



# Challenges and Wins for Kelowna's Shared E-Scooter Program

June 14th

# Council Resolution

THAT Council direct staff to provide an information report on the scooter program; its challenges and wins over the first month of operation and details regarding the permitting process, conditions and limitations.

# Program Objectives

## ► Advance Council Priorities

- Emerging technologies are making it easier to get around
- Greenhouse gas emissions are decreasing, and
- Travel times are optimized

## ► Support the 2040 OCP and TMP

- Move more people through existing road space
- Connect our growing urban centres
- Low-carbon, cost-effective transportation option

# Key Performance Metrics

- ▶ Safety and Injuries
- ▶ Helping take cars off the road
- ▶ Cost-effective







# Safety and Injuries



# Safe Riding Requirements

The provincial Motor Vehicle Act and Kelowna Traffic Bylaw require e-scooter riders to:

- ▶ Letter from Interior Health (Attachment #3)
- ▶ Ride in the street, bicycle lanes or multi-use paths
- ▶ Be sober (intoxicated riding is a serious offence)
- ▶ Not block sidewalks when parking
- ▶ Wear a helmet
- ▶ Riders must be 16 years or older (18+ for some shared scooters)
- ▶ One person per scooter
- ▶ Follow the rules of the road

# E-Scooter Injuries

- ▶ Letter from Interior Health (Attachment #3)
- ▶ Broader role e-scooters play in supporting vibrant, healthy communities
- ▶ Quantitative local injury data not yet available
- ▶ City and IH partnership:
  - ▶ Support healthy communities
  - ▶ Collect and monitor shared e-scooter injury data
  - ▶ Strategies to mitigate health impacts



June 8, 2020

City of Kelowna  
Integrated Transportation Department  
1435 Water St  
Kelowna, BC V1Y 1J4

Attention: Matt Worona

RE: E-scooters and Health Evidence

On behalf of Interior Health, we are pleased to provide this letter to the City of Kelowna as a response to a request for additional information about the health evidence and impacts to health services from the shared e-scooter program. As you know, the health of individuals and populations is influenced by a variety of factors including the social and physical environments. As such, Interior Health is committed to collaborating with the City of Kelowna and other stakeholders to support public policies that contribute to healthy communities.

Active transportation increases physical and mental health of individuals and improves the environment by reducing air pollution. From an equity perspective, alternative transportation options that are less costly than car ownership and enhance city accessibility for a larger number of members in our community. While the benefits of active transportation such as bicycles, carpooling and public transit are well documented, shared e-scooters programs are relatively new and evidence is emerging from cities where programs were implemented.

Evaluation of shared e-scooter programs in the US and Australia estimated that between 20 to 28 injuries per 100,000 trips required medical attention. Ninety percent of injuries affected riders, and about 70 percent of injuries were either fractures or head injuries. The rate of head injuries more than double the rate experienced by cyclists. Individuals in their teens and twenties and first time riders were overrepresented, and a large proportion of injuries involved alcohol intoxication and not wearing a helmet. According to data from Alberta Health Services, one person was seriously injured and admitted to hospital per 100,000 e-scooter rides. They estimated a much higher number of injuries that didn't result in hospital admissions, at a rate of one per 1,500 rides.

In alignment with experience in other jurisdictions, clinicians at Kelowna General Hospital have also reported that they have observed a rise in injuries among users of the shared e-scooter program. This prompted the City of Kelowna to request health information related to the program. As a result, Interior Health is currently exploring the feasibility of utilizing administrative data sources to assess the impact of the shared e-scooter program on health services. This retrospective analysis, however, will require manual chart reviews and may take several weeks before the results can be shared with the City of Kelowna. Prospectively, Interior Health is working towards determining opportunities to collect, analyze and disseminate health information related to the shared e-scooter program.

Community Health and Services Centre  
505 Doyle Ave  
Kelowna BC V1Y 6V8  
Web: [www.interiorhealth.ca](http://www.interiorhealth.ca)

# Safety Research

Mode	Injury Rate (Emergency Room Visits)		Fatality Rate	
E-scooter	87 – 251 per million trips	.01% - .03%	78 – 100 per billion trips	.00001% - .00001%
Bicycle	110 – 180 per million trips	.01% - .02%	21 - 257 per billion trips	.00000% - .00003%

Source: Safe Micromobility, Organisation for Economic Cooperation and Development / International Transport Forum (OECD / ITF), 2020

“The risk of an emergency department visit for an e-scooter rider is similar to that for cyclists.”

-“Safe Micromobility” from the OECD’s International Transport Forum





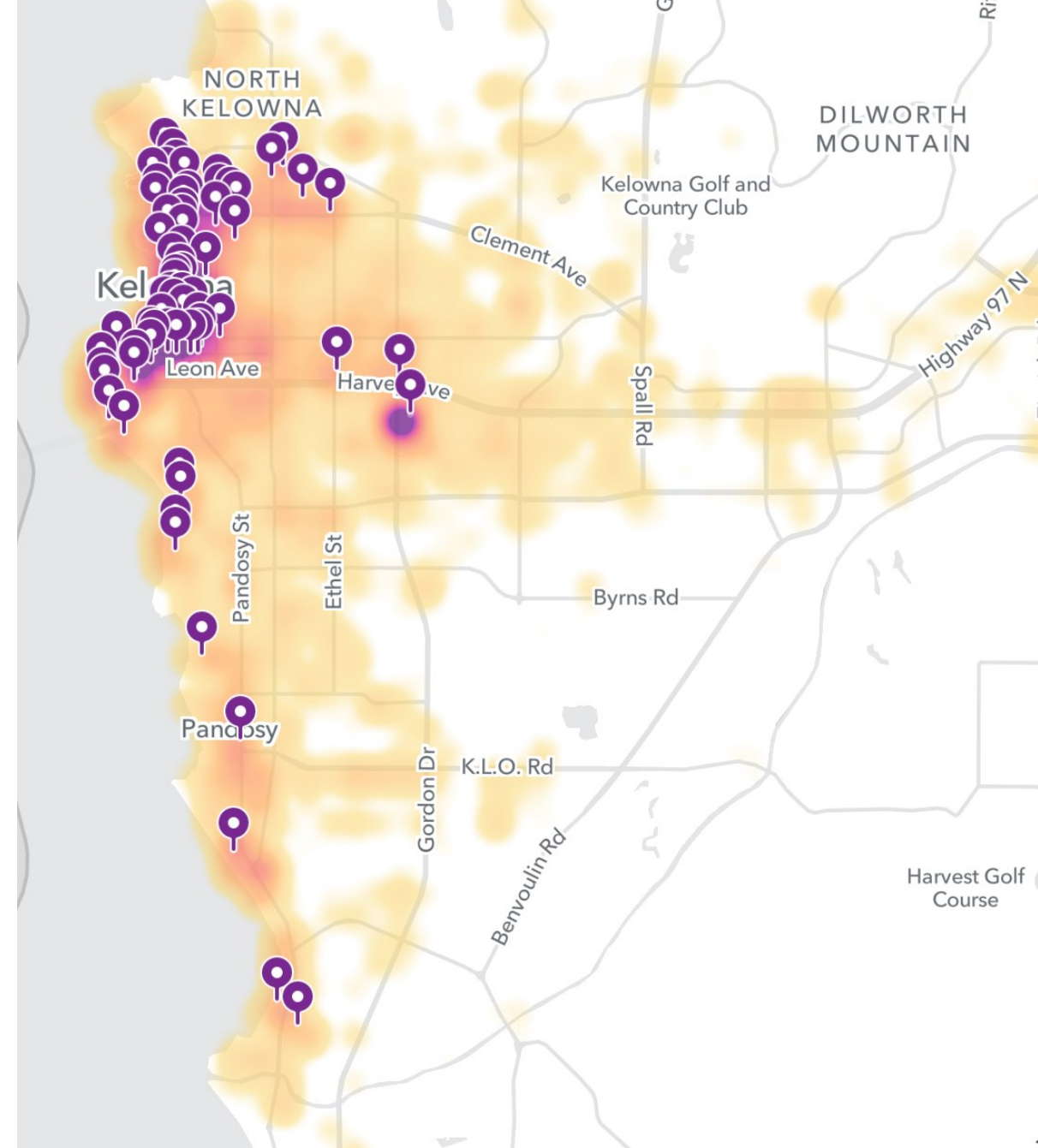
# Taking Cars Off The Road





# Micromobility Dashboard

- ▶ Total shared e-scooter trips: 77,000
- ▶ Average trips per day: 1,700
- ▶ Average trip distance: 2 km
- ▶ Average trip length: 18 minutes
- ▶ E-Scooter Mode Share within the Service Area: Approx. 2%



# Rider Survey

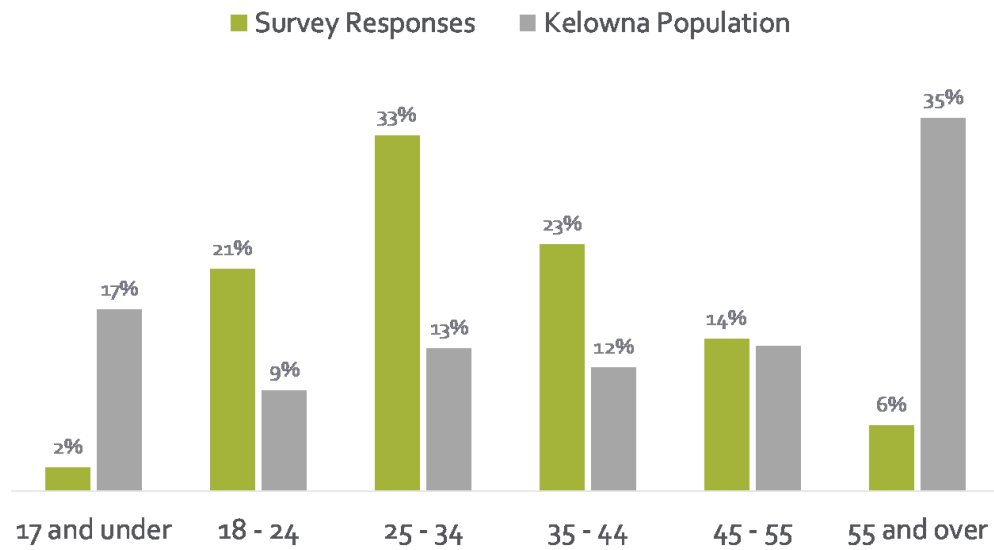
- ▶ Standard transportation survey
- ▶ Delivered by e-scooter companies directly to riders
- ▶ Week of June 7<sup>th</sup>
- ▶ 850 survey responses

*"I am unable to walk, so this helps me get around town."*

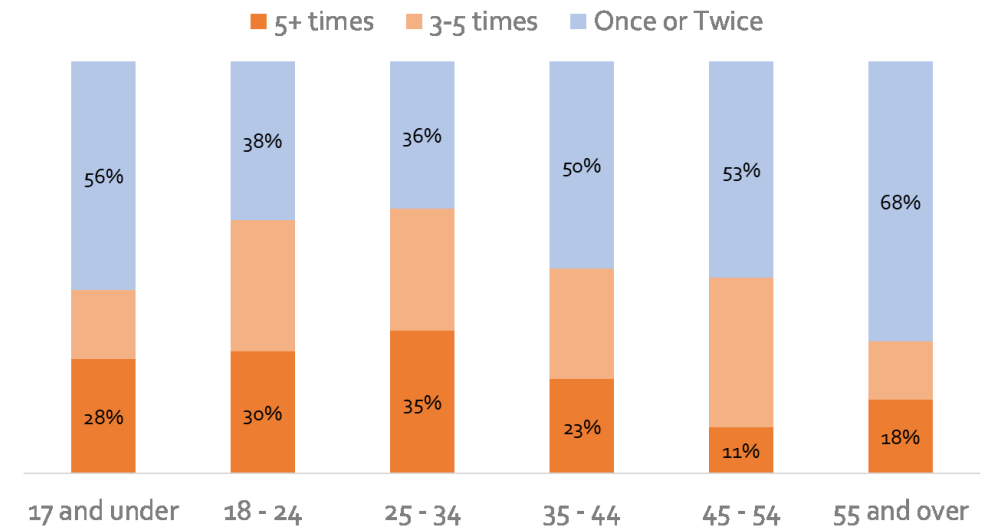
*"Our feet were sore after hiking Knox Mtn & we wanted to get downtown for ice cream!"*

# Survey Respondents

## Age Distribution

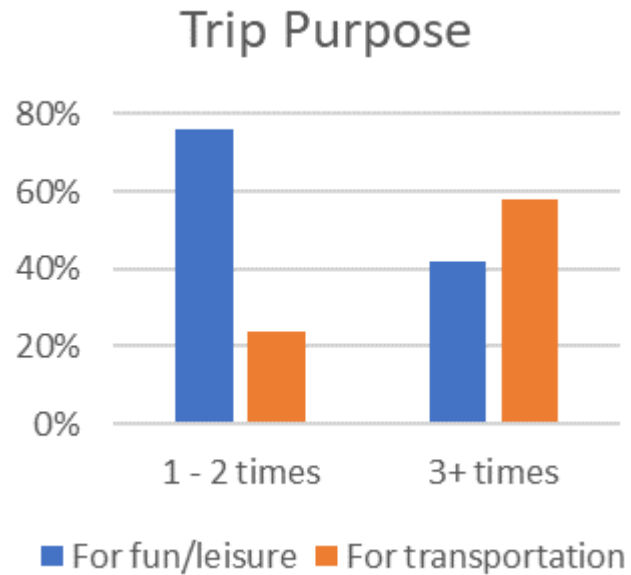


## Frequency of Use by Age

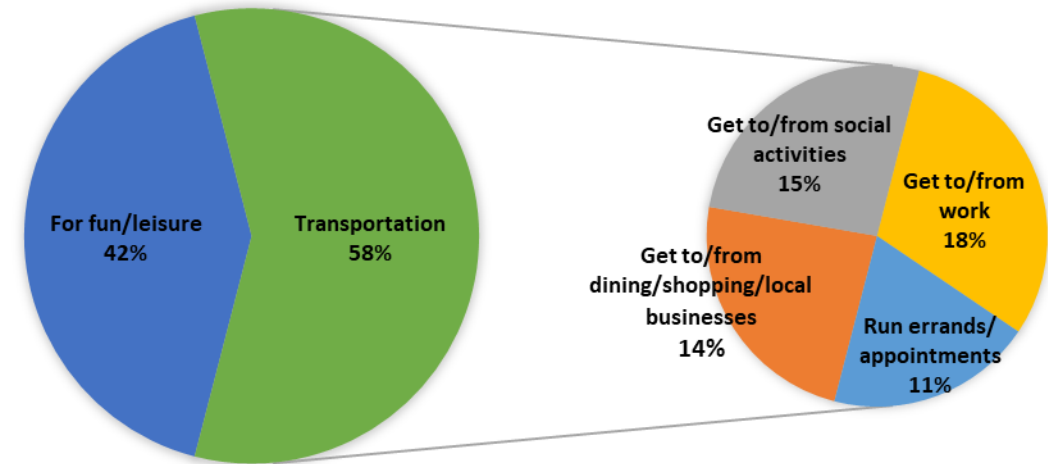




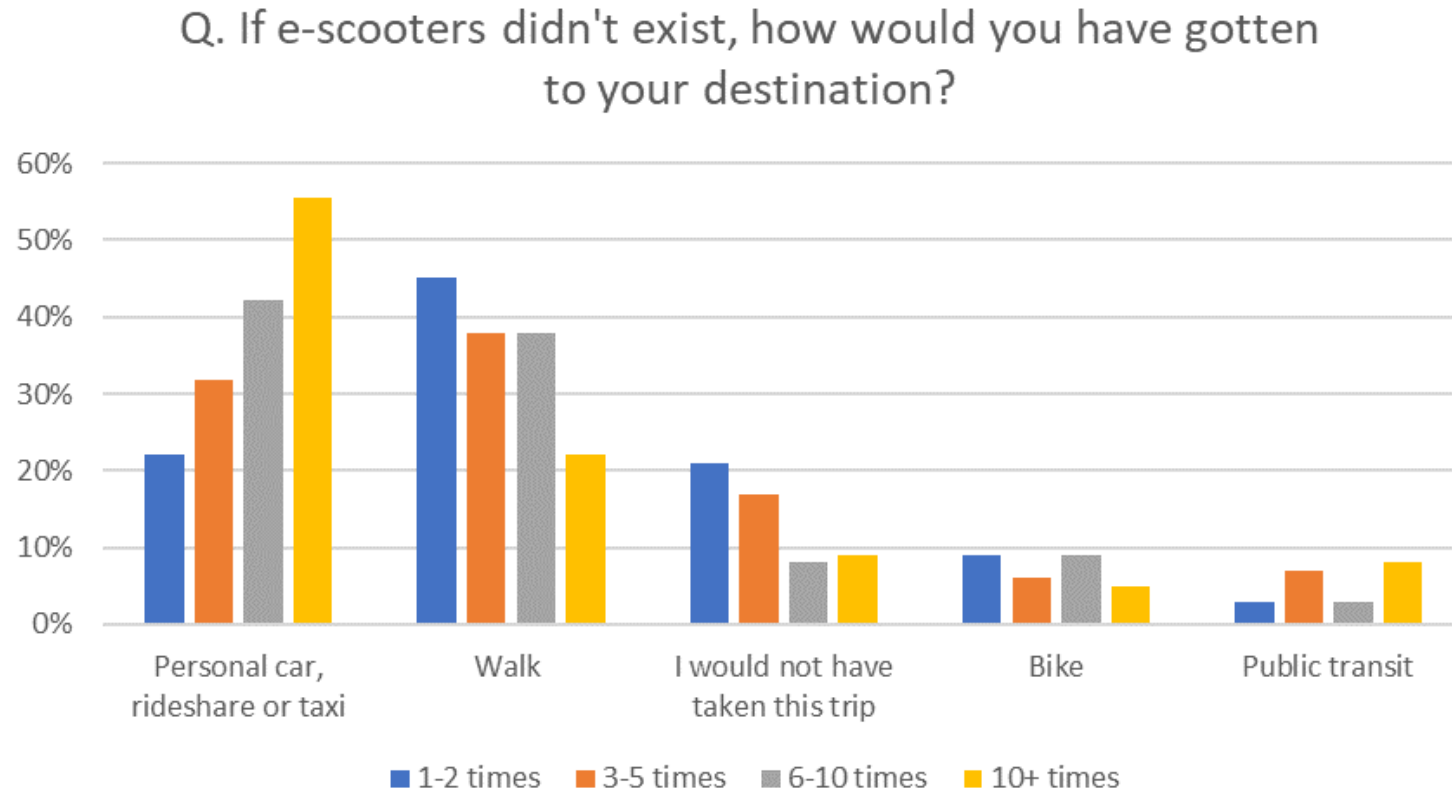
# Trip Purpose



**E-Scooter Trip Purpose  
(3+ times)**

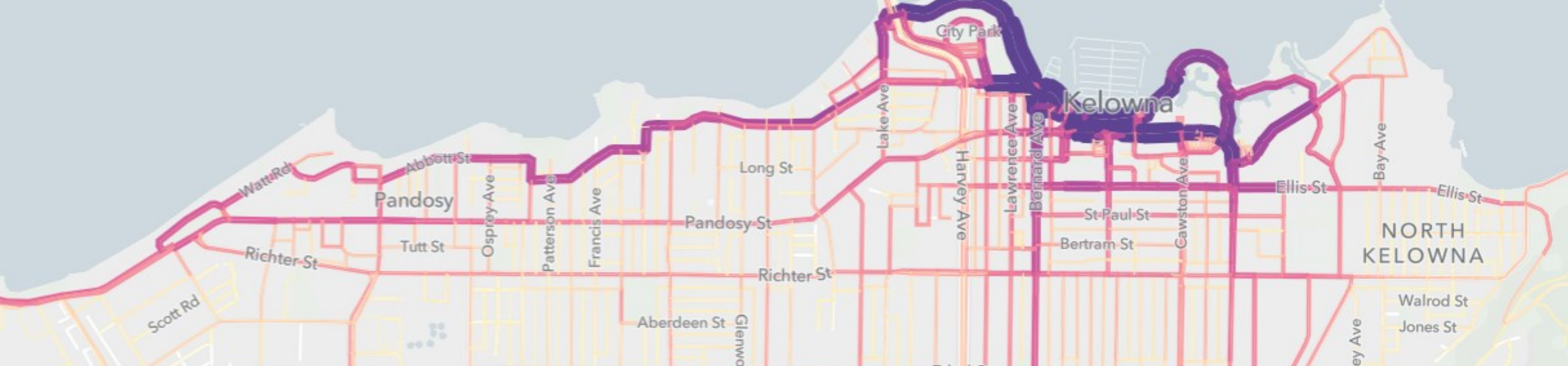


# Travel Mode Replaced

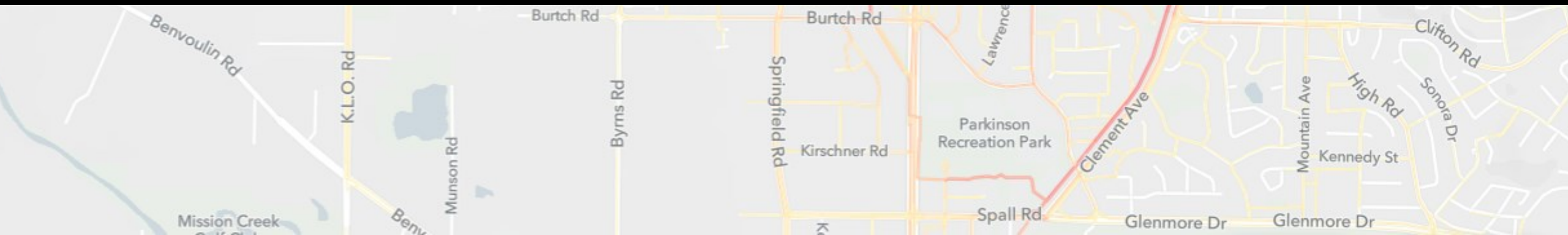


# Taking Cars off the Road

- ▶ An average of 40% of trips replaced driving
- ▶ Annual program projections:
  - ▶ Prevent approx. 274,000 km of vehicle travel
  - ▶ Prevent approx. 50 tonnes of direct vehicle emissions
- ▶ Could increase if trend towards more utilitarian travel continues



# Cost-Effectiveness



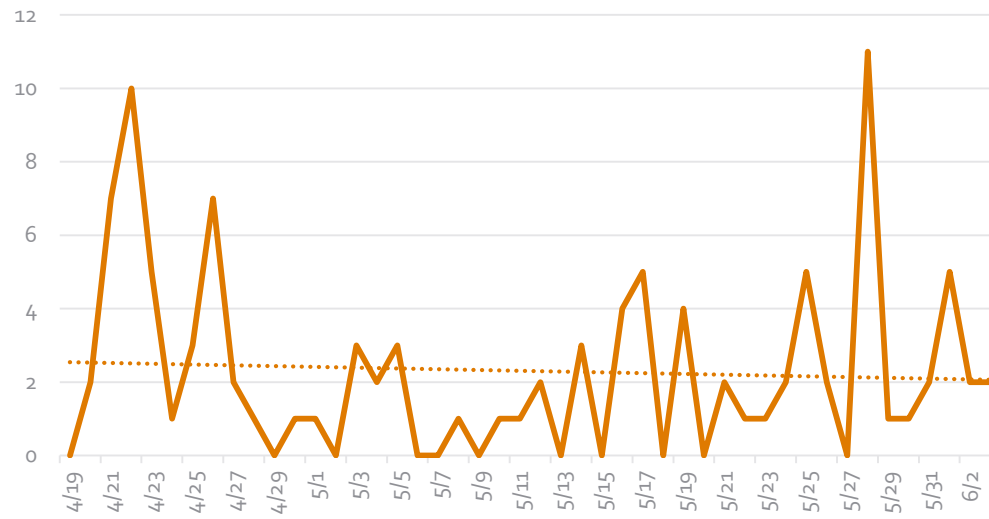


# Value for Money

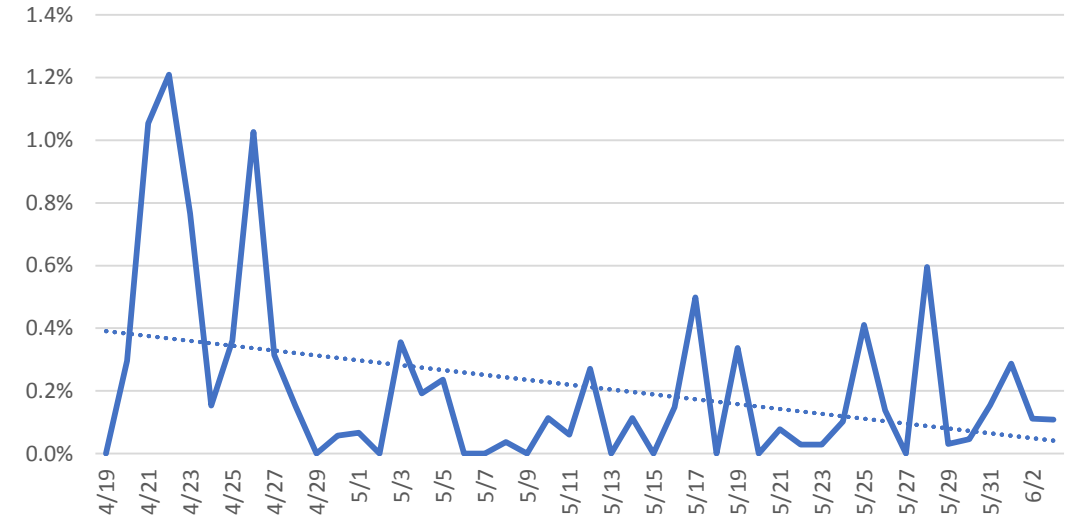
- ▶ Mode share has approached a rate similar to bikes in just 45 days
- ▶ Program has potential to help people get around, reduce vehicle travel and reduce greenhouse gas emissions, at very little cost to the City

# Summary of Public Feedback

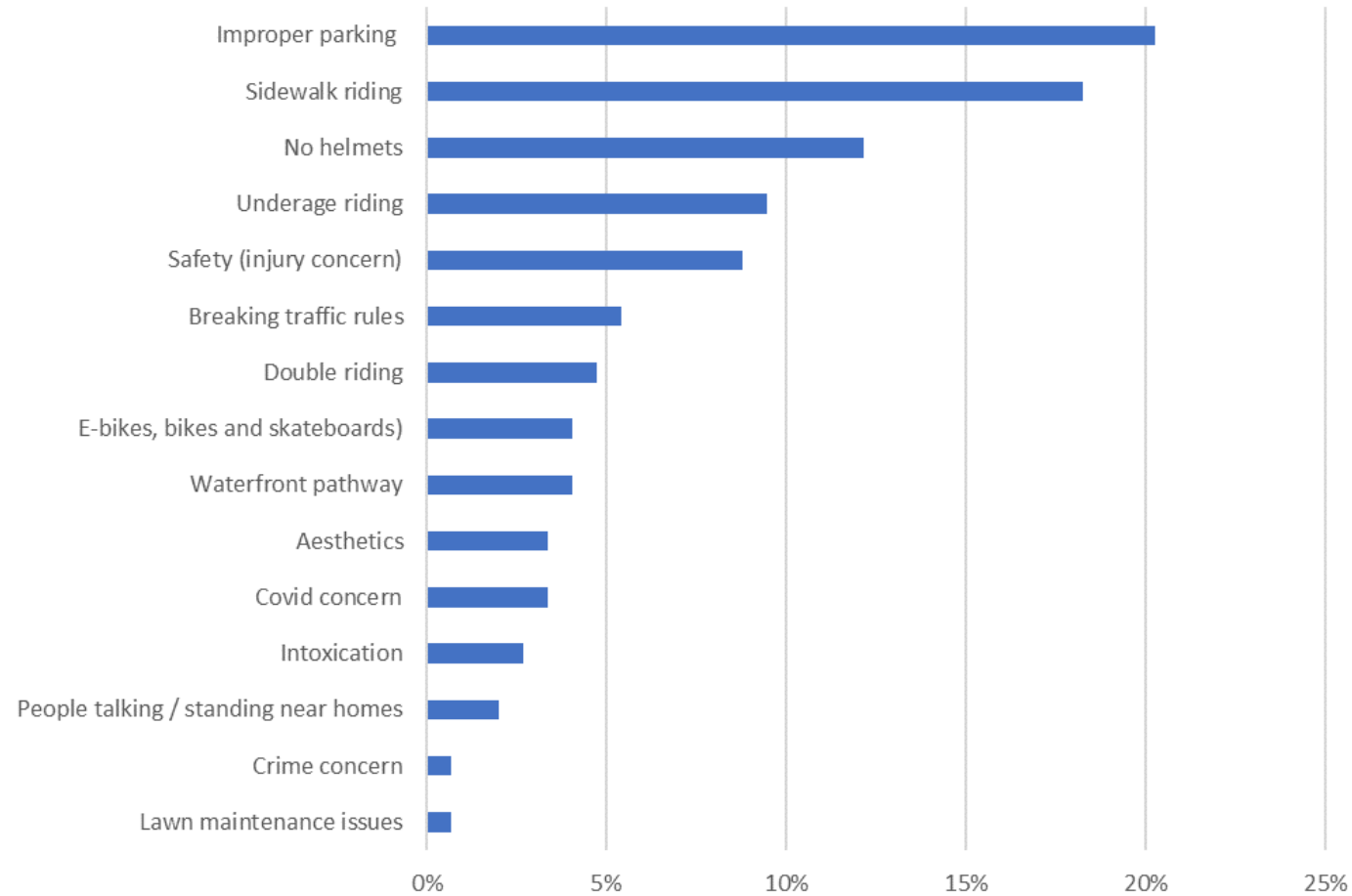
E-scooter Complaints Over Time



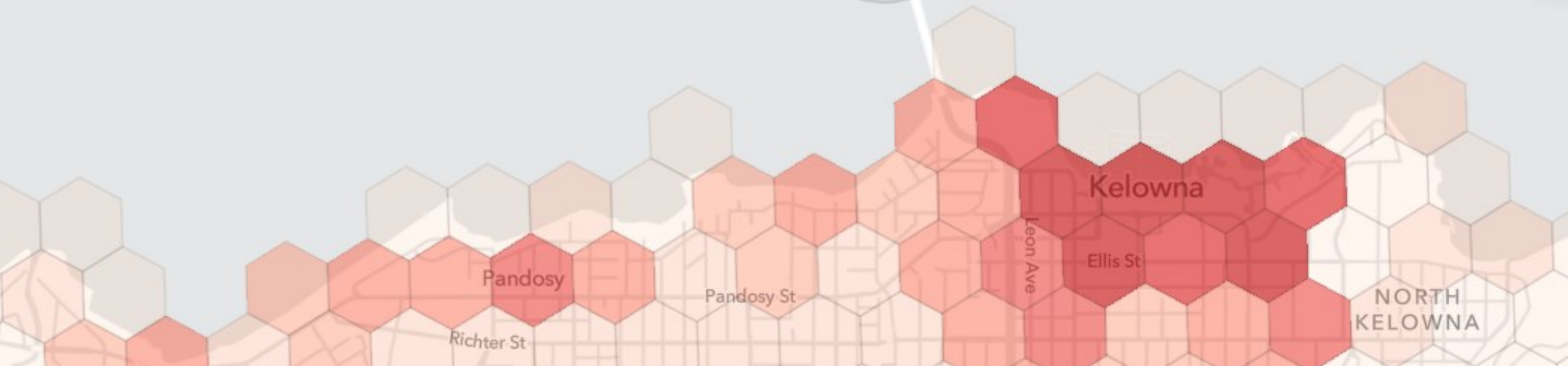
Ratio of Daily Complaints to Rides Over Time



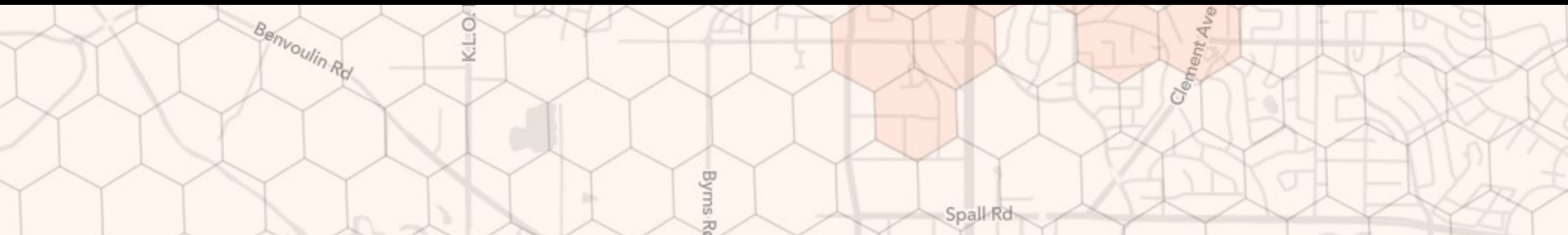
# Common Concerns



City of Kelowna



# Recommended Actions





# Recommended Actions


## ▶ General

- ▶ Not issue any further shared e-scooter permits in 2021 (*new action*)

## ▶ Impaired Riding

- ▶ Late-Night Riding Restrictions (*underway*)
- ▶ Intoxicated Riding Test and Pledge (*underway*)

× BIRD KELOWNA



**Are you safe to ride?**  
Drinking and riding is dangerous and illegal.  
Never operate a vehicle if you're impaired.

**Sober Riding Pledge**  
I pledge that I am sober and not under the  
influence of anything that may render me  
incapable of operating this vehicle in a safe and  
reasonable manner

...

I AGREE

# Recommended Actions

- ▶ Sidewalk Riding
  - ▶ Walk your Wheels Sidewalk Stickers (*underway*)
  - ▶ Sidewalk Riding Detection (*new action*)



# Recommended Actions

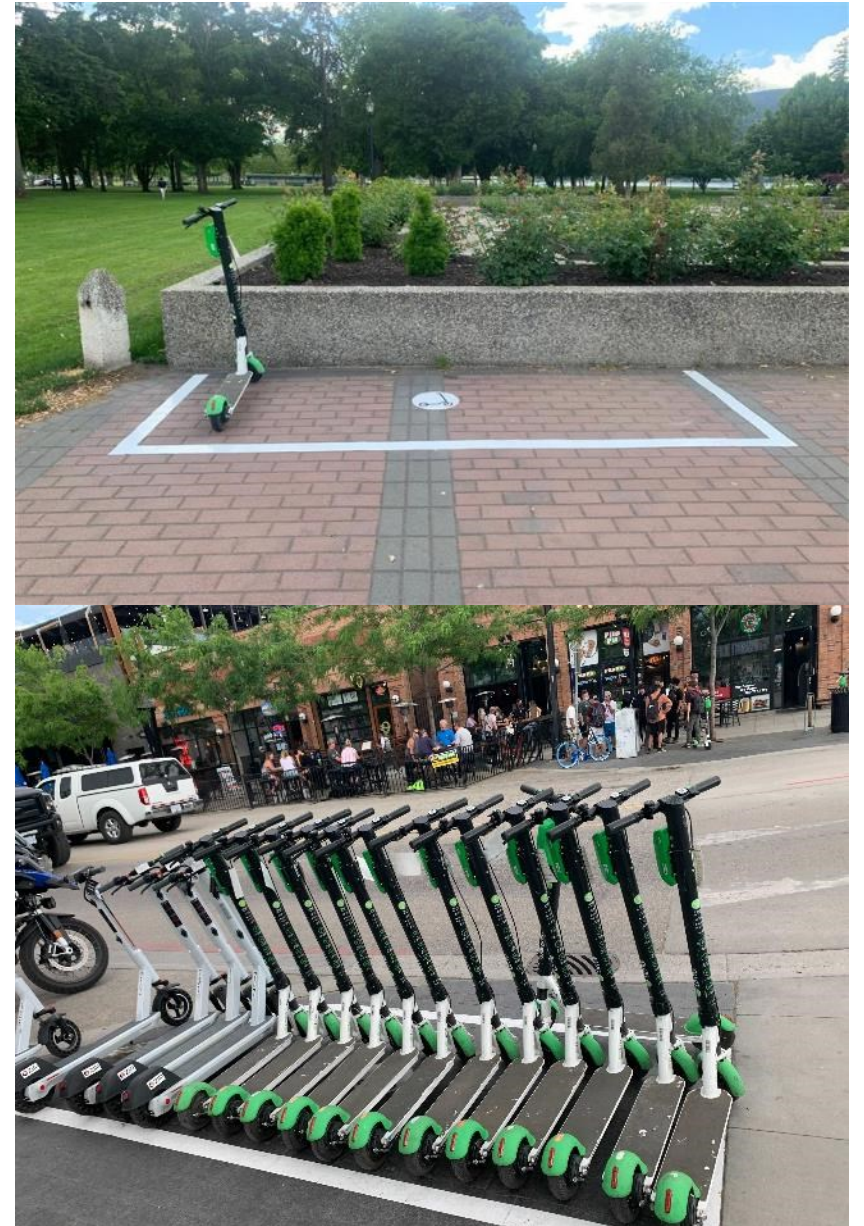
- ▶ Safe Riding
  - ▶ Street Teams (*underway*)
  - ▶ Service-Provider Enforcement Process (*underway*)
  - ▶ E-Scooter Safety Education Campaign (*underway*)
  - ▶ Low Speed First Ride (*new action*)
  - ▶ Rider Training Events (*new action*)





# Recommended Actions

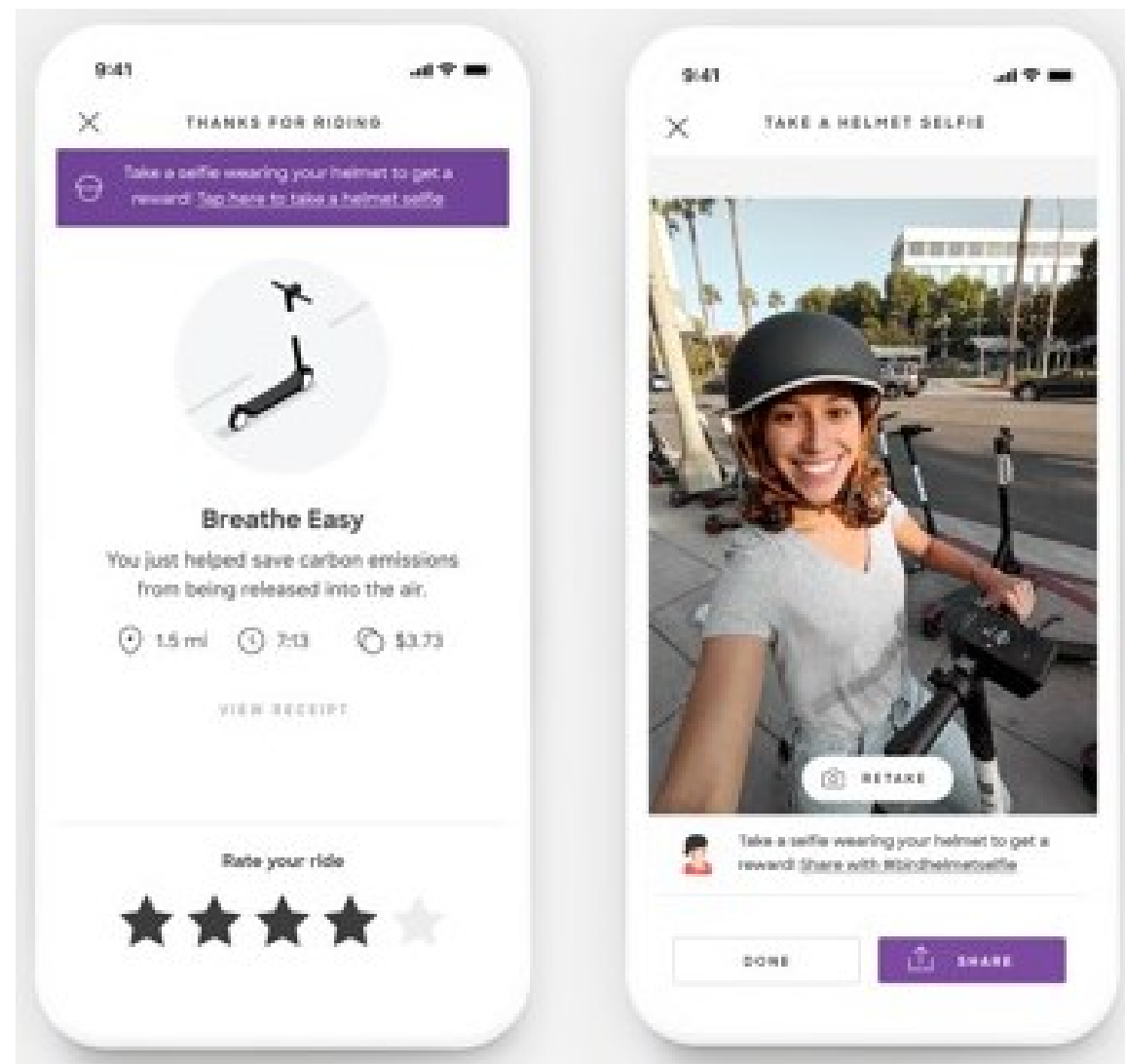
- ▶ Improper Parking
  - ▶ Parking Audits (*underway*)
  - ▶ Preferred Parking Areas (*underway*)
  - ▶ Downtown Deployment Cap (*underway*)
  - ▶ Faster Response Times (*new*)
  - ▶ Parking Compliance – Fines for E-scooter Companies (*new*)





# Recommended Actions

- ▶ Helmet Law Compliance
  - ▶ Free Helmets (*underway*)
  - ▶ Helmet Selfie (*new*)
- ▶ Pedestrian Safety on Shared Pathways
  - ▶ Low-speed zones (*underway*)
  - ▶ Share the Path Education (*underway*)



# Conclusion

- ▶ Big change for Kelowna in a very short timeframe
- ▶ Research indicates e-scooter injury rates are similar to bicycles
- ▶ Strong potential as a cost-effective way to help people get around, take cars off the road, and lower emissions
- ▶ New actions anticipated to accelerate compliance among users





*Questions?*

For more information, visit [kelowna.ca](http://kelowna.ca).