

Report from Infrastructure, Transport and Environment Committee – 13 February 2019

12. E-Scooter Permit Recommendations

Reference: 19/155248

Presenter(s): Nick Lovett, Policy Planner - Transport
Steffan Thomas, Manager Operations - Transport

1. Infrastructure, Transport and Environment Committee Consideration

The Committee received three deputations on this item from Jake McLellan, Charlotte Mayne and Helen Broughton.

Attachment B to this report was tabled on the day of the Infrastructure, Transport and Environment Committee's meeting in response to correspondence from Lime.

2. Staff and Infrastructure, Transport and Environment Committee Recommendation to Council

(Original Staff Recommendation accepted without change)

Part A

That the Council:

1. Approve the continued issue of trading permits for e-scooters under the Public Places Bylaw 2018 and Trading and Events in Public Places Policy 2018, and
 - a. Note the intention to issue a 12 month permit for Lime Technology with a proposed increase in Lime's permit cap from 700 to 1000 e-scooters.
2. Resolve that:
 - a. The rental fee applicable under the Trading and Events in Public Places Policy (2018) is applied for all e-scooter permits. Noting that this is presently set at \$172.50/m² per year, which would equate to \$86.25 per year for each Lime scooter.
 - b. The total fee payable under an E-Scooter permit will be determined on a pro rata basis proportionate to the total footprint, measured in square metres, of all vehicles in the fleet.
 - c. The fee will come into effect the day after the Council's decision to adopt it.
3. Approve a citywide limit/cap on the number of e-scooters of 1600 until demand can be determined to justify an alternative cap.
4. Delegate to the Head of Transport the authority to amend up or down individual permit caps and the citywide cap on the number of e-scooters.

Attachments

No.	Report Title	Page
1	E-Scooter Permit recommendations	85

No.	Title	Page
A ↓	Micro-mobility discussion paper	94
B ↓	Memorandum - Response to Correspondence from Lime	121

E-Scooter Permit recommendations

Reference: 18/1296221

Presenter(s): Nick Lovett – Transport Policy Planner

1. Purpose and Origin of Report

Purpose of Report

- 1.1 The purpose of this report is for the Infrastructure, Transport and Environment Committee to be informed of the results of the Lime e-scooter trial, and to recommend that the Council approve the staff recommendations on future trading permits, set a commercial fee to apply to all e-scooter permits and approve an interim citywide limit on the number of e-scooters.

Origin of Report

- 1.2 This report is being provided to fulfil the Infrastructure, Transport and Environment Committee resolution ITEC/2018/00067 :
 - 1.2.1 *Acknowledges and supports that the permit will be extended to end of February 2019 under delegation by staff so that reporting can occur to the Committee's February meeting.*
- 1.3 Staff are aware that at the 4 February Waikura/Linwood-Central-Heathcote Community Board meeting the Board resolved the following:

That the Waikura/Linwood-Central-Heathcote Community Board: Request staff to provide as part of their advice to the Infrastructure, Transport and Environment Committee and the Council on the review of the Lime scooter trial, whether or not a fee could be charged to all hire mobility providers who use the public realm under permit, with the revenue being used for footpath repairs and maintenance.
- 1.4 This information is included in the current report with a recommendation to apply the existing Trading and Events in Public Places Policy (2018) fee, and that revenue from this fee would be utilised within the Transport Unit, including if applicable, for footpath repairs and maintenance.

2. Significance

- 2.1 The decisions in this report are of medium significance in relation to the Christchurch City Council's Significance and Engagement Policy.
 - 2.1.1 The level of significance was determined by assessing number of people affected, the level of interest and impacts in accordance with the Council's significance and engagement policy.
 - 2.1.2 The community engagement and consultation outlined in this report reflect the assessment.

3. Staff Recommendations

That the Infrastructure, Transport and Environment Committee recommend that the Council:

1. Approve the continued issue of trading permits for e-scooters under the Public Places Bylaw 2018 and Trading and Events in Public Places Policy 2018, and
 - a. Note the intention to issue a 12 month permit for Lime Technology with a proposed increase in Lime's permit cap from 700 to 1000 e-scooters
2. Resolve that:

- a. The rental fee applicable under the Trading and Events in Public Places Policy (2018) is applied for all e-scooter permits. Noting that this is presently set at \$172.50/m² per year, which would equate to \$86.25 per year for each Lime scooter.
 - b. The total fee payable under an E-Scooter permit will be determined on a pro rata basis proportionate to the total footprint, measured in square metres, of all vehicles in the fleet.
 - c. The fee will come into effect the day after the Council's decision to adopt it.
3. Approve a citywide limit/cap on the number of e-scooters of 1600 until demand can be determined to justify an alternative cap.
 4. Delegate to the Head of Transport the authority to amend up or down individual permit caps and the citywide cap on the number of e-scooters.

4. Key Points

- 4.1 This report supports the [Council's Long Term Plan \(2018 - 2028\)](#):
 - 4.1.1 Activity: Strategic Planning and Policy
 - 4.1.2 Level of Service: 17.0.11.4. A strategic vision for transport to guide the planning and delivery of transport programmes - Elected members are briefed before key governance committee meetings.
- 4.2 The following feasible options have been considered:
 - 4.2.1 Option 1 (Preferred) – Approve shared e-scooter schemes to operate in the city.
 - 4.2.2 Option 2 – Do not approve shared e-scooter schemes to operate in the city.
- 4.3 Option Summary - Advantages and Disadvantages (Preferred Option)
 - 4.3.1 The advantages of this option include:
 - Using an evidence based approach to increase the number of shared e-scooters allowed under the permit to ensure a manageable operation that meets the needs of users and the public.
 - A fair and consistent fee structure that ensures consistent price signals to anyone trading or utilising public space, as well as allowing incurred costs to be offset by the permit holder.
 - 4.3.2 Allows for competition in the marketplace.
- 4.4 The disadvantages of this option include:
 - Continuing to permit shared e-scooter schemes in Christchurch could pose a reputational risk for the Council given a small group of residents are vocally opposed to their operation in Christchurch. Other reputational risk may be exposed through any future high-profile injuries or incidents that may occur on shared scooters in Christchurch.
 - Limiting the number of scooters in the city though a permitting system may not fully address the market demand, limiting potential trip uptake and overall transport benefits to the city.

5. Context/Background

Lime Trial Overview

- 5.1 In September 2018, the Council agreed to permit Lime Technology Limited a three-month trading permit to operate 700 e-scooters within Christchurch City. At an update to the ITE

- committee in November 2018, committee members acknowledged and supported an extension of the trial until the end of February 2019 in order to report back at the first committee meeting of the year.
- 5.2 The Lime scooter trial has been in place since 15 October 2018, with very high rates of usage when compared with similar sized cities (from Lime's perspective we would expect that the trial will have been commercially beneficial).
 - 5.3 To monitor the trial, staff have analysed the data provided by Lime, and have been working with staff from NZTA, ACC, Auckland Transport and Auckland Council to better understand injury rates, safety issues and risk profile.
 - 5.4 Staff have also set up a reference group to raise qualitative issues and gather feedback. Additionally, an online survey with more than 8,000 responses was conducted to gather quantitative data and feedback. More than half (54%) reported using a Lime e-scooter in Christchurch.

Findings from the trial

5.5 Public reception

- 5.5.1 There has been a wide range of feedback through multiple communication channels since the trial began. The trials in Christchurch and Auckland, and Lime's recent roll-out to other locations, have gained significant media and public attention.
- 5.5.2 From the Council's e-scooter survey 75% of the respondents think that the e-scooter trial has had a positive or very positive effect on the city. A similar number (74%) of respondents felt that e-scooter share companies should probably or definitely be allowed to operate in Christchurch after the trial.
- 5.5.3 People that had used the e-scooters were much more likely to view them positively and feel more comfortable sharing space with the scooters on the footpath and other public spaces.
- 5.5.4 A random, but representative survey sample of Christchurch and Auckland residents was also undertaken. Auckland residents are more mixed towards the impact of shared e-scooters on the city, while Christchurch residents are more positive overall. This may reflect differences in implementation and/or supportive infrastructure provision in the two cities.

5.6 Usage and uptake

- 5.6.1 To date, there have been over 400,000 trips taken by more than 100,000 people in Christchurch. Most trips are less than ten minutes and are concentrated in the central city and around Hagley Park.
- 5.6.2 Most users (nearly three-quarters) have ridden the scooters less than a handful of times. A small group of users (~1%) have taken more than 30 trips over the three-month period.
- 5.6.3 Utilisation has remained very high throughout the trial with each e-scooter being used approximately seven times per day on average.
- 5.6.4 From the survey, most people report to have ridden them on footpaths, however shared paths and cycle ways are often stated as the preferred locations for riding them.
- 5.6.5 Most users reported using the e-scooters for fun and recreation (55%), as well as for getting to/from hospitality locations or other social activities (36.7%).
- 5.6.6 From the survey 40% of users (n=3,872) reported that they would have walked had the scooters not been available on their most recent trip. Nearly a third of users (31%) reported that they would have taken a motor vehicle (Car driver/passenger or Taxi/Uber).

5.7 Operations, Performance and Compliance

- 5.7.1 The Council's contact centre has received a number of complaints about users' behaviour on Lime e-scooters. However, most complaints were about riders violating Lime's customer rules (helmet use, riders under 18 etc.) or transport rules (which are enforced by Police) rather than breaches of their trading permit.
- 5.7.2 The reference group noted that Lime was relatively ineffective in enforcing its own user agreement conditions (such as age limits or number of users). From the online survey, 18% of users reported allowing someone under the age of 18 to operate their e-scooter and 27% of people reported having been on a scooter with more than one person on it.
- 5.7.3 As part of the current permit requirement, Lime scooters are required to be fitted with front and rear facing lights, a bell and be regularly inspected and maintained to ensure user safety. Lime have been asked to provide information about the safety, maintenance and inspection procedures.

6. Discussion

6.1 Fees

- 6.1.1 For the duration of the trial, Lime has been charged the cost of the Trading Permit, and no additional fees associated with their activities. As the trial moves into a more permanent service, the Council needs to ensure the use of public space is managed fairly and balance the use of public space with the interests of commercial activities. This is already provided for in the Trading and Events in Public Places Policy 2018, which states in section 3.3 that 'The Council reserves the right to charge rental fees for all commercial activities on a public place'. A per vehicle fee structure is the most appropriate way to ensure vendors are economical and responsible with their fleet and that there isn't an oversupply of idle vehicles creating public obstructions.
- 6.1.2 Use of public space for private and business activities is essentially a property right that the Council grants to parties through permits and licences. The basis for determining an appropriate fee associated with e-scooter permits should be applied based on the amount of space that is being occupied and its corresponding value.
- 6.1.3 The Council already has a fee structure set out in its Public Streets Enclosures Policy, under which for example cafes and bars pay to occupy the public realm. The price calculated for e-scooters by using a similar fee structure (as determined by the Facilities, Property and Planning Unit) is \$172.50/m² per year. This is based on the assumption that half the fleet are deployed in the central city and the remainder in the suburbs.
- 6.1.4 Assuming each scooter occupies 0.5m² the cost per scooter per year would be \$86.25.

6.2 Fleet caps and citywide limits

- 6.2.1 Other e-scooter vendors have contacted the Council expressing interest in obtaining a permit to operate. Competition within any market can improve efficiency and ensure that no single supplier can dictate how the market operates or dictate prices for the goods and services. However, observations from multi-vendor cities overseas has not necessarily shown lower prices for consumers, despite competition.
- 6.2.2 Limiting the number of e-scooters in the city should be done so to balance the needs of customers and the general public in accordance with the Public Places Bylaw. Determining a limit is challenging with only three-months of observed data, and uncertainties about how demand will fluctuate throughout the seasons. Staff recommend that the size of fleets and/or the number of permits is regularly monitored to ensure positive outcomes are achieved and mitigate negative impacts of oversupply.

6.2.3 Although more work is required to finalise what the overall citywide limit is to ensure the best outcomes for consumers and the public, there is international evidence of market saturation leading to diminishing returns in terms of how often and how far e-scooters are ridden. The point for oversupply appears to be approximately 3-4 vehicles per thousand residents. Based on this estimation, the citywide saturation point for Christchurch could be approximately 1,600 vehicles. It is easier to set a conservative limit initially and then increase that if required, than to set a higher limit which may then be reduced.

6.3 Future Policy Development

6.3.1 In anticipation of micro-mobility services growing, staff are developing a draft policy to provide clarity about the use of e-scooters and similar business models in the context of the Council's Bylaw, other policies and permitting process. Staff will report back to Committee with the draft policy over the next few months.

7. Option 1 – Approve shared e-scooter schemes to operate in the city

Option Description

- 7.1 Staff are recommending that trading permits continue to be issued for e-scooters under the Public Places Bylaw 2018 and Trading and Events in Public Places Policy 2018, and that a permit be issued to Lime Technology permit for another twelve months.
- 7.2 This option will enable more permits to be granted on a case-by-case basis (up to the citywide cap proposed below) provided other operators can demonstrate benefits while ensuring minimal disruptions to pedestrians and other users of public space. These recommendations are based on the feedback from the survey, the reference group recommendations, input from Lime Technology and the observed impacts during the trial.
- 7.3 Staff recommend charging a fee to recognise the use of public space by such schemes, and to do this, adopt the fee structure determined by the Facilities, Property and Planning Unit. This equates to \$172.50/m² which could be approximated at \$86.25 per scooter per year, but will depend on the exact make and model of vehicle (and its size).
- 7.4 Based on observed patterns from the Lime trial, it is clear that the demand for shared e-scooters is greater than the existing cap of 700 vehicles currently permitted. The number of vehicles deployed each day has remained marginally below (but close to their permitted cap). Staff are therefore recommending lifting Lime's permitted cap to 1,000 vehicles. This may be reviewed depending on the utilisation, deployment rates and operational performance of the permit holder. Staff also recommend an interim citywide limit/cap on the total number of e-scooters, of 1600 vehicles. Staff will continue to assess demand to assess if an alternative cap is justified.

Significance

- 7.5 The level of significance of this option is medium, consistent with section 2 of this report.
- 7.6 Residents are well aware of the trial and the public were invited to provide feedback via the online survey.
- 7.7 Formal public consultation on the details of the draft micro-mobility policy will be required.

Impact on Mana Whenua

- 7.8 This option does not involve a significant decision in relation to ancestral land or a body of water or other elements of intrinsic value, therefore this decision does not specifically impact Ngāi Tahu, their culture and traditions.

Community Views and Preferences

- 7.9 The wider public are affected by this option due to increased presence and e-scooters in public places. Their views have been formed over during the trial phase. Members of the public have provided online feedback with nearly 7,000 responses indicating that the majority believe e-scooter schemes should be allowed to remain after the trial.
- 7.10 When users were asked what would encourage them to use e-scooters more often, making the trial permanent and having more e-scooters available were the two most common responses. Although, most users reported that they could find an e-scooter when they needed to rent one.
- 7.11 Initial conversations with Lime representatives have revealed they are supportive of a dynamic cap type permitting system, where fleets can be increased/decreased based on demand and performance. These representatives have also mooted a per-trip fee structure for the permits as a possible option.
- 7.12 Other parties, interested in providing shared e-scooter services have provided little detail of their intended fleet size although, staff understand these will fall within the proposed citywide cap. None have discussed or questioned the Council's intended fee structure for permits.

Alignment with Council Plans and Policies

- 7.13 This option is consistent with the Council's Plans and Policies

Financial Implications

- 7.14 The primary costs of implementing this option will be incurred through the transport unit. As is the case with any new level of service, there will be pressures on fixed operating budgets and staff resources. Given the increased number of e-scooter devices on city streets, targeted education and safety campaigns will be planned for 2019.
- 7.15 If the Council approve the report there will be associated application, monitoring, maintenance and compliance costs. Also, software may be required to monitor and evaluate the compliance and performance of each operator, if multiple operators enter our market.
- 7.16 Funding source – The proposed permit fee is intended to cover the costs described above and any additional staff resource that is required.

Legal Implications

- 7.17 There is a legal context, issue or implication relevant to this decision.
- 7.18 This report has been reviewed and approved by the Legal Services Unit.
- 7.19 The legal considerations are:
- 7.19.1 The current Lime permit and any future permits will be issued under the Council's Public Places Bylaw 2018 and Trading and Events in Public Places Policy 2018. Although the Policy doesn't expressly prohibit or allow for e-scooter trading permits, the current Lime permit was issued, with controls, under the general guidelines of the policy and under the 'other activities' section of the policy.
- 7.19.2 Section 12 of the Local Government Act enables the Council to set fees and charges, and the Trading and Events in Public Places policy provides that the Council may charge rental fees for commercial activities using a public place.

Risks and Mitigations

- 7.20 There is a risk that Lime may increase their prices, as a result of the proposed fee structure. This may result in the costs being incurred by users or a downturn in ridership.
- 7.20.1 Residual risk rating: The residual rating of the risk after the below treatment is implemented will be low. Depending on utilisation, it is expected that applying the

standard fee structure will be equivalent to an additional 5c per ride. This is unlikely to materially impact the commercial feasibility of the hire e-scooter model.

- 7.20.2 Planned treatments to mitigate this risk are to ensure that fee policies are fair and transparent to all operators and that competition in the marketplace will ensure consumers aren't negatively impacted by monopolistic pricing.

Implementation

- 7.21 The implementation dependencies for this option require a Council resolution to confirm the increase in cap and fee structure for the permit.
- 7.22 All changes to the Lime permit and the issuing of new permits can be approved by the Head of Transport under delegations held by that position.
- 7.23 The implementation timeframes can progress as soon as the fee structure is agreed by the Council and paid by the permit holder. The cap on the number of permitted vehicles can be reviewed in three months.

Option Summary - Advantages and Disadvantages

- 7.24 The advantages of this option include:
- 7.24.1 Using an evidence based approach to increase the number of shared e-scooters allowed under the permit to ensure a manageable operation that meets the needs of users and the public.
- 7.24.2 A fair and consistent fee structure that ensures consistent price signals to anyone trading or creating an obstruction in public place, as well as allowing incurred costs to be offset by the permit holder.
- 7.24.3 Allows for competition in the marketplace
- 7.25 The disadvantages of this option include:
- 7.25.1 Continuing to permit shared e-scooter schemes in Christchurch could pose a reputational risk for the Council given a small group of residents are vocally opposed to their operation in Christchurch. Other reputational risk may be exposed through any future high-profile injuries or incidents that may occur on shared scooters in Christchurch.
- 7.25.2 Limiting the number of scooters in the city though a permitting system may not fully reach the market demand, reducing trip uptake and overall transport benefits to the city.

8. Option 2 – Do not approve shared e-scooter schemes to operate in the city

Option Description

- 8.1 This option would not extend the trading permit to Lime Technology Limited, and not issue any more trading permits for shared e-scooter schemes in the future. The Council should consult on this before a final decision is made, as it represents a proposed change to the Trading and Events in Public Places Policy. The current permit was granted, with conditions, under the 'other activities' section and following the guidance of that Policy.

Significance

- 8.2 The level of significance of this option is medium consistent with section 2 of this report

Impact on Mana Whenua

- 8.3 This option does not involve a significant decision in relation to ancestral land or a body of water or other elements of intrinsic value, therefore this decision does not specifically impact Ngāi Tahu, their culture and traditions.

Community Views and Preferences

- 8.4 The occasional and frequent users of the Lime e-scooters are specifically affected by this option due to this option providing that their permit to trade not be continued. More than 100,000 people have used the devices during the trial period and 93% of users that responded to the survey indicated that e-scooter companies should probably or definitely be allowed to operate after the trial.
- 8.5 If the Council consults on a decision to refuse future e-scooter and micro-mobility permits it will gain a better understanding of community views and preferences.

Alignment with Council Plans and Policies

- 8.6 This option is inconsistent with the Council's strategic directions framework
- 8.6.1 One of the Council's strategic priorities is to increase active, public and shared transport opportunities and use
- 8.6.2 This option is also consistent with the Council's strategic priority to maximise opportunities to develop a vibrant prosperous and sustainable 21st century city.
- 8.6.3 Discontinuing shared e-scooter systems would eliminate one of the most popular forms of shared transport in the city.

Financial Implications

- 8.7 Cost of Implementation - Nil
- 8.8 Maintenance / Ongoing Costs - Nil
- 8.9 Funding source – N/A

Legal Implications

- 8.10 There is a legal context, issue or implication relevant to this decision
- 8.11 This report has been reviewed and approved by the Legal Services Unit
- 8.12 The Council should consult on a decision to refuse future e-scooter permits to ensure it has properly considered the views and preferences of those affected by or interested in such a policy approach. The Trading and Events in Public Places Policy 2018 contemplates permits of other activities not specifically covered by the policy being considered on a case by case basis. This means there is no guarantee a permit will be granted in any case. However, following the Lime trial and the level of interest in this activity, for the Council to make a reasonable decision not to grant any future permits it should have a clear policy approach which it consults the public on first, before making a final decision.

Risks and Mitigations

- 8.13 There is a risk that not allowing shared e-scooter companies to operate in Christchurch, the city may hinder the regeneration of the central city, and fail to meet its transport objectives.

Implementation

- 8.14 The Implementation dependencies for this option require informing the permit holder that the Council will not issue a trading permit.
- 8.15 The Implementation timeframe for this option is to discontinue operations by March 2019.

Option Summary - Advantages and Disadvantages

- 8.16 The advantages of this option include:
- 8.16.1 Reducing the rate of injuries that occur on e-scooters in Christchurch.
- 8.16.2 Not incurring additional expenses to the transport unit or the Council.

- 8.16.3 Eliminating the concerns of safety and inconvenience for pedestrians and vulnerable road users that have been raised by some commentators during the trial period.
- 8.17 The disadvantages of this option include:
- 8.17.1 Reduced level of services for residents and visitors travelling around the central city
- 8.17.2 Missed opportunities to realise the Council's Strategic Priorities and transport goals.
- 8.17.3 Impacts on the hundreds of independent contractors' supplementary income (or livelihood) from charging the e-scooters.

Attachments

No.	Title	Page
A	Micro-mobility discussion paper	
B	Memorandum - Response to Correspondence from Lime (<i>Under Separate Cover</i>)	

Confirmation of Statutory Compliance

Compliance with Statutory Decision-making Requirements (ss 76 - 81 Local Government Act 2002).

(a) This report contains:

- (i) sufficient information about all reasonably practicable options identified and assessed in terms of their advantages and disadvantages; and
- (ii) adequate consideration of the views and preferences of affected and interested persons bearing in mind any proposed or previous community engagement.

(b) The information reflects the level of significance of the matters covered by the report, as determined in accordance with the Council's significance and engagement policy.

Signatories

Authors	Nicholas Lovett - Policy Planner - Transport Rae-Anne Kurucz - Team Leader Transport
Approved By	David Griffiths - Head of Planning & Strategic Transport Steffan Thomas - Manager Operations (Transport) Richard Osborne - Head of Transport David Adamson - General Manager City Services Brendan Anstiss - General Manager Strategy and Transformation

Draft micro-mobility discussion paper

Contents

Introduction	2
1. Background and Overview	2
1.1. International Context	2
1.2. Local Context	3
2. Issues and Discussion.....	4
2.1. Definitions and categorisation.....	4
2.2. Roles and responsibilities.....	5
2.3. Infrastructure.....	6
2.4. Limits, caps and the total addressable market.....	8
2.5. Permit fees.....	9
2.6. Limiting speeds	11
2.7. Data and information sharing.....	12
2.8. User Safety.....	13
2.9. Pedestrian risk	15
3. E-Scooter reference group feedback and recommendations	17
3.1. Continuing the trial	17
3.2. Use in cycle lanes and cycleways.....	17
3.3. Permit Conditions	17
3.3.1. Usage on footpaths and associated speeds.....	17
3.3.2. User rules and behaviours	18
3.4. Lime's performance as an operator	18
4. Findings from trial.....	19
4.1. Demand and utilisation	20
4.2. Public Reception	23
4.3. Compliance and operational performance.....	24
5. Conclusions	27

PART A – ISSUES AND DISCUSSION

Introduction

The rapid growth in shared transportation services has presented challenges for policymakers when defining and regulating the various and emerging aspects of these transport business models. For the Christchurch City Council, one of the strategic priorities is to increase public, active and shared transport¹. This report provides background context and discussion on a range of policy issues regarding e-scooters and other emerging micro-mobility devices. This is intended to inform policy recommendations on the subject of shared micro-mobility transport options in Christchurch City. The information within the report has been gathered using trial data, survey feedback and relevant international and local examples. The paper discusses the issues drawn from these sources and offers some key considerations in inform the development of a draft policy.

Initial findings from this paper indicate that e-scooters and micro-mobility services are very well aligned with the city's goals and objectives. However international observations have shown that when managed poorly, micro-mobility services can impact negatively on cities and urban environments. This is an issue for Council when issuing permits for use of public spaces by commercial operators of shared transport devices under its Public Places Bylaw 2018. The proposed policy recommendations at the end of the document are intended to guide the Council on issuing permits under that bylaw.

1. Background and Overview

The global urban transportation landscape is changing. Driven by macro trends in urbanisation, digital disruption and new technologies, private ventures are racing to become integral components of the 21st century transport system. E-scooters are product of this new transport environment and have generated a lot of debate among the public, policymakers and the media both here and abroad. However, it is important to consider the issues within the context New Zealand's national regulations and local challenges such as central city regeneration and sustainable transport objectives.

1.1. International Context

In early 2017, one of the most prolific transport phenomena in a decade began to emerge in China. Dockless bikes, as they came to be known, rapidly expanded, first in China's dense metros then to hundreds of cities around the world. The scale and pace of this expansion, particularly into western markets, has divided opinion among policymakers and transport practitioners as both the opportunities² and threats³ have become apparent.

While cities were scrambling to adapt, a variation of the business model began to emerge on the west coast of the United States in early 2018. Since then, fleets of electrically-assisted kick scooters have been deployed in a number of North American cities and have expanded into European markets. Several companies that started out in the dockless bike share market have quickly pivoted to e-scooters^{4,5}. The market has grown aggressively, with some newcomers reaching a valuation of \$1 billion in less than a year of operation⁶. Figure 1 illustrates the trajectory of these new

¹ [CCC – Our Vision, Strategic Priorities](#)

² [Journal of Urban Economics: Is Uber a substitute or complement for public transit?](#)

³ [UC Davis: The Adoption, Utilization, and Impacts of Ride-Hailing in the United States](#)

⁴ [Curbed: Dockless company Lime goes all in on scooters](#)

⁵ [Streetsblog: Is Pedal Dockless Bike Share Going Extinct?](#)

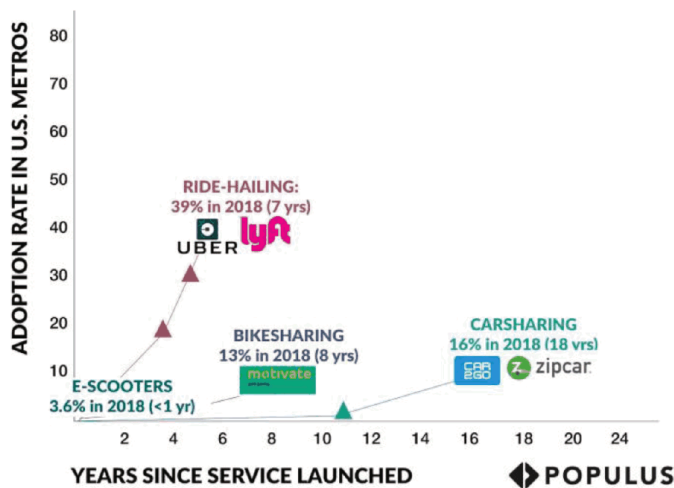
⁶ [Quartz: Bird is the fastest startup ever to reach a \\$1 billion valuation](#)

PART A – ISSUES AND DISCUSSION

transportation models, indicating they will likely continue to grow and provide extended transport choice for consumers.

In a globalised market, the future of urban transportation in New Zealand will not resemble the recent past. This will require flexible, but focused approaches from regulators to realise opportunities and mitigate any negative impacts⁷.

Figure 1 – Adoption rates of shared mobility in the United States



Sources: Populus Groundtruth; Clewlow & Mishra, 2017; Clewlow, 2016

1.2. Local Context

Shared transport services are not new to New Zealand. Bike sharing and car sharing systems have been around for several years. In September 2018, the Council agreed to permit Lime Technology Limited a three-month trading permit to operate 700 e-scooters within Christchurch City. Lime launched in Auckland and Christchurch on the 15th of October and both councils have extended their respective trials in order to report back with findings and decisions. More recently Lime scooters have launched in Dunedin, and Hutt City.

The Lime scooter trial has been in place for three months, with very high rates of usage when compared with similar sized cities. The arrival of the e-scooter sharing company has captured the attention of the public and the media, with the scooters proving to be both popular and controversial. This has prompted debate among policymakers and elected officials about their place in our streets and cities. The key issues and results from the Christchurch trial are outlined in sections 2 and 3 of this discussion document.

⁷ [Deloitte Insights - Regulating the future of mobility](#)

PART A – ISSUES AND DISCUSSION

2. Issues and Discussion

2.1. Definitions and categorisation

The rapid growth in shared transportation services has presented challenges for policymakers when defining the various and emerging aspects of these transport business models. Although shared transport isn't largely defined, an accepted definition is transportation services and resources that are shared among users, either concurrently or one after another.

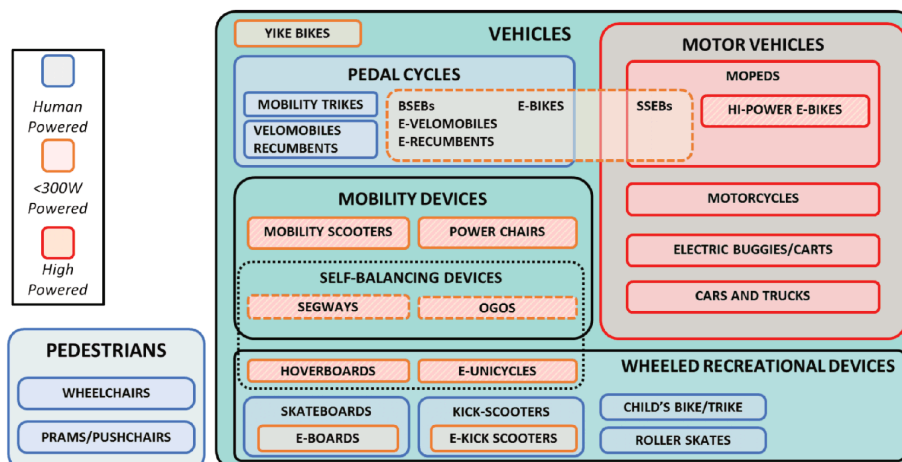
*Micro-mobility*⁸ or *little vehicles*⁹ are emerging terms used to characterise a subset of shared transport employing small vehicles and devices. The term includes an emerging cluster of bikes and scooters, (as well as e-bikes, velo-mobiles, motorised skateboards, unicycles, "hover boards,") and other small, wheeled conveyances used for personal transportation. When incorporated into shared fleets, these vehicles can meet the demand for short, point to point trips in urban areas.

Shared fleets of e-scooters are the latest model to arrive in Christchurch as part of a wider trend in shared transport services. Table 1 **Error! Reference source not found.** provides a snapshot of shared transport services presently available in New Zealand, and their corresponding regulatory frameworks.

In New Zealand, many of the emerging micro-mobility vehicles are defined as Wheeled Recreational Devices (WRDs) under the Land Transport (Road User) Rule 2004 [provided that the electric motors do not exceed a 300w power output]. Figure 2 illustrates the various vehicular categories that are defined in transport legislation.

The category of wheeled recreational devices has traditionally been confined to personal devices like skateboards, and kick-scooters which were presumed to be purely recreational and of little

Figure 2 – Definitions of various low powered vehicles in New Zealand



Research from Koorey, Lieswyn, and Kennett (ViaStrada and NZ Transport Agency)
Regulation of e-bikes and other low powered vehicles

⁸ [Populus: The Micro Mobility Revolution](#)

⁹ [Citylab: Why little vehicles will conquer the city](#)

PART A – ISSUES AND DISCUSSION

transportation utility. More recently, these devices are increasingly being used for commuting or in shared fleets making them a more common fixture in urban areas¹⁰.

While there has been public anxiety about the lack of regulation, New Zealand has a relatively comprehensive and straightforward framework for shared transport business models at both the national and local level. Additionally everyone on a public street or road must comply with the Land Transport (Road User) Rule 2004. As discussed further in section 2.2, contrary to public opinion, these devices aren't unregulated, they just don't fit within traditionally accepted transport notions, public norms and expectations.

Key Consideration #1

As small electronic devices become more commonplace, many members remain unfamiliar with the existing rules and regulations. Public education campaigns are needed to grow awareness of how and where they can be used safely.

2.2. Roles and responsibilities

The rise of shared mobility services discussed in Section 1 illustrates the many difficulties of placing micro-mobility services into the transport and policy context. More familiar services such as car sharing or ride-hailing are well understood, defined and regulated. Unlike passenger services (such as Uber and taxis), commercial vendors on city streets (such as bike and scooter sharing) don't use motor vehicles therefore aren't commercially regulated under the Land Transport Act 1998.

As shared transport fleets begin to blur the lines between private and public modes of transportation, there is often confusion about the regulatory accountability for devices, business models and end users. These are sometimes conflated but are broken down into three categories below:













- 1) New Zealand transport rules and legislation** are written and controlled by NZTA and the Ministry of Transport (see Table 1). They cover the types of vehicles that can be used in New Zealand and rules of the road that everybody must follow. These rules and laws are enforced by the New Zealand Police and they have the power to issue infringement fines for non-compliance. The Land Transport Act also enables local authorities to make bylaws to restrict speeds, parking, and one way restrictions. The Council's traffic and parking bylaw contains these bylaws and restrictions.
- 2) Controls on activities in public places** are developed by local councils for a variety of purposes, including to keep the public safe protect them from nuisance and to regulate trading in public places. In Christchurch, this is achieved through the Public Places Bylaw 2018 and Trading and Events in Public Places Policy 2018. The Bylaw requires anyone working to undertake a commercial activity or create an obstruction in a public place to get permission from the Council. The Council can also impose conditions and charge fees associated with permits or licences. To enforce these powers, the Council can amend and revoke business licences as well as prosecute for breaches of the bylaw with potential fines of up to \$20,000 for each offence.
- 3) Terms and conditions of hireage.** Customers are often subject to a set of conditions or policies as part of a business transaction. Rental car companies often won't rent vehicles to anyone under the age of 21 despite many 18 being the minimum age for holding a full driver's licence. Similarly, micro-mobility services will set rules and conditions pertaining to

¹⁰ [NZ Herald - e-scooters normalise scooting for adults](#)

PART A – ISSUES AND DISCUSSION

the user of their services which may go beyond what is required by New Zealand Transport Rules or Council bylaws.

Table 1 - Shared Transport Services within NZ regulatory frameworks

		Micro-mobility or Little Vehicles						
								
		Car Sharing	Moped Sharing	Ridesourcing	Carpooling/Ridesplitting	Bike Sharing	Scooter Sharing	
Regulations								
Businesses	Land Transport Act	✓ Required to obtain a transport service licence	✓ Required to obtain a transport service licence	✓ Required to obtain a transport service licence	✗ Exempt, provided costs are split, and driver is not paid	✗ Exempt from TSL (as are all non-motor vehicles)	✗ Exempt from TSL (as are all non-motor vehicles)	
	Public Places Bylaw	✗ Exempt under CCC car sharing policy	? may require a permit if primarily parked on city streets	✗ Passenger service vehicles Exempt under PP Bylaw	✗ Exempt as carpooling is not a commercial activity	✓ Company requires a permit for commercial activities in a public place	✓ Company requires a permit for commercial activities in a public place	
Users	Road User Rule 2004 (RUR)	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes	
Vehicles	Land Transport Rules	Certificate of Fitness	Certificate of Fitness	Certificate of Fitness	Warrant of Fitness	Pedal reflectors	Motor size Wheel Size	

Key Consideration #2

There is currently little policy precedent and information about the effects of micro-mobility to draw from, therefore local authorities need to carefully assess services on their merits. Early findings indicate that these services align well with transport objectives and should be continually monitored to ensure success. It is also important to ensure consistent policy approaches nationally, and across local districts.

2.3. Infrastructure

In New Zealand Legislation, the classifications and distinctions between different types of vehicles has a bearing on their infrastructure and where they can be used. Figure 2 illustrates the overlap between motor vehicles, mobility devices, pedal cycles and Wheeled Recreational Devices (WRDs). For the most part, transport rules treat mobility devices, WRDs and pedestrians as part of the same category and assume they'll be using the same space. While in western countries, cyclists have traditionally been considered as vehicles¹¹ and therefore have received commensurate regulatory and infrastructure provision. Under the Traffic Control Devices rule, cycle lanes, (by virtue of their definition) are solely reserved for the 'cycle' category of vehicle (See Figure 3). Without changes to this rule, it is difficult to legally designate



Figure 3 – An example of a cycle lane denoted by the NZTA approved cycle lane symbol

¹¹ [Wikipedia – Vehicular Cycling](#)

PART A – ISSUES AND DISCUSSION

infrastructure specifically for e-scooters and other WRDs because, unlike the cycle symbol, there is no specified symbol/marking (or even commonly accepted understanding) of a WRD.

By default, WRDs are primarily used on footpaths. However, we know from research, that the issue of cycling on footpaths is contentious yet it raises a more fundamental questions about how road space is allocated in cities²⁴. Due to the rise of e-scooters and other personal mobility devices, design practices and rules about which road users share space with one another must be considered. The North American Association of City Transportation Officials has produced an illustrated user hierarchy (see Figure 5), which places pedestrians above all other modes. NZTA's pedestrian planning and design guide also makes reference to placing pedestrians near or at the top of the hierarchy¹².

Internationally, cities are being challenged to reframe the distinction between the way we design and describe their streets and public spaces¹³. With the proliferation of low-powered devices, cities need to carefully consider how road space is allocated, and what fit-for-purpose infrastructure is needed to support these new modes.

Figure 5 – NACTO guidelines, Street Hierarchy
Prioritizing Users in Street Designs



Figure 5 – E-scooters parked outside the Botanic Gardens

A survey of e-scooter users by the Christchurch City Council revealed that most people are riding e-scooters on the footpath. However, most people prefer to ride on shared paths, there is also a clear desire for users to ride in separated cycle lanes (see Figure 6'). In San Diego, the city has started referring to New Mobility Plan infrastructure as bike and scooter lanes¹⁴.

Key Consideration #3

If micro-mobility devices such as e-scooters continue to gain popularity, it will be important that there is appropriate infrastructure to accommodate and encourage their uptake. Separated cycle lanes and shared paths are far better suited to the small vehicles travelling between 15-25kmh than footpaths.

¹² [NZ Transport Agency – Pedestrian planning and Design Guide](#)

¹³ [Citylab - Let's Rethink What a 'Bike Lane' Is](#)

¹⁴ [Times of San Diego - City Building Dedicated Lanes Downtown for Bicycles and Scooters](#)

PART A – ISSUES AND DISCUSSION

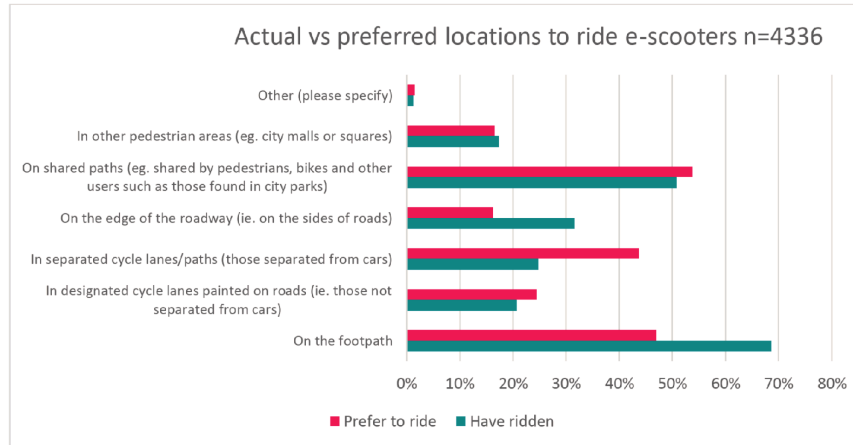


Figure 6 – Locations about where e-scooters are ridden

2.4. Limits, caps and the total addressable market.

The challenge for policymakers is being able to balance the needs of customers and the general public when demand for services can be highly elastic. The two critical factors for determining the optimal outcome for the public are:

- a) The number of vehicles each operator is permitted in their fleet and;
- b) The total number of micro-mobility operators allowed to operate in the city.

The trading and Events in Public Places Policy 2018 provides the framework to balance the street activities against the needs of the environment and the impact public and commercial activities may have on the area. The Policy aims to ensure that the commercial activities enhance the life and attractiveness of an area by adding vibrancy and appeal, without inhibiting the safety and efficiency of pedestrian movement and vehicle travel. When deciding whether to grant a permit, consideration is given to whether the activity could cause visual clutter, impede thoroughfare and reduce public amenity.

PART A – ISSUES AND DISCUSSION

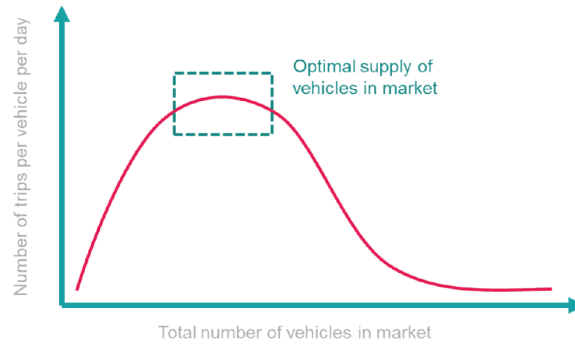


Figure 7 Demand curve illustrating market saturation point for micro-mobility vehicles.

With regard to micro-mobility vendors, there are challenging policy implications when artificially limiting the supply. This can lead to increased costs and lower levels of services for users when demand is high and supply is unable to respond. Conversely, too many vehicles can lead to underutilisation with idle vehicles creating obstructions on footpaths and public places.

Competition within the micro-mobility market can improve efficiency and ensure that no single supplier can dictate how the market operates or control prices for the goods and services. However, observations of multi-vendor markets overseas has not necessarily resulted in lower prices for consumers. Nevertheless, policy approaches to micro-mobility permitting should support conditions for improved service quality and public outcomes.

Key Consideration #4

The size of fleets or the number of permits should be regularly reviewed in order to ensure that there isn't a shortage of vehicles to meet demand, and conversely that there isn't an oversupply of idle vehicles creating an obstruction in public places.

2.5. Permit fees

Users of streets and roads (the general public) are not charged a fee every time they use the road or street to transport themselves, other people or goods. However, use of public space for private and business activities is essentially a property right that the Council grants to a business or individual through permits and licences. The Public Places Bylaw enables the Council to set fees for commercial activities in public places.

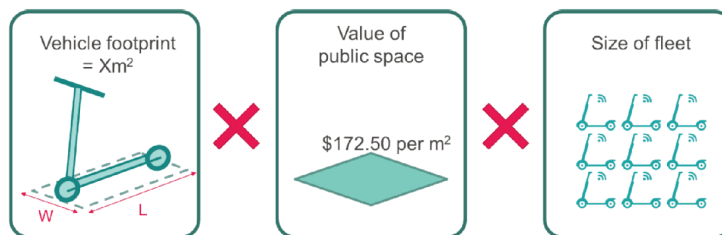


Figure 8 – Illustration of how fees are calculated

PART A – ISSUES AND DISCUSSION

Temporary use of the road is charged out at a rate of \$198/m² per year. Whereas cafes or restaurants that extend dining areas onto public space pay based on the market rate of a particular street or location.

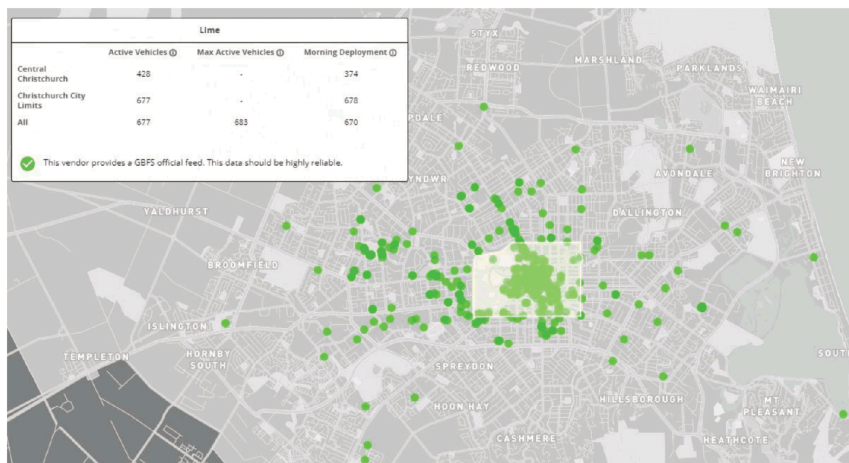


Figure 9 – Snapshot of Lime e-scooter locations in Christchurch on a Friday morning

Micromobility services tend to be concentrated in the central city and surrounding suburbs. While the movement of the vehicles fluctuates throughout the day approximately 50% are located in the CBD and 50% in the suburbs (see Figure 9). The average prime rental rate per square metre averaged across the central city (\$800/m²) and the suburbs (\$350/m²) is \$575/m². In accordance with existing Council policy¹⁵ this is only charged at 30% to account for obstructions and furniture often being removed at night. Therefore the value of the public realm occupied by micro mobility vendors is calculated to be \$172.50/m² per year (see Figure 8). Setting the fee structure on this basis meets the aims of the Trading and Events in Public Places Policy which sets fees at a level that reflects the value of the location and ensures that businesses on private property are not unfairly disadvantaged.

Other Considerations

Implementing any fee, levy or tax, should be done with careful thought and consideration. All well as being easy to collect and logical to explain, it should send price signals to encourage or incentivise behaviours to internalise negative impacts caused by an activity. In the case of the proposed fee structure, Council is trying to encourage companies to be economical with their fleets, and ensure that there isn't an oversupply of idle vehicles creating public obstructions. Charging a per-ride fee or arbitrary vehicle fee, is likely to be passed on to the customer which would certainly reduce the demand for the service.

Revenue collected should be allocated to the transport unit to offset the application, monitoring, maintenance and compliance costs incurred by these activities. Hypothecating revenue to a specific activity (such as footpath maintenance and renewals) raises several issues.

¹⁵ [CCC - Public Streets Enclosures Policy and fees charged](#)

PART A – ISSUES AND DISCUSSION

Footpath maintenance is a new work category under the 2018-21 NLTP and eligible for NZTA funding assistance. Any third party revenue from this programme would be subtracted from the eligible rate and forecasting the precise amount to be raised would present risks. As budgets and programmes are set years in advance, any shortfall in would mean a reduced level of service, or an increased contribution from Council without funding assistance from NZTA.

Key Consideration #5

Pricing the space that commercial micro-mobility operators occupy is a way to ensure vendors are economical with their fleet and that there isn't an oversupply of idle vehicles creating public obstructions. It also provides consistent price signals much in the same way that cafes and bars, or construction hoardings pay a fee for the private occupation on public realm.

2.6. Limiting speeds

There have been several calls for speed restrictions on e-scooters in New Zealand since the launch of the Lime pilots in Auckland and Christchurch¹⁶¹⁷. Although there is little detail on exactly how or by who this should be achieved. There are a number of approaches this could take, including:

- 1) **Regulatory speed limits.** Policy decisions regarding speeds should be closely considered alongside issues about usage locations (discussed further in section 2.3 Infrastructure). Councils cannot impose regulatory speed limits on certain classes of vehicles, they can only restrict speeds on sections of roads. Central Government legislation sets the law for vehicle speeds.
- 2) **Electronically governing or limiting devices.** Council's may be able to require that shared vehicles such as e-scooters are limited to certain speeds as a condition of being able to trade in the public place. However, it's unclear if the Council would be overstepping its legal power or authority in doing so. This may be effectively imposing a regulatory speed limit which is a role of central government, not local authorities.
- 3) **Advisory speeds** are used to encourage appropriate travel speeds, without the legal complexities of regulatory speed limits. They are most commonly used on curves, indicating safe an appropriate speeds for cornering. They can also be used to help provide direction to users about the expected behaviours of a shared environment



Figure 10 – Sign advising cyclists to use safe and appropriate speeds.

A research report on low-powered vehicles commissioned by the NZTA found that if a national default standard or guidance is established, its likely implementation would need to be at the national level through changes to the Road User Rule¹⁸. If local councils decided to impose regulatory speed limits, placing signs and/or markings would likely clutter the built environment, be costly and create an ongoing maintenance issue. Researchers also consulted with Police representatives and found that enforcement of posted speed limits may prove to be prohibitive on a wide scale due to resourcing, the cost of signage, and the potential difficulties posed by many

¹⁶ [NZ Herald - Matthew-Wilson wants an e-scooter speed limit of 15kp/h](#)

¹⁷ [RNZ - Phil Goff wants tighter speed restrictions on e-scooters](#)

¹⁸ [NZTA - Regulations and safety for electric bicycles and other low- powered vehicles](#)

PART A – ISSUES AND DISCUSSION

unpowered vehicles, entry-level e-bikes and other low-powered vehicles lacking speedometers. Therefore, users are likely to regard posted speed limits as guidance rather than regulation.

Table 2 – Speed in pedestrian areas

Person or Activity	Speed km/h
Pedestrian	4,4-5.5km/h
Jogger	10-12km/h
Runner	14km/h
Kick Scooter / Longboard	15 – 18 km/h
NZ Post Paxter	20km/h
Fast Runner	21km/h

Determining an appropriate regulatory speed limit is problematic. Table 2 highlights the range of speeds at which people move on footpaths and pedestrian areas. Introducing speed limits will need a sound evidence base and would be difficult to limit to a particular vehicle type or manufacturer. Similarly, broad regulatory speed limits for footpaths or shared paths will depend on the land use context, path dimensions, user volumes and user composition.

Technologically limiting speeds for micro-mobility services may be worth exploring further although it would be unprecedented in a New Zealand context and effectively increase the price of customers' journeys by taking longer to get where they want to go.

Key Consideration #6

Limiting speeds for micro-mobility vehicles is a challenging and problematic topic that is interlinked with issues on usage locations and infrastructure. Much of the transport infrastructure and regulatory system we have today was developed well before the arrival and proliferation of micro-mobility vehicles.

2.7. Data and information sharing

Standard data is important for informed decision making as well as public interest and accountability. Standardisation of these feeds is important to improve public access and can help people make more informed travel choices. There are few recognised data formats and standards for micro-mobility operators to share their data and information with public officials. An emerging standard developed by the Los Angeles Department of Transportation has developed a data standard and API

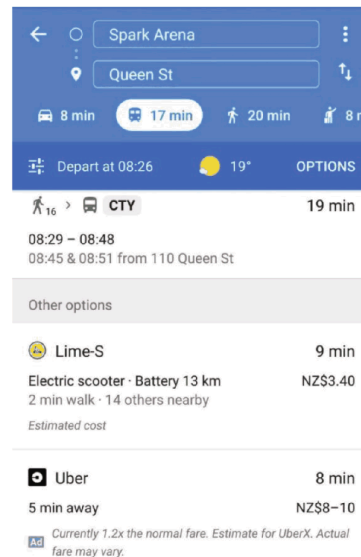


Figure 11 – Example of open data feeds being used in a trip planning app (Google Maps)

PART A – ISSUES AND DISCUSSION

known as the Mobility Data Specification or MDS¹⁹. For transport services, such as Dockless Bikeshare, E-Scooters, and Shared Ride providers, MDS has emerged as the de facto minimum data specification for compliance and permit monitoring by authorities.

Non-proprietary standards such as MDS should be provided to public authorities as a requirement of being permitted to trade in a public place. The information from the providers should be used to better integrate with public transport and ensure wider transport objectives are realised.

Key Consideration #7

As data standards continue to evolve, micro-mobility operators should publish feeds in readily accessible formats. Local authorities should continue to work with NZTA and operators to ensure that data is available for both consumers and authorities.

2.8. User Safety

E-Scooter accidents and injuries have been widely reported in the media both in New Zealand and internationally. Until the launch of the e-scooter pilot, little was known nationally about the injury rates for these vehicles in New Zealand. However as Figure 12 shows, the number of injuries was already on the rise before the launch of shared schemes in Christchurch and Auckland. This may suggest a growing rate of personal e-scooters in New Zealand, in line with the recent popularity in e-bike sales²⁰. As the New Zealand Customs Import code classification for these devices encompasses a wide variety of items, it is difficult to estimate the total number in the country. Although, there are reports from retailers and importers that the number of private e-scooters is growing substantially. A Council survey of the Lime Scooter trial found that nearly 100 respondents already owned an e-scooter, and that 18% were considering purchasing one.

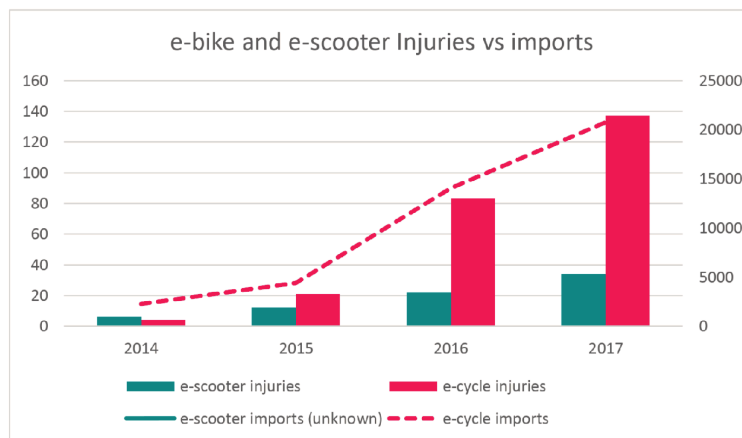


Figure 12 – ACC injury claims and imports for e-scooters and e-bikes

The dozens of stories that have been reported in the media since the launch of shared schemes has put the spotlight on injuries, but few media outlets have focused on identifying risk relative to other

¹⁹ [Github – City of Los Angeles/mobility-data-specification](https://github.com/CityofLosAngeles/mobility-data-specification)

²⁰ [Stuff.co.nz - E-bike popularity gathers speed as imports hit up to 20,000](http://stuff.co.nz/E-bike-popularity-gathers-speed-as-imports-hit-up-to-20,000)

PART A – ISSUES AND DISCUSSION

transport activities. The Institute for Transportation Development and Policy calls this media emphasis an overreaction that neglects putting scooter safety into perspective²¹.

The New Zealand Transport Agency, Ministry of Transport, New Zealand Police, as well as local councils all measure road safety outcomes in terms of deaths and serious injuries (DSIs) which are collected through a national database (The Crash Analysis System). Serious injuries are defined as injuries (fracture, concussion, severe cuts or other injury) requiring medical treatment or removal to and retention in hospital²². Since the launch of the Lime trial in, there have been no serious injuries recorded that mention e-scooters in the crash report in Christchurch.

ACC data is not typically used as a metric for determining or evaluating road safety indicators, so it is difficult to draw comparisons about risk and injury relative to other activities or transport modes. Furthermore, few studies are available that calculate injury rates for a raft of everyday activities in a strictly comparable fashion. Without further study and analysis, direct comparisons are difficult to determine. However, figures from ACC, Lime and the Ministry of Transport can illuminate some imprecise comparisons about injury risk. At the end of November 2018, data from ACC and Lime shows that there is approximately one e-scooter related injury for every 1800 trips taken²³. Comparatively, cycling in New Zealand sees approximately one injury for every 3700 trips. Trips on bikes tend to be longer in duration, therefore the risk per hour travelled is much higher for e-scooters. Given that most riders would be unfamiliar with operating the devices, it's not surprising they are resulting in more injuries relative to the injury rate for cyclists.

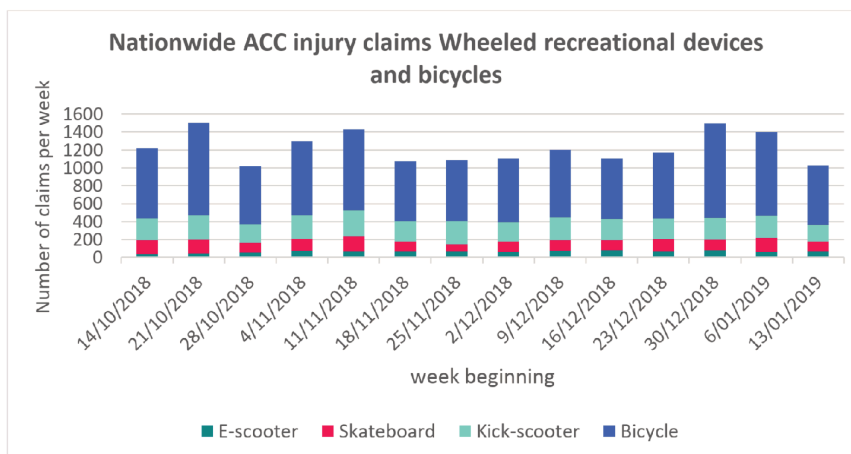


Figure 13 – Nationwide ACC Injury claims for wheeled recreational devices and bicycles

ACC advice is that during the trial, 225 injury claims involving e-scooters (both personal and shared) were lodged during the Lime trial compared with 318 kick scooter (non-motorised) injury claims during the same period. The average cost to treat the injuries was \$320, compared with \$200 for kick-scooters. Nationally, e-scooter injury claims are much lower than kick-scooters, skateboards or bicycles (see Figure 13).

²¹ [ITDP - Scooters Are Not A Public Safety Crisis, but Cars Still Are](#)

²² [Mackie Research 2017 - Serious injury crashes: How do they differ from fatal crashes?](#)

²³ [Lime Press Release - New Zealand reaches 500,000 scooter rides](#)

PART A – ISSUES AND DISCUSSION

Key Consideration #8

For the purposes of sound transport planning and policymaking, it is important to thoroughly understand and consider the injury profile and statistical exposure to risk. Injury risks relative to other transport modes should continue to be monitored to make sound policy determinations and ensure resources are appropriately allocated to maximise safety objectives.

2.9. Pedestrian risk

The sudden proliferation of e-scooters in Auckland and Christchurch and other New Zealand cities has raised anxieties about risks posed to pedestrians and other vulnerable users of the footpath and shared spaces. Previous research conducted on the subject of footpath cycling in New Zealand has proven the issue is highly contentious²⁴. Given the increased number of shared paths in the city use of bicycles and e-scooters on footpaths has been challenging. While there have been several reports of pedestrians having close encounters with devices on footpaths, there have been very few ACC injury claims that involved people being hit. Between the 14th October 2018 and 23rd January 2019, there were 4,325 injury claims involving the scooters and e-scooters throughout the country. Only eight of those claims (0.18%) involved a pedestrian whereas 278 (6.43%) involved a motor vehicle.

Since the arrival of the Lime Scooter trial, the number of interactions people have had with e-scooters in public space has risen substantially. In a recent Council survey, over 70% of survey respondents (n=6954) reported encountering an e-scooter in public (footpaths, cycle lanes/paths or other pedestrian areas) at least once in the past week.

When survey respondents were asked about sharing e-scooters on footpaths and in other public spaces, 60% reported feeling safe or very safe. People that hadn't used an e-scooter before were much more likely to feel unsafe with 55% reporting that they felt a bit unsafe or very unsafe (see Figure 14). The main reasons people reported feeling unsafe was because riders were not being safe or considerate and because of the speeds at which they are operated.

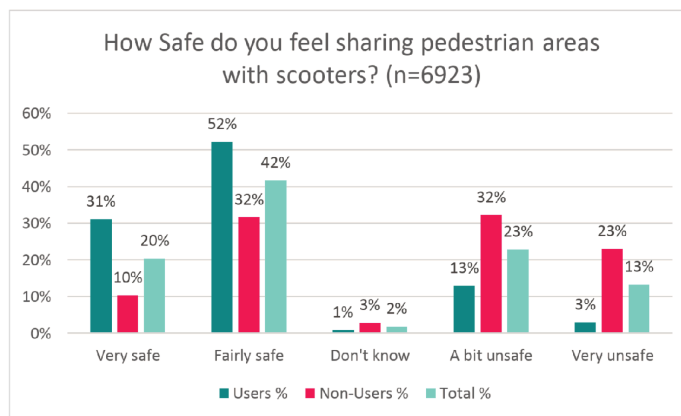


Figure 14 –Sharing space with e-scooters

Key Consideration #9

E-scooter riders should continue to exercise caution around pedestrians being sure to use the devices in a careful and considerate manner. Public education campaigns are needed to grow

²⁴ [NZ Transport Agency - Footpath Cycling Rule Options Research](#)

PART A – ISSUES AND DISCUSSION

awareness of how they can be used safely. Any regulatory changes should be examined alongside infrastructure and vehicle requirements.

PART B – RESULTS FROM TRIAL

3. E-Scooter reference group feedback and recommendations

The Christchurch City Council set up a reference group to meet and discuss the performance and impacts of the Lime Scooter Pilot and provide feedback to the Infrastructure, Transport and Environment Committee. Two meetings were held, and representatives from NZTA, CDHB, Environment Canterbury, NZ Police, the Christchurch Youth Council, Age Concern and representatives from the Earthquake Disability Leadership Group and an inner city residents association were in attendance.

The group were tasked with observing and discussing the impacts and issues of the pilot, the performance of Lime as a company with a view of making recommendations to Council, firstly about the continuation of the Lime Permit and more generally about the future of shared e-scooters in the city. The group acknowledged that more work is needed with regulators at the national level to ensure that the rules for both shared and personal e-scooters were clear and communicated to the public.

“Despite the issues there are for lots of people with disabilities, it’s definitely added a vibrancy to the city. We’re not talking about getting rid of them at all, we just want to see some really clear things in place [to ensure the best outcomes] and if Lime won’t do it we think [the Council] should find a vendor that will”

The feedback and recommendations from the group can be summarised as follows:

3.1. Continuing the trial

The reference group broadly agreed that shared scooter companies should continue to operate in some form following the trial period provided that the city can continually monitor and improve the upon the outcomes for users and non-users.

3.2. Use in cycle lanes and cycleways

The way cycleways and cycle lanes are defined means that e-scooters are not technically allowed to be ridden in them. Although, the Police indicated they would be unlikely to take action if that meant that riders would then place themselves or others in harm’s way (i.e. on the roadway or on a busy footpath). Regardless, the group encouraged the Council to work with central government to ensure e-scooters can operate in lanes and that all rules and references are updated to reflect this.

3.3. Permit Conditions

One of the key recommendations from the group is how the Council can best regulate the commercial activity or scooter sharing in the public realm. It was clear, early on in the trial that we didn’t have a good understanding of the cause and effect relationship of the existing permit conditions and furthermore, how we would be confident that the conditions imposed would succeed in achieving objectives. The group felt that Christchurch was in a unique position because, while the trial is new to New Zealand, there are other pilots and programmes internationally that can help us develop best practice. The group encouraged the Council to leverage more trials and experiments to continue to learn and achieve successful outcomes.

3.3.1. Usage on footpaths and associated speeds.

Discussion around device speeds and usage on the footpath was another issue discussed at length by the reference group. Generally, most people felt that the maximum speeds were

PART B – RESULTS FROM TRIAL

too fast for the footpath. Slower speeds would be required on the footpath if e-scooters can't be on the roads or cycle lanes. However challenges with enforcement (detailed in Section 2.811) were acknowledged and there was no consensus on what an appropriate speed would be.

3.3.2. User rules and behaviours

User behaviours and their interactions in pedestrian areas was another subject of lengthy discussion. Understanding the scale and significance of the problem will be key to mitigating impacts and formulating concrete recommendations. A number of possible solutions were discussed ranging from technological, social, regulatory and advisory.

3.4. Lime's performance as an operator

One of the main criticisms was that Lime appeared to be doing very little to monitor or enforce their own rules and guidelines for users. The group felt that the Council should be exploring ways in which it could compel Lime to monitor their own rules and regulations. Alternatively, it was discussed that perhaps the rules should be altered, given that there is a low rate of compliance. As discussed in section 2.2 there are shared roles for setting, controlling and enforcing various rules with regard to user behaviour. The group expressed disappointment in Lime setting a broad set of rules that are unlikely to be adhered to (shown in Figure 15).

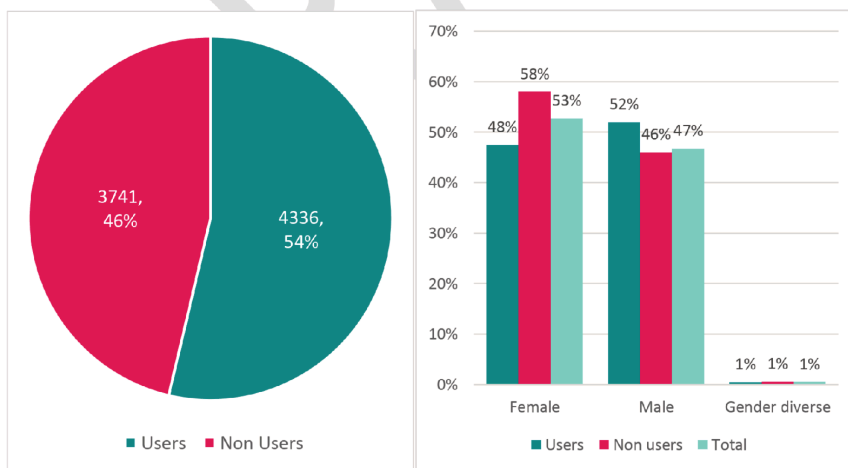
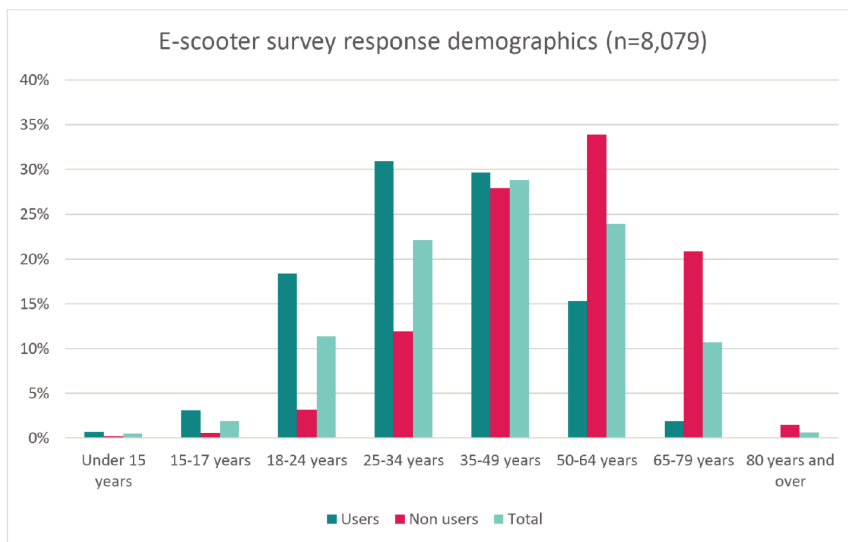


Figure 15 – Screenshot of Lime Rider Ts&Cs

PART B – RESULTS FROM TRIAL

4. Findings from trial

During the trial, Council staff closely monitored the data provided by Lime to better understand the transport impacts and implications of the shared e-scooters. The quantitative data was supported by an online survey that ran between the 13th of December and the 7th of January. Over that period more than 8,000 people provided feedback. More than half of the respondents reported using the shared e-scooters and tended to be younger than the non-users who answered the survey.



PART B – RESULTS FROM TRIAL

Survey respondents were also asked to pick one word to describe e-scooters. As with many aspects of the survey there was a distinct contrast between the people that had used them and people that hadn't.



Figure 16 – Most common words used to describe e-scooters from CCC survey

4.1. Demand and utilisation

Since the launch of the e-scooter trial the vehicles have proven extremely popular. In three months, over 400,000 trips had been taken in Christchurch with over 100,000 people taking at least one ride. Most of the users had only taken five or fewer trips and only a small percentage of the users were using scooters several times per week. Vehicle utilisation has remained very high with each e-scooter being used on average seven times per day (shown in Figure 17).

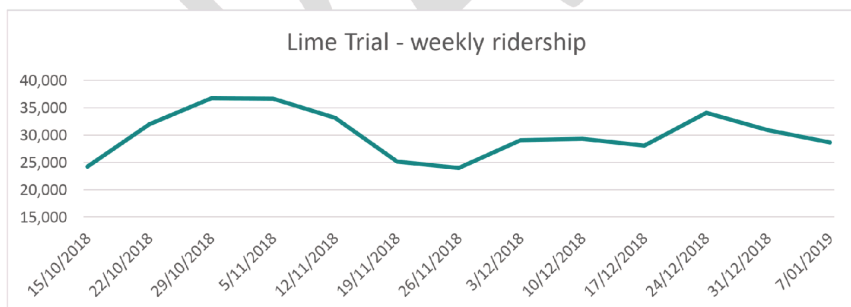


Figure 17 – Weekly ridership of the Lime e-scooters over the thirteen week trial

An online survey of Christchurch residents showed that e-scooter trips are commonly substituting walking although they are helping to reduce motor vehicle trips. Nearly a quarter of all scooter trips appear to be replacing vehicle (car, Uber, taxi) trips, shown in **Error! Reference source not found..**

PART B – RESULTS FROM TRIAL

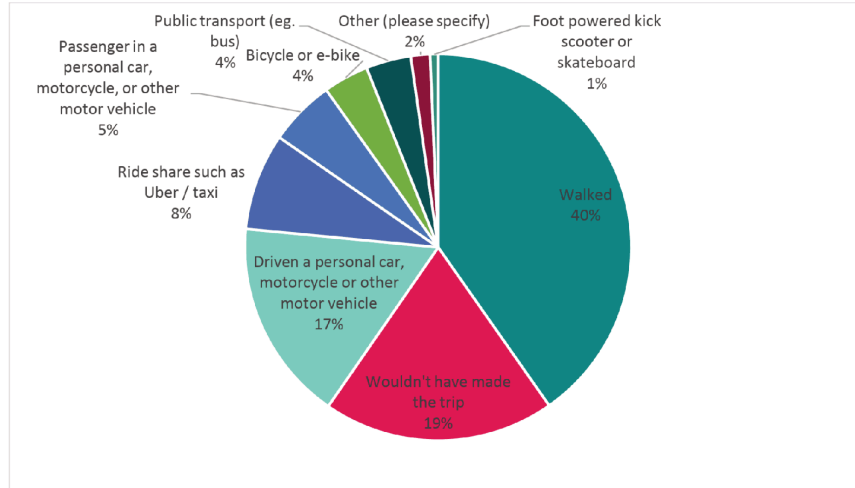


Figure 18 How users would have travelled had an e-scooter not been available on their most recent trip

The introduction of shared e-scooters seems to also have had an impact on travel behaviours. With the largest shift appearing to be away from driving and public transport followed by walking. While 23% of users reportedly walking less often, it was also the mode with the largest gains with 7% reporting to walk more often as a result of the e-scooter trial.

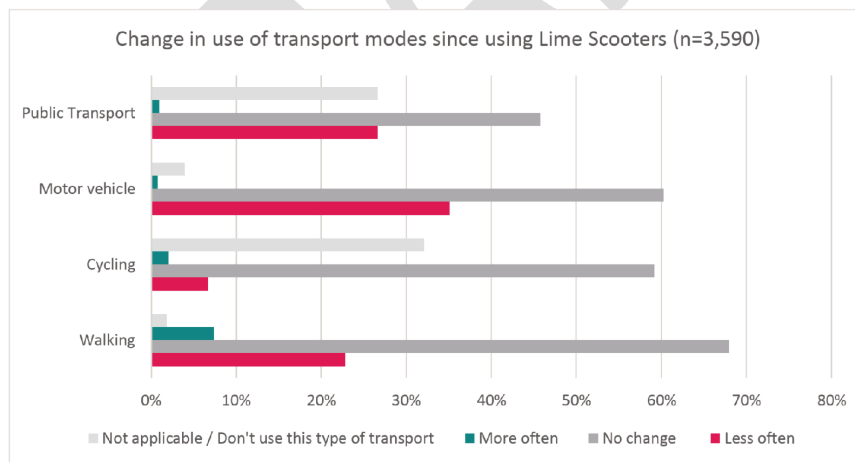


Figure 19 – Travel behaviour change following the introduction of e-scooters in Christchurch

In addition to the mode-shift from the most recent trip. The survey also asked what types of trips users usually use the devices for. Most users reported using the e-scooters for fun and recreation, followed by social and shopping activities, shown in Figure 20.

PART B – RESULTS FROM TRIAL

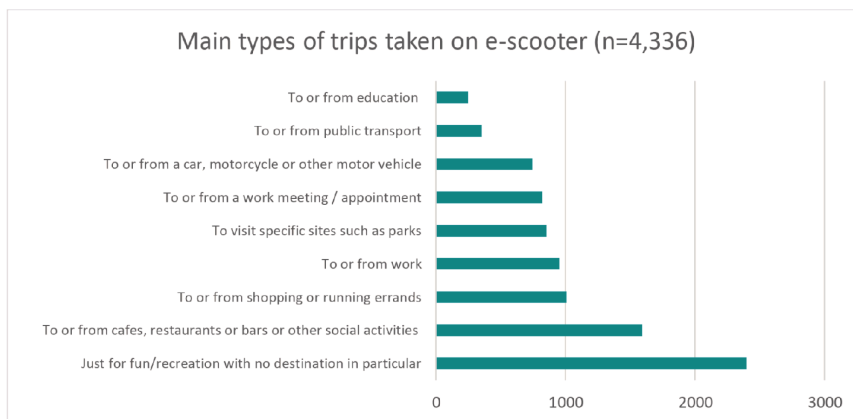


Figure 20 – Main types of trips taken on an e-scooter

Users reported that they first rode an e-scooter because they looked fun or were curious to try them out, although ease and speed were also a strong motivator see Figure 21.

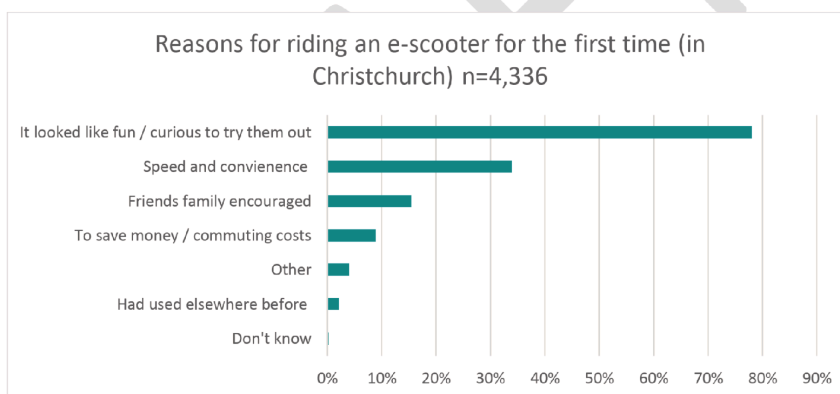


Figure 21 – Motivations for trying a shared e-scooter in Christchurch

Most users reported being able to find an e-scooter when they needed one, although nearly a third of respondents reported having some difficulty, see Figure 22.

PART B – RESULTS FROM TRIAL

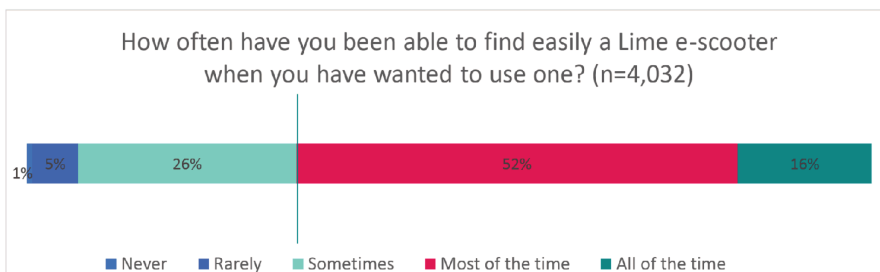


Figure 22 – ease/difficulty in finding a scooter when needed.

4.2. Public Reception

The widespread presence of the scooters has not gone unnoticed by the public. Nearly three-quarters of survey respondents reported encountering an e-scooter as a pedestrian or cyclist at least once per week (see Figure 23). There has been a wide range of feedback through multiple communication channels since the trial began. The contact centre has recorded nearly 70 customer service requests since the trial began. Most were regarding complaints about users' behaviour.

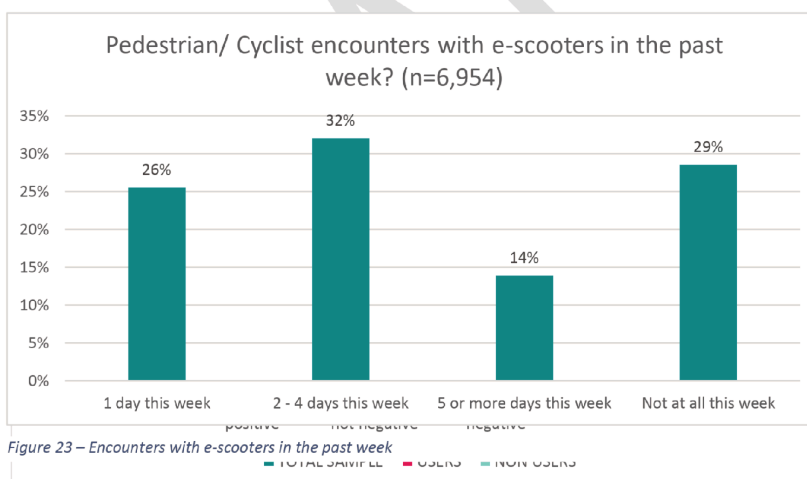


Figure 23 – Encounters with e-scooters in the past week

Data from The Council's online survey (Figure 24), revealed that most (75%) of the respondents (n=6,834) think that the e-scooter trial has had a positive or very positive effect on the city. People that had used the scooters were far more likely to view the e-scooters positively.

The primary reasons why people viewed them as negative or somewhat negative were that they felt the presence of the scooters were unsafe for pedestrians when used on footpaths and in other pedestrian areas. However, very few people who viewed the scooters negatively thought that they were discouraging visitors from coming to and spending time in the city.

PART B – RESULTS FROM TRIAL

4.3. Compliance and operational performance

There have been a number of issues raised about the performance of Lime as an operator and a permit holder. One of the biggest criticisms from the reference group has been that several of Lime's end user policies are not being enforced. The council has received several complaints of underage users, inconsiderate riding and more than one rider on a scooter at one time. The issue with this (as discussed in section 2.2) is that the New Zealand Road Code and Lime's terms and conditions are often conflated which sows confusion among the public about what is legally required of users when operating a wheeled recreational device such as an e-scooters.

Figure 25 – Swipe screen the first time users ride a Lime e-scooter

The information presented when users use the app to rent an e-scooter

Low rates of compliance with terms and conditions are a concern. From the online survey, 18% of users reported allowing someone under the age of 18 to operate their e-scooter and 27% of people reported having been on a scooter with more than one person on it, shown in Figure 17. These behaviours are not in breach of any road rule nor council bylaw.

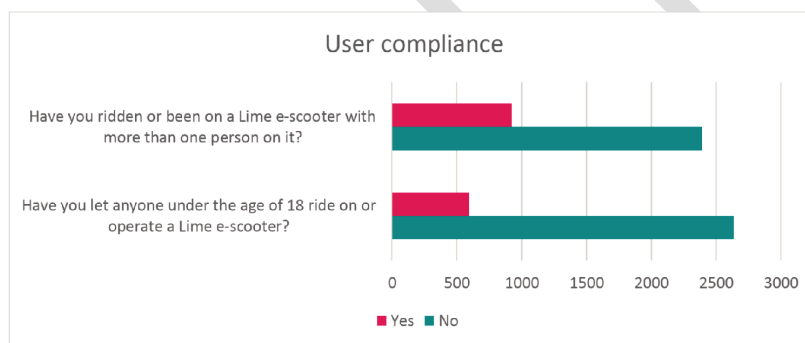


Figure 26 – User compliance rates

However, when asked what percentage of e-scooter users are using the devices in a careful and considerate manner, the majority of respondents felt that most users were.

PART B – RESULTS FROM TRIAL

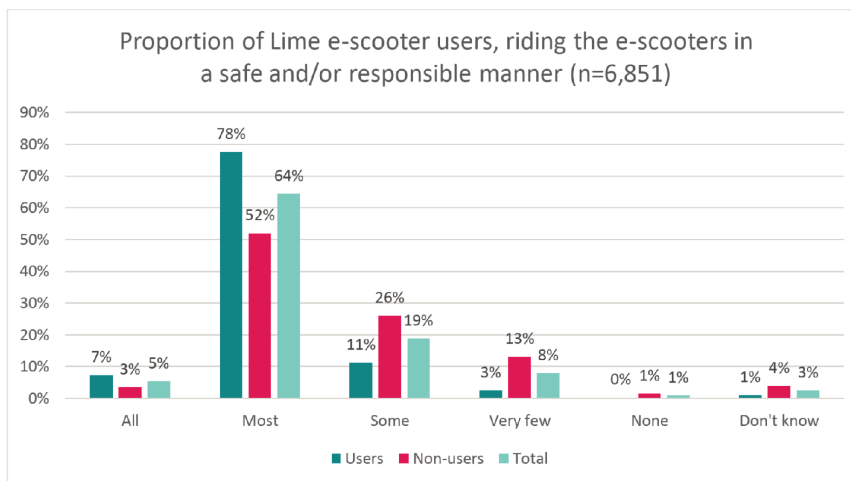


Figure 27 – Perception of safe and responsible scooter operation.

With regard to the New Zealand rules and regulations with regard to e-scooter use, e-scooter users were far more likely to report being knowledgeable about the rules than non-users.

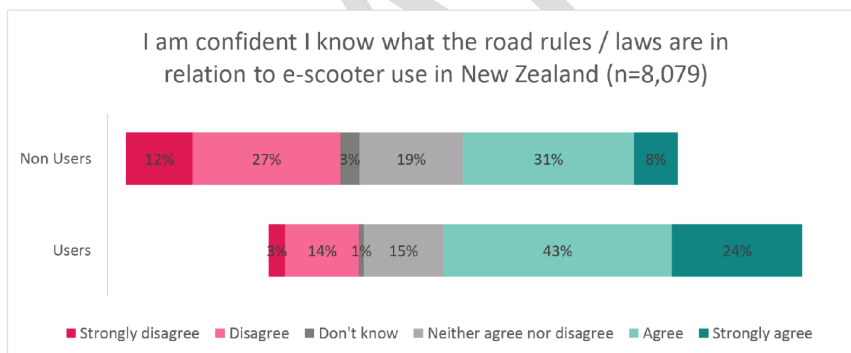


Figure 28 – Knowledge road rules by e-scooter users and non-users.

When quizzed on their specific knowledge of the rules, there was also a clear distinction between the user and non-user samples. Encouragingly, most users (60%) correctly identified that they must not put others at risk, ride in a safe and considerate manner, and give way to pedestrians and people using mobility devices. However less than half thought that the police can issue infringements for the breaches of the rules. More than half of users also think it's a legal requirement to be over 18 to operate them. The only thing that more than half of users and non-users correctly identified was that e-scooters were allowed to be used on footpaths.

PART B – RESULTS FROM TRIAL

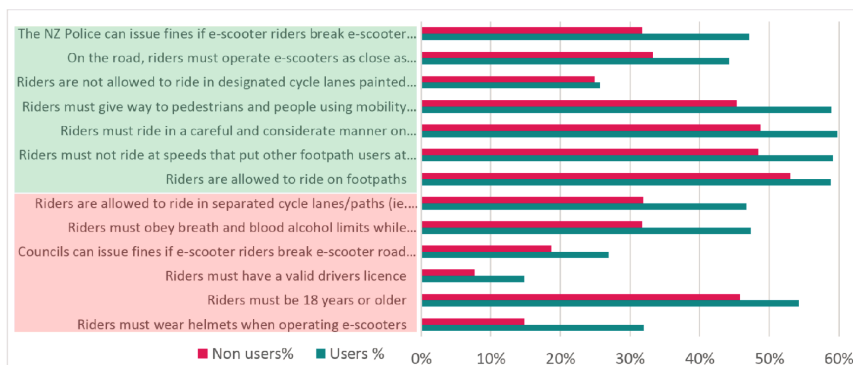


Figure 29 – Results on road rules quiz pertaining to e-scooters

4.4. Comparison with Auckland Trial

As part of the research process, CCC worked with Auckland Transport and NZTA to ask a similar set of questions to a national research panel that was comparable between the cities. This research was commissioned by NZTA. The report found that in general, Christchurch residents are more supportive of e-scooters than Auckland residents. Christchurch users more often used e-scooters for recreation and were more likely to use it because they were “More fun”. Perceptions of safety were generally more favourable than for those from Auckland.

Both regions had more “neutral” responses to questions when compared to the CCC survey, however this will be more driven by the differences in methodology. The survey statistics quoted in this document have been based on the local online survey, primarily because of the substantially higher response level for both users and non-users of e-scooters. Some comparisons between the quoted statistics in this document and the national surveying have been done to ensure that the key insights are broadly aligned at the user/non user level.

PART C – Conclusions

5. Conclusions

As a strategic priority of Council, the considerations in this document should be investigated to inform the development of draft policy. This document identifies the positive contributions of micro-mobility and what measures should be taken to minimise any negative impacts going forward as identified in section 2 and 3. It is recommended that these potential measures are addressed through the development of draft policy. The draft policy would provide further guidance on a range of considerations, including:

- Encouraging micro-mobility options which complement the transport system and supports public transport and multi modal trips
- Recognise that pedestrians are the most vulnerable users on our network and should be given utmost care and consideration by all other road users by putting pedestrians first in the road use hierarchy
- Designing infrastructure and public spaces to recognise micro-mobility options.
- Managing open data and standardising data from operators to ensure opportunities for integration with public transport and other modes is maximised
- Actively manage micro-mobility operators and fleet sizes to ensure a balance between customer demand and obstructions in the public realm.
- Establishing fair and reasonable fees to micro-mobility permit holders through the review of the Trading and Events in Public Space Policy.
- Working with central government and other Councils to develop regulation, policy frameworks and education campaigns.

While they may start off as novel, over time, many new transport models have become formally recognised as part of the transport system. By way of example, New Zealand was a unique regulatory market when Uber first began operating in 2014 but the popularity of the service and the new business model didn't fit neatly with existing frameworks. In 2017 the Ministry of Transport completed a review of small passenger services²⁵ to ensure regulations are fit for purpose and flexible enough to accommodate new technologies and innovations.

CCC Staff are recommending that the Ministry of Transport and NZTA look at a similar review of land transport rules for wheeled recreational devices. Specifically amending the Road User Rule to widen the scope of vehicles that can use a cycle lane so that Wheeled Recreational Devices can legally be allowed to use them.

²⁵ [Ministry of Transport – Small Passenger Services Review](#)

MEMO

To: ITE Committee members
Cc:
From: Strategic Transport Team – Strategy and Transformation Unit
Date: Thursday 13th February 2019
Subject: Email from Lime ahead of Feb 13th ITE meeting.

Purpose

The purpose of this memo is to make the ITE committee aware of correspondence received from Lime technology last night and provide staff advice to the points raised.

Key Points

- Staff have recommended in the report a per square metre fee as allowed for under the Public Places Bylaw and Trading and Events in public places policy. This fee is in line with existing policy and was calculated on the value of occupied public land multiplied by the size of the vehicle and the fleet.
- Staff have recommended increasing Lime's fleet cap (from 700 to 1000) under the permit based on observed demand as well as estimating a city-wide vehicle cap (of 1600) to ensure city streets are not saturated with underutilised vehicles causing an obstruction in public places. These figures are calculated on three months of data and should be reviewed to ensure there is adequate supply to meet demand.
- Lime have suggested alternatives to the staff advice and their proposals are detailed below with staff comments on each proposal in red.
- However staff would like to emphasise that this is not a negotiation and work to date has focused on developing clear and consistent policy on this issue that goes beyond Lime's permit to trade.

Correspondence Received by Lime's Regional Director of Government Relations

Hi all,

Thanks for your time last week. We have worked the numbers and have some suggestions as alternatives that we would like to propose. We have analysed the proposed fee structure and have done our own calculations.

1. Accept CCC proposal in exchange for **exclusivity** \$83 / scooter / annum

(Total Fee = \$132,800 based on 1600 scooters)

- The decisions before the ITE committee relate to setting a permit to Lime beyond the initial trial period and what the terms of the permit should be.
- Staff have been working on the trial period to determine the proposed permit structure and fees that apply to these types of commercial trading activities. This process is not a negotiation, nor is it a commercial arrangement with a particular operator. Any concepts of exclusivity raise several issues around anti-competitive practices, and would be counter to the existing policy frameworks for trading in public places.

2. Accept our proposal @ reduced rate based on actual scooter footprint: \$49 / scooter/ annum
- We don't believe the original calculation is correct. We have assessed the space in which our scooters occupy and believe it to be closer to 0.29 sqm [scooter footprint = 0.26m x 1.10m = 0.29 sqm]. We strongly believe that the calculations by CCC is incorrect on the use of space that our scooters use.

(Total fee = \$49000 based on 1000 scooters)

- The decision before ITE today is to set a rental fee applicable under the Trading and Events in Public Places Policy (2018) is applied for all e-scooter permits, and in line with all other activities using public space. Noting that this is presently set at \$172.50/m2 per year. These fees are exclusive of GST, and would change based on the commercial rates of public realm.
- Staff have identified this on a per square metre basis relating to the space the scooter takes up on the footpath.

3. Trip tax of \$0.05 that we will pass onto consumer as 'local tax'. This will pay for fixed fee and positively contribute into local infrastructure.

(Total fee / contribution = c. \$100,000+)

- Charging a tax or levy on a per trip basis is problematic under the Local Government Act 2002. The Council needs to take a reasonable and consistent approach to setting fees and charges. A \$.05 per trip fee would be inconsistent with existing Council policies and processes.
- Staff are recommending prescribing a fee for a permitted activity under the Public Places Bylaw that is constant with both the Council's Schedule of Fees and Charges, as well as the Public Streets Enclosures Policy.

4. Exclusivity for four years of \$50,000 per year paid up front to Christchurch City Council as a \$200,000 fee to operate with a dynamic cap on scooters.

- As mentioned above offering exclusivity to an operator is problematic, counter to the policies under the public places bylaw and not something the council is in the position to negotiate.

5. Christchurch City Council implement a dynamic cap that removes the 1600 city cap limit for scooters. Rather than select an arbitrary cap, we are committed to providing a truly tech-enabled solution. Allow market performance and TVD to determine the number of scooters rather than a hard line 1600 cap. This would allow our business to grow with supply and demand.

- As mentioned in the key points above, the 1600 vehicle, city-wide cap is based on the observed demand patterns over three months and there are uncertainties of how the demand will change over time or with the seasons. It has been benchmarked against data from the city of Austin where a saturation point of 3-4 scooters per 1000 residents has been observed. The city-wide cap should be considered an interim cap until observed demand can justify an alternative.

6. We are interested in knowing more accurately the financial cost that CCC has taken on in administering this trial so as to reevaluate the original suggested permit fee.

- The report identifies a growing activity of e-scooters and micromobility which is currently not resourced within Council units. There is no recommendation that Council be reimbursed by Lime for this cost. Work to date and the future will focus on developing clear and consistent policy on this issue that goes beyond Lime's permit to trade.

I note your intention to increase our cap to 1000. I would like the option on the table to operate exclusively in Christchurch. We are the tried and tested brand that is committed to Christchurch and its future mobility.

- 2 -

It should be noted that we already pay GST and Corporation Tax in NZ to operate our business - adding in the Christchurch Fee would render the tariff structure almost punitive. Of course, like any independent company, we reserve the right to set our own pricing model and keep options like passing the cost of the per scooter fee onto the consumer as a Christchurch City Council tax open.

We have created over 30 jobs in Christchurch not to mention the juicer opportunities for the people of the city.

I ask that our proposal be presented to the committee at the meeting this week for consideration.

- The proposed fee is considered by staff to be fair and reasonable as Lime are essentially receiving a property right to sell and display their goods on public land. As discussed in the report's attachment implementing any fee should be done with careful thought and consideration. All well as being easy to collect and logical to explain, it should send price signals to encourage or incentivise behaviours to internalise negative impacts caused by an activity.
- In the case of the proposed fee structure, Council is trying to encourage companies to be economical with their fleets, and ensure that there isn't an oversupply of idle vehicles creating public obstructions. Charging a per-ride fee is likely to be passed on to the customer meaning Christchurch residents would be paying more for a service than in other centres in New Zealand. Increased prices for consumers is likely to suppress demand, and ultimately ridership which would be counter to one of the Council's strategic objectives of increasing shared transport opportunities and use.