Subject: 2022 Electric Kick Scooter Pilot Report (Year 3)

File Number: ACS2023-PRE-TP-0003

Report to Transportation Committee on 23 March 2023

and Council 12 April 2023

Submitted on March 14, 2023 by Vivi Chi, Director, Transportation Planning Services, Planning, Real Estate and Economic Development Department

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Ward: Citywide

Objet : Rapport sur le Projet pilote relatif aux trottinettes électriques de 2022 (troisième année)

Dossier : ACS2023-PRE-TP-0003

Rapport au Comité des transports

le 23 mars 2023

et au Conseil le 12 avril 2023

Soumis le 14 mars 2023 par Vivi Chi, Directrice, Planification des transports, Services de la planification, des biens immobiliers et du développement économique

Personne ressource : Heidi Cousineau, Gestionnaire de programme, Modération de la circulation dans les quartiers, Planification des transports, Direction générale de la planification, des biens immobliers et du développement économique

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Quartier : À l'échelle de la ville

REPORT RECOMMENDATION(S)

That the Transportation Committee recommend that Council:

1. **Receive the results of the 2022 season for the shared Electric Kick Scooter Pilot Program, as outlined in this report;**

2. **Approve the continuation of Ottawa's shared Electric Kick Scooter Pilot Program in 2023 with the proposed changes and recommendations in this report;**

3. **Approve the use of a Follow-On Contract to award the 2023 season to the two successful proponents of the competitive process used for the 2022 season;**

4. **Approve the proposed changes to the fee structure of Ottawa's Shared Micromobility Framework as outlined in this report;**

5. **Delegate authority to the General Manager of Planning, Real Estate and Economic Development Department to approve changes to the fleet sizes, as outlined in this report;**

6. **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.**

RECOMMANDATION(S) DU RAPPORT

Que le Comité des transports recommande au Conseil ce qui suit :

1. **Prendre acte des résultats de la saison 2022 du Projet pilote relatif aux trottinettes électriques présentées dans le rapport;**

2. **Approuver la poursuite du projet pilote en 2023, à condition d'appliquer les recommandations et changements proposés dans le rapport;**

3. **Approuver l'attribution d'un contrat subséquent aux deux soumissionnaires retenus lors du concours de 2022 pour la saison 2023;**

4. **Approuver les modifications proposées pour la grille tarifaire du cadre de services partagés de micromobilité d'Ottawa décrites dans le rapport;**

5. **Déléguer au directeur général de la Planification, de l'Immobilier et du Développement économique le pouvoir d'approuver les modifications de la taille du parc, décrites dans le rapport;**

6. **Déléguer au directeur général de la Planification, de l'Immobilier et du Développement économique le pouvoir d'approuver la poursuite du projet pilote à la saison 2024 par l'attribution d'un contrat subséquent et de revoir la structure tarifaire, au besoin, s'il est satisfait des résultats de 2023.**

EXECUTIVE SUMMARY

The third season of the City of Ottawa's shared Electric Kick Scooter Pilot ran from July 6, 2022, to November 15, 2022. During this time, approximately 33,000 unique riders took more than 80,000 rides on a fleet of shared e-scooters provided by two qualified providers selected by the City, through a competitive process: Bird Canada and Neuron Mobility.

This report evaluates the 2022 season and provides recommendations to continue the program. If Council approves the continuation of this pilot program, the identified changes will be made to improve the 2023 season. The new season could start as early as May 15 (depending on weather conditions and the status of street sweeping operations) and run until November 15, 2023.

Assumption and Analysis

As was observed in the first two pilot seasons in 2020 and 2021, shared e-scooters continued to provide residents with a convenient, physically distanced, and environmentally friendly mobility option that some residents used to replace short car trips during the 2022 season. Throughout the season, an average of approximately 600 trips per day were completed. During the busier part of this season, in August, daily e-scooter usage averaged approximately 800 trips on weekdays and around 1,100 trips on weekends – some weekends reached as high as 1,700 daily trips. The average trip distance was about 2.12 kilometers, averaging 19.42 minutes in duration.

Having access to the shared e-scooters allowed some residents an alternative mode of travel to get to and from social activities, for fun and leisure, and to get to and from local businesses. Some riders reported that they felt safer using e-scooters if they were traveling alone. Others reported using them to connect with other forms of transportation or completing journeys, and to reduce carbon emissions.

Recognizing that the new requirements for the 2022 season took extensive work by the providers and resulted in a smaller deployment on many scales compared to the 2021 season, staff recommend minor adjustments to the pilot program if it is to continue in 2023. The changes will build upon the aggressive restrictions and regulations that were implemented in 2022 to continue to reduce incidents related to sidewalk riding, mis-parked scooters, and improve issues with reporting, monitoring, and enforcement while continuing to test the effectiveness of a shared e-scooter program in Ottawa. Maintaining the strict restrictions to minimize the accessibility impacts and holding the providers to a higher level of scrutiny and responsibility is recommended. The goal is to have a program that respects and ensures a safe environment for pedestrians, while providing residents with access to an alternative mode of transportation that helps reduce vehicle dependency and ultimately reduces emissions.

The recommendations include:

1. Permitting the same two shared e-scooter providers that were selected through a competitive process in 2022, with a combined total fleet size of 900 e-scooters to provide shared e-scooters in 2023.

2. Maintaining the same technological requirements and general restrictions that were defined in the 2022 agreements with the e-scooter providers aimed at enforcing a high compliance approach to improper riding behavior and mis-parking.

3. Amending the fee structure in the agreements with the e-scooter providers which fund resources required to effectively manage the program, while remaining revenue neutral.

4. Continuing to collaborate with the e-scooter providers to enhance and refine all program characteristics, such as improvements to parking, sidewalk riding and noise emissions, within the same restrictive technological requirements and regulations.

5. Continuing to improve the mechanisms used to report and track issues or concerns.

6. Delegating authority to the General Manager of the Planning, Real Estate and Economic Department (PRED) to approve an increase to the fleet size to a maximum combined total fleet of 1,200 e-scooters, should the providers performance standards continue to improve and there is a demonstrated

demand.

7. Delegating authority to the General Manager of PRED to approve the continuation of the pilot in 2024, the final year of the province's pilot, (including any recommended changes to the fee structure), should the providers performance standards continue to improve.

Financial Implications

The 2022 pilot was designed to be revenue neutral with fees collected from the e-scooter providers covering the administrative and enforcement costs incurred by the City, as described in the Council-approved Shared Micromobility Framework (amended in 2022). The intention is to remain revenue neutral moving forward, with the providers being charged scalable fees, revised as described in this report, to offset the costs incurred by the City as the program evolves, and to invest in operating improvements to the program.

Public Consultation/Input

Staff consulted with ward Councillors in the deployment zones during the 2022 season, and the Accessibility Advisory Committee (AAC) after the season concluded. Business Improvement Areas (BIAs) were notified and consulted on potential designated parking locations within their districts. Staff assembled a multi-departmental working group and an external accessibility stakeholder working group to discuss ongoing concerns and issues during the season. Feedback from Councillors, the internal and external working groups, the AAC, and residents (through 3-1-1, the City's e-scooter e-mail account, and the end-of-season survey), along with staff experience and observations have contributed to the development of recommendations for future seasons.

RÉSUMÉ

La troisième saison du projet pilote de trottinettes électriques en libre-service de la Ville d'Ottawa s'est déroulée du 6 juillet au 15 novembre 2022. Pendant cette période, environ 33 000 usagers uniques ont effectué plus de 80 000 déplacements avec les trottinettes électriques de deux fournisseurs qualifiés choisis par la Ville au terme d'un processus concurrentiel : Bird Canada et Neuron Mobility.

Le présent rapport dresse un bilan de la saison 2022 et comporte des recommandations pour la poursuite du projet pilote. Advenant que sa poursuite soit approuvée par le Conseil, les améliorations proposées seront mises en place à la saison 2023. La nouvelle saison pourrait commencer dès le 15 mai (selon les conditions

météorologiques et l'avancement des opérations de balayage des rues), et prendre fin le 15 novembre 2023.

Hypothèses et analyse

Pratiques, écologiques et propices à la distanciation physique, les trottinettes électriques en libre-service continuent, comme lors des deux premières saisons (2020 et 2021), de se substituer aux courts trajets en voiture. Tout au long de la saison 2022, on comptait chaque jour, en moyenne, environ 600 déplacements. En août, au plus fort de la saison, le nombre de déplacements quotidiens atteignait environ 800 en semaine et 1 100 la fin de semaine, avec des pics enregistrés de 1 700 déplacements. La distance moyenne parcourue par déplacement était d'environ 2,12 kilomètres, pour une durée moyenne de 19,42 minutes.

Les trottinettes électriques en libre-service offrent aux résidents un autre mode de déplacement pour pratiquer leurs activités sociales, pour s'amuser ou pour faire leurs achats locaux. Certains usagers disent se sentir plus en sécurité lorsqu'ils se déplacent seuls s'ils le font en trottinette. Pour d'autres, elles servent à faire la liaison avec d'autres modes de transport ou à terminer leur trajet, tout en réduisant les émissions de carbone.

Comme les nouvelles conditions imposées en 2022 ont nécessité d'importants ajustements de la part des fournisseurs, sous plusieurs aspects, cette saison a été plus modeste que la précédente; le personnel recommande donc des ajustements mineurs au projet pilote s'il doit se poursuivre en 2023. Les changements, fondés sur les restrictions et règlements contraignants mis en place en 2022, viseront à réduire encore plus les incidents liés à la circulation sur le trottoir et au stationnement inadéquat, et à résoudre les problèmes de signalement, de surveillance et d'application des règlements, tout en continuant à vérifier l'efficacité du programme de trottinettes électriques en libre-service à Ottawa. Il est recommandé de maintenir les restrictions contraignantes pour favoriser au maximum l'accessibilité et exiger des fournisseurs un haut degré de surveillance et de responsabilité. L'objectif : mettre en place un programme respectueux des piétons et un environnement sûr, tout en proposant aux résidents un nouveau mode de transport afin de réduire la dépendance aux véhicules, et donc les émissions de GES.

Voici les recommandations :

1. Permettre aux deux mêmes fournisseurs de trottinettes électriques en libre-service retenus en 2022 au terme d'un processus concurrentiel de fournir un

parc de 900 trottinettes en 2023.

2. Maintenir les exigences technologiques et les restrictions générales définies dans les ententes conclues en 2022 avec les fournisseurs, qui visaient à mettre en place une approche sévère quant aux comportements inadéquats de circulation et de stationnement.

3. Modifier la structure tarifaire des ententes avec les fournisseurs de trottinettes électriques (qui financent les ressources nécessaires à la gestion efficace du programme) tout en maintenant les recettes.

4. Poursuivre la collaboration avec les fournisseurs de trottinettes électriques pour améliorer et raffiner toutes les caractéristiques du programme – comme les améliorations relatives au stationnement, à la circulation sur les trottoirs et aux émissions sonores – dans le même cadre réglementaire et avec les mêmes restrictions technologiques.

5. Continuer à améliorer les mécanismes utilisés pour signaler et suivre les problèmes ou préoccupations.

6. Déléguer au directeur général de la Planification, de l'Immobilier et du Développement économique le pouvoir d'approuver l'agrandissement du parc, pour un maximum de 1 200 trottinettes électriques, si le rendement des fournisseurs continue de s'améliorer et que la demande l'exige.

7. Déléguer au directeur général de la Planification, de l'Immobilier et du Développement économique le pouvoir d'approuver la poursuite du projet pilote en 2024, ultime saison, et les changements recommandés à la grille tarifaire, si le rendement des fournisseurs continue de s'améliorer.

Répercussions financières

Le projet pilote de 2022 a été conçu de manière à éviter les incidences sur les recettes, les droits perçus par les fournisseurs de trottinettes électriques devant couvrir les frais administratifs et les coûts d'application des règlements encourus par la Ville, comme le décrit le cadre de services partagés de micromobilité (2020) approuvé par le Conseil (modifié en 2022). Pour maintenir les recettes, les fournisseurs se verront imposer des frais adaptables – qui seront révisés conformément aux indications dans le rapport –, afin de compenser l'augmentation des coûts pour la Ville au fil de l'évolution du projet et d'investir dans des mesures d'amélioration du projet.

Consultations publiques et commentaires

Le personnel a consulté les conseillers de quartier dans les zones de déploiement de la saison 2022 ainsi que le Comité consultatif sur l'accessibilité (CCA), une fois la saison terminée. Les zones d'amélioration commerciale (ZAC) ont été informées des espaces de stationnement potentiels dans leurs districts et consultées sur leur emplacement. En outre, le personnel a créé un groupe de travail composé de membres de diverses directions générales et un groupe de travail externe d'intervenants en accessibilité pour discuter des enjeux qui restent à aborder. Des recommandations pour les prochaines saisons ont été formulées à la lumière des commentaires des conseillers, des groupes de travail interne et externe, du CCA et des résidents (3-1-1, compte de courrier électronique de la Ville pour les trottinettes électriques et sondage de fin de saison), et de l'expérience et des observations du personnel.

BACKGROUND

In January 2020, the province of Ontario initiated a 5-year pilot program for electric kick scooters allowing municipalities to opt in if they choose to permit them within their jurisdiction. In June 2020, Council enacted the Electric Kick Scooter By-law No. 2020-174, authorizing the use of e-scooters (private or shared) on roads, pathways, parks, and other property under the control of the City. Council also approved the Electric Kick Scooter Strategy and Pilot Project (TRC June 3, 2020, ACS2020-TSD-PLN-003) as well as conditions and fee structure related to Bike Sharing and Electric Scooter Sharing Agreements with Service Providers (TRC June 3, 2020 ACS2020-PIE-RHU-0007). The first season of Ottawa's shared e-scooter pilot ran from July 16, 2020, to October 31, 2020, with a total fleet of 600 e-scooters provided by three companies (Bird Canada, Lime, and Roll).

For the second season in 2021 (TRC February 3, 2021, ACS2021-TSD-PLN-0002), the City undertook a competitive selection process that included a Request for Proposal (RFP). As a result, the City entered into agreements with three companies (Neuron Mobility, Bird Canada, and Lime) to provide a combined fleet size of 1,200 e-scooters. In line with the 2020 pilot, the 2021 pilot Agreements regulated fleet size, fees, speed, geofencing, time of use and parking.

Following the results of the 2021 season, Council approved changes to the fee structure of Ottawa's Shared Micromobility Framework and amendments to the City's Electric Kick Scooter By-law No. 2020-174 (TRC March 2, 2022, ACS2022-PIE-TP-001). For the 2022 season the City undertook another competitive selection process which

included additional requirements to regulate the operations of shared e-scooters. As a result, the City entered into agreements with two companies (Bird Canada and Neuron Mobility) to provide a combined maximum fleet size of 900 e-scooters.

Throughout the 2022 season, staff monitored the effectiveness of the e-scooter providers' various technologies to address sidewalk riding and parking as well as ridership levels, origin destination patterns, e-scooter utilization, incidents, and complaints. Staff conducted routine inspections and tracked residents and Councillor feedback, as well as feedback from Ottawa Police Services and By-law and Regulatory Services, weekly data reports from the e-scooter providers and the City's data collection activities. In collaboration with the e-scooter providers, in-service issues were addressed through operational changes and additional education/communication activities.

Mis-parking and improper riding remain as concerns related to impact on safety and on accessibility when assessing the effectiveness of the shared e-scooter pilot program in Ottawa. The aggressive restrictions and regulations that were implemented in 2022 appear to have made significant improvements to address these concerns as compared to the first two seasons. Although the number of complaints compared to the total number of rides is very low, and some of the reported complaints were directed at private e-scooters, the end-of-season survey suggests that not all incidents of mis-parking or improper riding were reported. Therefore, maintaining the strict restrictions that were implemented in 2022 to minimize the accessibility impacts and holding the providers to a higher level of scrutiny and responsibility continues to be a necessity for moving forward with a fourth (and potentially fifth) pilot season.

DISCUSSION

This report summarizes the assessment of the third (2022) season of the e-scooter pilot. Document 1 (2022 Shared E-Scooter Season Data Analysis) has additional details and comparisons to the first two seasons.

E-Scooter Program Characteristics

The program ran from July 6 to November 15, 2022 (54 less days than the 2021 season). Shared e-scooters were available to rent from 6 AM to 11 PM each day. It operated with a combined permitted maximum fleet size of 900 e-scooters provided by two qualified providers selected through a competitive process: Bird Canada (450) and Neuron Mobility (450).

Both providers took a measured approach and started the season slowly, operating in smaller deployment areas centered around Downtown, the ByWard Market and the Glebe neighborhoods and gradually increased their fleet size as they ensured sufficient staffing and functionalities of their required technologies. Extensive work was required by each to implement and test the necessary geofences and locate acceptable parking locations to obtain approval to operate in their deployment areas. In September, each provider expanded its respective deployment areas east and south to include neighborhoods bounded by the Rideau River. The areas where e-scooters were ultimately available in 2022 were smaller compared to the 2021 season. Figure 1 below depicts the final actual deployment areas in comparison with the 2022 Permitted Deployment Area. Ultimately, Bird Canada operated from July 15 to October 31, whereas Neuron Mobility operated from July 6 to November 15. Neither Bird Canada nor Neuron reached their fleet cap, averaging a maximum of 370 and 330 e-scooters respectively. The combined daily deployment of e-scooters varied throughout the season ranging from approximately 30 to 680 total (see Figure 2).

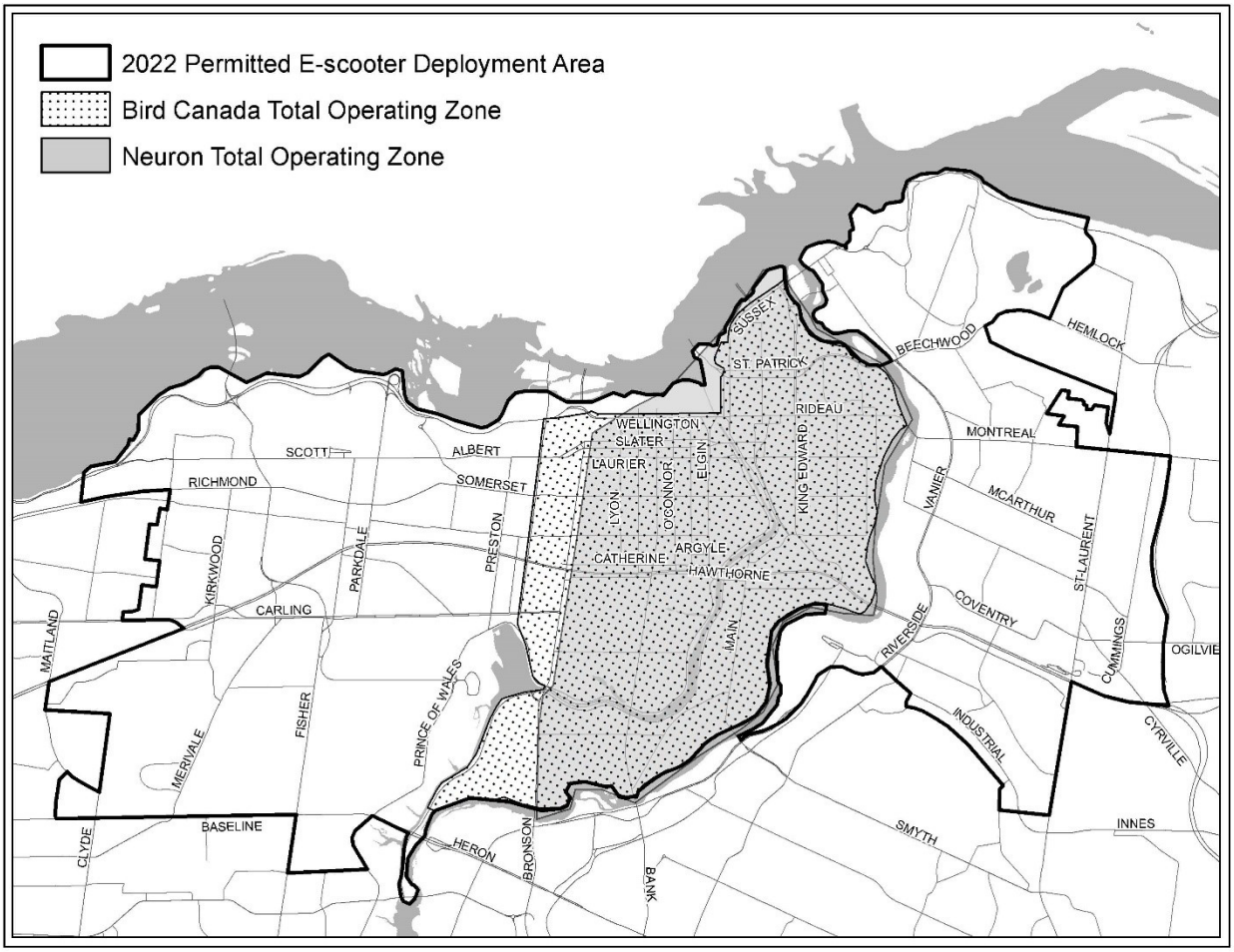

Figure 1: 2022 Season Deployment Areas

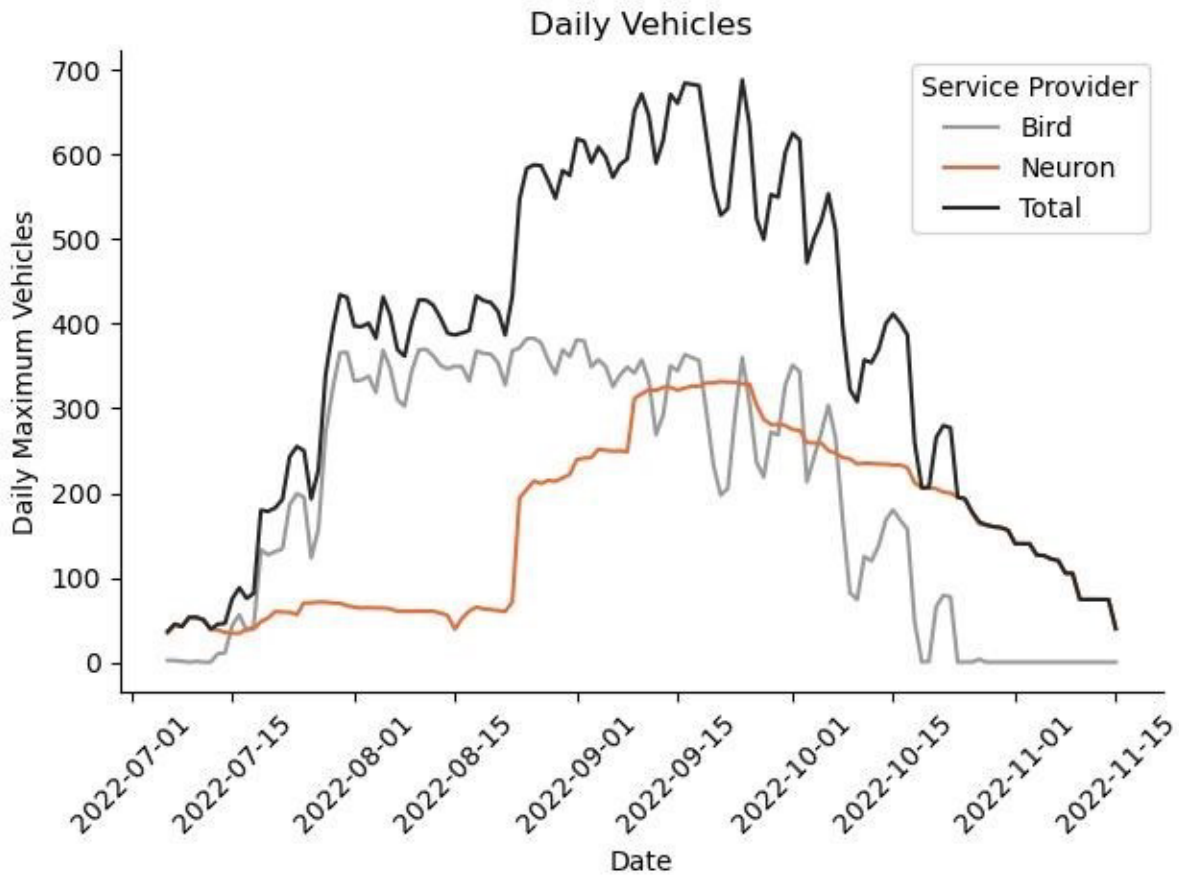

Figure 2: 2022 Daily Vehicle Numbers

The City's Electric Kick-Scooter By-law describes parking requirements. For the 2022 season, a fully restrictive parking model was used such that the whole operating zone was geofenced as a "no parking zone" with permitted parking spaces identified digitally within the providers' apps. These 'digital parking corrals' prohibited rides from ending outside of pre-approved areas in the City's right-of-way in furniture zones next to trees, light poles, street furniture and bike parking, while maintaining a continual throughway clearance for pedestrian traffic. Parking was also allowed in physically designated demarcated parking locations that the City installed both on-street and/or within furniture zones adjacent to sidewalks.

Through geofencing technologies, shared e-scooters were prevented from riding on streets with a posted speed limit over 50 kilometres per hour (outside of dedicated cycling facilities on these streets), on the National Capital Commission (NCC) pathways and roadways, transit stations (property beyond the multi-use pathways), City parkades and pedestrian malls including the Sparks Street Mall, the Waller Street Mall, and the William Street Mall. Streets within the ByWard Market (north of Rideau Street, East of

Sussex Street, South of Murray Street and West of Dalhousie) were also geofenced to prevent riding within the area, except for York Street (a recommendation carried forward from the previous two seasons). Temporary ‘no ride’ geofences were established on various streets as required to accommodate special events such as during the Pride Parade.

Each provider was required to implement technologies that prohibited riding on sidewalks. Each company used geofencing technologies and Artificial Intelligence to detect if an e-scooter entered a sidewalk. These technologies would also inform the rider and safely bring the e-scooter to a safe stop if sidewalk riding was detected.

The operating speed of the shared e-scooters was limited to 20 kilometers per hour. To ensure the comfort and safety of other transit customers, e-scooters were geofenced to maximum 12 kilometers per hour on multi-use pathways through transit stations. The University of Ottawa also required that most streets within their campus be geofenced to prevent riding on them – although a few key streets with connections to the transit station were open to e-scooter riding, with speed limited to 15 kilometers per hour. Parking was not permitted on campus property.

All shared e-scooters were outfitted with mandatory bells, kickstands, front/rear lights, and brakes in accordance with the provincial pilot regulation. New for the 2022 season, all e-scooters were required to emit continuous sounds when in use to alert all road users of their approach.

E-Scooter Trip Characteristics

In 2022, approximately 33,000 unique riders took approximately 80,000 rides. A total of 166,000 kilometers were travelled through the deployment area. There was a significant drop in ridership in 2022 (84 percent decrease in trips), primarily due to a shortened season, a smaller fleet and a significantly smaller deployment area.

On average, approximately 600 trips were completed daily. In August, the busiest part of the season, e-scooter daily trips averaged approximately 800 on weekdays and 1,100 on weekends with some weekends as high as 1,700 trips. Table 1 provides the breakdown of the average number of trips per month for the 2022 season.

Month	**Average E-Scooter Trips per Day**	**Average E-Scooter Weekday Trips per Day**	**Average E-Scooter Weekend Trips per Day**
July 2022	596	475	869
August 2022	854	756	1,133

September 2022	807	695	1,116
October 2022	391	298	586
November 2022	139	124	178
Season Average	604	514	829

Table 1: Monthly Trip Averages

For comparison, the longer 2021 season which had a larger fleet size of a maximum of 1,200 e-scooters and operated in more areas had approximately 2,400 average weekday daily trips and 3,190 average weekend daily trips with highs of approximately 3,200 on weekdays and 4,400 on weekends with some weekends as high as 5,500 daily trips in July and August.

Staff conducted an online end-of-season survey which provided insight on the benefits and issues associated with e-scooters. The survey ran from October 26 until November 20, 2022. There was a total of 1,389 respondents (down from 1,732 respondents in 2021) and included both e-scooter users and non-users. The survey revealed that many users were seeking an increase in the coverage area and/or availability of e-scooters. Some riders were frustrated with the functionality of the providers' apps to end the ride, and with the new parking restrictions – important issues that led some riders to comment that they were not willing to continue using the service.

The heat map below (Figure 3) illustrates the most popular origins and destinations for the 2022 season with the concentration of trips starting and ending in the ByWard Market and along the commercial streets such as Elgin, Bank and Wellington. A review of the most popular parking locations throughout the season demonstrated high volumes of parking along the western and eastern perimeters of the deployment zones (such as along Bronson Avenue, and near the Cummings and Adawe Bridges) suggesting that an expansion to additional deployment areas could have increased ridership levels.

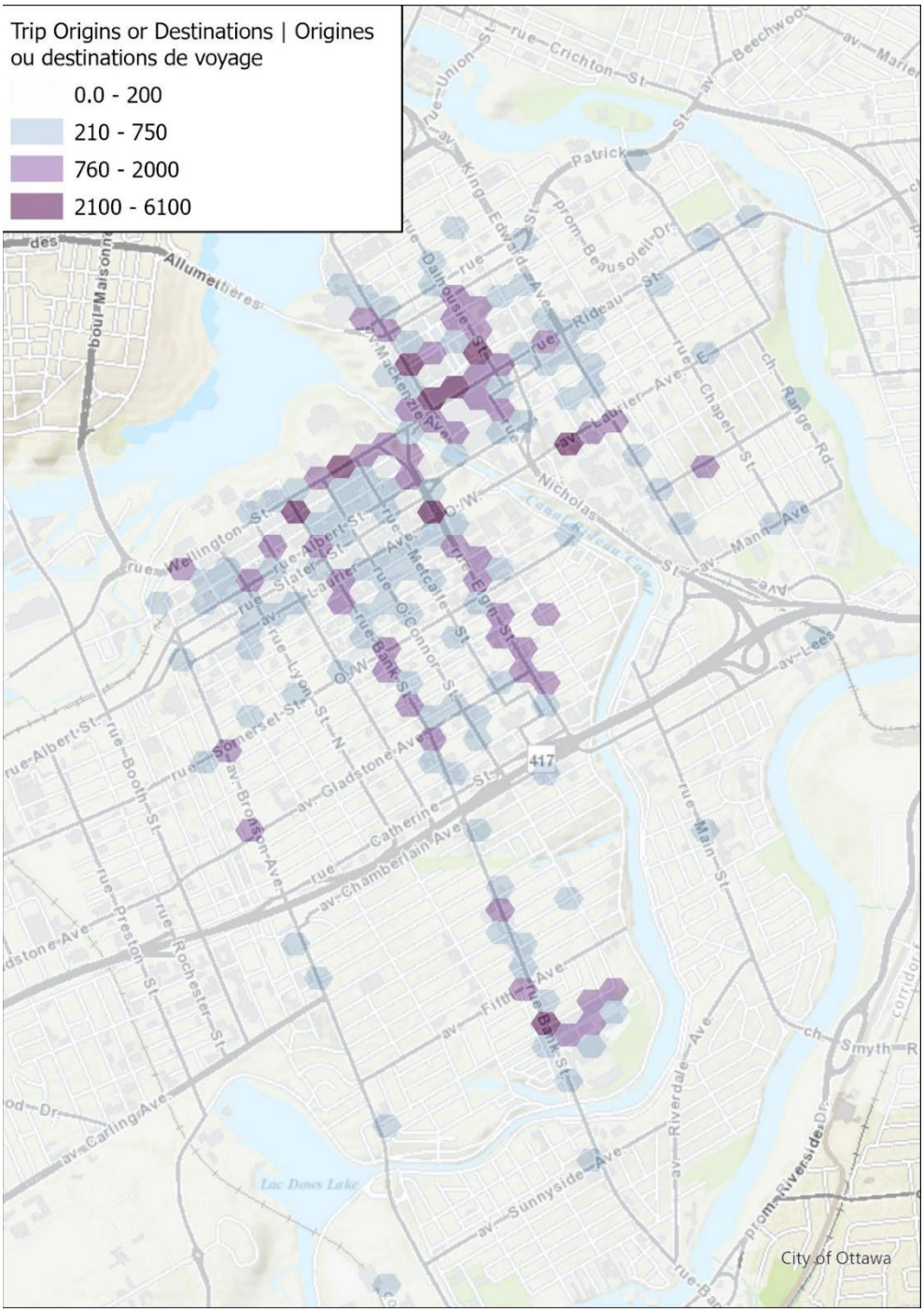

Figure 3: 2022 Trip Origins and Destinations

Trip Distance, Duration and Speed

While trips ranged from less than a kilometer to more than 10 kilometers the average e-scooter trip length was 2.12 kilometers, the average trip duration was 19.42 minutes, and the average speed was 7.04 kilometers per hour**.** Figure 4 illustrates trip distance

distributions for 2022.

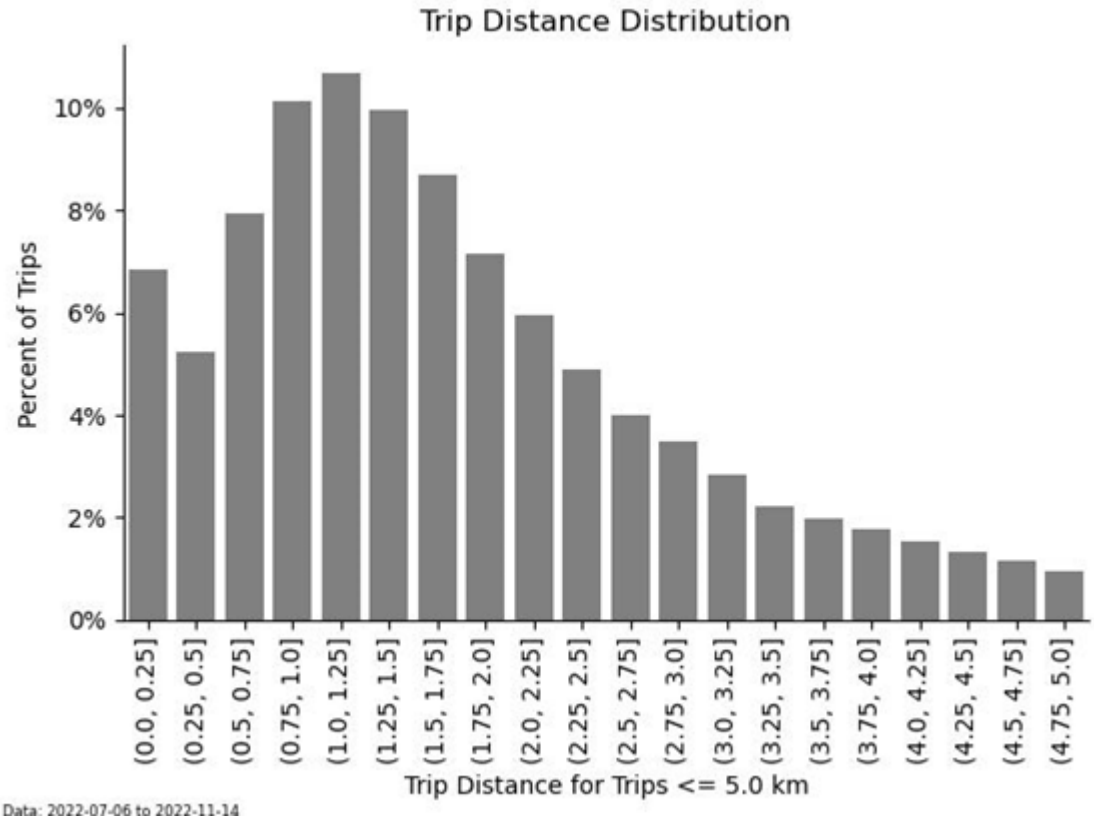

Figure 4: Trip Distance Distribution

Trip Purpose

The end-of-season survey results indicate that 60 percent of respondents rode an e-scooter in 2022, of which 23 precent were new to riding e-scooters. The results also showed that 59 percent of respondents who did not ride an e-scooter in 2022, had ridden in 2020 or 2021, with the most significant reason (46 percent) being that the service area did not cover where they needed to travel. Other reasons included: regulations were too restrictive; the season started too late; and not enough e-scooters available in the vicinity.

Table 2 provides survey results on the most common reason for ridding an e-scooter in 2022.

What were the most common reasons why you used a shared e-scooter?	% of respondents
Get to/from work	27%
Get to/from school	9%
Run errands/appointments	33%
Get to/from social activities	71%
Get to/from dining	46%
Get to/from shopping/local business	38%
For fun/leisure	50%
To try out the service	33%
Faster/more efficient than other modes of transportation	47%
To reduce vehicular emissions/pollution	32%
Sightseeing/tourism	32%
To get to/from another mode of transportation	27%

Table 2: Reasons for E-scooter Usage in 2022

Other reasons included: an alternative option to owning a car or bicycle; feeling safer riding an e-scooter in the evening as compared to walking alone.

Document 4 (City of Ottawa 2022 E-Scooter End-of-Season Survey - As We Heard It Report) contains the complete survey results.

Time of Day Usage

Figure 5 illustrates the time-of-day e-scooters were used.

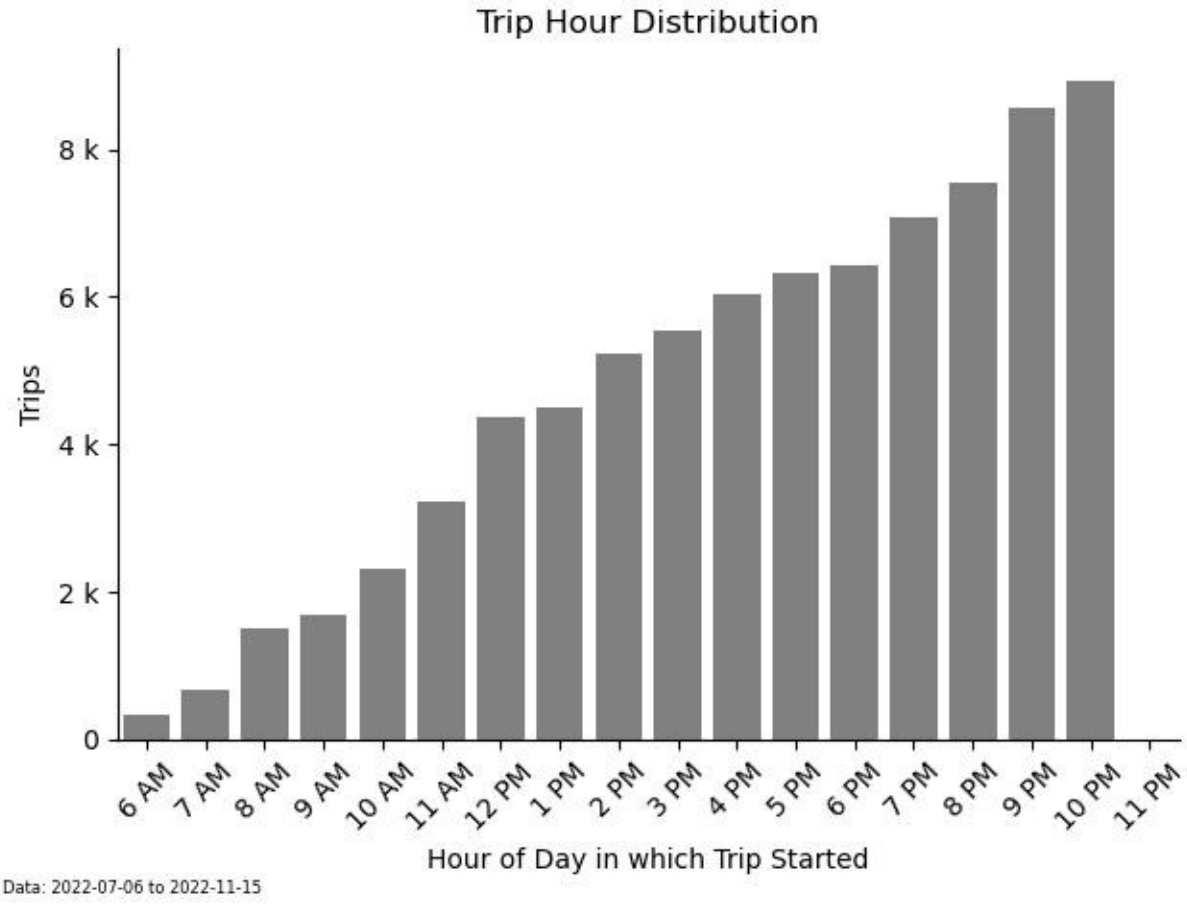

Figure 5: Trips by Hour

As per the previous seasons, e-scooters were available for rent between 6 AM to 11 PM, a total of 17 hours. The most popular period to start a trip was between 7:00-10:00 PM with the most popular time starting after 10:00 PM.

Demand for E-Scooters

Despite the decrease in ridership as compared to 2021, which had a longer season and larger operating area, the volume of trips in the 2022 season indicates that there continues to be a demand for the e-scooter program.

Resident feedback demonstrates continued support for the pilot, with most of the survey respondents indicating that they want shared e-scooters to continue to be an option in Ottawa (with 65 percent of respondents to this question strongly agreeing and another 13 percent agreeing). The e-scooters were viewed as a safe, convenient, cost effective and fun way to travel. They were also viewed as providing an alternative to owning or using a car and supporting efforts in lowering the City's carbon footprint.

The number of daily trips versus the average number of available e-scooters was analyzed to see if there was a trend that could help inform future decisions about fleet size thresholds. There was a small decrease in the average utilization rates (number of daily trips versus the average number of available e-scooters) in 2022 compared to 2021 from 2.64 to 2.32 trips per vehicle per day.

Most survey respondents who indicated they rode an e-scooter in 2022, took multiple trips – with 47 percent indicating they took 2 to 5 trips (up from 29 percent in 2021). The percentage of riders who reported completing a single trip grew from 10 percent in 2021 to 27 percent in 2022. The number of respondents who completed more than 10 trips decreased from 43 percent in 2021 to 12 percent in the 2022 survey.

Alignment with Mobility Objectives

E-scooters advance the City's broader goals of providing more sustainable mobility choices for residents as well as supporting Green House Gases (GHG) reduction goals by offering an alternative to automobile travel.

Table 3 below illustrates survey responses to the question of “How did e-scooters change the way that you travel?”. Respondents rated whether other modes of transportation were impacted with the introduction of e-scooters or if that mode was not applicable to them.

How did the introduction of shared e-scooters change the way you travel?	Increased	Decreased	No Change
Passenger in a vehicle (carpool/taxi/rideshare)	2%	44%	42%
Driving a vehicle	1%	39%	42%
Public transit	12%	21%	56%
Walking	15%	22%	58%
Cycling	6%	10%	64%
E-scooters	62%	4%	24%
Other, please specify	3%	1%	22%

Table 3: E-scooters changing transportation choices in 2022

Overall, most riders responding to the survey noted a decrease in their use of personal

vehicles whether as a driver or passenger. Of the respondents to the follow up question “Why did you take an e-scooter rather than another mode of transportation?”, the most common responses included that e-scooters were more fun, more convenient, faster, and easier. Forty-two percent reported taking an e-scooter to avoid the costs and inconvenience of parking a car and 31 percent to reduce greenhouse gas emissions. Some respondents cited poor transit service as the reason to use shared e-scooters.

Facilitating Transit and Multimodal Trips

One of the goals for introducing e-scooters was to facilitate first and last kilometer transit trips. As was the case during the first two seasons, transit ridership in 2022 remained below pre-pandemic levels. This likely affected the use of e-scooters for the first and last kilometer of transit trips.

According to trip data measured by counting individual e-scooter trips starting or ending close to transit stations within the e-scooter operating area, it is estimated that approximately 5 percent of all e-scooter trips were combined with transit usage in 2022. This is relatively constant compared to the 2021 season which saw approximately 4 percent of all e-scooter trips combined with transit. First and last kilometer trips to and from transit stations averaged between 2.3 and 4.5 kilometers, with longer distance trips tending to occur at Pimisi Station, outside the downtown core.

Twenty-seven percent of survey respondents indicated that the most common reason for using shared e-scooters was to connect to or from another mode of transportation. Sixty-four percent of respondents who reported connecting to another mode indicated that they connected to transit (bus or train). Most of these survey respondents (89 percent) indicated that having access to shared e-scooters made them more likely to connect to/from that other mode.

Health and Mobility Considerations

Feedback from riders demonstrate that e-scooters continued to provide greater mobility. Similar to the first two seasons, riders who would have walked otherwise, were able to travel further with e-scooters to access additional shops and services, accomplish their daily tasks more efficiently and conveniently, reach destinations that may not be convenient by transit, and feel more comfortable with evening travel options. Survey results indicated that 15 percent reported that they walked more with the introduction of e-scooters. Some respondents commented that they felt safer riding an e-scooter home in the evening compared to walking alone. Others commented that e-scooters provided a practical alternative when recovering from an injury and not being able to walk long

distances or ride a bicycle.

Support for Local Businesses

Trip data shows that a high percentage of e-scooter trips both started and ended in a Business Improvement Area (BIA). This indicates that shared e-scooters continued to bring residents, visitors and tourists throughout the core area stimulating Ottawa's economic recovery during the COVID pandemic.

Of the survey respondents who visited local restaurants and businesses, 17 percent indicated that they typically spent over $100, 29 percent spent between $50 and $100, and 35 percent spent between $21 and $50. The remaining 18 percent indicated they spent less than $20.

The shared e-scooters also supported tourism as respondents noted that the e-scooters were a convenient option for them to get around and explore. Thirty-two percent of survey respondents indicated that the most common reason for using shared e-scooters was for sightseeing and tourism.

Feedback / Issue Reporting

The City received feedback throughout the season through a variety of means including through 3-1-1, the season-end survey, from ward Councillors, though direct inquiries to City staff as well as through social media and traditional media. The City also received valuable feedback through engagement with an Accessibility Stakeholder group established specifically for this pilot project, the City's Accessibility Advisory Committee as well as from staff in the City's Accessibility Office. A summary of the feedback collected through these consultations is described further below.

A streamlined process to collect inquiries and/or complaints and to track all data associated with this feedback was introduced in 2022. Residents could submit their inquiries or complaints directly to the City, whereas in previous years they were encouraged to contact the e-scooter providers. This new process was accommodated through 3-1-1 by phone and through a new dedicated 'self-serving' e-form specific to e-scooters. Access to the e-form was available on Ottawa.ca or through the City's App. Residents could also access this e-form through each of the e-scooter providers' Apps or through a QR code located on each e-scooter. The providers also added stickers (in an accessible format) to the e-scoters providing a mechanism for citizens to report issues. Seventy-six percent of the complaints received by 3-1-1 were through the new self-serve e-form.

All Service Requests generated by the complaints received by 3-1-1 (by phone and/or the new e-form) were directed to By-law officers who would then follow-up with the appropriate e-scooter providers to address as required.

Table 4 provides the breakdown of Service Requests received from 3-1-1 for each month while shared e-scooters were operating.

Month	Number of Service Requests
July	142
August	71
September	55
October	20
November	7

Table 4: Monthly Service Requests Received by 3-11

Figure 6 illustrates the breakdown of complaints to 3-1-1 classified under the different subjects. Most of the complaints were regarding mis-parked e-scooters.

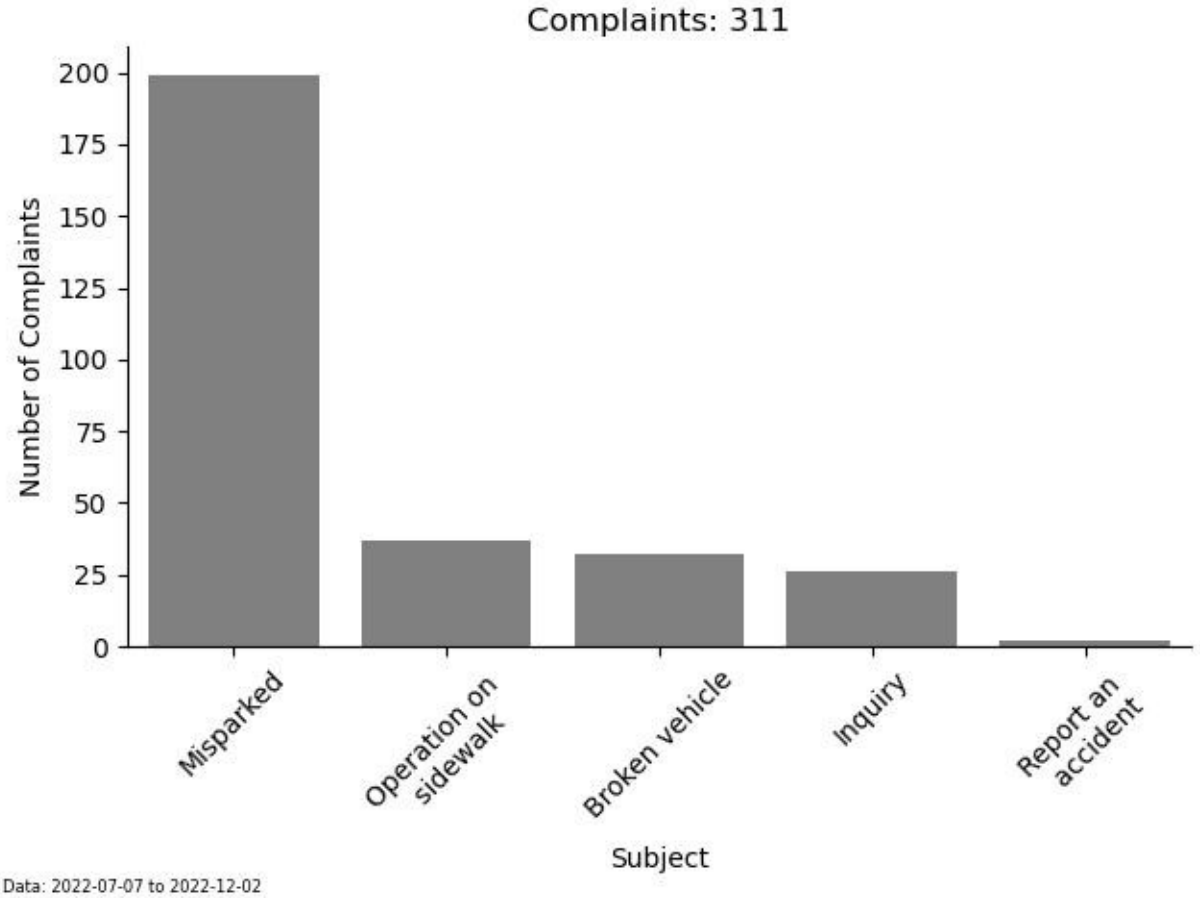

Figure 6: Complaints received by 3-1-1

Although residents were encouraged to contact the City directly, a small volume of complaints were directed to the service providers. Each provider shared weekly data with City staff regarding complaints they received. Bird Canada reported a total of 40 complaints issued to them directly and Neuron Mobility reported 86 complaints.

Feedback from participating ward Councillor's offices indicated that the level of complaints they received was down significantly as compared to 2021. It is challenging to compare the number of complaints in the 2022 season to the previous season due to many factors, such as: change in overall process to record and track the data; and the multiple mechanisms and the potential for 'double counting' that occurred in 2021. Without being able to compare exactly, the combination of complaints recorded by both the City and the providers through all mechanisms in 2022 (just over 400) is also significantly less than the sum of complaints recorded by all mechanisms in 2021 (just over 2,000).

The supporting Documents 1, 2 and 3 contain additional breakdowns of data with respect to the number of complaints received.

It should be noted that the data only reflects concerns that were reported to the City. Most survey respondents noted that they did not report either mis-parked scooters or occurrences of sidewalk riding.

Issues Management

Staff collaborated with a multi-department staff working group, an external accessibility stakeholder working group, with e-scooter operators and Ward Councillors' offices to improve practices, address issues, innovate, and improve the delivery of services throughout the 2022 season to better serve residents.

The following section describes the key issues encountered and actions taken to address them.

Mis-parked E-scooters

E-scooters left obstructing path of movement on sidewalks, or off to the side of narrow sidewalks, blocking bus stops or pedestrian crossings are a safety concern for all pedestrians, and in particular people with low vision or who are blind, older adults, people who use wheelchairs or mobility device and pedestrians pushing strollers. Although the number of complaints is significantly less than previous seasons, the

primary reported concern of the 2022 season continued to be improper parking.

According to the survey, 40 percent of the respondents encountered mis-parked e-scooters (compared to 83 percent in 2021). Of those respondents, 77 percent did nothing when they encountered a mis-parked e-scooter, 23 percent moved them themselves, 9 percent reported them to the City or e-scooter providers and 5 percent changed their travel path.

The issue of mis-parked e-scooters was addressed in the 2022 season through the implementation of higher standards for parking compliance and the requirement that all providers be mandated to operate newer generation e-scooters with improved detection technologies. Language in the agreements with the providers stated that failure to meet the new requirements could lead to, at the City's discretion, imposed reductions in fleet or even full removal of permit to operate in the City's right-of-way. The e-scooter providers had to adhere to a 15-minute response time (decreased from 1 hour) to address mis-parking and this was verified by By-law officers. The By-law officers also proactively moved any mis-parked e-scooter they encountered and had the power to impound any e-scooter not adhering to the requirements.

The most significant strategy to adhere to these higher standards was the implementation of a Fully Restrictive Parking Model. The entire operating area was geofenced as a "no parking zone" with parking only permitted in designated parking zones in either a physical designated parking space which were signed or in the permitted areas identified digitally in each of the e-scooter provider's app. The City increased the number of physically designated parking spaces (from 5 in 2021) to 13, located on-street and 'sidewalk adjacent' locations outside the path of travel. Areas with heavy e-scoter use or a high frequency of parking issues were targeted. Zones required agreement from local BIAs and/or ward Councillors and City resources to install signage and pavement markings. Each of the providers created hundreds of 'digital parking corrals' (averaging approximately 270 each) identified in their apps located in areas within the City's right-of-way that met the approved parking requirements. Maps included in Document 1 depict the use of these parking zones.

The limitations of the precision of geofencing technologies created some challenges with the digital and physical location of the e-scooter and parking zone not completely matching. As a result, some e-scooters were allowed to be parked just outside permitted locations and some riders were prevented from ending their rides despite having parked correctly.

City staff and the providers worked to increase public awareness of where to correctly park e-scooters. Provider-led initiatives included education events (scoot safe, helmet giveaways), hang tags on each scooter with proper parking guidelines and in app messaging. They had foot patrols, interacting with riders, proactively correcting mis-parked e-scooters and responding to complaints. The providers audited the required end-of-ride photos leading to directed reminder e-mails to their riders and suspensions (account bans) for repeated infractions. There were 30 suspensions in 2022 (some of which may have been for infractions other than just mis-parking).

City staff were continuously auditing the accuracy of the providers' technologies and digital parking areas and adjustments were made to the apps. Problem areas were discussed at weekly meetings with the providers to develop localized solutions. As the season progressed there was improved parking compliance as evidenced through less complaints and on-site observations of key corridors conducted by City staff.

Most survey respondents indicated that e-scooter parking improved when compared to the first two seasons (with 53 percent agreeing, 24 percent remaining neutral and 22 percent disagreeing). Survey respondents also generally agreed that over the course of the 2022 season parking improved as riders got used to the new restricted parking model and it became easier for them as permitted parking locations became habitual places to park (with 40 percent agreeing, 38 percent remaining neutral, 23 percent disagreeing).

Sidewalk Riding

The City does not permit e-scooters to be ridden on sidewalks. The primary action taken to correct sidewalk riding in the shared e-scooter program was the requirement for each service provider to have e-scooters with the latest sidewalk detection technologies. All City sidewalks within the operational areas were geofenced as 'no ride zones'. Each company used the geofencing technologies and Artificial Intelligence to detect if an e-scooter entered a sidewalk. These technologies also informed the rider if sidewalk riding was occurring and would safely bring the e-scooter to a stop by disengaging the throttle. The e-scooters slowed down and stopped completely in a manner that is safe for the rider and pedestrians.

The limitations of the precision of geofencing technologies created some challenges with some users still observed riding on a sidewalk. Personal e-scooters, which have grown in numbers as residents find value in this mode of travel, are not part of the shared e-scooter program. It is likely that some of the complaints were pointed towards

personal e-scooters and some towards shared e-scooters that were no longer powered but may have been coasting for a short distance to safely come to a stop. Some riders also experienced challenges with e-scooters incorrectly detecting a sidewalk (and disengaging the motor) when riding adjacent to a sidewalk.

Effort was also made to increase public awareness of the rules. The providers placed messaging in large print near or at the footboard of the e-scooters indicating *"NO SIDEWALK RIDING"*. Provider-led initiatives included app messaging, education events (scoot safe, helmet giveaways etc.) and foot patrols.

City staff were continuously auditing the accuracy of the sidewalk detection technologies and adjustments were made to the apps. The Ottawa Police Service conducted two enforcement "blitzes" in 2022, with locations chosen based on complaints and staff observations, but they did not witness any sidewalk riding or issue any warnings or fines on these occasions. Staff also installed Miovision cameras to collect data along key corridors. As the season progressed there was decreased sidewalk riding as evidenced through the Miovision data, less complaints, and on-site observations.

Although the number of observations and complaints of sidewalk riding has decreased significantly compared to previous seasons, the issue remained. Some residents and stakeholders voiced concerns about safety and discomfort when encountering e-scooters operating on sidewalks. According to the survey, 47 percent of respondents encountered sidewalk riding in 2022 (both from privately owned and shared e-scooters) - a decrease compared to the 2021 survey (79 percent). Of those respondents, 59 percent felt uncomfortable and unsafe when they encountered sidewalk riding and 27 percent changed their walking route as a result.

Survey respondents generally agreed that e-scooter riding behaviour improved compared to the first two seasons (with 50 percent agreeing, 29 percent remaining neutral and 20 percent disagreeing). Respondents also generally agreed or had a neutral opinion, that over the course of the 2022 season riding behavior improved (with 39 percent agreeing, 43 percent remaining neutral and 18 percent disagreeing).

Sound Emissions

Accessibility stakeholders expressed concerns around interactions with e-scooters that do not have any sound emissions to notify pedestrians, cyclists, or others, that a motorized e-scooter is approaching or is in the vicinity. There are no standards for micromobility device sound emissions that have been developed nor implemented

worldwide. Ottawa may be the first city in North America (if not worldwide) to require that all shared e-scooters emit a continuous sound when in use. Development of this new feature included many issues to work through including the sound, pitch, tone, frequency, amplitude, and volume of the sound with different e-scooter operating speeds and street contexts. Both providers implemented continuous sounds meeting the requirements of their agreements, which consisted of two distinct components: 1) a baseline sound emitted whenever an e-scooter was in rental mode; and 2) an alert sound that was emitted when the e-scooter was in motion.

Results from the survey revealed that many respondents (about 38 percent) did not know why e-scooters were emitting continuous sounds. Respondents generally had a negative view of this feature. Many noted that they did not hear the baseline sound over ambient noise in the roadway. Several e-scooter riders found the sound distracting or were confused as to what it was for and thinking that there was a problem with the device. Many respondents felt that the sound disturbed their enjoyment of the area and numerous commenters also felt that having a bell on the e-scooters is sufficient.

City staff engaged the accessibility stakeholder group to assess the sound emissions. Although a consensus was not reached with respect to the most appropriate sound, stakeholders provided feedback that will be considered for future recommendations. Both providers are committed to continuing to test and refine this innovation. Feedback and information gathered by the City about sound emissions will also be provided to the Province when they request information from municipalities to assess the provincial pilot.

Late-night Riding

Early in the 2022 season, there were observations of late-night riding beyond 11:00 PM, and some associated poor riding behaviour. Investigations into the ride data showed that these rides were initiated before the cut-off of 11:00 PM but continued past this time. The providers tracked this specific data set and followed-up with riders with targeted communications reminding them of the rules/hours of operation. In cases of repeated offences, the riders were banned from the App. As the season progressed, late-night riding decreased significantly.

Effective Injury Prevention and Reported Injuries

Effective Injury Prevention

Following the same strategies used in previous seasons, the program continued to

mitigate injury risk in the 2022 season in the following ways:

- Reducing speed limits: While the provincial pilot program permits e-scooters to operate at a maximum speed of 24 kilometres per hour, Ottawa's Electric Kick Scooter By-law requires the providers to reduce their speed limit to 20 kilometres per hour. Providers were also required to implement geofencing to further reduce the speed to 12 and 15 kilometres per hour within certain areas and high pedestrian corridors (such as multi-use pathways around transit stations, or streets within the University of Ottawa campus) for rider safety and to comply with speed limits on multi-use pathways shared with pedestrians.

- Time of Day limits: Shared e-scooters were permitted to operate from 6 AM until 11 PM, to reduce the risk of injury from night riding when visibility is reduced.

- Communication with Transit Operators: Transit Services Department embedded an e-scooter user awareness aspect into the new bus operator training in 2020. It is about sharing the road with e-scooters and adapting to their operating habits on the roadways and added vulnerability. This training continues to be delivered to all new bus operators. In addition, during the spring safety campaign, transit operations are reminded of the increase in vulnerable road users, (including e-scooter users) during the spring and summer months.

- Public Outreach: Both providers had staff patrol teams on the streets during peak times and in high demand areas such as Elgin Street, Bank Street, the Glebe and the ByWard Market. In addition to relocating and rebalancing their fleet, the patrol teams were also speaking to members of the public and informing them of local e-scooter riding rules. One of the providers had between 2,000 to 2,500 interactions with residents and riders. They also sent out several educational emails to all riders, targeted warning e-mails to specific riders and posted educational information on their social media channels reminding of the rules of the road. Both providers hosted public education events (attracting typically 100-200 people per event) on safe and courteous e-scooter riding and parking. Free helmets were distributed at these events. One provider included helmets on each e-scooter with monetary incentives to encourage riders to wear them. Each provider also included mandatory in-app tutorials and reminder pop-up messaging to inform their customers.

Reported Injuries

The providers are aware of 15 incidents throughout the 2022 season, 10 of which were

unverified. Of the 5 verified incidents, 3 are noted to have received medical attention. A verified incident is when the rider provides details of the incident when the provider follows up directly with them, whereas an unverified incident is when the rider does not respond or provide additional details when contacted. There were less reported injuries in the 2022 season compared to the 2021 season (which had 44 verified incidents, of which 16 received medical attention and an additional 27 unverified incidents).

New this year, the end-of-season survey included questions about collisions and injuries. Of the respondents (both riders and non-riders), 12 indicated they were involved in a collision with an e-scooter and only one respondent required medical attention.

The City of Ottawa releases reported collision data on an annual basis. At the time of writing this report, only the collision data for the years 2020 and 2021 were available. A review of the data indicated that in 2020 there was a total of 4 reported collisions involving e-scooters, of which 1 was categorized as involving 'property damage only' and 3 were categorized as including non-fatal injuries. In 2021 there was a total of 6 collisions involving e-scooters, of which 3 were categorized as involving 'property damage only' and 3 were categorized as including non-fatal injuries. This data does not distinguish between shared or privately owned e-scooters.

Ottawa Public Health has completed a detailed summary of Emergency Department visits at Ottawa Hospitals that may be associated with kick-type e-scooters from 2016 to June 2022, the most recent complete data available. Details are in Document 5 Ottawa Public Health - Summary of e-scooter relevant emergency department visits at Ottawa hospitals. This 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 increased in 2021 (166 visits) compared to 2020 (47 visits). Comparing data from April to June in 2021 and 2022, the number of injuries were similar (42 in 2021 and 38 in 2022). Across all years reviewed, injuries were most common among young adults aged 20 to 29. The most common injuries were those that could progress to a serious problem requiring emergency intervention. The most common body locations injured included: lower extremities; head, neck, and face; and upper extremities.

The Ministry of Transportation of Ontario has initiated a study to identify how the province of Ontario can evaluate the road safety impact of e-scooters and provide a

framework to support decision making and evaluation of e-scooter programs in the province. The purpose of the study is to evaluate the impact of e-scooter injuries in four Canadian cities, including the City of Ottawa. All data collected for this pilot have been shared with the Ministry's team and will support a greater understanding of e-scooter injury factors, causes, and characteristics.

Other Issues

Private Property

Providers can reach out to organizations and develop agreements for operations outside of City infrastructure and rights-of-way. Bird Canada for instance, formed an agreement with Lansdowne Retail Limited Partnership where they were the only provider permitted to operate on Ottawa Sports and Entertainment Group (OSEG) operated property at Lansdowne. Bird Canada also formed an agreement with Carleton University to allow a few parking corrals just within the campus adjacent to City streets.

Private E-scooters

Private e-scooters (either personally owned or rented though a private company) have grown in numbers as residents find value in this mode of travel. Consistent with the provincial e-scooter pilot under the Highway Traffic Act, the City permits the use of e-scooters in Ottawa subject to the E-Scooter By-law. Users of private e-scooters are also subject to the provisions of this By-law and may face enforcement measures for infractions. While the City has the authority to either permit or not permit the use of e-scooters, and it may impose certain rules for the operation and parking of the e-scooter, the City does not have the authority to establish a licensing scheme for private e-scooters.

This season, the City received a complaint about a private company renting e-scooters and that their customers were riding on sidewalks. A bike rental company that also rents e-scooters is different than the two companies providing a fleet of shared e-scooters as they are not using the City right-of-way to manage their operations. The City cannot impose additional restrictions on such a company in the same way that it does not regulate how they rent their bicycles. The City By-law would still apply to the user of any e-scooter (whether a personal e-scooter or a rented one) with respect to the rules of the road and parking restrictions. By-law and Regulatory Services investigated the complaint regarding the bike rental company as described below.

By-law and Regulatory Services and Ottawa Police Service Support

The City's Electric Kick Scooter By-law (No. 2020-174) regulates the operation and use of electric kick-scooters in the city. It reinforces the provincial regulation and establishes parking regulations and includes set fines for various infractions like riding on a sidewalk or parking where not permitted. Enforcement of any "moving violations" like riding on a sidewalk is undertaken by the Ottawa Police Service, whereas By-law and Regulatory Services can enforce the other provisions of the by-law.

Ontario regulation 389/19 under the *Highway Traffic Act* (HTA) allows for cities to pilot the use of e-scooters in Ontario. Provincial regulations specific to pilot projects prohibit the use of simplified offence notices for moving violations (such as a speeding ticket) under the HTA. Charges related to the misuse of e-scooters under the HTA would require significantly more administrative effort and time than a typical traffic offence notice. As directed by Council during the approval of the recommendations for the 2022 season, staff have communicated with the Ministry of Transportation (MTO) the request to create set fines for moving violations under Ontario Regulation 389/19. As it is unlikely that the MTO would make changes to Ontario regulation 389/19 before the completion of the five-year pilot, the City's by-law remains the best enforcement avenue.

By-law and Regulatory Services

In all e-scooter seasons to-date, the shared e-scooter providers were responsible for monitoring and relocating mis-parked e-scooters. New for the 2022 season, dedicated By-law Officers within By-law and Regulatory Services (BLRS) also undertook proactive enforcement activities. These By-law Officers, funded by the fees paid by the e-scooter providers, received all e-scooter related Service Requests generated through 3-1-1, monitored the provider's response times and followed-up as required. These officers proactively relocated 225 mis-parked e-scooters, responded to 275 Service Requests, contacted providers 109 times to rectify mis-parked e-scoters and impounded 1 e-scooter. In addition, BLRS initiated 34 Service Requests directed to the providers to address and track.

As described above, the City received one complaint regarding a private company renting e-scooters (and bikes) which BLRS investigated. A By-law Officer met with the company the day the complaint was received. The company confirmed that their e-scooters were starting and ending at their facility and are not being parked on City property. However, it was discovered that the company was inadvertently promoting

sidewalk riding. Following the site visit, a letter from the Director of BLRS was sent by registered mail advising the company owner of the City's by-law regulating the use of e-scooters and that the City may take enforcement action against them unless compliance is promptly reached. They were also informed that the NCC and the City of Gatineau do not currently allow e-scooters of any kind on their facilities and therefore permission should be sought prior to promoting e-scooter routes using NCC pathways and/or crossing into Gatineau. The company was also asked to ensure that all promotional or demonstrative material on their website be consistent with the by-law with respect to the rules of the road. No further complaints were received.

Ottawa Police Service

The Ottawa Police Service (OPS) does not have the resources to allocate officers to daily e-scooter enforcement. The OPS traffic unit conducted two enforcement "blitzes" in 2022 (end of July and end of September), with locations chosen based on complaints recorded through 3-1-1 and staff observations. They did not witness any moving violations during these blitzes nor issue any warnings or fines under the City's by-law (compared to 14 tickets and 10 warnings issued in 2021).

Regional Partners

National Capital Commission

From the inception of the e-scooter pilot, the National Capital Commission (NCC) did not participate. Through effective geofencing, shared e-scooters were prevented from operating on NCC pathways and roadways.

The NCC revised its policy on the use of electric powered vehicles and the use of e-scooters (shared or private) will continue to be prohibited in 2023. The NCC does recognize that there are situations of overlapping transportation connectivity and jurisdiction, that may require more flexible geographic permissions such as NCC pathways connecting to the Corkstown Bridge, Pretoria Bridge, Adawe Bridge, and others. The NCC has expressed a willingness to work with the City to review thoroughfares within the shared e-scooter deployment areas, as required, to prevent users from being unexpectedly locked out of e-scooter access when passing over a property boundary.

Ville de Gatineau

From its inception, the City of Gatineau did not participate in the e-scooter pilot. Through effective geofencing, shared e-scooters were prevented from travelling to and

operating in Gatineau as per their request. They have indicated that they have no plans to pursue a shared e-scooter program in 2023 and are awaiting provincial regulations before taking a position on a municipal by-law concerning micromobility devices.

Recommendations for the 2023 season

Based on the demonstrated demand for shared e-scooters, the support for local businesses, and as an alternative mobility choice that could replace car trips, staff recommend continuing the pilot in 2023 (and potentially 2024) with some modifications as described below.

Season

Staff recommend a full 2023 season from as early as May 15 to November 15 (weather permitting), to meet rider demand during the warmer months. The May 15 launch would be contingent on the weather, the completion of street sweeping operations and the execution of amended agreements for the Follow-On contract. Trip data from all previous seasons indicate a significant decline in trips in November as compared to October. The providers also start downsizing their fleet towards the end of the season when the usage rate starts to drop dramatically. Ending the season by no later than November 15 provides staff with sufficient time to wrap up the season, analyze data and finalize any recommendations for the future of the pilot. This could potentially help launch the program earlier in April of 2024 if a fifth season is pursued.

Agreements with Shared E-scooter Providers

Staff recommend maintaining a maximum of two qualified e-scooter providers which is consistent with industry standards in other jurisdictions comparable to the size and population of the City of Ottawa. Regulatory and managerial complexity increases with the number of providers and some benefits of more providers can erode if there are too many. Limiting the number of shared e-scooter providers helps to:

- Increase provider accountability;
- Offer residents a more consistent service;
- Simplify reporting of issues; and
- Reduce the demand on staff time to manage the program.

The 2022 shared e-scooter providers were selected through a competitive process and demonstrated that they could meet the City’s requirements. The 2022 contract with the

providers contains a provision that allows for a follow-on contract to essentially extend the contract. Staff, in consultation with Supply Services, recommend the use of a Follow-On Contract with the 2022 providers with minor adjustments to the contracts as described below. Supply Services would prepare a contractual document that references the original terms and conditions of the 2022 Request for Proposal (RFP), add any necessary revisions, and update the length of the new term.

Undertaking a new RFP process takes considerably more time, could delay the launch of the 2023 season and the outcome would likely be the same given that several e-scooter companies have since stopped operating in Ontario or Canada. The Follow-on Contract Agreements will continue to be based on the City's Micromobility System Framework and will continue to include criteria that defines the City's higher standards that providers are expected to meet.

The General Manager of PRED may approve a subsequent follow-on contract for the 2024 season, if the General Manager determines that the pilot may continue.

Fleet Size

Staff recommend that the combined total fleet size be maintained at 900 e-scooters in 2023. The two providers can operate up to 450 e-scooters each, like the 2022 season.

In discussions with the providers, it was concluded that three to four trips per e-scooter per day continues to be an appropriate target for the size and population of Ottawa. Maintaining the 900 e-scooter fleet is sufficient to meet the observed demand and mitigate the potential for street clutter with too many e-scooters not in use.

However, the program should be flexible should there be a shift in demand. Most usage of e-scooters has been located downtown, but if there are not enough e-scooters in other parts of the City, then the program is not improving the mobility options for those communities. Increasing the fleet size could come with imposed minimum deployment levels in parts of the City to address equity concerns. The fleet size could potentially be tied with observed utilization rates (daily rides per scooter) with increases permitted only if utilization rates reach a defined threshold. It is proposed that an optional fleet size increase up to 1,200 e-scooters be considered in 2024 if there is a demonstrated uptick in demand, and that this decision be delegated the General Manager of PRED.

The 2023 agreement would maintain the City's discretion to decrease the total fleet size, if necessary, at any time throughout the season. Staff also recommend that the agreement maintain provisions that allow the city to either cap e-scooter deployment in

specific areas of the City (such as potentially in the ByWard Market) if deemed necessary or to set minimum daily deployments in certain areas to help address equity concerns. These are common practice in other jurisdictions with shared e-scooter programs.

Deployment Area

Staff recommend that the same ultimate permitted deployment area included in the past two seasons be carried over to the 2023 season (and optional 2024 season). The area is bounded by Maitland Avenue in the west, Queen Elizabeth Drive and Baseline in the south, Aviation Parkway in the east and follows the Ottawa River to the north (see Figure 1). It is recognized that the providers may require a 'phased in' launch throughout the permitted deployment area as their localized parking solutions and other geofencing requirements are developed, approved, and implemented.

If there is Ward Councillor or BIA interest and the providers are meeting the city standards, a larger deployment area still within the City's urban core could be considered. Expanding the deployment area much greater than that would require additional staff time and resources for public outreach, communication, and management of issues.

Staff recommend that the 2023 season not include the provision for service to a satellite community. This will enable staff to observe the operations of the pilot over a controlled area before any considerations to expanding the program.

Hours of Operation

Staff recommend that the operating hours for the 2023 season remains as 6AM to 11PM. Over the years, some riders have expressed interest in having the service hours extended to help with their commute or because they feel safer riding than walking alone, especially late at night. In consideration of this request, as well as recognizing that having similar operating hours to the City's LRT system could enable more multi-modal trips, staff will work with the providers to test various technologies and/or localized operating strategies designed to mitigate safety concerns with late night riding. This testing effort will be helpful should, in the future, there be consideration of expanding the e-scooter's operating hours.

Fee Structure

In the first season (2020), it was estimated that one or two FTEs, for at least seven to nine months per year, are needed to run a shared e-scooter program coupled with

significant and ongoing support from operational staff from multiple departments. This estimate was based on a ‘Open License’ shared micromobility model where any eligible operator could apply if they met the license terms. As the pilot progressed over the years, to address community concerns and Council direction, there has been an increasing need for City involvement, control, and accountability for outcomes, moving towards a ‘Multi-Operator Partnership’ model where there are a limited number of providers and strong oversight from the City, working closely with the operators to regulate the service. To date, the management of the pilot has been run from existing staff resources (with additional temporary staffing in 2022).

City expenses directly related to the delivery of the pilot are intended to be recovered from fees paid by the e-scooter providers. The original fee structure for the e-scooter pilot was approved by Transportation Committee and Council in June 2020 (ACS2020-PIE-RHU-0007) and was updated in March 2022 (ACS2022-PIE-TP-0001). Staff committed to continue to monitor costs and review the fee structure at the end of each season.

The 2022 fee structure allowed for the recovery of operating costs for elements such as signage, a subscription to a data monitoring platform, City-led communication and education activities, and City data collection activities. The fee structure also allowed for additional efforts with respect to program improvements, staff resources and furthering commitments made to the accessibility community. Specifically, it covered seasonal support staff in Transportation Planning, resources within By-law and Regulatory Services dedicated to e-scooter enforcement and resources to implement an increased number of physically demarcated parking areas.

Based on a review of actual operating costs and accuracy of estimates over that past three seasons, as well as a review of best practices in other jurisdictions who operate shared micromobility services, staff recommend amendments to the fee structure to better offset the administration and enforcement costs incurred by the City as the program evolves. These fees will be used to invest in the program and operating improvements while sharing the risk with the providers. It is designed to incentivize the providers to strive for higher ridership levels, providing a good service for residents as a viable alternative mode of transportation. Staff recommend the following amendments to the fee structure:

Description of Fee	Amount in 2022	Recommended Amount in 2023
Vehicle Fee	$100 per vehicle per season	$ 150 per vehicle per Term (i.e., season) or additional Term, as applicable. *Fees applied for each e-scooter even if only used for a portion of the Term or additional Term, as applicable.*
Communication and Engagement Fee	$20 per vehicle per season	
Compliance Fee	$130 per vehicle per season	
Trip Fee	Not applicable	$ 0.10 per ride, calculated each month of the Term – with a cap of 200,000 rides
Non-Refundable Application Fee to operate a shared micromobility program within the City of Ottawa	$10,000	Not applicable
Non-Refundable Administration Fee to operate a shared micromobility program within the City of Ottawa	Not applicable	$ 10,000 per season (upon execution of License Agreement and any extension of the Term or additional Term, as applicable)
Non-refundable Application Fee to request for increase to existing fleet	$5000	Not applicable
Station Encroachment Fee	$250 per station	$250 per station

Table 5: Proposed Fee Schedule

A sensitivity analysis was undertaken with multiple potential scenarios of the individual elements of the proposed fee structure, assuming a range of ridership levels based on performance of the last three seasons and a range of actual costs incurred by the City. The proposed fee structure was designed to break even under the most likely costs and

anticipated ridership levels.

A review of best practices in other jurisdictions was undertaken. Each jurisdiction manages the fee structure for shared micromobility devices differently, therefore, a direct comparison is challenging; however, this proposed new fee structure is comparable to other jurisdictions of similar size and population as the City of Ottawa.

The following departments were consulted in developing these fees, and provided estimates based on expected service volumes:

- Public Works - Roads and Parking Services, Traffic Services
- Planning, Real Estate and Economic Development - Transportation Planning
- Emergency and Protective Services - By-law and Regulatory Services

The proposed fees will cover:

- operational costs associated with enforcement activities undertaken by the City, including re-locating and removing mis-parked e-scooters if providers fail to address;
- operational costs associated with managing the program including signage, analysis and reporting, contract administration, issue management and vendor management;
- administrative costs related to the intake, analysis, processing, and finalizing of the service agreements; and
- costs related to raising awareness of the program and promotion of desired rider behavior.

The Trip Fees are proposed to be capped at 200,000 trips/provider. This proposed cap is to incentivize providers to manage their operations to achieve ridership levels beyond the cap, providing a better service to residents, invest in operating improvements to the program and have the program remain revenue neutral.

The station encroachment fee shall only be charged for small physical structures placed in the right-of-way (ex: docking stations) if required, and not for delineated parking areas.

The collection of these fees shall not release permitted shared e-scooter providers from additional requirements (ex: operational, educational) detailed in the Agreement.

Regarding the insurance and security requirements, staff will be following best practices recommended by Supply Services.

If the amended fee structure is approved, staff will monitor the program costs throughout the 2023 season. If revisions are required for the optional 2024 season, the decision would be delegated the General Manager of PRED. Council would be informed of any proposed change when approving Transportation Planning's 2024 operational budget and through the annual reporting of the use of Delegated Authority.

Recommendations to Address Identified Concerns

Parking

Staff recommend maintaining all previous requirements regarding parking while continuing to work collaboratively with both providers to continue to refine and enhance the service. Proper e-scooter parking will be managed by maintaining a fully restrictive parking model supported by the newest technologies, both virtual and physically designated parking corrals, higher compliance standards and dedicated enforcement.

Newest Technology: Newer generations of e-scooters provide more precise location-based information to e-scooter users. The industry continues to innovate and advance these technologies further. The technologies within the e-scooters, the platform and the mobile application can be used to ensure parking occurs only in permitted areas, prohibit the rider from ending the ride unless in a permitted parking area and display where recommended parking spots are located. These enhanced location-based technologies were deployed in the 2022 season, and despite a small number of faulty incidents, the technologies proved to be largely effective. The requirement for these newest technologies is recommended to maintained in the Agreements of any Follow-On Contract.

Digital parking corrals: Following the success of the 2022 season, it is recommended that the providers be required to implement digital parking corrals within their apps identifying the only approved areas within the 'Furniture Zone' where e-scooter parking is permitted. City staff will continue to work jointly with both providers to identify and finalize approved parking areas that are consistent for each platform to ensure convenience for riders. This work will build upon parking data, observations and lessons learned from the 2022 season. This may require a 'phased in' launch of the season with fleet increases/deployment area increases as localized parking solutions are developed. Staff will continue to explore opportunities throughout the season to further enhance visual cues at some of the digital parking corrals.

Physical parking corrals: Building upon the success of the 2022 season and including a review of parking data, observations and lessons learned, staff recommend that a series of demarcated physical parking locations (with signage and pavement markings) be set up and implemented before any future pilot season begins to relieve pressures in specific areas. Both on street and ‘sidewalk adjacent’ locations (outside the path of travel) would be considered. In total, it is expected that 20 to 30 of these locations could be established. The number of locations will be tied to the extent of the e-scooter deployment areas.

Higher e-scooter parking compliance: Staff recommend maintaining the higher standard for e-scooter parking compliance that was established in 2022, with a 15-minute allowance for providers to respond to mis-parked e-scooters. By-law and Regulatory Services would once again be empowered to impound or fine the providers for any observed mis-parked e-scooter without warning, motivating the providers to increase their own proactive management of e-scooter parking. In addition, the Follow-On contract agreements would maintain language stating that a failure to meet this requirement could lead to, at the City's discretion, imposed reductions in fleet size or even full removal of their permit to operate in the City’s right-of-way.

Enforcement By-law and Regulatory Services (BLRS): In addition to the compliance measures that the e-scooter providers must carry out, staff recommend maintaining proactive enforcement by BLRS staff. Seasonal By-law officers dedicated to e-scooter enforcement during the shared e-scooter season would help uphold the 15-minute response time by the providers. As in 2022, these officers would receive relevant service requests generated through 3-1-1, collect data, report issues, and monitor the providers response times. They could relocate, remove, impound mis-parked e-scooters, and issue fines if providers fail to respond at any time, regardless of the 15-minutes. The additional resources required would be supplemented by the hiring of seasonal staff (summer students) within BLRS, funded by the pilot program fees.

Sidewalk Riding

Staff recommend maintaining a zero tolerance for sidewalk riding by continuing with all previous recommendations as described below.

Newest technologies: Staff recommend that the newest generation of e-scooter from both providers continue to be deployed in Ottawa at 100 percent capacity of their fleet. The requirement continues for all e-scooters to come to a safe stop if a sidewalk is detected. Failure to meet these criteria may lead to the termination of the agreement

with the providers. This may require a ‘phased in’ launch with a gradual expansion of e-scooter deployment areas as required geofencing layers to manage these technologies are tested and implemented.

Communication and Education: Staff recommended maintaining the requirement for large bilingual “NO SIDEWALK RIDING” messaging on or near the floorboard of every e-scooter prior to the start of the season. This helps convey the regulation to all riders and residents. It also provides Ottawa Police Services with a tool to help with enforcement during their enforcement blitzes. Staff also recommend the continuation of mandatory in-app user training modules before riders can begin using a shared e-scooter and that providers take a zero-tolerance approach with their own enforcement activities.

Enforcement by Ottawa Police Service (OPS): Staff recommend that the Ottawa Police Service continue to undertake enforcement “blitzes” targeting sidewalk riding. This will be done in conjunction with intelligence gained from ride data, complaints, and staff observations.

Sound Emissions:

Mandatory Sound Emission: Staff recommend that (in addition to the mandatory manual bell) shared e-scooters continue to be required to emit a continuous sound designed to make pedestrians and road users aware of an e-scooter’s presence. This sound emitter, otherwise known as “Acoustic Vehicle Alerting System” (AVAS), must be in operation prior to e-scooter deployment and available across the entire fleet. The sounds would be based on the sound profiles implemented in 2022 and consist of two distinct components: 1) a baseline sound emitted whenever an e-scooter was in rental mode; and 2) an alert sound that was emitted when the e-scooter is in motion. There are currently no national/international standards for micro mobility devices and the City is demonstrating a global leadership role in this area. Working collaboratively with the providers, adjustments to the sound parameters will be applied prior to the launch of the season such that the AVAS sound would be as similar as possible across both providers. Recognizing that the City is leading the industry to push this technology in advance of any worldwide standard, the providers would be required to have the capabilities to adjust the sound parameters during the season as more refinement is undertaken, additional feedback is collected, and the sounds are monitored for effectiveness.

Education: Results from the end of season survey suggest that many residents were not

aware of the required sound emissions. To reduce sound emission confusion among e-scooter users, staff recommend providers increase their messaging to users on why the e-scooters are admitting a sound. The City will also increase general awareness of the sounds through various communication channels throughout the season and will continue to consult with the accessibility community.

Issue Reporting

Improved Reporting Process: Staff recommend maintaining the overall processes used to collect inquiries and complaints and to track all data associated with these complaints that was implemented in 2022 as well as continuing to improve and refine these processes as resources permit. The new dedicated e-form specific to e-scooters that allowed residents to self-report any concerns directly to one platform will be maintained. All communication methods either through the City (such as the City's website or app) or through the providers (their apps or other contact methods) would continue to be funneled through one platform for better tracking. 3-1-1 agents would continue to receive inquiries by phone, and this data would be tracked with the data from the e-form platform. Working with the City's Finance and Corporate Services Department, as well as the providers, staff will review opportunities to refine, streamline and improve the e-form and associated processes for the redirection of complaints. Some improvements and modifications may be phased-in throughout the e-scooter season(s) as the City’s IT resources become available.

Private E-scooters

Staff recommend designing an education and awareness campaign targeting private e-scooter owners to remind them of the rules, regulations and potential fines as stipulated in the City’s e-scooter by-law. This could include initiatives such as flyers distributed to local vendors/rental shops, poster and/or video campaigns and targeted social media posts.

FINANCIAL IMPLICATIONS

Fees collected from the e-scooter providers cover operational costs including elements such as signage, a subscription to a data monitoring platform, City-led communication and education activities, and seasonal staff time to implement, enforce and monitor the pilot. Existing operational budgets cover staff support from multiple departments. Planning, Real Estate and Economic Development (PRED) and By-law and Regulatory Services have both identified the need for additional resources to support this program. If council approves the recommendations, these additional resources would be funded

by the Program's revised fee structure. The 2023 budget for the program revenues is based on the existing fee structure and is listed as cost recoverable. Following Council's approval of the revised fee structure, Transportation Planning's 2023 E-Scooter operating budget expenditures will be adjusted to $195,000 offset by the corresponding changes in revenue.

LEGAL IMPLICATIONS

There are no legal impediments to the Committee and Council's approval of the recommendations of this report.

COMMENTS BY THE WARD COUNCILLOR(S)

Feedback from Ward Councillors who had shared e-scooters in their ward was received throughout the 2022 season. This included at the start of the season when locations for designated parking spaces were being finalized, and throughout the season to address local operational concerns. Prior to the end of the previous term of Council, feedback was sought from the impacted Ward offices. Informally, these Councillors noted that the pilot operated significantly better in 2022 as compared to previous seasons, and that their offices received significantly fewer complaints. However, there were complaints about functionality of the program (not operating in certain areas, more difficulty finding an e-scooter or knowing where to park etc.). There were specific comments about the ByWard Market, including suggestions to refine the geofencing of certain streets, to provide additional signage, regarding various parking corrals and if extending the operational hours of the shared e-sooters could help support the vibrancy of the downtown core.

ADVISORY COMMITTEE(S) COMMENTS

The City's Accessibility Advisory Committee passed a motion rescinding their previous motion advising City Council not to conduct any more pilots, to now support the continuance of the shared e-scooter pilot with the requirements that were imposed in 2022, and to work with the province to develop similar rules and regulations for private e-scooters. The complete motion from a committee meeting of February 15, 2023, states:

WHEREAS, in Ontario, the use of e-scooters is prohibited, subject to any pilot projects adopted under O. Reg. 389/19 – Pilot Project – Electric Kick-Scooters.

WHEREAS the Accessibility Advisory Committee (AAC) has been actively engaged on the City of Ottawa's shared Electric Kick Scooter Pilot in Ottawa, including during the 2020, 2021, and 2022 pilot projects.

WHEREAS the AAC had, based on the results of the 2020 and 2021 pilot projects, passed a motion (AAC 2022 1/20) advising City Council:

a) not to conduct any more pilots that would allow e-scooters to be used in any public places in Ottawa, whether the e-scooter is owned by, borrowed by, or rented by the rider; and

b) to decline any further participation in O.Reg 389/19 – Pilot Project – Electric Kick-Scooters.

WHEREAS the AAC has been consulted by City staff on the results of the 2022 pilot project and the recommendations from staff arising out of the 2022 pilot project;

WHEREAS the 2022 pilot project demonstrated that accessibility barriers caused by misuse of e-scooters can be mitigated through technologies that: only allow e-scooter parking in specific, geofenced areas; detect and prevent sidewalk riding; and cause e-scooters to emit a constant, audible noise when in motion;

WHEREAS the AAC understands that these accessibility barrier-preventing technologies are not yet available on private e-scooters sold to consumers, and that the City of Ottawa does not currently have the ability to impose such technologies on e-scooters sold to consumers; and

WHEREAS without such barrier-preventing technologies privately owned, consumer e-scooters pose an inherent safety risk to pedestrians with disabilities and pedestrians who are seniors;

THEFORE BE IT RESOLVED THAT the AAC rescinds its motion AAC 2022 1/20;

THEREFORE BE IT ALSO RESOLVED THAT the AAC supports the continuation of the City of Ottawa's shared Electric Kick Scooter Pilot, provided that the pilot:

a) Only allows the use of shared e-scooters provided by qualified providers;

b) Requires qualified providers to use accessibility barrier-preventing technologies on their shared e-scooters; and

c) Dedicates adequate resources to monitoring and enforcing the rules of the pilot, including a fifteen-minute response window for complaints, and adequate deterrents and consequences for misuse of e-scooters; and

THEREFORE BE IT RESOLVED THAT the AAC advises City Council to work with the Province of Ontario to develop rules, requirements and regulations to the effect that consumer e-scooters contain the same barrier-preventing technologies as shared e-scooters.

CONSULTATION

Internal Consultation

Staff in numerous service areas have been involved in a Working Group during all e-scooter seasons to-date to provide subject matter expertise and help address issues as they arise. The main topics discussed included parking strategies, communication and education strategies, as well as a review of existing accessibility concerns and data updates from each department. City teams included: Transportation Planning, the Corporate Accessibility Office, Roads and Parking Services, Traffic Services, Legal Services, Service Ottawa (3-1-1) and Service Transformation (Open Data), Ottawa Police Services, By-law and Regulatory Services, Right of Way Management, Safer Roads Ottawa, Transit Services, Ottawa Public Health, Parks and Facilities Planning Services, Public Information and Media Relations, Information Technology Services, BIA and Ottawa Markets Liaisons. In 2022, the Working Group met twice (shortly before the season launch and mid-season) and held smaller subject specific meetings as needed.

Ward Councillors Engagement

All Councillors whose wards are within the larger permitted deployment areas were notified and engaged as follows:

- Before the launch, feedback was sought on potential designated parking areas;
- July 5, 2022 – an e-mail announcing the upcoming launch of the season, with key messages and social media links;
- July 14, 2022 – an e-mail announcing that the second provider was starting their season;

- October 28, 2022 – an e-mail announcing the season wrap-up, with a link to the end-of-season survey for distribution; and
- February 2, 2022 – a memo summarizing the 2022 season, and draft recommendations under consideration, and seeking Councillor comments.

An e-mail notifying that both providers had expanded their operations beyond the initial smaller deployment, but still within the allowable deployment area was sent on August 30, 2022, to ward Councillors who had shared e-scooters in their ward in 2022.

Staff also met with Councillors throughout the season as questions/issues emerged.

Accessibility Advisory Committee (AAC)

Early in 2022 (following the conclusion of the 2021 season), the AAC passed a motion encouraging Council to not move ahead with another pilot season, due to safety and accessibility concerns. Via a memo to Council, the AAC suggested that if another pilot year were to be approved, then certain accessibility considerations must be incorporated into the project.

At the completion of the 2022 season, Staff submitted a memo to the AAC providing an overview of the general results of the season, future considerations, and requesting the AAC's feedback. The Committee convened a special meeting on February 15, 2023, to receive a presentation from Staff (key data highlights of the season, and draft recommendations) and to provide comments.

A summary of the AAC comments from that meeting included:

- An interest in seeing the demographics of those who responded to the end-of-season survey to ensure that it includes feedback from people with low vision or who are blind, older adults, or people who use wheelchairs or a mobility device.
- Concerns that the decrease in the number of incidents (either directly reported to 3-1-1 or as reflected in the survey results) are simply reflective of the lower number of e-scooters deployed, shorter season, and consequently lower usage numbers and not because the new technologies are working effectively.
- An interest in potential sound emission features and in continuing to collaborate with the accessibility stakeholder group to address concerns related to the sound emissions prior to launching any future season.

- Concerns about private e-scooters that are increasing in popularity, how the City can collect data to track their use, the need for a public awareness campaign directed specifically at private e-scooter owners/riders, and the need for them to be regulated including enforcement as required.
- An interest in continuing to consult and collaborate with City staff to make further improvements at reducing barriers.

At the end of the meeting, as described above, the AAC approved a motion to rescind their previous recommendation to not proceed with the pilot program because the 2022 season has demonstrated that the imposed regulations and technological requirements can reduce barriers to accessibility. The same motion also noted support for the pilot to continue, with conditions as described earlier.

External Accessibility Stakeholder Consultation

As per all previous seasons, staff assembled an external stakeholder group, with the assistance and participation of the Corporate Accessibility Office. Participating agencies included the City's Accessibility Advisory Committee (AAC), Canadian Council of the Blind (CCB), Alliance for Equality of Blind Canadians (AEBC), Canadian National Institute for the Blind (CNIB), and the Ottawa Disability Coalition (ODC), which represents 20 community agencies. Three meetings were held to discuss the project progress and how to address the issues throughout the season which centered around the themes of parking, sidewalk riding, sound emissions, enforcement, and complaint reporting. Two of the meetings were held virtually and one was held outside, in person, with the two e-scooter providers, for demonstrations of the sound emissions and other enhanced technologies deployed in 2022.

In general, this group remains concerned about e-scooters operating on city streets. Staff heard that members of the stakeholder group felt that not enough advancement had been made with respect to implementing a proper sound emission that is consistent across the industry and distinct from other sounds in an urban environment. The group noted that the restrictive parking model seemed to work well overall, and that most of mis-parking incidents were due to e-scooters that had fallen over. The group also felt that there were significantly less incidents of sidewalk riding and that those observed were private e-scooters. There were comments about the new e-form reporting process, such as: the process being somewhat cumbersome; the system not providing feedback if a submission failed; and sometimes issues arose when entering certain street names. The group expressed concerns that there would be a reduction in City oversight should

the program progress beyond a pilot phase. Concerns were also voiced about liability, insurance, and a lack of regulations for private e-scooters.

Consultation with CNIB

On November 22, 2022, the CNIB foundation hosted a town hall meeting for Ottawa residents with sight loss to share their experiences and concerns with e-scooters and accessibility. City staff and ward councillors were invited to attend. City staff did attend to listen to the feedback. A handful of residents participated this year, and most of these were also members of the External Accessibility Stakeholder Working Group established for this program. Their comments echoed that of the working group. Although it was observed that there seemed to be less issues in 2022, they remain concerned about safety and accessibility barriers related to e-scooters operating on City streets.

End-of-Season Survey

The results of this survey have been described throughout this report and detailed in Document 4, “City of Ottawa 2022 E-Scooter End-of-Season Survey - As We Heard It Report”.

Notification of the survey was distributed through the City’s social media channels, on the City's web page, to Chair Tierney and Councillors, the City's Accessibility Spotlight newsletter and by each of the e-scooter providers. Through these various channels, traditional media also reported on the rollout of the survey.

The survey included questions on demographics to provide context for the responses and to assess if respondents are reflective of Ottawa’s total population. Eighty-six percent of survey participants chose to respond to the demographics questions. Results revealed that feedback was collected from residents with diverse backgrounds: 48 percent of respondents identifying as a woman; 19 percent identifying as 2SLGBTQIA+; 13 percent identifying as either of the following: older adults, francophone, or persons with disabilities; 11 percent identifying as racialized persons; 5 percent identifying as youth, or as indigenous peoples; 4 percent identifying as persons living in poverty; and 4 percent as rural residents.

Additional Consultation/Presentations

Staff presented and provided updates to the City’s Parking Services Stakeholder Consultation meeting on February 22, 2023. Staff also participated in multiple meetings with the Ministry of Transportation of Ontario (and their consulting team and staff from

other participating jurisdictions) for the Ministry's on-going safety study. Staff are participating with other jurisdictions from across Canada as a Steering Committee member of an upcoming project through the Transportation Association of Canada to research and document best practices for Shared Micromobility Services in Canadian Communities. Finally, staff from multiple jurisdictions who are considering implementing or planning a shared e-scooter program have consulted with City staff.

ACCESSIBILITY IMPACTS

The City of Ottawa's Accessibility Policy states that *"The City of Ottawa is committed to providing equal treatment to people with disabilities with respect to the use and benefit of City services, programs, goods, and facilities in a manner that respects their dignity and that is equitable in relation to the broader public. This commitment extends to residents, visitors and employees with visible or non-visible, and permanent or temporary disabilities."*

As outlined in the report, sidewalk riding and improper parking create accessibility barriers and safety concerns, especially for people who are blind, who have low vision or who use wheelchairs or mobility devices. People pushing strollers may also encounter accessibility barriers created by e-scooters.

Throughout the first two e-scooter seasons, the city's community of older adults and people with disabilities communicated to Staff and Councillors that they do not feel safe with e-scooters on the streets, with incidents such tripping over them, not being able to move them off the sidewalk and being grazed by riders passing by on sidewalks. The community of people who are blind or partially sighted also stated that the e-scooters are too quiet making this community vulnerable to being hit by e-scooters on sidewalks or while crossing intersections.

Improving safety and accessibility was a priority of the 2022 pilot season, starting with a competitive process and stronger requirements to address the three main issues: sound emissions, sidewalk riding and parking. Throughout the 2022 season, Staff, including the Accessibility Office, continued to work with other city departments, the AAC and community stakeholders to remove the accessibility barriers and create a safer e-scooter season. Through extensive collaborative efforts, significant improvements were achieved in 2022. Even so, it is felt by many that these measures have not fully addressed the ongoing barriers and safety concerns.

Staff remain committed to addressing these issues and have recommended additional safety and public awareness measures for the 2023 season.

ASSET MANAGEMENT IMPLICATIONS

There are no asset management implications related to this report.

CLIMATE IMPLICATIONS

The City's Climate Change Master Plan set short, mid, and long-term targets to reduce community greenhouse gas (GHG) emissions by 100 per cent by 2050 and corporate emissions by 100 percent by 2040. The e-scooter pilot project supports meeting these targets by helping to reduce the reliance on personal vehicles in favor of sustainable modes and reducing emissions within Ottawa’s transportation sector. The program can also provide the first and last kilometer to transit, helping to make transit more accessible and convenient and creating sustainable transportation loop.

In the end-of-season survey, when asked “Why did you take a shared e-scooter instead of another mode of transportation?”, 31 percent of respondents indicated that they chose to use an e-scooter to reduce GHG emissions. This demonstrates a continued commitment among residents toward supporting the City's climate change goals through personal transportation choices.

The results of all the e-scooter seasons suggest that the pilot may have led to a reduction in greenhouse gas emissions as riders choose to use e-scooters for trips previously made by car. In 2022, 39 percent of survey respondents who rode e-scooters reported driving less and 44 percent reported traveling less as a car passenger.

The competitive selection process evaluated candidate providers on their operational approach to reducing GHG emissions and environmental impacts. Strategies included central warehouse spaces and deployment area spaces to efficiently collect, recharge and redeploy e-scooters and reduce GHG emissions from e-scooter transportation.

In the ByWard Market, Bird Canada’s operations were 100 percent carbon neutral with a local dedicated deployment area allowing batteries to be recharged without transportation. Since 2019, Bird Canada estimates that it has prevented over 231 metric tons of CO2 in Ottawa by replacing car trips with e-scooter trips. Neuron Mobility’s fleet of e-scooters included swappable batteries which enabled them to swap the battery on site without transporting the e-scooter for recharging. They estimate that 4.23 metric tons of CO2 were avoided through use of their devices in Ottawa in 2022.

ENVIRONMENTAL IMPLICATIONS

See “Climate Implications” above.

RISK MANAGEMENT IMPLICATIONS

As already described in this report, recommendations to continue to significantly reduce incidents of mis-parked e-scooters and sidewalk riding are planned for the 2023 season through technology, awareness and education programs, and shorter response times. Resources for by-law enforcements, and program management will be funded from the program's fee structure. The requirement for sound emissions will remain, but with the provision that they can be adjusted as more refinement is undertaken throughout the season. Works are underway to continue improving issues reporting and management.

Continuing to limit the number of providers to a maximum of two ensures that only providers that are the most progressive and responsive to the issues identified are allowed to operate, regardless of how many companies may be interested in setting up business in Ottawa.

RURAL IMPLICATIONS

It is not expected that shared e-scooters will be available in rural areas during the 2023 pilot season or optional 2024 season.

TECHNOLOGY IMPLICATIONS

The technological implications are identified within the body of the report.

SUPPORTING DOCUMENTATION

Document 1 2022 Shared E-Scooter Season Data Analysis

Document 2 Bird Canada Year-End Report

Document 3 Neuron Mobility Year-End Report

Document 4 City of Ottawa 2022 E-Scooter End-of-Season Survey - As We Heard It Report

Document 5 Ottawa Public Health - Summary of e-scooter relevant emergency department visits at Ottawa hospitals

Document 6 Proposed Fee Schedule

DISPOSITION

Following Council's approval of the report recommendations, Staff from Planning, Real Estate and Economic Development (PRED) will be responsible for managing the pilot,

including supporting Supply Services to finalize the Follow-On Contracts, and contract administration. PRED staff will also be responsible for monitoring and evaluating operations, corresponding with residents, and collecting data for reporting.

By-law and Regulatory Services will respond to Service Requests and carry out and monitor provider enforcement activities related to parking.