

Infrastructure, Transport and Environment Committee AGENDA

Notice of Meeting:

An ordinary meeting of the Infrastructure, Transport and Environment Committee will be held on:

Date: Wednesday 13 February 2019
Time: 1.30pm
Venue: Council Chambers, Civic Offices,
53 Hereford Street, Christchurch

Membership

Chairperson	Councillor Pauline Cotter
Deputy Chairperson	Councillor Mike Davidson
Members	Councillor Vicki Buck
	Councillor Phil Clearwater
	Councillor Anne Galloway
	Councillor Aaron Keown
	Councillor Tim Scandrett
	Councillor Sara Templeton

8 February 2019

Principal Advisor

David Adamson
General Manager City Services
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Strategic Framework

The Council's Vision – Christchurch is a city of opportunity for all.

Open to new ideas, new people and new ways of doing things – a city where anything is possible.

Whiria ngā whenu o ngā papa Honoa ki te maurua tāukiuki

Bind together the strands of each mat
And join together with the seams of respect
and reciprocity.

The partnership with Papatipu Rūnanga
reflects mutual understanding and respect,
and a goal of improving the economic,
cultural, environmental and social
wellbeing for all.

Overarching Principle

Partnership – Our
people are our taonga
– to be treasured and
encouraged. By working
together we can create
a city that uses their
skill and talent, where
we can all participate,
and be valued.

Supporting Principles

Accountability	Collaboration
Affordability	Prudent Financial Management
Agility	Stewardship
Equity	Wellbeing and resilience
Innovation	Trust

Community Outcomes

What we want to achieve together as our city evolves

Strong communities

Strong sense of
community
Active participation in
civic life
Safe and healthy
communities
Celebration of our
identity through arts,
culture, heritage and
sport
Valuing the voices of
children and young
people

Liveable city

Vibrant and thriving
central city, suburban
and rural centres
A well connected and
accessible city
Sufficient supply of, and
access to, a range of
housing
21st century garden city
we are proud to live in

Healthy environment

Healthy waterways
High quality drinking
water
Unique landscapes and
indigenous biodiversity
are valued
Sustainable use of
resources

Prosperous economy

Great place for people,
business and investment
An inclusive, equitable
economy with broad-
based prosperity for all
A productive, adaptive
and resilient economic
base
Modern and robust
city infrastructure and
community facilities

Strategic Priorities

Our focus for improvement over the next three years and beyond

Enabling active citizenship and connected
communities

Maximising opportunities to develop a vibrant,
prosperous and sustainable 21st century city

Climate change
leadership

Informed and proactive
approaches to natural
hazard risks

Increasing active, public
and shared transport
opportunities and use

Safe and sustainable
water supply and
improved waterways

INFRASTRUCTURE, TRANSPORT AND ENVIRONMENT COMMITTEE - TERMS OF REFERENCE

Chair	Councillor Cotter
Membership	Councillor Davidson (Deputy Chair), Councillor Buck, Councillor Clearwater, Councillor Galloway, Councillor Keown, Councillor Scandrett and Councillor Templeton
Quorum	Half of the members if the number of members (including vacancies) is even, or a majority of members if the number of members (including vacancies) is odd.
Meeting Cycle	Monthly
Reports To	Council

Areas of Focus

The focus of the Infrastructure, Transport and Environment Committee is the governance of roading and transport, three waters, waste management, and natural hazards protection.

The Infrastructure, Transport and Environment Committee:

- Encourages opportunities for citizenship, community participation and community partnerships
- Works in partnerships with key agencies, groups and organisations
- Considers the impact of climate change in its decisions

The Infrastructure, Transport and Environment Committee considers and reports to Council on issues and activities relating to:

- Water supply, conservation and quality
- Stormwater drainage including the Land Drainage Recovery Programme
- Natural environment, including the waterways, aquifers, ecology and conservation of resources
- Natural hazards protection, including flood protection and river control
- Solid waste minimisation and disposals
- Sewage collection, treatment and disposal
- Roads, footpaths and streetscapes
- Transport including road operations, parking, public transport, cycle ways, harbours and marine structures consistent with Greater Christchurch Public Transport Joint Committee Terms of Reference

Delegations

The Committee delegates to the following working group the responsibility to consider and report back to the Committee:

- Land Drainage Working Group matters relating to the Land Drainage Recovery Programme, including opportunities for betterment.

Major Cycleway Route (MCR) Programme

At the Council meeting of 9 March 2017:

It was **resolved** that the Council:

1. Delegates to the Infrastructure, Transport and Environment Committee the authority to make all decisions in connection with the Major Cycleway Routes (MCR) programme, including final route selections and anything precedent to the exercise by the Council of its power to acquire any property, subject to:
 - a. The Infrastructure, Transport and Environment Committee and affected Community Boards being briefed prior to any public consultation commencing on any Major Cycleway Route project.
 - b. The relevant Community Board Chair(s) will be invited by the Infrastructure, Transport and Environment Committee to participate in the relevant Major Cycleway Route item discussion and give their Board's feedback or recommendations.
2. Notes and reconfirms Council's previous decision to designate the MCR programme a metropolitan project, as set out in the Council's resolutions on 29 January 2015.
 - 13.4 Agree to the Major Cycleway Route programme being declared a Metropolitan Programme and delegate to the Infrastructure, Transport and Environment Committee all decision making powers.

Christchurch Biodiversity Fund

At the Council meeting of 20 June 2017:

It was **resolved** that the Council:

5. Delegate authority to the Infrastructure, Transport and Environment Committee to consider and approve applications to the Christchurch Biodiversity Fund.

Part A	Matters Requiring a Council Decision
Part B	Reports for Information
Part C	Decisions Under Delegation

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1. Apologies

At the close of the agenda no apologies had been received.

2. Declarations of Interest

Members are reminded of the need to be vigilant and to stand aside from decision making when a conflict arises between their role as an elected representative and any private or other external interest they might have.

3. Confirmation of Previous Minutes

That the minutes of the Infrastructure, Transport and Environment Committee meeting held on [Wednesday, 12 December 2018](#) be confirmed (refer page 7).

4. Public Forum

A period of up to 30 minutes may be available for people to speak for up to five minutes on any issue that is not the subject of a separate hearings process.

5. Deputations by Appointment

- 5.1** Jake McLellan will speak in his personal capacity regarding item 7, E-Scooter Permit Recommendations.

6. Petitions

There were no petitions received at the time the agenda was prepared.

Infrastructure, Transport and Environment Committee OPEN MINUTES

Date: Wednesday 12 December 2018
Time: 1.02pm
Venue: Council Chambers, Civic Offices,
53 Hereford Street, Christchurch

Present

Chairperson	Councillor Pauline Cotter
Deputy Chairperson	Councillor Mike Davidson
Members	Councillor Vicki Buck
	Councillor Phil Clearwater
	Councillor Anne Galloway
	Councillor Aaron Keown
	Councillor Sara Templeton

13 December 2018

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- Part A **Matters Requiring a Council Decision**
- Part B **Reports for Information**
- Part C **Decisions Under Delegation**

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The agenda was dealt with in the following order.

1. Apologies

There were no apologies.

2. Declarations of Interest

Part B

There were no declarations of interest recorded.

3. Confirmation of Previous Minutes

Part C

Committee Resolved ITEC/2018/00071

Committee Decision

That the open and closed minutes of the Infrastructure, Transport and Environment Committee meeting held on Wednesday, 7 November 2018 be confirmed.

Councillor Davidson/Councillor Keown

Carried

4. Public Forum

Part B

There were no public forum presentations.

5. Deputations by Appointment

Part B

There were no deputations by appointment.

6. Presentation of Petitions

Part B

There was no presentation of petitions.

7. Verbal Update on Transport and Cycling 2018 Surveys

Committee Comment

1. Michael Ferigo (CCC), Aimee Martin (CCC) and Elizabeth Claridge (NZTA) provided a presentation to the Committee on the following 2018 National and Christchurch survey results which are relative to Christchurch:
 - a. Attitudes and perception of cycling – NZTA
 - b. Share the road survey – NZTA
 - c. Life in Christchurch 2018 - CCC

8. Proposal to widen Strand Lane

Committee Comment

The Committee did not make a recommendation to Council on this Item. It was resolved by Councillor Pauline Cotter, seconded by Councillor Mike Davidson that Item 8 be referred to the Council for consideration and decision at its meeting on 19 December 2018 due to the element of risk in the staff recommendations. The Committee noted its support for the Strand Lane project.

Staff Recommendations

That the Infrastructure, Transport and Environment Committee recommends to Council that it resolves as follows:

1. Having received a unique and unsolicited proposal for the sale by the Council of 109m² being part of Lot 1 DP 9669 shown on the plan attached to this report as Section 4 ("Section 4") as outlined in section 5.15 of this report that:
 - a. Would provide benefit to the people of Christchurch by improving pedestrian movement through Strand Lane to Cathedral Square from Hereford Street and adjoining laneways; and
 - b. Is consistent with the aspirations of the Central City Action Plan;
 - c. Aligns with the objectives of the Christchurch Lanes Design Guide 2007; and
 - d. Aligns with the objectives of the Safer Christchurch Strategy 2015 – 2021;
2. Declares Section 4 surplus to operational requirements.
3. To depart from the Council's policy to "publicly tender properties for sale unless there is a clear reason for doing otherwise" to authorise (subject to first fulfilling the Council's offer-back obligations under section 40 of the Public Works Act 1981) the sale of Section 4 to Hilburn Holdings Limited at market value as determined by a registered valuer (plus or minus 10%), noting as follows:
 - a. The decision is inconsistent with the policy to "publicly tender properties for sale unless there is a clear reason for doing otherwise";
 - b. The reason for the inconsistency with the policy is that the policy requires the Council to "publicly tender properties for sale unless there is a clear reason for doing otherwise";

- c. There is no intention to amend the policy to accommodate this decision as this decision involves unique 'one-off' circumstances that are unlikely to be repeated.
4. Purchases 29m² or thereabouts being a part of Lot 2 DP 9669 as is shown as Section 2 on the attached plan at market value as determined by a registered valuer (plus or minus 10%).
5. Purchases 51m² or thereabouts being a part of Lot 1 DP 61143 shown on the attached plan as Section 3 at market value as determined by a registered valuer (plus or minus 10%).
6. Approves as landowner the granting of rights of way easements on foot over Sections 1, 2 and 3 shown on the attached plan in favour of Section 4 and the balance of Lot 2 DP 9669 and the balance of Lot 1 DP 61143.
7. Approve as land owner the granting of a right of way easement on foot in gross in favour of the Christchurch City Council over all of Strand Lane being the new Sections 1, 2 and 3 on the attached plan and the existing land (legally described as Part Town Section 732 and Lot 1 DP 10358).
8. Delegates to the Manager Property Consultancy the authority to take all necessary steps to negotiate, agree and enter into all necessary documentation on behalf of the Council as he shall consider necessary or desirable to give effect to the above resolutions.

Committee Resolved ITEC/2018/00072

Part C

It was resolved on the motion of Councillor Pauline Cotter, seconded by Councillor Mike Davidson that Item 8 be referred to the Council for consideration and decision at its meeting on 19 December 2018 due to the element of risk in the staff recommendations. The Committee noted its support for the Strand Lane project.

Councillor Cotter/Councillor Davidson

Carried

Councillors Keown and Templeton requested that their vote against the above decision be recorded.

Staff recommendations to Council

Part A

That the Council resolves as follows:

1. Having received a unique and unsolicited proposal for the sale by the Council of 109m² being part of Lot 1 DP 9669 shown on the plan attached to this report as Section 4 ("Section 4") as outlined in section 5.15 of this report that:
 - a. Would provide benefit to the people of Christchurch by improving pedestrian movement through Strand Lane to Cathedral Square from Hereford Street and adjoining laneways; and
 - b. Is consistent with the aspirations of the Central City Action Plan;
 - c. Aligns with the objectives of the Christchurch Lanes Design Guide 2007; and
 - d. Aligns with the objectives of the Safer Christchurch Strategy 2015 – 2021;
2. Declares Section 4 surplus to operational requirements.
3. To depart from the Council's policy to "publicly tender properties for sale unless there is a clear reason for doing otherwise" to authorise (subject to first fulfilling the Council's offer-back obligations under section 40 of the Public Works Act 1981) the sale of Section 4 to

Hilburn Holdings Limited at market value as determined by a registered valuer (plus or minus 10%), noting as follows:

- a. The decision is inconsistent with the policy to “publicly tender properties for sale unless there is a clear reason for doing otherwise”;
 - b. The reason for the inconsistency with the policy is that the policy requires the Council to “publicly tender properties for sale unless there is a clear reason for doing otherwise”;
 - c. There is no intention to amend the policy to accommodate this decision as this decision involves unique ‘one-off’ circumstances that are unlikely to be repeated.
4. Purchases 29m² or thereabouts being a part of Lot 2 DP 9669 as is shown as Section 2 on the attached plan at market value as determined by a registered valuer (plus or minus 10%.)
 5. Purchases 51m² or thereabouts being a part of Lot 1 DP 61143 shown on the attached plan as Section 3 at market value as determined by a registered valuer (plus or minus 10%).
 6. Approves as landowner the granting of rights of way easements on foot over Sections 1, 2 and 3 shown on the attached plan in favour of Section 4 and the balance of Lot 2 DP 9669 and the balance of Lot 1 DP 61143.
 7. Approve as land owner the granting of a right of way easement on foot in gross in favour of the Christchurch City Council over all of Strand Lane being the new Sections 1, 2 and 3 on the attached plan and the existing land (legally described as Part Town Section 732 and Lot 1 DP 10358).
 8. Delegates to the Manager Property Consultancy the authority to take all necessary steps to negotiate, agree and enter into all necessary documentation on behalf of the Council as he shall consider necessary or desirable to give effect to the above resolutions.

9. Biodiversity Fund Project Applications

Committee Comment

The Committee resolved the staff recommendations without change.

Committee Resolved ITEC/2018/00073

Part C

That the Infrastructure, Transport and Environment Committee:

1. Receive the information in the report.
2. Approve funding for the two recommended projects as listed below:
 - \$11,892 for Beacon Hill
 - \$11,182 for Allandale Lane

Councillor Keown/Councillor Davidson

Carried

10. Requested Update (Verbal) on the Electric Scooter Three Month Trial

Committee Resolved ITEC/2018/00074

Part C

That the Infrastructure, Transport and Environment Committee:

1. Receive the information provided in the verbal update.

Councillor Cotter/Councillor Clearwater

Carried

Councillor Buck left the meeting at 2.29pm and returned at 2.37pm during discussion of item 11. Councillor Buck also left the meeting at 3.18pm during the consideration and voting of item 11, resolution 2. Councillor Galloway left the meeting at 2.50pm and returned at 3.00pm during discussion of item 11.

11. Transport Unit - Bi-Monthly Report

Staff Recommendations

That the Infrastructure, Transport and Environment Committee:

1. Receive the information in the attached Transport Unit report.

Committee Resolved ITEC/2018/00075

Part C

That the Infrastructure, Transport and Environment Committee:

1. Receive the information in the attached Transport Unit report.
3. Request a briefing in early 2019 on the policy relating to bus stop locations, particularly in regards to the impact on the user and the network when the policy is not adhered to.

Councillor Davidson/Councillor Clearwater

Carried

Committee Resolved ITEC/2018/00076

That the Infrastructure, Transport and Environment Committee:

2. Request staff report back to the March 2019 meeting on whether Manchester Street is achieving the objectives sought, including any recommended improvements (noting the Notice of Motion anticipated at 13 December Council meeting).

Councillor Davidson/Councillor Clearwater

Carried

Councillors Keown and Templeton requested that their vote against resolution 2 be recorded.

Meeting concluded at 3.19pm.

CONFIRMED THIS 13TH DAY OF FEBRUARY 2019.

**COUNCILLOR PAULINE COTTER
CHAIRPERSON**

7. 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
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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

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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?](#)

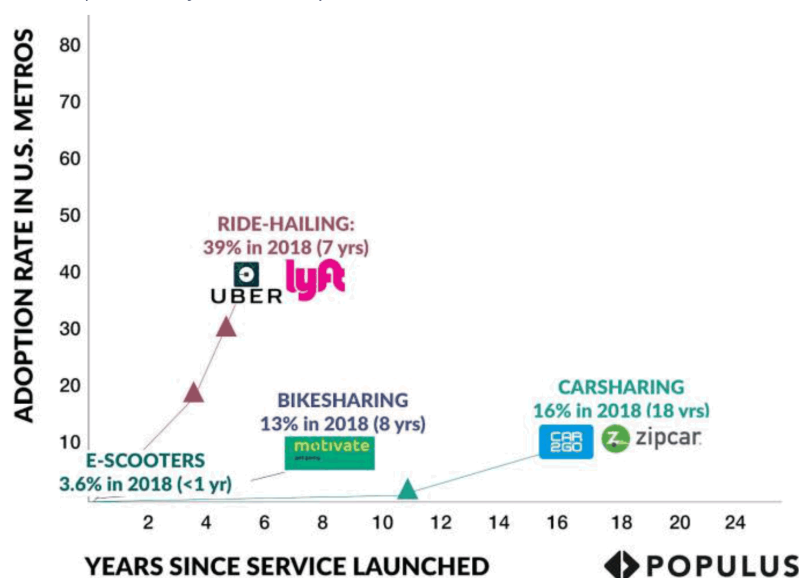
⁶ [Quartz: Bird is the fastest startup ever to reach a \\$1 billion valuation](#)

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](#)

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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.

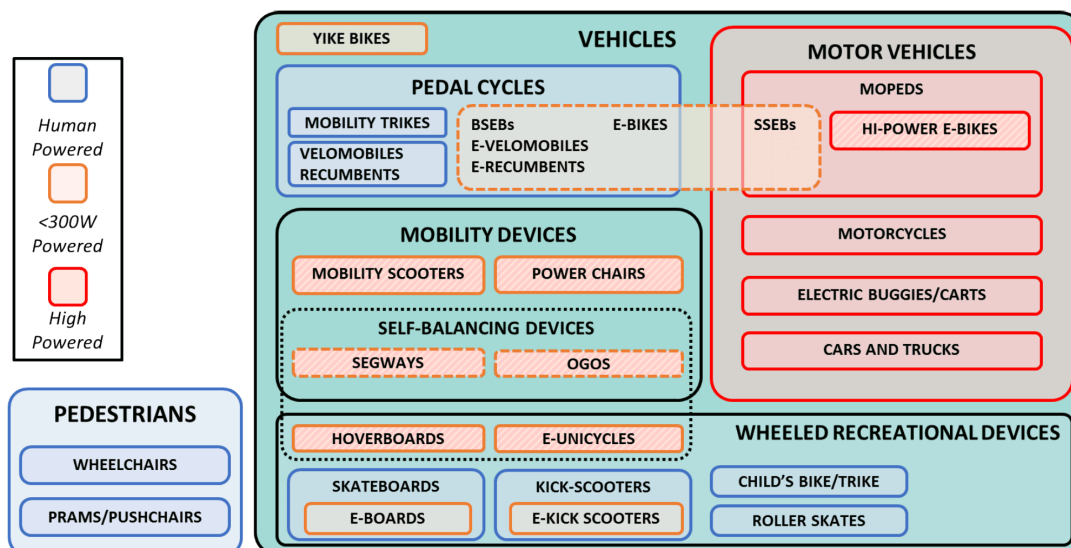
*Micro-mobility*⁸ or *little vehicles*⁹ are emerging terms used to characterise a subset of shared transport employing small vehicles and devices. The term includes an emerging cluster of bikes and scooters, (as well as e-bikes, velo-mobiles, motorised skateboards, unicycles, "hover boards,") and other 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](#)

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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:











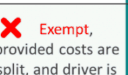


- 1) **New Zealand transport rules and legislation** are written and controlled by NZTA and the Ministry of Transport (see Table 1). They cover the types of vehicles that can be used in New Zealand and rules of the road that everybody must follow. These rules and laws are enforced by the New Zealand 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](#)

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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](https://en.wikipedia.org/wiki/Vehicular_cycling)

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infrastructure specifically for e-scooters and other WRDs because, unlike the cycle symbol, there is no specified symbol/markings (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

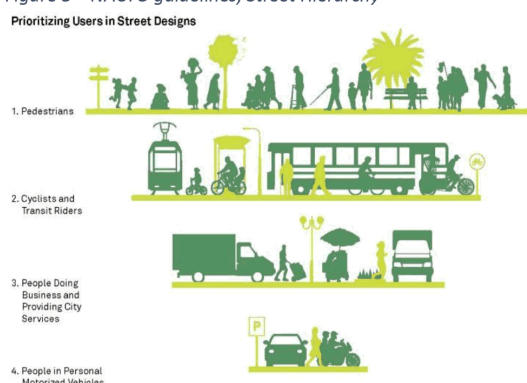


Figure 5 – E-scooters parked outside the Botanic Gardens

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](#)

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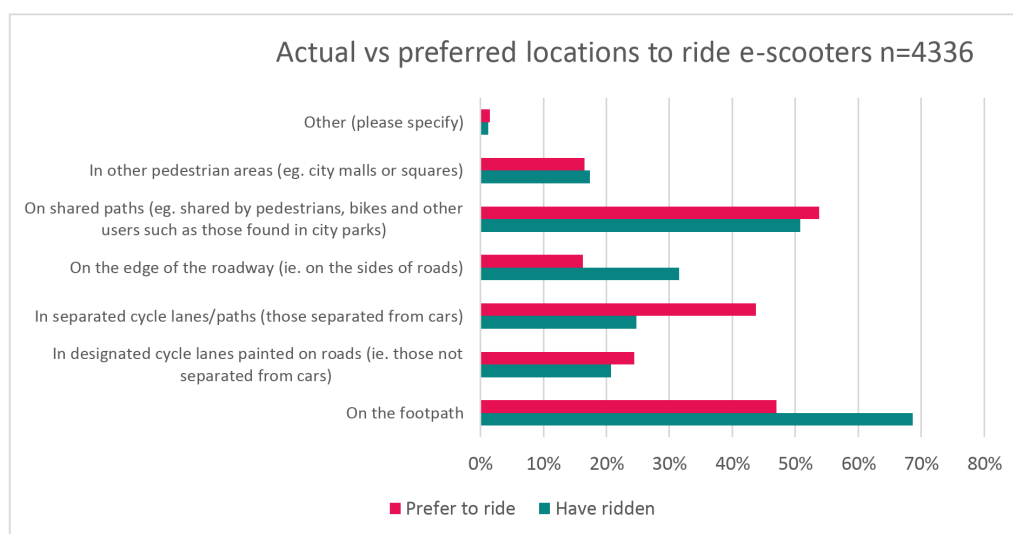


Figure 6 – Locations about where e-scooters are ridden

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:

- The number of vehicles each operator is permitted in their fleet and;
- 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.

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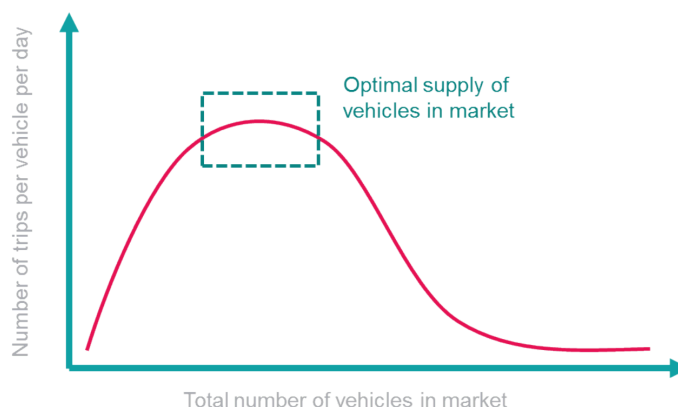


Figure 7 Demand curve illustrating market saturation point for micro-mobility vehicles.

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.

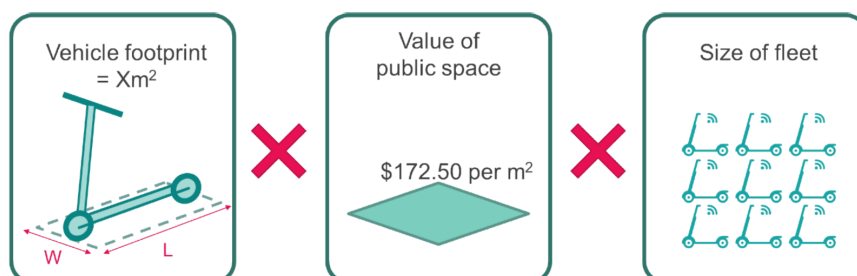


Figure 8 – Illustration of how fees are calculated

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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.

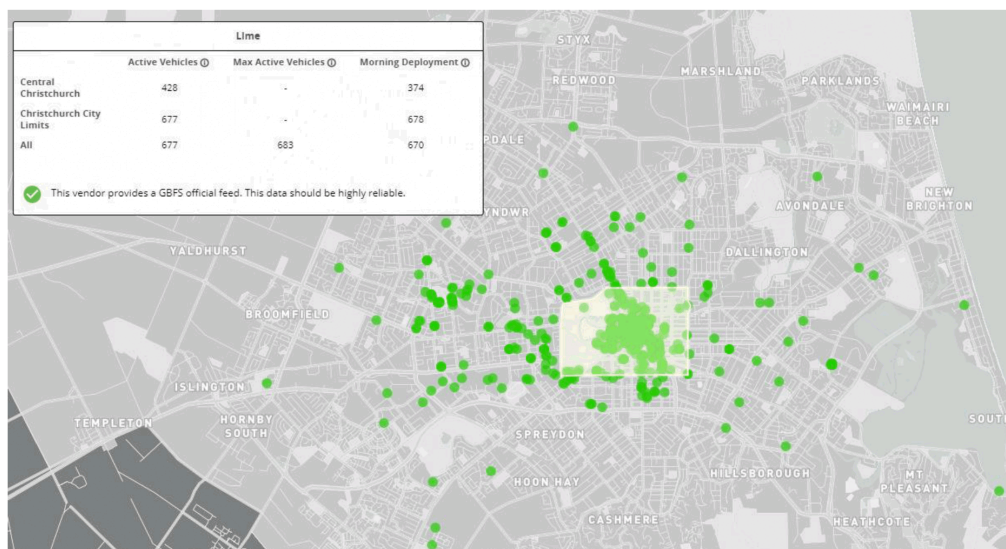


Figure 9 – Snapshot of Lime e-scooter locations in Christchurch on a Friday morning

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](#)

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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](#)

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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

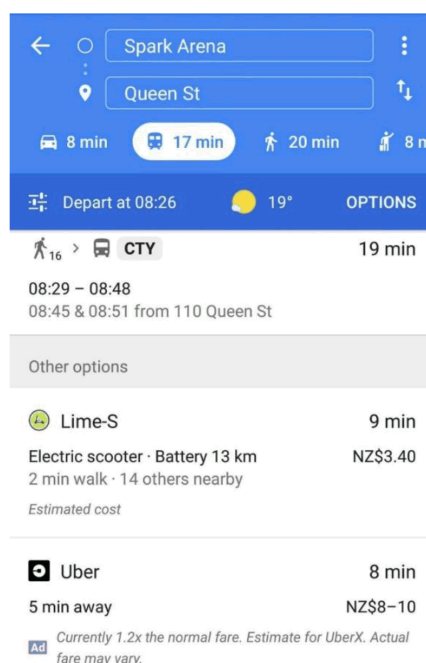


Figure 11 – Example of open data feeds being used in a trip planning app (Google Maps)

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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.

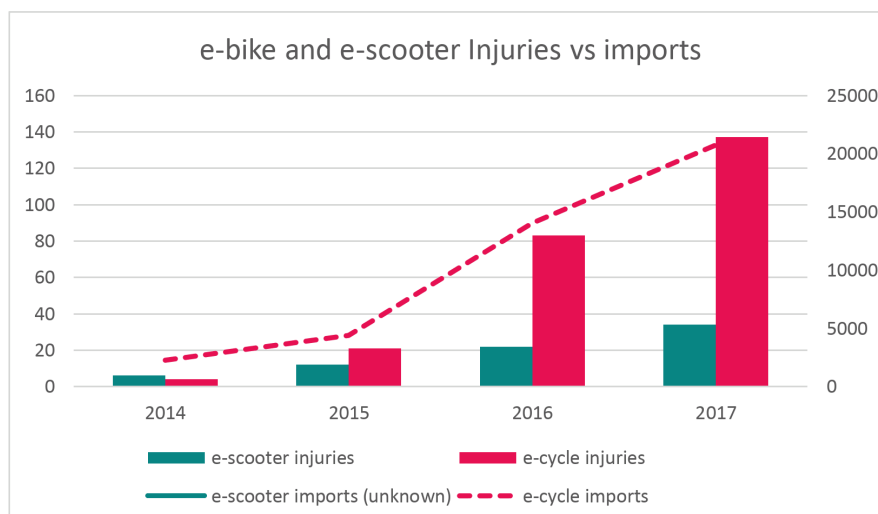


Figure 12 – ACC injury claims and imports for e-scooters and e-bikes

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)

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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.

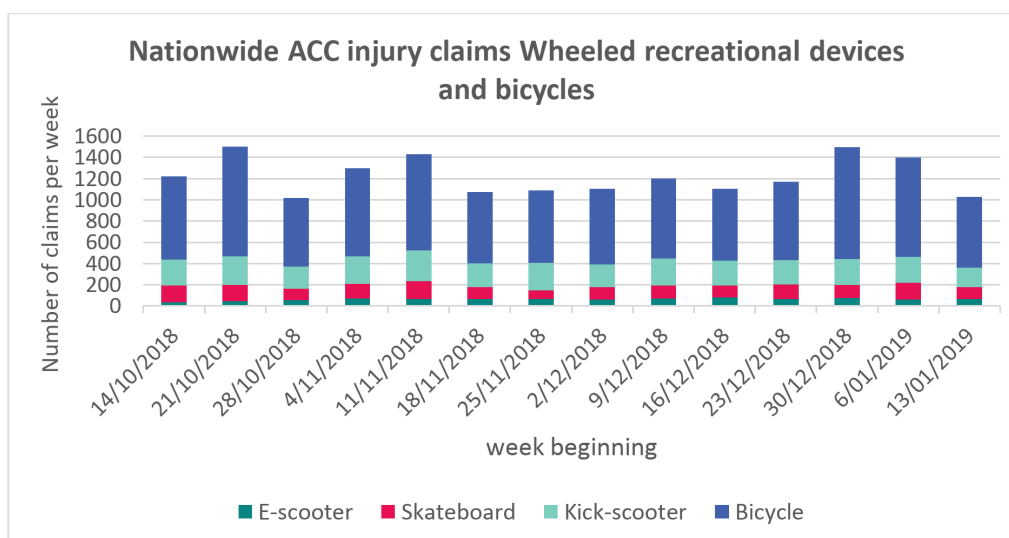


Figure 13 –Nationwide ACC Injury claims for wheeled recreational devices and bicycles

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](#)

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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.

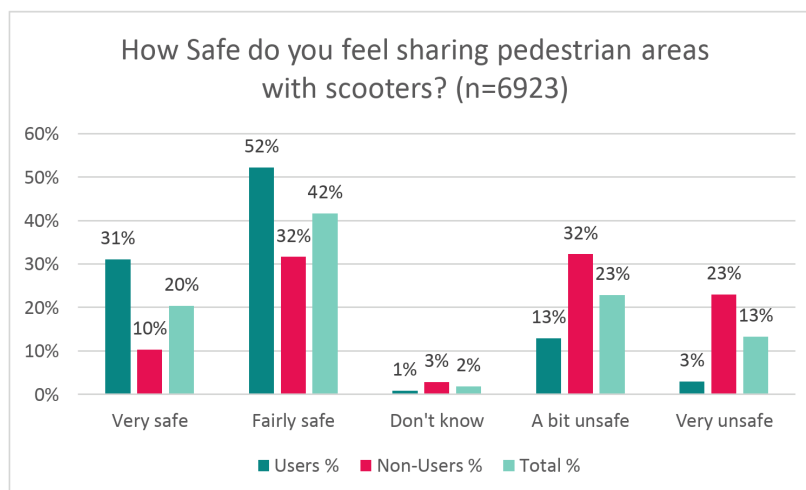


Figure 14 –Sharing space with e-scooters

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).

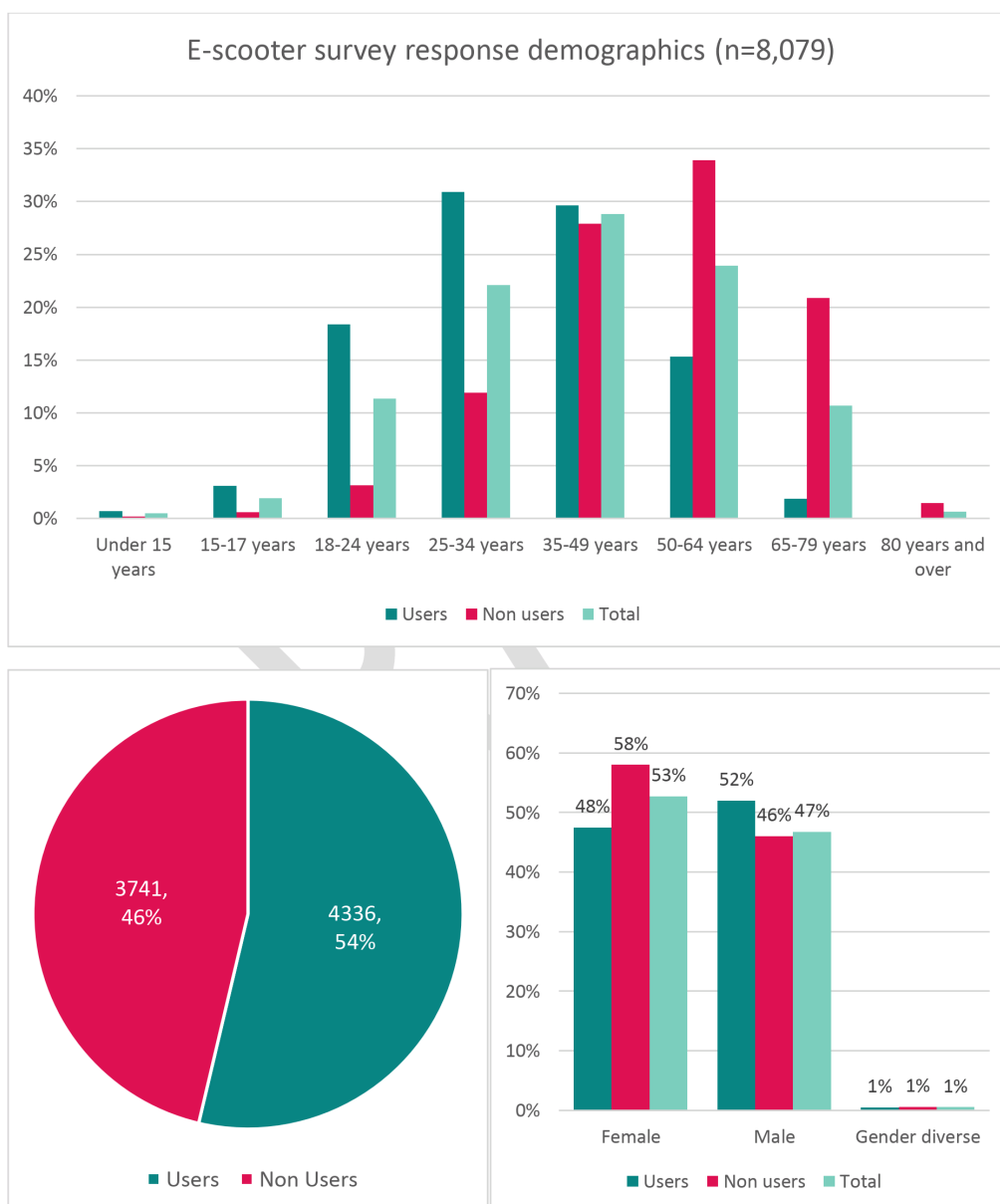


Figure 15 – Screenshot of Lime Rider Ts&Cs

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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).

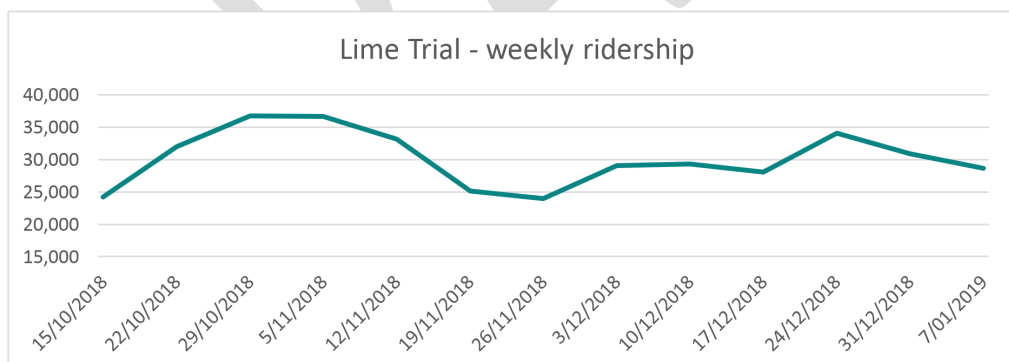


Figure 17 – Weekly ridership of the Lime e-scooters over the thirteen week trial

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

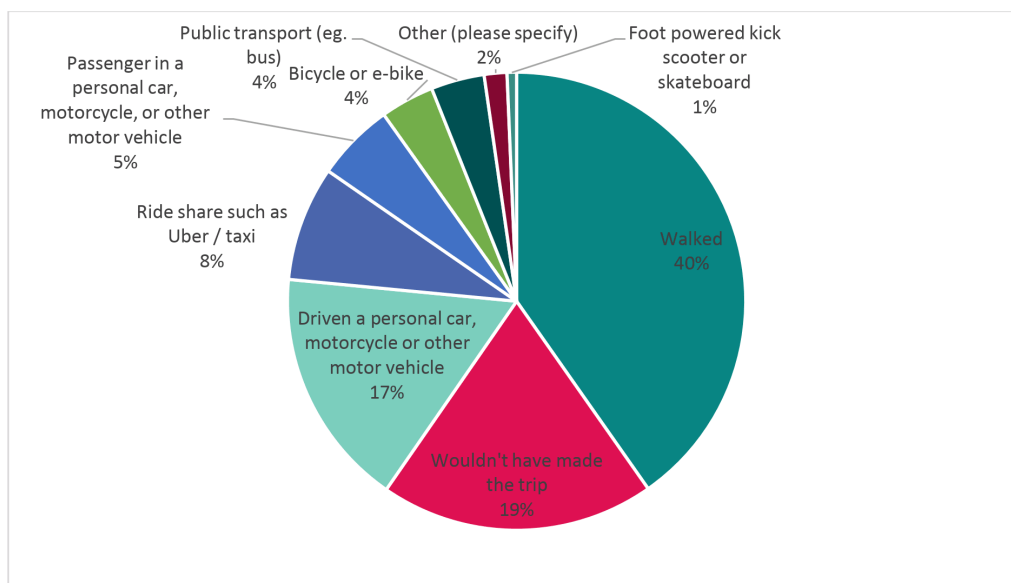


Figure 18 How users would have travelled had an e-scooter not been available on their most recent trip

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.

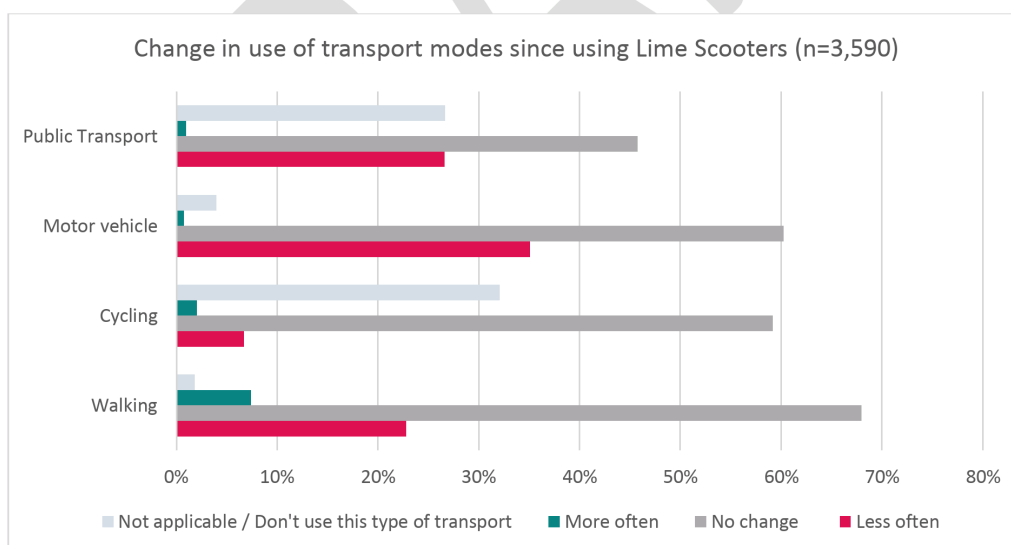


Figure 19 – Travel behaviour change following the introduction of e-scooters in Christchurch

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

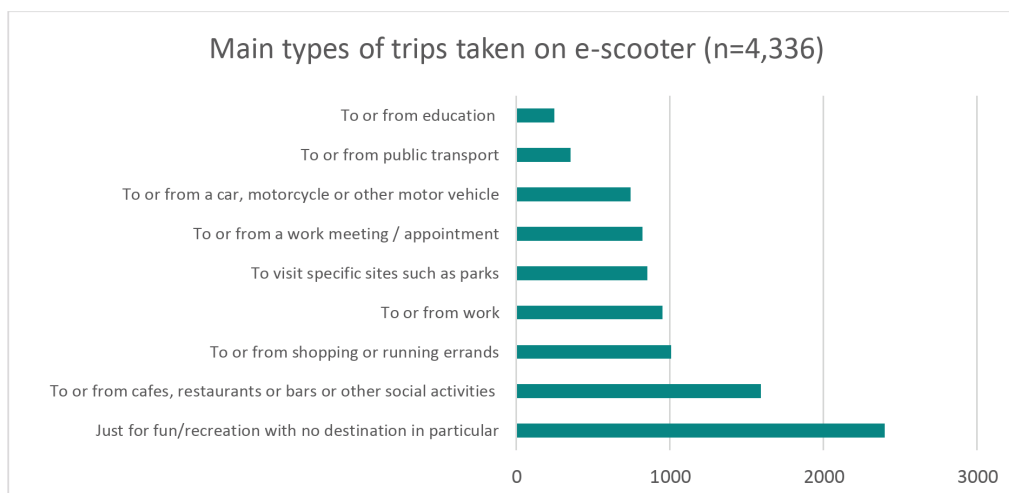


Figure 20 –Main types of trips taken on an e-scooter

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.

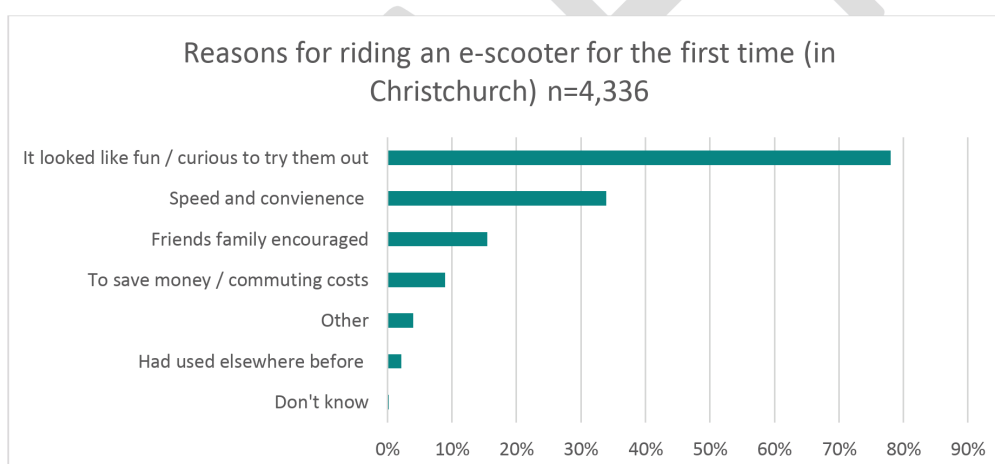


Figure 21 – Motivations for trying a shared e-scooter in Christchurch

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

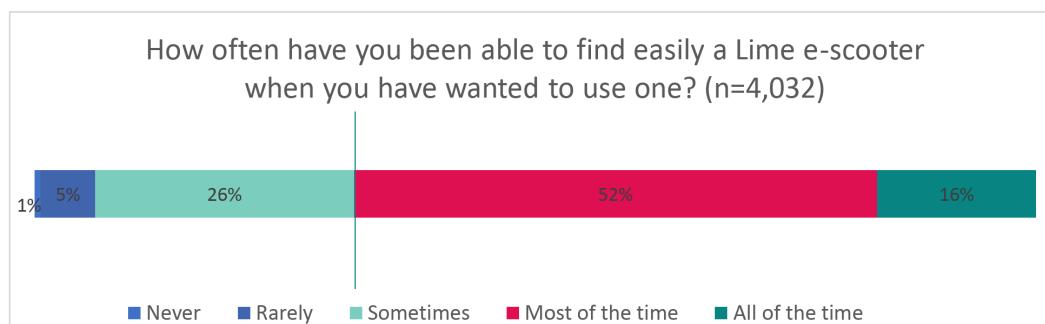


Figure 22 – ease/difficulty in finding a scooter when needed.

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.

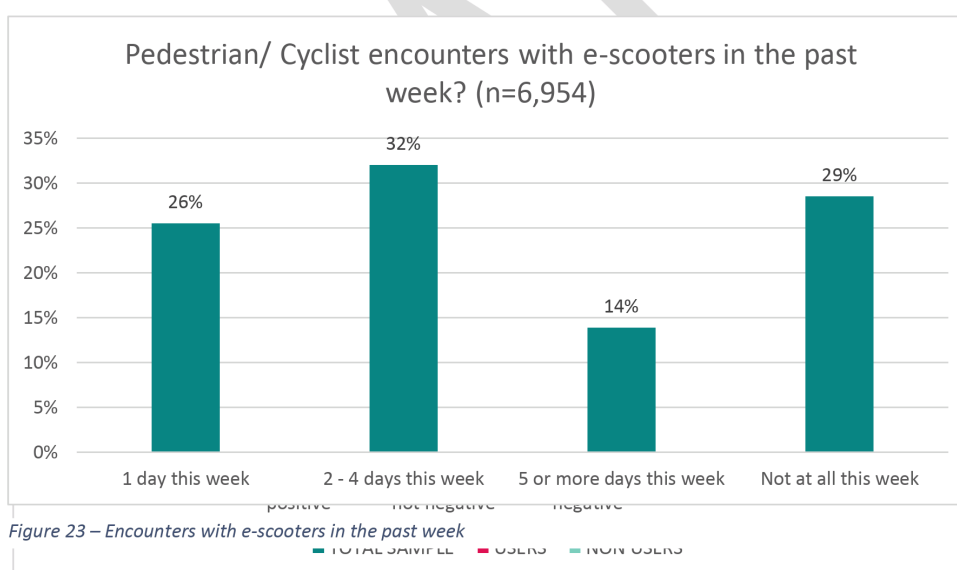


Figure 23 – Encounters with e-scooters in the past week

Figure 24 – Effect of Lime e-scooters on Christchurch

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.

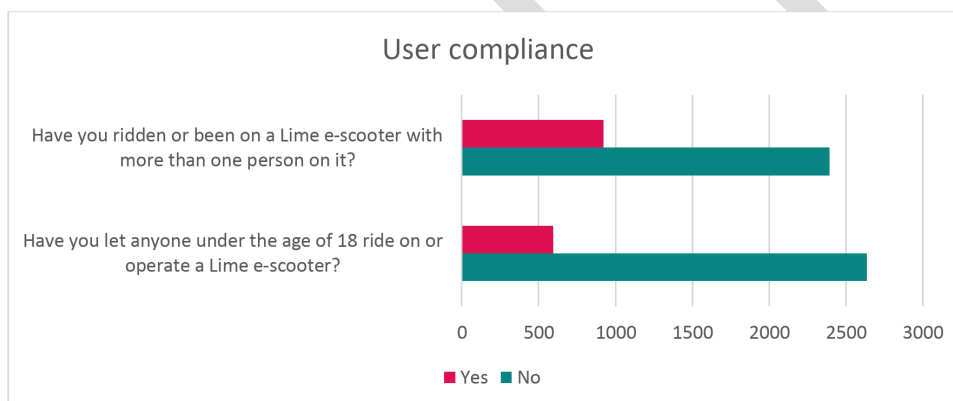


Figure 26 – User compliance rates

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.

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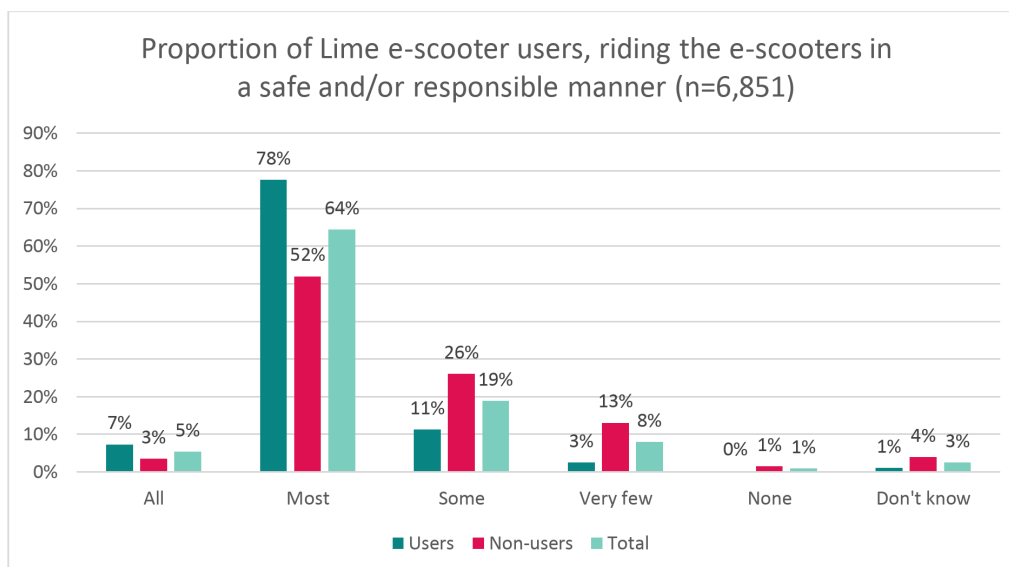


Figure 27 – Perception of safe and responsible scooter operation.

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.

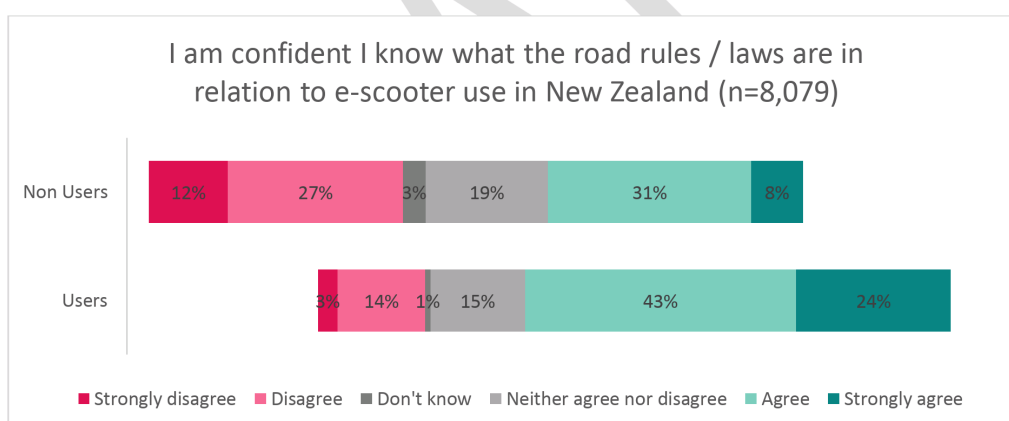


Figure 28 – Knowledge road rules by e-scooter users and non-users.

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

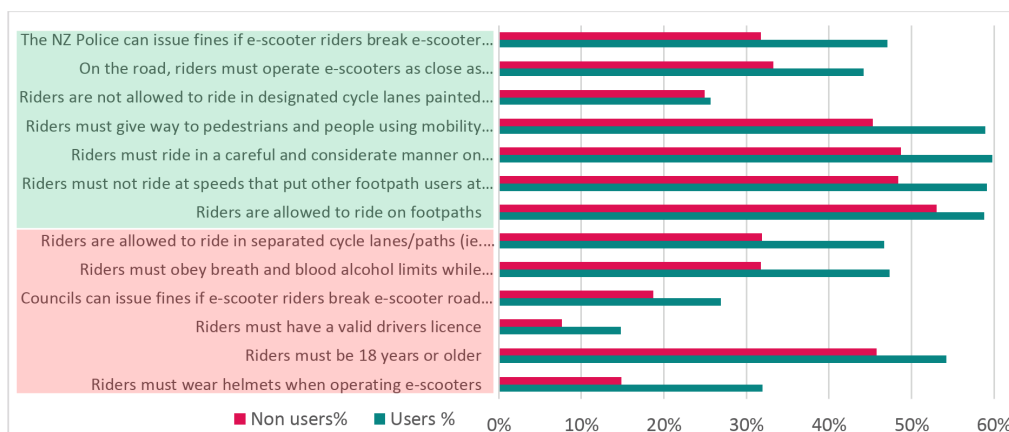


Figure 29 – Results on road rules quiz pertaining to e-scooters

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 allowed to use them.

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

8. Major Cycleway, Heathcote Expressway, Section 1a detailed traffic resolutions and tree removals

Reference: 18/1170016

Presenter(s): Adrian Thein, Project Manager

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 approve the detail traffic resolutions and changes made regarding tree removals for the Major Cycleway Heathcote Expressway, Section 1a.

Origin of Report

- 1.2 The Committee approved the Heathcote Expressway Section 1a on 21 September 2017. It was recommended that the detailed traffic resolutions required for the implementation of the route be bought back to the Committee for approval before construction phase. **Attachment A** contains the drawings that reflect the resolutions that are required to implement the scheme.
- 1.3 The resolution to the Infrastructure, Transport and Environment Committee meeting as recorded in ITEC/2017/00051.

2. Staff Recommendations

That the Infrastructure, Transport and Environment Committee:

1. Make the following resolutions relying on its powers under the Christchurch City Council Traffic and Parking Bylaw 2008 and Part 21 of the Local Government Act 1974.
2. For the purposes of the following resolutions: (1) An intersection of roadways is defined by the position of kerbs on each intersecting roadway ; and (2) The resolution is to take effect from the commencement of physical road works associated with the project as detailed in this report; and (3) If the resolution states "Note 1 applies", any distance specified in the resolution relates the kerb line location referenced as exists on the road immediately prior to the Committee meeting of 21 September 2017; and (4) If the resolution states "Note 2 applies", any distance specified in the resolution relates the approved kerb line location on the road resulting from the Committee resolutions on the Major Cycleway Heathcote Expressway Section 1a report at the Committee meeting of 21 September 2017.
3. Approve the changes made regarding the removal of the identified trees to allow for the implementation of the approved scheme as outlined in Attachment B
4. Ferry Road (Fitzgerald Avenue to Western Extent of Project) – Existing Traffic Controls
 - a. Approve that all traffic controls on Ferry Road from its intersection with Fitzgerald Avenue to a point 60 metres west of this intersection be revoked. *Note 1 applies.*
5. Ferry Road (Fitzgerald Avenue to Western Extent of Project) – Existing Parking and Stopping Restrictions
 - a. Approve that all existing parking and stopping restrictions on Ferry Road from its intersection with Fitzgerald Avenue to a point 60 metres west of this intersection be revoked. *Note 1 applies.*
6. Ferry Road (Fitzgerald Avenue to Western Extent of Project) – New Traffic Controls

- a. Approve the road marking changes, kerb alignment changes, traffic island changes and road surface changes on Ferry Road, from its intersection with Fitzgerald Avenue to a point 60 metres west of this intersection as detailed on **Attachment A**. *Note 2 applies.*
- b. Approve that a special vehicle lane for the use of westbound cycles only, be established on the southern side of Ferry Road, commencing at its intersection with Fitzgerald Avenue and extending in a westerly direction for a distance of 60 metres as detailed on **Attachment A**. This special vehicle lane is authorised under clause 18 of the CCC Traffic and Parking Bylaw 2017 and is therefore to be added to the Register of Roads and Traffic Lanes Restricted to Special Classes of Vehicles. *Note 2 applies.*
- c. Approve that a special vehicle lane for the use of eastbound cycles only, be established on the northern side of Ferry Road, commencing at a point 57 metres west of its intersection with Fitzgerald Avenue and extending in an easterly direction for a distance of 57 metres as detailed on **Attachment A**. This special vehicle lane is authorised under clause 18 of the CCC Traffic and Parking Bylaw 2017, and is therefore to be added to the Register of Roads and Traffic Lanes Restricted to Special Classes of Vehicles. *Note 2 applies.*
7. Ferry Road (Fitzgerald Avenue to Western Extent of Project) – New Parking and Stopping Restrictions
 - a. Approve that the stopping of vehicles be prohibited at any time on the south side of Ferry Road, commencing at its intersection with Fitzgerald Avenue and extending in a westerly direction for a distance of 60 metres. *Note 2 applies.*
 - b. Approve that the stopping of vehicles be prohibited at any time on the north side of Ferry Road, commencing at its intersection with Fitzgerald Avenue and extending in a westerly direction for a distance of 57 metres. *Note 2 applies.*
8. Fitzgerald Avenue (Ferry Road to Leeds Street) – Existing Traffic Controls
 - a. Approve that all existing traffic controls on Fitzgerald Avenue from its intersection with Ferry Road to its intersection with Leeds Street be revoked. *Note 1 applies.*
9. Fitzgerald Avenue (Ferry Road to Leeds Street) – Existing Parking and Stopping Restrictions
 - a. Approve that all existing parking and stopping restrictions on Fitzgerald Avenue from its intersection with Ferry Road to its intersection with Leeds Street be revoked. *Note 1 applies.*
10. Fitzgerald Avenue (Ferry Road to Leeds Street) – New Traffic Controls
 - a. Approve the road marking changes, kerb alignment changes, traffic island changes and road surface changes on Fitzgerald Avenue, from its intersection with Ferry Road to its intersection with Leeds Street as detailed on **Attachment A**. *Note 2 applies.*
 - b. Approve that a special vehicle lane for the use of northbound cycles only, be established on the western side of Fitzgerald Avenue, commencing at its intersection with Ferry Road and extending in a northerly direction for a distance of 44 metres as detailed on **Attachment A**. This special vehicle lane is authorised under clause 18 of the CCC Traffic and Parking Bylaw 2017 and is therefore to be added to the Register of Roads and Traffic Lanes Restricted to Special Classes of Vehicles. *Note 2 applies.*
11. Fitzgerald Avenue (Ferry Road to Leeds Street) – New Parking and Stopping Restrictions
 - a. Approve that the stopping of vehicles be prohibited at any time on the western side of Fitzgerald Avenue, commencing at its intersection with Ferry Road and extending in a northerly direction for a distance of 16 metres. *Note 2 applies.*
 - b. Approve that the parking of vehicles be restricted to a maximum period of 60 minutes on the western side of Fitzgerald Avenue, commencing at a point 15 metres north of its

intersection with Ferry Road, and extending in a northerly direction for a distance of 33 metres. This restriction is to apply Monday to Sunday between the hours of 8am to 6pm. *Note 2 applies.*

- c. Approve that the stopping of vehicles be prohibited at any time on the east side Fitzgerald Avenue, commencing at its intersection with Ferry Road and extending in a northerly direction to its intersection with Leeds Street. *Note 2 applies.*
12. Fitzgerald Avenue (Ferry Road to Southern Extent of Project) – Existing Traffic Controls
 - a. Approve that all existing traffic controls on Fitzgerald Avenue from its intersection with Ferry Road to a point 60 metres south of this intersection be revoked. *Note 1 applies.*
13. Fitzgerald Avenue (Ferry Road to Southern Extent of Project) – Existing Parking and Stopping Restrictions
 - a. Approve that all existing parking and stopping restrictions on Fitzgerald Avenue from its intersection with Ferry Road to a point 60 metres south of this intersection be revoked. *Note 1 applies.*
14. Fitzgerald Avenue (Ferry Road to Southern Extent of Project) – New Traffic Controls
 - a. Approve the road marking changes, kerb alignment changes, traffic island changes and road surface changes on Fitzgerald Avenue, from its intersection with Ferry Road to a point 60 metres south of this intersection as detailed on **Attachment A**. *Note 2 applies.*
 - b. Approve that a special vehicle lane for the use of south bound cycles only, be established on the eastern side of Fitzgerald Avenue, commencing at its intersection with Ferry Road and extending in a southerly direction for a distance of 22 metres as detailed on **Attachment A**. This special vehicle lane is authorised under clause 18 of the CCC Traffic and Parking Bylaw 2017 and is therefore to be added to the Register of Roads and Traffic Lanes Restricted to Special Classes of Vehicles. *Note 2 applies.*
15. Fitzgerald Avenue (Ferry Road to Southern Extent of Project) – New Parking and Stopping Restrictions
 - a. Approve that the stopping of vehicles be prohibited at any time on the west side of Fitzgerald Avenue, commencing at its intersection with Ferry Road and extending in a southerly direction for a distance of 42 metres. *Note 2 applies.*
 - b. Approve that the stopping of vehicles be prohibited at any time on the east side of Fitzgerald Avenue, commencing at its intersection with Ferry Road and extending in a southerly direction for a distance of 22 metres. *Note 2 applies.*
 - c. Approve that the parking of vehicles be restricted to a maximum period of 60 minutes on the western side of Fitzgerald Avenue, commencing at a point 68 metres south of its intersection with Ferry Road, and extending in a northerly direction for a distance of 26 metres. This restriction is to apply Monday to Sunday between the hours of 8am to 6pm. *Note 2 applies.*
 - d. Approve that the parking of vehicles be restricted to a maximum period of 60 minutes on the eastern side of Fitzgerald Avenue, commencing at a point 22 metres south of its intersection with Ferry Road, and extending in a southerly direction for a distance of 46 metres. This restriction is to apply Monday to Sunday between the hours of 8am to 6pm. *Note 2 applies.*
16. Ferry Road / Fitzgerald Avenue Intersection – Existing Traffic Controls
 - a. Approve that all traffic controls including traffic signals at the intersection of Ferry Road and Fitzgerald Avenue be revoked.

17. Ferry Road / Fitzgerald Avenue Intersection – New Traffic Controls
 - a. Approve the road marking changes, kerb alignment changes and road surface changes at the intersection of Ferry Road and Fitzgerald Avenue as detailed on **Attachment A**.
 - b. Approve that the intersection of Ferry Road and Fitzgerald Avenue be controlled by traffic signals in accordance with the Land Transport Act - Traffic Control Devices Rule: 2004 as detailed on **Attachment A**.
 - c. Approve that right turn movement for all motorised vehicles, including cycles be prohibited from the Ferry Road west approach into Fitzgerald Avenue.
 - d. Approve that the right turn movements for all motorised vehicles, including cycles be prohibited from both of the Fitzgerald Avenue approaches to Ferry Road.
18. Ferry Road (Fitzgerald Avenue to Phillips Street and Lancaster Street) – Existing Traffic Controls
 - a. Approve that all traffic controls on Ferry Road from its intersection with Fitzgerald Avenue and to its intersection with Phillips Street on the north side and Lancaster Street on the south side be revoked. *Note 1 applies.*
19. Ferry Road (Fitzgerald Avenue to Phillips Street and Lancaster Street) – Existing Parking and Stopping Restrictions
 - a. Approve that all existing parking and stopping restrictions on Ferry Road from its intersection with Fitzgerald Avenue to its intersection with Phillips Street on the north side and Lancaster Street on the south side be revoked. *Note 1 applies.*
20. Ferry Road (Fitzgerald Avenue to Phillips Street and Lancaster Street) – New Traffic Controls
 - a. Approve the road marking changes, kerb alignment changes, traffic island changes and road surface changes on Ferry Road, from its intersection with Fitzgerald Avenue to its intersection with Phillips Street on the north side and Lancaster Street on the south side as detailed on **Attachment A**. *Note 2 applies.*
 - b. Approve that a special vehicle lane for the use of eastbound cycles only, be established on the northern side of Ferry Road, commencing at its intersection with Ferry Road and extending in an easterly direction to its intersection with Phillips Street as detailed on **Attachment A**. This special vehicle lane is authorised under clause 18 of the CCC Traffic and Parking Bylaw 2017, and is therefore to be added to the Register of Roads and Traffic Lanes Restricted to Special Classes of Vehicles. *Note 2 applies.*
 - c. Approve that a special vehicle lane for the use of westbound cycles only, be established on the southern side of Ferry Road, commencing at its intersection with Lancaster Street and extending in a westerly direction to its intersection with Fitzgerald Avenue as detailed on **Attachment A**. This special vehicle lane is authorised under clause 18 of the CCC Traffic and Parking Bylaw 2017, and is therefore to be added to the Register of Roads and Traffic Lanes Restricted to Special Classes of Vehicles. *Note 2 applies.*
21. Ferry Road (Fitzgerald Avenue to Phillips Street and Lancaster Street) – New Parking and Stopping Restrictions
 - a. Approve that the stopping of vehicles be prohibited at any time on the northern side of Ferry Road, commencing at its intersection with Fitzgerald Avenue and extending in an easterly direction for a distance of 53 metres. *Note 2 applies.*
 - b. Approve that the parking of vehicles be restricted to a maximum period of 60 minutes on the northern side of Ferry Road, commencing at a point 53 metres east of its intersection with Fitzgerald Avenue, and extending in an easterly direction for a distance of 10 metres. This restriction is to apply Monday to Saturday between the hours of 8am to 6pm. *Note 2 applies.*

- c. Approve that the stopping of vehicles be prohibited at any time on the northern side of Ferry Road, commencing at a point 63 metres east of its intersection with Fitzgerald Avenue, and extending in an easterly direction for a distance of 14 metres. *Note 2 applies.*
- d. Approve that the parking of vehicles be restricted to a maximum period of 60 minutes on the northern side of Ferry Road, commencing at a point 77 metres east of its intersection with Fitzgerald Avenue, and extending in an easterly direction for a distance of 10 metres. This restriction is to apply Monday to Saturday between the hours of 8am to 6pm. *Note 2 applies.*
- e. Approve that the stopping of vehicles be prohibited at any time on the northern side of Ferry Road, commencing at a point 87 metres east of its intersection with Fitzgerald Avenue, and extending in an easterly direction for a distance of 16 metres. *Note 2 applies.*
- f. Approve that the parking of vehicles be restricted to a maximum period of 60 minutes on the northern side of Ferry Road, commencing at a point 103 metres east of its intersection with Fitzgerald Avenue, and extending in an easterly direction for a distance of 5 metres. This restriction is to apply Monday to Saturday between the hours of 8am to 6pm. *Note 2 applies.*
- g. Approve that the stopping of vehicles be prohibited at any time on the northern side of Ferry Road, commencing at a point 108 metres east of its intersection with Fitzgerald Avenue, and extending in an easterly direction for a distance of 18 metres. *Note 2 applies.*
- h. Approve that the parking of vehicles be restricted to a maximum period of 60 minutes on the northern side of Ferry Road, commencing at a point 126 metres east of its intersection with Fitzgerald Avenue, and extending in an easterly direction for a distance of 21 metres. This restriction is to apply Monday to Saturday between the hours of 8am to 6pm. *Note 2 applies.*
- i. Approve that the stopping of vehicles be prohibited at any time on the northern side of Ferry Road, commencing at a point 147 metres east of its intersection with Fitzgerald Avenue, and extending in an easterly direction for a distance of 13 metres. *Note 2 applies.*
- j. Approve that the parking of vehicles be restricted to a maximum period of 60 minutes on the northern side of Ferry Road, commencing at a point 160 metres east of its intersection with Fitzgerald Avenue, and extending in an easterly direction for a distance of 10 metres. This restriction is to apply Monday to Saturday between the hours of 8am to 6pm. *Note 2 applies.*
- k. Approve that the stopping of vehicles be prohibited at any time on the northern side of Ferry Road, commencing at a point 170 metres east of its intersection with Fitzgerald Avenue, and extending in an easterly direction for a distance of 33 metres. *Note 2 applies.*
- l. Approve that the parking of vehicles be restricted to a maximum period of 60 minutes on the northern side of Ferry Road, commencing at a point 203 metres east of its intersection with Fitzgerald Avenue, and extending in an easterly direction for a distance of 22 metres. This restriction is to apply Monday to Saturday between the hours of 8am to 6pm. *Note 2 applies.*
- m. Approve that the stopping of vehicles be prohibited at any time on the northern side of Ferry Road, commencing at its intersection with Phillips Street and extending in a westerly direction for a distance of 48 metres. *Note 2 applies.*
- n. Approve that the stopping of vehicles be prohibited at any time on the southern side of Ferry Road, commencing at its intersection with Fitzgerald Avenue, and extending in an easterly direction for a distance of 83 metres. *Note 2 applies.*

- o. Approve that the parking of vehicles be restricted to a maximum period of 60 minutes on the southern side of Ferry Road, commencing at a point 83 metres east of its intersection with Fitzgerald Avenue, and extending in an easterly direction for a distance of 22 metres. This restriction is to apply Monday to Saturday between the hours of 8am to 6pm. *Note 2 applies.*
- p. Approve that the stopping of vehicles be prohibited at any time on the southern side of Ferry Road, commencing at a point 105 metres east of its intersection with Fitzgerald Avenue, and extending in an easterly direction for a distance of 14 metres. *Note 2 applies.*
- q. Approve that the parking of vehicles be restricted to a maximum period of 60 minutes on the southern side of Ferry Road, commencing at a point 119 metres east of its intersection with Fitzgerald Avenue, and extending in an easterly direction for a distance of 10 metres. This restriction is to apply Monday to Saturday between the hours of 8am to 6pm. *Note 2 applies.*
- r. Approve that the stopping of vehicles be prohibited at any time on the southern side of Ferry Road, commencing at a point 129 metres east of its intersection with Fitzgerald Avenue, and extending in an easterly direction for a distance of 11 metres. *Note 2 applies.*
- s. Approve that the parking of vehicles be restricted to a maximum period of 60 minutes on the southern side of Ferry Road, commencing at a point 140 metres east of its intersection with Fitzgerald Avenue, and extending in an easterly direction for a distance of 10 metres. This restriction is to apply Monday to Saturday between the hours of 8am to 6pm. *Note 2 applies.*
- t. Approve that the stopping of vehicles be prohibited at any time on the southern side of Ferry Road, commencing at a point 150 metres east of its intersection with Fitzgerald Avenue, and extending in an easterly direction for a distance of 43 metres. *Note 2 applies.*
- u. Approve that the parking of vehicles be restricted to a maximum period of 60 minutes on the southern side of Ferry Road, commencing at a point 193 metres east of its intersection with Fitzgerald Avenue, and extending in an easterly direction for a distance of 10 metres. This restriction is to apply Monday to Saturday between the hours of 8am to 6pm. *Note 2 applies.*
- v. Approve that the stopping of vehicles be prohibited at any time on the southern side of Ferry Road, commencing at a point 70 metres west of its intersection with Lancaster Street, and extending in a westerly direction for a distance of 25 metres. *Note 2 applies.*
- w. Approve that the parking of vehicles be restricted to vehicles displaying a valid mobility parking permit on the southern side of Ferry Road, commencing at a point 64 metres west of its intersection with Lancaster Street, and extending in a westerly direction for a distance of 6 metres. *Note 2 applies.*
- x. Approve that the stopping of vehicles be prohibited at any time on the southern side of Ferry Road, commencing at a point 59 metres west of its intersection with Lancaster Street, and extending in a westerly direction for a distance of 5 metres. *Note 2 applies.*
- y. Approve that a bus stop be established on the southern side of Ferry Road commencing at a distance 45 metres west of its intersection with Lancaster Street, and extending in a westerly direction for a distance of 14 metres. *Note 2 applies.*
- z. Approve that the stopping of westbound vehicles be prohibited at any time on the southern side of Ferry Road, commencing at a point 20 metres west of its intersection with Lancaster Street, and extending in a westerly direction for a distance of 25 metres. *Note 2 applies.*

- aa. Approve that the parking of vehicles be restricted to a maximum period of 60 minutes on the southern side of Ferry Road, commencing at a point 15 metres west of its intersection with Lancaster Street, and extending in a westerly direction for a distance of 5 metres. This restriction is to apply Monday to Saturday between the hours of 8am to 6pm. *Note 2 applies.*
- bb. Approve that the stopping of vehicles be prohibited at any time on Ferry Road, commencing at its intersection with Lancaster Street and extending in a westerly direction for a distance of 15 metres. *Note 2 applies.*
- 22. Ferry Road / Phillips Street Intersection – Existing Traffic Controls
 - a. Approve that all existing traffic controls at the intersection of Ferry Road and Phillips Street be revoked.
- 23. Ferry Road / Phillips Street Intersection – New Traffic Controls
 - a. Approve the road marking changes, kerb alignment changes and road surface changes at the intersection of Ferry Road and Phillips Street as detailed on **Attachment A**.
 - b. Approve that a Give-Way control be placed against the Phillips Street southbound approach to its intersection with Ferry Road as detailed on **Attachment A**.
- 24. Phillips Street (Ferry Road to Northern Extent of the Project) – Existing Traffic Controls
 - a. Approve that all traffic controls on Phillips Street from its intersection with Ferry Road to a point 10 metres north of this intersection be revoked. *Note 1 applies.*
- 25. Phillips Street (Ferry Road to Northern Extent of the Project) – Existing Parking and Stopping Restrictions
 - a. Approve that all existing parking and stopping restrictions on Phillips Street from its intersection with Ferry Road to a point 10 metres north of this intersection be revoked. *Note 1 applies.*
- 26. Phillips Street (Ferry Road to Northern Extent of the Project) – New Traffic Controls
 - a. Approve the road marking changes, kerb alignment changes and road surface changes on Phillips Street, from its intersection with Ferry Road to a point 10 metres north of this intersection as detailed on **Attachment A**. *Note 2 applies.*
- 27. Phillips Street (Ferry Road to Northern Extent of the Project) – New Parking and Stopping Restrictions
 - a. Approve that the stopping of vehicles be prohibited at any time on the western side of Phillips Street, commencing at its intersection with Ferry Road and extending in a northerly direction for a distance of 10 metres. *Note 2 applies.*
 - b. Approve that the stopping of vehicles be prohibited at any time on the eastern side Phillips Street, commencing at its intersection with Ferry Road and extending in a northerly direction for a distance of 14 metres. *Note 2 applies.*
- 28. Ferry Road / Lancaster Street Intersection – Existing Traffic Controls
 - a. Approve that all existing traffic controls at the intersection of Ferry Road and Lancaster Street be revoked.
- 29. Ferry Road / Lancaster Street Intersection – New Traffic Controls
 - a. Approve the road marking changes, kerb alignment changes and road surface changes at the intersection of Ferry Road and Lancaster Street as detailed on **Attachment A**.
 - b. Approve that a Give-Way control be placed against the Lancaster Street northbound approach to its intersection with Ferry Road as detailed on **Attachment A**.

30. Lancaster Street (Ferry Road to Southern Extent of Project) – Existing Traffic Controls
 - a. Approve that all traffic controls on Lancaster Street from its intersection with Ferry Road to a point 22 metres south of this intersection be revoked. *Note 1 applies.*
31. Lancaster Street (Ferry Road to Southern Extent of Project) – Existing Parking and Stopping Restrictions
 - a. Approve that all existing parking and stopping restrictions on Lancaster Street from its intersection with Ferry Road to a point 22 metres south of this intersection be revoked. *Note 1 applies.*
32. Lancaster Street (Ferry Road to Southern Extent of Project) – New Traffic Controls
 - a. Approve the road marking changes, kerb alignment changes and road surface changes on Lancaster Street, from its intersection with Ferry Road to a point 22 metres south of this intersection as detailed on **Attachment A**. *Note 2 applies.*
33. Lancaster Street (Ferry Road to Southern Extent of Project) – New Parking and stopping Restrictions
 - a. Approve that the stopping of vehicles be prohibited at any time on the western side of Lancaster Street, commencing at its intersection with Ferry Road and extending in a southerly direction for a distance of 22 metres. *Note 2 applies.*
 - b. Approve that the stopping of vehicles be prohibited at any time on the eastern side of Lancaster Street, commencing at its intersection with Ferry Road and extending in a southerly direction for a distance of 22 metres. *Note 2 applies.*
34. Ferry Road (Phillips Street to Nursery Road and Lancaster Street to Moorhouse Avenue) – Existing Traffic Controls
 - a. Approve that all traffic controls on Ferry Road from its intersections with Phillips Street on the north side and Lancaster Street on the south side and extending in an easterly direction to its intersections with Nursery Road on the north side and Moorhouse Avenue on the south side be revoked.
35. Ferry Road (Phillips Street to Nursery Road and Lancaster Street to Moorhouse Avenue) – Existing Parking and Stopping Restrictions
 - a. Approve that all existing parking and stopping restrictions for vehicles on Ferry Road from its intersections with Phillips Street on the north side and Lancaster Street on the south side and extending in an easterly direction to its intersections with Nursery Road on the north side and Moorhouse Avenue on the south side be revoked.
36. Ferry Road (Phillips Street to Nursery Road and Lancaster Street to Moorhouse Avenue) – New Traffic Controls
 - a. Approve the road marking changes, kerb alignment changes, traffic island changes and new road surface changes on Ferry Road from its intersections with Phillips Street on the north side and Lancaster Street on the south side and extending in an easterly direction to its intersections with Nursery Road on the north side and Moorhouse Avenue on the south side as detailed on **Attachment A**.
 - b. Approve that a special vehicle lane for the use of eastbound cycles only, be established on the northern side of Ferry Road, commencing at its intersection with Phillips Street and extending in an easterly direction to its intersection with Nursery Road as detailed on **Attachment A**. This special vehicle lane is authorised under clause 18 of the CCC Traffic and Parking Bylaw 2017 and is therefore to be added to the Register of Roads and Traffic Lanes Restricted to Special Classes of Vehicles. *Note 2 applies.*

- c. Approve that a special vehicle lane for the use of westbound cycles only, be established on the southern side of Ferry Road, commencing at its intersection with Moorhouse Avenue and extending in a westerly direction to its intersection with Lancaster Street as detailed on **Attachment A**. This special vehicle lane is authorised under clause 18 of the CCC Traffic and Parking Bylaw 2017 and is therefore to be added to the Register of Roads and Traffic Lanes Restricted to Special Classes of Vehicles. *Note 2 applies.*
 - d. Approve that a pedestrian crossing be established across the eastbound cycle lane on the northern side of Ferry Road at a point 24 metres east of its intersection with Phillips Street as detailed on **Attachment A**. *Note 2 applies.*
 - e. Approve that a pedestrian crossing be established across the eastbound cycle lane on the northern side of Ferry Road at a point 32 metres east of its intersection with Phillips Street as detailed on **Attachment A**. *Note 2 applies.*
 - f. Approve that a bi-directional shared path for cyclists and pedestrians be established on the southern side of Ferry Road commencing at its intersection with Moorhouse Avenue and extending in a north westerly direction for a distance of 15 metres in accordance with sections 11.4 of the Land Transport Act - Traffic Control Devices Rule: 2004 as detailed in Attachment A.
37. Ferry Road (Phillips Street to Nursery Road and Lancaster Street to Moorhouse Avenue) – New Parking and Stopping Restrictions
- a. Approve that the stopping of vehicles be prohibited at any time on the northern side of Ferry Road, commencing at its intersection with Phillips Street and extending in an easterly direction for a distance of 19 metres. *Note 2 applies.*
 - b. Approve that a bus stop be established on the northern side of Ferry Road commencing at a distance 19 metres east of its intersection with Phillips Street, and extending in an easterly direction for a distance of 14 metres. *Note 2 applies.*
 - c. Approve that the stopping of vehicles be prohibited at any time on the northern side of Ferry Road, commencing at a point 33 metres east of its intersection with Phillips Street, and extending in an easterly direction for a distance of 28 metres. *Note 2 applies.*
 - d. Approve that the parking of vehicles be restricted to a maximum period of 60 minutes on the northern side of Ferry Road, commencing at a point 61 metres east of its intersection with Phillips Street, and extending in an easterly direction for a distance of 5 metres. This restriction is to apply Monday to Saturday between the hours of 8am to 6pm. *Note 2 applies.*
 - e. Approve that the stopping of vehicles be prohibited at any time on the northern side of Ferry Road, commencing at a point 66 metres east of its intersection with Phillips Street, and extending in an easterly direction for a distance of 14 metres. *Note 2 applies.*
 - f. Approve that the parking of vehicles be restricted to a maximum period of 60 minutes on the northern side of Ferry Road, commencing at a point 80 metres east of its intersection with Phillips Street, and extending in an easterly direction for a distance of 10 metres. This restriction is to apply Monday to Saturday between the hours of 8am to 6pm. *Note 2 applies.*
 - g. Approve that the stopping of vehicles be prohibited at any time on the northern side of Ferry Road, commencing at a point 90 metres east of its intersection with Phillips Street, and extending in an easterly direction for a distance of 32 metres. *Note 2 applies.*
 - h. Approve that the parking of vehicles be restricted to a maximum period of 60 minutes on the northern side of Ferry Road, commencing at a point 122 metres east of its intersection with Phillips Street, and extending in an easterly direction for a distance of 16 metres. This

restriction is to apply Monday to Saturday between the hours of 8am to 6pm. *Note 2 applies.*

- i. Approve that the stopping of vehicles be prohibited at any time on the north side of Ferry Road, commencing at a point 138 metres east of its intersection with Phillips Street, and extending in an easterly direction to its intersection with Nursery Road. *Note 2 applies.*
 - j. Approve that the stopping of vehicles be prohibited at any time on the southern side of Ferry Road, commencing at its intersection with Lancaster Street and extending in an easterly direction for a distance of 25 metres. *Note 2 applies.*
 - k. Approve that the parking of vehicles be restricted to a maximum period of 60 minutes on the southern side of Ferry Road, commencing at a point 25 metres east of its intersection with Lancaster Street, and extending in an easterly direction for a distance of 5 metres. This restriction is to apply Monday to Saturday between the hours of 8am to 6pm. *Note 2 applies.*
 - l. Approve that the stopping of vehicles be prohibited at any time on the southern side of Ferry Road, commencing at a point 30 metres east of its intersection with Lancaster Street, and extending in an easterly direction for a distance of 25 metres. *Note 2 applies.*
 - m. Approve that the parking of vehicles be restricted to a maximum period of 60 minutes on the southern side of Ferry Road, commencing at a point 55 metres east of its intersection with Lancaster Street, and extending in an easterly direction for a distance of 5 metres. This restriction is to apply Monday to Saturday between the hours of 8am to 6pm. *Note 2 applies.*
 - n. Approve that the stopping of vehicles be prohibited at any time on the southern side of Ferry Road, commencing at a point 60 metres east of its intersection with Lancaster Street, and extending in an easterly direction for a distance of 15 metres. *Note 2 applies.*
 - o. Approve that the parking of vehicles be restricted to a maximum period of 60 minutes on the southern side of Ferry Road, commencing at a point 75 metres east of its intersection with Lancaster Street, and extending in an easterly direction for a distance of 5 metres. This restriction is to apply Monday to Saturday between the hours of 8am to 6pm. *Note 2 applies.*
 - p. Approve that the stopping of vehicles be prohibited at any time on the southern side of Ferry Road, commencing at a point 80 metres east of its intersection with Lancaster Street, and extending in an easterly direction for a distance of 15 metres. *Note 2 applies.*
 - q. Approve that the parking of vehicles be restricted to a maximum period of 60 minutes on the southern side of Ferry Road, commencing at a point 95 metres east of its intersection with Lancaster Street, and extending in an easterly direction for a distance of 22 metres. This restriction is to apply Monday to Saturday between the hours of 8am to 6pm. *Note 2 applies.*
 - r. Approve that the stopping of vehicles be prohibited at any time on the southern side of Ferry Road, commencing at a point 117 metres east of its intersection with Lancaster Street, and extending in an easterly direction to its intersection with Moorhouse Avenue. *Note 2 applies.*
38. Ferry Road / Nursery Road Intersection – Existing Traffic Controls
- a. Approve that all existing traffic controls at the intersection of Ferry Road and Nursery Road be revoked.
39. Ferry Road / Nursery Road Intersection – New Traffic Controls

- a. Approve the road marking changes, kerb alignment changes, traffic islands and road surface changes at the intersection of Ferry Road and Nursery Road as detailed on **Attachment A**.
- b. Approve that a Give-Way control be placed against the Nursery Road southbound approach to its intersection with Ferry Road as detailed on **Attachment A**.
- 40. Nursery Road (Ferry Road to Northern Extent of the Project) – Existing Traffic Controls
 - a. Approve that all traffic controls on Nursery Road from its intersection with Ferry Road to a point 20 metres north of this intersection be revoked. *Note 1 applies*.
- 41. Nursery Road (Ferry Road to Northern Extent of the Project) – Existing Parking and Stopping Restrictions.
 - a. Approve that all existing parking and stopping restrictions on Nursery Road from its intersection with Ferry Road and to a point 20 metres north of this intersection be revoked. *Note 1 applies*.
- 42. Nursery Road (Ferry Road to Northern Extent of the Project) – New Traffic Controls
 - a. Approve the road marking changes, kerb alignment changes, traffic island changes and road surface changes on Nursery Road, from its intersection with Ferry Road to a point 20 metres north of this intersection as detailed on **Attachment A**. *Note 2 applies*.
- 43. Nursery Road (Ferry Road to Northern Extent of the Project) – New Parking and Stopping Restrictions
 - a. Approve that the stopping of vehicles be prohibited at any time on the western side of Nursery Road, commencing at its intersection with Ferry Road and extending in a northerly direction for a distance of 20 metres. *Note 2 applies*.
 - b. Approve that the stopping of vehicles be prohibited at any time on the eastern side of Nursery Road, commencing at its intersection with Ferry Road and extending in a northerly direction for a distance of 20 metres. *Note 2 applies*.
- 44. Ferry Road (Nursery Road to Ferry Road) – Existing Traffic Controls
 - a. Approve that all traffic controls on Ferry Road from its intersection with Nursery Road to its intersection with Ferry Road (east) / Moorhouse Avenue be revoked. *Note 1 applies*.
- 45. Ferry Road (Nursery Road to Ferry Road) – Existing Parking and Stopping Restrictions
 - a. Approve that all existing parking and stopping restrictions for vehicles on Ferry Road from its intersection with Nursery Road to its intersection with Ferry Road (east) / Moorhouse Avenue be revoked. *Note 1 applies*.
- 46. Ferry Road (Nursery Road to Ferry Road) – New Traffic Controls
 - a. Approve the road marking changes, kerb alignment changes and road surface changes on Ferry Road from its intersection with Nursery Road to its intersection with Ferry Road (east) / Moorhouse Avenue as detailed on **Attachment A**.
 - b. Approve that a bi-directional shared path for cyclists and pedestrians be established on the northern side of Ferry Road commencing at its intersection with Nursery Road and extending in a south easterly direction to its intersection with Ferry Road (east) / Moorhouse Avenue in accordance with sections 11.4 of the Land Transport Act - Traffic Control Devices Rule: 2004 as detailed in Attachment A.
- 47. Ferry Road (Nursery Road to Ferry Road) – New Parking and Stopping Restrictions

- a. Approve that the stopping of vehicles be prohibited at any time on Ferry Road, commencing at its intersection with Nursery Road and extending to its intersection with Ferry Road (east) / Moorhouse Avenue.
- 48. Ferry Road / Moorhouse Avenue / Wilsons Road Intersection – Existing Traffic Controls
 - a. Approve that all traffic controls including traffic signals at the intersection of Ferry Road, Moorhouse Avenue and Wilsons Road be revoked.
- 49. Ferry Road / Moorhouse Avenue / Wilsons Road Intersection – New Traffic Controls
 - a. Approve the road marking changes, kerb alignment changes and road surface changes at the intersection of Ferry Road, Moorhouse Avenue and Wilsons Road as detailed on **Attachment A**.
 - b. Approve that the intersection of Ferry Road, Moorhouse Avenue and Wilsons Road be controlled by traffic signals in accordance with the Land Transport Act - Traffic Control Devices Rule: 2004 as detailed on **Attachment A**.
- 50. Moorhouse Avenue (Ferry Road to Western Extent of Project) – Existing Traffic Controls
 - a. Approve that all traffic controls on Moorhouse Avenue from its intersection with Wilsons Road to a point 42 metres west of this intersection be revoked. *Note 1 applies.*
- 51. Moorhouse Avenue (Ferry Road to Western Extent of Project) – Existing parking and Stopping Restrictions.
 - a. Approve that all existing parking and stopping restrictions on Moorhouse Avenue from its intersection with Wilsons Road to a point 42 metres west of this intersection be revoked. *Note 1 applies.*
- 52. Moorhouse Avenue (Ferry Road to Western Extent of Project) – New Traffic Controls
 - a. Approve the road marking changes, kerb alignment changes, traffic islands and road surface changes on Moorhouse Avenue from its intersection with Wilsons Road to a point 42 metres west of this intersection as detailed on **Attachment A**. *Note 2 applies.*
- 53. Moorhouse Avenue (Ferry Road to Western Extent of Project) – New Parking and Stopping Restrictions
 - a. Approve that the stopping of vehicles be prohibited at any time on the northern side of Moorhouse Avenue, commencing at its intersection with Ferry Road and extending in a westerly direction for a distance of 28 metres. *Note 2 applies.*
 - b. Approve that the stopping of vehicles be prohibited at any time on the southern side of Moorhouse Avenue, commencing at its intersection with Wilson Road and extending in a westerly direction for a distance of 27 metres. *Note 2 applies.*
- 54. Ferry Road (Wilsons Road to Eastern Extent of Project) – Existing Traffic Controls
 - a. Approve that all traffic controls on Ferry Road from its intersection with Wilson Road to a point 54 metres east of this intersection be revoked. *Note 1 applies.*
- 55. Ferry Road (Wilsons Road to Eastern Extent of Project) – Existing Parking and Stopping Restrictions
 - a. Approve that all existing parking and stopping restrictions for vehicles on Ferry Road from its intersection with Wilson Road to a point 54 metres east of this intersection be revoked. *Note 1 applies.*
- 56. Ferry Road (Wilsons Road to Eastern Extent of Project) – New Traffic Controls

- a. Approve the road marking changes, kerb alignment changes, traffic islands and road surface changes on Ferry Road, from its intersection with Wilson Road to a point 54 metres east of this intersection as detailed on **Attachment A**. *Note 1 applies.*
 - b. Approve that a special vehicle lane for the use of eastbound cycles only, be established on the northern side of Ferry Road, commencing at its intersection with Ferry Road (west) and extending in an easterly direction for a distance of 70 metres as detailed on **Attachment A**. This special vehicle lane is authorised under clause 18 of the CCC Traffic and Parking Bylaw 2017 and is therefore to be added to the Register of Roads and Traffic Lanes Restricted to Special Classes of Vehicles. *Note 2 applies.*
 - c. Approve that a special vehicle lane for the use of westbound cycles only, be established on the southern side of Ferry Road, commencing at a point 54 metres east of its intersection with Wilsons Road and extending in a westerly direction for a distance of 54 metres as detailed on **Attachment A**. This special vehicle lane is authorised under clause 18 of the CCC Traffic and Parking Bylaw 2017 and is therefore to be added to the Register of Roads and Traffic Lanes Restricted to Special Classes of Vehicles. *Note 2 applies.*
57. Ferry Road (Wilsons Road to Eastern Extent of Project) – New Parking and Stopping Restrictions
- a. Approve that the stopping of vehicles be prohibited at any time on the northern side of Ferry Road, commencing at its intersection with Ferry Road (west) and extending in an easterly direction for a distance of 70 metres. *Note 2 applies.*
 - b. Approve that the stopping of vehicles be prohibited at any time on the southern side of Ferry Road, commencing at its intersection with Wilsons Road and extending in an easterly direction for a distance of 42 metres. *Note 2 applies.*
58. Wilsons Road (Moorhouse Avenue to Stevens Street) – Existing Traffic Controls
- a. Approve that all existing traffic controls on Wilsons Road from its intersection with Ferry Road / Moorhouse Avenue to its intersection with Stevens Street be revoked.
59. Wilsons Road (Moorhouse Avenue to Stevens Street) – Existing Parking and Stopping Restrictions
- a. Approve that all existing parking and stopping restrictions for vehicles on Wilsons Road from its intersection with Ferry Road / Moorhouse Avenue to its intersection with Stevens Street be revoked.
60. Wilsons Road (Moorhouse Avenue to Stevens Street) – New Traffic Controls
- a. Approve the road marking changes, kerb alignment changes, traffic islands and road surface changes on Wilsons Road, from its intersection with Ferry Road / Moorhouse Avenue to its intersection with Stevens Street as detailed on **Attachment A**.
 - b. Approve that a special vehicle lane for the use of southbound cycles only, be established on the eastern side of Wilsons Road, commencing at its intersection with Ferry Road and extending in southerly direction to its intersection with Stevens Street as detailed on **Attachment A**. This special vehicle lane is authorised under clause 18 of the CCC Traffic and Parking Bylaw 2017 and is therefore to be added to the Register of Roads and Traffic Lanes Restricted to Special Classes of Vehicles.
 - c. Approve that a bi-directional shared path for cyclists and pedestrians be established on the western side of Wilsons Road commencing at its intersection with Moorhouse Avenue and extending in a southerly direction for a distance of 24 metres in accordance with sections 11.4 of the Land Transport Act - Traffic Control Devices Rule: 2004 as detailed in Attachment A. *Note 2 applies.*

- d. Approve that a special vehicle lane for the use of northbound cycles only, be established on the western side of Wilsons Road, commencing at its intersection with Stevens Street and extending in northerly direction to a point 24 metres south of its intersection with Moorhouse Avenue as detailed on **Attachment A**. This special vehicle lane is authorised under clause 18 of the CCC Traffic and Parking Bylaw 2017 and is therefore to be added to the Register of Roads and Traffic Lanes Restricted to Special Classes of Vehicles. *Note 2 applies.*
- 61. Wilsons Road (Moorhouse Avenue to Stevens Street) – New Parking and Stopping Restrictions
 - a. Approve that the stopping of vehicles be prohibited at any time on both sides of Wilsons Road, commencing at its intersection with Moorhouse Avenue and extending to its intersection with Stevens Street.
- 62. Stevens Street / Wilsons Road Intersection – Existing Traffic Controls
 - a. Approve that all existing traffic controls at the intersection of Stevens Street and Wilsons Road be revoked.
- 63. Stevens Street / Wilsons Road Intersection – New Traffic controls
 - a. Approve the road marking changes, kerb alignment changes, traffic islands and road surface changes at the intersection of Stevens Street and Wilsons Road as detailed on **Attachment A**.
 - b. Approve that a Give-Way control be placed against the Stevens Street eastbound approach to its intersection with Wilsons Road as detailed on **Attachment A**.
- 64. Stevens Street (Wilsons Road to Western Extent of Project) – Existing Traffic Controls
 - a. Approve that all traffic controls on Stevens Street from its intersection with Wilsons Road to a point 28 metres west of this intersection be revoked. *Note 1 applies.*
- 65. Stevens Street (Wilsons Road to Western Extent of Project) – Existing Parking and Stopping Restrictions.
 - a. Approve that all existing parking and stopping restrictions on Stevens Street from its intersection with Wilsons Road and to a point 28 metres west of this intersection be revoked. *Note 1 applies.*
- 66. Stevens Street (Wilsons Road to Western Extent of Project) – New Traffic Controls
 - a. Approve the road marking changes, kerb alignment changes, road humps and road surface changes on Stevens Street, from its intersection with Wilsons Road to a point 28 metres west of this intersection as detailed on **Attachment A**. *Note 2 applies.*
- 67. Stevens Street (Wilsons Road to Western Extent of Project) – New Parking and Stopping Restrictions.
 - a. Approve that the stopping of vehicles be prohibited at any time on the northern side of Stevens Street, commencing at its intersection with Wilsons Road and extending in a westerly direction for a distance of 20 metres. *Note 2 applies.*
 - b. Approve that the stopping of vehicles be prohibited at any time on the southern side of Stevens Street, commencing at its intersection with Wilsons Road and extending in a westerly direction for a distance of 20 metres. *Note 2 applies.*
- 68. Wilsons Road (Stevens Street to Charles Street) – Existing Traffic Controls
 - a. Approve that all traffic controls on Wilsons Road from its intersection with Stevens Street to its intersection with Charles Street be revoked.
- 69. Wilsons Road (Stevens Street to Charles Street) – Existing Parking and Stopping Restrictions

- a. Approve that all existing parking and stopping restrictions on Wilsons Road from its intersection with Stevens Street and to its intersection with Charles Street be revoked.
70. Wilsons Road (Stevens Street to Charles Street) – New Traffic Controls
- a. Approve the road marking changes, kerb alignment changes and road surface changes on Wilsons Road, from its intersection with Stevens Street to its intersection with Charles Street as detailed on **Attachment A**.
 - b. Approve that a special vehicle lane for the use of northbound cycles only, be established on the western side of Wilsons Road, commencing at a point 45 metres south of its intersection with Stevens Street and extending in northerly direction to this intersection as detailed on **Attachment A**. This special vehicle lane is authorised under clause 18 of the CCC Traffic and Parking Bylaw 2017 and is therefore to be added to the Register of Roads and Traffic Lanes Restricted to Special Classes of Vehicles. *Note 2 applies.*
 - c. Approve that a bi-directional shared path for cyclists and pedestrians be established on the western side of Wilsons Road commencing at a point 45 metres south of its intersection with Stevens Street and extending in a southerly direction to its intersection with Charles Street in accordance with sections 11.4 of the Land Transport Act - Traffic Control Devices Rule: 2004 as detailed in Attachment A. *Note 2 applies.*
 - d. Approve that a special vehicle lane for the use of southbound cycles only, be established on the eastern side of Wilsons Road, commencing at its intersection with Stevens Street and extending in southerly direction to its intersection with Charles Street as detailed on **Attachment A**. This special vehicle lane is authorised under clause 18 of the CCC Traffic and Parking Bylaw 2017 and is therefore to be added to the Register of Roads and Traffic Lanes Restricted to Special Classes of Vehicles. *Note 2 applies.*
 - e. Approve that a bi-directional shared path for cyclists and pedestrians be established on the eastern side of Wilsons Road commencing at its intersection with Charles Street and extending in a northerly direction for a distance of 28 metres in accordance with sections 11.4 of the Land Transport Act - Traffic Control Devices Rule: 2004 as detailed in Attachment A. *Note 2 applies.*
 - f. Approve that a Give Way control be placed against the Wilsons Road southbound cyclists, and that this Give Way control be located at a point 28 metres north of the intersection with Charles Street to require the southbound cyclists exiting the Wilsons Road cycle lane to give way to pedestrians and cyclists using pedestrian/cycle pathway on the east side of Wilsons Road. This Give Way control is detailed on **Attachment A**. *Note 2 applies.*
 - g. Approve that a signalised pedestrian crossing be installed on Wilsons Road, with the centre of the crossing located 16 metres north of its intersection with Charles Street. This crossing facility is to be installed in accordance with section 8.5 (1) of the Land Transport Act - Traffic Control Devices Rule: 2004, as detailed on **Attachment A**. *Note 2 applies.*
 - h. Approve that a signalised cycle crossing be installed on Wilsons Road, with the centre of the crossing located 12 metres north of its intersection with Charles Street in accordance with section 11.5 (5) of the Land Transport Act - Traffic Control Devices Rule: 2004, as detailed on **Attachment A**. *Note 2 applies.*
71. Wilsons Road (Stevens Street to Charles Street) – New Parking and Stopping restrictions
- a. Approve that the stopping of vehicles be prohibited at any time on the western side of Wilsons Road, commencing at its intersection with Stevens Street and extending in a southerly direction for a distance of 40 metres. *Note 2 applies.*

- b. Approve that the stopping of vehicles be prohibited at any time on the western side of Wilsons Road, commencing at a point 179 metres south of its intersection with Stevens Street and extending in a southerly direction for a distance of 56 metres. *Note 2 applies.*
 - c. Approve that the stopping of vehicles be prohibited at any time on the eastern side of Wilsons Road, commencing at its intersection with Stevens Street and extending to its intersection with Charles Street.
- 72. Charles Street / Wilsons Road Intersection – Existing Traffic Controls
 - a. Approve that all existing traffic controls at the intersection of Charles Street and Wilsons Road be revoked.
- 73. Charles Street / Wilsons Road Intersection – New Traffic Controls
 - a. Approve the road marking changes, kerb alignment changes and road surface changes at the intersection of Charles Street and Wilsons Road as detailed on **Attachment A**.
 - b. Approve that a Give-Way control be placed against the Charles Street westbound approach to its intersection with Wilsons Road as detailed on **Attachment A**.
- 74. Wilsons Road (Charles Street to Southern Extent of Project) – Existing Traffic Controls
 - a. Approve that all traffic controls on Wilsons Road from its intersection with Charles Street to a point 19 metres south of its intersection with Charles Street be revoked. *Note 1 applies.*
- 75. Wilsons Road (Charles Street to Southern Extent of Project) – Existing Parking and Stopping Restrictions
 - a. Approve that all existing parking and stopping restrictions on Wilsons Road from its intersection with Charles Street to a point 19 metres south of this intersection be revoked. *Note 1 applies.*
- 76. Wilsons Road (Charles Street to Southern Extent of Project) – New Traffic controls
 - a. Approve the road marking changes, kerb alignment changes and road surface changes on Wilsons Road, from its intersection with Charles Street to a point 19 metres south of this intersection as detailed on **Attachment A**. *Note 2 applies.*
 - b. Approve that a Give Way control be placed against the Wilsons Road northbound cyclists, and that this Give Way control be located at a point 12 metres south of the intersection with Charles Street to require the northbound cyclists exiting Wilsons Road to give way to pedestrians and cyclists using pedestrian/cycle pathway on the west side of Wilsons Road. This Give Way control is detailed on **Attachment A**. *Note 2 applies.*
 - c. Approve that a special vehicle lane for the use of southbound cycles only, be established on the eastern side of Wilsons Road, commencing at its intersection with Charles Street and extending in southerly direction for a distance of 19 metres as detailed on **Attachment A**. This special vehicle lane is authorised under clause 18 of the CCC Traffic and Parking Bylaw 2017 and is therefore to be added to the Register of Roads and Traffic Lanes Restricted to Special Classes of Vehicles. *Note 2 applies.*
 - d. Approve that a bi-directional shared path for cyclists and pedestrians be established on the eastern side of Wilsons Road commencing at its intersection with Charles Street and extending in a southerly direction for a distance of 12 metres in accordance with sections 11.4 of the Land Transport Act - Traffic Control Devices Rule: 2004 as detailed in Attachment A. *Note 2 applies.*
 - e. Approve that a Give Way control be placed against the Wilsons Road southbound cyclists travelling on the bi-directional shared path, and that this Give Way control be located at a

point 12 metres south of the intersection with Charles Street to require the southbound cyclists to give way to other traffic on Wilsons Road. This Give Way control is detailed on **Attachment A. Note 2 applies.**

77. Wilsons Road (Charles Street to Southern Extent of Project) – New Parking and Stopping Restrictions
 - a. Approve that the stopping of vehicles be prohibited at any time on the eastern side of Wilsons Road, commencing at its intersection with Charles Street and extending in a southerly direction for a distance of 19 metres. *Note 2 applies.*
 - b. Approve that the stopping of vehicles be prohibited at any time on the western side of Wilsons Road, commencing at its intersection with Charles Street and extending in a southerly direction for a distance of 19 metres. *Note 2 applies.*
78. Charles Street (Wilsons Road to Eastern Extent of Project) – Existing Traffic Controls
 - a. Approve that all traffic controls on Charles Street from its intersection with Wilsons Road to a point 48 metres east of this intersection be revoked. *Note 1 applies.*
79. Charles Street (Wilsons Road to Eastern Extent of Project) – Existing Parking and Stopping Restrictions
 - a. Approve that all existing parking and stopping restrictions on Charles Street from its intersection with Wilsons Road and to a point 48 metres east of this intersection be revoked. *Note 1 applies.*
80. Charles Street (Wilsons Road to Eastern Extent of Project) – New Traffic Controls
 - a. Approve the road marking changes, kerb alignment changes, raised platforms and road surface changes on Charles Street, from its intersection with Wilsons Road to a point 50 metres east of this intersection as detailed on **Attachment A. Note 2 applies.**
 - b. Approve that a special vehicle lane for the use of bi-directional cycles, be established on the northern side of Charles Street, commencing at a point 7 metres east of its intersection with Wilsons Road and extending in an easterly direction for a distance of 29 metres as detailed on **Attachment A.** This special vehicle lane is authorised under clause 18 of the CCC Traffic and Parking Bylaw 2017 and is therefore to be added to the Register of Roads and Traffic Lanes Restricted to Special Classes of Vehicles. *Note 2 applies.*
 - c. Approve that a Give Way control be placed against westbound cyclists travelling on the bi-directional cycle path on the north side of Charles Street, and that this Give Way control be located at a point 7 metres east of its intersection with Wilsons Road to require the westbound cyclists to give way to pedestrians and cyclists using the shared pedestrian / cycle path on Wilsons Road. This Give Way control is detailed on **Attachment A. Note 2 applies.**
 - d. Approve that a Give Way control be placed against eastbound cyclists travelling on the cycle path on Charles Street, and that this Give Way control be located at a point 31 metres east of its intersection with Wilsons Road to require the eastbound cyclists to give way to other traffic on Charles Street. This Give Way control is detailed on **Attachment A. Note 2 applies.**
 - e. Approve that a bi-directional shared path for cyclists and pedestrians be established on the southern side of Charles Street commencing at its intersection with Wilsons Road and extending in an easterly direction for a distance of 29 metres in accordance with sections 11.4 of the Land Transport Act - Traffic Control Devices Rule: 2004 as detailed in **Attachment A. Note 2 applies.**



- f. Approve that a Give Way control be placed against westbound cyclists crossing Charles Street at the raised platform, and that this Give Way control be located at a point 24 metres east of its intersection with Wilsons Road to require the eastbound cyclists to give way to other traffic on Charles Street. This Give Way control is detailed on **Attachment A**. *Note 2 applies.*
- 81. Charles Street (Wilsons Road to Eastern Extent of Project) – New Parking and Stopping Restrictions
 - a. Approve that the stopping of vehicles be prohibited at any time on the northern side of Charles Street, commencing at its intersection with Wilsons Road and extending in an easterly direction for a distance of 42 metres. *Note 2 applies.*
 - b. Approve that the stopping of vehicles be prohibited at any time on the southern side of Charles Street, commencing at its intersection with Wilsons Road and extending in an easterly direction for a distance of 40 metres. *Note 2 applies.*

3. Key Points

- 3.1 There are no changes between the approved design and these resolutions for the road, footpath and cycle facilities.
- 3.2 One change has been required and relates to tree removals (resolution 3).
 - 3.2.1 Following the completion of detailed design, it was assessed that one tree could be retained (3.2.2) and the removal of another tree needed to be switched (3.2.3).
 - 3.2.2 Tree 10 in the median island at the intersection of Fitzgerald Avenue and Ferry Road (picture below) can now be retained.

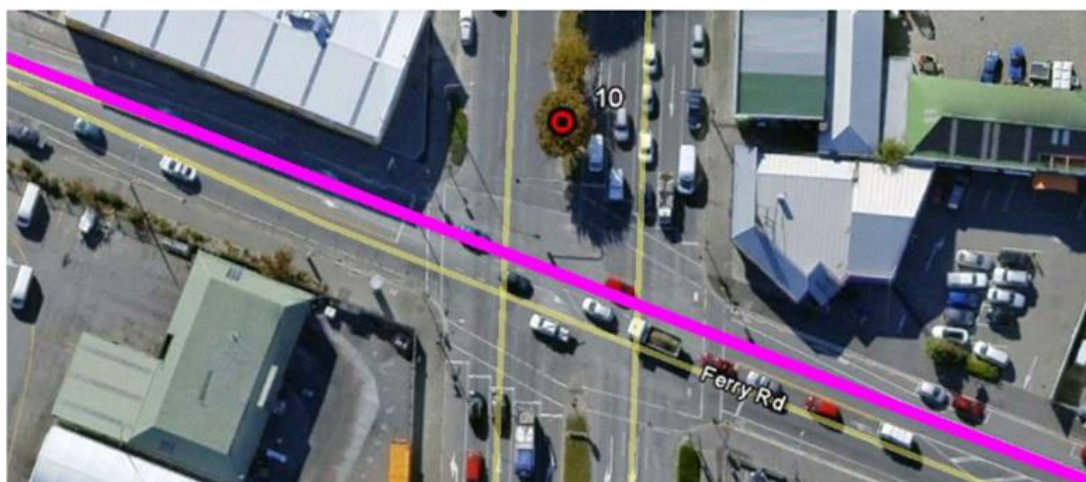
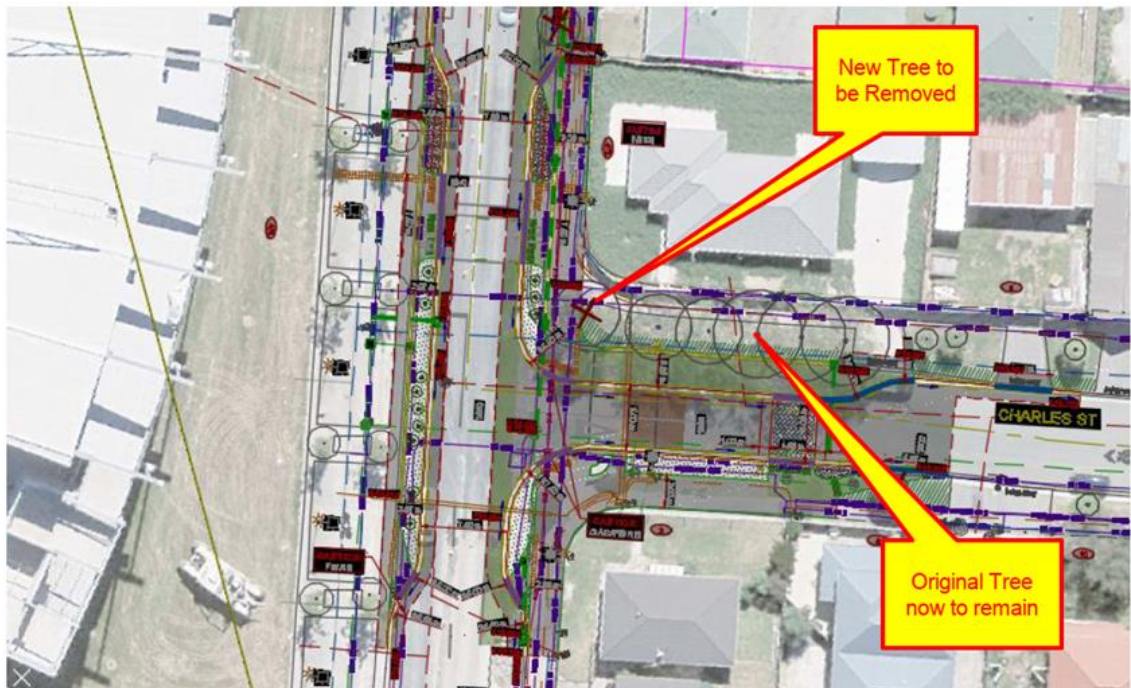


Figure 3-2: Fitzgerald Ave Tree (no longer needed to be removed)

- 3.2.3 Tree removal change on Charles street is indicated in the picture below.



Attachments

No.	Title	Page
A ↓	Attachment A	69
B ↓	Attachment B	75

Confirmation of Statutory Compliance

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

(a) This report contains:

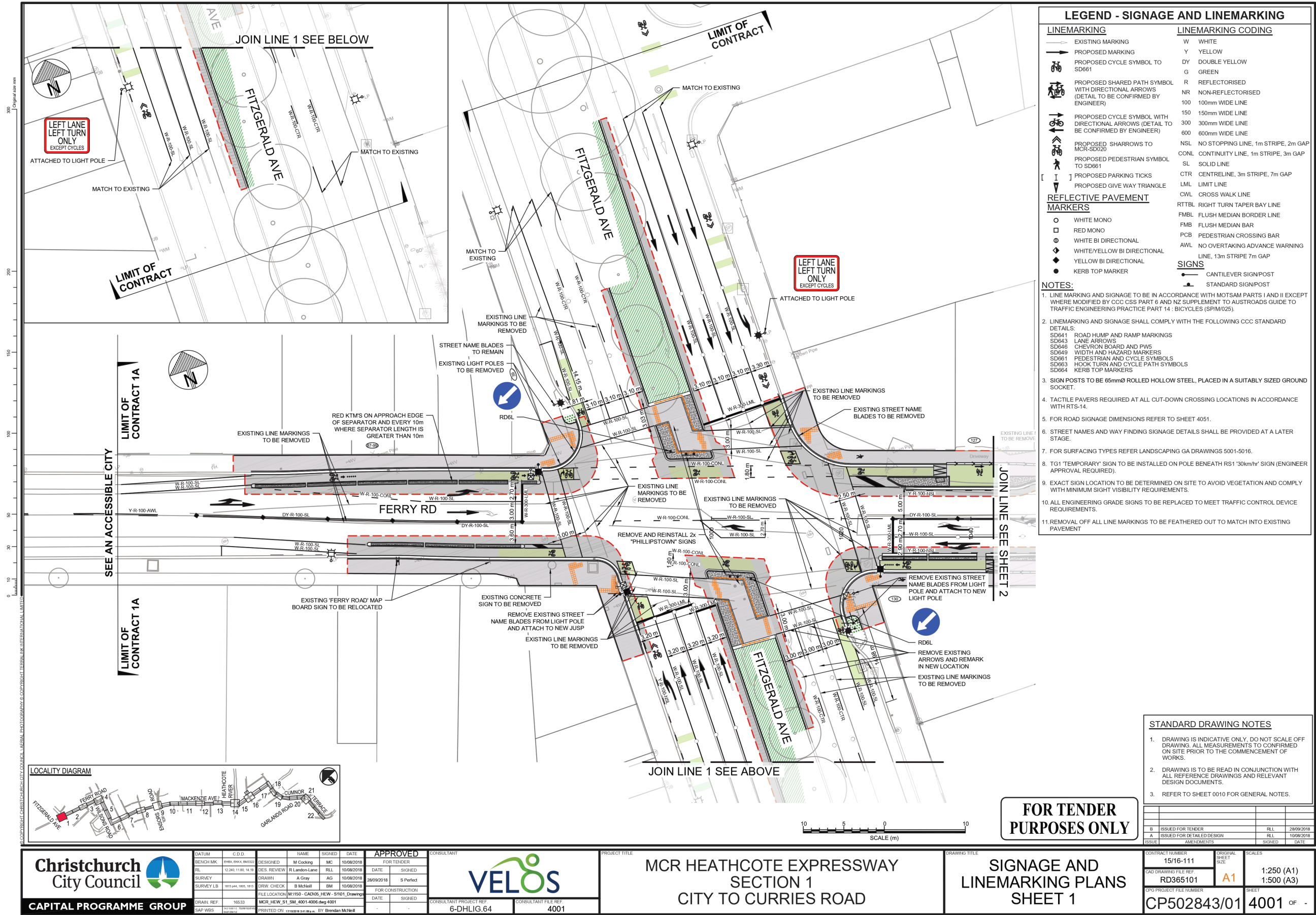
- (i) sufficient information about all reasonably practicable options identified and assessed in terms of their advantages and disadvantages; and
- (ii) adequate consideration of the views and preferences of affected and interested persons bearing in mind any proposed or previous community engagement.

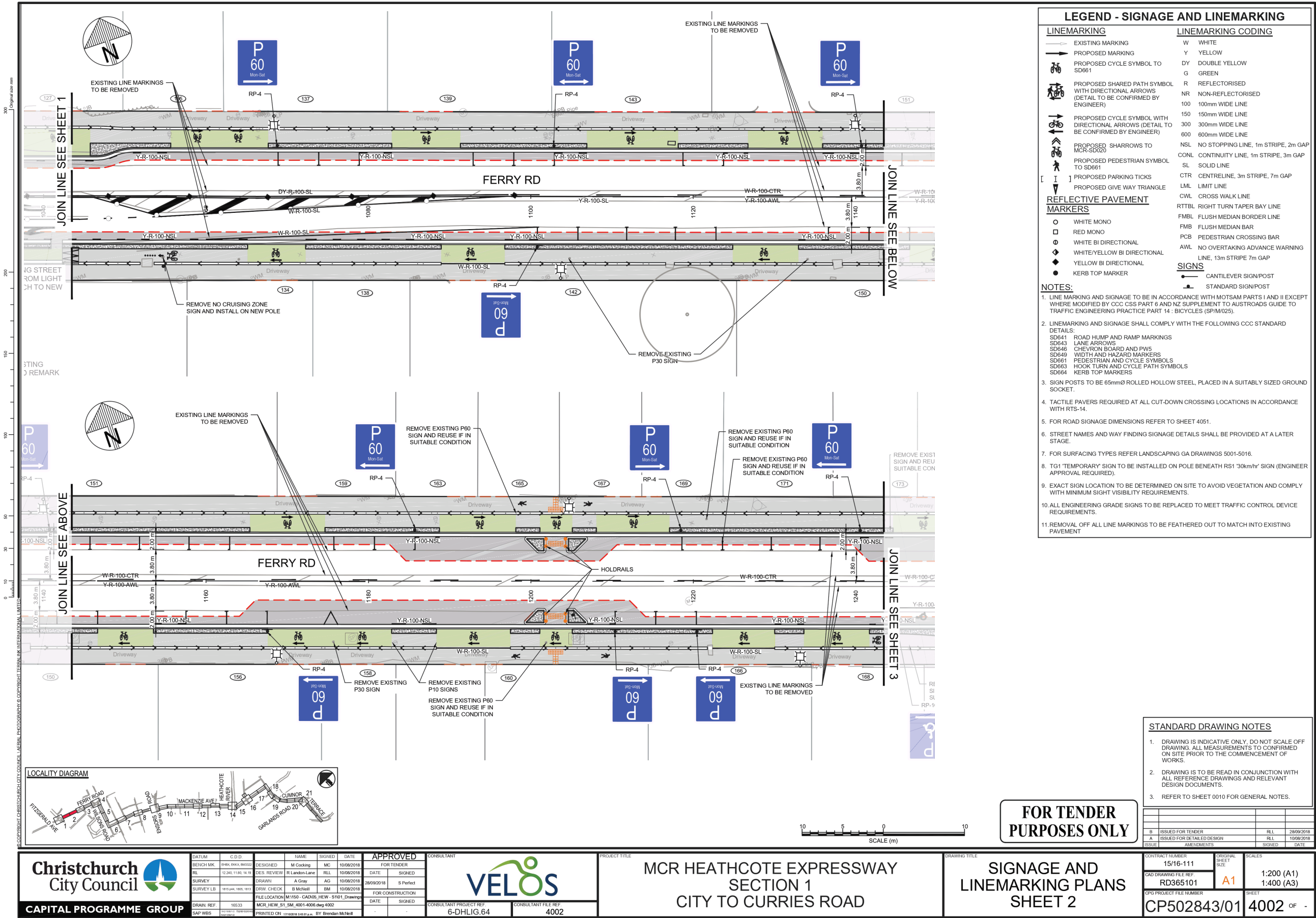
(b) The information reflects the level of significance of the matters covered by the report, as determined in accordance with the Council's significance and engagement policy.

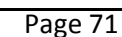
Signatories

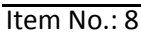
Author	Adrian Thein - Project Manager
Approved By	Clarrie Pearce - Senior Project Manager Lynette Ellis - Manager Planning and Delivery Transport Richard Osborne - Head of Transport David Adamson - General Manager City Services

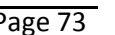
Item 8

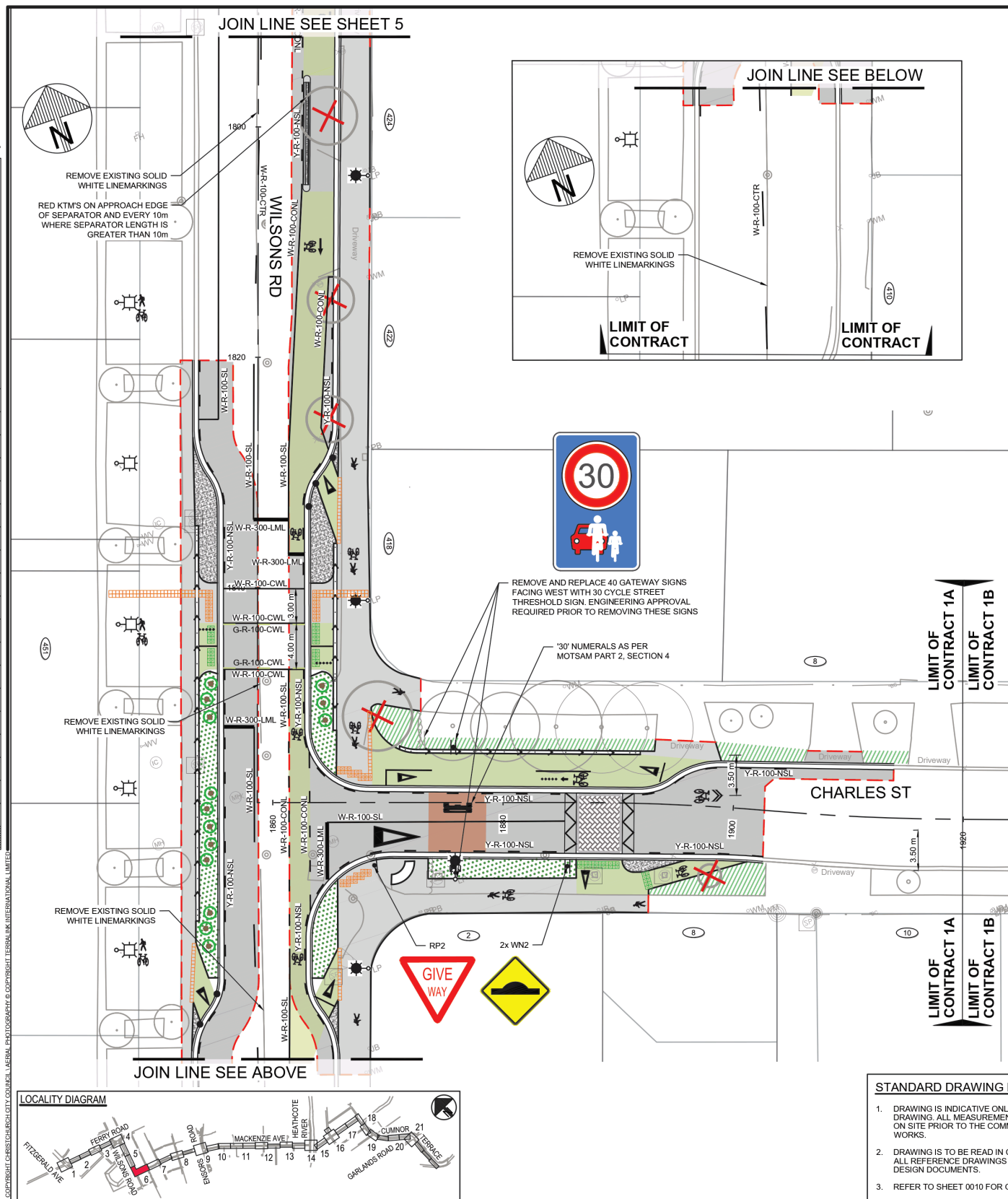












Memo

To: Clarrie Pearce
From: Richard Landon-Lane
cc:
Date: August 8, 2018
Re: Section 1A – Additional Tree Removal for detail design

1 Introduction

As part of the detailed design of the Heathcote Expressway Major Cycleway Route down Ferry Road & Wilsons Road, Some design tweaks have eventuated since the approved scheme plans. One of those design tweaks necessitates the removal of a particular tree on the corner of Wilsons & Charles Streets which was not previously identified for removal. The approximate location is shown in Figure 1-1 below.

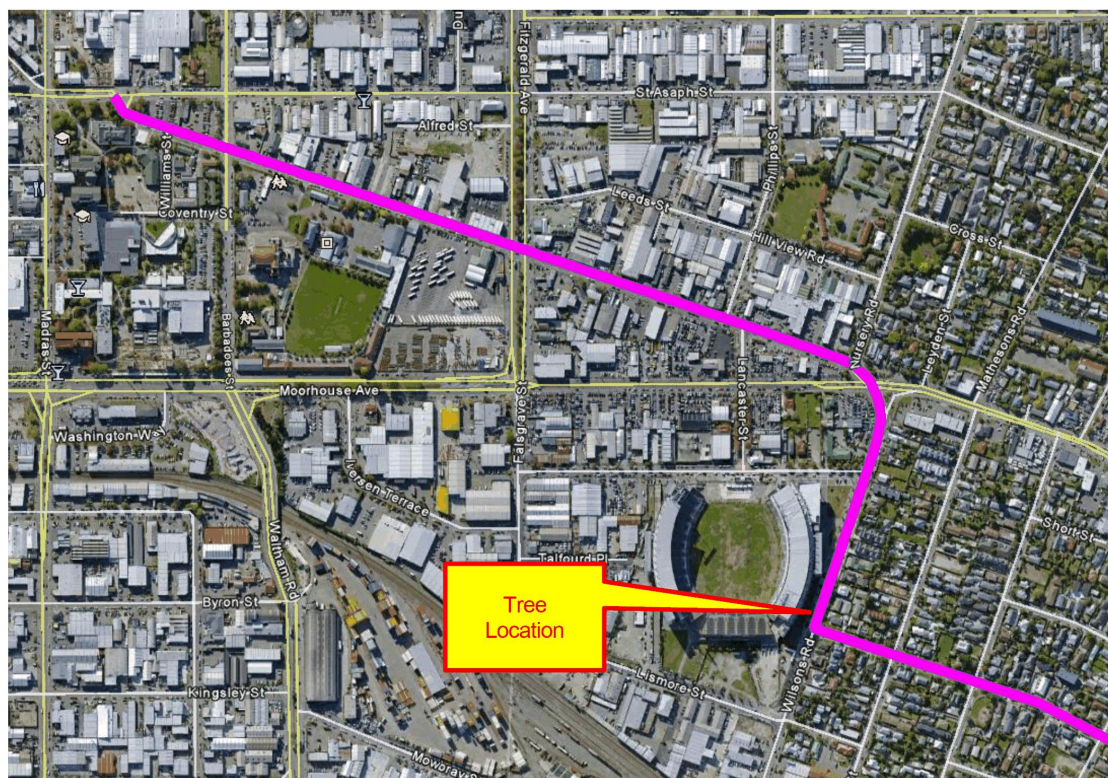


Figure 1-1: Section 1A Route

2 Approved Scheme Plan

At the corner of Wilsons Road & Charles Street, there is a cluster of six trees on Charles Street, the relevant street address is #418 Wilsons Road (See Figure 2-1 below).



Figure 2-1: Trees at Charles/Wilsons Corner

The original 2017 scheme approved by ITE showed a single tree to be removed (see Figure 2-2 below):

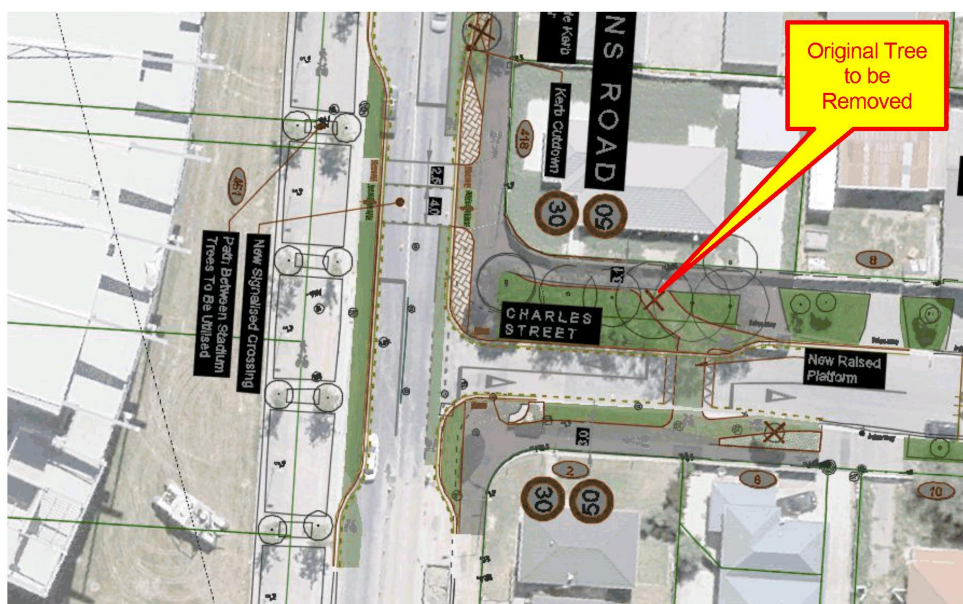


Figure 2-2: Approved Scheme

This particular tree removal was part of ten trees overall that were proposed to be removed as part of the section 1A construction (see Figure 3-2 below).

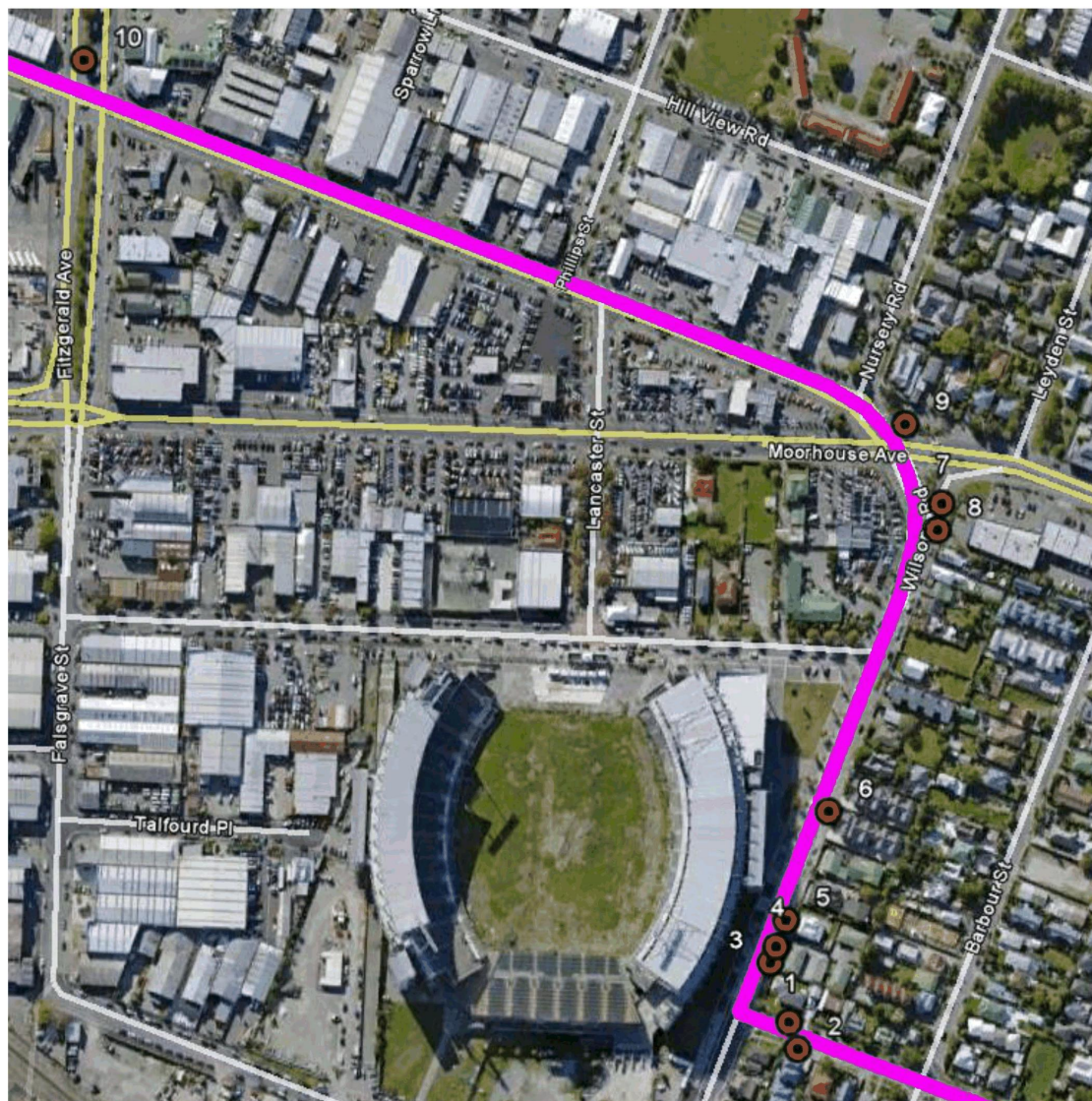


Figure 2-3:2017 ITE Approved Tree Removals

3 Detailed Design Plans

Following further work during the detailed design phase it became apparent that widening the existing footpath between the fence and the line of trees was problematic and required a complicated interpath drainage system, this would have risked the root structures of all six trees. A better solution was to create a new wider path on the road side of the trees, this would have the added benefit of improved sight lines for pedestrians at the corner.

A consequence of the design change was that a different tree needed to be removed (see Figure 3-1 below).

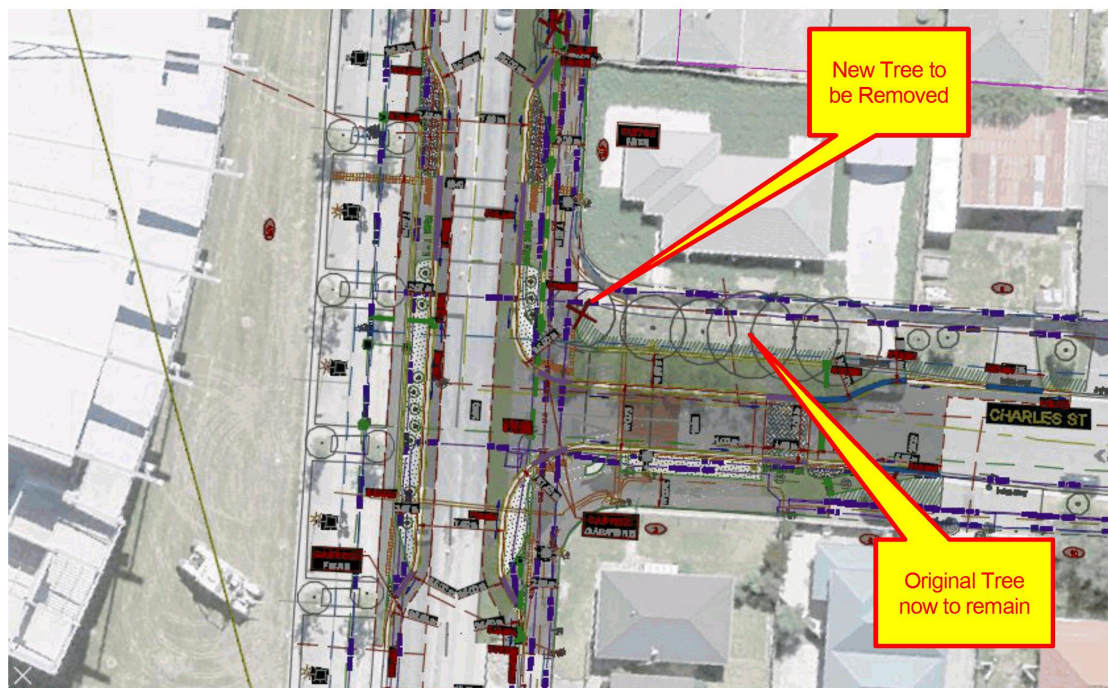


Figure 3-1: Detailed Design Layout

Overall, during the detailed design phase, the total number of trees to be removed reduced by one (from ten to nine). Kerb layout amendments meant the tree immediately to the north of the Fitzgerald/Ferry intersection was able to be kept (see Figure 3-2 Below).

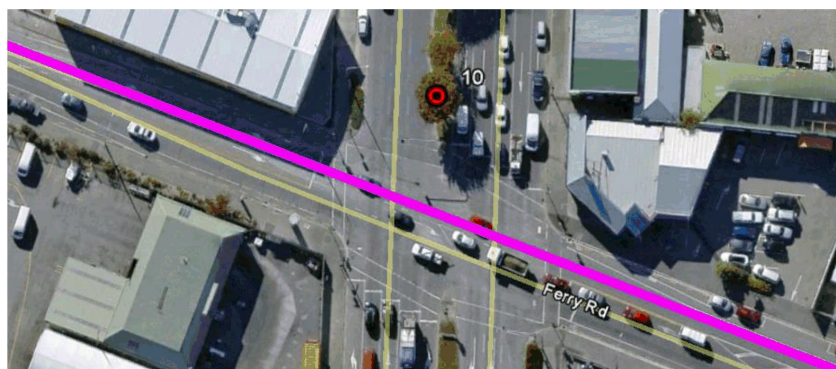


Figure 3-2: Fitzgerald Ave Tree (no longer needed to be removed)

4 Conclusion & Recommendation

Within Section 1A, there were originally ten trees proposed to be removed as part of the 2017 approved ITE plans. Including the fourth tree back (in a group of six) at the Wilsons/Charles corner.

During detailed design phase, to improve sight visibility for pedestrians & cyclists and to reduce costs for developing a complicated drainage system, the MCR was reconfigured to the other side of the tree group. This has resulted in a different tree now requiring removal.

It is recommended that the ITE committee approve the amended design, recognising that through the detailed design process, an additional tree (On Fitzgerald Ave) has been saved.

DECISION REGISTER	
Designer Recommendation	ITE to approve amended tree removal on Wilsons/ Charles Corner.
CCC Project Sponsor Decision	
ITE Approval	

9. Three Waters and Waste report - December/January

Reference: 19/71405

Presenter(s):

1. Purpose and Origin of Report

Purpose of Report

- 1.1 The purpose of this report is to inform the Infrastructure, Transport and Environment Committee of the activities undertaken by the Three Waters and Waste Unit, who are responsible for the planning, asset management, operations, maintenance and capital project delivery for all three waters and waste infrastructure. This includes drinking water, wastewater, stormwater, land drainage and solid waste services within the city.

Origin of Report

- 1.2 This report is staff generated at the request of the Infrastructure, Transport and Environment Committee to keep them up to date with the current status of the Three Water activities in Christchurch.

2. Significance

- 2.1 There are no decision(s) sought in this report and therefore the significance is low in relation to the Christchurch City Council's Significance and Engagement Policy.

3. Staff Recommendations

That the Infrastructure, Transport and Environment Committee:

1. [Receive the information in the Three Waters and Waste December/January report attached.](#)

4. Key Points

- 4.1 Overview of Three Waters and Waste Operations.
- 4.2 Progress update on temporary chlorination of Christchurch drinking water.

Attachments

No.	Title	Page
A ↓	ITE Report Three Waters and Waste - December 18 January 19	83

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

Author	John Mackie - Head of Three Waters and Waste
Approved By	Andrew Howe - Planning & Performance Advisor David Adamson - General Manager City Services



No. 1 Drain

Three Waters and Waste

DECEMBER 2018 – JANUARY 2019 REPORT

Trim 18/1360000

Christchurch City Council | January 2019

Item 9

Attachment A

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Overview

This report is intended to inform the Committee of the current progress against the planned activities in the Three Waters and Waste unit for the period ended 31 January 2019.

Consents and Compliance

There are currently no outstanding enforcement actions and no significant non-compliance orders although there are two issues that we continue to closely monitor.

- Organics Processing plant – during the year we have received several “non-compliance – no action required” reports from ECan, relating to an alleged chronic odour from the organics processing plant. We continue to work collaboratively with ECan staff to resolve these.
- Water take annual volume exceedance – PS1065 Woolston is a site where the daily abstraction has breached consent limits as a result of reconfiguring the networks to allow well head work to be carried out. Staff are working with ECan with a view to varying the consent to provide greater flexibility in the use of the three wells at this site.

Health and Safety

There were 102,145 hours worked in December (including Transport) with no medical treatment and no lost time injuries.

The first aid injuries contains a bee sting, cuts in fingers and sore backs.

Please see appendix 1 for the detailed statistics and the measures of LTIFR (lost time injury frequency rate) and TRIFR (total recordable injury frequency rate).

Finance

MANAGE TO BUDGET

Operating costs – The December forecast to completion is currently indicating a favourable position \$1.512M at year end but this is dependent on the approval of a carry forward of \$4.1m of dredging costs in the Heathcote River. If the carry forward is not approved, it will result in an unfavourable variance of \$2.6m for the year. Maintenance cost increases have been included in the current forecast in order to maintain current levels of service, however there is a risk that the costs could increase further due to increased chlorination costs and higher costs in maintaining wastewater networks and treatment operations. The contracted maintenance costs are being closely managed to minimise the financial impact on the unit. Trade waste revenue is down \$943k YTD due to lower volumes and chargeable solids. This is offset by revenue from the Burwood landfill which is \$586k higher than plan YTD. Revenue from trade waste is forecast to be \$1m below plan for the year, offset by revenue from the BRRP forecast to be \$1m above plan for the year.

Three Waters and Waste Unit Financial Report for month of December 2018							
Year to Date \$000's			Activity Summary	Year End \$000's			
Actual	Budget	Variance		Forecast	Budget	Variance	%
4,550	4,547	(2)	Recyclable Materials Kerbside Collection	9,196	9,188	(8)	0%
4,550	4,547	(2)	Recyclable Materials Collection & Processing	9,196	9,188	(8)	0%
2,807	2,696	(111)	Residual Waste Kerbside Collection	5,480	5,430	(50)	-1%
4,227	4,016	(211)	Residual Waste Disposal & Transport	8,415	8,294	(121)	-1%
142	175	33	Landfill Gas Capture & Treatment	333	350	17	5%
(188)	(210)	(22)	Refuse Transfer Stations	(720)	(728)	(8)	-1%
(1,009)	(243)	766	Operation & Care of Closed Landfills	(1,556)	(506)	1,049	207%
5,979	6,435	456	Residual Waste Collection & Disposal	11,952	12,840	888	7%
4,264	4,179	(85)	Organics Kerbside Collection	8,509	8,450	(59)	-1%
1,908	2,086	179	Organics Processing incl Composting Plant	4,079	4,213	134	3%
6,171	6,266	94	Organic Material Collection & Composting	12,587	12,662	75	1%
14,896	13,071	(1,825)	Collecting Wastewater from Properties	21,100	19,391	(1,709)	-9%
14,896	13,071	(1,825)	Wastewater Collection	21,100	19,391	(1,709)	-9%
3,687	2,311	(1,376)	Treat & Dispose of Wastewater Collected	5,326	4,306	(1,019)	-24%
86	(41)	(127)	Laboratory Services - Wastewater	(97)	(116)	(19)	-17%
3,773	2,271	(1,503)	Wastewater Treatment & Disposal	5,229	4,190	(1,039)	-25%
11,244	11,238	(6)	Provide Quality Water to Properties	17,160	16,285	(875)	-5%
11,244	11,238	(6)	Water Supply	17,160	16,285	(875)	-5%
6,974	7,739	764	Storm Water Drainage	13,655	13,935	280	2%
6,974	7,739	764	Stormwater Drainage	13,655	13,935	280	2%
1,310	2,333	1,023	Flood Protection & Control Works	4,126	8,250	4,124	50%
1,310	2,333	1,023	Flood Protection & Control Works	4,126	8,250	4,124	50%
1,379	1,158	(221)	Three Waters Asset Management	2,601	2,289	(312)	-14%
2,838	1,931	(907)	Plan/Prog Provision of Future Infrastructure	3,841	3,637	(203)	-6%
(20)	-	20	Horizontal Infrastructure	(20)	-	20	0%
4,197	3,089	(1,108)	Three Waters Asset Mgmt & Planning	6,421	5,926	(495)	-8%
59,094	56,988	(2,106)		101,426	102,668	1,242	
Reconciliation to Controllable Net Cost							
(1)	-		Services Provided to other Units	(1)	-	-	
2	-	(2)	EQ - Infrastructure Rebuild Client Team	(2)	-	2	
(2,338)	(2,375)	(37)	Internal Cost Inputs	(4,820)	(4,552)	268	
56,758	54,613	(2,145)	Unit Summary	96,605	98,116	1,512	

Capital Delivery – At the half year mark, Three Waters has delivered \$65.58m, or 43% of its capital programme budget of \$154.1m. The forecast to year end is currently over budget at \$158.4m but is likely to come back over the next six months land close to budget by July 2019.

Dec 2018 - 3 Waters Capital Programme Performance Report

of Programmes
10

of Projects
361

Budget
\$154.1M

Forecast
\$158.4M

Bring Back
-\$13.8M

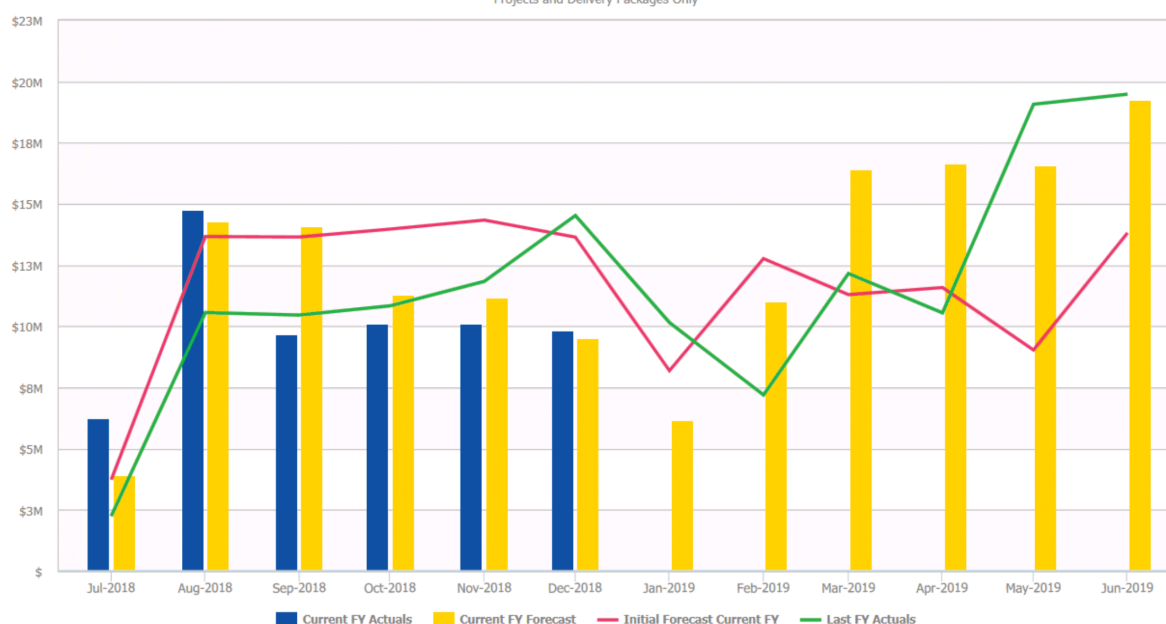
Purchasing Department and Team Analysis

Purchasing Department	Purchasing Team	Budget Current FY	Forecast Current FY	Forecast Variance FY	Actuals YTD	Forecast Months Remaining	Monthly Spend To Meet Forecast	Carry Forward / Bring Back	Carry Forward	Budget Spent	Indicated Saving / Overspend
City Services	Three Waters & Waste	\$ 154,131,399	\$ 158,411,132	-\$ 4,279,733	\$ 65,580,046	6	\$ 15,471,848	-\$ 13,800,611	-9%	43%	\$ 9,520,878
City Services Total		\$ 154,131,399	\$ 158,411,132	-\$ 4,279,733	\$ 65,580,046		\$ 15,471,848	-\$ 13,800,611			\$ 9,520,878
Grand Total		\$ 154,131,399	\$ 158,411,132	-\$ 4,279,733	\$ 65,580,046		\$ 15,471,848	-\$ 13,800,611			\$ 9,520,878

Data Last Updated 2019-01-22 05:31:48

Monthly Forecast V's Actuals

Projects and Delivery Packages Only



Water Supply Improvement Programme

The city has 53 pump stations and 140 operating wells. Four relatively new pump stations (11 wells signed off following minor remedial works) are continuing to operate without chlorination – Keyes, Estuary, Prestons and Gardiners.

Chlorine has been turned off at a further 10 pump stations as works have been completed and/or any remaining unsecure wells have been isolated from the network.

Together these pump stations provide approximately one quarter of the city's water supply.

WELL HEAD REMEDIATION

At the beginning of this programme just seven wells had been signed off as secure. As at 15 January 2019, 38 wells at 19 pump stations have been signed off as secure – these wells provide approximately 25% of the water for the city.

The table below lists the wells that have been signed off as secure and notes the total number of wells at each of the pump stations.

Pump Station & Supply Zone	Well heads Secure / Total	Remedial Works Completed
Kainga Brooklands	1 / 1	Raise below ground well head
Blighs Central	1 / 2	Minor works to make above ground well head secure
Hills Central	3 / 3	Minor works to make above ground well heads secure and raise below ground well head
Sydenham Central	2 / 4	Complete headworks on new wells
Trafalgar Central	1 / 3	Minor works to make above ground well head secure
St Johns Central/Ferrymead	1 / 3	Minor works to make above ground well head secure
Woolston Central/Ferrymead	1 / 3	Minor works to make above ground well head secure
Tanner Rocky	1 / 2	Minor works to make above ground well head secure
Estuary Central/Rawhiti	2 / 2	Minor works to make above ground well head secure
Keyes Central/Rawhiti	3 / 3	Minor works to make above ground well head secure
Lake Terrace Central/Rawhiti	2 / 3	Minor works to make above ground well heads secure
Burnside North West	6 / 6	Minor works to make above ground well heads secure and raise below ground well head
Crosbie	1 / 3	Minor works to make above ground well head secure

North West		
Farrington North West	4 / 5	Minor works to make above ground well heads secure
Gardiners North West	2 / 2	New pump station
Grampian North West	3 / 3	Minor works to make above ground well head secure and raise below ground well heads
Jeffreys North West	1 / 2	Minor works to make above ground well head secure
Thompsons North West	1 / 2	Minor works to make above ground well head secure
Prestons Parklands	2 / 4	Minor works to make above ground well head secure

The design work is complete, contractors appointed and construction is timetabled or underway for a further 35 wells at 15 pump stations – these wells provide approximately 28% of the water for the city.

Design work is underway or has been completed for a further 45 wells. Further work packages will be released into the market early in 2019.

ALTERNATIVE DISINFECTION

The construction tender for ultraviolet light disinfection has been awarded for main pumps, which supplies approximately 5% of the city's water, in the Central supply zone. Construction is proposed for early 2019 with commissioning to be completed by June 2019.

REDUCING THE CHLORINE DOSE

A reduction in the chlorine dose, from 1 part per million (ppm) to at least 0.5 ppm, has been agreed with the Drinking Water Assessor where we have at least two minutes' contact time before the first consumer on the network.

The chlorine dose has been lowered at eighteen pump stations across the city:

- Auburn, Avonhead and Crosbie in the North West supply zone
- Kerrs, Mays, Montreal, Sydenham and Worcester in the Central supply zone
- St Johns in the Central/Ferrymead supply zone
- Picton and Tara in the Riccarton supply zone
- Tanner in the Rocky Point supply zone
- Aston in the Central/Rawhiti supply zone
- Mairehau and Marshlands in the Parklands supply zone
- Denton, Sockburn and Wilmers in the West supply zone.

DRINKING WATER QUALITY MONITORING

Overview

This report is intended to inform the ITE Committee of drinking water quality monitoring related activities for the 2-monthly period ended 31 December 2018.

It summarises the number of samples taken in each Council owned water supply and provides information about transgressions that occurred.

Council Owned Water Supplies

Council owns and operates the following drinking water supplies:

Supplies & Zones	Population	Community Code	Water Source	Water Treatment
CHRISTCHURCH CITY				
Christchurch Central	255,500	CHRo01	Non-secure groundwater	None
Central	185,000			
Rocky Point	2,500			
Parklands	16,000			
Riccarton	10,000			
West	42,000			
Northwest Christchurch	80,000	NORo12	Non-secure groundwater	None
Brooklands/Kainga	1,600	BROo12	Non-secure groundwater	None
BANKS PENINSULA				
Lyttelton Harbour Basin	4,450	LYTo01	Non-secure groundwater	None
Lyttelton	2,500			
Diamond Harbour	1,200			
Governors Bay	750			
Akaroa	1,350	AKAo01	Surface and groundwater	Membrane
Birdlings Flat	150	BIRo01	Non-secure groundwater	UV
Duvauchelle	250	DUVo01	Surface water	UV
Little River	240	LITo01	Surface and groundwater	UV
Takamatua	150	TAKo02	Surface and groundwater	Membrane
Wainui	200	WAI138	Secure groundwater	None
Pigeon Bay	26	PIGo01	Surface water	UV

Water supply overview maps can be found in Trim:

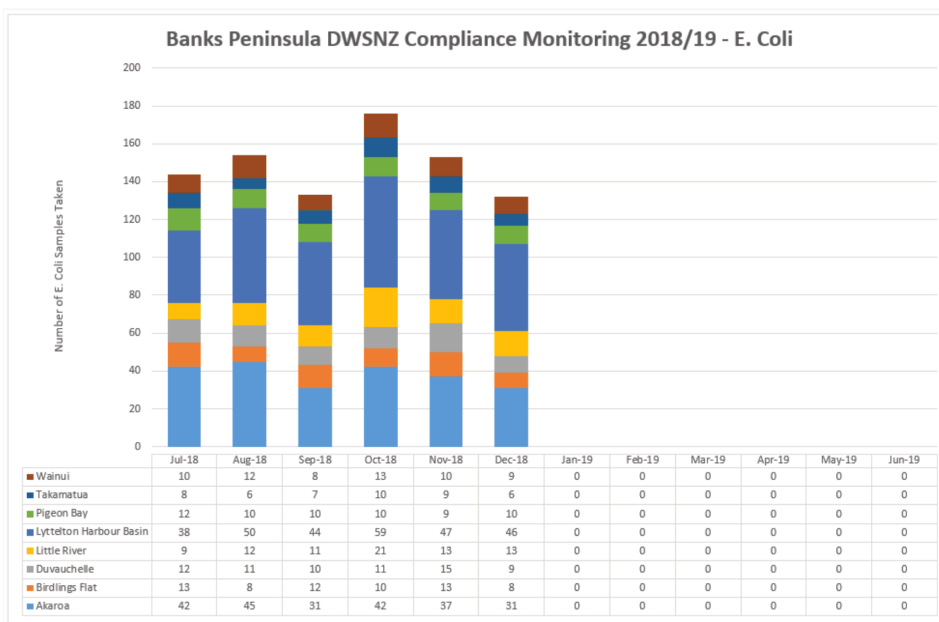
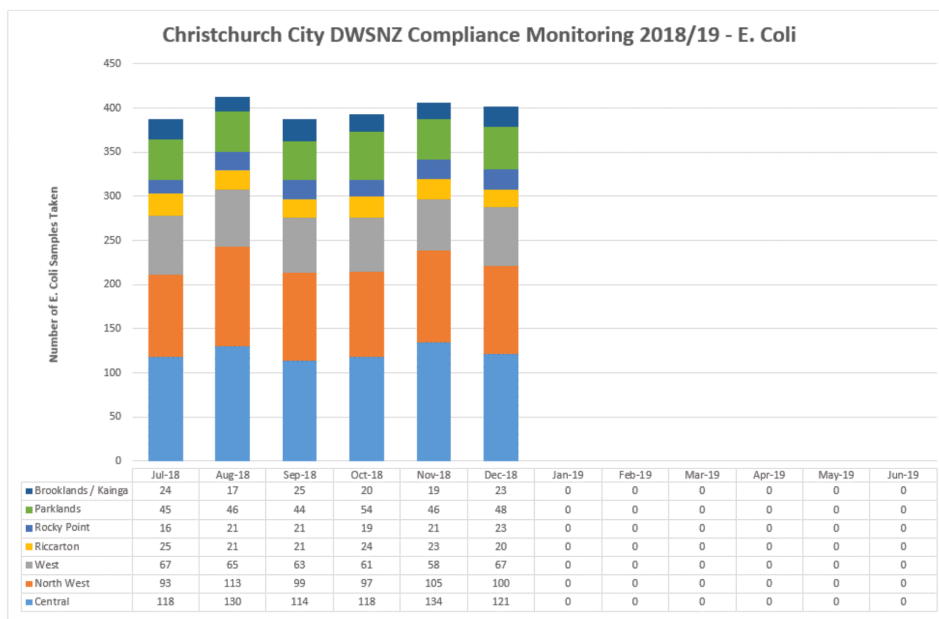
Christchurch City: 17/737163

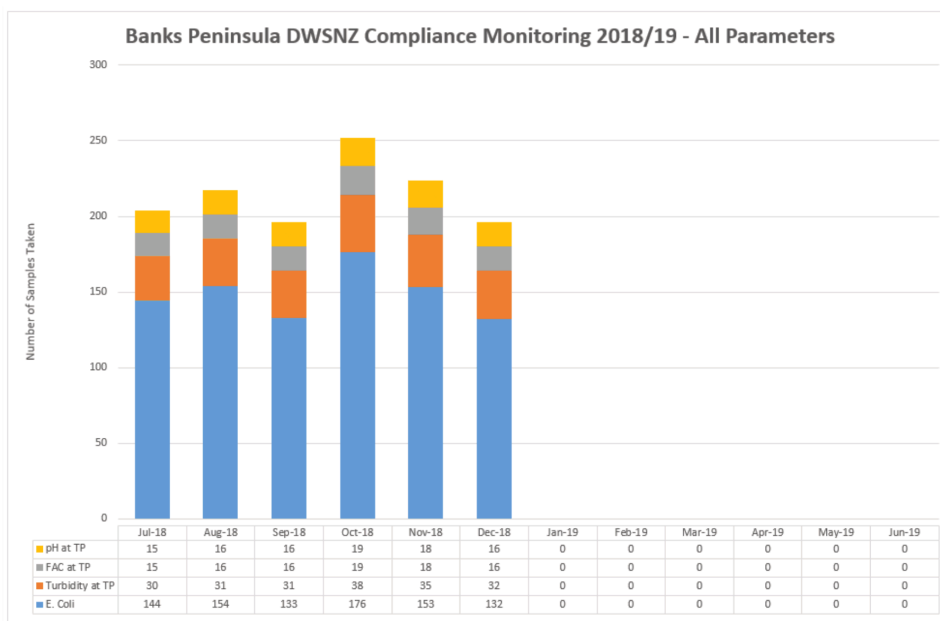
Lyttelton Harbour Basin: 17/737180

Banks Peninsula: 17/737145

E. coli water quality monitoring November and December 2018

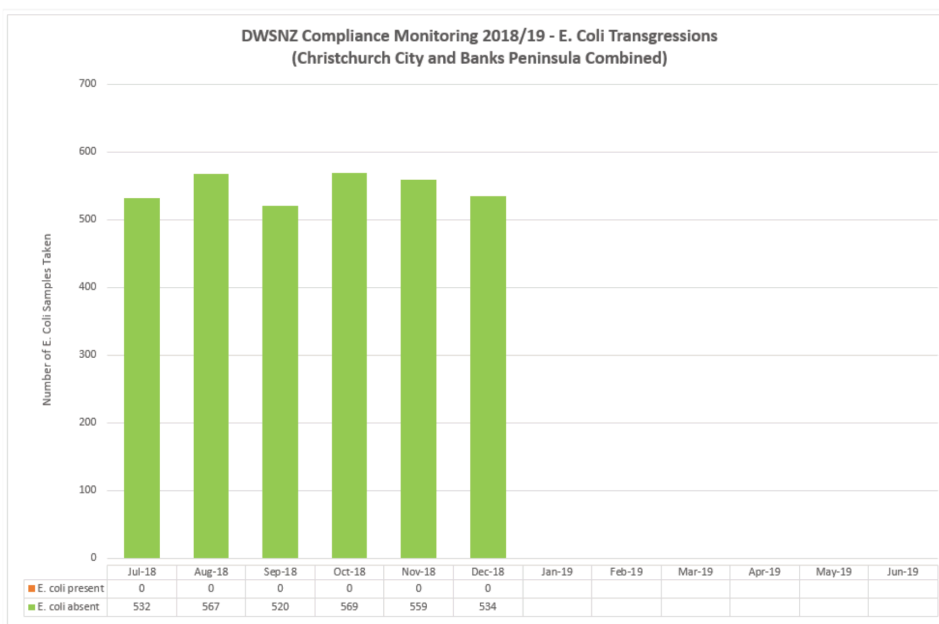
559 E. coli samples were collected in November and 534 samples in December. The following charts provide a further breakdown by water supply zone.





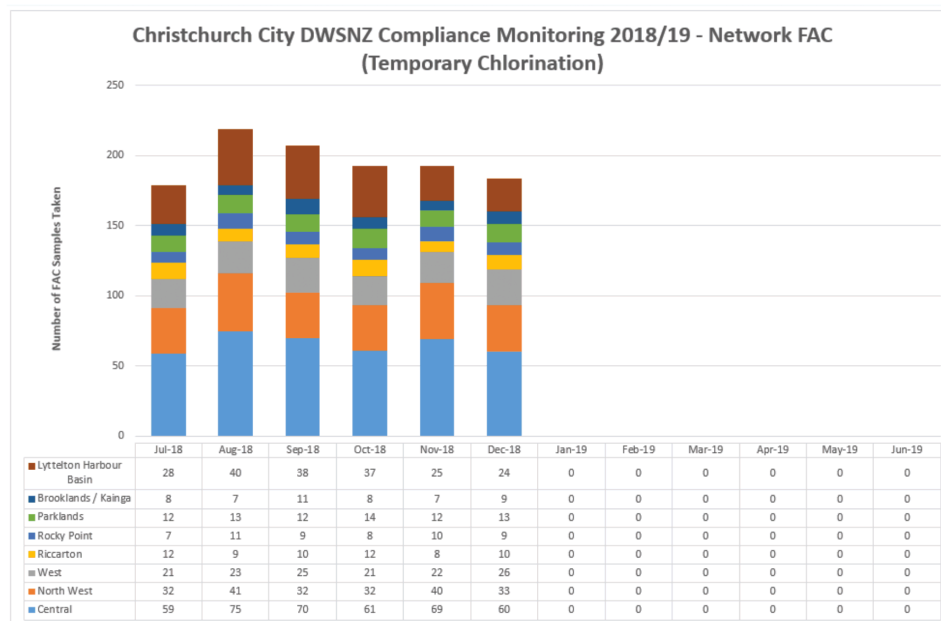
E. Coli transgressions

No E. coli transgressions occurred in November and December 2018.



Temporary Chlorination and Chlorine Monitoring

In April 2018 Council started to measure the Free Available Chlorine (FAC) in all compliance monitoring samples collected from the distribution system in Christchurch City and the Lyttelton Harbour Basin. These random network samples are useful for monitoring the potential for customer complaints, whereas Citycare's FAC samples – which are taken at points in the immediate vicinity of the dosing sites approximately one minute and / or two minutes downstream from the dosing points – assist to confirm that the chlorine dosing meets the chlorination target.



THE PROCESS OF RE-CONFIRMING GROUNDWATER SECURITY UNDER DWSNZ 2005 (REVISED 2018)

DWSNZ section 4.4 states that bore water is considered secure when it can be demonstrated that contamination by pathogenic organisms is unlikely because the bore water is:

- Not directly affected by surface or climate influences, as demonstrated by compliance with bore water security criteria 1 (bore water must not be directly affected by surface or climatic influences) and 3 (E. coli must be absent from bore water).
- Abstracted from a bore head that provides satisfactory protection, bore water security criterion 2 (bore head must provide satisfactory protection).

Bore water security criterion 1: bore water must not be directly affected by surface or climatic influences

Council will demonstrate the absence of surface influences by groundwater age determinations and hydrogeological modelling.

- 17 groundwater samples from various aquifers were collected in July and September 2017 as part of a joint agency project (ECan, CCC and GNS) and analysed by GNS. A GNS report on groundwater age was issued in June 2018.
- A further seven groundwater samples were collected in late October and submitted to GNS for analysis. The analytical work associated with groundwater age determinations will take approximately 6 months.
- CCC is in negotiations with Aqualinc to provide groundwater modelling services. Once the contract has been signed groundwater modelling will commence which will take approximately 10-12 months. Groundwater age data determined by sampling will be incorporated in the modelling.
- A peer review panel will provide technical input at critical stages of the modelling. Panel members will be staff from ECan, ESR and Beca. This peer review is supported by the DWA.
- Upon successful completion of the modelling a report will be issued to the DWA.

Bore water security criterion 2: bore head must provide satisfactory protection

Council's Well Head Security Improvement Programme (WHSIP) is the programme of works to upgrade the Christchurch water supply to meet the existing Drinking Water Standards and to provide future proofing for likely more stringent DWSNZ requirements. The programme includes:

- Conversion of wellheads to above ground well heads to further improve their security and to make them easier and safer to access for maintenance.
- Drilling of new / replacement wells.
- UV treatment at some sites. UV treatment provides protection against contamination but does not have the same effect on taste and smell as chlorination.
- Other work to provide protection from contamination.

Bore water security criterion 3: Escherichia coli must be absent from bore water

This criterion is satisfied by Council's ongoing drinking water monitoring programme.

Water safety plans (WSP)

The Drinking Water Assessor (DWA) carried out an implementation audit of the Christchurch City and Lyttelton Harbour Basis WSP and issued formal report which includes findings and recommendations. Work is underway to improve processes relating to the reporting of regular reservoir and wellhead inspections.

The DWA also undertook an implementation audit of the WSP for Akaroa, Pigeon Bay, Takamatua and Wainui and will issue the audit report in January.

In December 2018 the Ministry of Health released the 'New Zealand Water Safety Plan Framework'. While the Framework outlines the Ministry of Health's expectations for the content of a water supplier's WSP, it provides no guidance on how these expectations can be met. Guidance will be provided in the 'Handbook for Preparing a Water Safety Plan' which is due to be released in January 2019.

It is the Ministry of Health and DWA's expectation that all CCC water safety plans be updated in 2019 to align them with the new framework. CCC staff will meet with the DWA in January to discuss a plan of action.

Water Safety Plan Register

Supplies & Zones	Supply Population	WINZ Community Code	Supply Size (as per HDWAA 2007)	Name of WSP	Current Status	Date WSP Approved	TRIM (Word)	TRIM DWA Approval Letter & Adequacy Report	Updated WSP Due	Status
CHRISTCHURCH CITY										
Christchurch Central	255,500	CHR001	Large	Christchurch-Lyttelton	Approved	9 March 2018	18/630080	18/320433	March 2023	
Central	185,000									
Rocky Point	2,500									
Parklands	16,000									
Riccarton	10,000									
West	42,000									
Northwest Christchurch	80,000	NOR012	Large	Christchurch-Lyttelton	Approved	9 March 2018	18/630080	18/320433	March 2023	
Brooklands/Kainga	1,600	BRO012	Minor	Christchurch-Lyttelton	Approved	9 March 2018	18/630080	18/320433	March 2023	
BANKS PENINSULA										
Lyttelton Harbour Basin	4,450	LYT001	Minor	Christchurch-Lyttelton	Approved	9 March 2018	18/630080	18/320433	March 2023	
Lyttelton	2,500									
Diamond Harbour	1,200									
Governors Bay	750									
Akaroa	1,350	AKA001	Minor	Akaroa	Approved	27 September 2017	17/1181668	17/1178693	September 2022	
Birdlings Flat	150	BIR001	Small	Birdlings Flat	Approved	September 2017	17/1181679	17/1178683	September 2022	
Duvauchelle	250	DUV001	Small	Duvauchelle	Approved	May 2014	14/717188	14/528855	May 2019	
Little River	240	LIT001	Small	Little River	Approved	April 2014	14/717237	14/629331	April 2019	Draft issued to Head of 3 Waters & Waste for review
Takamatua	150	TAK002	Small	Takamatua	Approved	July 2014	14/1069502	14/1069547	July 2019	
Wainui	200	WAI138	Small	Wainui	Approved	June 2014	14/716808	14/716688	June 2019	
Pigeon Bay	26	PIG001	Neighbourhood	Pigeon Bay	Approved	August 2014	14/1069597	14/1069625	August 2019	

Planning and Delivery

PROJECT MANAGEMENT

Riccarton Road stage 3 & 4 between Harakeke and Matipo – Procurement of the works between Three Waters and Transport is complete. We received five tenders for the project works and we have selected Fulton Hogan as the preferred contractor.

Lyttelton Harbour Wastewater Pipeline Scheme – McConnell Dowell (MDC, who are carrying out work package #2) have completed the launch of the 5.2km Governors Bay submarine pipeline and it passed its hydrostatic test successfully. Burial of the pipeline in the harbour is now complete. Practical completion of the Governors Bay pipeline (separable portion 1) was achieved on 12 October 2018.

The Diamond Harbour pipeline (SP2) was successfully launched on 5/6 October 2018, and completed by mid-December.

Fulton Hogan have established on site for work package #3, which includes all five pump stations linked to the Lyttelton WWTP. Poor ground conditions have been encountered at the Governors Bay WWTP site and an alternative design has been required. This additional/revised scope is putting extreme pressure on the required completion date for the Governors Bay pump station.

It is anticipated that the last work package for the project (work package #4 comprising the buried pipeline from the Heathcote Tunnel portal to Pump Station 15, including under the Heathcote River) will be awarded in February 2019.

Colombo Street WW – Pipeline upgrade from Centaurus Road to Fisher Avenue. The contractor is making good progress on what is identified as a very busy road and keeping to the programme. Continuous updates on the construction programme is being communicated to businesses and residents within the area.

WATER AND WASTEWATER PLANNING

Rawhiti water supply zone pressure reduction trial – the first step in the pressure reduction trial in the Rawhiti water supply zone started on 24 October. Pressure was reduced by 5 kPa (kilopascal) steps, from 72 kPa to 67 kPa. Operational issues are being resolved before the next 5 kPa reduction is implemented. No complaints have been received that relate directly to the drop in pressure.

The pressure will be lowered in 5 kPa steps until the target pressure of 50 kPa is reached. This will bring it in line with pressure in the west of the city, and is expected to reduce energy consumption, leakage and pipe bursts. The pressure reduction trial will run for a year, and then we will report back to Council on the costs and benefits, with a recommendation about whether pressure reduction should be implemented for the rest of the city.

Duvauchelle water treatment plant – the second stage of the Duvauchelle water treatment plant pilot trial is complete. Water with a turbidity of up to 7 NTU (i.e. the upper limit of the turbidity that the existing treatment plant can treat) has been run through the two treatment trains in the pilot plant. The data from the trial is about to be analysed to see if the media filters in the pilot plant are any better than those in the main plant.

Source water from Piper Valley Stream has very high turbidity during rain events, which the treatment plant cannot cope with, and water needs to be tankered to Duvauchelle when this happens. The pilot plant is part of the process of exploring options for upgrading the treatment plant.

Aranui and Shirley vacuum sewer systems – The automatic air admittance devices have been installed in Aranui, and the vacuum sewer system supplier will re-tune the system by the end of February. The contract for automatic air admittance devices in the Shirley vacuum sewer system is yet to be tendered.

The first 50 vacuum sewer system monitoring system units are performing well, and the remaining units will be installed by the end of the year. These allow us to monitor the performance of every vacuum collection chamber, and identify those that have problems with groundwater infiltration and stormwater inflow.

Both the Aranui and Shirley vacuum sewer systems have major capacity issues, and require pumping out with sucker trucks during storms. It is hoped that the automatic air admittance devices and the monitoring system on collection chambers will help address these capacity issues. In the meantime, no new connections to these vacuum sewer systems are being allowed.

Wastewater flow monitoring – an extensive network of temporary flow monitoring equipment was deployed for three months in late 2018. This has provided us with good data, including four storm events, which will be used to calibrate our wastewater network computer model. A request for proposal to undertake the model calibration will be issued to consultants shortly. The wastewater network model is an essential decision making tool, informing asset planning and operation of our wastewater network.

ASSET MANAGEMENT TEAM

Business Improvements

Version 5 of the 'water supply pipe repair check sheet' was completed. This follows changes recently incorporated from a meeting held between Councils asset management staff and Citycare staff at Citycare's training facility. The meeting involved running through scenarios encountered when repairing water leaks to ensure the check sheets are all inclusive and the language is such that maintenance contractors understand the information being requested and why it is important. Citycare will be incorporating the changes in their data collection pick lists and a process is being developed to transfer this data into CCC systems.

Work to review and map the process for Local Pressure Sewer Systems (LPSS) has been completed with a full report located under TRIM 18/1323018. The process mapping was necessary to ensure that council has a clear understanding of the roles and responsibilities of different teams involved, to ensure that assets for local pressure sewers systems find their way onto council's asset registers where they can then be actively managed, budgeted for and included in future valuations, operational budgets and maintenance contracts. Next steps are to complete the workflow and remaining recommendations within the report.

Work is underway with the help of the Asset Management Unit and a number of summer students to undertake a *Gap Analysis between NZ Metadata standards and current CCC standards for Wastewater, Stormwater and Water Supply assets*. The Land Information NZ (LINZ) Metadata Standards for three water assets were intended to provide asset managers with specifications for asset data that support data creation, collection, storage, and analytics to make evidence-based investment decisions. The metadata standards for potable water, stormwater, and wastewater are defined separately, but share common attributes and some of the same asset class specific attributes.

- Physical attributes (e.g. material, diameter)
- Metadata (e.g. date of construction)
- Asset management summary attributes (e.g. summary for condition, repairs)

Asset Assessment Intervention Framework (AAIF) – a review of all AAIF grade 4 and 5 records for both piped and open waterway assets has been undertaken to enable renewal planning. This involved reviewing approx. 6.5km of CCTV pipework footage in sizes ranging from DN100 to 1350 and various material including concrete, PVC and brick barrel. The waterway grade 4 & 5 section review of approx. 13.7km of waterway involved searching Smartmap and interrogating the results of the LDRP “Open Waterway Condition Assessment” project to ascertain the most appropriate method of improving the AAIF grade e.g. whether a spot repair by the Operations & Maintenance team or a full capital renewal etc. The working waterways improvement spreadsheet list has been provided to the Land Drainage Operations & Maintenance team for comment and feedback to better inform the improvements proposed.

LAND DRAINAGE PLANNING

Comprehensive Stormwater Network Discharge Consent (CSNDC) application –

The Hearing commenced on 5 November, and was adjourned (not closed) on 15 November. A minute was issued by the Chair of the Hearing Panel on 21 November, requesting further information or evidence from CCC on Stormwater quantity matters. These matters relate to submissions made to the hearing. Staff are currently forming their response which will require more time than currently provided under the statutory timeline. In accordance with RMA provisions, CCC staff have requested that the hearing be suspended to early February 2019 to provide sufficient time to address the matters raised by the Hearing Panel and submitters. The hearing will likely close in late February

2019 with a decision possible in March. CCC continues to engage with ECan, submitters and their experts on progressing application matters.

Updated Advice on 'Fixed Finished Floor Levels (FFLs) – Advice being provided to customers regarding FFLs required under the District Plan is being supplemented with FFL advice based on updated tide level information derived from the analysis of new tide level data earlier this year

Worsleys Spur Stormwater Pipe – Some construction delay due to weather conditions over winter. Work is about to commence on the hillside sections of the contract works.

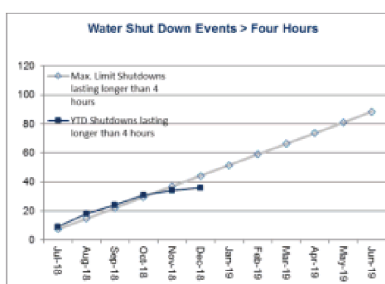
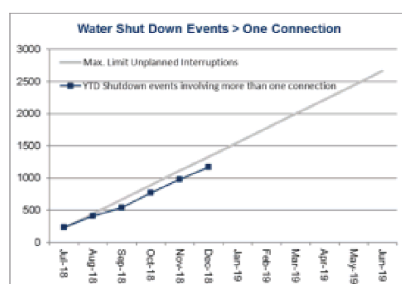
Sutherlands Basin (Welsh), Hoon Hay Valley and Eastmans Stormwater Facilities – Civil works have recommenced with the primary focus being the completion of the first-flush basin by next winter.

Reticulation and Maintenance Team

WATER SHUT-OFFS

The team is about to release a water shut-off notification system. This will allow anyone to sign up and receive a notification when water has been turned off in their area. At this stage this is just for unplanned shut-offs however in time we hope to include planned outages too. More information will come out over the coming weeks.

Description	KPI Target	Total
Shutdown events involving more than one connection	<18 unplanned interruptions / 1000 properties served per year (222/month)	196
Shutdowns lasting longer than 4 hours	<1.7 unplanned interruption > 4hrs on average / week (7.4/month)	2
Shutdowns lasting longer than 8 hours	>= 99% - notify Council within 15 hours of emergency shut down where it is >= 8hours continuous duration (no supply to customers)	0

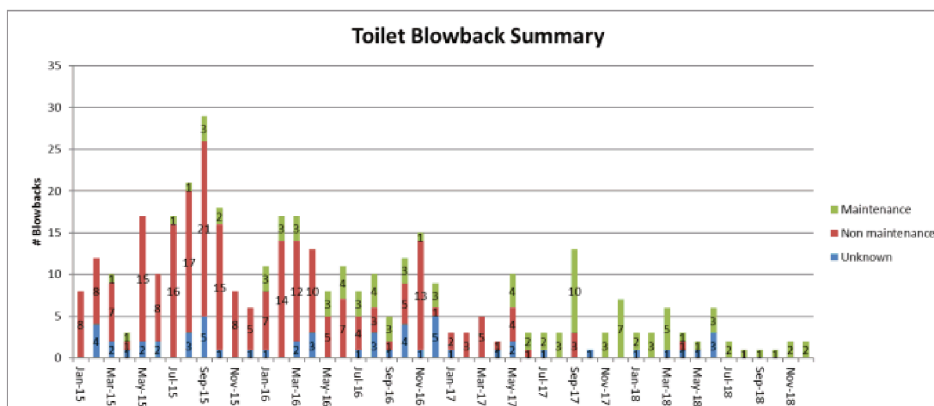


TOILET BLOWBACK SUMMARY (DECREASING TREND)

Toilet blowbacks are a very unpleasant event that unfortunately do infrequently occur when vulnerable and susceptible wastewater mains are cleaned using high-pressure jetting equipment.

City Care (our maintenance contractor) have well trained staff operating these specialist pieces of equipment. However, inevitably when jetting buried pipes, conditions can occur when the high-pressure water is unintentionally forced up a private lateral leading to wastewater blowing back into the property, generally through a toilet bowl. This can cause a nasty mess which City Care are responsible for cleaning up.

The good news is that the number of blowbacks has been steadily dropping off post-rebuild, and we continue to work closely with City Care to reduce to an absolute minimum the frequency of these events.

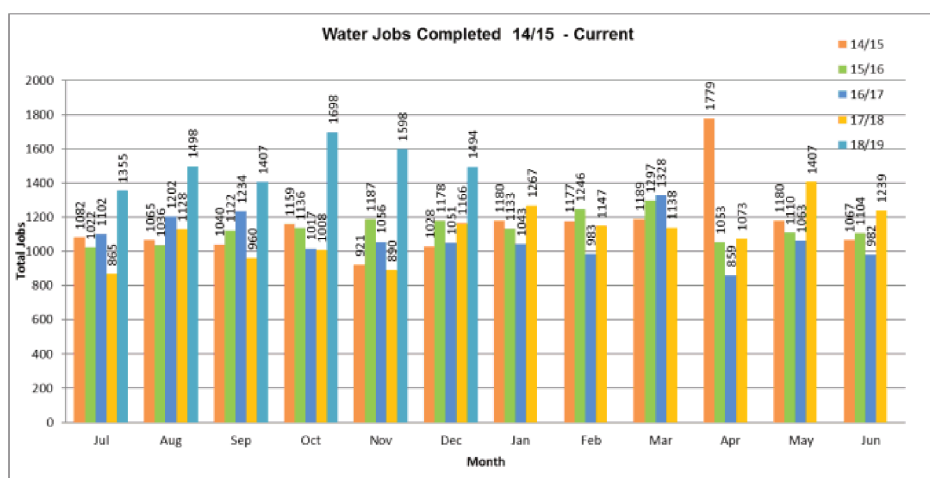


SIGNIFICANT NUMBER OF WATER JOBS (INCREASING TREND)

Last month we reported that there was an increasing number of water jobs over the last few months. The trend is continuing although looks like it is flattening out. Our contractor still has a significant number of jobs still to be completed and as a result of the backlog we are expecting an increase in complaints.

Additional crews have been sent up from Dunedin along with two teams from another sub-contractor.

The below graph shows completed jobs since 2014/15.



Solid Waste Team

LANDFILL AFTERCARE

Transwaste have formally advised the closure of Burwood Resource Recovery Park (BRRP) for receiving earthquake related material on 20 December 2019. The facility will remain open and has resource consent to receive capping and landscaping material until 31 December 2021.

The Wildlife Act authority application to capture and move lizards (skinks) from Bexley closed landfill foreshore has been approved.

Hydro Excavation disposal land lease awarded, operations likely to commence at the Waste Water Treatment Plant site in May 2019.

ORGANICS PROCESSING PLANT (OPP)

We have been requesting the release of the Bromley Odour Monitoring report from ECan for several months and would expect to have this by February.

ECOSORT (MATERIALS RECOVERY FACILITY)

A successful Open Day event was held at the EcoSort Recycling facility on 8 December 2018. We had a record attendance of 655 residents over three hours who were keen to learn more about our recycling services. The feedback has been encouraging as residents found the event both informative and fun.



TRANSFER STATIONS

Waste audit has been completed on rubbish collected by CCC through kerbside collection bins and transfer stations including Banks Peninsula. This will inform our strategy for waste reduction and our Waste Management and Minimisation Plan.

Top 5 categories with recovery potential (kerbside and transfer stations)

1. Timber	10.55%
2. Recyclable Plastics	10.44%
3. Soft Plastics	6.26%
4. Clothing & Textiles	6.23%
5. Recyclable Paper	5.48%

City Care investigating into repair work on the stormwater first flush system at Parkhouse site.

The pit floor at Parkhouse EcoDrop was re-asphalted in December.

KERBSIDE COLLECTION

As of 14 January, 394,206 wheelie bins have been fitted with RFID tags representing a completion rate of 83.2% and on target for the three year project completion. 6,407 additional bins have been removed from circulation as of this date.

Kerbside collections went well over Christmas and New Year with no issues regarding the change in collection days. Due to the success of this collection method, Waimakariri DC adopted the same collection method as CCC for this period and Selwyn DC will adopt for Christmas / New Year this year (2019).

WASTE DIVERSION INITIATIVES

Met with plastic manufacturers / industry to explore the potential use for post-consumer polypropylene (PP recycling symbol No. 5). Manufacturers advise they have markets if this resource can be separated. Bale audit of mixed plastics to be enacted at EcoCentral to determine amount of Polypropylene potentially available. This initiative has support from Eugene Sage (Associate Minister for the Environment).

Discussions have taken place with ReKindle on the potential diversion of repairable materials received by the EcoDrops. ReKindle will seek funding for an audit project to determine the viability of diverting these materials currently landfilled.

Funding approved to support batteries collection trial for one year with drop off points in supermarkets, hardware stores and Transfer Station recycling centers. Investigation now underway for participating stores. Six locations have confirmed their participation to the batteries collection trial: Mitre 10 Papanui, New World South City (new build on Durham Street), Bunnings Tower Junction and the three EcoDrop Recycling centres. (Metro, Styx and Parkhouse).

Stormwater and Land Drainage Teams

LEVELS OF SERVICE

Levels of Service targets for stormwater have been met to date in FY19. Risks identified for possible flooding events mitigated by continuing to deliver the Land Drainage Recovery Programme of works and improving operational maintenance, and for customer satisfaction survey levels mitigated by continuing with 'minimal cut zone' approach and other bank improvements together with accelerated maintenance and flood protection programmes.

LAND DRAINAGE WORKING GROUP SUMMARY

A Working Group meeting was held on Friday 2 November 2018, covering the following topics:

- An update on the Bells Creek stage 2 (as per the previous ITE report).
- Flood Intervention Policy finance and consideration of a potential exception to the policy, which after discussion was considered ineligible.
- The upgrade of pump station 205 on New Brighton Road will need to include a bund around the pump station abutting the Avon stopbanks to prevent recirculation of river water. This was included in the Council report attachments but not made explicit in the Council resolution. This bund will be included in the construction contract, which is currently planned to progress this summer.
- An update on the Dudley Creek project, which is in the close-out stage. A report was subsequently presented to the Finance and Performance Committee on 5 December 2018.
- A property purchase on St Albans Creek has been made. Following some consequential minor design changes, a report will soon be prepared seeking a decision on when to carry out the capacity improvements.
- An update on ECan's decision on the Council's Comprehensive Stormwater Network Discharge Consent (CSNDC).
- An update on the Wigram Basin Extension project.
- The Heathcote Low stopbanks have been assessed as being technically feasible by the project team, although this still requires confirmation from a wider group of Council stakeholders. Because of the potential precedent set and other issues, this may be a contentious project. A steer was given that this should proceed to the ITE Committee prior to public consultation.

LAND DRAINAGE RECOVERY PROGRAMME (LDRP)

Other important updates for LDRP projects, which were not mentioned above:

- **City Wide Modelling** – The Avon River Model component was handed over in December 2018. The Heathcote River Model delivery is forecast for mid-2019.
- **Cashmere-Worsley Flood Storage** – A consultant has been appointed for the detailed design of Cashmere Valley Dam.
- **Cranford Basin** – Construction is complete and working through a snag list, but issue of practical completion is now imminent.
- **Bells Creek** – Construction is complete. Richardson Terrace is now open to the public and the handover of the pump station and stormwater filter is scheduled for this month.
- **Heathcote Dredging** – Citycare are well underway with works. There have been issues with sediment control and we have been working closely with ECan to put in place all possible options to manage sediment discharges.
- **Flood Intervention Policy** – of the 26 properties confirmed eligible, 16 property demolitions along the Heathcote River are now complete. Once cleared, properties may be sold or retained, but in either case will have stipulations to ensure that no new dwellings are built on the property.
- **Curletts Flood Storage Basin** – Making good progress and the main construction works will be finished by the end of summer.
- **Eastman Wetlands** – The tender for the bund construction and Milns Drain realignment has been awarded.
- **No. 1 Drain** – Construction is complete. Due to some defects practical completion has not yet been awarded but this is imminent. The floating treatment wetland tender will be let in the coming months.
- **Wigram Flood Storage Basin** – Works are well advanced with Stage 2 contract beginning. Some programme funds to be reassigned to complete the project in FY20.

Wastewater Treatment Plant

Union negotiations continue to be at the forefront of all activities. With negotiations still ongoing into January 2019 (started in May 2018).

The months of December and January pose different challenges to the other time of the year. The main issues are depleted staff numbers and a reduction in the amount of organic load to the treatment plant as the city's commercial and industrial activities suspend for the summer break. However, the two months have passed reasonable well without incidents, with the CWTP continuing to operate within expected parameters. However, in mid-December, Co-generation NO.3, the largest of the two co-generation engine had its main breaker fail. This meant that the ~1MWe it usually generates has had to be imported off the grid. This has placed significant pressure on the operational finances and the annual plan KPI for self-generated power.

The midges control program for the 2018/19 season is well underway. The mechanical disturbance (dragging chains through the sediment at the bottom of the ponds to disrupt the early aquatic stage of the midges lifecycle), has now become routine following the early trials and is being undertaken every ~10 days. December and January has also seen ~3,000 of the 3,900 native plants for the vegetation barrier been planted. Luckily the bouts of wet weather have helped establish the plants, particularly this late in the planting season. The twice weekly sampling of the 30 midge traps, which are used to assess midge populations, is continuing.

Over the summer period, both Akaroa & Lyttelton Wastewater Treatment Plants have been struggling to meet their bacteria compliance level. Citycare, who operate the plants under contract, have been working closely with Council. However, give the continuing sub-par performance of the plants, Council's Process Engineer for the CWTP has been assigned part-time to assist Citycare with restoring the performance of the treatment plants.

Appendix 1 – Health and Safety Statistics

Health and Safety Statistics 3 Waters Waste and Transport

Health and Safety Statistics - Month of December 2018	Totals	Land Drainage	Water Waste	Solid Waste	Transport	Intern
Near Misses	30	0	3	17	7	3
First aid injuries (FAI)	12	1	0	8	2	1
Medical Treatment Injuries (MTI)	0	0	0	0	0	0
Lost Time Injuries (LTI)	0	0	0	0	0	0
No. of days lost to LTIs	21	0	0	0	0	0
No. of hours worked	102,145	11,897	20,852	16,613	30,218	22,565
Health and Safety Statistics - Year to Date July 2018 - December 2019	Totals	Land Drainage	Water Waste	Solid Waste	Transport	Intern
Near Misses	200	35	26	84	40	15
First aid injuries (FAI)	64	6	3	35	10	10
Medical Treatment Injuries (MTI)	5	1	2	1	1	0
Lost Time Injuries (LTI)	2	0	1	0	1	0
No. of days lost to LTIs	95	0	2	0	0	0
No. of hours worked	601,133	96,114	134,568	67,578	190,739	112,134
LTIFR	3.3	0.0	7.4	0.0	5.2	0.0
MTIFR	11.6	10.4	22.3	14.8	10.5	0.0
TRIFR (LTI + MTI)	15.0	10.4	29.7	14.8	15.7	0.0

Year to Date July 2018 - June 2019
(as at 21-01-2019)

10. Resolution to Exclude the Public

Section 48, Local Government Official Information and Meetings Act 1987.

I move that the public be excluded from the following parts of the proceedings of this meeting, namely items listed overleaf.

Reason for passing this resolution: good reason to withhold exists under section 7.

Specific grounds under section 48(1) for the passing of this resolution: Section 48(1)(a)

Note

Section 48(4) of the Local Government Official Information and Meetings Act 1987 provides as follows:

“(4) Every resolution to exclude the public shall be put at a time when the meeting is open to the public, and the text of that resolution (or copies thereof):

- (a) Shall be available to any member of the public who is present; and
- (b) Shall form part of the minutes of the local authority.”

This resolution is made in reliance on Section 48(1)(a) of the Local Government Official Information and Meetings Act 1987 and the particular interest or interests protected by Section 6 or Section 7 of that Act which would be prejudiced by the holding of the whole or relevant part of the proceedings of the meeting in public are as follows:

ITEM NO.	GENERAL SUBJECT OF EACH MATTER TO BE CONSIDERED	SECTION	SUBCLAUSE AND REASON UNDER THE ACT	PLAIN ENGLISH REASON	WHEN REPORTS CAN BE RELEASED
11	IMPACTS OF INFILTRATION AND INFLOW ISSUES INCLUDING PRIVATE WASTEWATER LATERALS THAT HAVE NOT BEEN REPAIRED	S7(2)(G)	MAINTAIN LEGAL PROFESSIONAL PRIVILEGE	THERE IS LEGAL ADVICE TO THE COUNCIL IN THE REPORT AND LEGAL OPINIONS ATTACHED	THE LEGAL ADVICE AND OPINIONS SHOULD NEVER BE RELEASED BUT OTHER PARTS OF THE REPORT CAN BE RELEASED WHEN THE CHIEF EXECUTIVE IS SATISFIED THERE ARE NO LONGER GROUNDS TO WITHHOLD THE INFORMATION.