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REPORT TO TRANSPORTATION COMMITTEE MEETING OF WEDNESDAY, FEBRUARY 21, 2024

SUBJECT Literature Review of E-bike and Micro-mobility Safety

ISSUE SUMMARY

To receive results from the Capital Regional District (CRD) Traffic Safety Commission (TSC) literature review on electronic bikes (e-bikes) and micro-mobility safety.

BACKGROUND

On February 8, 2023, the CRD Board requested that the TSC review e-bikes and micro-mobility as it relates to personal use and safety in the region. Micro-mobility is defined as lightweight electric vehicles operated at low speeds such as e-bikes and electronic kick scooters (e-kick scooters). Mobility aids, that assist people experiencing disabilities, use infrastructure as a pedestrian would and are therefore not considered as micro-mobility. Micro-mobility has rapidly grown in popularity. The TSC commissioned the University of Victoria to conduct this review. The review is provided in Appendix A.

The review reveals that a range of factors affect the adoption, risk and safety of micro-mobility devices, including demographics and city infrastructure, as well as the implication of these devices on the environment and life-long health of users. The review offers considerations for jurisdictions interested in supporting the safe use of micro-mobility.

Regulatory Framework and Provincial E-Scooter Pilot

The *British Columbia Motor Vehicle Act (MVA)* has not kept pace with the introduction of new transportation devices. Only two micro-mobility devices have regulatory frameworks under the *MVA*: e-bikes, regulated by the Motor Assisted Cycle Regulation, and e-kick scooters, subject to a provincial pilot and only for local governments participating in the pilot. An e-kick scooter is a battery-powered device with a motor, two to four wheels, a platform for standing and handlebars for steering. The *MVA* is silent on electronic skateboards and other devices. Users of these devices operate outside the *MVA*, posing safety and law enforcement challenges.

The e-kick scooter pilot project began in 2021, offering participating local governments an exemption under the *MVA* to test regulatory approaches. The pilot applies only to e-kick scooters, not other forms of micro-mobility or mobility aids. Early results show the need to balance opportunities and challenges associated with new micro-mobility devices. No local governments in the CRD participated in the initial pilot. The Province recently announced a four-year extension of this pilot, which local governments can join at various intake points starting in April 2024.

Considerations from the Traffic Safety Commission

On January 9, 2024, the TSC received the literature review and considered the findings in relation to the current regulatory framework and the provincial e-kick scooter pilot. Appendix B documents the TSC's considerations.

The TSC supports a regional model bylaw approach. A model bylaw would create consistent regulations across multiple local government jurisdictions, supporting a consistent user experience and reducing laws enforcement challenges. A model bylaw approach is not needed

for participation in the extended pilot as participating local governments opt-in to prescribed regulations.

IMPLICATIONS

Alignment with Board & Corporate Priorities

Corporate plan initiative 4b-3 is to support local governments to implement consistent approaches to transportation demand management, active transportation and safety policy. The review has been shared with the Transportation Working Group.

Alignment with Existing Plans & Strategies

The Regional Parks and Trails Strategic Plan identifies development of a micro-mobility policy as a medium-term priority. The review findings, and any additional lessons learned from the provincial e-kick scooter pilot, could support policy development at the appropriate time.

Environmental & Climate Action

The CRD Board has declared a climate emergency. In 2022, on-road transportation accounted for 42% of all carbon pollution in the region. New travel behaviours including micro-mobility are one solution to get more people taking sustainable trips. The 2022 CRD Origin Destination Household Survey highlights that e-bikes represent about 10% of bicycles and about 30% of bicycle trips and represent a major portion of the additional bike trips reported between surveys. The review includes considerations for supporting the safe adoption of micro-mobility.

Equity, Diversity & Inclusion

The review findings show that uptake and use of micro-mobility varies across ages and geographic regions, and is affected by the availability of safe, comfortable and connected active transportation infrastructure. More research is needed to review psychological factors that influence the safe use of these modes of transportation including perceptions of risk (e.g., speeding, signaling).

The review findings suggest that micro-mobility devices may offer older adults a means of maintaining greater independence as they transition from driving personal vehicles. E-scooters and other non-bicycle micro-mobility devices are popular with younger demographics while e-bikes are more represented in older demographics. Younger demographics are disproportionately impacted by the lack of a regulatory framework for e-mobility devices.

Social Implications

The review findings show there are physical and mental health benefits of using micro-mobility. These need to be weighed against the need for more analysis on the safety implications of increased micro-mobility. More provincial safety data is needed to assess risks associated with injuries. Such analysis would be best done at the provincial level as a component of a more nuanced data collection program.

The review findings also show that societal expectations around what is considered transportation and uptake of new technology continues to change at a rapid pace. Technological change and societal expectations move far faster than regulatory change.

Intergovernmental Implications

Micro-mobility users, like all road and trail users, travel between communities to access housing, employment, services and recreation. The provincial e-kick scooter pilot allows participating local governments to opt-in to an MVA regulation to allow the use of e-scooters on roads. There is no

longer a requirement for local governments to amend their roads bylaws to participate. The TSC supports the need for consistent regulations of e-kick scooters, and in the future other micro-mobility devices, across local governments in the region.

Service Delivery Implications

The CRD does not have the authority or resources to take a role in coordinating a consistent approach to regional micro-mobility under its current service mandate. A new transportation service, with authority over micro-mobility and model bylaw development, could have such a role. The TSC considerations could inform a micro-mobility program under a new transportation service. Initial feedback received through the transportation governance initiative suggests that micro-mobility should be scoped into such a service.

The CRD can introduce bylaws relating to use of the regional trail network. Any bylaw changes related to micro-mobility on the regional trails should be consistent with the approach of other local governments, given that the regional trail is in a connected active transportation network spanning multiple local governments.

The CRD cannot participate in the extended pilot as it does not have jurisdiction over streets and roads in the region. Electoral Areas are also exempted from applying to the pilot as their road network is under the provincial jurisdiction.

CONCLUSION

The popularity of micro-mobility devices continues to grow across the region. The review findings show micro-mobility is beneficial, when safely and consistently regulated. Safe and consistent regulation would be best achieved on a province-wide basis, through an amendment to the *MVA*. The CRD has neither the authority nor resources to take a leading role in how new transportation technologies are used in the region. A new CRD transportation service would be needed for the region to play a role in micro-mobility. This service authority is being considered through the transportation governance initiative that is currently underway.

RECOMMENDATION

There is no recommendation. This report is for information only.

Submitted by:	Emily Sinclair, MCIP, RPP, Senior Manager, Regional and Strategic Planning
Concurrence:	Kevin Lorette, P. Eng., MBA, General Manager, Planning & Protective Services
Concurrence:	Ted Robbins, B. Sc., C. Tech., Chief Administrative Officer

ATTACHMENTS

- Appendix A: A Review of Micro-mobility Devices: Implications for Use and Safety
- Appendix B: Micro-mobility Brief to the Traffic Safety Commission