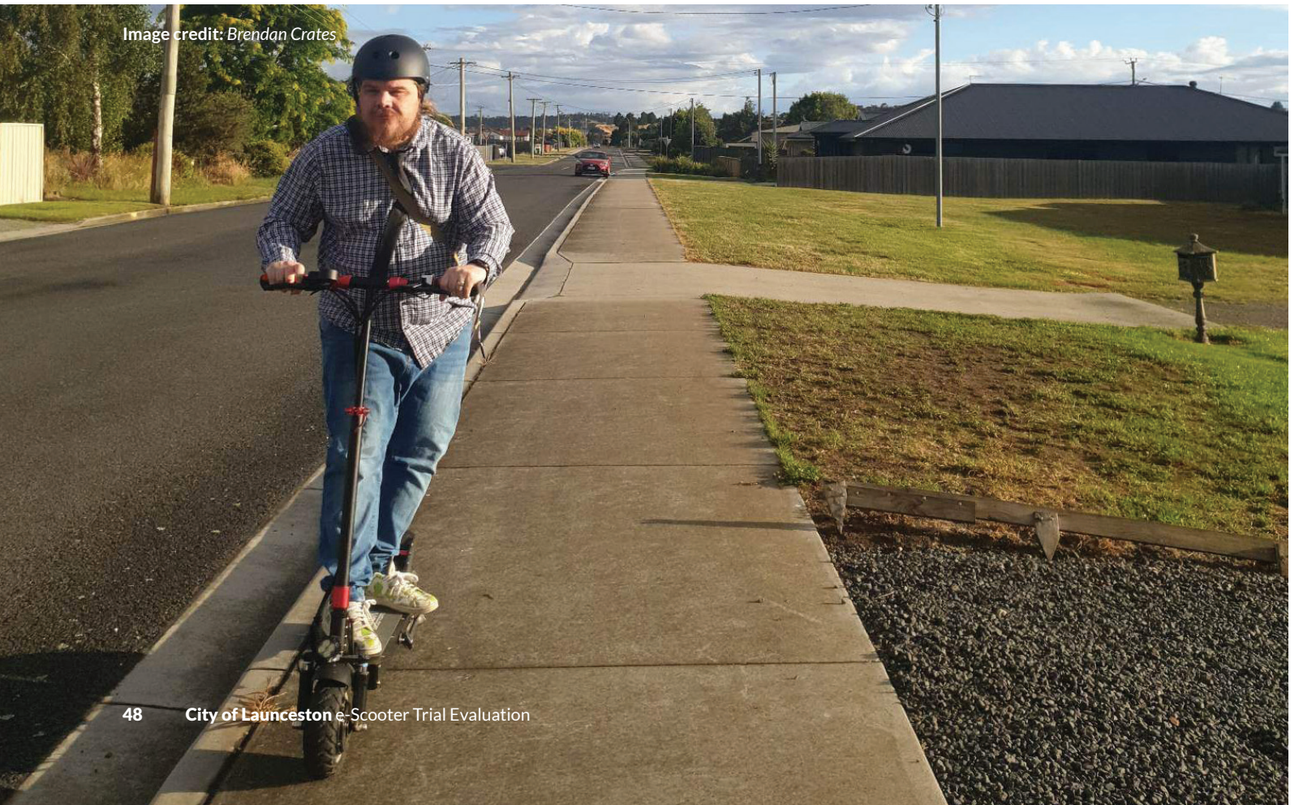


Image credit: *Brendan Crates*

6.10 Private e-Scooter Market (Sales, Market, Trends)

Council approached John, the proprietor of a local electric vehicle store to get an understanding of the local industry, trends and what he is hearing from his customer base. John volunteered to provide the details below for this report, knowing that it would add value. It's recognised that John's business is one of many accessible to the community, including online and that findings between businesses may differ.

Hi - I'm John,

Proprietor of a local, Launceston based, Electric Vehicle store. We have sold, serviced and repaired electric bikes for over 15 years now but always refrained from trading in e-Scooters as we knew the laws in Tasmania at the time did not support their use on public streets. Over that time however we did repair quite a few that were purchased on the internet or that had been purchased elsewhere. The market was slow in this area and the products were very low quality at best. The last 3 years however the prevalence of better e-Scooters started to grow organically, and we saw more repairs for these machines presenting to our workshop.

When it was announced publicly in late 2020/ early 2021 that the Tasmanian legislation would be changing to accommodate new scooters laws required for the implementation of a hire scooter trial I watched with keen interest from the sidelines. Within days social media had blown up and there was already brewing a spirited conversation around e-Scooters and their relevance to our island state and its transport network. As the date drew nearer the voices became louder with many of the view it would be the end of civilization in Tasmania as we know it! I myself listened to theses anecdotes and believed the disbelievers were right - that the streets would be full of drunken scooter riders terrorising the streets. I also listened to the calmer folks who lived in e-Scooter legal states like QLD, and they had a different opinion based on experience of the way scooters helped the population to flow around the city easily. Thinking I knew what was evolving around us I geared up pre-Christmas 2021 with quite a few smaller kids e-Scooters, and only a few of the larger sized sports e-Scooters that can carry grown adults, in case mum and dad wanted one to ride with the kids. We then sat back and waited for the rush of kids and parents coming in to buy one for Christmas. It did not come. Instead, we saw the emergence of the hire scooters as they took over our streets and footpaths and we heard firsthand from the banter this created around the town. We saw lots of folks riding the hire scooters as we went about our days, but we weren't seeing a rush of scooter buyers wanting to enter the market with their own personal e-Scooter. We did make a few sales - but nothing to write home about! Instead, we got a trickle of middle-aged folks a few months later in Feb and March, typically around 30yrs through to 60yrs old coming in to look at better quality scooters. When we spoke with these folks to engage and see what their requirements were they almost in every case said the same thing - that they had used a hire scooter a few times, enjoyed it initially, found it useful the next time and then ultimately decided that they were an excellent form of transport and a good way to get around easily, cheaply and environmentally consciously. As the months drew on and winter approached, we ended up with a perfect storm - the war in Ukraine started to push up the fuel prices and suddenly, the sentiment had changed. We had more folks in the same mid to late aged groups coming into the store suddenly looking for an economical alternative to using their cars. We got the same reactions with people who were transitioning into e-bikes for the same cost

saving reasons, but the scooter market was the one that had really taken a directional shift over a 4 to 6 month period. That flow of customers has steadily continued over the winter months and now we are approaching summer the inquiry rate is growing rapidly again.

We get to see these new e-scooter customers again as they come back in to see us for servicing and repairs and the consensus is that they are really enjoying the concepts around their scooters and their use in day to day life. Quite a few are riding them to work very regularly and saving money on parking and fuel and in some cases, they are faster at getting to and from their destinations than driving the equivalent distances. They also report that they are in a better frame of mind due to the fun nature of their chosen form of transport. There are mental health benefits to these pursuits as well and fiscal and time advantages.

Another strange phenomenon we have noticed is that we have not had the level of injuries that we perceived we would have based on comments we saw and heard regarding the hire scooters. We have had only a very few scooters come in for repairs of a crash damage nature and talking with end user customers it is clear that once the sheer novelty of riding with the wind in your hair and a grin on your face wears off that most folks slow down into a sensible and safe speed that is still efficient, safe and effective but is designed to aid in the longevity of the machine and the rider. As the demographic we depicted took to riding scooters, the self-preservation gene kicked in and most slowed down after a few weeks and rode them smoothly and sedately and in the manner for which they were truly designed. They also had invested significant amounts in the purchase of their e-Scooters and so in turn take care of them commensurately (this single fact is not a consideration of the hire scooter user however). The two-fold effect of this was that we had a clientele that were simultaneously taking care of themselves and their e-Scooters by riding sensibly and within the limits of the machine's capabilities.

I firmly believe that a very large proportion of those folks that have come in and bought themselves a shiny new e-Scooter would not have ever considered these contraptions as anything more than a kid's toy had they not ridden one of the hire e-Scooters available both here and in other destinations around Australia. Those people did their experimenting on hire units and could then make an informed decision on what was best for them when it came time to transition to e-transport in their households. I expect this trend to continue as more people who still have not taken up a ride with the hire scooters use them and become more accepting of e-Scooters, and other wheeled electric devices, and their respective roles in reducing transport pressure and roadway congestion.

Another topic that pops up in the conversation is riders dislike of riding their personal e-Scooters on the road - the footpath and bike paths are high on their agendas as viable transport routes and they report that they feel quite vulnerable riding on the roads in amongst the traffic, even in the back streets. With that in mind I think if council has a concentrated effort to increase and improve the infrastructure around shared pathways and cycle/scooter lanes we will see a marked rise in uptake of e-Scooters and E-bikes as a viable and economical way to transit in and around the city safely, efficiently and environmentally cleanly. It is up to governments to create infrastructure and the community will then embrace that infrastructure and make it a part of their daily lives.

Hopefully this above information is informative and can help give you an insight into the current market and the take up of personal e-Scooters as a result of the hire e-Scooter trial. In my opinion it has been a great success and we are seeing and hearing fewer negative comments regarding the hire scooters and more to the point their rider's behaviour. The same as what is happening in the personal e-Scooter owner market is happening in the hire e-Scooter market as well - people who are now riding them for the umpteenth time are riding them more sensibly and responsibly purely because they do not wish to fall off them. Once you have a bit of a moment or near miss on one of them you soon slow down and start to ride with a little more self-preservation in mind!

Image credit: *Neuron Mobility Royal Park Promotional Event*

6.11 Carbon Statistics

The City of Launceston's *Sustainability Action Plan (SAP) 2022-2030* and associated *Towards Zero Emissions Action Plan 2021-2025* highlight the need to reduce emissions and the Council has committed to the target of achieving carbon neutrality as an organisation by 2025. The City of Launceston recognises that converting fossil-fuel vehicles to zero-emission vehicles will help reduce emissions as well as the noise pollution associated with internal combustion engines. This will lead to cleaner air and reduced overall transport emissions, making Launceston a more liveable regional city. Furthermore, the increasing cost of fuel presents another case for transitioning away from internal combustion engine vehicles.

The City of Launceston has also committed to Cities Power Partnership (CPP) pledges on promoting sustainable transport and renewables, including to "encourage sustainable transport use such as public transport, walking and cycling through the Council planning and design", and to "lobby State and Federal Government to increase sustainable transport options." The trial has aligned with several action areas in the Council's *Sustainability Action Plan*, under the *Towards Zero Emissions* and *Smart Assets* key priority areas, includes the following relevant actions:

- Action 1.14: Advocate for State and Federal Governments to increase sustainable transport outcomes across the region including the introduction of rigorous minimum vehicle emissions standards; incentives for low and zero emission vehicles; change in legislation to support electric scooters; and the provision of funding for sustainable transport infrastructure (in line with Cities Power Partnership pledges).
- Action 2.7/6.18: Continue the transition of powering buildings, fleet, plant and equipment by renewable energy sources.
- Action 2.9/6.22: Investigate and trial alternative transport options for work travel e.g. introduction of electric bikes and scooters to the City of Launceston's fleet.
- Action 6.31: In line with the *Launceston Transport Strategy 2020-2040* (and in line with Cities Power Partnership pledges), support the roll out of sustainable and active transport infrastructure by industry and state government to increase zero emissions mobility uptake in the community.
- Action 6.30: Explore the roll out of a public trial on electric scooters in collaboration with other councils
- On 17 December 2022, e-Scooter trips in Launceston totalled over 452,000kms. If all these trips replaced travel in a medium-sized car, then the emissions saved would total 49 tonnes of carbon dioxide equivalent (tCO2e).
- In the 2021/2022 financial year, the average City of Launceston (COL) employee commuted 12.25km to and from work every day, with a single occupant in a medium-sized car. This equates to that average employee commute totalling to about 1 tonne of carbon dioxide equivalent emissions (tCO2e) in a year. Extrapolating the data out to all of Council staff would bring the grand total of emissions from employee commuting to about 223 tonnes of carbon dioxide equivalent (tCO2e) in a year. This figure is added to City of Launceston's Scope 3 emissions. Therefore, it is worthwhile encouraging City of Launceston employees to use e-Scooters for their commute to work, to reduce Council's overall emissions.

6.12 Employment & Seasonal Impact on Operations

The operators staffing of the rideshare model varied a lot throughout the year due to the seasonal aspect. Both operators rely heavily on casual staff, allowing them to quickly scale operations up and down as required.

During the first three months of operation, Neuron employed 22 casual employees who were all receiving regular shifts. This dropped significantly in line with less trips being taken. Neuron also employed three local supervisors on a permanent full-time basis, two operations supervisors and one warehouse supervisor. Management was shared between the Launceston and Hobart Operations, employing three permanent full time staff.

Beam has provided casual marshalling employment opportunities for more than sixty staff since December 2021 across Launceston and Hobart, and in Burnie from July 2022 when commercial hire was launched. The majority of these staff were employed in the summer launch period, with reduced hours and positions available during the winter and spring periods due to lower ride numbers.

Beam provides close-to full-time hours for three mechanics, one in each of the three cities, who are employed on a casual basis. All of these staff have progressed through training from casual-marshal roles to their current mechanic roles.

Beam provides full-time employment for three staff in Tasmania: a state manager based in Hobart, and two operations specialists, one based in Launceston and the other in Hobart.

Currently Beam employees six casual staff in Launceston – this is expected to increase in January 2023 as ride levels rise and the number of deployed scooters is progressively increased to cover the departure of Neuron.

Image credit: *Launceston Place Brand*

Figure 21. *Cam, a private owner of an e-Scooter*

Image credit: *City of Launceston*

6.13 Lived Experiences – Meet Cam

Meet Cam,

Cam is 30 years old, living in the Newstead area and working in the CBD as a Civil Engineer. Prior to the legislation changes to support micro-mobility, Cam would have a combination of walking, driving and bike riding for this daily commute, depending on the weather and time constraints. He describes his commute as a little too far to walk, a little too short to drive, and a little challenging to ride due to the hills.

Cam first experienced micro-mobility on a holiday to Adelaide approximately two years ago where he rode a rideshare e-Scooter. Whilst on holiday he found e-Scooters a convenient, cost-effective way to get around and quite fun.

When the legislation was changed in Tasmania, Cam rode the rideshare e-Scooters quite frequently, but his car was still the primary mode of transport. Rising fuel costs, as well as some inner-city car parking being removed eventually convinced Cam to purchase his own e-Scooter in October 2022. Another consideration for Cam was the potential to reduce his carbon footprint and viewed the use of micro-mobility as environmentally sustainable. Whilst the rideshare options are good, he mentions that purchasing his own made sense financially with his expected high usage. rideshare options aren't always near his house, taking away from the convenience. He also found they are a little under powered for the hills on his way home.

Over the past 12 weeks, cam has covered between 500 kms and 600kms and found that he only uses his car on longer trips. When driving, Cam's commute to work took around 20 minutes including a brief walk from the car park to office. He estimates that he is saving around $150 monthly on fuel and parking costs, as well as reducing the maintenance required on his car. The journey on e-Scooter is around 10 minutes and he has space to securely store it within his office.

Whilst very convenient and cheap to run, Cam does note that he needs to be mindful to factor additional exercise into his day. He would like to see e-Scooters allowed in bike lanes, foot paths can be dangerous sometimes and require him to ride slower. Whilst on the road, he would also like to go a little faster than 25kph, similarly to push bikes. Cam would like to see other people in a similar situation to him try micro-mobility as a sustainable, cost effective commuting option.

7. Evaluation

7.1 Permit & Council Involvement

As the program was a trial, the decision was made to not charge fees.

It has been recognised that Councils involvement prior to and during the trial has been significant in terms of resourcing. It would be reasonable to expect Councils resourcing requirement to be less in the future, with learnings from the trial informing operational processes.

Further consideration will be put to the appropriateness of charging a fee following the trial.

In the course of the trial the challenges of applying existing legislation that was designed without the knowledge of some of these emerging forms of personal and micro mobility devices as a form of transport has created areas of potential legal ambiguity. We would encourage the Tasmanian Government to give due consideration of these emerging and growing forms of transport in existing and future reviews of relevant legislation and seek to harmonise the legislation relating to PMD's.

7.2 Parking Challenges & Accessibility Issues

One of the key features of rideshare e-Scooter operational models is that they are "dockless", they do not need to be returned to a particular location at the end of each trip. However, this has resulted in issues related to e-Scooters being parked in inappropriate locations or in a manner that makes them an obstacle or hazard for pedestrians of all abilities. Another minor issue is the visual clutter that e-Scooters introduce into the streetscape, particularly when parked untidily. Untidy, obstructive, and nuisance parking of e-Scooters was one of the largest concerns raised by the public during the trial, and the e-Scooter Parking Audit detailed in section 5.5 confirmed that issues remain even towards the end of the trial. The City of Adelaide report similar results, with approximately 75% of the complaints they received about their e-Scooter trial being parking related. As such, the City of Launceston has worked with the operators to address these concerns as a top priority by instituting no-parking geofences, educating riders on appropriate parking, and relocating poorly located PMDs. Going forward, all Beam e-Scooters will have an attached plate with a QR code direct link so that members of the public can easily report a device that is not parked properly.

The operators are able to control parking to some extent through "no-parking" geofences, however, GPS is generally not sufficiently accurate to allow them to solely rely on this measure to regulate parking. Other jurisdictions, such as City of Hobart and City of Adelaide, have trialled marking dedicated PMD parking spaces in high-traffic areas, as per the images below. These designated parking spaces can be reinforced by various technologies, such as geofencing, QR code check-ins to end a trip, or Bluetooth beacons that sense when an e-Scooter is within a parking space. These spaces can be located within a footpath or other roadside area, or in some cases, may occupy a car parking space.

Designated parking spaces appear to be a successful solution in CBD locations, where there is approximately one dedicated PMD parking area per city block or intersection. However, City of Adelaide advises the workload associated with establishing this fine-grained parking control is not feasible to apply to suburban areas, and it is appropriate to leave the parking unrestricted outside high-activity areas. Designated parking areas minimise the improper parking by users at the end of trips, and allow users to more easily locate e-Scooters in order to begin trips. Operators can incentivise parking within designated bays by offering ride credits, or prevent users from ending their ride unless they are within a parking space.

Figure 22. *Designated parking spaces for PMD's in the City of Hobart and City of Adelaide*

e-Scooter Parking Example – Hobart

Image credit: *City of Hobart*

e-Scooter Parking Example – Adelaide

Image credit: *City of Adelaide*

Potential dedicated PMD parking locations for Launceston are detailed in Appendix A.

The option to provide e-Scooter docks in high-activity areas has been suggested, however, this is considered to be a backwards step in terms of the operation of micro-mobility. Whilst City of Launceston may consider a docked proposal by an operator, the designation of parking locations should be sufficient to address the PMD parking issues, and the preference is to not introduce unnecessary infrastructure into the streetscape.

Compliance with dedicated parking locations, in terms of the percentage of trips in the CBD that are ended within a designated parking location, could be a measure that operators report on to City of Launceston.

7.3 Poor Rider Behaviour

Council has and will continue to take an advocacy role with limited ability to directly influence rider behaviour. Often Council is made aware of issues with rider behaviour by members of the community and takes measures to direct to the most relevant party, such as rideshare operators, Tasmania Police or the Department of State Growth. Council has also compiled reports including the number and type of issues passed on to each party.

It is recognised that poor rider behaviour has been the most common topic raised by the community to Council. Other issues such as riding without a helmet, underage riding and multiple people riding on a single e-Scooter have been reported frequently throughout the trial.

The community feedback relating poor rider behaviour and breaches of road rules has directly influenced a recommendation to include user education requirements within future permits.

Image credit: *Neuron Mobility Royal Park Promotional Event*

7.4 Operator Issues

Feedback from the community has highlighted that it is often difficult for people to know how to contact rideshare operators. Feedback has also suggested there are service level issues once operators are reached and an issue has been reported. The community highlighted that operators can sometimes be slow to remediate issues or not follow up at all. Operator related issues were raised 10 times in the first 2 months of the trial, and 5 times in the remaining 10 months of the trial, indicating that improvements may have been made through the early stages of the trial.

Figure 23. *Beam PMD's with 'In The Way?' QR-codes for reporting bad parking*

e-Scooter reporting label example – Hobart

Image credit: *Beam Mobility*

Feedback has influenced a recommendation be added to future permits to add an identification plate to each e-Scooter. The identification plate will have a QR code that can be scanned by anyone with a smart phone, giving another option to report issues alongside the existing phone and email contact methods. Scanning the QR code will automatically report the location to the relevant operator in a way that is streamlined with their systems. The identification place will include tactile markers to assist community members with a vision impairment, will use bright colours and clearly identify its purpose.

7.5 Geofencing Improvements

Early feedback from the community indicated many issues that could be solved or improved by using geofences. Almost all feedback of this nature was within the first 3 months of the trial with both Council and rideshare Operators constantly suggesting improvements. In total, over 200 geofences have been applied.

Whilst geofences are working and likely preventing many issues, temporary changes for events and permanent changes within the city will require modifications to the geofence setup as situations change. Learnings from the trial as well as local knowledge of areas will be applied in instances where operating areas are expanded.

7.6 CBD Connectivity

From the beginning of the trial, it was recognised that e-Scooter usage should be restricted on the footpaths in the CBD, due to the potential for conflict with pedestrians. As such, a no-ride zone was established over the area bounded by Charles Street, George Street, Cameron Street and York Street. This geofence reinforces the prohibitions in the City of Launceston's *Facilities and Highways By-Law 2021* about operating a vehicle in a declared mall, and existing restrictions about riding bicycles, skateboards, and non-motorised scooters on the footpaths on these roads, as per Figure 24.

Figure 24. *'no-go' geofenced area in the CBD*

This no-ride zone creates a significant impediment to PMD travel through the CBD, but removing the geofence would only encourage illegal behaviour, since it is not legal to ride a PMD on either the road or the footpath for a number of these streets. Recognising this dilemma, City of Launceston engaged Pitt & Sherry, a local engineering and environmental consultancy, to undertake an assessment of whether it was acceptable to gazette any of these roads for PMD use. As per the requirements set out in the *Traffic Act 1925*, the assessment considered safety, efficiency, the use of the road and risk mitigation. The assessment concluded that, on balance, gazetting St John Street for on-road PMD use would be acceptable. This would provide a two-way link for PMDs through the CBD with an acceptable level of risk, particularly if the proposed CBD speed limit reduction to 40km/h was implemented, as that would reduce the speed differential between PMDs and other vehicles to acceptable levels.

It was not considered appropriate to gazette any other CBD roads for PMD use at this time, as they are all currently multi-lane one-way roads, which have a higher risk profile and have limited benefit in terms of improving connectivity.

The assessment also considered whether the existing prohibitions against bicycle and 'small-wheel recreational device' use on CBD footpaths were appropriate. The report concluded that the restrictions should be maintained, due to the pedestrian density on these footpaths, and there is limited benefit to be gained from removing or altering these prohibitions. The existing signs should be updated so that they prohibit PMD use on these footpaths. This would reinforce the geofence, but also make it clear to users of private PMDs that their use is not permitted.

7.7 Legal Liability & Duty of Care

Disability Voices Tasmania raised the following in relation to legal liability and duty of care:

> *In order for elected members to make a thorough evaluation of risks and benefits there needs to be factored into the evaluation liability of councils and State Growth for discrimination complaints.*
>
> *There needs to be an assessment of the duty of care of councils to ensure the safety of pedestrians on footpaths is paramount.*

Council's role in commercial hire of personal mobility devices (PMDs), including e-Scooters, is in providing permission to undertake the commercial activity the hiring of such vehicles for use on public streets and Council facilities.

Its role does not extend to regulating the use of PMDs or other vehicles by the end-user, with that role being performed by authorised officers under the relevant provisions of the Road Rules 2019. It is understood that such function would ordinarily be undertaken by Tasmania Police.

Council's legislative power in this space is limited. It is the responsibility of the users of any form of PMD or other vehicle, whether it be a bike, scooter, or skateboard (hired or personally owned), to abide by the legislation as well as being a 'good neighbour' in the use of public areas including roads and footpaths.

Council will continue to take steps to ensure that its duty of care is met.

7.8 Human Rights Context

Disability Voices Tasmania raised the following in relation to Human rights context: *There needs to be a recognition of the fact that safe and confident usage of the footpath is a human right issue and that governments have obligations under UN Convention, Australian Disability Strategy and our own Accessible Island strategy.*

Australia has committed to embedding applicable international law in domestic legislation. Obligations under United Nations Conventions become applicable under Australian law when they are incorporated into legislation by the Federal Parliament.

Council complies with its legal obligations under both Tasmanian and Australian Law, including the *Anti-Discrimination Act 1998 and the Disability Discrimination Act 1992* (Cth).

Image credit: *Neuron Mobility*

8. Recommendations

The rideshare e-scooter trial has demonstrated the benefits of micro mobility options to Launceston's residents and visitors. This is inline with the three major themes of the Launceston Transport Strategy 2020-2040, A Liveable Launceston, A Healthy Launceston, and A Connected Launceston. It is also inline with action 6.30 of the Sustainability Action Plan 2022-2030, explore the roll out of a public trial on electric scooters in collaboration with other councils

The addition of rideshare to private micro mobility options supports a much broader group of our community to access this is a viable option for transport and enhances the experience for visitors to Launceston.

Proceeding in a safe and equitable way is a key focus of these recommendations.

8.1 Clear Promotion of Roles

The Department of State Growth, City of Launceston, Operators, Tasmania Police & Riders all have roles and responsibilities. Often roles and responsibilities are not clearly known and often they are confused. It is recommended that Council work with stakeholders to define and promote who has roles and responsibilities to reduce confusion and to help reach the best outcome.

Figure 25. *Example Roles and Responsibilities*

Roles and Responsibilities	
State Government	• Consult, advise on legislation, and update and review changes to the Tasmanian Road Rules. • Promote new legislation and rules to the general public, for instance via the Ride with Respect campaign.
City of Launceston:	• Permit e-Scooter operators to conduct a business in public. • Collect and analyse feedback from the community, stakeholders and Council about e-Scooter operations. • Determine trial conditions. • Observe compliance with required activities of operators through permit conditions. • Support the safe operation of the e-Scooter trial through regular meetings with police and e-scooter operators. • Maintain markings of restrictive parking zones.

Roles and Responsibilities	
Operator(s):	• Rider education. • User safety training (helmet usage, erratic behaviour or riding, drink riding). • Issuing warning, fines and bans for non-complaint riders. • Device safety. • Insurance claims. • Incidents and accidents (unless severity requires emergency services action). • Malfunctions and maintenance. • COVID safety practices and cleaning. • Helmets (provided and use is incentivised with each scooter rental.) • App-related issues (payments, rentals, etc.) • Moving poorly parked or abandoned scooters. • Responding to request from the City of Launceston to change geofencing and designated parking areas in response to community feedback and safety concerns. • Attend regular meetings with the City of Launceston and Tasmania Police. • Suspend or ban riders who break the terms and conditions of hire.
Police:	Road rule infringements, where police have powers to enforce and issue fines. Note that operators have the power to suspend or ban users regardless of police action. • Helmets, mobile phone usage, drink/drug riding, unsafe or erratic behaviour. Similar to bike riders or vehicle drivers. • Speed enforcement (note that hired e-Scooters are dynamically speed limited in different locations, by software.) • Support the safe operations of the e-Scooter trial with regular meetings with e-Scooter operators and City of Hobart.
The Public:	• Riders must follow the road rules, which are available here: https://www.transport.tas.gov.au/road_safety_and_rules/personal_mobility_devices • Riders must follow hire-and-ride operator's terms and conditions. • Riders must obey e-Scooter signage, where applicable. • Parents and other adults must not unlock e-Scooters for minors. • Riders must give way to pedestrians on narrow footpaths. • Riders may face sanctions for park irresponsibly or blocking footpaths. • Riders must be mindful of pedestrians with disabilities, such as wheelchair, guide dog or cane users. Slow down and use the bell to signify your approach and passing. • Pedestrians should be mindful of potential e-Scooters presence on footpaths and pay attention when exiting shops and residences straight onto the shared footpath. • The public may report poorly parked e-Scooters to the operators and to the City, and/or move them (if it is safe and they are able to do so). • The public may inform the City of Launceston about potential safety concerns.

8.2 Introduction of Restrictive Parking Areas

Dedicated PMD parking areas should be established in high-activity areas, such as the CBD, Mowbray Shopping Area, and Riverbend Park, to encourage safe and tidy parking practices. These designated parking locations should be actively reinforced by the operator through various technologies. In the event that the operating area was extended to include Kings Meadows, then similar parking controls would apply in the Kings Meadows Shopping Area. Parking controls should be implemented through low-cost measures where possible, with pavement markings being the preferred treatment.

It is not considered necessary at this time to replace any on-street car parking spaces with PMD parking (Appendix A).

8.3 Signage Changes

The existing signage that prohibits use of bicycles, skateboards, and non-motorised scooters on the footpaths of Charles Street, St John Street, George Street and Brisbane Street between 9am and 5pm, should be amended to also prohibit the use of PMDs.

8.4 Conditions of Permit

Set expectations within future permits on how quickly particular issues should be resolved. Where an issue is considered a safety or accessibility concern, response times should be short. Some issues can be identified via the online technology such as an e-Scooter that has fallen over or an e-Scooters that hasn't been used for an extended period. Other issues will need to be addressed once a report has been made by a community member, ie, dangerously located or parked in inappropriate locations.

The chart below is an example used in another city.

Figure 26. *Example response times to e-Scooter issues*

Issue	Examples (without limitations)	Response time
Dangerously located	Hanging from a tree On a median strip	**Within 30 minutes**
Impeding access	Impeding property access or parked across pedestrian kerb ramp	**Within 1 hour**
Fallen over e-Scooter	Not parked in a standing position	**Within 3 hours**
Inappropriate density or outside geofence area	Cluster and breaching density limits	**Within 3 hours**
Damaged, faulty or abandoned	Missing Wheels	**Within 24 hours**
Inappropriately located	Parked on turfed areas of Park Lands and Squares	**Within 24 hours**
Unused	Unused for more than 3 days	**Within 24 hours**

a. **Safety Campaigns & Initiatives:** Set expectations within the permit that public safety campaigns will be undertaken and metrics reported on within monthly reports.

b. **Operating Area Expansion:** In response to the Kings Meadows petition in section 4.5, if an operator wishes to expand the area which the e-Scooters can operate, a proposal will need to be submitted to council, with considerations of existing bylaws, operations, and public safety including geofences for no ride zones, speed limits and restrictive parking. Council will provide input prior to approval. Approval will be sought from the Council.

c. **Reporting Requirements:** Operators already provide monthly reports categorising incidents, detailing usage and sharing other relevant information. Reports should also include a summary of issues logged by the community and confirmation that response time has been adequate. Reports should also provide detail of rider education measures the have been taken.

8.5 Permit Fee

Council officers are investigating the various costs associated with granting permission to conduct the activity, and associated tasks. Once such investigation is complete, a decision can be made as to the extent of fee to be charged in keeping with Council's obligations under the Local Government Act 1993.

8.6 Legislative Consistency & Refinement

a. Continue to review those roads that may be gazetted to support user experience and a safe operating environment for both users and pedestrian's, and work with the State Government to consider which roads should be accessible to devices as part of the legislative review.

b. Continue to work with State Government to provide clarity and efficiencies where possible in relevant legislation.

c. Advocate State Government to make accident report data for micro mobility devices available to local government authorities.

d. Advocate for improved consistency and legislative alignment across all States and Territories, recognising the differences in infrastructure such as bike lanes, footpaths and roads for PMD use.

e. National harmonisation of categorisation and legislation relating to PMDs, to enable collection and analysis of crash data that is comparable across transport modes and jurisdictions.

9. Glossary

Burnout
A burnout is the practice of keeping a vehicle stationary and spinning its wheel, the friction causing the tire to heat up and smoke.

Geofence
A virtual geographic boundary, defined by GPS or RFID technology that enables software to trigger a response when a device enters or leaves a particular area.

Micro-mobility
Transportation over short distances provided by lightweight, usually single-person vehicles (such as bicycles, e-Scooters and other Personal Mobility Devices).

Personal Mobility Device (PMD)
A small, electrically powered device that is designed to transport one person over short to medium distances.

Tyre mark
A black line marking left on a road, footpath or other surface by the tyres of various vehicles.

NRZ
A programmed geofence zone that disables riders from riding in the specified zone.

NPZ
A programmed geofence zone that disables riders from parking in the specified zone.

10. Appendix

10.1 Appendix A – Dedicated Parking Examples

Dedicated PMD parking locations in high-activity areas should be located such that they are within reasonable walking distance of a parking space, but not so close together that it is indistinguishable from unrestricted parking. A reasonable spacing of parking bays appears to be one per city block. Parking locations on footpaths should be along the kerbside edge of the footpath, not along the building line, and should never obstruct the full width of the footpath, but rather be in kerb outstands or between other kerbside infrastructure. For these reasons, the footpath areas adjacent to intersections tend to be suitable for PMD parking locations, although it is sufficient to have PMD parking on only one leg of an intersection. Another possibility is to use an on-street car parking space for PMD parking since a single car space can accommodate more than twelve e-Scooters. However, given the low density of e-Scooter usage in Launceston, this measure is not considered necessary at this time.

The below image shows a heatmap of where PMD users have ended their trips during the trial period. The ends of trips tend to cluster around intersections, and in geofenced parking locations such as at Riverbend Park and Royal Park. Some examples of proposed designated parking locations are circled in the image below. These would not be the only parking locations in Launceston, as it is likely that most of the hotspots shown would be a designated PMD parking space.

Figure 27. *Heatmap diagram showing popular destinations in the Central Activity District Area*

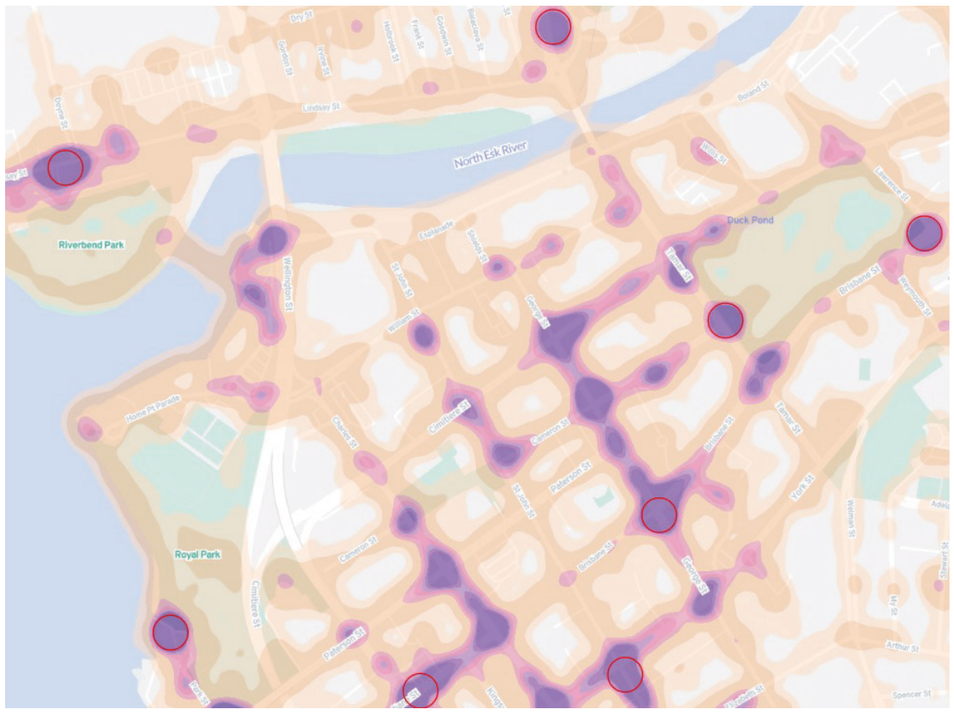


Image credit: *Image taken from the Ride Report platform*

The below images show examples of suggested parking locations in Launceston, most of which are formalising the existing operator deployment locations at high-use locations.

Figure 28. *Proposed PMD parking on Park Street at Royal Park*

Image credit: *City of Launceston*

Figure 29. *Proposed PMD parking on Lindsay Street outside Riverbend Park, showing optional paved parking area in nature strip to declutter shared path*

Image credit: *City of Launceston*

Figure 30. *Proposed PMD parking on Invermay Road outside QVMAG*

Image credit: *City of Launceston*

Figure 31. *Proposed PMD parking on Brisbane Street at intersection of Lawrence Street*

Image credit: *City of Launceston*

Figure 32. *Proposed PMD parking at Tamar Street entrance to City Park*

Figure 33. *Proposed PMD parking at Corner of Brisbane Street and George Street*

Figure 34. *Proposed PMD parking on St John Street near York Street*

Figure 35. *Proposed PMD parking at corner of Brisbane Street and Wellington Street*

10.2 Appendix B – Existing Permit - Personal Mobility Device Trial – 12 Month Permit

Activity:	Personal mobility device trial
Authorisation holder:	XXXXXXXX ("the operator")
Commencement of authorisation:	17 December 2022
Term of authorisation:	3 months, expiring 17 March 2023
Location of authorised activity:	All roads, footpaths and areas owned or under the control of Council, as modified below.
Conditions of authorisation:	As detailed below

The operator is authorised to undertake the commercial activity of the personal mobility device ("PMD") e-Scooter trial as outlined in its EOI documentation provided to Council on 25 June 2021 ("the activity"), subject to the following conditions:

1. This authorisation does not authorise or make lawful the use of PMDs on any road, footpath or other area where the riding of such vehicle is prohibited.
2. The operator is required to comply, and to the greatest extent possible ensure that its users comply, with all applicable laws and regulations, including but not limited to the Road Rules 2019 (Tas).
3. The operator must take all reasonable steps to ensure the safety of its users and other users of roads, footpaths and areas owned or under the control of Council, including but not limited to the provision of sufficient information to enable utilisation of the PMDs in a safe and lawful manner.
4. The operator must keep the PMDs in well maintained condition.
5. No more than 200 PMDs can be used or be available for use under this authorisation at any one time.
6. The operator must ensure that PMDs are collected on a regular basis and are not left or abandoned in a way that causes a nuisance, obstruction or safety hazard to the public or any individual.
7. The operator must maintain public liability instance with cover of at least $20 million per claim.
8. The operator must comply with any reasonable direction of Council necessary for Council's management of the roads and facilities under its control.
9. The operator is not authorised to conduct the activity:
    a. in any of the areas marked in red at Attachment 2, being the Central Business District, City Park and Riverbend Park; or
    b. Any other area or place determined by Council as being inappropriate for the use of PMDs and of which notice has been provided to the operator.
10. The operator must apply geofencing to ensure that its users are unable to use the scooters under power in any area that such use is not authorised.
11. Council may withdraw this authorisation at any time if it determines that the activity is posing or is likely to pose an unreasonable risk to public health, safety or amenity.


PROGRESS
WITH
PRUDENCE

Image credit: *Neuron Mobility St John Street*

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City of LAUNCESTON