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To / Destinataire	File	
From / Expéditeur	Kunjan Ghimire, Transportation Planning, Planning Real Estate & Economic Development Department	
Subject / Objet	Results of the 2023 Electric Kick Scooter Season and Plans for the 2024 Season	Date : 2 April 2024

On April 12, 2023, Council approved the [2022 Electric Kick Scooter Pilot Report \(Year 3\)](#). Recommendation 6 of the report states:

Delegate authority to the General Manager of the Planning, Real Estate and Economic Development Department to approve the continuation of the shared Electric Kick Scooter Pilot for the 2024 season using the Follow-On Contract and to revise the fee structure, as required, should the General Manager be satisfied with the 2023 results.

The purpose of this document is to provide a summary and key highlights of the 2023 e-scooter season (year 4) and an overview of plans for the 2024 e-scooter season (year 5).

Background

On January 1, 2020, the Province of Ontario initiated a [5-year e-scooter pilot](#). Municipalities may choose to opt into the pilot by enacting a By-Law that sets out where and how e-scooters may be used. On June 10, 2020, Ottawa City Council approved an [E-Scooter Strategy and Pilot Project](#) for Ottawa. This was followed by an E-Scooter By-Law on June 24, 2020, making it legal to operate e-scooters on City streets and bike facilities, subject to certain restrictions.

A shared e-scooter program was launched on July 16, 2020 with the goal of providing residents and visitors with a new mobility option, especially for shorter trips. E-scooters also support the City's broader mobility objectives by improving access to transit, providing an alternative to driving, and reducing greenhouse (GHG) emissions. As part of the program, which is designed to be revenue-neutral, the City is responsible for selecting shared e-scooter providers and overseeing their operation. The first two seasons in 2020 and 2021 demonstrated the benefits of shared e-scooters; however, concerns emerged related to accessibility, sidewalk riding, and parking, and several measures were adopted to improve the program based on the lessons learned.

After the successful completion of the third season in 2022, Council received the results of the [2022 Electric Kick Scooter Pilot Report \(Year 3\)](#) on April 12, 2023, and approved the

continuance of a fourth season in 2023. At the same time, Council delegated authority to the General Manager of Planning, Real Estate and Economic Development to approve the fifth (and final) year of the pilot – should the results of the 2023 season be satisfactory – and to enter into a follow-on contract with the same service providers who were awarded the 2022 and 2023 contracts.

2023 Season Summary – Key Highlights/Results

Two providers, Bird Canada and Neuron Mobility, each operated with a maximum fleet size of 450 e-scooters (total of 900 for the program). Each service provider deployed approximately 88 percent of their allowable vehicles during the season. The deployment area was bounded by St. Laurent Blvd. in the east, Rideau River / Carling Avenue in the south, Churchill Avenue in the west and the Ottawa River in the north. This area was over twice the size of the 2022 deployment area, as shown in Figure 1. As in previous seasons, e-scooters could be rented from 6AM to 11PM.

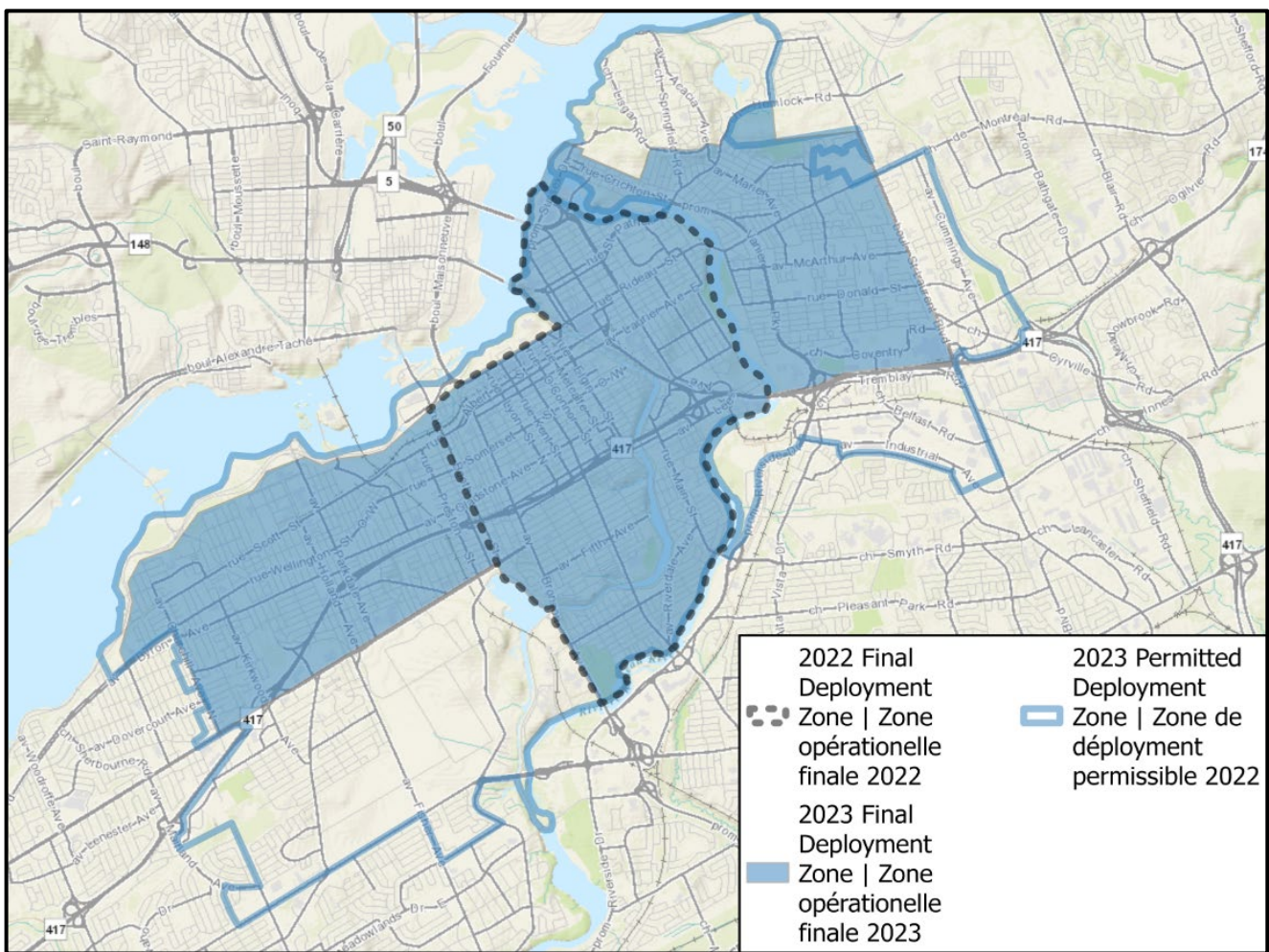


Figure 1: E-Scooter Deployment Zone, 2022 and 2023

The 2023 season ran from May 15 to November 15. During this time, approximately 50,000 unique riders took approximately 179,000 rides on a fleet of shared e-scooters. The total distance covered was approximately 350,000 km, resulting in an estimated reduction in CO₂ emissions of between 9,000 and 12,000 kg-CO₂eq. The 2023 season was roughly 40% longer

in duration than the 2022 season and had more than twice the trips. Figure 2 shows the usage over the last four seasons.

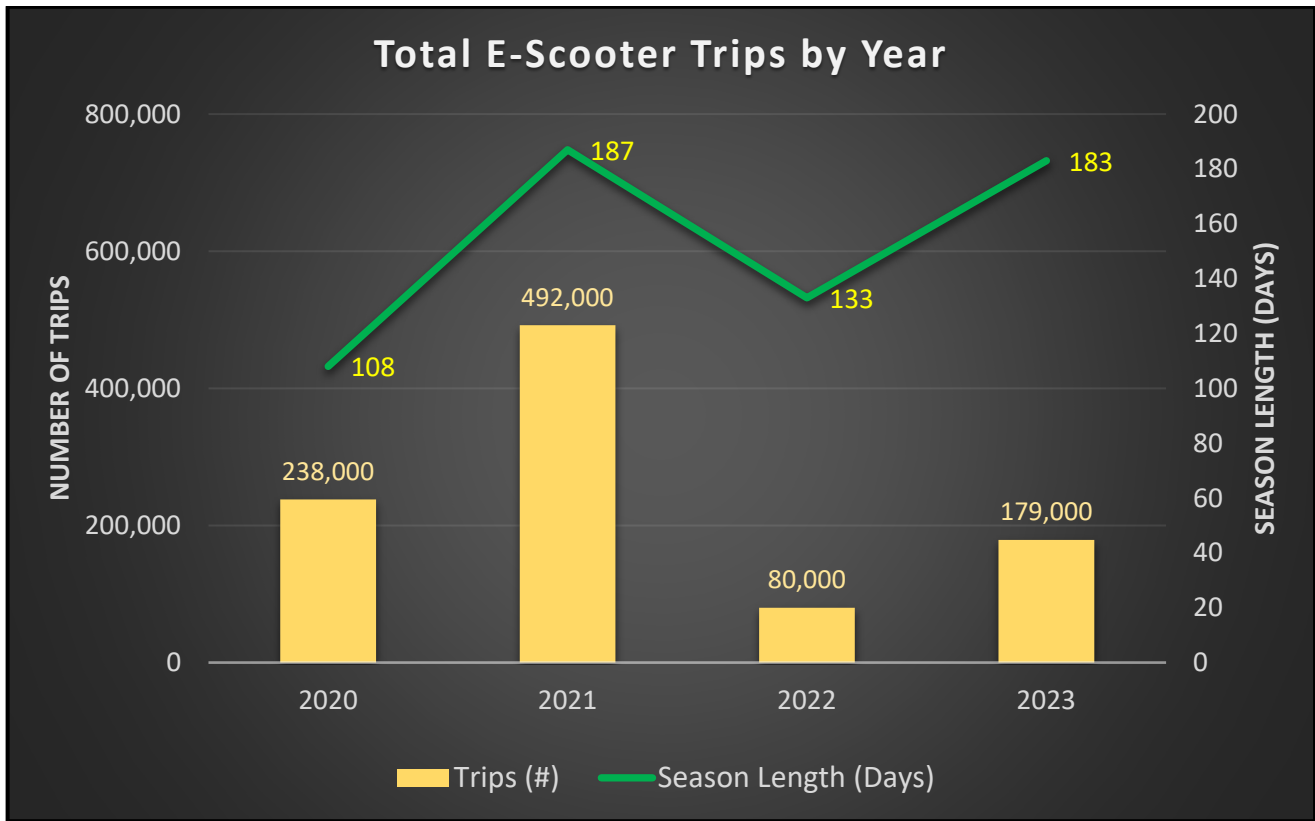


Figure 2: Total E-Scooter Trips by Year

As was observed in the first three seasons, shared e-scooters continued to provide residents with a convenient and environmentally friendly mobility option during the 2023 season. Throughout the season, an average of approximately 1000 trips per day were completed. During the busier part of this season, in July, daily e-scooter usage averaged approximately 1,200 trips on weekdays and around 1,800 trips on weekends, with some weekends seeing up to 2,500 daily trips. The average trip distance was 2.1 km, while the average trip duration was 14.8 minutes. The average vehicle utilization (number of daily trips per scooter) decreased in 2023 compared to 2022, from 2.3 trips per vehicle per day to 1.4 trips.

Lessons learned from the 2020 and 2021 season prompted additional requirements and monitoring in the 2022 and 2023 seasons. Most significantly, the geofencing of all sidewalks throughout the deployment area to reduce sidewalk riding; establishment of 600 plus designated parking locations; hiring of By-law staff to monitor and triage service requests; streamlining all complaints / information requests through By-law; and the requirement for mandatory sound emissions. These changes have improved the pilot year-over-year. Although staff have seen improvements in the program with these changes, residents have indicated that mis-parking and sidewalk riding remain a concern from a safety and accessibility perspective. The following is a summary of key highlights from the 2023 season based on a review of the data. More detailed results from the 2023 season can be found on the project website.

Feedback/Issue Tracking

The city received feedback through a variety of means, such as: through 3-1-1, the season-end survey, from ward councilors, through direct inquiries to City staff as well as through social media and traditional media. All service requests generated by the complaints received by 3-1-1 were directed to By-law officers who would then follow-up with the appropriate e-scooter providers to address the issue as required.

In 2023, 333 service requests were received through 3-1-1, which is 13 percent higher than the 295 complaints received in 2022 (refer to Figure 3). However, the 2023 e-scooter season was 50 days (38 percent) longer than the 2022 season. In addition, the deployment zone in 2023 was over twice as large, and there were over twice as many trips. The majority of the complaints (81 percent) were about mis-parking, while 8 percent of the complaints were about sidewalk riding. The remaining complaints were about broken vehicles and other inquiries. There were also a few complaints that were categorized as e-scooter but were related to bicycles and/or e-bikes.

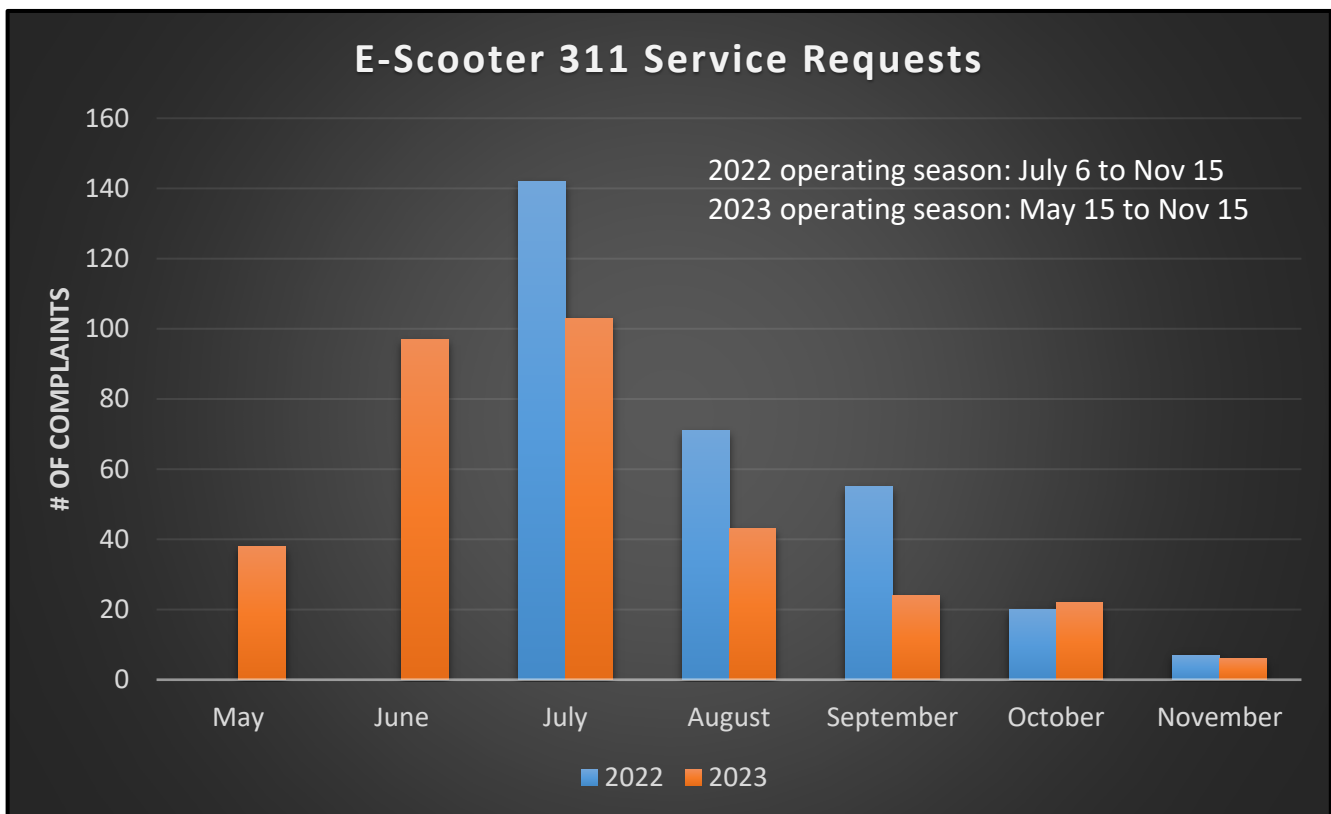


Figure 3: E-Scooter 311 Service Requests

A weekly onsite survey was conducted by City staff in the retail and commercial corridors in the ByWard Market, downtown, and the Glebe to observe e-scooter parking behavior. A total of 3100 parked e-scooters were surveyed over the course of the season. Overall, 94 percent of e-scooters were parked correctly, with 6 percent slightly mis-parked and a negligible percentage severely mis-parked. The virtual and physical parking corrals have greatly reduced

parking-related issues. E-scooters are no longer allowed to park anywhere other than the designated parking locations.

Similarly, sidewalk riding was monitored during the 2023 season using Miovision cameras at 10 locations. These cameras were deployed on Friday or Saturday every month between 15:00 and 21:00. The average (mean) number of e-scooters identified as operating on the sidewalk during each 6-hour window (at all 10 locations combined) was 4.25. In 2022, this number was 3.73. The camera does not distinguish between shared e-scooters and privately owned e-scooters. Unlike shared e-scooters, privately owned e-scooters do not have sidewalk detection technology which deters riders from travelling on the sidewalk. As a result, the higher incidence of sidewalk riding in 2023 may be at least partially attributed to the growing number of privately owned scooters.

Reported Injuries

According to data provided by the e-scooter providers, 7 minor injuries were reported to Bird Canada during the 2023 season. None of these injuries required a hospital visit or resulted in serious injury. Similarly, there were 6 verified incidents reported to Neuron, of which 3 required medical attention. In 2022, the total number of injuries reported to either Bird or Neuron that required medical attention was also 3.

According to data provided by the Ottawa Police Service, there were 7 reported e-scooter related collisions in 2023, 6 of which were classified as non-fatal injuries and 1 as property damage only. This data does not distinguish between shared or privately owned e-scooters and/or e-bikes. There were 4 reported collisions in 2020 (3 non-fatal injuries and 1 property damage only). In 2021, there were 6 reported collisions (3 non-fatal injuries and 3 property damage only). Data for 2022 is not available.

Ottawa Public Health has completed a detailed review of emergency department visits at Ottawa hospitals that may be associated with kick type e-scooters from 2016 to June 2023, the most recent data available. The data does not distinguish between shared e-scooters and privately owned e-scooters. The collected hospital data shows that emergency department visits that may be associated with kick type e-scooters decreased to 67 in 2022 compared to a high of 166 in 2021, a reduction of 60 percent. This reduction is somewhat less than would be expected given the 84 percent reduction in shared e-scooter usage in 2022 (80,000 annual trips versus 492,000 in 2021), but does not account for trips by privately owned e-scooters which are becoming increasingly popular. Comparing data from April to June in 2022 and 2023, the number of injuries were similar (38 in 2022 and 34 in 2023), despite the 2022 shared e-scooter season not starting until July, suggesting that privately owned scooters make up a significant portion of hospital visits. Additional details about e-scooter related emergency department visits at Ottawa hospitals can be found on the project website.

Overall, based on the reported data, injury trends appear to be relatively stable despite some year-over-year variability, and there is no evidence of any emerging safety concerns.

Tickets/Warnings

E-scooter providers are required to issue fines and/or suspensions to riders who behave inappropriately. In the 2023 season, there were 0 fines and 4 suspensions (account bans) for sidewalk riding and other egregious behavior. In 2022, there were 0 fines and 30 suspensions.

According to data provided by the Ottawa Police Service (OPS), there were 3 tickets and warnings issued by OPS in 2023. This number was 0 in 2022, 24 in 2021 and 14 in 2020.

Facilitating Transit and Multimodal Trips

One of the potential benefits of e-scooters is to facilitate access to transit. Based on data for individual e-scooter rides, it was found that 18 percent of all e-scooter trips in the city started or ended within 150 m of a transit station in 2023, compared to roughly 5 percent in 2022, 4 percent in 2021 and 2 percent in 2020 - although these lower rates in the first two years of the pilot program may have been affected by the pandemic. This indicates a rising trend of integrating e-scooters with transit trips, serving as either the initial or final leg of the commute. To support/encourage these sustainable multimodal trips, the City can consider extending e-scooter operating hours to match with transit operating hours i.e., 5 am to 1 am.

Operating Hours

Since the first year of the pilot in 2020, e-scooter operating hours have run from 6AM to 11PM. In 2023, the City piloted extended operating hours at two locations for the latter part of the season (end of August to mid November):

- Lansdown Park: e-scooter rentals were available from 6AM to 12AM (one hour extension); and,
- Central Business District: e-scooter rentals were available from 5AM to 1AM (two hour extension).

To deter drunk riding, Bird Canada activated the SAFE start feature on its scooters after 11PM, which requires riders to pass a series of questions in-app before the e-scooter can be operated. Neuron scooters detect erratic swerving and provide a verbal warning to the rider that dangerous riding is detected, and that the e-scooter will shut down if swerving continues. Three warnings are given and then the e-scooter engine will cut out.

Based on data provided by the vendors, the extended operating hour pilot was a success. There was good demand for e-scooters during the extended hours with no reported safety incidents. End-of-season reports for the two e-scooter providers (Bird Canada and Neuron Mobility), including details on the extended operating hour pilot, can be found on the project website.

End of Season Survey

The survey was open to the public from October 30 to November 24, 2023. In total, 589 people responded to the survey; 48 percent of these respondents indicated that they had ridden an e-scooter during the 2023 season, while 52 percent had not. The following provides some of the key highlights from the survey:

- Respondents indicated that having access to shared e-scooters provided them with an alternative mode of travel. The results suggest that the most common reasons for using

a scooter are to get to/from social activities/work/shopping, and to run errands/appointments.

- When asked why they chose to use an e-scooter for their trip, respondents reported that e-scooters were faster/more efficient than other modes of transportation and allowed them to avoid the cost/hassle of parking a car.
- In terms of parking issues, 56 percent of respondents reported encountering a mis-parked scooter during the 2023 season, indicating the need for continued diligence in this area.
- Overall, 61 percent of respondents indicated that they had observed sidewalk riding. Of these, 40 percent indicated that the e-scooters involved were privately owned, while 39 percent were unsure if the e-scooters were private or shared. The remaining 21 percent identified the e-scooters as belonging to either Bird or Neuron.
- When asked about the e-scooter sound emissions, 42 percent of respondents felt that the sound requirement “helps those with mobility or vision disabilities to feel safer” and an additional 30 percent indicated that they personally “feel safer hearing the sound”.
- 61 percent of respondents agreed that shared e-scooters should continue to be offered in Ottawa, 29 percent did not agree and the remaining 10 percent were neutral.

The full results of the survey in the form of an “As We Heard It (AHWI)” report can be found on the project website.

Fee Structure:

The 2023 season fees collected from the e-scooter providers are summarized in Appendix 1. There was approximately \$173,000 in revenues, while the City’s e-scooter related expenses were approximately \$130,000. This resulted in a surplus of \$43,000. Since the program is designed to be revenue-neutral, there is an opportunity to lower the fees in 2024. For the 2024 season, staff will remove the user fee of \$0.10 per ride. Applying this change to the 2023 season would reduce the overall revenue to \$155,000. This level of revenue would fully cover the City’s 2023 expenses and would also leave a buffer to account for higher expenses in 2024 due to inflation. It will also cover increased costs for an expanded education program in 2024 and will allow By-law Services to hire an additional co-op student to support enforcement activities. This option has the added advantage of eliminating the staff time required to prepare monthly invoices based on the number of trips.

The Fee Structure since the beginning of the pilot, including the recommended fees for the 2024 season, are provided in Appendix 1.

Private E-Scooter Users

There is an increasing number of private e-scooters operating in Ottawa and conversations with the providers suggest that private e-scooters are on the rise industry wide. In Ottawa, there is at least one e-scooter rental company and a growing number of businesses that sell e-scooters, including global brands operating online. Both private and shared e-scooters are subject to the City’s E-Scooter By-Law which makes certain types of behaviour illegal (such as sidewalk riding). However, while the City can impose requirements on shared e-scooter providers to reduce improper/illegal use of their scooters, the City cannot impose similar requirements on private e-scooters. Private e-scooters are not sold with the technology to support geofencing of sidewalks, slow-zones, and other restricted areas, and generally do not include sound emissions. In 2023, staff disseminated education brochures to businesses

selling private e-scooters and ran an online education campaign to remind those operating private e-scooters that the rules of the pilot program apply to them.

Plans for 2024

Following a review of the 2023 season, including feedback received from Councillors and the public, staff are planning the following for the 2024 season:

New Measures

- Start the season as early as April 15th (i.e. a month earlier than in 2023), subject to weather and street sweeping operations, and end November 15.
- Revise the fee structure for the 2024 season as shown in Appendix 1.
- Extend the operating hours from 5AM to 1AM (previously 6AM to 11PM) throughout the deployment area, with the exception of the ByWard Market, with language in the agreement that would allow the City to revert to 2023 operating hours at any point if necessary. Ensure companies deploy sobriety technologies for all rides after 11PM such as erratic driving detection and/or ride quizzes that must be passed before the e-scooter will start.
- Start with a fleet size of 900 and increase to a maximum of 1,200, if requested and justified by the service providers. Approval would be dependent on the average utilization per vehicle and demand from the public.
- Explore options with the service providers to make helmets available to all riders (Neuron already provides a helmet with its vehicles).

Measures from 2022/2023 for Continuation in 2024

- Hire a full-time co-op student as an additional resource for the program (to collect/review/monitor data, etc.) funded by the pilot program fees.
- Continue funding support from By-Law staff to manage all inquiries and complaints.
- Require service providers to deploy geofencing for sidewalks, slow zones, and restricted areas city-wide.
- Require service providers to use the same parking areas, and designate them in their app.
- Continue adding e-scooter signage (customized flex stakes) to the established physical signed parking locations and/or review the potential for using other alternatives to designate parking.
- Mandatory “no riding on sidewalk” stickers on e-scooter floorboards.
- Mandatory unified sound emissions for accessibility purposes.
- Streamlined service requests received through 3-11 and transferred to By-Law staff.
- 15-minute response time for service providers to address mis-parking complaints.
- Develop and implement an educational campaign targeted at private e-scooters, including hand-out materials that can be distributed to e-scooter retailers, social media campaigns and/or video ads. Identify opportunities to expand the campaign through other programs or initiatives such as the Cycling Safety Awareness Program (CSAP), Safer Roads Ottawa (SRO), etc.
- Continue to hold discussions with the National Capital Commission (NCC) about the potential for e-scooter use on NCC pathways in Ottawa.

- Continue to collect/analyze City data on parking, sidewalk riding, etc.
- Review the data obtained from providers (pre-season report, mid-season report, end of season report, weekly submissions).
- Continue to work with accessibility stakeholders to identify best practices for braille including orientation on the scooter and material used.
- Require service providers to provide a QR code directing complaints/questions to the City's e-form.

Next Steps

This file has outlined the results of the 2023 e-scooter season as well as plans for the continuation of the e-scooter pilot in 2024. . Staff will next initiate the process of offering contract extensions to Bird Canada and Neuron Mobility for the 2024 season, which is the fifth and final year of the Provincial pilot. Staff will report back to Transportation Committee and Council once the Province has made a decision on whether to extend the pilot, make the pilot permanent, or discontinue it.

For further questions about the e-scooter pilot, please contact:

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APPENDIX 1

Revised Fee Structure

City of Ottawa: Shared Electronic Kick Scooter Fees Planning, Real Estate and Economic Development Department				
Item	2021 Rate	2022 Rate	2023 Rate	2024 Amended Rate
Application Fee	\$5,000.00	\$10,000.00	-	-
Administration Fee	-	-	\$10,000.00	\$10,000.00
Application for Increase to Existing Fleet Fee	\$2,000.00	\$5,000.00	-	-
Vehicle Fee (per vehicle)	\$50.00	\$100.00	\$150.00	\$150.00
Communications and Engagement Fee (per vehicle)	\$10.00	\$20.00	-	-
Compliance Fee (per vehicle)	-	\$130.00	-	-
Trip Fee (per ride – up to 200,000 trips)	-	-	\$0.10	-
Station Encroachment Fee	\$250.00	\$250.00	\$250.00	\$250.00